Technical Report

Fixed-Wing High-Resolution Aeromagnetic, Gamma-ray Spectrometric and Frequency-Domain Electromagnetic Survey

Tellus A5 Block, Republic of Ireland
2018-2019

For

Geological Survey Ireland

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PICTURES

Appendix

1. EXECUTIVE SUMMARY

Sander Geophysics Limited (SGL) conducted a fixed-wing high-resolution aeromagnetic, gamma-ray spectrometry and frequency-domain electromagnetic survey in the western part of the Republic of Ireland for the Geological Survey of Ireland (GSI) which covered most of County Limerick and part of County Tipperary. The survey block "A5" is part of the ongoing Tellus Programme that commenced with the Tellus Airborne Geophysical survey of Northern Ireland in 2005/2006, conducted by the British Geological Survey (BGS), and the subsequent Tellus Border Survey in 2012 jointly administered by the GSI and the Geological Survey of Northern Ireland (GSNI). The A5 Block survey overlaps the A1 and A2 Blocks that were flown in 2015 and 2016.

The survey was conducted using SGL's De Havilland DHC-6 Twin Otter, registration C-GSGF. Production flights commenced on August 21, 2018 and were completed on March 29, 2019. A5 Block was flown contemporaneously with A6 Block in County Cork further south. A6 Block is the subject of a separate report. A total of 82 flights were flown during the survey to complete the planned 25,577 line Kilometers of A5 block as determined using the ITM projection (25,572 Kilometers in the UTM projection) whilst also completing A6 Block. The survey operations were conducted from Kerry (EIKY) airport.

The traverse lines were oriented N15°W and spaced at 200 m. The control lines were oriented E15°N and spaced at 2,000 m. The target clearance was 60 m above ground level, based on the Irish Aviation Authority (IAA) permit. The target average ground speed was 60 m/s, or 115 knots.

2. INTRODUCTION

This report describes the survey of the A5 Block flown by Sander Geophysics Limited (SGL) for the Geological Survey of Ireland (GSI) in the fall of 2018 and the winter and spring of 2019 in Republic of Ireland in County Limerick and Tipperary. See *Appendix I* for a company profile of SGL. The A5 Block survey was flown in conjunction with the A6 Block survey for the same client that is the subject of a separate technical report (TR-861A6-2018-001) and some of the equipment calibrations are in common to both blocks.

Fixed-wing high-resolution aeromagnetic, gamma-ray spectrometric, and frequency-domain electromagnetic data were gathered during this survey. The instruments used to collect the data, the tests performed to ensure optimal data quality and the data processing methods are described in this report.

Picture 1: SGL's Twin Otter taking off from Kerry Airport

The Field Operations section contains all information relating to operations at the survey location including reference station coordinates and any problems encountered during the survey. Re-flights are listed as well as field crew members. The Digital Data Compilation section details all processing performed from data acquisition to final product creation.

The following Project Brief gives a quick reference of the details of the survey.

Project Brief

Survey Title	Fixed-wing high-resolution aeromagnetic, gamma-ray spectrometric, and frequency-domain electromagnetic survey, Republic of Ireland
Client:	Geological Survey Ireland (GSI)
Survey Location:	Republic of Ireland
Survey Start Date:	August 21, 2018
Survey End Date:	March 29, 2019
Contact:	Jim Hodgson (jim.hodgson@gsi.ie / tellus@gsi.ie)
Field Office Location:	Tralee, County Kerry, Ireland
Airports Used:	Kerry (EIKY)
Aircraft Type:	De Havilland DHC-6 Twin Otter
Total line kilometres:	25,577 in the ITM projection, 25,572 in the UTM projection
Survey Flying Particulars	
Traverse Lines	
Line numbers:	5001 to 5525
Line direction:	N15°W
Line spacing:	200 m
Control Lines	
Line numbers:	501 to 541
Line direction:	E15°N
Line spacing:	2000 m
Survey Altitude:	Target height of 60 m above ground. This number increased to 214 m over high fly zones and 305 m over built up areas outlined by the GSI.
Digital Terrain Source:	SRTM
Number of Flights (numbers):	82 (0001 to 082)
Aircraft Target Ground Speed	60 m/s
Data	
Base Station Locations (WGS-84)	GND1: N52°16'46.9'' W09°52'01.8'' 68.70 m GND2: N52°11'02.8'' W09°31'39.0'' 87.96 m
Datum:	IRENET95
Projection:	Irish Transverse Mercator (ITM)

3. SURVEY AREA

The weather in the region is mild and wet, with temperatures that ranged during the survey period from 13°C in September and most of the summer, down to 6°C in January. Morning fog and overcast days with rain showers were common during the survey. Low visibility in the hills due to low cloud, windy conditions and gales were a frequent occurrence.

Figure 1 shows the geographical location of the survey area. The area is mostly rural in character but contains a moderate amount of infrastructure including towns, villages, farm houses, roads, railway lines and power lines. The topography in the area is fairly flat except for the area east of Limerick which becomes more undulating and slightly mountainous. Lough Derg is also present within the northern portion of the survey area. The planned survey lines are illustrated in *Figure 2* and listed in *Appendix II.*

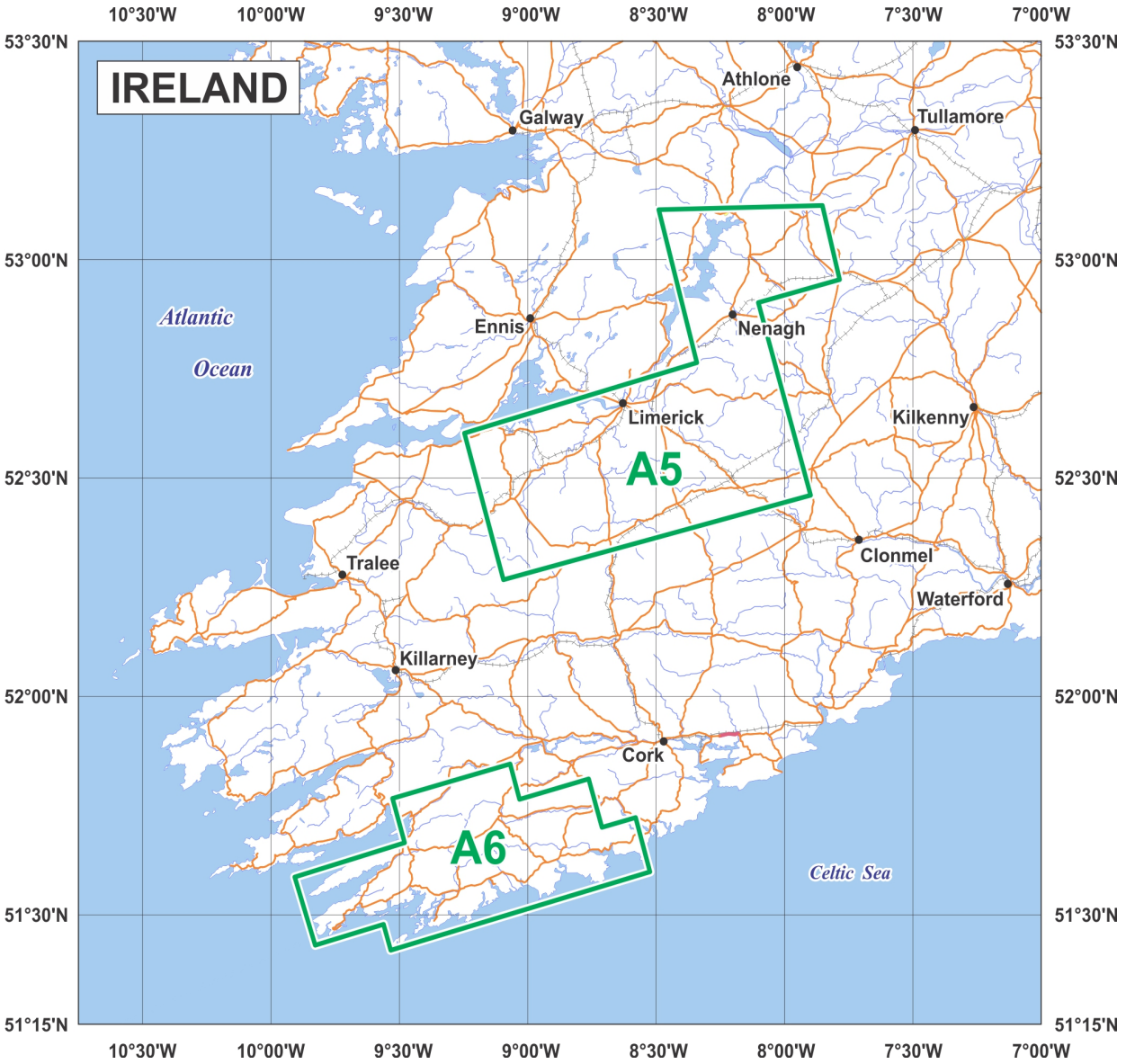


Figure 1: Survey Location Map of the A5 Block, also showing A6 Block that was flown at the same time

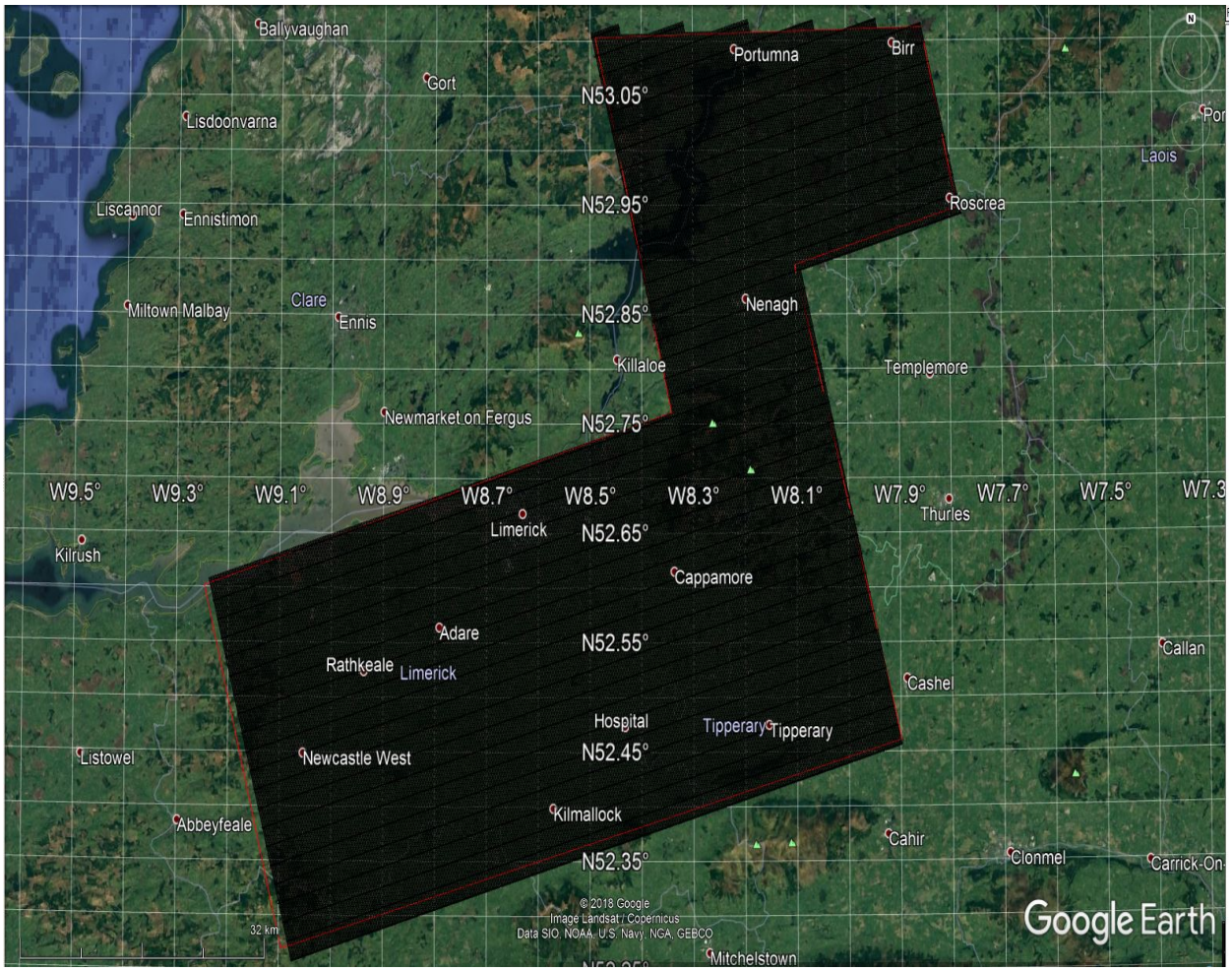


Figure 2: Planned survey lines

Survey Boundary

The block is bounded by the coordinates provided in *Table 1.*

Table 1: Survey Boundary (WGS-84)

Latitude	Longitude
N52˚ 16' 09.3228"	W9˚ 05' 41.3067"
N52˚ 36' 05.4956"	W9˚ 14' 47.0828"
N52˚ 45' 37.1498"	W8˚ 20' 29.2734"
N53˚ 06' 10.6369"	W8˚ 29' 22.9246"
N53˚ 06' 44.1076"	W7˚ 51' 08.1743"
N52˚ 56' 48.7811"	W7˚ 47' 07.8407"
N52˚ 53' 42.4570"	W8˚ 06' 07.5593"
N52˚ 27' 39.5138"	W7˚ 53' 54.4036"
N52˚ 16' 09.3228"	W9˚ 05' 41.3067"

4. SURVEY EQUIPMENT

SGL provided the following instrumentation for this survey; see *Appendix IV* for further details:

Frequency-Domain Electromagnetic (FEM) System

SGFEM four frequency (1) EM System (0.9, 3, 12, 24.5 kHz)

SGL's DHC-6 Twin Otter is configured with a four-frequency, wingtip mounted Frequency Electromagnetic (FEM) system that operates at four frequencies, 912, 3005, 11962 and 24510 Hz. This configuration results in a large transmitter-receiver coil separation which improves the signal to noise ratio. The transmitter-receiver coil pairs are mounted in a vertical-coplanar orientation which reduces noise by minimizing coupling with the wingtip surface. Additionally, the coils in any one set (transmitter or receiver) are axially offset and are kept adequately separated from each other. The system has a 40 Hz sampling rate which is later decimated to 10 Hz in the processing. The system is equipped with a power line monitor derived from the magnetic data, described in the section "Digital Data Compilation Magnetometer Data" that is particularly useful in identifying cultural interference when surveying in urban settings.

Aerial and Ground Magnetometers

Geometrics G-822A

Both the ground and airborne systems used a non-oriented (strap-down) optically-pumped cesium split-beam sensor. One airborne sensor was mounted in a fibreglass stinger extending from the tail of the aircraft and a second sensor was housed in the left FEM pod attached to the left wingtip. These magnetometers have a sensitivity of 0.005 nT and a range of 20,000 to 100,000 nT with a sensor noise of less than 0.02 nT. Total magnetic field measurements were recorded at 160 Hz in the aircraft then later decimated to 10 Hz in the processing. The ground systems recorded magnetic data at 11 Hz. For the primary purpose of the survey, the wingtip sensor is considered to be redundant.

Magnetic Compensation System

Sander Geophysics AIRComp

SGL's own hardware and software system, AIRComp, was used to remove the effects of the aircraft and its maneuvers from the recorded magnetic data. This system records the magnetic field measured by up to 4 cesium magnetometers, as well as the three axis output of a fluxgate magnetometer. These data are recorded for post-processing. Calibration of the magnetic effects of the aircraft is carried out as described in section 6, System Tests. Coefficients to be used for compensation are derived by processing the calibration flight data. The compensation coefficients are applied to data recorded during normal survey operations to produce compensated magnetic data.

Gamma Ray Spectrometer System

Radiation Solutions RS-501 with Crystal Detector Packs RS5558, RS5557, RS5444, RS5632

The Radiation Solutions spectrometer system includes an on-board ADS computer for each crystal, providing real-time signal processing and analysis, and allowing automatic gain control for individual crystals using the natural thorium peak, and multi-channel recording and analysis. The system utilizes 16 downward-looking and 3 upward-looking parallelepiped NaI(Tl) crystals of 4.2 L each for a total downward volume of 67.2 litres and upward volume of 12.6 litres. The crystals are housed in four detector packs, four downward crystals in each pack and one upward crystal in three of the packs. Data were recorded in 1024 channel spectral mode and windowed data mode at an interval of 1 s.

Airborne Navigation and Data Acquisition System

Sander NavDAS

The NavDAS is the latest version of airborne navigation and data acquisition computers developed by SGL. It displays all incoming data on a flat panel screen for real-time monitoring. The data are recorded in database format on a solid-state internal hard drive and a removable hard drive simultaneously for transfer of data to the field office. The computer incorporates a magnetometer coupler, an altimeter analogue to digital converter and a GPS multi-frequency receiver NovAtel OEM4 tracking 14 GPS Satellites, 12 GLONASS Satellites, 2 SBAS and 1 L-Band which automatically provides the UTC time base for the recorded data. In addition to providing essential post-mission positional data, the NavDAS computer processes user-received GPS or real-time differentially corrected GPS

(RDGPS) data and compares the data to the coordinates of a theoretical flight plan in order to guide pilots along the desired survey line in three dimensions.

Septentrio PolaRx2, 48 channel dual-frequency GNSS GPS receiver
The PolaRx2 system is a 3-antenna, 48-channel L1/L2 GPS receiver, designed to record attitude data of the airplane.

Reference Station Acquisition System

SGRef
The reference station system SGRef consists of a ground data acquisition computer with a Sander magnetometer frequency counter to process the signal from the magnetometer sensor and from the GPS receiver. The noise level of the station magnetometer is less than 0.1 nT. The time base (UTC) of both the ground and airborne systems is automatically provided by the GPS receiver, ensuring proper merging of both data sets. All data are displayed on an LCD flat panel monitor. The magnetic data, sampled at 11 Hz and GPS data, sampled at 10 Hz, are recorded on the internal hard drive of the computer and the removable hard drive simultaneously for transfer to the processing computers in the field office. The entire reference data acquisition system is fully automatic and was set for unattended recording.

Reference Station GPS Receiver

NovAtel OEM4 receiver boards
The OEM4 is a high performance, high accuracy, dual-frequency GPS receiver that is capable of receiving and tracking the L1 C/A code, L1 and L2 carrier phase, and L2 P-code (or encrypted Y-code) of up to 24 GPS satellites. The GPS data are recorded at 10 Hz. The OEM4 is employed in both the airborne NAVDAS and ground based SGREF acquisition computers.

Digital Video System

SGDIS - Sander Geophysics Digital Imaging System
The video camera is mounted in the floor of the aircraft and oriented to look vertically below while in flight. Real time text annotation of position, flight information and fiducial marking are incorporated for flight path verification. The data are stored, by flight line, in avi format, viewable by any commercial media player.

Altimeters

SGLas-P - Riegl LD90-3300VHS-FLP Laser Rangefinder
The Riegl laser altimeter is an eye safe laser, has a range of 338 m, a resolution of 0.01 m with an accuracy of 5 cm and a 20 Hz data rate.

Collins AL-101 Radar Altimeter
The Collins radar altimeter has a resolution of 0.5 m, an accuracy of 5%, a range of 0 to 408 m., and a 10 Hz data rate. This system is actively employed for survey guidance and data acquisition.

Honeywell Barometric Pressure Sensor
The barometric pressure sensor measures static pressure to an accuracy of ± 4 m and resolution of 2 m over a range up to 30,000 ft. above sea level. The barometric altimeter data is sampled at 10 Hz.

Omega RTD-805 Outside Air Temperature Probe
The outside air temperature is measured at 10 Hz with a resolution of 0.1º C. The temperature sensor has a range of +/-100º C and an accuracy of +/-0.2º C. The temperature sensor is mounted in an air inlet duct at the point where the wing strut attaches to the right hand wing.

Survey Aircraft

De Havilland DHC-6 Twin Otter (C-GSGF)
The De Havilland DHC-6 Twin Otter (C-GSGF) is an all metal, high-wing, twin-engine, short takeoff and landing (STOL) aircraft. It is powered by two Pratt & Whitney Canada PT6A-27 engines that run a constant speed, fully feathering, and reversible propeller. The PT6 turbine engines provide ample power for climbing over steep terrain, working at altitudes up to 7,000 m and can withstand frequent rapid power changes. The aircraft is highly manoeuvrable, rugged in design and can be flown at

speeds from 80 to 160 knots. The low stall speeds and abundant available power make the Twin Otter a safe and effective aircraft for surveys requiring flying over rough topography, low air speeds or flights at high altitude. The aircraft has fixed gear, extendable flaps and manually adjustable trim tabs on the primary controls for the roll and pitch axes and full rudder trim for the yaw axis. The aircraft is equipped with full de-icing equipment and sufficient avionics for instrument flying, including a flight control system. Supplementary fuel can be added for transoceanic flight. The Twin Otter is certified for IFR flights in known icing conditions.

Picture 2: SGL's Twin Otter, Registration C-GSGF

The SGL Twin Otter is fully equipped for airborne magnetic, radiometric and frequency-domain Electromagnetic (FEM) surveys. EM fields are measured with the SGL frequency-domain EM system (SGFEM). The four-frequency FEM transmitter is located in the right wingtip FEM pod, and the receiver is located in the left wingtip FEM pod. The magnetic field is measured by up to two sensors allowing for horizontal gradient with one sensor in the composite tail stinger and one in the left wingtip FEM pod. The Twin Otter can carry up to 79.8 litres of detector crystals for gamma-ray spectrometer surveys. The aircraft conforms to Canadian aeronautical regulations in survey configuration. See *Appendix V*.

Data Processing Hardware and Software

Processing was performed on high performance desktop computers optimized for processing tasks. SGL's proprietary geophysical software was used for data processing.

5. SURVEY SPECIFICATIONS

Data Recording

In the aircraft:

- GPS positional data (time, latitude, longitude, altitude and raw range from each satellite being tracked) 10 readings per second (10 Hz);
- Altitude as measured by the barometric altimeter at 10 readings per second (10 Hz);
- Terrain clearance as measured by the radar altimeter at 10 readings per second (10 Hz);
- Terrain clearance as measured by the laser rangefinder at 20 readings per second (20 Hz);
- Total magnetic field recorded at 160 readings per second (160 Hz);
- Airborne spectrometer data recorded in windowed and 1024 channel spectral format at 1 reading per second (1 Hz);
- Outside air temperature at 10 readings per second (10 Hz);
- Digital video at 30 frames per second (30 Hz).
- Electromagnetic in-phase and quadrature components for four frequencies (912, 3005, 11962 and 24510 Hz designated as P09, Q09, P3, Q3, P12, Q12, P25 and Q25 respectively) recorded at 40 Hz.

At the base and remote magnetic/GPS reference stations:

- Total magnetic field at 11 readings per second (11 Hz);
- GPS positional data (time, latitude, longitude, and raw range from each satellite being tracked) at 10 readings per second (10 Hz).

Technical Specifications

The following technical specifications were adhered to:

- The horizontal accuracy of the final flight path after correction shall typically be +/- 0.5 m.
- Traverse lines with deviation greater than 40 m from the planned line over a distance of 2.5 km or more, or greater than 80 m from the planned line over any distance, will be re-flown (except where ground conditions dictate otherwise).
- Tie lines with deviation greater than 80 m from the planned line over a distance of 2.5 km or more, or greater than 160 m from the planned line over any distance, will be re-flown (except where ground conditions dictate otherwise).
- Lines where terrain clearance exceeds +/- 20 m from the nominal survey height for more than 2.5 km or 40 m form the nominal survey height at any time on any line will be re-flown (unless local topography makes it unavoidable).
- The average flying speed for the survey aircraft is 116 knots or 60 m/s and should not be exceeded by more than 30% for more than 2.5 km.
- The aircraft shall be equipped with a survey magnetometer fitted according to the manufacturer's specification, with a resolution of 0.001 nT and a noise envelope of <0.1 nT.
- The aircraft magnetic heading error after compensation shall be less than +/- 1.0 nT on reciprocal survey headings.
- The envelope sum of the compensation maneuvers shall not exceed 3 nT.
- During data acquisition magnetic variations recorded at the local base magnetometer should not exceed 12 nT over any 3 minute chord or exceed 2 nT over any 30 second chord, on flight lines or tie lines.
- Relative count rates above background during the pre/post flight source tests will be within two standard deviations of the average sample checks for the survey.
- The average line gamma spectra for any line should not appear anomalous by comparison with previously acquired data.
- The calculated PDOP should be <6 and more than 4 satellites should be available.

- If both primary and secondary GPS base stations fail to record for 30 minutes or more simultaneously the affected lines will be re-flown.
- If both primary and secondary magnetic base stations fail to record for 30 minutes or more simultaneously the affected lines will be re-flown.
- The calibration of the EM system should not deviate significantly from the norm.

Flight Line Specifications

The survey area flight line specifications are given in *Table 2* (line direction is with respect to the UTM zone reference frame).

Table 2: Flight Lines Specification

	Line Direction	Line Spacing (m)
Traverse Lines	N15°W	200
Control Lines	E15°N	2,000

Terrain Clearance

Flying guidance was provided primarily by SGNav, a flexible and simple navigation system specifically designed by SGL for the airborne geophysical environment. Following the pre-planned survey lines, SGL's SGNav system guides the pilots from their point of departure to the start of a specific line, directs them along the survey line, and then to the next line or any other line of their choosing. While flying along a line, the SGNav system shows the pilots the correct x and y location and their altitude on a small LCD screen mounted in the pilot's line of vision.

Additional navigation parameters are displayed, such as DTS (distance to start of line), DTE (distance to end of line), TMG (track made good), SPD (aircraft ground speed), XHT (up/down error), DTK (desired heading), TTS (time to start of line), TTE (time to end of line), TKE (track error).

For the A5 Block survey, the target height was set to 60 metres above ground level in accordance with the IAA permit. The altitude measurements were provided by an aviation radar altimeter. The system is equipped with a safety pull up mode that warns the pilots if the clearance is below a pre-determined height, set at 50 metres above ground level in this case. Each survey line is flown as close to the target height as possible so as to maximize the quality and coverage of the frequency-domain EM data which drops off rapidly in signal strength with distance from the source. FEM data quality is very good up to altitudes of about 75 m above ground whilst data collected above 150 m is usually unreliable due to reduced coupling. For this reason, the altitude in adjacent lines and at intersections of lines is not consistent, as would normally be preferred for aeromagnetic data acquisition.

A Garmin GNS430/530 was employed as a second guidance system for this survey with dual receiver navigation system that uses a Jeppesen NavData database. A Garmin was installed on each pilot's yoke that displayed the survey lines and also let the pilots know which lines have already been flown. Another important use for this GPS system was to mark pre-determined areas that pilots had to avoid flying low over. This included towns, farms, equestrian centres etc. Each pre-determined high-fly area had a buffer around it to allow the plane to climb to a higher altitude before reaching the area. The method for dealing with areas to be avoided is discussed in more detail in the Public Relations and Flying section below.

Public Relations and Flying

A public relations (PR) campaign was set up by GSI to inform the public about the Tellus survey. A website was set up showing the survey area and the layout of the flight lines, along with some information about the survey. Each week the website was updated with lines that SGL planned to fly that week. This information was submitted to the PR representatives each week by the crew. There was also a phone hotline set up where the public could call with concerns, usually issues related to low flying. People also had the option to become a 'notify' or a 'high-fly'. The people on the 'notify' list were notified before each day that SGL planned to fly over their property. The people on the 'high-fly' list were generally not notified but the plane flew at 214 m or 700 ft over their property to avoid disruption of people and animals. In such a case the person gave the GPS coordinates of their property to the PR group, who in turn passed it along to the crew. This polygon was then input into the Garmin GPS along with a buffer area. This allowed the pilots to see the areas they needed to avoid during the flight and plan accordingly. High-Fly polygons, to be flown at 305 m or 1000 ft, were also made for large towns and cities (with a population of 2000 people or greater) without previous request from any specific person. In some cases the pilots climbed over a built up area that was not marked in their GPS to avoid complaints from the public.

6. OTTAWA SYSTEM TESTS

Magnetometer System Tests

Compensation Calibration

Compensation calibrations determine the magnetic influence of aircraft and its maneuvers. During the compensation calibration flight, the aircraft performs sets of three pitches (+/-5°), rolls (+/-10°), and yaws (+/-5°), while flying in the four flight line directions at high altitude over a magnetically quiet area. The coefficients calculated from the calibration are applied to the acquired magnetometer data to measure the effectiveness of the compensation system in mitigating the magnetic interference.

The total compensated signal noise resulting from the twelve maneuvers, referred to as the Figure of Merit (FOM), is calculated from the maximum peak-to-peak value resulting from each maneuver. A compensation calibration was performed on May 11, 2018 for the tail magnetometer before the aircraft left Ottawa. *Table 3* shows the compensation calibration test result for the tail magnetometer. See *Figure 3* for an illustration of the compensated and uncompensated data acquired during the compensation calibration.

Table 3: Magnetic compensation calibration tests and results

Date	FOM (nT)
May 11, 2018	0.76

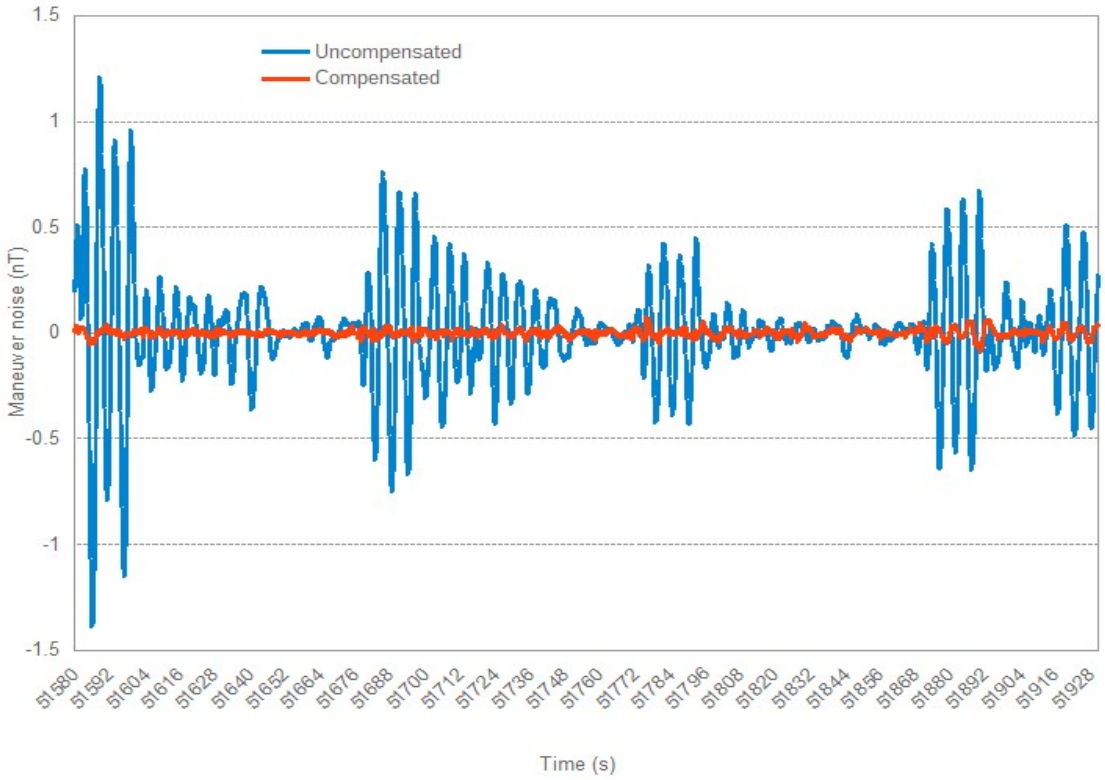


Figure 3: Tail magnetometer compensation calibration test, May 11, 2018

Spectrometer System Tests

Ground Calibration Pads Test

The stripping ratios for the gamma-ray spectrometer were determined on February 5, 2018 before the aircraft departed Ottawa. The Geological Survey of Canada (GSC) calibration pads, which are stored at the SGL hangar in Ottawa, were used. The tests were performed with the detectors installed in survey configuration on board the aircraft. Each detector was tested separately and the test results were averaged to create stripping ratios for this system. See *Table 4* for a complete list of stripping ratios.

The following procedure was carried out:

1 Pre-pads source test, one thorium source below pack
2 Pads test carried out in order: background, potassium, uranium, thorium, and background (six minutes recording each)
3 Post-pads source test, one thorium source below pack

Table 4: Spectrometer stripping ratios

	Crystal Pack A	Crystal Pack B	Crystal Pack C	Crystal Pack D	Overall System
Thorium into Uranium (α)	0.2745	0.2845	0.2798	0.2773	0.2790
Thorium into Potassium (β)	0.4193	0.4216	0.4082	0.4221	0.4178
Uranium into Potassium (γ)	0.7658	0.7705	0.7614	0.7663	0.7660
Uranium into Thorium (a)	0.0473	0.0419	0.0427	0.0500	0.0455
Potassium into Thorium (b)	0.0000	0.0000	0.0000	0.0000	0.0000
Potassium into Uranium (g)	0.0039	0.0010	0.0000	0.0055	0.0045

Attenuation Test

The exponential height attenuation coefficients for the spectrometer were calculated using the data acquired during a pre-survey test flight over the GSC test range at Breckenridge, Quebec near Ottawa on May 16, 2018. The calibration flights were carried out from approximately 150 m to 300 m mean terrain clearance at 15 m and 30 m intervals. A series of background measurements were made by flying the same altitudes over the Ottawa River to determine the background due to cosmic radiation, radon decay products in the air and the radioactivity of the aircraft and equipment.

After correction for background and stripping, the variation in count rate with effective height was used to determine the attenuation coefficients shown in *Table 6*. The data from the test that is corrected to 60 m above the ground using these coefficients are given in *Table 5*. Results of the attenuation test are shown in *Figure 4.*

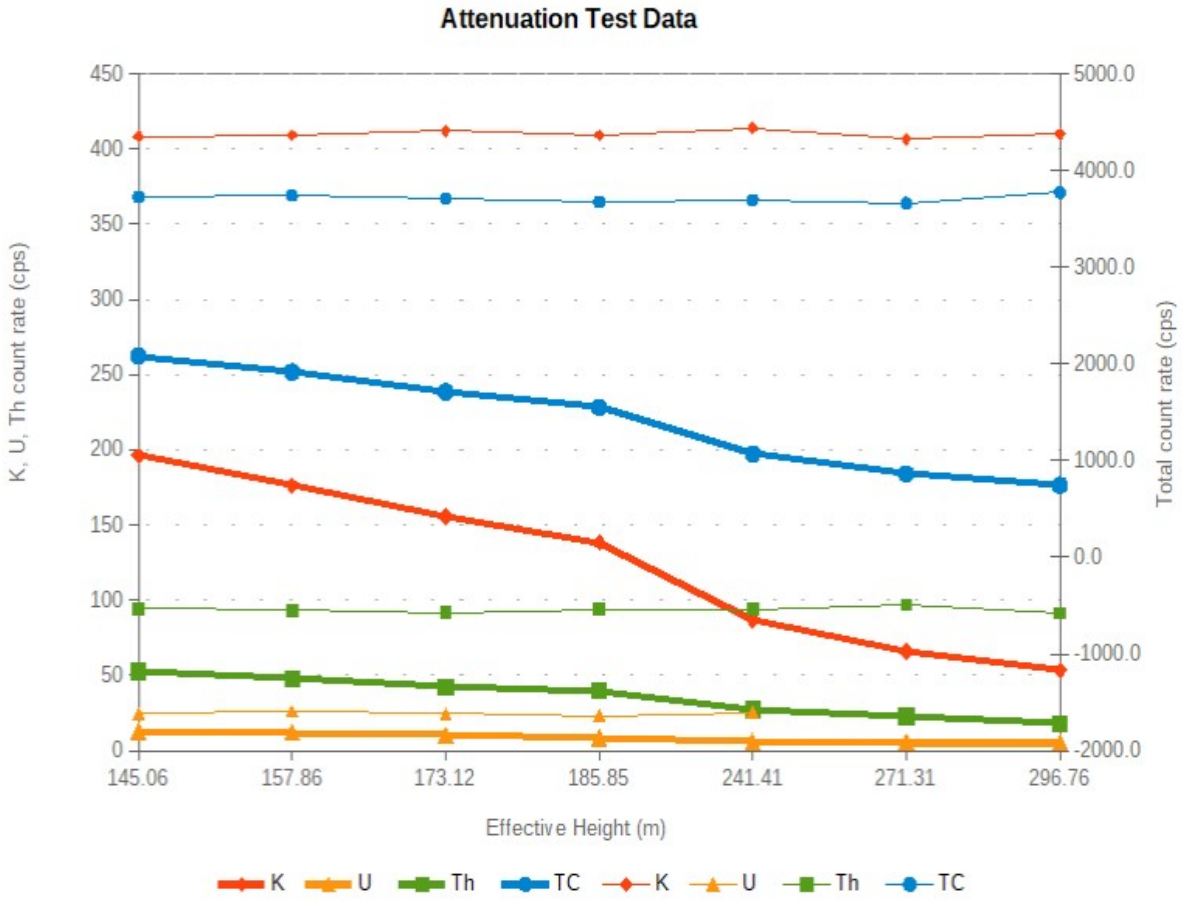


Figure 4: Spectrometer attenuation test: thick lines are recorded data, thin lines are data corrected to an effective height of 60 m using the attenuation coefficients derived.

Table 5: Spectrometer calibration test data – height corrected values (at 60 m effective height)

Altitude at STP (m)	Total Counts (cps)	Potassium (cps)	Uranium (cps)	Thorium (cps)
296.76	3772.1	409.8		91.3
271.31	3661.0	406.5		96.9
241.41	3694.5	414	25.3	93.9
185.85	3674.8	408.9	23.1	93.9
173.12	3708.0	411.9	24.6	91.8
157.86	3741.2	409.1	26.2	93.4
145.06	3725.9	408.2	24.6	94.5

Table 6: Spectrometer attenuation coefficients

	Coefficients (m^{-1})
Total	-0.006849
Potassium	-0.00861
Uranium	-0.007837
Thorium	-0.006836

System Sensitivity

A pre-survey test flight to determine the gamma ray spectrometer sensitivity was carried out over the GSC test range at Breckenridge, Quebec on May 16, 2018 (the same test flight as performed to determine attenuation). The test flight served to determine system sensitivities through comparison of airborne data with data acquired on the ground.

The ground measurements were made using an Exploranium portable gamma-ray spectrometer, acquired at 25 different sites along the 10 km length of the calibration range. Measurements were also made using the portable spectrometer on a boat on the Ottawa River to determine background radiation due to cosmic radiation, radon decay products in the air and any radioactivity of the equipment. The background was subtracted from the ground measurements and the ground concentrations of potassium, uranium and thorium were determined by calibration of the portable spectrometer using the GSC calibration pads located at Ottawa Airport.

The sensitivities of the airborne system for potassium, equivalent uranium, and equivalent thorium were calculated by dividing the average count rates corrected to an effective height of 60 m above ground by the measured ground concentrations. The results are presented in *Table 7*.

Table 7: Spectrometer system sensitivities

	Average counts at 60 m (cps)	Ground Concentrations	Sensitivities
Potassium	409.8	1.79%	228.9322 cps/%
Equivalent Uranium	24.7	1.04 ppm	23.7863 cps/ppm
Equivalent Thorium	93.7	7.61 ppm	12.31 cps/ppm

Altimeter System, Position and Digital Terrain Model Tests

Radar and Laser Altimeter Calibration

A test flight to calibrate the radar and laser altimeters was flown on May 16, 2018 over Lac Deschênes which is situated on the Ottawa River. Eight passes were conducted over the water at heights from 150 to 375 m above ground at various levels. The height of the water was determined using real-time hydrometric data from the Britannia Natural Resources hydrometric station. The altimeter values were compared to the post-flight differentially corrected GPS altitude information for calibration. An ideal altimeter would yield a slope of 1 and an intercept of 0. The Collins radar altimeter slope was 1.0093 and the intercept -1.0930 m. The laser altimeter slope was 1.0022 and the intercept was -0.4109 m. These results are within the expected accuracy of the altimeters. Please refer to *Figure 5* which illustrates the results of the altimeter test.

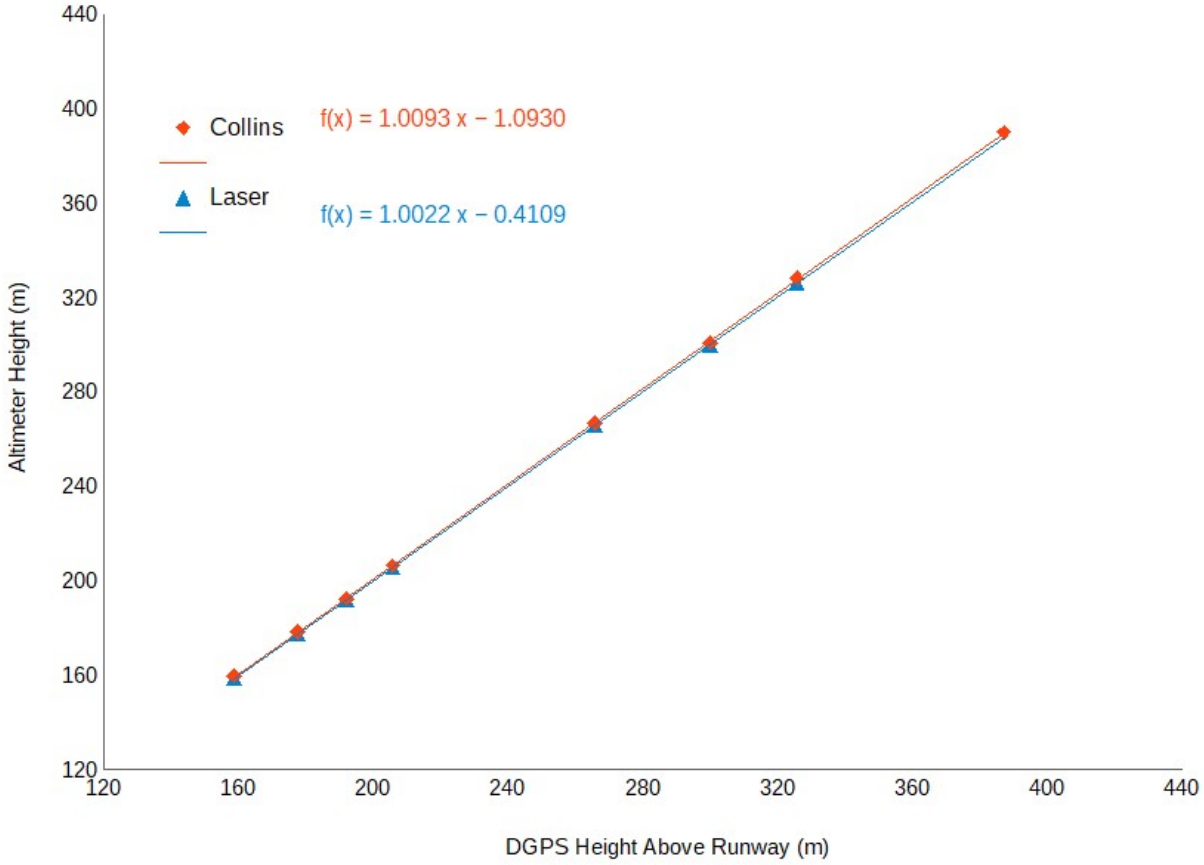


Figure 5: Altimeter test

7. A5 BLOCK SYSTEM TESTS

Magnetometer System Tests

Magnetometer Heading Test

A heading test was performed over Dingle Bay on October 15, 2018. The heading test flight lines were pre-planned, and reference ground magnetic data were obtained through the use of the survey SGL reference station.

Heading errors are calculated as the difference in variation from the average between data acquired when flying in opposite directions. The results of the heading test are presented in *Table 8*. The test determined an average north-south heading error of -0.10 nT and an average east-west heading error of 0.34 nT for the tail magnetometer. The heading error remains consistent through the duration of the survey, and is fully corrected in the normal airborne magnetic data during processing.

No heading test result is reported for the wingtip magnetometer which is considered redundant.

Table 8: Tail magnetometer heading test

Aircraft type:	DHC6 Twin Otter	Date:	15 October 2018
Registration:	C-GSGF	Height flown:	~10.000 ft AGL
Field Location:	Republic of Ireland	Magnetometer type:	Geometrics G-822A
Organization:	Sander Geophysics	Compensator:	SGL AIRComp
Pilot:	Steve Gebhardt	Sampling rate:	10/s
		Data acquisition system:	Sander SGDAS-3

Direction	Line #	Diurnally and IGRF Corrected Mag	Variation From Average
N	1	113.2	-0.26
S	2	113.4	-0.05
E	3	114.0	0.49
W	4	113.3	-0.20
	Average	113.5	
Average N-S Heading Error		-0.10 nT	
Average E-W Heading Error		0.34 nT	

Compensation Calibration

Compensation calibrations determine the magnetic influence of the aircraft and its manoeuvres. During the compensation calibration flight, the aircraft performs sets of three pitches (+/-5°), rolls (+/-10°), and yaws (+/-5°), while flying in the four flight line directions at high altitude over a magnetically quiet area. The coefficients calculated from the calibration are applied to the acquired magnetometer data to measure the effectiveness of the compensation system in mitigating the magnetic interference.

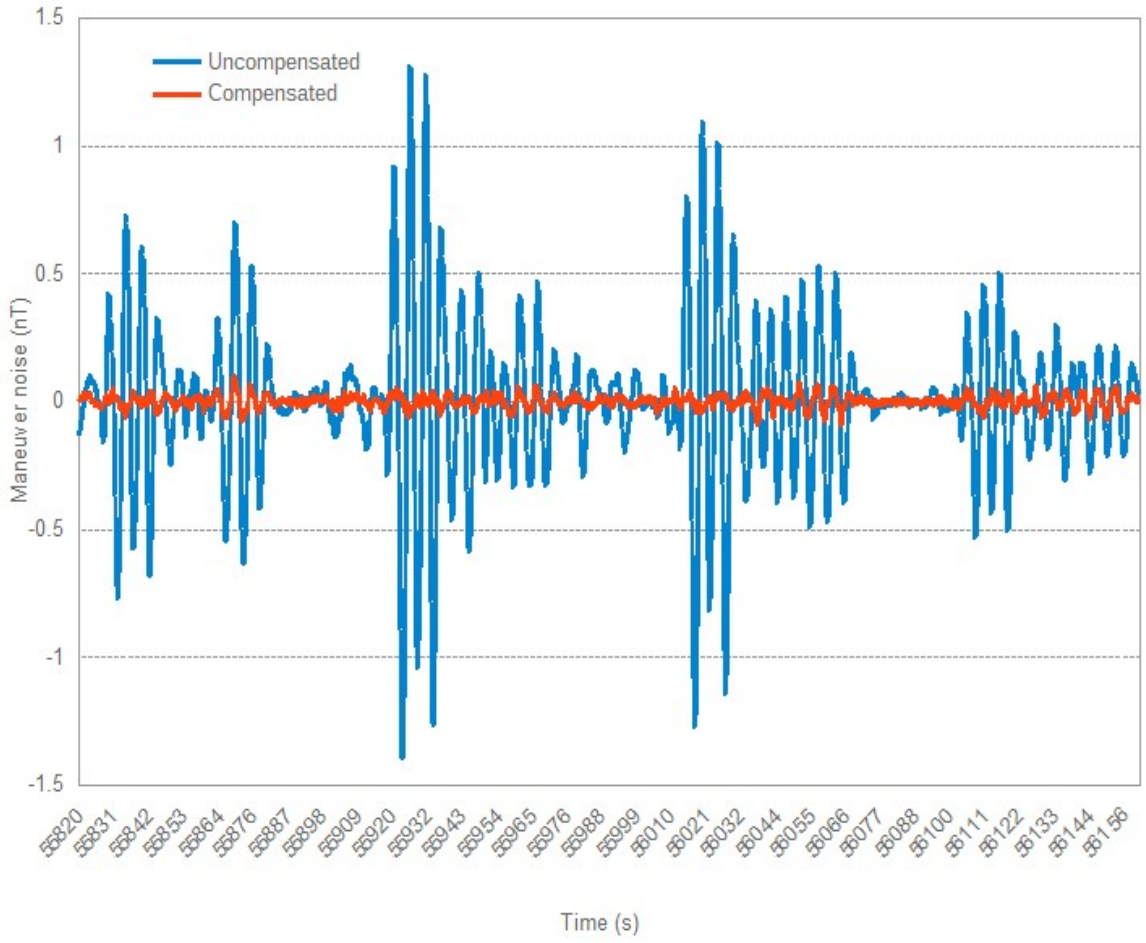


Figure 6a: Compensation Calibration Test Results, October 15, 2018

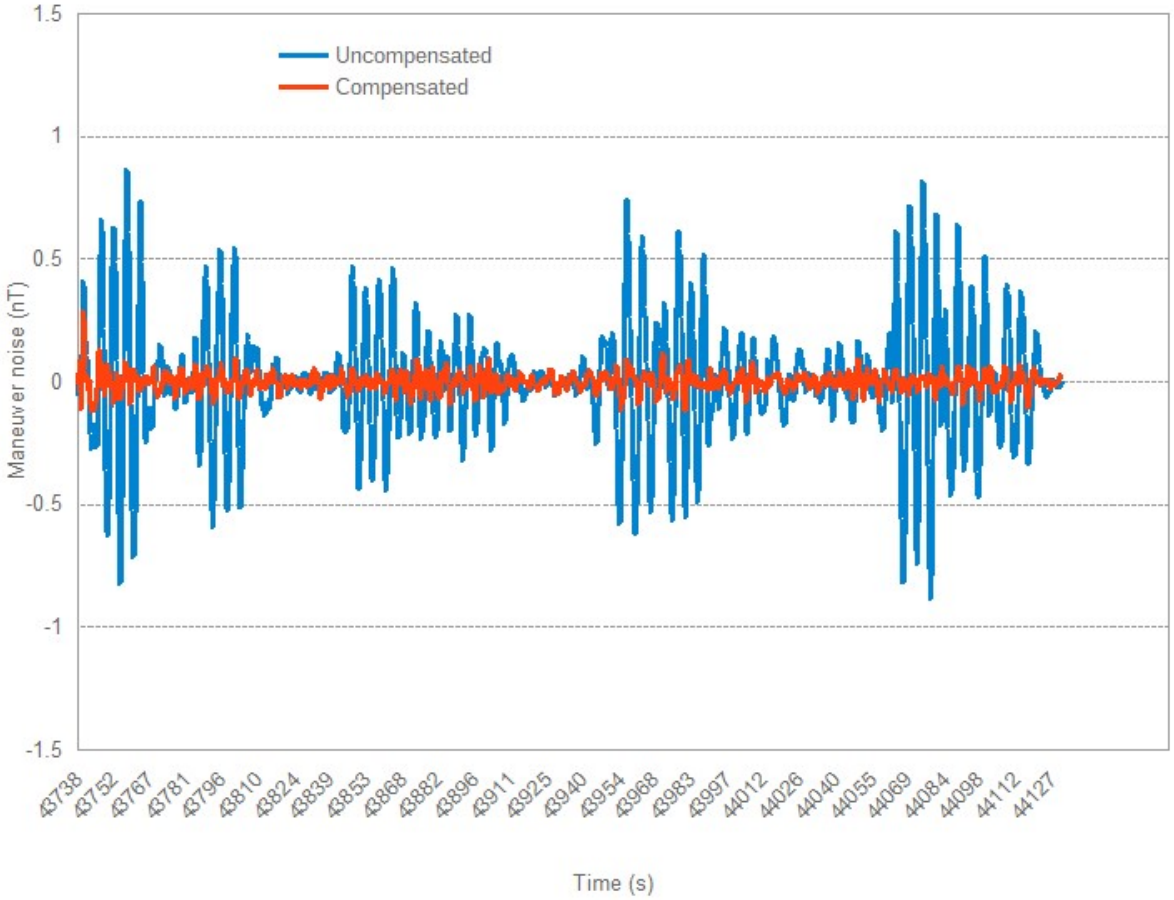


Figure 6b: Compensation Calibration Test Results, February 26, 2019

The total compensated signal noise resulting from the twelve manoeuvres, referred to as the Figure of Merit (FOM), is calculated from the maximum peak-to-peak value resulting from each manoeuvre. A new compensation calibration must be performed after any aircraft or system modifications that may affect the aircraft's magnetic field interference. A compensation flight was performed on October 15, 2018 at high altitude over the sea in Dingle Bay to the east of Kerry Airport. These calibration coefficients were used for survey flights 1 - 69 in the A5 Block.

After heavy maintenance carried out on the aircraft in January 2019, a new compensation was flown over Dingle Bay on February 26, 2019 which is valid for flights 70 – 82. *Table 9* shows the compensation calibration test results for the tail magnetometer. See *Figure 6* for an illustration of the compensated and uncompensated data acquired during the compensation calibration.

Table 9: Magnetic compensation calibration tests and results

Date	Flight	FOM (nT)	Used for Flights
October 15, 2018	0036	1.25	0001 - 0069
February 26, 2019	0071	1.71	0070 - 0082

No compensation calibration result is reported for the wingtip magnetometer which is considered redundant.

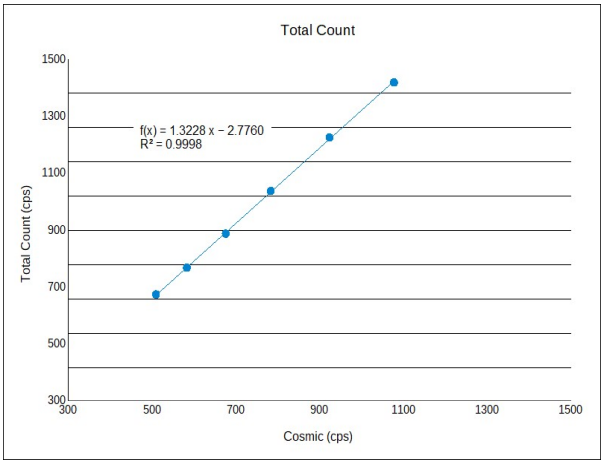
Spectrometer System Tests

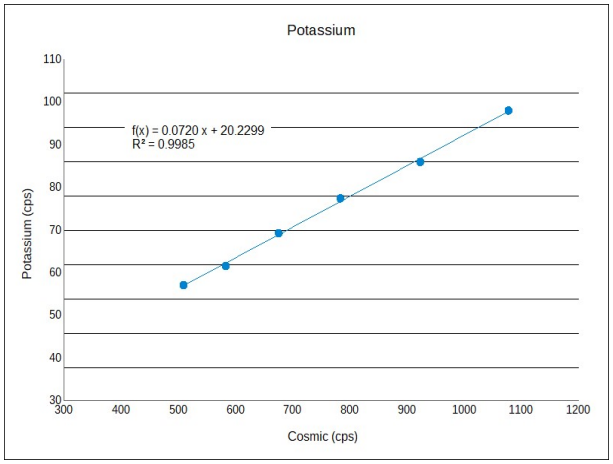
Cosmic and Aircraft Background

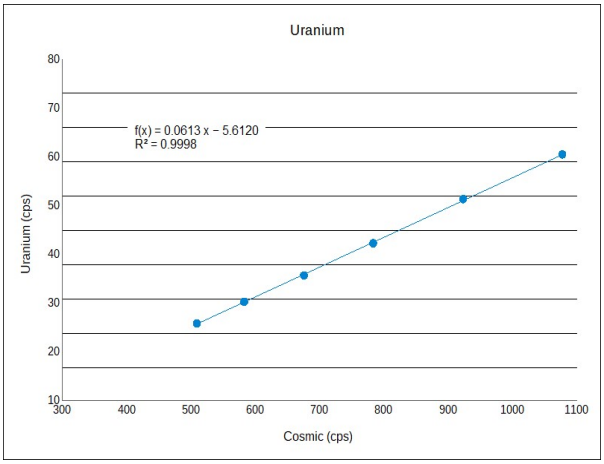
A cosmic and aircraft background test was performed for the spectrometer on October 15, 2018, over Dingle Bay. The test flight consisted of flying at heights of approximately 1500 m to 3500 m above sea level at 300 m intervals, recording between 3 and 6.5 minutes of data at each altitude. Coefficients are determined by linear regression of cosmic counts versus each spectral window as described in the IAEA Report 323 (1991). *Table 10* lists the computed cosmic and aircraft background coefficients. *Figure 7* shows the cosmic test results.

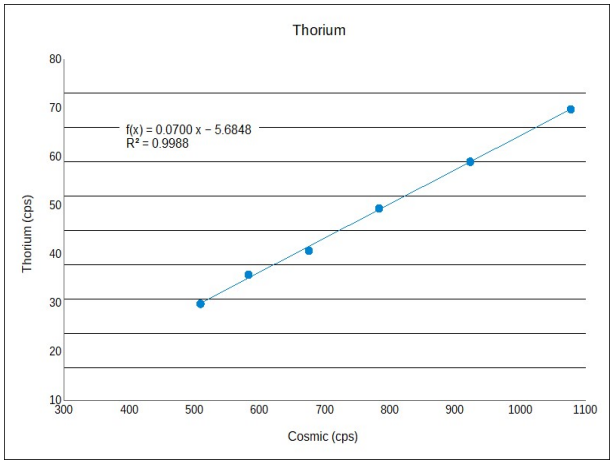
Table 10: Cosmic coefficients

	Cosmic Stripping Factor	Aircraft Background (cps)
Total	1.3228	-2.7760
Potassium	0.0720	20.2299
Uranium	0.0613	-5.6120
Thorium	0.0700	-5.6848
Upward	0.0114	-0.8973









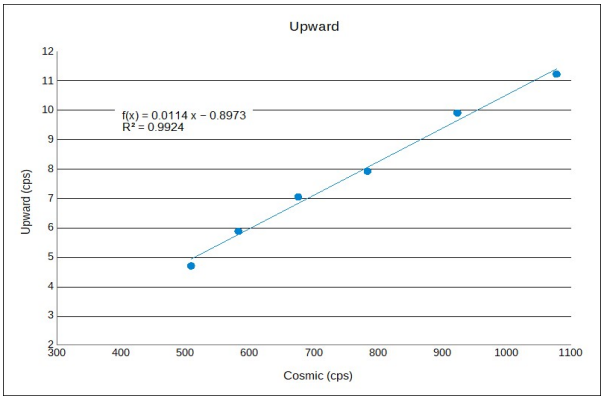


Figure 7: Cosmic Test Results

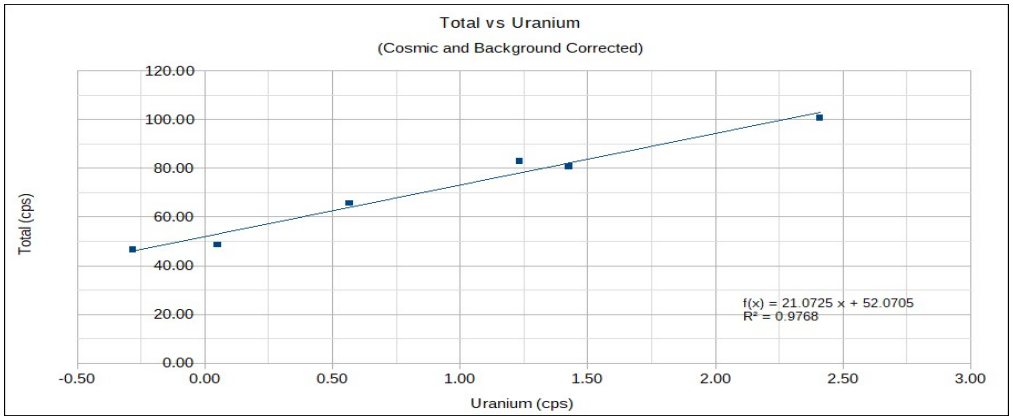
Radon Background Calibration

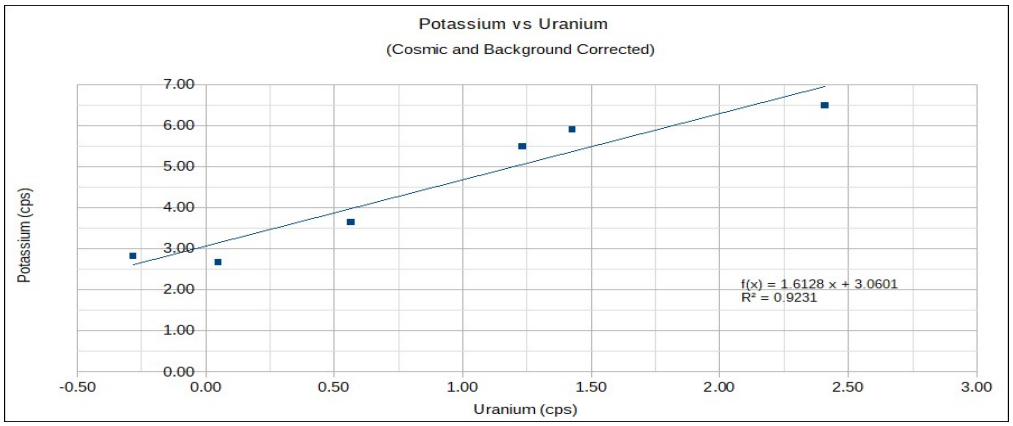
Radon background was monitored through the use of three upward looking detectors. Coefficients relating the count rate in the uranium window from the upward detectors to the count rate in the potassium, uranium, thorium and total count windows from the downward facing detectors were determined using several test lines flown over bodies of fresh water in the vicinity of the survey area.

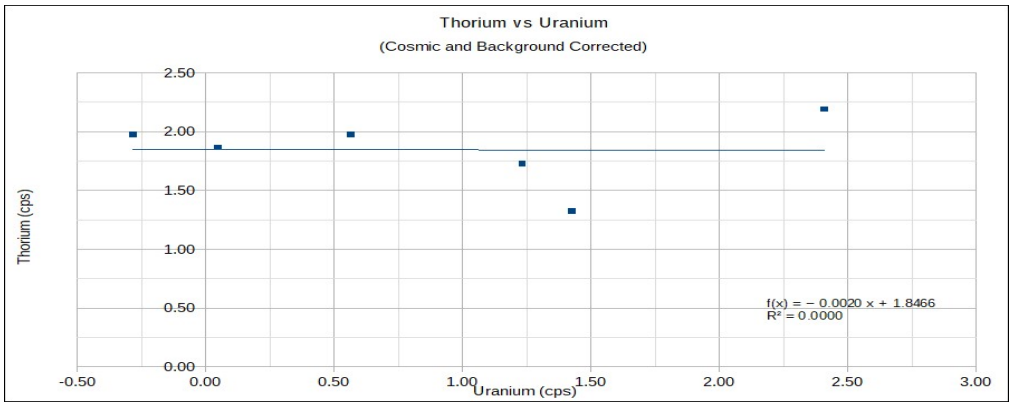
The cosmic and background corrected data from each of the up (ur), thorium (Tr), potassium (Kr) and total (Ir) windows are plotted against the counts in the uranium (Ur) window for each over water line flown. The coefficients determined for this survey are presented in *Table 11*. Linear regressions of these plots provide the radon coefficients to be used in the radiometric data processing are shown in *Figure 8*.

Table 11: Radon correction coefficients

	a	***b***
$I_r = a_I U_r + b_I$	21.0725	52.0705
$K_r = a_K U_r + b_K$	1.2960	25.2133
$T_r = a_T U_r + b_T$	-0.0020	1.8466
$u_r = a_u U_r + b_u$	0.2124	0.5877







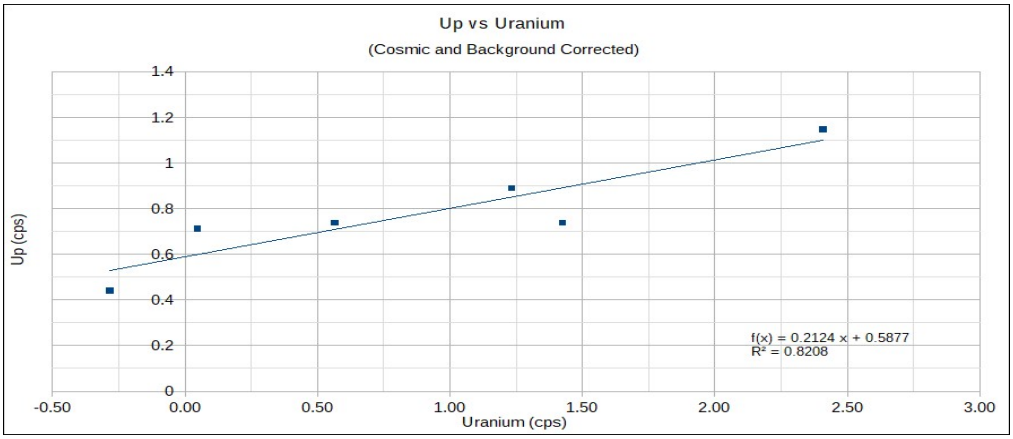


Figure 8: Radon Test Results

Ground Component

The ground component coefficients are used to quantify the response of the upward looking detector to radiation from the ground using the technique described in IAEA Report 323. This involves computing two coefficients based on the counts in the uranium and thorium windows as follows:

$$u_g = a_1 U_g + a_2 T_g$$

where: u_g is the upward window count from the ground
U_g is the downward uranium window count
T_g is the downward thorium window count
a_1 and a_2 are the ground coefficients

The ground component coefficients are determined from the full survey data set and those used for this project are listed in *Table 12.*

Table 12: Spectrometer ground component coefficients

a_1 (uranium)	a_2 (thorium)
0.038955	0.019744

Daily Source Tests

Thorium and uranium source tests were performed at the start and end of each production day. A source was positioned beneath each crystal pack. Data from the thorium, uranium, and background windows were recorded for 180 seconds during each test. Recorded data were dead-time and background corrected and statistics were compiled (see *Figure 9* and *Figure 10*). For the most part, Thorium and Uranium source test results were within +/-5% of the mean value. The coherence of the data indicates that the system is operating correctly.

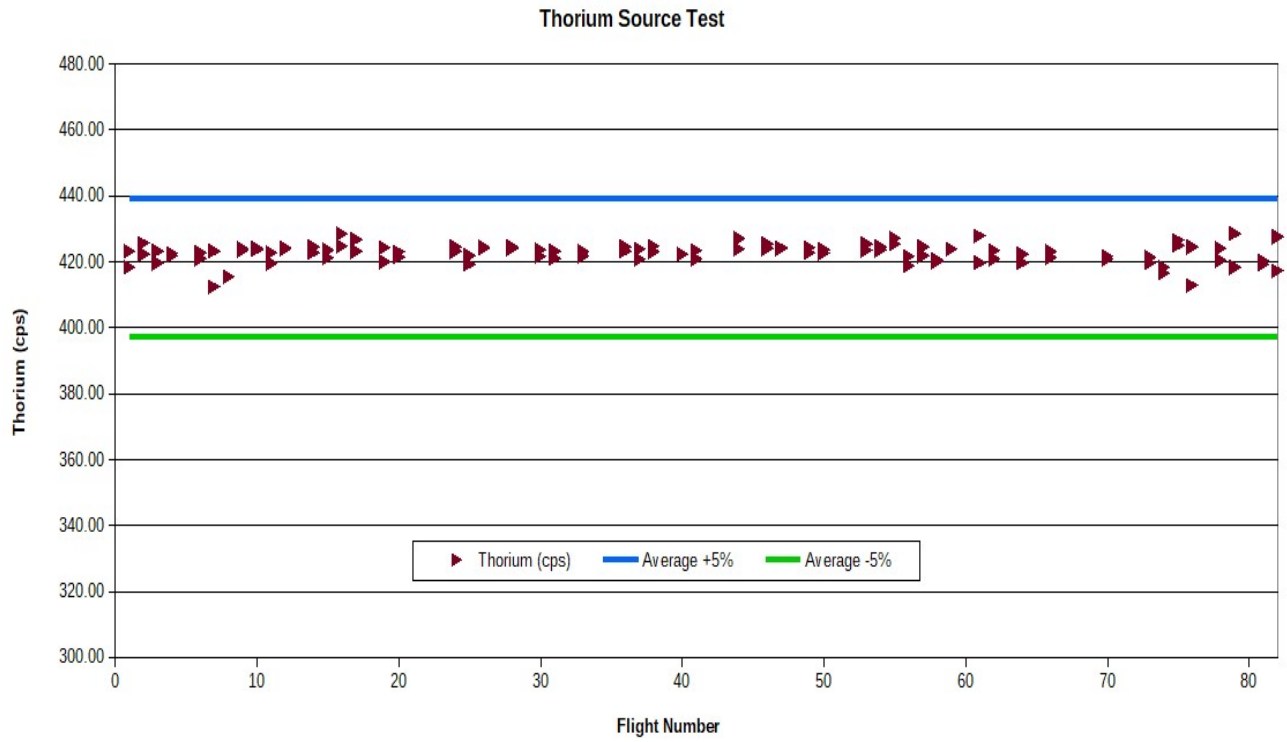


Figure 9: Thorium Source Test

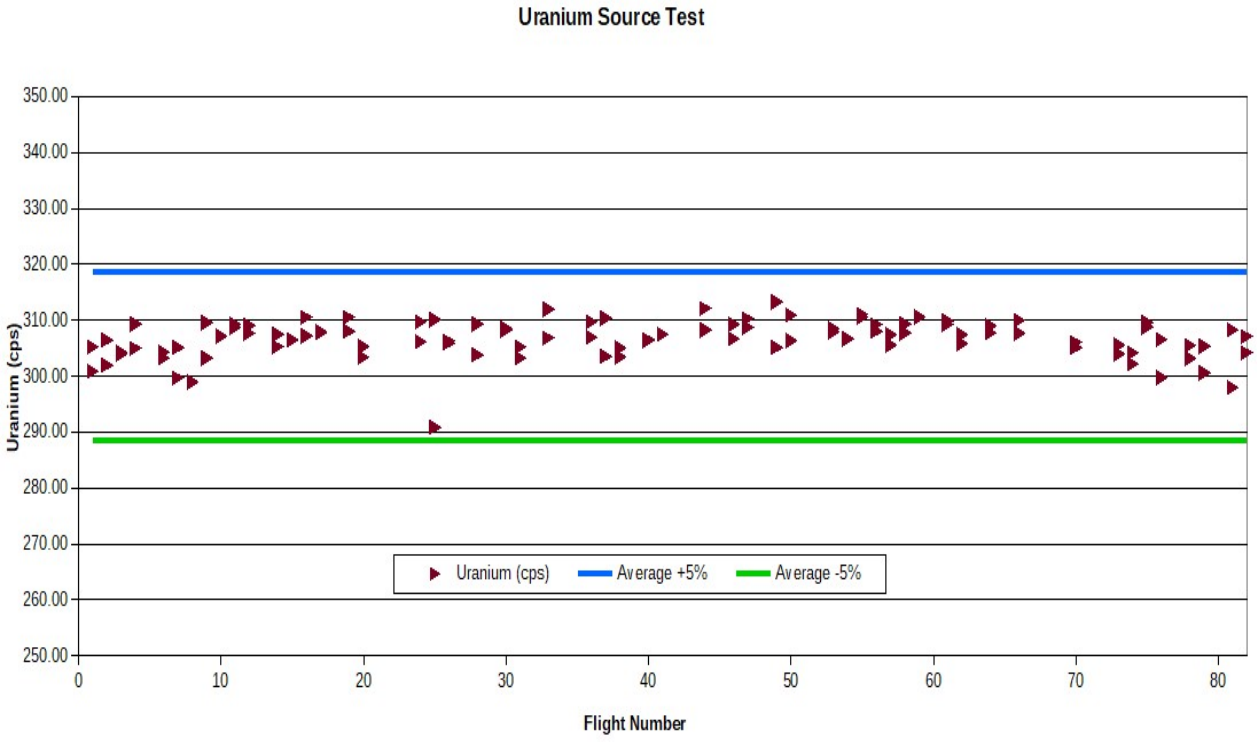


Figure 10: Uranium Source Test

Frequency-Domain Electromagnetic System Tests

EM System Orthogonality

Prior to each flight, the phase shift between the in-phase and quadrature parts of the EM response is verified and adjusted if required. For each frequency, two pulses of constant amplitude are artificially generated, the first being perfectly in-phase with the primary field, and the second being phase shifted by 90 degrees. Therefore, when the phase orthogonality is properly adjusted, no quadrature response should be observed during the first pulse, and no in-phase response should be observed during the second. This test is usually performed at 300 m or more above the ground to avoid any EM response from the ground and to minimize cultural interference. In addition the compensation of the primary field is also verified. The primary field enables EM data to be recorded with reference to an arbitrary zero-level low enough to ensure that the full range of the receiving device can be utilized. The orthogonality check is also performed following the flight, while ferrying back to the base. An example of the orthogonality check is shown in *Figure 11*.

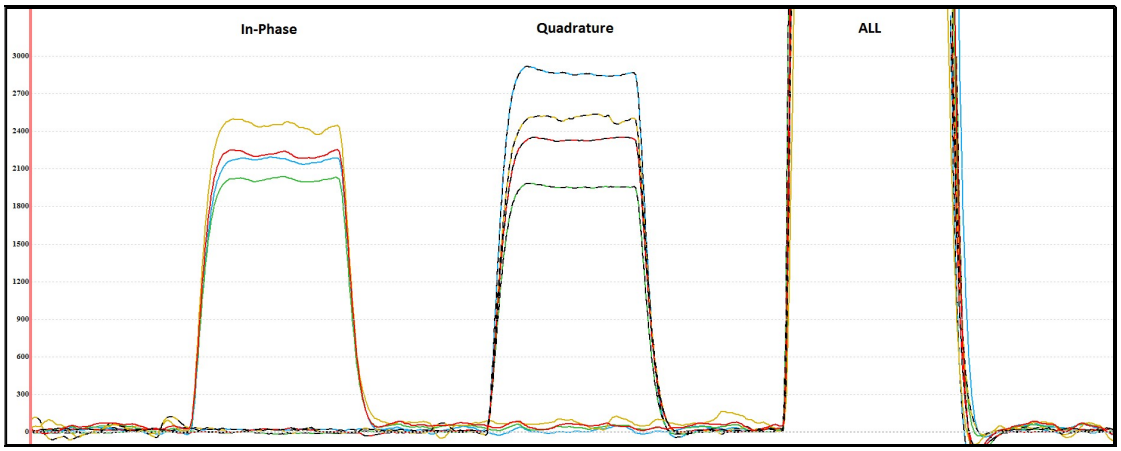


Figure 11: Orthogonality check for the four frequencies

Each pulse represents the in-phase and quadrature response for each of the four frequencies, followed by a single large pulse for all frequencies. For the first two pulses, a well-adjusted system will only show a response in the single channel expected, as illustrated here.

EM Over-Seawater Calibration

The frequency-domain electromagnetic system was calibrated following procedures described by Hautaniemi et al. (2005) using the results from the test flight flown on November 25, 2018. The test site chosen is over Donegal Bay, in an area where water conductivity and temperature have been measured several times over the years, at every metre from surface to sea floor, by the Irish Marine Institute. The water depth reaches over 60 m, ensuring that the sea floor sediments do not contribute to the EM response. Conductivity data from two different stations taken at three different years were analyzed, and proved that the conductivity profiles are essentially consistent at the two stations and therefore can be assumed to be constant between them. The calibration line location and the two sampling stations (CE10003_056 and CE10003_057) are shown in *Figure 12*. The conductivity data was analyzed to estimate the conductivity variation with depth (*Figure 13)* and with respect to temperature using data from one station for all three years (*Figure 14)*.

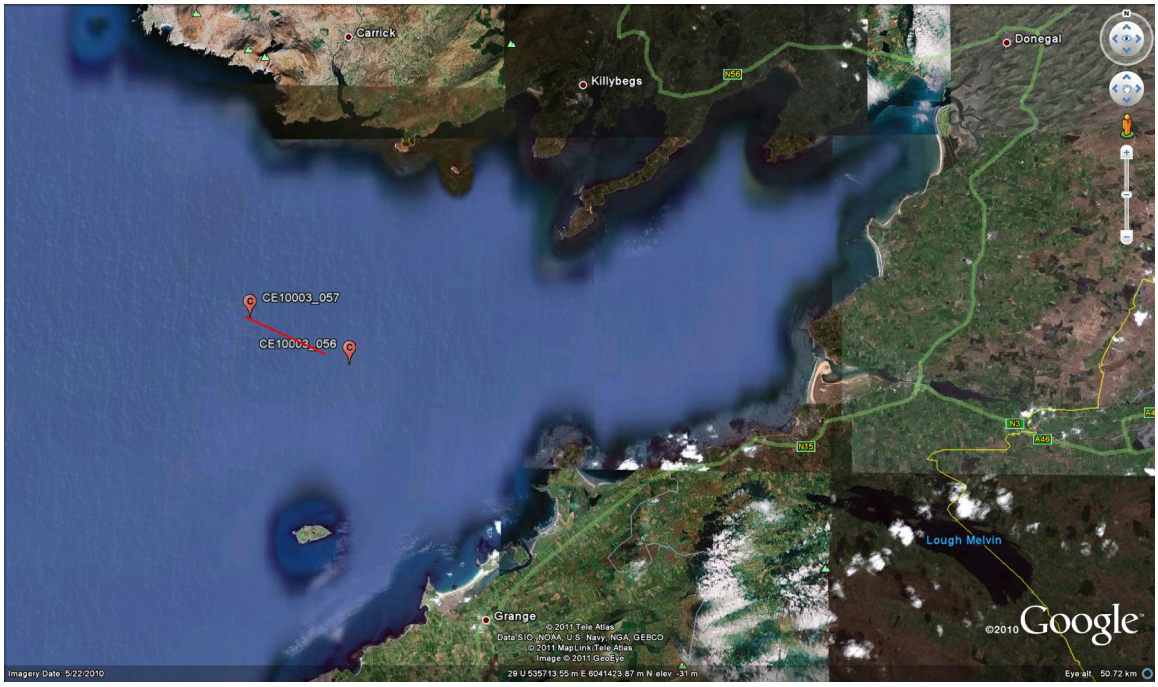


Figure 12: Seawater test line location (red line)

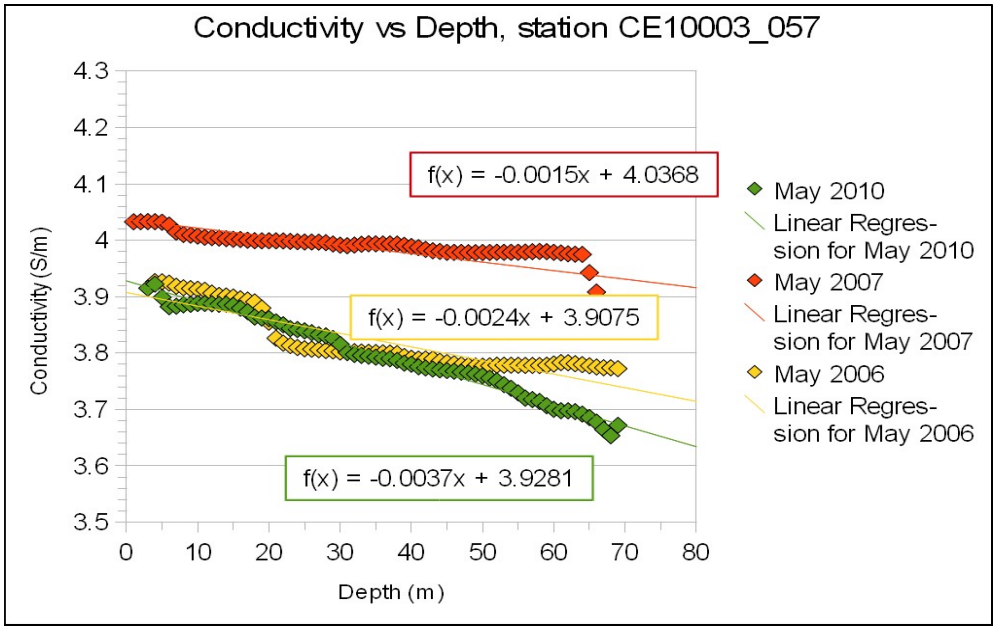


Figure 13: Conductivity variation with depth

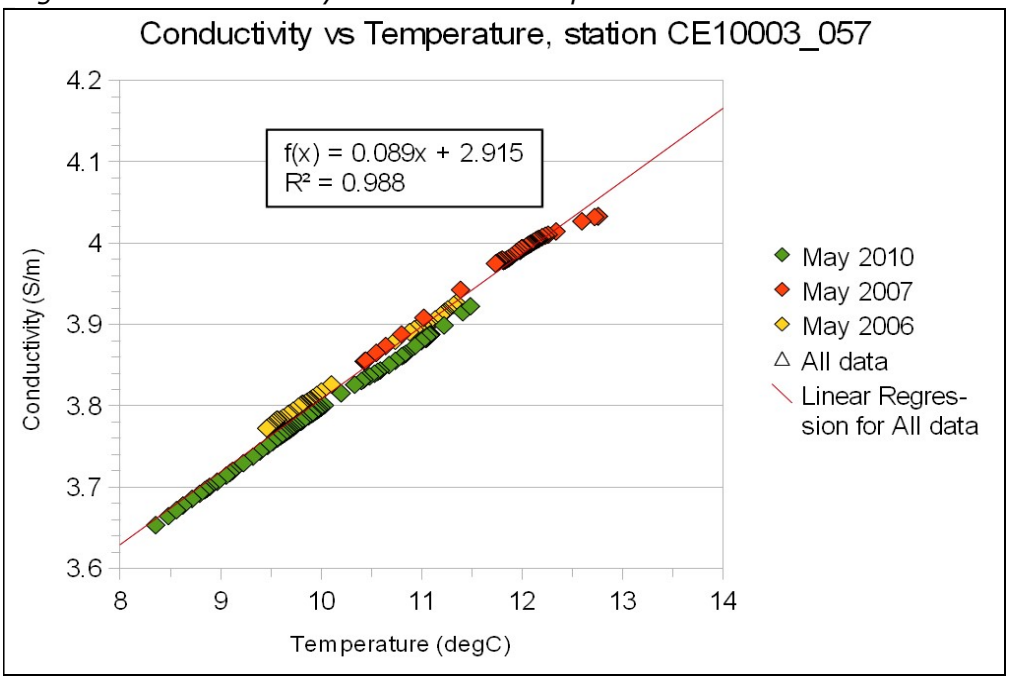


Figure 14: Conductivity variation with temperature

The 4.5 km long calibration line was flown at several heights from 50 to 120 m. Surface water temperature measured on the same day the calibration flight took place (12.275 ºC, published by the Irish Marine Institute) enabled the estimation of the water conductivity close to surface ([0.089 S/m ºC * 12.275 ºC] + 2.915 S/m = 4.007 S/m). Based on the average conductivity decrease with depth observed over the three years, it was possible to estimate the water conductivity at a depth of 30 m ([-0.0025 S/m^2 * 30 m] + 4.007 S/m = 3.932 S/m), and thus the average conductivity between the surface and a depth of 30 m at the calibration site (3.969 S/m) assuming a linear variation of conductivity with depth. The skin depth of the

induced current is inversely proportional to conductivity and signal frequency, and it is calculated that slight changes in conductivity below 30 m are negligible. This conductivity was used to create a single layer model (half-space), which was employed to calculate the EM response secondary to primary field coupling ratio for each component of each frequency, for the range of altitudes covered during the calibration flight. The calculation was performed with the software Airbeo, developed by AMIRA. The results are shown in *Figure 15*.

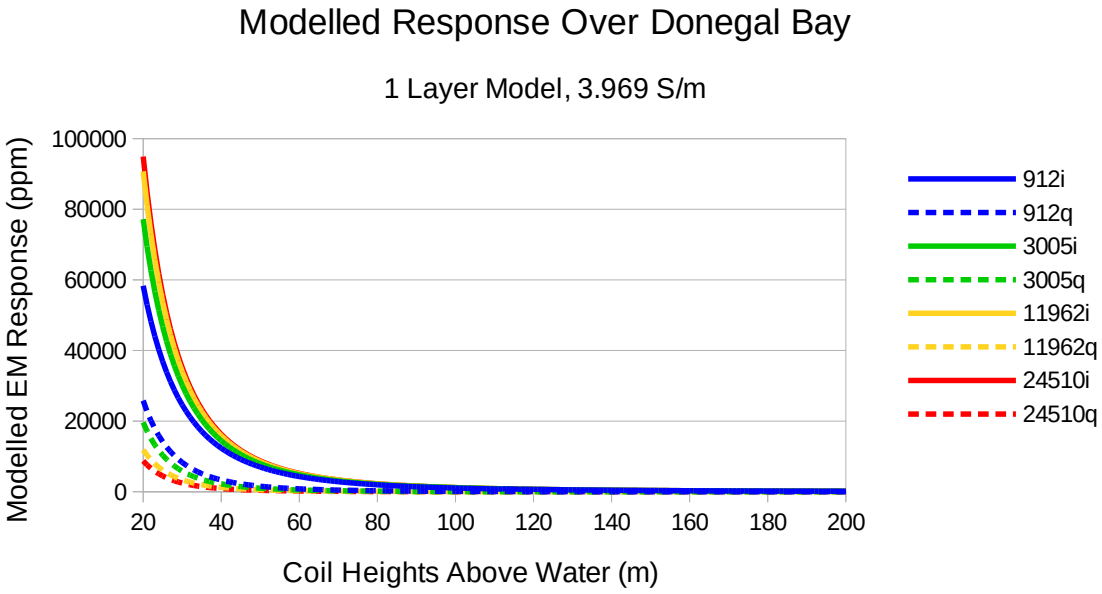


Figure 15: Modelled EM response vs. Coil height above water over Donegal Bay

This model shows how sensitive the EM response is with respect to separation distance between the system and the water. It is therefore important to use accurate clearance information to perform the calibration. The radar altimeter was properly calibrated over the Gatineau airport runway in Canada. Moreover, the altimeter data was corrected for the distance between the radar system and the EM coils. Given the wide footprint of the radar, the use of the strongest return when recording altitude, and the relatively low flying altitude, attitude corrections were deemed negligible. The EM data was also corrected for lag effects.

The receiver measured voltage (V units) recorded along the calibration line were plotted against the theoretical secondary to primary field coupling ratio (ppm units) for the in-phase response, and the calibration coefficients (ppm/V units) were obtained through a linear regression. The 24510 Hz data acquired for the low altitude passes proved to be unstable, so the results for this frequency are based on the highest passes only. In order to ensure that the measured in-phase data used for the calibration is indeed entirely in-phase, the in-phase/quadrature orthogonality was verified before and after the calibration flight and confirmed to be good. The quadrative response over the sea water is too weak to use for calibration.

The in-phase coefficients obtained for each frequency are summarized in *Table 13*. These coefficients were used for all flights to convert from Volts to ppm. The plots showing the fit

obtained for the in-phase response at each frequency are presented *in Figures 16* to *19*. The quadrature coefficients are assumed to be the same at each frequency.

Table 13: Calculated conductivity coefficients for each frequency (ppm/volt)

Frequency	912 Hz	3005 Hz	11962 Hz	24510 Hz
Coefficient	6303	5676	7940	10081

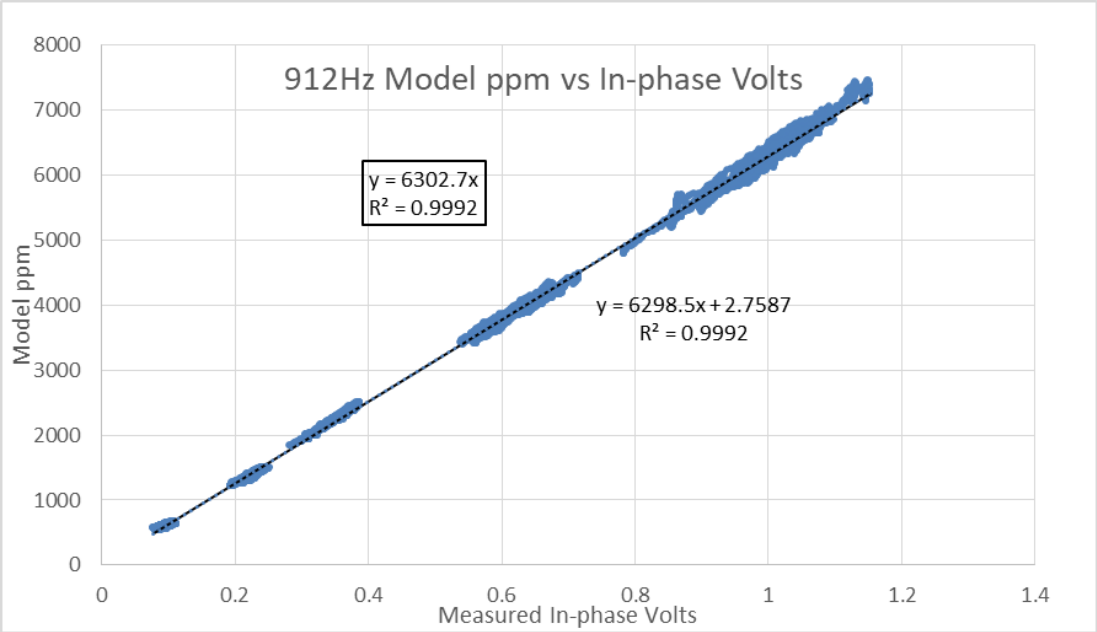


Figure 16: SGFEM 912 Hz In Phase Seawater Calibration

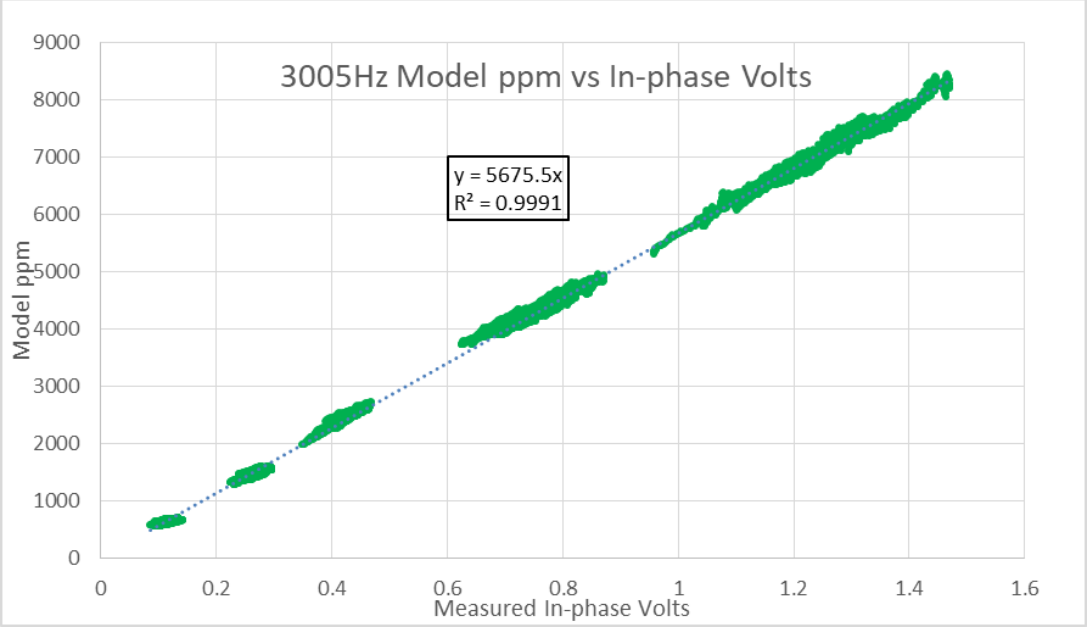


Figure 17 SGFEM 3005 Hz In Phase Seawater Calibration

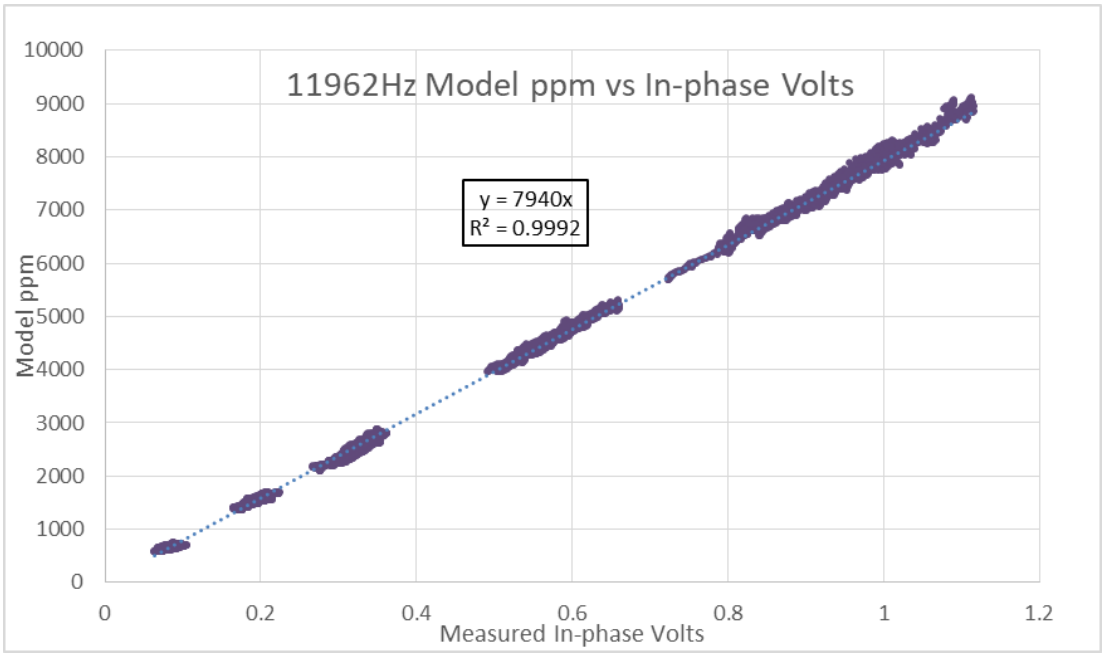


Figure 18: SGFEM 11962 Hz In Phase Seawater Calibration

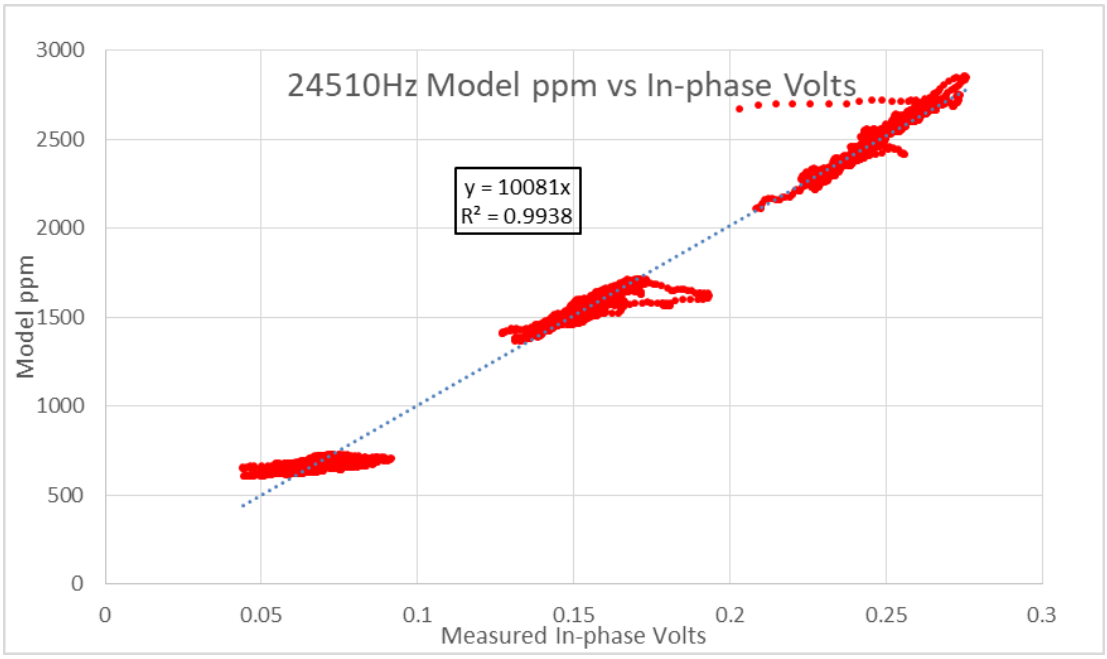


Figure 19: SGFEM 24510 Hz In Phase Seawater Calibration

EM Instrumentation Lag

The lag in the EM data is a function of two components, a static lag due to signal processing and a speed-dependent dynamic lag due to the physical offset of the EM coils and the GPS antenna. The static lag is known to be *0.70 s* from the filters applied during signal processing. The dynamic lag is equal to the offset of the coils and GPS reference point along the long axis of the aircraft, known to be 2.888 m, divided by the flying speed. For a speed of 60 m/s the dynamic lag will average 0.048 s, for a total lag of 0.748 s.

EM Transmitter Noise

The effect of the FEM transmitter on the magnetic response was verified for the tail and wing sensors, while flying at high altitude (about 10,000 ft.). This was done by turning the EM transmitter OFF, then back ON. *Figure 20* and *Figure 21* show that the EM transmitter induces no effect on the magnetic signal from either sensor.

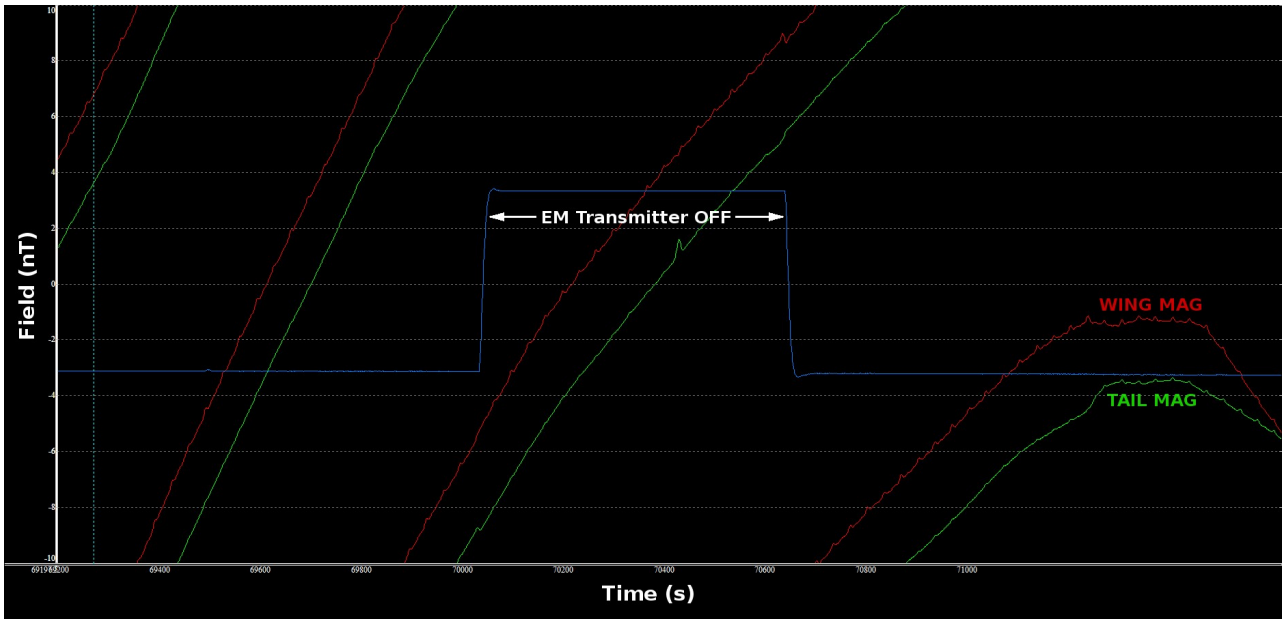


Figure 20: EM transmitter noise test, showing tail and wing magnetic sensor traces.

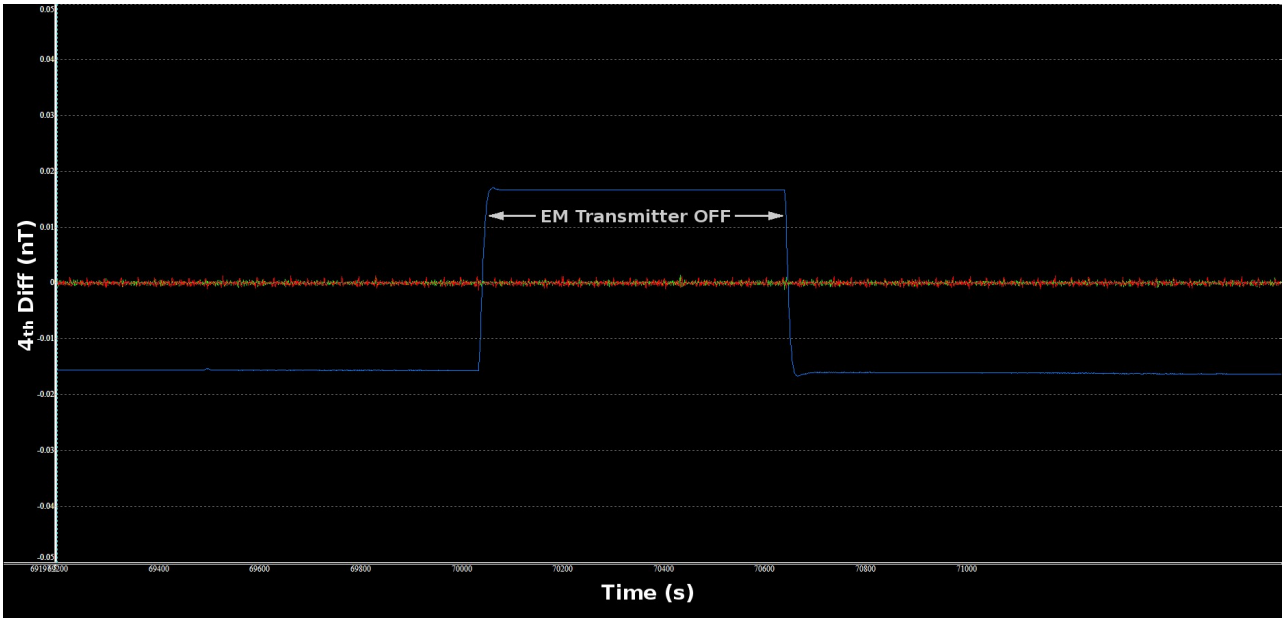


Figure 21: EM transmitter noise test, showing the 4th difference of the tail and wing magnetic sensor traces.

8. FIELD OPERATIONS

Flight operations for this project were performed from Kerry Airport. The survey required 82 production flights, from August 21, 2018 to March 29, 2019 during which data for both A5 Block and A6 Block were acquired. Weekly reports are provided in *Appendix VI*.

Reference Stations

Two reference stations were installed for this project. GND1 was located in the backyard of the crew lodging in Fenit, Co.Kerry. GND2 was setup at the Kerry airport located east off the hangar and north of the taxi way.

The positions of the two reference station GPS antennas were calculated using Precise Point Positioning (PPP)

Corrections using the algorithm developed by NRCAN, that has been incorporated in to SGL's suite of software (http://webapp.geod.nrcan.gc.ca/geod/tooloutils/ppp.php).

Picture 3: View from the survey aircraft flying in the western part of A5 Block

The position of the GPS antennas of the reference stations after differential correction is shown in *Table 14.*

Table 14: GPS Reference Station Location in the WGS-84 datum

Station	Latitude	Longitude	Elevation
GND1	N 52:16:46.9371	W 9:52:01.8250	68.9789 m
GND2	N 52:11:02.7622	W 9:31:38.9490	87.4163 m

Lists of the lines as acquired for each data set are provided in *Appendix III*. Due to re-flights for specific data issues, the lines selected for each data type (FEM, magnetic, spectrometer) are not identical.

Operational Issues

Due to a delayed commencement of operations, the survey could not be completed in 2018 as originally planned. Because of the poor Winter weather conditions, survey operations were suspended on December 21st 2019, during which time the aircraft was moved to Sligo to undergo scheduled maintenance. The aircraft returned to Kerry on February 14th 2019 and operations recommenced on February 23rd 2019 after a period of poor weather. The aircraft was also grounded for maintenance from May 28th to May 30th 2019.

The weather provided the main challenge for airborne operations throughout acquisition in the A5 Block. Rain, poor visibility and windy days caused various delays and flight cancellations.

On August 29th 2018 the survey flight was diverted to Shannon airport due to a burning smell detected in the cabin. The cause was determined to a fuel gauge that failed during flight. The aircraft was moved back to Kerry when it was deemed safe to do so and gauge was replaced.

Re-flights are listed in *Appendix VII*.

Field Personnel

The technical personnel of SGL that participated in field operations are given in *Table 15*.

Table 15: Field Personnel

Field Personnel	Name	Dates in Field
Operations Manager	Kevin Charles	n/a
Field Crew Chief	Alison McCleary	July 8, 2018 – March 29, 2019
Data Processor	Diana Kuiper	August 23, 2018 – October 23, 2018
Data Processor	Ania Smetny-Sowa	October 20, 2018 – December 21, 2018
Data Processor	Keith Wells	February 16, 2019 – March 21, 2019
Technician	Craig McMahon	July 19, 2018 – August 30, 2018
Technician	Scott Hames	September 11 – October 7, 2018, February 5 – 15, 2019
Lead Pilot	Steve Gebhardt	July 13, 2018 – March 29, 2019
Pilot	Charles Dicks	August 23, 2018 – December 3, 2018
Pilot	Steven Hyde	October 12, 2018 – October 26, 2018
Pilot	Jean Deschenes	November 26, 2018 - December 8, 2018
Pilot	George Sakgaev	February 9, 2019 – March 29, 2019
Pilot	André Lafontaine	August 3 - 27, 2018, December 7 – 23, 2018
AME	Darren McBeth	August 5 - 10, 2018, September 13 – 24, 2018
AME	Allan Ott	July 18 - August 11, 2018, August 26 – October 6, 2018
AME	Dave Money	August 14, 2018 – August 29, 2018
AME	John Burnham	October 8, 2018 – December 21, 2018
AME	Dwayne Bailey	February 12, 2019 – March 29, 2019

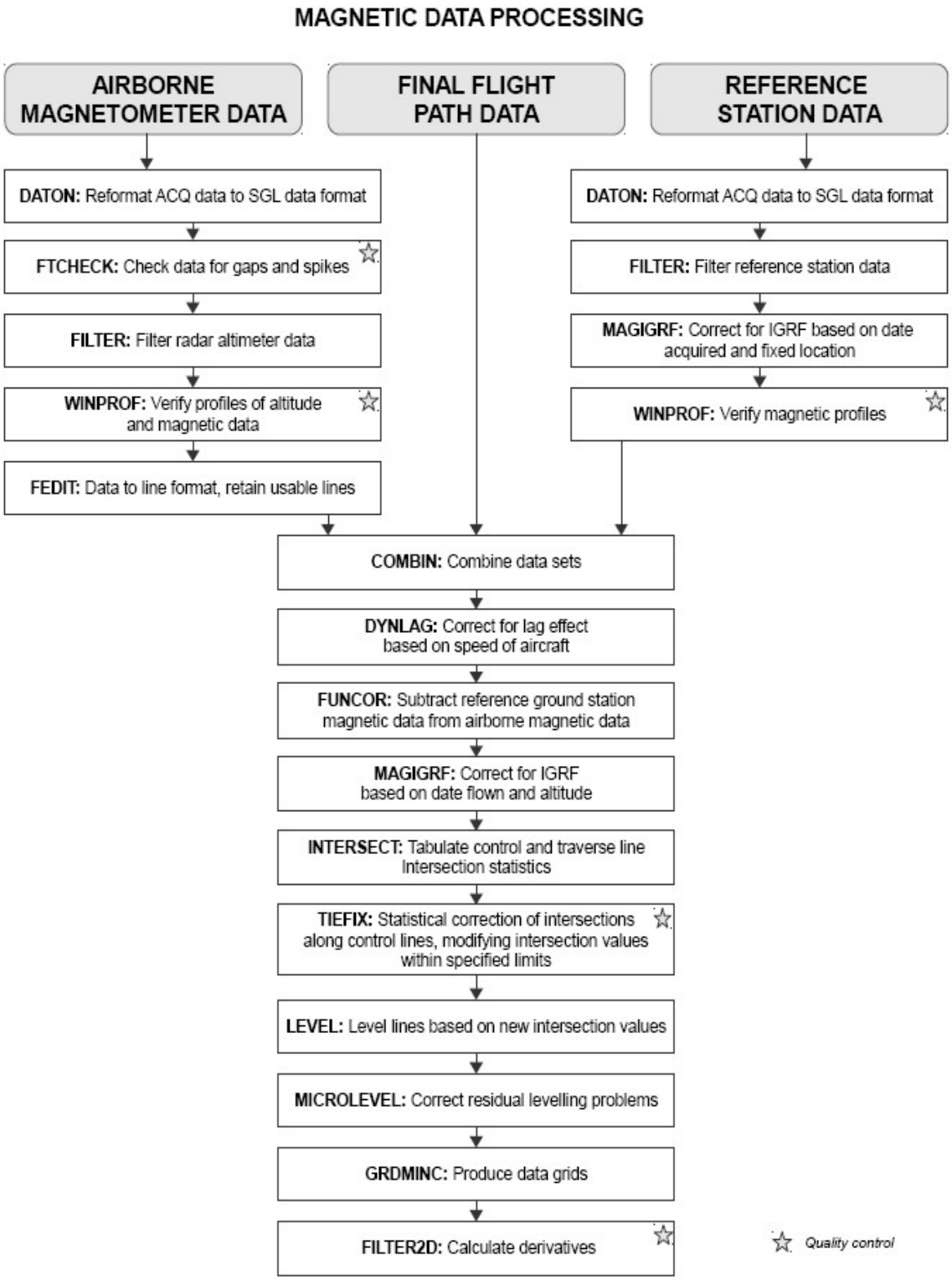


Figure 22: Magnetic data processing flow chart

9. DIGITAL DATA COMPILATION

Preliminary processing for on-site quality control was performed in the field as each flight was completed. This included verifying the data on the computer screen, profiling all of the data channels, and creating preliminary data grids.

Magnetometer Data

A magnetic data flowchart is presented in *Figure 22*. All final magnetic data is from the magnetometer housed in the tail stinger at the rear of the aircraft. The airborne magnetometer data were recorded at 160 Hz, and down sampled to 10 Hz for processing. All magnetic data were plotted and checked for any spikes or noise. A dynamic lag correction averaging 0.18 s depending on the instantaneous velocity of the aircraft was applied to each data point. The aircraft speed dependent dynamic lag was calculated using SGL's Dynlag software.

The ground based reference magnetometer data were inspected for cultural interference and edited where necessary. All reference station magnetometer data were filtered using a 369-point low pass filter (see *Appendix VIII*) to remove any high frequency signal, but retain the low frequency diurnal variations.

A correction for the International Geomagnetic Reference Field (IGRF) year 2015 model, was extrapolated for all ground magnetometer data using the fixed ground station location and the recorded date for each flight. The mean residual values of the reference stations calculated to be 76.47 nT for GND1 and 234.20 nT for GND2 were subtracted from the ground station data to remove any bias from the local anomalous field. Ground station GND1 was often not used for diurnal corrections as it was generally more noisy than GND2. Further small adjustments were applied to the secondary station to remove the average bias between the two reference stations. The different values reflect small changes to the position of the magnetometer. Diurnal variations in the airborne magnetometer data were removed by subtracting the corrected reference station data. GND2 was used for all flights except for the lines listed in *Appendix IX* that used GND1.

The airborne magnetometer data were corrected for the IGRF using the location, altitude, and date of each point. IGRF values were calculated using the year 2015 IGRF model. The altitude data used for the IGRF corrections are DGPS heights above the GRS-80 ellipsoid.

Levelling

Intersections between control and traverse lines were determined by a program which extracts the magnetic, altitude, and x and y values of the traverse and control lines at each intersection point. Each control line was adjusted by a constant value to minimize the intersection differences, calculated as follows:

$\Sigma |i - a|$ summed over all traverse lines
where, i = (individual intersection difference)
a = (average intersection difference for that traverse line)

Adjusted control lines were further corrected locally to minimize any residual differences. Traverse line levelling was carried out by a program that interpolates and extrapolates levelling values for each point based on the two closest levelling values. After traverse lines have been levelled, the control lines are matched to them. This ensures that all intersections tie perfectly and permits the use of all data in the final products.

CLEVEL provides a curved correction using a function similar to spline interpolation. A third degree polynomial is used to interpolate between two intersections and the two values and two derivatives are chosen to determine the polynomial. CLEVEL is an improved method as it allows intersection points to be preserved with no mismatch and interpolation is smooth with the first derivative continuously approaching the same value from both sides of the intersection points.

The levelling procedure was verified through inspection of magnetic anomaly and vertical derivative grids, plotting profiles of corrections along lines, and examining levelling statistics to check for steep correction gradients.

Micro-Levelling

Micro-levelling was applied to remove any residual diurnal and/or height related artifacts from the data. This was achieved by using directional filters to identify and remove artifacts that are long wavelength parallel to survey lines and short wavelength perpendicular to survey lines. A limit of +/-1.5 nT was set for micro-levelling corrections. An additional strong micro-level correction was applied to selected areas where high gradients combine with large height differences to cause strong local artifacts.

Gridding

The grid of the magnetic anomaly was made using a minimum curvature algorithm to create a two-dimensional grid equally sampled in the x and y directions. The algorithm produces a smooth grid by iteratively solving a set of difference equations minimizing the total second horizontal derivative while attempting to honour the input data (Briggs, I.C, 1974, Geophysics, v 39, no. 1). The final grids of the magnetic data were created with 50 m grid cell size appropriate for survey lines spaced at 200 m.

Magnetometer Power Line Monitor

For the surveys conducted in 2018 campaign, a new magnetometer power line monitor data channel is included that is derived from the 160Hz magnetic data. This new channel is derived from a frequency-domain band pass filter centered on 3 samples (0.01875 s). This step extracts the 50Hz power line signal that is observed in the magnetometer while suppressing all other signal. The absolute value is taken from the output of the band pass filter and is passed through a median slope time-domain filter with a window of 8 samples (0.05 s) effectively measuring the size of the noise envelope. The magnetometer power line monitor channel is not as susceptible to interference from spurious sources such as radio transmitters and is also able to detect power lines with less current. The magnetometer power line monitor data channel is included with the frequency-domain electromagnetic data.

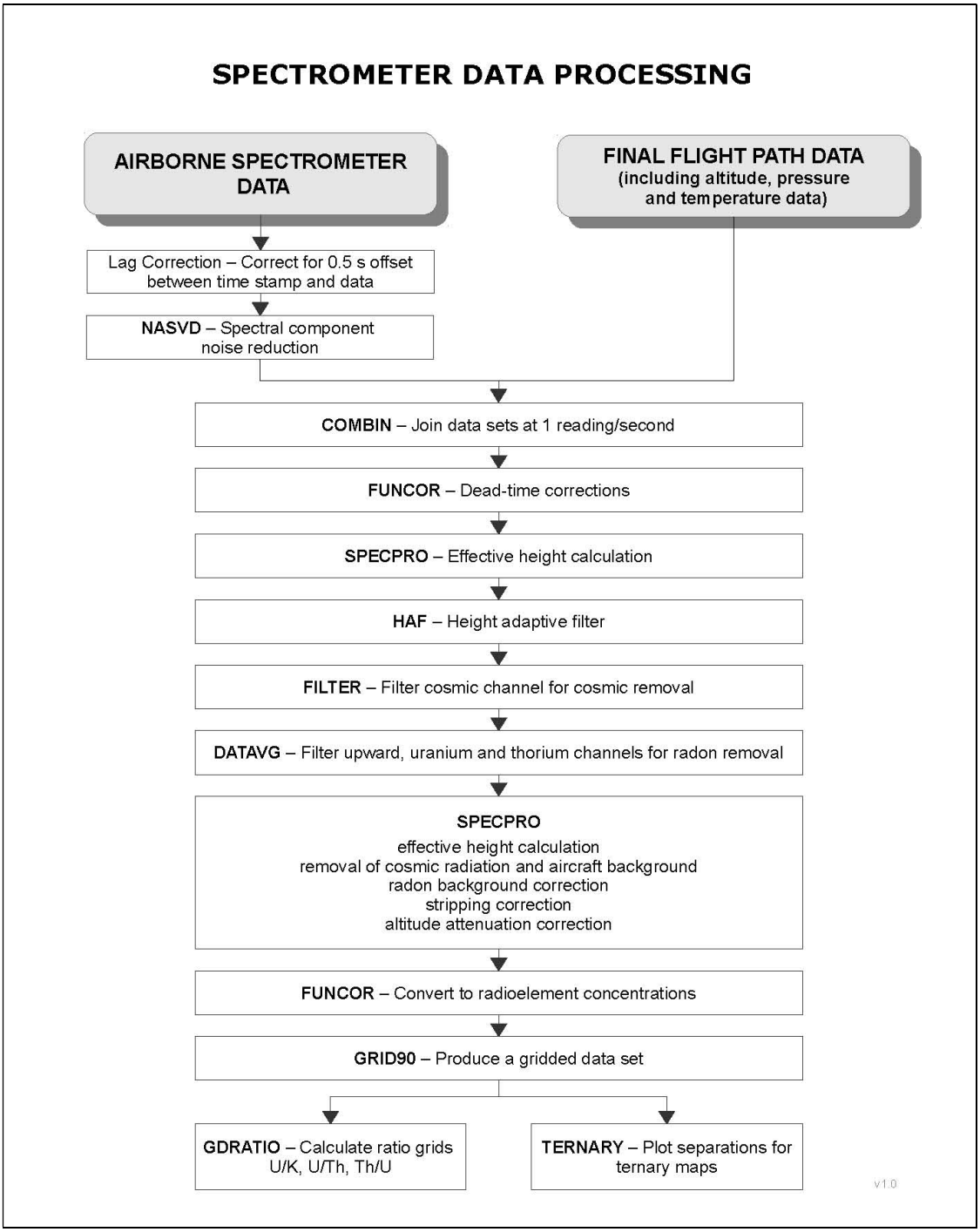


Figure 23: Spectrometer data processing flowchart

Spectrometer Data

A spectrometer data compilation flowchart is presented in *Figure 23*.

A 0.5 second shift was applied to all data to correct for the time delay between detection and recording of the airborne data. The data were recorded at 1 Hz in asynchronous mode, and subsequently interpolated to 1 Hz synchronous data on the exact second.

Spectral Component Analysis

Raw 1024 channel spectrometer data were analyzed using noise adjusted singular value decomposition (NASVD; J. Hovgaard and R L. Grasty paper 98; Geophysics and Geochemistry at the Millennium, Proceedings of the 4th Decennial International Conference on Mineral Exploration, 1997). Normalization with respect to the count rate is achieved by dividing each measured spectrum by the standard deviation of the best fit of the mean spectra, i.e. component zero. The NASVD method determines the components in order of significance with respect to the amount of variance in the data they describe. Each component is a spectrum with 1024 channels. In theory, there are as many components as there are channels. Variation in the signal is accounted for by the low order components, and variation due to noise is accounted for by the higher order components. Spectra are reconstructed from the low order signal only components, and the count rates in the standard windows are recalculated.

Components 0 to 5, 7 to 9 and 12 to 14 were retained (See *Appendix X*).
Components 6, 10 and 11 were deemed by inspection to have no significant signal (no coherent peaks) and are omitted.

Standard Corrections

Spectrometer data were corrected as documented in the Geological Survey of Canada Open File No. 109 and the IAEA report "Airborne gamma-ray spectrometer surveying; Technical Report Series No. 323 (International Atomic Energy Agency, Vienna). The gamma-ray spectroscopy processing parameters are shown in *Table 16*. Parameters are adjusted during processing through analysis of the corrections applied, and therefore may differ from those determined from calibration test flight data

Table 16: Spectrometer processing parameters

Spectrometer Processing Parameters		
Window	Cosmic Stripping Ratio (b)	Aircraft Background (a)
Total	1.2228	15.0000
Potassium	0.0720	20.2299
Uranium	0.0420	0.0000
Thorium	0.0500	0.1000
Upward	0.0075	0.0500
Radon Component	a	b
Total (I_r)	14.6042	0.0000
Potassium (K_r)	1.3049	0.0000
Thorium (T_r)	0.0025	0.0000
Up (u_r)	0.1957	0.0000
Ground Component	a_1	a_2
Up (u_g)	0.038955	0.019744
Stripping Ratios	Contribution on the Ground	Effective Height Adjustment (m^{-1})
α	0.2790	0.00049
β	0.4178	0.00065
γ	0.7660	0.00069
a	0.0455	
b	0.0000	
g	0.0045	
Attenuation Coefficients (m^{-1})		
Total	-0.006849	
Potassium	-0.009010	
Uranium	-0.007337	
Thorium	-0.007236	
Sensitivities		
Potassium	228.9322 cps/%	
Uranium	23.7863 cps/eU ppm	
Thorium	12.3100 cps/eTh ppm	

Before gridding, the following corrections were applied to the spectrometer data in the order shown:

Calculation of effective height above ground level (AGL)

Clearances obtained by the subtracting the SRTM measurements from the aircraft DGPS altitude in conjunction with barometric altitudes were used to calculate the effective height. A frequency-domain filter was used to filter the 10 Hz barometric altimeter data and temperature data. The former was then converted to equivalent pressure and used with the filtered temperature to convert the clearance data to effective height at standard pressure and temperature (STP) as follows:

$$h_e = h \times \frac{273.15}{T + 273.15} \times \frac{P}{101.325}$$

where, h_e = the effective height
h = the clearance above ground in metres
T = the air temperature in degrees Celsius and
P = the barometric pressure in millibars.

Height adaptive filter

Adaptive filters were applied between 250 m and 350 effective height to improve the signal-to-noise ratio for Potassium, Thorium, Uranium and Total Count. A moving average filter is applied to data and the degree of filtering applied increases gradually up to 350 up to a maximum of a 9 point running average. Data collected at a terrain clearance greater than 500 m are often considered unreliable due to the low count rates and consequent low signal to noise ratio, but the maximum effective height for this survey was 448 m so the issue does not arise.

Removal of cosmic radiation and aircraft background radiation

A 67-point low pass filter (see *Appendix VII*) is applied to 1 Hz cosmic data to reduce statistical noise. Cosmic radiation and aircraft background radiation are removed from each spectral window using the cosmic coefficients and aircraft background values determined from test flight data using the following equation:

$$N = a + bC$$

where, N = the combined cosmic and aircraft background in each spectral window,
a = the aircraft background in the window,
b = the cosmic stripping factor for the window, and
C = the cosmic channel count.

Radon background corrections

A 199-point running average filter is applied to 1 Hz downward uranium, downward thorium and upward uranium count data for the purposes of the radon correction only. The radon component in the uranium window is calculated using the radon coefficients determined from the survey data using the following equation:

$$U_r = \frac{u - a_1 U - a_2 T + a_2 b_T - b_u}{a_u - a_1 - a_2 a_T}$$

where, U_r = the radon background measured in the downward uranium window,
u = the filtered observed count in the upward uranium window,
U = the filtered observed count in the downward uranium window,
T = the filtered observed count in the downward thorium window,
a_1 and a_2 = the ground component coefficients,
a_u and b_u = the radon coefficients for uranium,
a_T and b_T = the radon coefficients for thorium.

The radon counts in the uranium upward window and the potassium, thorium and total count downward windows are calculated from U_r using the following equations:

$$u_r = a_u U_r + b_u$$
$$K_r = a_K U_r + b_K$$
$$T_r = a_T U_r + b_T$$
$$I_r = a_I U_r + b_I$$

Where u_r is the radon component in the upward uranium window, K_r, U_r, T_r and I_r are the radon components in the various windows of the downward detectors, and a and b are the radon calibration coefficients.

Stripping

The stripping ratios for the spectrometer system are determined experimentally. The stripped count rates for the potassium, uranium and thorium downward windows are calculated using the following equations:

$$N_K = \frac{n_{Th}(\alpha\gamma - \beta) + n_U(\alpha\beta - \gamma) + n_K(1 - a\alpha)}{A}$$
$$N_U = \frac{n_{Th}(g\beta - \alpha) + n_U(1 - b\beta) + n_K(b\alpha - g)}{A}$$
$$N_{Th} = \frac{n_{Th}(1 - g\gamma) + n_U(b\gamma - a) + n_K(ag - b)}{A}$$

where A has the value:

$$A = 1 - g\gamma - a(\alpha - g\beta) - b(\beta - \alpha\gamma)$$

and where,

n_K, n_U and n_{Th} = the unstripped potassium, uranium and thorium downward windows counts,

N_K, N_U and N_{Th} = the stripped potassium, uranium and thorium downward windows counts,

α, β, and γ = the forward stripping ratios, and

a, b and g = the reverse stripping ratios.

α, β, and γ are adjusted for effective height (as calculated above) by standard factors given in *Table 16* Spectrometer Processing Parameters.

Altitude attenuation correction

This correction normalizes the data to a constant terrain clearance of 60 m above ground level (AGL) at standard temperature and pressure (STP). Attenuation coefficients for each of the downward windows were determined from test flights. The measured count rate is related to the actual count rate at the nominal survey altitude by the equation:

$$N_s = N_m\left(e^{\mu(h_o - h)}\right)$$

where, N_S = *the count rate normalized to the nominal survey altitude,* h_o,

N_m = *the background corrected, stripped count rate at effective height* h,

μ = *the attenuation coefficient for that window,*

h_o = *the nominal survey altitude, and*

h = *the effective height.*

The effective height was determined in step 2.

The eastern part of the survey block encompasses some hilly areas, and the aircraft flew high over the city of Limerick. At high altitudes the gamma-ray data becomes too weak to correct for attenuation, but the effective height limit at which this occurs is to some extent dependent on the strength of the pre-attenuated signal from the ground. Based on inspection of the data it was found that uranium data is unreliable above 280 m, so data above this height was removed.

Correction for the effects of residual radon, terrain and changing conditions

Residual background adjustments and scaling corrections were applied to portions of lines to account for residual impact of radon, terrain and for changes in the ground conditions during the survey. Before micro-levelling, parts of some lines were adjusted either by shifting or scaling the data to account for inconsistencies from line to line in different radio elements. In particular the signal from total counts, potassium, and thorium decreased from flight 58 onwards, likely reflecting increasing moisture content during the winter season. See *Appendix XI* for a list of factors applied.

Micro-Levelling

Micro-levelling was applied to remove any residual artifacts probably due to radon from the total counts and uranium concentration. This was achieved by using directional filters to identify and remove artifacts that are long wavelength parallel to survey lines and short wavelength perpendicular to survey lines. A limit of +/-50 counts/s, +/- 0.1%, +/- 0.1

ppm and +/- 0.1 ppm was set for micro-levelling corrections of total counts, potassium, uranium and thorium concentrations, respectively.

Conversion to radio element concentration

Sensitivities are determined experimentally from the test flight data. The spectrometer system employed was identical to that used for A2 Block that is immediately to the north of A5 Block. Derivation of the sensitivities used for the system is described earlier in this report in the section *Spectrometer System Tests: System Sensitivity*. The A2 and A5 Blocks were planned with an overlap of approximately 1 km along most of their boundary. Analysis of data in the overlap area was used to determine scaling coefficients that allowed the corrected data to match across block boundaries. These scaling factors are given in *Table 17*. The transition between the adjacent A2 and A5 Blocks is not apparent when these values are employed, inferring that they are reasonable.

Table 17: Scaling factors applied to A5 data

Total counts	Potassium	Uranium	Thorium
0.92	1.35	0.82	1.20

The units of the count rates in each spectral window are converted to "apparent radio element concentrations" using the following equation:

$$C = \frac{N}{S}$$

where, C = *the concentration of the element(s)*

N = *the count rate for the window after correction for dead-time, background, stripping and attenuation*

S = *the broad source sensitivity for the window*

Potassium concentration is expressed as a percentage and equivalent uranium and thorium as parts per million of the accepted standards. Uranium and thorium are described as "equivalent" since their presence is inferred from gamma-ray radiation from daughter elements (^{214}Bi for uranium, ^{208}Tl for thorium).

Data gridding

The grids of gamma-ray data were made using a minimum curvature algorithm to create a two-dimensional grid equally sampled in the x and y directions. The algorithm produces a smooth grid by iteratively solving a set of difference equations minimizing the total second horizontal derivative while attempting to honour the input data (Briggs, I.C, 1974, Geophysics, v 39, no. 1). The final grids of the gamma-ray data were created with 50 m grid cell size appropriate for survey lines spaced at 200 m. Data within cells are averaged prior to applying the minimum curvature algorithm.

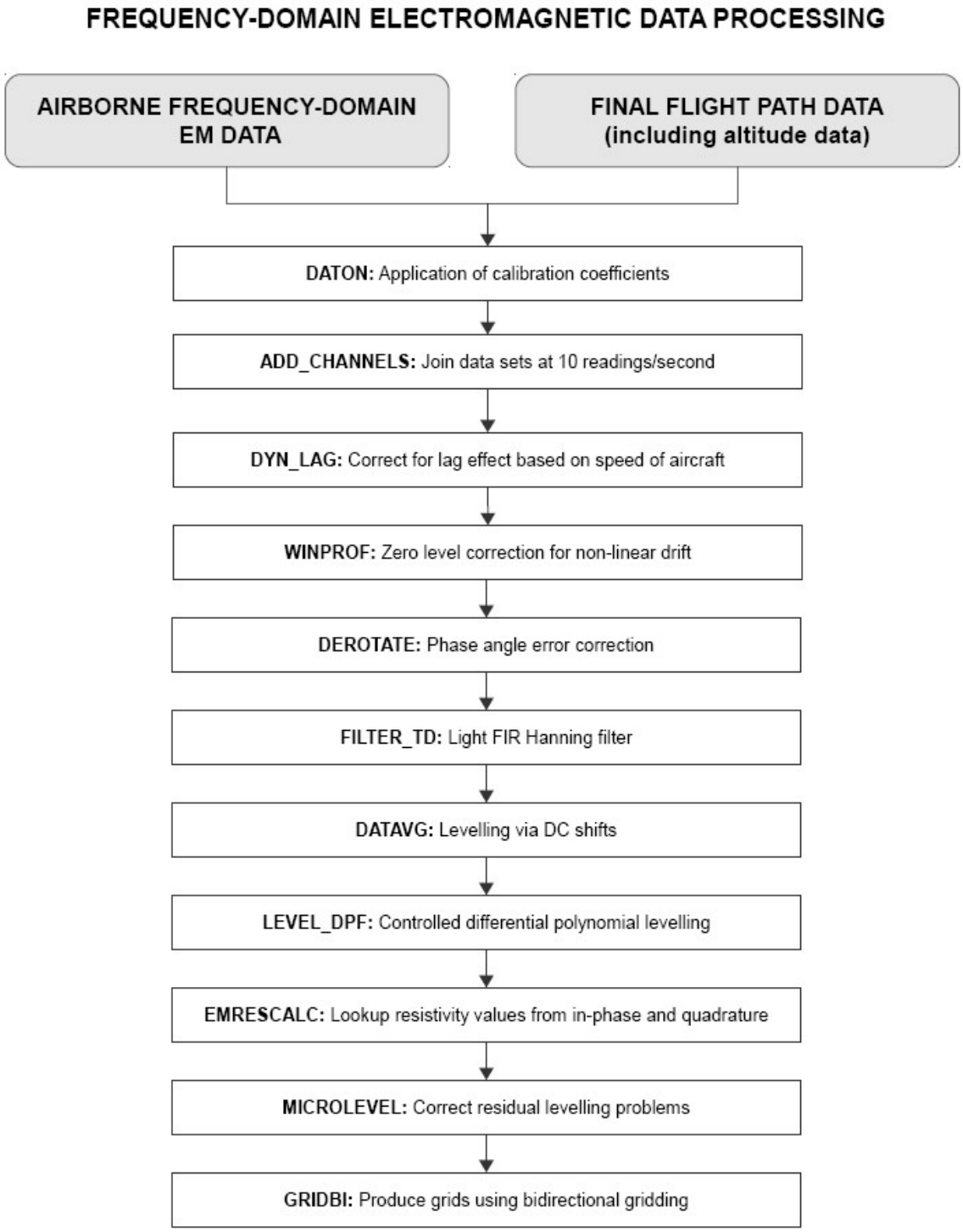


Figure 24: Frequency Domain Electromagnetic Data Processing Flowchart

Frequency-Domain Electromagnetic Data

A flowchart showing all the data processing steps can be found in *Figure 24.*

The airborne electromagnetic data were recorded in volts at 40 Hz, and down sampled to 10 Hz for processing. The data were recorded at four frequencies (912 Hz, 3005 Hz, 11962 Hz and 24510 Hz) each with two components, in-phase with the source pulse and out of phase "quadrature" each expressed as volts. The data were visually inspected for spikes and noise. Identification of cultural interference is assisted by the Power Line Monitor, and radio calls are detected and recorded in a flag channel that is 1 when a call is made, and 0 otherwise.

Conversion to PPM

Data in volts are converted to parts per million (ppm) of the source signal using the calibration coefficients described in the section "EM Over Seawater Calibration" earlier in this report (see *Table 14*). The sea water calibration assumes a homogeneous half space which allows modelling in ppm, which when compared to the measured voltages allows calibration coefficients to be determined.

Lag

A +0.70 s static lag correction due to signal processing was applied to each data point. In addition a variable lag correction is applied that is a function of speed and the physical offset between the GPS antenna on the aircraft cabin and the electromagnetic pods as measured along the long axis of the aircraft, known to be -8.433 m. Therefore, the total lag applied is equal to (0.70 - (8.433/v)) s where v is the instantaneous velocity of the aircraft in m/s. The aircraft speed dependent lag is calculated using SGL's Dynlag software.

Interactive Single Flight, Zero Level Correction For Non-Linear Drift

The zero level of the system can drift, possibly due to variations in the temperature of the air outside and inside the aircraft, and of the instrument components. To correct for drift, SGL uses a method similar to that described by Leväniemi et. al (2009, Journal of Applied Geophysics, 67, 219-233). The data is often zero when the survey aircraft is more than 250 m above ground, and we can use these regions to define a curve of corrections which brings the data to the correct level on a flight by flight basis. The start and end of the correction curve for each flight are set to coincide with the zero level calibration pulse procedure which is performed at approximately 350 m above ground before and after flying the survey lines. Intermediate points during production were determined when the aircraft ascended to flying heights of over 120m to 250 m above ground, particularly when flying over obstacles or ferrying between sections of the survey block. The EM response data at the start, end and intermediate points are shifted until they are zero. Shifts between the known zero points are interpolated using an akima spline to define the full correction curve in between. A separate correction curve is required for the in-phase and quadrature data of each frequency and is subtracted from the observed data. The drift curve is centred on the noise envelope of the data, which varies between frequencies (see below), therefore when the base level is near zero some negative data will occur.

Derotation

The pre and post flight phase orthogonality test is used to verify that the in-phase and quadrature data are at 90° to each other (see "EM Source Orthogonality" earlier in this report). If an in-phase response is detected in the quadrature signal for any frequency, or vice versa, for a given flight, a derotation correction is applied on a flight by flight basis, linearly interpolated between

the pre- and post-flight calibration. The following formulae are applied to each component and frequency as necessary:

$$I' = I \cos \theta_i + Q \sin \theta_i$$

$$Q' = Q \cos \theta_q - I \sin \theta_q$$

where:

I = Observed in-phase signal,
I' = Derotated in-phase signal,
Q = Observed quadrature signal,
Q' = Derotated quadrature signal,
and
θ_i, θ_q = angle of rotation from orthogonality.

θ_i, and θ_q are determined experimentally until the rotation effect is removed from the orthogonality test data. The average of the rotations applied to the in-phase data was -1.3° with a standard deviation of 4.6°. The average of the rotations applied to the quadrature data was -1.0° with a standard deviation of 2.8°. The largest rotations were applied to the 25 kHz data.

Filtering

A 1 second (10 sample) Hanning FIR low pass filter is applied to each component and frequency of EM signal to reduce the high-frequency (out of the earth signal range) noise envelope.

Levelling

Data from each flight is split into lines for the purpose of levelling. Averages of parts of each line that correspond to areas of low resistivity are calculated by line in order to determine zero order ("D.C. shift") correction to each survey line. Subtracting the DC shift brings each line to a level with neighbouring lines. The entire data set is then re-corrected by adding back the overall average D.C. shift previously applied. Following the zero order corrections, differential polynomial levelling following the method of Beiki et al. (2010, Geophysics, Vol. 75, No. 1, L13-L23) is used as an additional set of corrections. The algorithm is based on polynomial fitting of data points in 1D and 2D sliding windows. The levelling error is taken as the difference between 1D and 2D polynomial fitted data at the centre of the windows. Polynomials of order 1 were used along with a search radius of 600 metres for all components, and the long wavelength (>200s) correction for the line is applied to bring each line to the same zero base level. Manual adjustments to the line-by-line levelling are applied to render correctly levelled apparent resistivity.

Conversion to Resistivity

High-range resistivity results are comprised of the results of two resistivity algorithms: a pseudo-layer resistivity for areas of strong signal (i.e. low resistivity) (Fraser, 1978), and an amplitude-altitude algorithm for areas of low signal (i.e. high resistivity).

The pseudo-layer resistivity algorithm uses an interpolation of an in-phase/quadrature nomogram (created at 22 intervals per decade of resistivity) to find the apparent resistivity and apparent height of the sensor above ground (see *Figures 25-28*). As shown by Fraser, the pseudo-layer algorithm measures more accurately the resistivity of the thickest layers of the geology, typically the bedrock under the overburden.

Since the pseudo-layer algorithm resistivity is primarily dependent on the ratio of in-phase and quadrature, and the in-phase is low signal over resistive ground, the pseudo-layer algorithm may become unstable when there is still good signal in quadrature. At this point we substitute an amplitude-altitude algorithm, since the total amplitude of the signal is still above noise. The draw-back of the amplitude altitude algorithm, and the reason that it is not used everywhere, is that the amplitude of the EM signal is dominated by the near-surface geology, so the maximum depth of sensitivity is less than the pseudo-layer algorithm. Therefore the two methods are each used when they are most appropriate and the combined result of both methods is termed "extended range apparent resistivity". A gradual transition from the pseudo-layer derived resistivity to the amplitude-altitude method is employed if either the in-phase signal drops below 100ppm or the amplitude ($\sqrt{(\text{in-phase}^2 + \text{quadrature}^2)}$) drops below 141 ppm.

The combined extended range apparent resistivity algorithm provides the highest range of apparent resistivity measurements available from any airborne EM system, including the highest accuracy for bedrock resistivity in areas of moderate to high conductivity, and extended range of resistivity over resistive geology.

The resultant minimum and maximum values for each frequency range from a low of 0.1 ohm-m to a value in ohm-m approximately equal to the frequency of the signal, summarized as follows:

Frequency (Hz)	912	3005	11962	24510
Minimum (ohm-m)	0.1	0.1	0.1	0.1
Maximum (ohm-m)	912	3005	11962	24510

Values that fall outside these ranges are considered invalid, and are nulled.

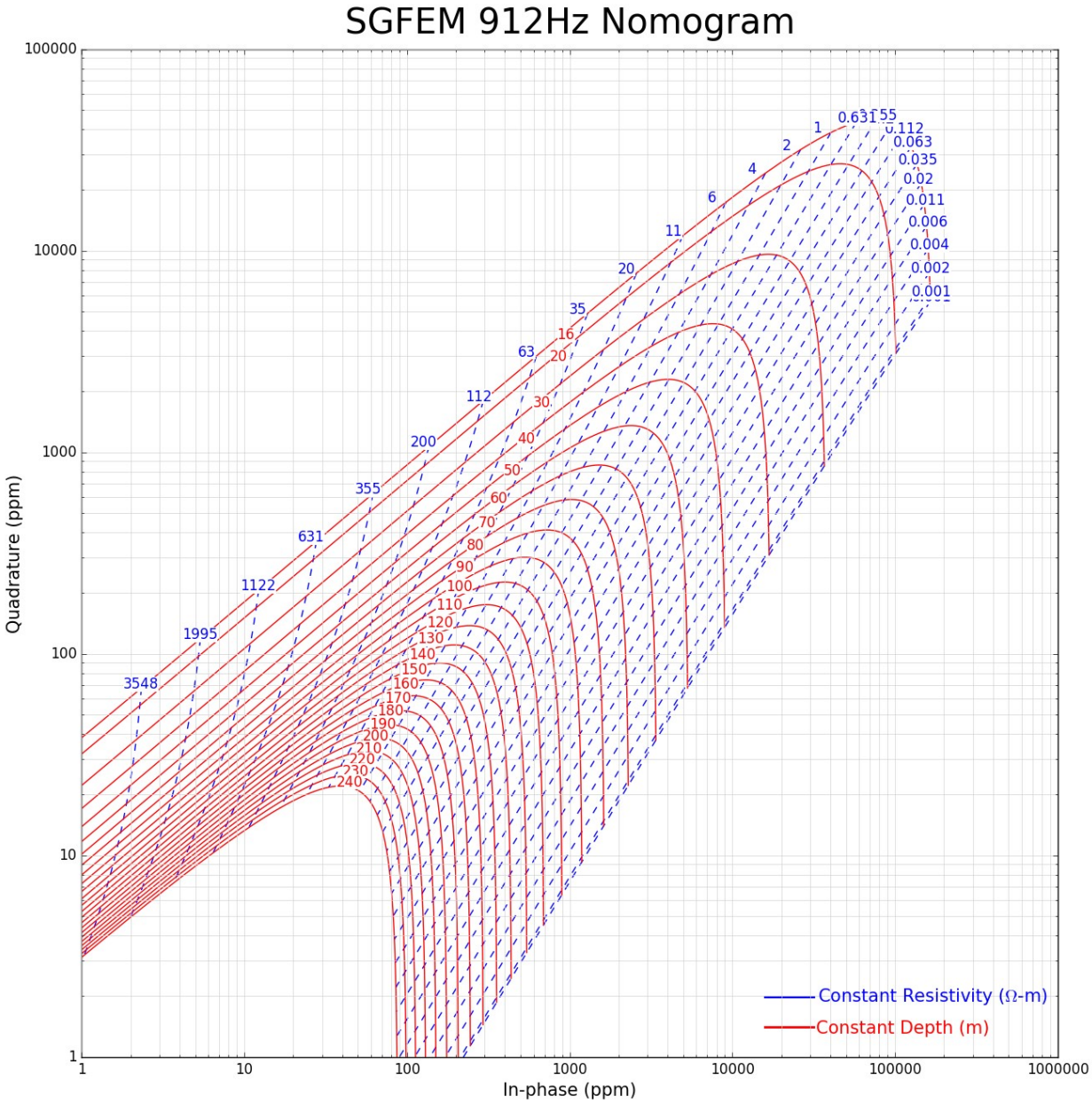


Figure 25: SGFEM 912Hz Nomogram

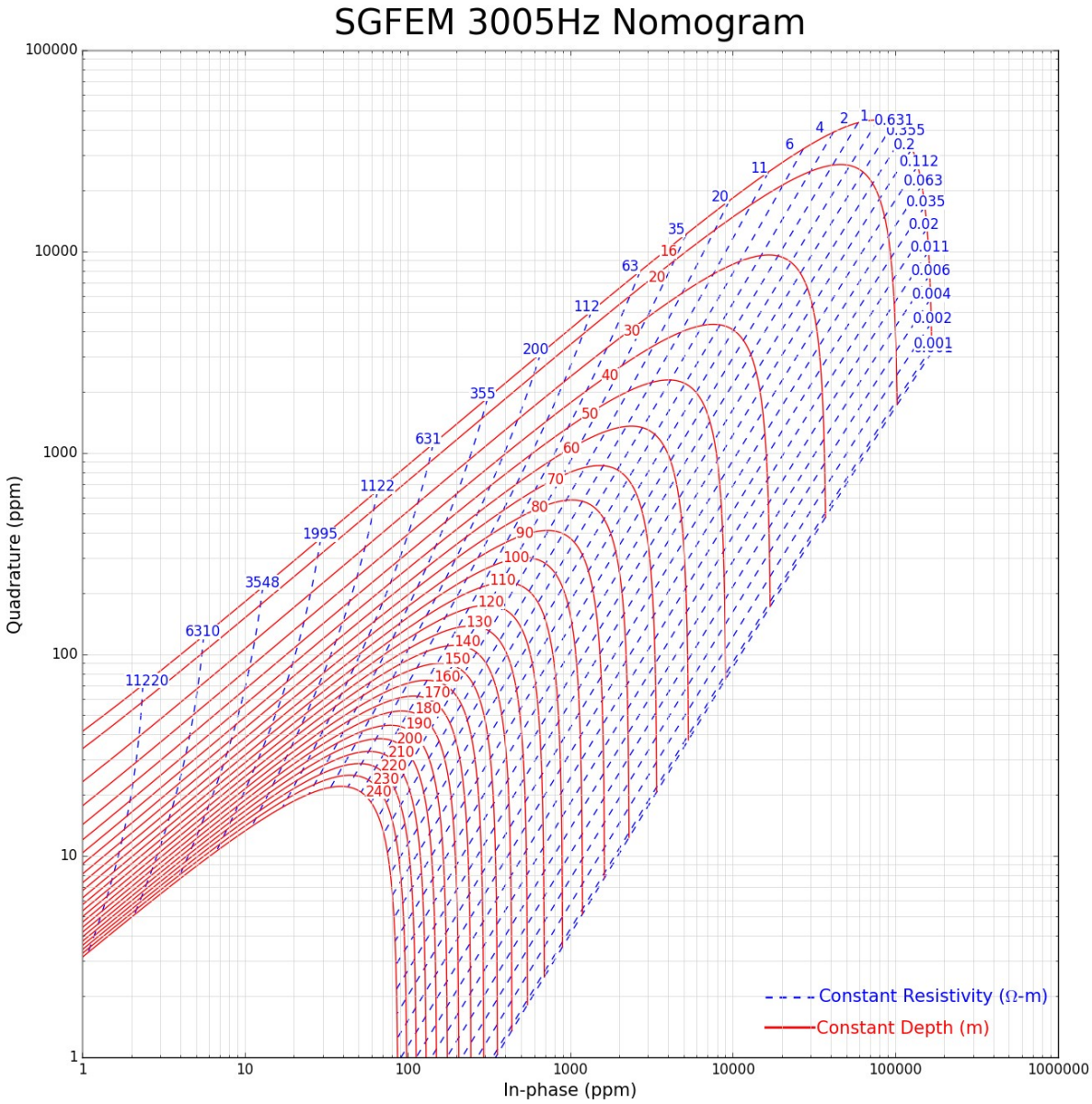


Figure 26: SGFEM 3005Hz Nomogram

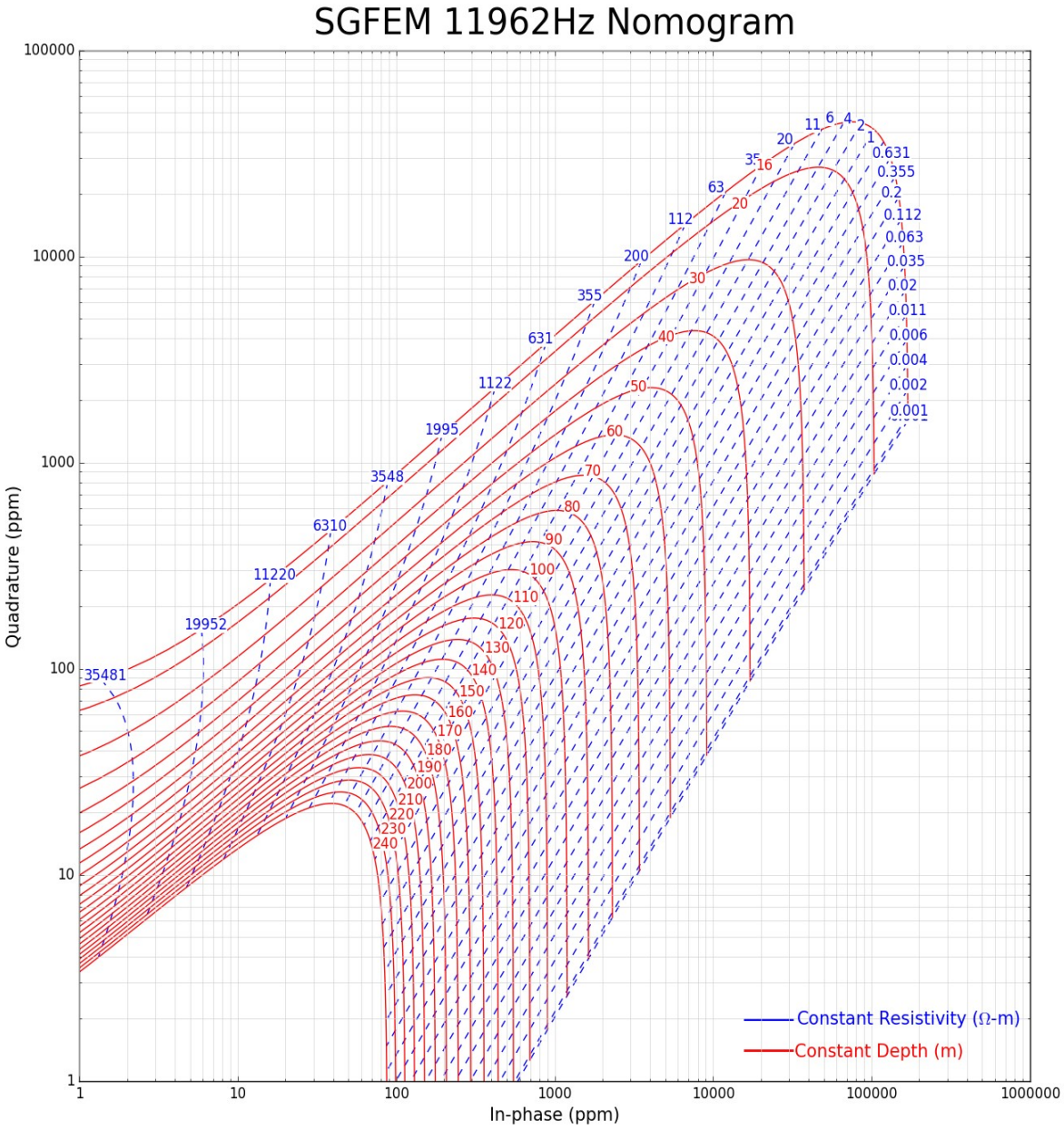


Figure 27: SGFEM 11962Hz Nomogram

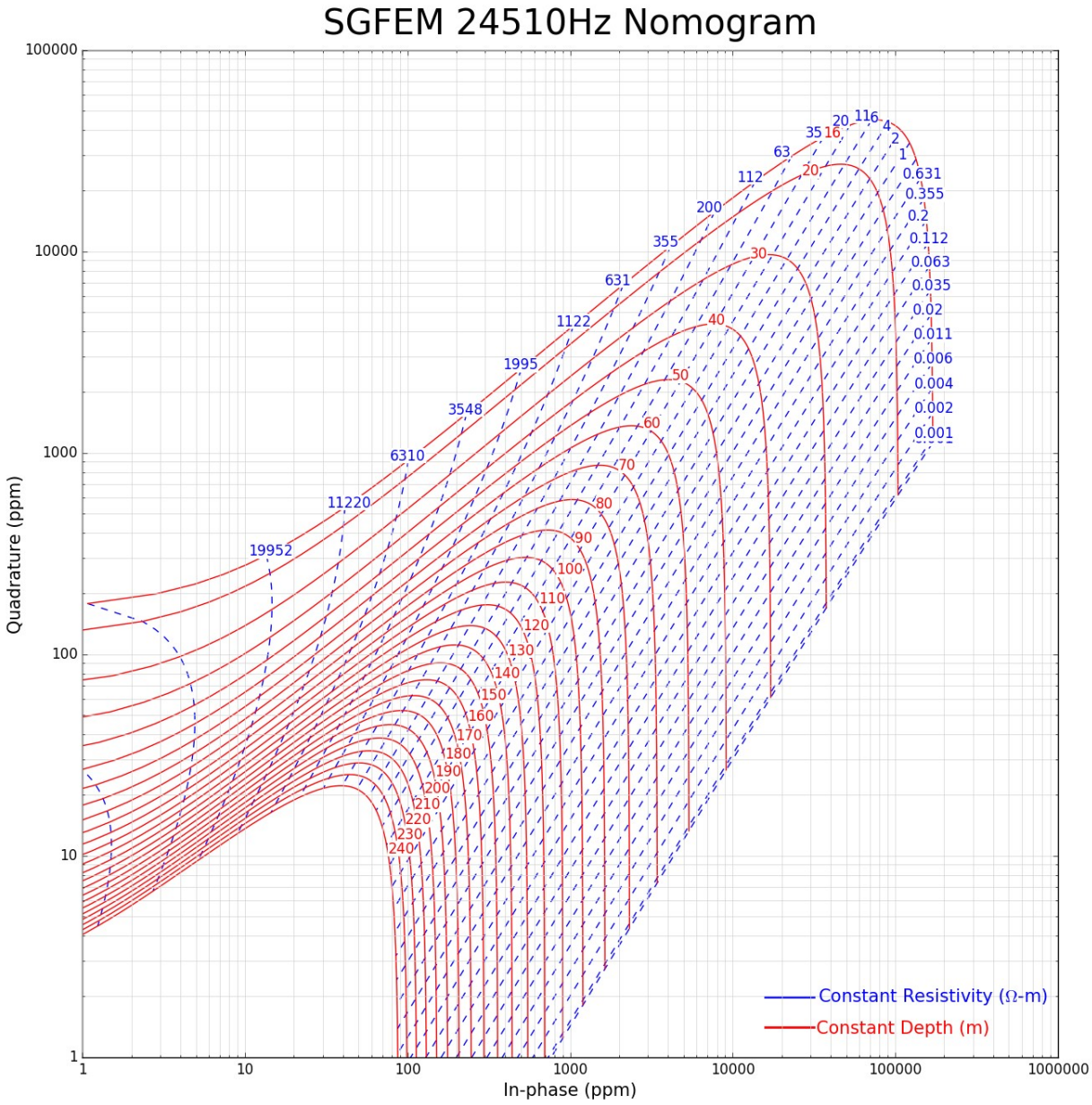


Figure 28: SGFEM 24510Hz Nomogram

Micro-levelling

For the purpose of micro-levelling, the log value of each resistivity is calculated. This approach is preferred because small changes in low resistivity values are as measurable and significant as large changes in large resistivity values. Micro-levelling was applied using the log grids to remove residual levelling errors from the gridded log of resistivity data. This was achieved by using a combined directional cosine filter and high pass Butterworth filter to identify and remove artifacts that are long wavelength parallel to survey lines and short wavelengths perpendicular to survey lines. A limit of +/-0.1 log (ohm-m) was set for all micro-levelling corrections. The cut-off wavelength of the directional Butterworth filter was chosen to be 800 metres for each frequency and component. The micro-levelling corrections are converted back to ohm-m and applied to the resistivity data.

Gridding

All grids were made using a bi-directional Akima spline gridding routine which is appropriate for the high range of EM data. The final grids of the electromagnetic data were created with 50 m grid cell size appropriate for survey lines spaced at 200 m.

Conductivity Depth Images

The Conductivity Depth Image (CDI) used here is a type of apparent resistivity section first defined by Sengpiel (1988, Geophysical Prospecting v.36 p.446-459) then refined in Sengpiel and Siemon (1998, Exploration Geophysics v.9 p.133-141). The conductivity depth section is created by assigning "a centroid depth z* to the half-space resistivity ρa" (Sengpiel and Siemon, 1998).

The centroid depth $z^*p = Da - h0 + pa/2$

where:

Da is the apparent height above ground in m (see above),
h0 is the measured height above ground in m (eg. from laser or radar altimeter),
and
pa is the skin depth = 503 √(resistivity (ohm-m)/frequency (Hz)).

At SGL we do not use the apparent depth term (Da – h0) in calculation of the centroid depth because in conditions where the measured altitude is affected by tree cover this will add an artificial error to the centroid depth. Also in conditions of near-surface conductivity the resultant negative apparent depth (Da – h0) is not directly equivalent to the depth to the top of the layer. Therefore in our calculations, the centroid depth is simply equal to the skin depth divided by two as defined above.

A series of profiles are created for each resistivity and centroid depth along each survey line. In cases where the profiles cross, preference is given to the shallower profile derived from the higher frequency which is considered to be more reliable. The resistivity is then linearly interpolated in the vertical direction between the profiles and the lowest resistivity profile value is projected for an additional depth equal to 25% of the depth of the lowest profile to create the full CDI.

Depth Slices

The final step is to extract resistivity at specific depths from the CDIs of each survey line and grid them using a bi-directional Akima spline gridding algorithm to provide maps of resistivity at specific depths, or so called "depth slices". Depth slices at 10m, 30m, 60m and 100m below the surface have been generated. The gridded data is micro-levelled to produce an even grid without line related artifacts.

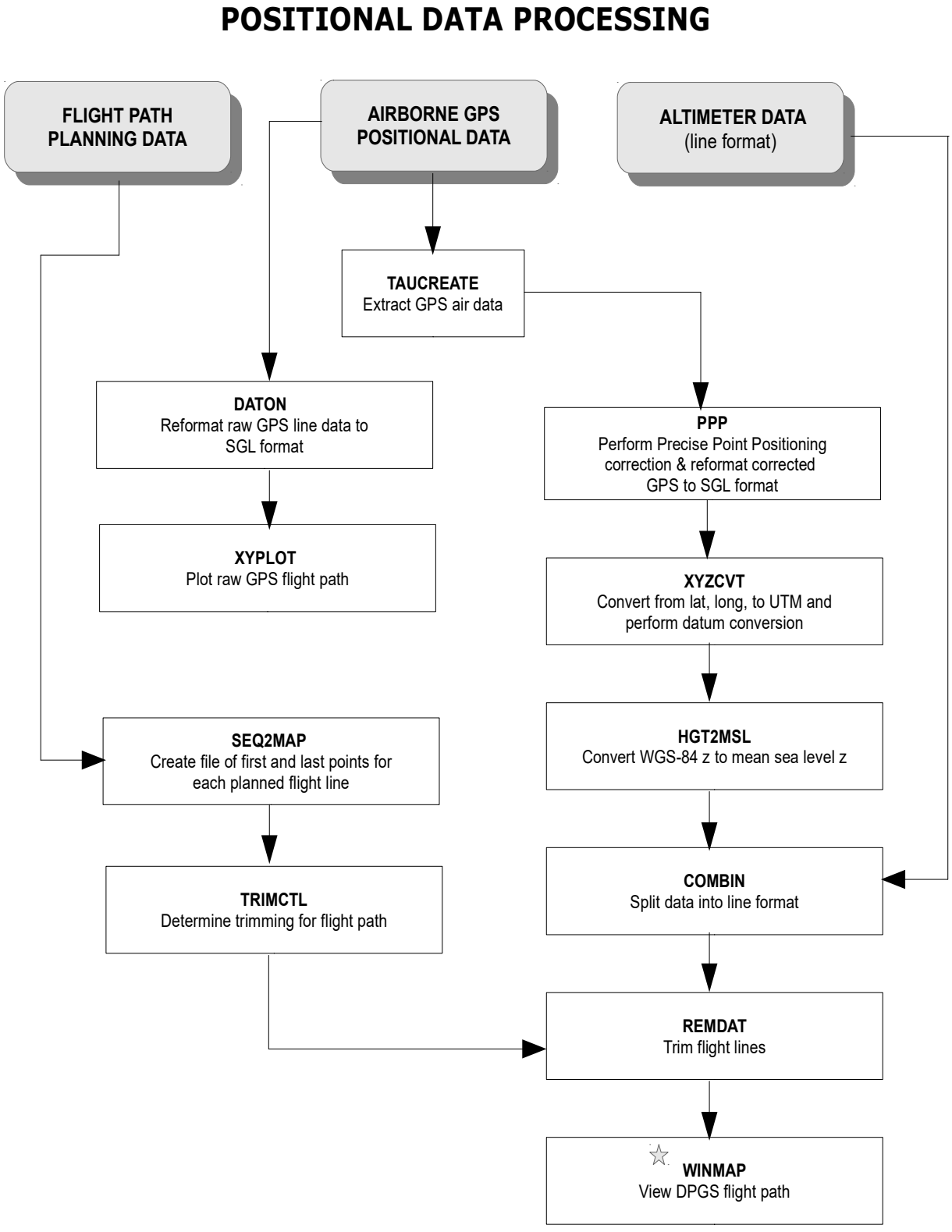


Figure 29: Positional data processing flowchart

Positional Data

A positional data flowchart is presented in *Figure 29*. A number of programs were executed for the compilation of navigation data in order to reformat and recalculate positions in differential mode. SGL's GPS data processing package, GPSoft, was used to calculate DGPS positions from raw 10 Hz range data obtained from the moving (airborne) and stationary (ground) receivers using combinations of L1 and L2 phase signal.

Accurate locations of the GPS antenna on the aircraft were determined through Precise Point Positioning (PPP) differential corrections using the algorithm developed by the National Research Council of Canada (NRCAN) (http://webapp.geod.nrcan.gc.ca/geod/tools-outils/ppp.php) adapted to run under SGL's suite of software. This technique provides a final receiver location with an accuracy of better than 5 cm.

Positional data (x, y, z) were recorded and all data processing was performed in the WGS-84 datum. Please see *Table 19* for ellipsoid parameters. Positions were calculated and delivered in the WGS-84 datum, UTM projection zone UTM29N. The delivered data are provided with x, y locations converted to the Irish National Grid (IRENET95 Datum, Irish Transverse Mercator projection). See *Tables 18* and *19* for the ellipsoid parameters and the datum conversion parameters, and *Table 21* for the projection parameters.

Table 18: Ellipsoid parameters for WGS-84

Ellipsoid	WGS-84
Semi-major axis	6378137.0
1/flattening	298.257223563

Table 19: Ellipsoid parameters for IRENET95

Ellipsoid	GRS-80
Semi-major axis	6378137.0
1/flattening	298.257222101

Table 20: Datum conversion parameters from IRENET95 to WGS-84

x shift (m)	0
y shift (m)	0
z shift (m)	0
x rotation (rad)	0
y rotation (rad)	0
z rotation (rad)	0

Table 21: Irish Transverse Mercator projection Parameters

Central meridian	8° West
Latitude of origin	53.5° North
False northing (m)	750,000
False easting (m)	600,000
Scale factor	0.999820

Elevation data were recorded relative to the GRS-80 ellipsoid and transformed to mean sea level (MSL) using the Earth Gravitational Model 2008 (EGM2008).

Laser Altimeter Data

The laser altimeter was modified to record terrain clearances at 20 Hz, with a maximum recorded clearance of 338 m. Laser data was corrected for attitude using pitch, roll and azimuth data recorded by the Sandel attitude and heading reference system SG102 unit. A "laser clearance" value was derived based on a combination of laser data as the primary altimeter, replaced by a height above ground value determined by subtracting SRTM data from the GPS altitude when there were gaps in the laser recording.

Digital Elevation Models (DEMs) with respect to Mean Sea Level (MSL) were derived from a combination of the laser clearance and the GPS altitude. The DEMs were set to zero over the sea. This zero correction was also applied to the delivered laser clearance channel. The DEM provided as a channel and as a grid is the version derived from the combination of laser clearance and GPS altitude.

10. FINAL PRODUCTS

Magnetic Line Data Format

A listing of the data channels delivered in ASCII format with a sampling rate of 10 Hz can be found in *Table 22*.

Table 22: Magnetic line data channels and format

Name	Units	Field Length	Null	Description
LINE	-	8	-	Line Number - LLLL.SR (L=line, S=segment, R=reflight)
FLT	-	5	-	Flight Number
DATE	-	10	-	Date YYYYMMDD
DAY	-	5	-	Day of year
TIME	sec	10	-	Fiducial Seconds
LAT	degree	13	*	Latitude, WGS-84
LONG	degree	13	*	Longitude, WGS-84
ITM-X	m	11	*	X coordinate, IRENET95 ITM
ITM-Y	m	11	*	Y coordinate, IRENET95 ITM
UTM-X	m	11	*	X coordinate, WGS-84 UTM 29N
UTM-Y	m	12	*	Y coordinate, WGS-84 UTM 29N
UTM-Z	m	10	*	GPS Elevation above WGS-84 Ellipsoid
MSLHGT	m	10	*	GPS Elevation above Mean Sea Level
GCLEAR	m	10	*	Clearance above Terrain from GPS
LASER	m	10	*	Laser Altimeter
DEM	m	10	*	DEM from Laser & GPS with respect to Mean Sea Level
DICOR	nT	11	*	Diurnal Magnetic Field from reference station
IGRF	nT	11	*	IGRF Correction
MAG-uncomp	nT	11	*	Uncompensated Airborne Magnetic Field
MAG-comp	nT	11	*	Compensated Airborne Magnetic Field
MAG-Lag	nT	11	*	Tail Lag Corrected Airborne Magnetic Field
MAG-DC	nT	11	*	Diurnally Corrected Airborne Magnetic Field
MAG-IGRF	nT	11	*	IGRF Corrected Airborne Magnetic Field
MAG-LEV	nT	11	*	Levelled Airborne Magnetic Field
MAG-MIC	nT	11	*	Microlevelled Airborne Magnetic Field

Radiometric Line Data Format

A listing of the data channels delivered in ASCII format with a sampling rate of 1 Hz can be found in *Table 23*.

Table 23: Radiometric line data channels and format

Title	Size	Units	Null	Description
LINE	08	-	-	Line number - LLLL.SR (L=line, S=segment, R=reflight)
FLT	06	-	-	Flight Number
DATE	10	-	-	Date YYYYMMDD
DAY	05	-	-	Day of year
TIME	10	sec	-	Fiducial Seconds
LAT	13	degree	*	Latitude, WGS-84
LONG	13	degree	*	Longitude, WGS-84
ITM-X	11	m	*	X coordinate, IRENET95 ITM
ITM-Y	11	m	*	Y coordinate, IRENET95 ITM
UTM-X	11	m	*	X coordinate, WGS-84 UTM 29N
UTM-Y	12	m	*	Y coordinate, WGS-84 UTM 29N
UTM-Z	10	m	*	GPS Elevation above WGS-84 Ellipsoid
MSLHGT	10	m	*	GPS Elevation above Mean Sea Level
GCLEAR	10	m	*	Clearance above Terrain from GPS
LASER	10	m	*	Laser Altimeter
LCLEAR	10	m	*	Clearance above Terrain from Laser and GPS
DEM	10	m	*	DEM from Laser & GPS with respect to Mean Sea Level
TEMP	11	degree C	*	Temperature
BARO	11	m	*	Barometric Pressure Altitude
E_HGT	11	m	*	Effective Height at Standard Temperature and Pressure
R_LIVE	08	msec	*	Gamma-ray spectrometer live time
R_COS	10	counts/s	*	Recorded Cosmic Count
R_UPU	10	counts/s	*	Recorded Up-Looking Uranium Count
R_TOT	10	counts/s	*	Recorded Total Count, de-lagged
R_POT	10	counts/s	*	Recorded Potassium Count, de-lagged
R_URA	10	counts/s	*	Recorded Uranium Count, de-lagged
R_THO	10	counts/s	*	Recorded Thorium Count, de-lagged
C_TOT_M	10	counts/s	*	Corrected Total Count, de-lagged, micro-levelled

Title	Size	Units	Null	Description
C_POT_M	10	%	*	Corrected Potassium Concentration, de-lagged, micro-levelled
C_URA_M	10	ppm	*	Corrected Uranium Concentration, de-lagged, micro-levelled
C_THO_M	10	ppm	*	Corrected Thorium Concentration, de-lagged, micro-levelled
C_TOT_ML	10	counts/s	*	Corrected Total Count, de-lagged, micro-levelled and minimum limited to 0
C_POT_ML	10	%	*	Corrected Potassium Concentration, de-lagged, micro-levelled and minimum limited to 0
C_URA_ML	10	ppm	*	Corrected Uranium Concentration, de-lagged, micro-levelled and minimum limited to 0
C_THO_ML	10	ppm	*	Corrected Thorium Concentration, de-lagged , micro-levelled and minimum limited to 0
E_DOSE	10	nGy/hr	*	Air absorbed dose rate
RUT	10	ppm/ppm	*	Uranium / Thorium Ratio
RUK	10	ppm/%	*	Uranium / Potassium Ratio
RTK	10	ppm/%	*	Thorium / Potassium Ratio

Frequency-Domain Electromagnetic Line Data Format

A listing of the data channels delivered in ASCII format with a sampling rate of 10 Hz can be found in *Table 24*.

Table 24: F.E.M. line data channels and format

Title	Size	Units	Null	Description
LINE	08	-	-	Line number - LLLL.SR (L=line, S=segment, R=reflight)
FLT	05	-	-	Flight number
DATE	10	-	-	Date YYYYMMDD
DAY	05	-	-	Day of year
TIME	10	sec	-	Fiducial seconds
LAT	13	degree	*	Latitude, WGS-84
LONG	13	degree	*	Longitude, WGS-84
ITM-X	11	m	*	X coordinate, IRENET95 ITM
ITM-Y	11	m	*	Y coordinate, IRENET95 ITM
UTM-X	11	m	*	X coordinate, WGS-84 UTM 29N
UTM-Y	12	m	*	Y coordinate, WGS-84 UTM 29N
UTM-Z	10	m	*	GPS Elevation above WGS-84 Ellipsoid

Title	Size	Units	Null	Description
MSLHGT	10	m	*	GPS Elevation above Mean Sea Level
CLEARANCE	13	m	*	Clearance above Terrain from Laser
DEM	07	m	*	DEM for Laser with respect to Mean Sea Level
TEMP	08	degree C	*	Temperature
P09ppm	09	ppm	*	In-phase 912 Hz
Q09ppm	09	ppm	*	Quadrature 912 Hz
P3ppm	09	ppm	*	In-phase 3005 Hz
Q3ppm	09	ppm	*	Quadrature 3005 Hz
P12ppm	09	ppm	*	In-phase 11962 Hz
Q12ppm	09	ppm	*	Quadrature 11962 Hz
P25ppm	09	ppm	*	In-phase 24510 Hz
Q25ppm	09	ppm	*	Quadrature 24510 Hz
P09filt	09	ppm	*	Filtered in-phase 912 Hz
Q09filt	09	ppm	*	Filtered quadrature 912 Hz
P3filt	09	ppm	*	Filtered in-phase 3005 Hz
Q3filt	09	ppm	*	Filtered quadrature 3005 Hz
P12filt	09	ppm	*	Filtered in-phase 11962 Hz
Q12filt	09	ppm	*	Filtered quadrature 11962 Hz
P25filt	09	ppm	*	Filtered in-phase 24510 Hz
Q25filt	09	ppm	*	Filtered quadrature 24510 Hz
P09lev	09	ppm	*	Levelled and filtered in-phase 912 Hz
Q09lev	09	ppm	*	Levelled and filtered quadrature 912 Hz
P3lev	09	ppm	*	Levelled and filtered in-phase 3005 Hz
Q3lev	09	ppm	*	Levelled and filtered quadrature 3005 Hz
P12lev	09	ppm	*	Levelled and filtered in-phase 11962 Hz
Q12lev	09	ppm	*	Levelled and filtered quadrature 11962 Hz
P25lev	09	ppm	*	Levelled and filtered in-phase 24510 Hz
Q25lev	09	ppm	*	Levelled and filtered quadrature 24510 Hz
Radio_Flag	11	-	*	Radio call flag
PLM_nT	11	nT	*	Power line monitor
ExtendedRes09	18	ohm-m	*	Extended range resistivity, half-space model, 912 Hz

Title	Size	Units	Null	Description
ExtendedRes3	18	ohm-m	*	Extended range resistivity, half-space model, 3005 Hz
ExtendedRes12	18	ohm-m	*	Extended range resistivity, half-space model, 11962 Hz
ExtendedRes25	18	ohm-m	*	Extended range resistivity, half-space model, 24510 Hz
ExtendedRes09_GRID	20	ohm-m	*	Microlevelled extended range resistivity, half-space model, 912 Hz, for gridding, nulled >120 m
ExtendedRes3_GRID	20	ohm-m	*	Microlevelled extended range resistivity, half-space model, 3005 Hz, for gridding, nulled >120 m
ExtendedRes12_GRID	20	ohm-m	*	Microlevelled extended range resistivity, half-space model, 11962 Hz, for gridding, nulled >120 m
ExtendedRes25_GRID	20	ohm-m	*	Microlevelled extended range resistivity, half-space model, 24510 Hz, for gridding, nulled >120 m
ExtendedDepth09	17	m	*	Extended range centroid depth 912 Hz
ExtendedDepth3	17	m	*	Extended range centroid depth 3005 Hz
ExtendedDepth12	17	m	*	Extended range centroid depth 11962 Hz
ExtendedDepth25	17	m	*	Extended range centroid depth 24510 Hz
ExtendedResSlice10	21	ohm-m	*	Extended range resistivity depth slice at 10 m
ExtendedResSlice30	21	ohm-m	*	Extended range resistivity depth slice at 30 m
ExtendedResSlice60	21	ohm-m	*	Extended range resistivity depth slice at 60 m
ExtendedResSlice100	21	ohm-m	*	Extended range resistivity depth slice at 100 m
ExtendedResSlice10_GRID	25	ohm-m	*	Microlevelled extended range resistivity depth slice at 10 m, for gridding, nulled >120 m
ExtendedResSlice30_GRID	25	ohm-m	*	Microlevelled extended range resistivity depth slice at 30 m, for gridding, nulled >120 m
ExtendedResSlice60_GRID	25	ohm-m	*	Microlevelled extended range resistivity depth slice at 60 m, for gridding, nulled >120 m
ExtendedResSlice100_GRID	25	ohm-m	*	Microlevelled extended range resistivity depth slice at 100 m, for gridding, nulled >120 m

Full Spectrum Spectrometer Line Data Format

A listing of the data channels delivered in ASCII format with a sampling rate of 1 Hz can be found in *Table 25*.

File Names: 1024DOWN-A5.xyz, 1024UP-A5.xyz

Table 22: Full spectrum spectrometer line data channels and format

Column	Title	Size	Units	Null	Description
01	TIME	9	s	-	Fiducial Seconds
02	LIVE	6	msec	-	Live time
03	S:1	6	counts	-	Spectrometer channel 1
04	S:2	6	counts	-	Spectrometer channel 2
.	.	.		.	.
.	.	.	.	.	.
.	.	.	.	.	.
1026	S:1024	6	counts	-	Spectrometer channel 1024

Digital Grids

The following are provided as digital grids:

Formats:	ASCII (.XYZ), Geosoft Binary (.GRD), Grid Exchange (.GXF)
Grid Cell Size:	50 m
Datum:	IRENET95
Projection:	Irish Transverse Mercator (ITM)

Table 23: Delivered digital grids

Grid File Name	Units	Description
AMF	nT	Magnetic Anomaly
FVM	nT/m	First Vertical Derivative of Magnetic Anomaly
TER	m	Digital Elevation Model from Clearance
TOT	counts/sec	Total counts
POT	%	Potassium
THO	ppm	Equivalent Thorium
URA	ppm	Equivalent Uranium
P09	ppm	In-phase, 912 Hz, levelled
Q09	ppm	Quadrature, 912 Hz, levelled
P3	ppm	In-phase, 3005 Hz, levelled
Q3	ppm	Quadrature, 3005 Hz, levelled
P12	ppm	In-phase, 11962 Hz, levelled
Q12	ppm	Quadrature, 11962 Hz, levelled

Grid File Name	Units	Description
P25	ppm	In-phase, 24510 Hz, levelled
Q25	ppm	Quadrature, 24510 Hz, levelled
ExtendedRes09	ohm-m	Microlevelled extended range resistivity, half-space model, 912 Hz, nulled >120 m
ExtendedRes3	ohm-m	Microlevelled extended range resistivity, half-space model, 3005 Hz, nulled >120 m
ExtendedRes12	ohm-m	Microlevelled extended range resistivity, half-space model, 11962 Hz, nulled >120 m
ExtendedRes25	ohm-m	Microlevelled extended range resistivity, half-space model, 24510 Hz, nulled >120 m
ExtendedResSlice10	ohm-m	Microlevelled extended range resistivity depth slice at 10m, nulled >120 m
ExtendedResSlice30	ohm-m	Microlevelled extended range resistivity depth slice at 30m, nulled >120 m
ExtendedResSlice60	ohm-m	Microlevelled extended range resistivity depth slice at 60m, nulled >120 m
ExtendedResSlice100	ohm-m	Microlevelled extended range resistivity depth slice at 100m, nulled >120 m

Digital Video

Please see *Appendix XII* for Digital Video Inventory.

SGL

Appendix I

COMPANY PROFILE

ABOUT US

Sander Geophysics Limited (SGL) provides worldwide airborne geophysical surveys for petroleum and mineral exploration, and geological and environmental mapping. Services offered include high resolution airborne gravity, magnetic, electromagnetic, and radiometric surveys, using fixed-wing aircraft and helicopters.

SGL head office in Ottawa, Canada

Dr. George W. Sander (1924-2008) founded SGL in 1956 to provide ground geophysical surveys. The first airborne surveys were performed as early as 1958, and by 1967 airborne geophysical surveys were the company's main focus. Operations have expanded steadily since SGL was founded 60 years ago. The company is led by co-Presidents Luise Sander and Stephan Sander.

WORLDWIDE OPERATIONS

SGL's head office and aircraft maintenance hangar are located at the International Airport in Ottawa, Canada. Sander Geophysics has operated on every continent including Antarctica, over diverse conditions ranging from the tropics to deserts, mountains and offshore.

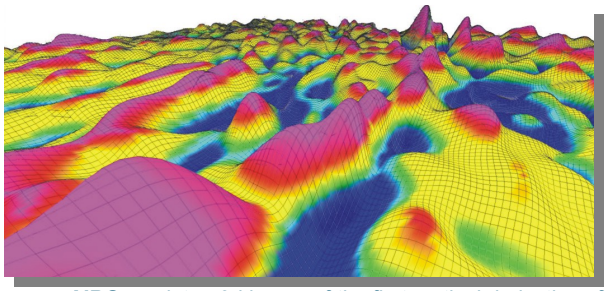
Facilities at the head office include a state of the art data processing department with an integrated digital cartographic department and a fully equipped electronics workshop for research, development and production of geophysical instruments. A Transport Canada Approved Maintenance Organization (AMO) for fixed-wing aircraft and helicopters allows most aircraft maintenance and modifications to be performed in-house.

SERVICES

AIRBORNE SURVEYS

- **Gravity (AIRGrav)**
- **Magnetic Total Field**
- **Magnetic Gradient**
- **Electromagnetic**
- **Gamma-ray Spectrometer**
- **Scanning LiDAR**

SGL offers gravity surveys with **AIRGrav** (Airborne Inertially Referenced Gravimeter), which was designed specifically for the unique characteristics of the airborne environment and is the highest resolution airborne gravimeter available. **AIRGrav** can be flown in an efficient survey aircraft during normal daytime conditions and is routinely flown in combination with magnetometer systems in SGL's airplanes and helicopters.



***AIRGrav** data: 3d image of the first vertical derivative of terrain corrected Bouguer gravity*

DATA PROCESSING

Immediate data processing is part of SGL's standard quality control procedure, and provides clients with rapid results for evaluation while a survey is in progress. Sander Geophysics offers a full range of data enhancement programs and integrated interpretation services by experienced geoscientists. Available products in digital and/or hard copy include:

- **Contour, colour or shaded relief maps of any parameter or combination of parameters**
- **NASVD processed gamma-ray spectrometer data**

- **Filtered line or grid products such as vertical or horizontal gradients, frequency slices, high/low-pass or band-pass filtered, amplitude of the analytic signal, reduction to the pole, upward or downward continuation**
- **Computed depth to basement**
- **Calculated digital terrain models**
- **Two- or three-dimensional modelling**
- **Cultural editing**
- **Complete geophysical interpretative reports**

ENVIRONMENTAL MONITORING

The company also provides environmental monitoring services using gamma-ray spectrometers and specialized processing to detect and quantify natural and anthropogenic radiation.

HEALTH & SAFETY

Sander Geophysics is a founding and active executive member of the International Airborne Geophysics Safety Association (IAGSA), which promotes the safe operation of helicopters and fixed-wing aircraft on airborne geophysical surveys.

SGL has developed and implemented a Safety Management System (SMS) and comprehensive Health, Safety and Environment (HSE) policies that govern all aspects of company operations. Safety initiatives include:

- **Project-specific Aviation Risk Analysis (ARA) and Personnel Risk Analysis (PRA) for all surveys**
- **Real-time satellite tracking of SGL aircraft**
- **HSE and first aid training for all field personnel**
- **Low-level flight and aircraft simulator training for pilots**
- **Advanced safety training appropriate to the survey location, such as water-egress, wilderness survival, etc.**

SGL's excellent safety record reflects the quality and experience of its survey crews. This, combined with management's ongoing commitment to safety, helps to ensure that Sander Geophysics is a safe and reliable choice for airborne geophysical surveys.

PERSONNEL

Sander Geophysics has over 160 experienced permanent employees, including geophysicists, software and hardware engineers, aircraft maintenance engineers and pilots.

AIRCRAFT

SGL owns and operates thirteen aircraft, including eight Cessna Grand Caravans and a Twin Otter all equipped for geophysical surveys.

The Grand Caravans have been modified to allow the installation of a tri-axial magnetic gradiometer system. The company's fleet also includes a de Havilland DHC-6 Twin Otter for airborne magnetic, gravity, radiometric and frequency-domain EM surveys, and two AS350 B3 helicopters equipped for gravity, magnetic and radiometric surveys. Extensive modifications have been made to all of the survey aircraft to accommodate geophysical instruments and to reduce the aircraft's magnetic field. Typical Figures of Merit (FOM) for Sander Geophysics' fixed-wing aircraft are less than 1 nT. The company's aircraft are flown and maintained by licensed and experienced permanent employees of Sander Geophysics.

SGL aircraft

RESEARCH & DEVELOPMENT

Nearly one-third of the company's resources are devoted to developing new and more efficient instrumentation for airborne geophysical surveying, and to further refine its full suite of software for geophysical data processing.

SGL

Appendix II

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT	START		END		LENGTH	
NO	LAT	LONG	LAT	LONG	NM	KM
C0501.0	N52:15.49	W009:04.59	N52:27.42	W007:53.83	44.98	83.30
C0502.0	N52:16.53	W009:05.07	N52:28.46	W007:54.29	44.98	83.30
C0503.0	N52:17.57	W009:05.55	N52:29.50	W007:54.74	44.98	83.30
C0504.0	N52:18.60	W009:06.03	N52:30.54	W007:55.20	44.98	83.30
C0505.0	N52:19.64	W009:06.51	N52:31.59	W007:55.66	44.98	83.30
C0506.0	N52:20.68	W009:07.00	N52:32.63	W007:56.11	44.98	83.30
C0507.0	N52:21.72	W009:07.48	N52:33.67	W007:56.57	44.98	83.30
C0508.0	N52:22.75	W009:07.96	N52:34.71	W007:57.03	44.98	83.30
C0509.0	N52:23.79	W009:08.45	N52:35.76	W007:57.48	44.98	83.30
C0510.0	N52:24.83	W009:08.93	N52:36.80	W007:57.94	44.98	83.30
C0511.0	N52:25.87	W009:09.41	N52:37.84	W007:58.40	44.98	83.30
C0512.0	N52:26.90	W009:09.90	N52:38.88	W007:58.86	44.98	83.30
C0513.0	N52:27.94	W009:10.38	N52:39.92	W007:59.32	44.98	83.30
C0514.0	N52:28.98	W009:10.87	N52:40.97	W007:59.78	44.98	83.30
C0515.0	N52:30.02	W009:11.35	N52:42.01	W008:00.24	44.98	83.30
C0516.0	N52:31.05	W009:11.84	N52:43.05	W008:00.70	44.98	83.30
C0517.0	N52:32.09	W009:12.33	N52:44.09	W008:01.16	44.98	83.30
C0518.0	N52:33.13	W009:12.81	N52:45.13	W008:01.62	44.98	83.30
C0519.0	N52:34.16	W009:13.30	N52:46.17	W008:02.08	44.98	83.30
C0520.0	N52:35.20	W009:13.79	N52:47.22	W008:02.54	44.98	83.30
C0521.0	N52:36.24	W009:14.27	N52:48.26	W008:03.00	44.98	83.30
C0522.0	N52:46.44	W008:20.90	N52:49.30	W008:03.46	10.96	20.30
C0523.0	N52:47.48	W008:21.37	N52:50.34	W008:03.93	10.96	20.30
C0524.0	N52:48.52	W008:21.84	N52:51.38	W008:04.39	10.96	20.30
C0525.0	N52:49.56	W008:22.31	N52:52.42	W008:04.85	10.96	20.30
C0526.0	N52:50.60	W008:22.78	N52:56.50	W007:46.52	22.73	42.10
C0527.0	N52:51.64	W008:23.25	N52:57.54	W007:46.98	22.73	42.10
C0528.0	N52:52.68	W008:23.72	N52:58.58	W007:47.44	22.73	42.10
C0529.0	N52:53.72	W008:24.19	N52:59.63	W007:47.89	22.73	42.10
C0530.0	N52:54.76	W008:24.66	N53:00.67	W007:48.35	22.73	42.10
C0531.0	N52:55.80	W008:25.13	N53:01.71	W007:48.81	22.73	42.10
C0532.0	N52:56.84	W008:25.61	N53:02.76	W007:49.27	22.73	42.10
C0533.0	N52:57.88	W008:26.08	N53:03.80	W007:49.73	22.73	42.10
C0534.0	N52:58.92	W008:26.55	N53:04.84	W007:50.19	22.73	42.10
C0535.0	N52:59.96	W008:27.02	N53:05.88	W007:50.65	22.73	42.10
C0536.0	N53:01.00	W008:27.50	N53:06.93	W007:51.11	22.73	42.10
C0537.0	N53:02.04	W008:27.97	N53:07.19	W007:56.42	19.71	36.50
C0538.0	N53:03.08	W008:28.45	N53:07.12	W008:03.81	15.39	28.50
C0539.0	N53:04.12	W008:28.92	N53:07.00	W008:11.38	10.96	20.30
C0540.0	N53:05.16	W008:29.40	N53:06.89	W008:18.94	6.53	12.10
C0541.0	N53:06.20	W008:29.87	N53:06.76	W008:26.50	2.11	3.90
T5001.0	N52:15.43	W009:04.43	N52:36.49	W009:14.26	21.92	40.60
T5002.0	N52:15.46	W009:04.26	N52:36.52	W009:14.09	21.92	40.60
T5003.0	N52:15.49	W009:04.09	N52:36.55	W009:13.92	21.92	40.60
T5004.0	N52:15.52	W009:03.92	N52:36.58	W009:13.75	21.92	40.60
T5005.0	N52:15.55	W009:03.75	N52:36.61	W009:13.58	21.92	40.60
T5006.0	N52:15.58	W009:03.58	N52:36.64	W009:13.41	21.92	40.60
T5007.0	N52:15.61	W009:03.41	N52:36.67	W009:13.23	21.92	40.60
T5008.0	N52:15.64	W009:03.24	N52:36.70	W009:13.06	21.92	40.60
T5009.0	N52:15.67	W009:03.07	N52:36.73	W009:12.89	21.92	40.60
T5010.0	N52:15.70	W009:02.90	N52:36.76	W009:12.72	21.92	40.60
T5011.0	N52:15.73	W009:02.74	N52:36.79	W009:12.55	21.92	40.60
T5012.0	N52:15.76	W009:02.57	N52:36.82	W009:12.38	21.92	40.60
T5013.0	N52:15.79	W009:02.40	N52:36.85	W009:12.21	21.92	40.60
T5014.0	N52:15.82	W009:02.23	N52:36.88	W009:12.04	21.92	40.60
T5015.0	N52:15.85	W009:02.06	N52:36.91	W009:11.87	21.92	40.60
T5016.0	N52:15.88	W009:01.89	N52:36.94	W009:11.70	21.92	40.60
T5017.0	N52:15.91	W009:01.72	N52:36.97	W009:11.53	21.92	40.60
T5018.0	N52:15.93	W009:01.55	N52:37.00	W009:11.36	21.92	40.60
T5019.0	N52:15.96	W009:01.38	N52:37.03	W009:11.19	21.92	40.60
T5020.0	N52:15.99	W009:01.21	N52:37.06	W009:11.02	21.92	40.60
T5021.0	N52:16.02	W009:01.04	N52:37.09	W009:10.85	21.92	40.60
T5022.0	N52:16.05	W009:00.87	N52:37.12	W009:10.68	21.92	40.60
T5023.0	N52:16.08	W009:00.71	N52:37.15	W009:10.51	21.92	40.60
T5024.0	N52:16.11	W009:00.54	N52:37.18	W009:10.34	21.92	40.60

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT	START		END		LENGTH	
NO	LAT	LONG	LAT	LONG	NM	KM
T5025.0	N52:16.14	W009:00.37	N52:37.21	W009:10.17	21.92	40.60
T5026.0	N52:16.17	W009:00.20	N52:37.24	W009:10.00	21.92	40.60
T5027.0	N52:16.20	W009:00.03	N52:37.27	W009:09.83	21.92	40.60
T5028.0	N52:16.23	W008:59.86	N52:37.29	W009:09.66	21.92	40.60
T5029.0	N52:16.26	W008:59.69	N52:37.32	W009:09.49	21.92	40.60
T5030.0	N52:16.29	W008:59.52	N52:37.35	W009:09.32	21.92	40.60
T5031.0	N52:16.32	W008:59.35	N52:37.38	W009:09.14	21.92	40.60
T5032.0	N52:16.35	W008:59.18	N52:37.41	W009:08.97	21.92	40.60
T5033.0	N52:16.38	W008:59.01	N52:37.44	W009:08.80	21.92	40.60
T5034.0	N52:16.40	W008:58.84	N52:37.47	W009:08.63	21.92	40.60
T5035.0	N52:16.43	W008:58.67	N52:37.50	W009:08.46	21.92	40.60
T5036.0	N52:16.46	W008:58.51	N52:37.53	W009:08.29	21.92	40.60
T5037.0	N52:16.49	W008:58.34	N52:37.56	W009:08.12	21.92	40.60
T5038.0	N52:16.52	W008:58.17	N52:37.59	W009:07.95	21.92	40.60
T5039.0	N52:16.55	W008:58.00	N52:37.62	W009:07.78	21.92	40.60
T5040.0	N52:16.58	W008:57.83	N52:37.65	W009:07.61	21.92	40.60
T5041.0	N52:16.61	W008:57.66	N52:37.68	W009:07.44	21.92	40.60
T5042.0	N52:16.64	W008:57.49	N52:37.71	W009:07.27	21.92	40.60
T5043.0	N52:16.67	W008:57.32	N52:37.74	W009:07.10	21.92	40.60
T5044.0	N52:16.70	W008:57.15	N52:37.77	W009:06.93	21.92	40.60
T5045.0	N52:16.73	W008:56.98	N52:37.80	W009:06.76	21.92	40.60
T5046.0	N52:16.76	W008:56.81	N52:37.83	W009:06.59	21.92	40.60
T5047.0	N52:16.79	W008:56.64	N52:37.86	W009:06.42	21.92	40.60
T5048.0	N52:16.82	W008:56.47	N52:37.89	W009:06.25	21.92	40.60
T5049.0	N52:16.84	W008:56.31	N52:37.92	W009:06.08	21.92	40.60
T5050.0	N52:16.87	W008:56.14	N52:37.95	W009:05.90	21.92	40.60
T5051.0	N52:16.90	W008:55.97	N52:37.97	W009:05.73	21.92	40.60
T5052.0	N52:16.93	W008:55.80	N52:38.00	W009:05.56	21.92	40.60
T5053.0	N52:16.96	W008:55.63	N52:38.03	W009:05.39	21.92	40.60
T5054.0	N52:16.99	W008:55.46	N52:38.06	W009:05.22	21.92	40.60
T5055.0	N52:17.02	W008:55.29	N52:38.09	W009:05.05	21.92	40.60
T5056.0	N52:17.05	W008:55.12	N52:38.12	W009:04.88	21.92	40.60
T5057.0	N52:17.08	W008:54.95	N52:38.15	W009:04.71	21.92	40.60
T5058.0	N52:17.11	W008:54.78	N52:38.18	W009:04.54	21.92	40.60
T5059.0	N52:17.14	W008:54.61	N52:38.21	W009:04.37	21.92	40.60
T5060.0	N52:17.17	W008:54.44	N52:38.24	W009:04.20	21.92	40.60
T5061.0	N52:17.20	W008:54.27	N52:38.27	W009:04.03	21.92	40.60
T5062.0	N52:17.22	W008:54.10	N52:38.30	W009:03.86	21.92	40.60
T5063.0	N52:17.25	W008:53.93	N52:38.33	W009:03.69	21.92	40.60
T5064.0	N52:17.28	W008:53.77	N52:38.36	W009:03.52	21.92	40.60
T5065.0	N52:17.31	W008:53.60	N52:38.39	W009:03.35	21.92	40.60
T5066.0	N52:17.34	W008:53.43	N52:38.42	W009:03.18	21.92	40.60
T5067.0	N52:17.37	W008:53.26	N52:38.45	W009:03.01	21.92	40.60
T5068.0	N52:17.40	W008:53.09	N52:38.48	W009:02.83	21.92	40.60
T5069.0	N52:17.43	W008:52.92	N52:38.51	W009:02.66	21.92	40.60
T5070.0	N52:17.46	W008:52.75	N52:38.53	W009:02.49	21.92	40.60
T5071.0	N52:17.49	W008:52.58	N52:38.56	W009:02.32	21.92	40.60
T5072.0	N52:17.52	W008:52.41	N52:38.59	W009:02.15	21.92	40.60
T5073.0	N52:17.55	W008:52.24	N52:38.62	W009:01.98	21.92	40.60
T5074.0	N52:17.58	W008:52.07	N52:38.65	W009:01.81	21.92	40.60
T5075.0	N52:17.60	W008:51.90	N52:38.68	W009:01.64	21.92	40.60
T5076.0	N52:17.63	W008:51.73	N52:38.71	W009:01.47	21.92	40.60
T5077.0	N52:17.66	W008:51.56	N52:38.74	W009:01.30	21.92	40.60
T5078.0	N52:17.69	W008:51.39	N52:38.77	W009:01.13	21.92	40.60
T5079.0	N52:17.72	W008:51.22	N52:38.80	W009:00.96	21.92	40.60
T5080.0	N52:17.75	W008:51.06	N52:38.83	W009:00.79	21.92	40.60
T5081.0	N52:17.78	W008:50.89	N52:38.86	W009:00.62	21.92	40.60
T5082.0	N52:17.81	W008:50.72	N52:38.89	W009:00.45	21.92	40.60
T5083.0	N52:17.84	W008:50.55	N52:38.92	W009:00.27	21.92	40.60
T5084.0	N52:17.87	W008:50.38	N52:38.95	W009:00.10	21.92	40.60
T5085.0	N52:17.90	W008:50.21	N52:38.98	W008:59.93	21.92	40.60
T5086.0	N52:17.93	W008:50.04	N52:39.00	W008:59.76	21.92	40.60
T5087.0	N52:17.95	W008:49.87	N52:39.03	W008:59.59	21.92	40.60
T5088.0	N52:17.98	W008:49.70	N52:39.06	W008:59.42	21.92	40.60
T5089.0	N52:18.01	W008:49.53	N52:39.09	W008:59.25	21.92	40.60

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT	START		END		LENGTH	
NO	LAT	LONG	LAT	LONG	NM	KM
T5090.0	N52:18.04	W008:49.36	N52:39.12	W008:59.08	21.92	40.60
T5091.0	N52:18.07	W008:49.19	N52:39.15	W008:58.91	21.92	40.60
T5092.0	N52:18.10	W008:49.02	N52:39.18	W008:58.74	21.92	40.60
T5093.0	N52:18.13	W008:48.85	N52:39.21	W008:58.57	21.92	40.60
T5094.0	N52:18.16	W008:48.68	N52:39.24	W008:58.40	21.92	40.60
T5095.0	N52:18.19	W008:48.51	N52:39.27	W008:58.23	21.92	40.60
T5096.0	N52:18.22	W008:48.34	N52:39.30	W008:58.06	21.92	40.60
T5097.0	N52:18.25	W008:48.17	N52:39.33	W008:57.89	21.92	40.60
T5098.0	N52:18.27	W008:48.01	N52:39.36	W008:57.71	21.92	40.60
T5099.0	N52:18.30	W008:47.84	N52:39.39	W008:57.54	21.92	40.60
T5100.0	N52:18.33	W008:47.67	N52:39.42	W008:57.37	21.92	40.60
T5101.0	N52:18.36	W008:47.50	N52:39.45	W008:57.20	21.92	40.60
T5102.0	N52:18.39	W008:47.33	N52:39.47	W008:57.03	21.92	40.60
T5103.0	N52:18.42	W008:47.16	N52:39.50	W008:56.86	21.92	40.60
T5104.0	N52:18.45	W008:46.99	N52:39.53	W008:56.69	21.92	40.60
T5105.0	N52:18.48	W008:46.82	N52:39.56	W008:56.52	21.92	40.60
T5106.0	N52:18.51	W008:46.65	N52:39.59	W008:56.35	21.92	40.60
T5107.0	N52:18.54	W008:46.48	N52:39.62	W008:56.18	21.92	40.60
T5108.0	N52:18.57	W008:46.31	N52:39.65	W008:56.01	21.92	40.60
T5109.0	N52:18.59	W008:46.14	N52:39.68	W008:55.84	21.92	40.60
T5110.0	N52:18.62	W008:45.97	N52:39.71	W008:55.67	21.92	40.60
T5111.0	N52:18.65	W008:45.80	N52:39.74	W008:55.49	21.92	40.60
T5112.0	N52:18.68	W008:45.63	N52:39.77	W008:55.32	21.92	40.60
T5113.0	N52:18.71	W008:45.46	N52:39.80	W008:55.15	21.92	40.60
T5114.0	N52:18.74	W008:45.29	N52:39.83	W008:54.98	21.92	40.60
T5115.0	N52:18.77	W008:45.12	N52:39.85	W008:54.81	21.92	40.60
T5116.0	N52:18.80	W008:44.95	N52:39.88	W008:54.64	21.92	40.60
T5117.0	N52:18.83	W008:44.78	N52:39.91	W008:54.47	21.92	40.60
T5118.0	N52:18.86	W008:44.61	N52:39.94	W008:54.30	21.92	40.60
T5119.0	N52:18.88	W008:44.45	N52:39.97	W008:54.13	21.92	40.60
T5120.0	N52:18.91	W008:44.28	N52:40.00	W008:53.96	21.92	40.60
T5121.0	N52:18.94	W008:44.11	N52:40.03	W008:53.79	21.92	40.60
T5122.0	N52:18.97	W008:43.94	N52:40.06	W008:53.62	21.92	40.60
T5123.0	N52:19.00	W008:43.77	N52:40.09	W008:53.45	21.92	40.60
T5124.0	N52:19.03	W008:43.60	N52:40.12	W008:53.27	21.92	40.60
T5125.0	N52:19.06	W008:43.43	N52:40.15	W008:53.10	21.92	40.60
T5126.0	N52:19.09	W008:43.26	N52:40.18	W008:52.93	21.92	40.60
T5127.0	N52:19.12	W008:43.09	N52:40.21	W008:52.76	21.92	40.60
T5128.0	N52:19.15	W008:42.92	N52:40.23	W008:52.59	21.92	40.60
T5129.0	N52:19.17	W008:42.75	N52:40.26	W008:52.42	21.92	40.60
T5130.0	N52:19.20	W008:42.58	N52:40.29	W008:52.25	21.92	40.60
T5131.0	N52:19.23	W008:42.41	N52:40.32	W008:52.08	21.92	40.60
T5132.0	N52:19.26	W008:42.24	N52:40.35	W008:51.91	21.92	40.60
T5133.0	N52:19.29	W008:42.07	N52:40.38	W008:51.74	21.92	40.60
T5134.0	N52:19.32	W008:41.90	N52:40.41	W008:51.57	21.92	40.60
T5135.0	N52:19.35	W008:41.73	N52:40.44	W008:51.40	21.92	40.60
T5136.0	N52:19.38	W008:41.56	N52:40.47	W008:51.22	21.92	40.60
T5137.0	N52:19.41	W008:41.39	N52:40.50	W008:51.05	21.92	40.60
T5138.0	N52:19.43	W008:41.22	N52:40.53	W008:50.88	21.92	40.60
T5139.0	N52:19.46	W008:41.05	N52:40.56	W008:50.71	21.92	40.60
T5140.0	N52:19.49	W008:40.88	N52:40.58	W008:50.54	21.92	40.60
T5141.0	N52:19.52	W008:40.71	N52:40.61	W008:50.37	21.92	40.60
T5142.0	N52:19.55	W008:40.54	N52:40.64	W008:50.20	21.92	40.60
T5143.0	N52:19.58	W008:40.37	N52:40.67	W008:50.03	21.92	40.60
T5144.0	N52:19.61	W008:40.21	N52:40.70	W008:49.86	21.92	40.60
T5145.0	N52:19.64	W008:40.04	N52:40.73	W008:49.69	21.92	40.60
T5146.0	N52:19.67	W008:39.87	N52:40.76	W008:49.52	21.92	40.60
T5147.0	N52:19.69	W008:39.70	N52:40.79	W008:49.34	21.92	40.60
T5148.0	N52:19.72	W008:39.53	N52:40.82	W008:49.17	21.92	40.60
T5149.0	N52:19.75	W008:39.36	N52:40.85	W008:49.00	21.92	40.60
T5150.0	N52:19.78	W008:39.19	N52:40.88	W008:48.83	21.92	40.60
T5151.0	N52:19.81	W008:39.02	N52:40.91	W008:48.66	21.92	40.60
T5152.0	N52:19.84	W008:38.85	N52:40.93	W008:48.49	21.92	40.60
T5153.0	N52:19.87	W008:38.68	N52:40.96	W008:48.32	21.92	40.60
T5154.0	N52:19.90	W008:38.51	N52:40.99	W008:48.15	21.92	40.60

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT	START		END		LENGTH	
NO	LAT	LONG	LAT	LONG	NM	KM
T5155.0	N52:19.93	W008:38.34	N52:41.02	W008:47.98	21.92	40.60
T5156.0	N52:19.95	W008:38.17	N52:41.05	W008:47.81	21.92	40.60
T5157.0	N52:19.98	W008:38.00	N52:41.08	W008:47.64	21.92	40.60
T5158.0	N52:20.01	W008:37.83	N52:41.11	W008:47.46	21.92	40.60
T5159.0	N52:20.04	W008:37.66	N52:41.14	W008:47.29	21.92	40.60
T5160.0	N52:20.07	W008:37.49	N52:41.17	W008:47.12	21.92	40.60
T5161.0	N52:20.10	W008:37.32	N52:41.20	W008:46.95	21.92	40.60
T5162.0	N52:20.13	W008:37.15	N52:41.23	W008:46.78	21.92	40.60
T5163.0	N52:20.16	W008:36.98	N52:41.25	W008:46.61	21.92	40.60
T5164.0	N52:20.19	W008:36.81	N52:41.28	W008:46.44	21.92	40.60
T5165.0	N52:20.21	W008:36.64	N52:41.31	W008:46.27	21.92	40.60
T5166.0	N52:20.24	W008:36.47	N52:41.34	W008:46.10	21.92	40.60
T5167.0	N52:20.27	W008:36.30	N52:41.37	W008:45.93	21.92	40.60
T5168.0	N52:20.30	W008:36.13	N52:41.40	W008:45.75	21.92	40.60
T5169.0	N52:20.33	W008:35.96	N52:41.43	W008:45.58	21.92	40.60
T5170.0	N52:20.36	W008:35.79	N52:41.46	W008:45.41	21.92	40.60
T5171.0	N52:20.39	W008:35.62	N52:41.49	W008:45.24	21.92	40.60
T5172.0	N52:20.42	W008:35.45	N52:41.52	W008:45.07	21.92	40.60
T5173.0	N52:20.44	W008:35.28	N52:41.54	W008:44.90	21.92	40.60
T5174.0	N52:20.47	W008:35.11	N52:41.57	W008:44.73	21.92	40.60
T5175.0	N52:20.50	W008:34.94	N52:41.60	W008:44.56	21.92	40.60
T5176.0	N52:20.53	W008:34.77	N52:41.63	W008:44.39	21.92	40.60
T5177.0	N52:20.56	W008:34.60	N52:41.66	W008:44.22	21.92	40.60
T5178.0	N52:20.59	W008:34.44	N52:41.69	W008:44.04	21.92	40.60
T5179.0	N52:20.62	W008:34.27	N52:41.72	W008:43.87	21.92	40.60
T5180.0	N52:20.65	W008:34.10	N52:41.75	W008:43.70	21.92	40.60
T5181.0	N52:20.67	W008:33.93	N52:41.78	W008:43.53	21.92	40.60
T5182.0	N52:20.70	W008:33.76	N52:41.81	W008:43.36	21.92	40.60
T5183.0	N52:20.73	W008:33.59	N52:41.83	W008:43.19	21.92	40.60
T5184.0	N52:20.76	W008:33.42	N52:41.86	W008:43.02	21.92	40.60
T5185.0	N52:20.79	W008:33.25	N52:41.89	W008:42.85	21.92	40.60
T5186.0	N52:20.82	W008:33.08	N52:41.92	W008:42.68	21.92	40.60
T5187.0	N52:20.85	W008:32.91	N52:41.95	W008:42.50	21.92	40.60
T5188.0	N52:20.88	W008:32.74	N52:41.98	W008:42.33	21.92	40.60
T5189.0	N52:20.90	W008:32.57	N52:42.01	W008:42.16	21.92	40.60
T5190.0	N52:20.93	W008:32.40	N52:42.04	W008:41.99	21.92	40.60
T5191.0	N52:20.96	W008:32.23	N52:42.07	W008:41.82	21.92	40.60
T5192.0	N52:20.99	W008:32.06	N52:42.09	W008:41.65	21.92	40.60
T5193.0	N52:21.02	W008:31.89	N52:42.12	W008:41.48	21.92	40.60
T5194.0	N52:21.05	W008:31.72	N52:42.15	W008:41.31	21.92	40.60
T5195.0	N52:21.08	W008:31.55	N52:42.18	W008:41.14	21.92	40.60
T5196.0	N52:21.11	W008:31.38	N52:42.21	W008:40.97	21.92	40.60
T5197.0	N52:21.13	W008:31.21	N52:42.24	W008:40.79	21.92	40.60
T5198.0	N52:21.16	W008:31.04	N52:42.27	W008:40.62	21.92	40.60
T5199.0	N52:21.19	W008:30.87	N52:42.30	W008:40.45	21.92	40.60
T5200.0	N52:21.22	W008:30.70	N52:42.33	W008:40.28	21.92	40.60
T5201.0	N52:21.25	W008:30.53	N52:42.36	W008:40.11	21.92	40.60
T5202.0	N52:21.28	W008:30.36	N52:42.38	W008:39.94	21.92	40.60
T5203.0	N52:21.31	W008:30.19	N52:42.41	W008:39.77	21.92	40.60
T5204.0	N52:21.33	W008:30.02	N52:42.44	W008:39.60	21.92	40.60
T5205.0	N52:21.36	W008:29.85	N52:42.47	W008:39.43	21.92	40.60
T5206.0	N52:21.39	W008:29.68	N52:42.50	W008:39.25	21.92	40.60
T5207.0	N52:21.42	W008:29.51	N52:42.53	W008:39.08	21.92	40.60
T5208.0	N52:21.45	W008:29.34	N52:42.56	W008:38.91	21.92	40.60
T5209.0	N52:21.48	W008:29.17	N52:42.59	W008:38.74	21.92	40.60
T5210.0	N52:21.51	W008:29.00	N52:42.61	W008:38.57	21.92	40.60
T5211.0	N52:21.54	W008:28.83	N52:42.64	W008:38.40	21.92	40.60
T5212.0	N52:21.56	W008:28.66	N52:42.67	W008:38.23	21.92	40.60
T5213.0	N52:21.59	W008:28.49	N52:42.70	W008:38.06	21.92	40.60
T5214.0	N52:21.62	W008:28.32	N52:42.73	W008:37.88	21.92	40.60
T5215.0	N52:21.65	W008:28.15	N52:42.76	W008:37.71	21.92	40.60
T5216.0	N52:21.68	W008:27.98	N52:42.79	W008:37.54	21.92	40.60
T5217.0	N52:21.71	W008:27.81	N52:42.82	W008:37.37	21.92	40.60
T5218.0	N52:21.74	W008:27.64	N52:42.85	W008:37.20	21.92	40.60
T5219.0	N52:21.76	W008:27.47	N52:42.87	W008:37.03	21.92	40.60

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT	START		END		LENGTH	
NO	LAT	LONG	LAT	LONG	NM	KM
T5220.0	N52:21.79	W008:27.30	N52:42.90	W008:36.86	21.92	40.60
T5221.0	N52:21.82	W008:27.13	N52:42.93	W008:36.69	21.92	40.60
T5222.0	N52:21.85	W008:26.96	N52:42.96	W008:36.52	21.92	40.60
T5223.0	N52:21.88	W008:26.79	N52:42.99	W008:36.34	21.92	40.60
T5224.0	N52:21.91	W008:26.62	N52:43.02	W008:36.17	21.92	40.60
T5225.0	N52:21.94	W008:26.45	N52:43.05	W008:36.00	21.92	40.60
T5226.0	N52:21.96	W008:26.28	N52:43.08	W008:35.83	21.92	40.60
T5227.0	N52:21.99	W008:26.11	N52:43.10	W008:35.66	21.92	40.60
T5228.0	N52:22.02	W008:25.94	N52:43.13	W008:35.49	21.92	40.60
T5229.0	N52:22.05	W008:25.77	N52:43.16	W008:35.32	21.92	40.60
T5230.0	N52:22.08	W008:25.60	N52:43.19	W008:35.15	21.92	40.60
T5231.0	N52:22.11	W008:25.43	N52:43.22	W008:34.97	21.92	40.60
T5232.0	N52:22.14	W008:25.26	N52:43.25	W008:34.80	21.92	40.60
T5233.0	N52:22.16	W008:25.09	N52:43.28	W008:34.63	21.92	40.60
T5234.0	N52:22.19	W008:24.92	N52:43.31	W008:34.46	21.92	40.60
T5235.0	N52:22.22	W008:24.75	N52:43.34	W008:34.29	21.92	40.60
T5236.0	N52:22.25	W008:24.58	N52:43.36	W008:34.12	21.92	40.60
T5237.0	N52:22.28	W008:24.41	N52:43.39	W008:33.95	21.92	40.60
T5238.0	N52:22.31	W008:24.24	N52:43.42	W008:33.78	21.92	40.60
T5239.0	N52:22.34	W008:24.07	N52:43.45	W008:33.60	21.92	40.60
T5240.0	N52:22.36	W008:23.90	N52:43.48	W008:33.43	21.92	40.60
T5241.0	N52:22.39	W008:23.73	N52:43.51	W008:33.26	21.92	40.60
T5242.0	N52:22.42	W008:23.56	N52:43.54	W008:33.09	21.92	40.60
T5243.0	N52:22.45	W008:23.39	N52:43.56	W008:32.92	21.92	40.60
T5244.0	N52:22.48	W008:23.22	N52:43.59	W008:32.75	21.92	40.60
T5245.0	N52:22.51	W008:23.05	N52:43.62	W008:32.58	21.92	40.60
T5246.0	N52:22.53	W008:22.88	N52:43.65	W008:32.41	21.92	40.60
T5247.0	N52:22.56	W008:22.71	N52:43.68	W008:32.23	21.92	40.60
T5248.0	N52:22.59	W008:22.54	N52:43.71	W008:32.06	21.92	40.60
T5249.0	N52:22.62	W008:22.37	N52:43.74	W008:31.89	21.92	40.60
T5250.0	N52:22.65	W008:22.20	N52:43.77	W008:31.72	21.92	40.60
T5251.0	N52:22.68	W008:22.03	N52:43.79	W008:31.55	21.92	40.60
T5252.0	N52:22.71	W008:21.86	N52:43.82	W008:31.38	21.92	40.60
T5253.0	N52:22.73	W008:21.69	N52:43.85	W008:31.21	21.92	40.60
T5254.0	N52:22.76	W008:21.52	N52:43.88	W008:31.04	21.92	40.60
T5255.0	N52:22.79	W008:21.35	N52:43.91	W008:30.86	21.92	40.60
T5256.0	N52:22.82	W008:21.18	N52:43.94	W008:30.69	21.92	40.60
T5257.0	N52:22.85	W008:21.01	N52:43.97	W008:30.52	21.92	40.60
T5258.0	N52:22.88	W008:20.84	N52:44.00	W008:30.35	21.92	40.60
T5259.0	N52:22.90	W008:20.67	N52:44.02	W008:30.18	21.92	40.60
T5260.0	N52:22.93	W008:20.50	N52:44.05	W008:30.01	21.92	40.60
T5261.0	N52:22.96	W008:20.33	N52:44.08	W008:29.84	21.92	40.60
T5262.0	N52:22.99	W008:20.16	N52:44.11	W008:29.66	21.92	40.60
T5263.0	N52:23.02	W008:19.99	N52:44.14	W008:29.49	21.92	40.60
T5264.0	N52:23.05	W008:19.82	N52:44.17	W008:29.32	21.92	40.60
T5265.0	N52:23.08	W008:19.65	N52:44.20	W008:29.15	21.92	40.60
T5266.0	N52:23.10	W008:19.48	N52:44.22	W008:28.98	21.92	40.60
T5267.0	N52:23.13	W008:19.31	N52:44.25	W008:28.81	21.92	40.60
T5268.0	N52:23.16	W008:19.14	N52:44.28	W008:28.64	21.92	40.60
T5269.0	N52:23.19	W008:18.97	N52:44.31	W008:28.47	21.92	40.60
T5270.0	N52:23.22	W008:18.80	N52:44.34	W008:28.29	21.92	40.60
T5271.0	N52:23.25	W008:18.63	N52:44.37	W008:28.12	21.92	40.60
T5272.0	N52:23.27	W008:18.46	N52:44.40	W008:27.95	21.92	40.60
T5273.0	N52:23.30	W008:18.29	N52:44.42	W008:27.78	21.92	40.60
T5274.0	N52:23.33	W008:18.12	N52:44.45	W008:27.61	21.92	40.60
T5275.0	N52:23.36	W008:17.95	N52:44.48	W008:27.44	21.92	40.60
T5276.0	N52:23.39	W008:17.78	N52:44.51	W008:27.27	21.92	40.60
T5277.0	N52:23.42	W008:17.61	N52:44.54	W008:27.09	21.92	40.60
T5278.0	N52:23.44	W008:17.44	N52:44.57	W008:26.92	21.92	40.60
T5279.0	N52:23.47	W008:17.27	N52:44.60	W008:26.75	21.92	40.60
T5280.0	N52:23.50	W008:17.10	N52:44.62	W008:26.58	21.92	40.60
T5281.0	N52:23.53	W008:16.93	N52:44.65	W008:26.41	21.92	40.60
T5282.0	N52:23.56	W008:16.76	N52:44.68	W008:26.24	21.92	40.60
T5283.0	N52:23.59	W008:16.59	N52:44.71	W008:26.07	21.92	40.60
T5284.0	N52:23.61	W008:16.42	N52:44.74	W008:25.89	21.92	40.60

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT	START		END		LENGTH	
NO	LAT	LONG	LAT	LONG	NM	KM
T5285.0	N52:23.64	W008:16.25	N52:44.77	W008:25.72	21.92	40.60
T5286.0	N52:23.67	W008:16.08	N52:44.80	W008:25.55	21.92	40.60
T5287.0	N52:23.70	W008:15.91	N52:44.82	W008:25.38	21.92	40.60
T5288.0	N52:23.73	W008:15.74	N52:44.85	W008:25.21	21.92	40.60
T5289.0	N52:23.76	W008:15.57	N52:44.88	W008:25.04	21.92	40.60
T5290.0	N52:23.78	W008:15.40	N52:44.91	W008:24.87	21.92	40.60
T5291.0	N52:23.81	W008:15.23	N52:44.94	W008:24.69	21.92	40.60
T5292.0	N52:23.84	W008:15.06	N52:44.97	W008:24.52	21.92	40.60
T5293.0	N52:23.87	W008:14.89	N52:45.00	W008:24.35	21.92	40.60
T5294.0	N52:23.90	W008:14.72	N52:45.02	W008:24.18	21.92	40.60
T5295.0	N52:23.93	W008:14.55	N52:45.05	W008:24.01	21.92	40.60
T5296.0	N52:23.95	W008:14.38	N52:45.08	W008:23.84	21.92	40.60
T5297.0	N52:23.98	W008:14.21	N52:45.11	W008:23.67	21.92	40.60
T5298.0	N52:24.01	W008:14.04	N52:45.14	W008:23.49	21.92	40.60
T5299.0	N52:24.04	W008:13.87	N52:45.17	W008:23.32	21.92	40.60
T5300.0	N52:24.07	W008:13.70	N52:45.20	W008:23.15	21.92	40.60
T5301.0	N52:24.10	W008:13.53	N52:45.22	W008:22.98	21.92	40.60
T5302.0	N52:24.12	W008:13.36	N52:45.25	W008:22.81	21.92	40.60
T5303.0	N52:24.15	W008:13.19	N52:45.28	W008:22.64	21.92	40.60
T5304.0	N52:24.18	W008:13.02	N52:45.31	W008:22.46	21.92	40.60
T5305.0	N52:24.21	W008:12.84	N52:45.34	W008:22.29	21.92	40.60
T5306.0	N52:24.24	W008:12.67	N52:45.37	W008:22.12	21.92	40.60
T5307.0	N52:24.26	W008:12.50	N52:45.39	W008:21.95	21.92	40.60
T5308.0	N52:24.29	W008:12.33	N52:45.42	W008:21.78	21.92	40.60
T5309.0	N52:24.32	W008:12.16	N52:45.45	W008:21.61	21.92	40.60
T5310.0	N52:24.35	W008:11.99	N52:45.48	W008:21.44	21.92	40.60
T5311.0	N52:24.38	W008:11.82	N52:45.51	W008:21.26	21.92	40.60
T5312.0	N52:24.41	W008:11.65	N52:45.54	W008:21.09	21.92	40.60
T5313.0	N52:24.43	W008:11.48	N52:45.57	W008:20.92	21.92	40.60
T5314.0	N52:24.46	W008:11.31	N52:45.59	W008:20.75	21.92	40.60
T5315.0	N52:24.49	W008:11.14	N52:45.62	W008:20.58	21.92	40.60
T5316.0	N52:24.52	W008:10.97	N53:06.46	W008:29.85	43.52	80.60
T5317.0	N52:24.55	W008:10.80	N53:06.49	W008:29.68	43.52	80.60
T5318.0	N52:24.58	W008:10.63	N53:06.51	W008:29.50	43.52	80.60
T5319.0	N52:24.60	W008:10.46	N53:06.54	W008:29.33	43.52	80.60
T5320.0	N52:24.63	W008:10.29	N53:06.57	W008:29.16	43.52	80.60
T5321.0	N52:24.66	W008:10.12	N53:06.60	W008:28.99	43.52	80.60
T5322.0	N52:24.69	W008:09.95	N53:06.63	W008:28.81	43.52	80.60
T5323.0	N52:24.72	W008:09.78	N53:06.66	W008:28.64	43.52	80.60
T5324.0	N52:24.74	W008:09.61	N53:06.69	W008:28.47	43.52	80.60
T5325.0	N52:24.77	W008:09.44	N53:06.71	W008:28.29	43.52	80.60
T5326.0	N52:24.80	W008:09.27	N53:06.74	W008:28.12	43.52	80.60
T5327.0	N52:24.83	W008:09.10	N53:06.77	W008:27.95	43.52	80.60
T5328.0	N52:24.86	W008:08.93	N53:06.80	W008:27.78	43.52	80.60
T5329.0	N52:24.89	W008:08.76	N53:06.83	W008:27.60	43.52	80.60
T5330.0	N52:24.91	W008:08.59	N53:06.86	W008:27.43	43.52	80.60
T5331.0	N52:24.94	W008:08.42	N53:06.89	W008:27.26	43.52	80.60
T5332.0	N52:24.97	W008:08.25	N53:06.91	W008:27.08	43.52	80.60
T5333.0	N52:25.00	W008:08.08	N53:06.94	W008:26.91	43.52	80.60
T5334.0	N52:25.03	W008:07.91	N53:06.97	W008:26.74	43.52	80.60
T5335.0	N52:25.05	W008:07.74	N53:06.39	W008:26.29	42.88	79.42
T5336.0	N52:25.08	W008:07.57	N53:06.39	W008:26.10	42.86	79.37
T5337.0	N52:25.11	W008:07.40	N53:06.39	W008:25.92	42.83	79.32
T5338.0	N52:25.14	W008:07.23	N53:06.40	W008:25.73	42.80	79.27
T5339.0	N52:25.17	W008:07.06	N53:06.40	W008:25.55	42.78	79.23
T5340.0	N52:25.19	W008:06.88	N53:06.40	W008:25.36	42.75	79.18
T5341.0	N52:25.22	W008:06.71	N53:06.41	W008:25.18	42.73	79.13
T5342.0	N52:25.25	W008:06.54	N53:06.41	W008:25.00	42.70	79.08
T5343.0	N52:25.28	W008:06.37	N53:06.41	W008:24.81	42.67	79.03
T5344.0	N52:25.31	W008:06.20	N53:06.42	W008:24.63	42.65	78.98
T5345.0	N52:25.33	W008:06.03	N53:06.42	W008:24.44	42.62	78.93
T5346.0	N52:25.36	W008:05.86	N53:06.42	W008:24.26	42.59	78.88
T5347.0	N52:25.39	W008:05.69	N53:06.42	W008:24.07	42.57	78.83
T5348.0	N52:25.42	W008:05.52	N53:06.43	W008:23.89	42.54	78.79
T5349.0	N52:25.45	W008:05.35	N53:06.43	W008:23.70	42.51	78.74

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT	START		END		LENGTH	
NO	LAT	LONG	LAT	LONG	NM	KM
T5350.0	N52:25.48	W008:05.18	N53:06.43	W008:23.52	42.49	78.69
T5351.0	N52:25.50	W008:05.01	N53:06.44	W008:23.34	42.46	78.64
T5352.0	N52:25.53	W008:04.84	N53:06.44	W008:23.15	42.44	78.60
T5353.0	N52:25.56	W008:04.67	N53:06.47	W008:22.98	42.44	78.60
T5354.0	N52:25.59	W008:04.50	N53:06.50	W008:22.81	42.44	78.60
T5355.0	N52:25.62	W008:04.33	N53:06.53	W008:22.63	42.44	78.60
T5356.0	N52:25.64	W008:04.16	N53:06.56	W008:22.46	42.44	78.60
T5357.0	N52:25.67	W008:03.99	N53:06.59	W008:22.29	42.44	78.60
T5358.0	N52:25.70	W008:03.82	N53:06.62	W008:22.12	42.44	78.60
T5359.0	N52:25.73	W008:03.65	N53:06.64	W008:21.94	42.44	78.60
T5360.0	N52:25.76	W008:03.48	N53:06.67	W008:21.77	42.44	78.60
T5361.0	N52:25.78	W008:03.31	N53:06.70	W008:21.60	42.44	78.60
T5362.0	N52:25.81	W008:03.14	N53:06.73	W008:21.42	42.44	78.60
T5363.0	N52:25.84	W008:02.97	N53:06.76	W008:21.25	42.44	78.60
T5364.0	N52:25.87	W008:02.80	N53:06.79	W008:21.08	42.44	78.60
T5365.0	N52:25.90	W008:02.62	N53:06.81	W008:20.91	42.44	78.60
T5366.0	N52:25.92	W008:02.45	N53:06.84	W008:20.73	42.44	78.60
T5367.0	N52:25.95	W008:02.28	N53:06.87	W008:20.56	42.44	78.60
T5368.0	N52:25.98	W008:02.11	N53:06.90	W008:20.39	42.44	78.60
T5369.0	N52:26.01	W008:01.94	N53:06.93	W008:20.21	42.44	78.60
T5370.0	N52:26.04	W008:01.77	N53:06.96	W008:20.04	42.44	78.60
T5371.0	N52:26.06	W008:01.60	N53:06.99	W008:19.87	42.44	78.60
T5372.0	N52:26.09	W008:01.43	N53:07.01	W008:19.69	42.44	78.60
T5373.0	N52:26.12	W008:01.26	N53:07.04	W008:19.52	42.44	78.60
T5374.0	N52:26.15	W008:01.09	N53:07.07	W008:19.35	42.44	78.60
T5375.0	N52:26.18	W008:00.92	N53:07.10	W008:19.18	42.44	78.60
T5376.0	N52:26.20	W008:00.75	N53:06.51	W008:18.72	41.80	77.42
T5377.0	N52:26.23	W008:00.58	N53:06.51	W008:18.54	41.77	77.37
T5378.0	N52:26.26	W008:00.41	N53:06.52	W008:18.35	41.75	77.32
T5379.0	N52:26.29	W008:00.24	N53:06.52	W008:18.17	41.72	77.27
T5380.0	N52:26.32	W008:00.07	N53:06.52	W008:17.99	41.70	77.22
T5381.0	N52:26.34	W007:59.90	N53:06.53	W008:17.80	41.67	77.17
T5382.0	N52:26.37	W007:59.73	N53:06.53	W008:17.62	41.64	77.12
T5383.0	N52:26.40	W007:59.56	N53:06.53	W008:17.43	41.62	77.07
T5384.0	N52:26.43	W007:59.39	N53:06.53	W008:17.25	41.59	77.02
T5385.0	N52:26.45	W007:59.22	N53:06.54	W008:17.06	41.56	76.97
T5386.0	N52:26.48	W007:59.04	N53:06.54	W008:16.88	41.54	76.93
T5387.0	N52:26.51	W007:58.87	N53:06.54	W008:16.69	41.51	76.88
T5388.0	N52:26.54	W007:58.70	N53:06.55	W008:16.51	41.48	76.83
T5389.0	N52:26.57	W007:58.53	N53:06.55	W008:16.32	41.46	76.78
T5390.0	N52:26.59	W007:58.36	N53:06.55	W008:16.14	41.43	76.73
T5391.0	N52:26.62	W007:58.19	N53:06.55	W008:15.96	41.40	76.68
T5392.0	N52:26.65	W007:58.02	N53:06.56	W008:15.77	41.38	76.63
T5393.0	N52:26.68	W007:57.85	N53:06.57	W008:15.59	41.36	76.60
T5394.0	N52:26.71	W007:57.68	N53:06.60	W008:15.42	41.36	76.60
T5395.0	N52:26.73	W007:57.51	N53:06.62	W008:15.24	41.36	76.60
T5396.0	N52:26.76	W007:57.34	N53:06.65	W008:15.07	41.36	76.60
T5397.0	N52:26.79	W007:57.17	N53:06.68	W008:14.90	41.36	76.60
T5398.0	N52:26.82	W007:57.00	N53:06.71	W008:14.73	41.36	76.60
T5399.0	N52:26.85	W007:56.83	N53:06.74	W008:14.55	41.36	76.60
T5400.0	N52:26.87	W007:56.66	N53:06.77	W008:14.38	41.36	76.60
T5401.0	N52:26.90	W007:56.49	N53:06.79	W008:14.21	41.36	76.60
T5402.0	N52:26.93	W007:56.32	N53:06.82	W008:14.03	41.36	76.60
T5403.0	N52:26.96	W007:56.15	N53:06.85	W008:13.86	41.36	76.60
T5404.0	N52:26.98	W007:55.97	N53:06.88	W008:13.69	41.36	76.60
T5405.0	N52:27.01	W007:55.80	N53:06.91	W008:13.51	41.36	76.60
T5406.0	N52:27.04	W007:55.63	N53:06.94	W008:13.34	41.36	76.60
T5407.0	N52:27.07	W007:55.46	N53:06.96	W008:13.17	41.36	76.60
T5408.0	N52:27.10	W007:55.29	N53:06.99	W008:13.00	41.36	76.60
T5409.0	N52:27.12	W007:55.12	N53:07.02	W008:12.82	41.36	76.60
T5410.0	N52:27.15	W007:54.95	N53:07.05	W008:12.65	41.36	76.60
T5411.0	N52:27.18	W007:54.78	N53:07.08	W008:12.48	41.36	76.60
T5412.0	N52:27.21	W007:54.61	N53:07.10	W008:12.30	41.36	76.60
T5413.0	N52:27.23	W007:54.44	N53:07.13	W008:12.13	41.36	76.60
T5414.0	N52:27.26	W007:54.27	N53:07.16	W008:11.96	41.36	76.60

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT	START		END		LENGTH	
NO	LAT	LONG	LAT	LONG	NM	KM
T5415.0	N52:27.29	W007:54.10	N53:07.19	W008:11.78	41.36	76.60
T5416.0	N52:27.32	W007:53.93	N53:07.22	W008:11.61	41.36	76.60
T5417.0	N52:53.40	W008:05.24	N53:06.47	W008:11.09	13.56	25.11
T5418.0	N52:53.42	W008:05.07	N53:06.47	W008:10.90	13.53	25.06
T5419.0	N52:53.45	W008:04.89	N53:06.48	W008:10.72	13.50	25.01
T5420.0	N52:53.48	W008:04.72	N53:06.48	W008:10.54	13.48	24.96
T5421.0	N52:53.51	W008:04.55	N53:06.48	W008:10.35	13.45	24.91
T5422.0	N52:53.54	W008:04.38	N53:06.48	W008:10.17	13.43	24.86
T5423.0	N52:53.56	W008:04.20	N53:06.49	W008:09.98	13.40	24.82
T5424.0	N52:53.59	W008:04.03	N53:06.49	W008:09.80	13.37	24.77
T5425.0	N52:53.62	W008:03.86	N53:06.49	W008:09.61	13.35	24.72
T5426.0	N52:53.65	W008:03.69	N53:06.49	W008:09.43	13.32	24.67
T5427.0	N52:53.68	W008:03.52	N53:06.50	W008:09.24	13.29	24.62
T5428.0	N52:53.70	W008:03.34	N53:06.50	W008:09.06	13.27	24.57
T5429.0	N52:53.73	W008:03.17	N53:06.50	W008:08.88	13.24	24.52
T5430.0	N52:53.76	W008:03.00	N53:06.50	W008:08.69	13.21	24.47
T5431.0	N52:53.79	W008:02.83	N53:06.51	W008:08.51	13.19	24.42
T5432.0	N52:53.82	W008:02.65	N53:06.51	W008:08.32	13.16	24.38
T5433.0	N52:53.84	W008:02.48	N53:06.51	W008:08.14	13.14	24.33
T5434.0	N52:53.87	W008:02.31	N53:06.53	W008:07.96	13.12	24.30
T5435.0	N52:53.90	W008:02.14	N53:06.56	W008:07.79	13.12	24.30
T5436.0	N52:53.93	W008:01.97	N53:06.58	W008:07.61	13.12	24.30
T5437.0	N52:53.96	W008:01.79	N53:06.61	W008:07.44	13.12	24.30
T5438.0	N52:53.98	W008:01.62	N53:06.64	W008:07.27	13.12	24.30
T5439.0	N52:54.01	W008:01.45	N53:06.67	W008:07.09	13.12	24.30
T5440.0	N52:54.04	W008:01.28	N53:06.70	W008:06.92	13.12	24.30
T5441.0	N52:54.07	W008:01.10	N53:06.72	W008:06.75	13.12	24.30
T5442.0	N52:54.10	W008:00.93	N53:06.75	W008:06.57	13.12	24.30
T5443.0	N52:54.12	W008:00.76	N53:06.78	W008:06.40	13.12	24.30
T5444.0	N52:54.15	W008:00.59	N53:06.81	W008:06.23	13.12	24.30
T5445.0	N52:54.18	W008:00.41	N53:06.84	W008:06.05	13.12	24.30
T5446.0	N52:54.21	W008:00.24	N53:06.86	W008:05.88	13.12	24.30
T5447.0	N52:54.24	W008:00.07	N53:06.89	W008:05.71	13.12	24.30
T5448.0	N52:54.26	W007:59.90	N53:06.92	W008:05.53	13.12	24.30
T5449.0	N52:54.29	W007:59.73	N53:06.95	W008:05.36	13.12	24.30
T5450.0	N52:54.32	W007:59.55	N53:06.98	W008:05.19	13.12	24.30
T5451.0	N52:54.35	W007:59.38	N53:07.00	W008:05.02	13.12	24.30
T5452.0	N52:54.37	W007:59.21	N53:07.03	W008:04.84	13.12	24.30
T5453.0	N52:54.40	W007:59.04	N53:07.06	W008:04.67	13.12	24.30
T5454.0	N52:54.43	W007:58.86	N53:07.09	W008:04.50	13.12	24.30
T5455.0	N52:54.46	W007:58.69	N53:07.12	W008:04.32	13.12	24.30
T5456.0	N52:54.49	W007:58.52	N53:07.14	W008:04.15	13.12	24.30
T5457.0	N52:54.51	W007:58.35	N53:07.17	W008:03.98	13.12	24.30
T5458.0	N52:54.54	W007:58.17	N53:06.58	W008:03.52	12.47	23.10
T5459.0	N52:54.57	W007:58.00	N53:06.58	W008:03.34	12.45	23.05
T5460.0	N52:54.60	W007:57.83	N53:06.58	W008:03.16	12.42	23.00
T5461.0	N52:54.63	W007:57.66	N53:06.58	W008:02.97	12.40	22.96
T5462.0	N52:54.65	W007:57.48	N53:06.59	W008:02.79	12.37	22.91
T5463.0	N52:54.68	W007:57.31	N53:06.59	W008:02.60	12.34	22.86
T5464.0	N52:54.71	W007:57.14	N53:06.59	W008:02.42	12.32	22.81
T5465.0	N52:54.74	W007:56.97	N53:06.59	W008:02.23	12.29	22.76
T5466.0	N52:54.76	W007:56.79	N53:06.60	W008:02.05	12.26	22.71
T5467.0	N52:54.79	W007:56.62	N53:06.60	W008:01.86	12.24	22.66
T5468.0	N52:54.82	W007:56.45	N53:06.60	W008:01.68	12.21	22.61
T5469.0	N52:54.85	W007:56.28	N53:06.60	W008:01.50	12.18	22.56
T5470.0	N52:54.88	W007:56.11	N53:06.61	W008:01.31	12.16	22.52
T5471.0	N52:54.90	W007:55.93	N53:06.61	W008:01.13	12.13	22.47
T5472.0	N52:54.93	W007:55.76	N53:06.61	W008:00.94	12.10	22.42
T5473.0	N52:54.96	W007:55.59	N53:06.61	W008:00.76	12.08	22.37
T5474.0	N52:54.99	W007:55.42	N53:06.62	W008:00.57	12.05	22.32
T5475.0	N52:55.02	W007:55.24	N53:06.63	W008:00.40	12.04	22.30
T5476.0	N52:55.04	W007:55.07	N53:06.66	W008:00.22	12.04	22.30
T5477.0	N52:55.07	W007:54.90	N53:06.69	W008:00.05	12.04	22.30
T5478.0	N52:55.10	W007:54.73	N53:06.72	W007:59.88	12.04	22.30
T5479.0	N52:55.13	W007:54.55	N53:06.75	W007:59.70	12.04	22.30

PLANNED SURVEY LINES – Tellus A5 Block, Republic of Ireland
DATUM WGS-84

SEGMENT NO	START LAT	START LONG	END LAT	END LONG	LENGTH NM	LENGTH KM
T5480.0	N52:55.15	W007:54.38	N53:06.77	W007:59.53	12.04	22.30
T5481.0	N52:55.18	W007:54.21	N53:06.80	W007:59.36	12.04	22.30
T5482.0	N52:55.21	W007:54.04	N53:06.83	W007:59.18	12.04	22.30
T5483.0	N52:55.24	W007:53.86	N53:06.86	W007:59.01	12.04	22.30
T5484.0	N52:55.27	W007:53.69	N53:06.89	W007:58.84	12.04	22.30
T5485.0	N52:55.29	W007:53.52	N53:06.91	W007:58.66	12.04	22.30
T5486.0	N52:55.32	W007:53.35	N53:06.94	W007:58.49	12.04	22.30
T5487.0	N52:55.35	W007:53.17	N53:06.97	W007:58.32	12.04	22.30
T5488.0	N52:55.38	W007:53.00	N53:07.00	W007:58.14	12.04	22.30
T5489.0	N52:55.40	W007:52.83	N53:07.02	W007:57.97	12.04	22.30
T5490.0	N52:55.43	W007:52.66	N53:07.05	W007:57.80	12.04	22.30
T5491.0	N52:55.46	W007:52.48	N53:07.08	W007:57.62	12.04	22.30
T5492.0	N52:55.49	W007:52.31	N53:07.11	W007:57.45	12.04	22.30
T5493.0	N52:55.52	W007:52.14	N53:07.14	W007:57.28	12.04	22.30
T5494.0	N52:55.54	W007:51.97	N53:07.16	W007:57.10	12.04	22.30
T5495.0	N52:55.57	W007:51.79	N53:07.19	W007:56.93	12.04	22.30
T5496.0	N52:55.60	W007:51.62	N53:07.22	W007:56.76	12.04	22.30
T5497.0	N52:55.63	W007:51.45	N53:07.25	W007:56.59	12.04	22.30
T5498.0	N52:55.65	W007:51.28	N53:06.67	W007:56.14	11.42	21.15
T5499.0	N52:55.68	W007:51.10	N53:06.68	W007:55.96	11.39	21.10
T5500.0	N52:55.71	W007:50.93	N53:06.68	W007:55.78	11.36	21.05
T5501.0	N52:55.74	W007:50.76	N53:06.68	W007:55.59	11.34	21.00
T5502.0	N52:55.76	W007:50.59	N53:06.68	W007:55.41	11.31	20.95
T5503.0	N52:55.79	W007:50.41	N53:06.69	W007:55.22	11.29	20.90
T5504.0	N52:55.82	W007:50.24	N53:06.69	W007:55.04	11.26	20.85
T5505.0	N52:55.85	W007:50.07	N53:06.69	W007:54.85	11.23	20.80
T5506.0	N52:55.88	W007:49.90	N53:06.69	W007:54.67	11.21	20.75
T5507.0	N52:55.90	W007:49.72	N53:06.69	W007:54.48	11.18	20.71
T5508.0	N52:55.93	W007:49.55	N53:06.70	W007:54.30	11.15	20.66
T5509.0	N52:55.96	W007:49.38	N53:06.70	W007:54.12	11.13	20.61
T5510.0	N52:55.99	W007:49.21	N53:06.70	W007:53.93	11.10	20.56
T5511.0	N52:56.01	W007:49.03	N53:06.70	W007:53.75	11.07	20.51
T5512.0	N52:56.04	W007:48.86	N53:06.71	W007:53.56	11.05	20.46
T5513.0	N52:56.07	W007:48.69	N53:06.71	W007:53.38	11.02	20.41
T5514.0	N52:56.10	W007:48.52	N53:06.71	W007:53.19	10.99	20.36
T5515.0	N52:56.12	W007:48.34	N53:06.71	W007:53.01	10.97	20.31
T5516.0	N52:56.15	W007:48.17	N53:06.73	W007:52.83	10.96	20.30
T5517.0	N52:56.18	W007:48.00	N53:06.76	W007:52.66	10.96	20.30
T5518.0	N52:56.21	W007:47.83	N53:06.79	W007:52.49	10.96	20.30
T5519.0	N52:56.23	W007:47.65	N53:06.82	W007:52.31	10.96	20.30
T5520.0	N52:56.26	W007:47.48	N53:06.84	W007:52.14	10.96	20.30
T5521.0	N52:56.29	W007:47.31	N53:06.87	W007:51.97	10.96	20.30
T5522.0	N52:56.32	W007:47.14	N53:06.90	W007:51.79	10.96	20.30
T5523.0	N52:56.35	W007:46.96	N53:06.93	W007:51.62	10.96	20.30
T5524.0	N52:56.37	W007:46.79	N53:06.96	W007:51.45	10.96	20.30
T5525.0	N52:56.40	W007:46.62	N53:06.98	W007:51.27	10.96	20.30

Total control line length = 1293.14 nautical miles
= 2394.90 kilometers.

Total traverse line length = 12514.38 nautical miles
= 23176.64 kilometers.

Total length of all lines = 13807.53 nautical miles
= 25571.54 kilometers.

SGL

Appendix III

FEM FLOWN LINES - Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
501.00	59600.00	60832.60	526524.30	606987.80	612376.20	633949.30	2	234	2018
502.00	66967.70	68428.60	525983.90	606455.20	614309.60	635882.50	2	234	2018
503.00	50287.20	51618.80	525487.00	605955.80	616235.40	637814.80	79	86	2019
504.00	51702.30	53000.90	524947.90	605432.00	618167.60	639705.70	79	86	2019
505.00	57586.90	58844.00	524447.00	604918.00	620099.40	641675.10	79	86	2019
506.00	61380.20	62642.30	523914.10	604384.10	622034.40	643602.60	79	86	2019
507.00	45738.80	46986.20	523413.70	603879.80	623974.90	645553.30	66	350	2018
508.00	46377.10	47793.90	522879.00	603349.70	625891.50	647460.90	1	233	2018
509.00	42060.90	43353.40	522373.80	602848.40	627832.50	649415.30	1	233	2018
510.00	38518.00	39804.40	521856.90	602330.80	629764.80	651342.20	76	84	2019
511.00	38210.70	39449.30	521338.70	601817.10	631695.80	653265.90	75	83	2019
512.00	42746.60	44185.80	520801.00	601278.90	633632.40	655202.10	75	83	2019
513.00	39970.40	41330.70	520290.30	600759.40	635560.60	657124.80	76	84	2019
514.00	42785.70	44039.00	519788.40	600254.60	637497.30	659072.20	79	86	2019
515.00	44159.40	45588.80	519250.90	599727.50	639424.00	660993.60	79	86	2019
516.00	52305.80	53539.80	518751.30	599220.80	641359.90	662937.30	70	54	2019
517.00	44406.70	45627.20	518228.40	598698.60	643295.80	664870.10	75	83	2019
518.00	44619.10	45905.90	517710.30	598186.80	645233.10	666801.80	76	84	2019
519.00	45806.20	46259.30	571189.20	597652.60	661631.00	668725.20	75	83	2019
519.01	46610.50	47534.50	517180.20	571279.40	647150.00	661656.50	75	83	2019
520.00	41607.50	42896.10	516681.10	597151.50	649088.50	670655.40	76	84	2019
521.00	43094.10	44457.70	516142.10	596619.50	651017.50	672579.00	76	84	2019
522.00	38709.00	39002.70	576510.60	596118.10	669272.00	674527.10	37	290	2018
523.00	46095.60	46421.20	575987.90	595600.30	671209.20	676460.60	37	290	2018
524.00	39156.00	39470.90	575454.50	595067.10	673133.90	678385.00	37	290	2018
525.00	39593.40	39915.30	574956.70	594562.50	675061.60	680324.20	37	290	2018
526.00	40381.50	41065.10	574424.50	615087.00	676989.20	687890.80	37	290	2018
527.00	41182.90	41809.30	573919.90	614587.00	678934.00	689830.60	37	290	2018
528.00	41926.10	42604.50	573382.60	614054.50	680859.70	691755.60	37	290	2018
529.00	42707.60	43370.60	572883.90	613549.10	682790.70	693693.70	37	290	2018
530.00	43492.90	44176.20	572350.00	613021.20	684724.20	695618.00	37	290	2018
531.00	44296.20	44969.40	571847.40	612516.80	686659.40	697563.20	37	290	2018
532.00	45104.10	45787.40	571315.80	611983.40	688590.70	699481.40	37	290	2018
533.00	58822.50	59464.30	570795.30	611463.10	690517.20	701419.90	31	279	2018
534.00	58038.50	58715.90	570292.80	610957.60	692456.70	703358.20	31	279	2018
535.00	57262.00	57926.20	569761.40	610428.80	694385.50	705282.50	31	279	2018
536.00	56272.10	56959.60	569260.50	609926.80	696322.70	707217.90	31	279	2018
537.00	55612.00	56166.10	568722.30	603980.90	698252.00	707698.00	31	279	2018
538.00	54918.90	55390.10	568225.10	595749.40	700189.30	707562.20	31	279	2018
539.00	31775.90	32078.70	567707.10	587313.40	702125.70	707375.30	28	274	2018
540.00	32290.00	32490.00	567173.50	578856.60	704047.70	707180.30	28	274	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
541.00	32590.80	32648.20	566672.00	570434.00	705977.70	706992.40	28	274	2018
5001.00	30437.60	31117.50	516172.10	526686.10	612275.20	651494.30	44	298	2018
5002.00	31301.80	31918.40	516369.90	526890.40	612314.80	651535.90	44	298	2018
5003.00	32060.00	32721.30	516565.20	527077.20	612377.60	651598.70	44	298	2018
5004.00	32847.30	33464.00	516758.70	527275.10	612416.10	651637.50	44	298	2018
5005.00	33650.60	34301.80	516941.70	527462.10	612483.40	651708.10	44	298	2018
5006.00	34462.40	35086.10	517145.20	527662.00	612518.10	651745.90	44	298	2018
5007.00	35256.80	35941.80	517337.40	527849.00	612588.90	651807.80	44	298	2018
5008.00	36049.40	36707.70	517542.20	528050.30	612627.30	651847.60	44	298	2018
5009.00	36915.10	37587.50	517716.10	528236.50	612689.50	651915.20	44	298	2018
5010.00	37762.00	38406.50	517917.10	528436.50	612726.90	651949.10	44	298	2018
5011.00	38542.60	38958.30	522354.00	528621.80	612799.20	636171.20	44	298	2018
5011.01	39593.30	39872.90	518105.40	522371.90	636077.60	652016.30	44	298	2018
5012.00	39975.60	40609.40	518309.60	528817.30	612834.90	652052.70	44	298	2018
5013.00	40799.90	41513.60	518493.20	529004.00	612900.50	652123.50	44	298	2018
5014.00	41685.90	42329.40	518691.00	529201.60	612934.30	652160.20	44	298	2018
5015.00	42465.30	43174.60	518878.70	529392.00	613004.80	652226.10	44	298	2018
5016.00	49297.00	49978.70	519071.30	529593.70	613058.10	652279.00	37	290	2018
5017.00	50130.50	50708.60	519271.10	529789.20	613094.00	652310.00	37	290	2018
5018.00	50297.10	50968.80	519454.40	529977.20	613160.40	652382.00	40	294	2018
5019.00	51100.80	51670.90	519659.40	530169.40	613194.40	652418.60	40	294	2018
5020.00	51895.60	52604.80	519847.80	530363.60	613264.30	652486.20	40	294	2018
5021.00	52772.00	53363.70	520039.60	530556.70	613298.70	652522.00	40	294	2018
5022.00	53540.60	54223.40	520231.90	530746.20	613368.50	652590.50	40	294	2018
5023.00	54344.50	54920.40	520431.90	530946.00	613398.30	652619.30	40	294	2018
5024.00	55155.30	55872.40	520617.90	531131.90	613467.50	652690.90	40	294	2018
5025.00	54199.70	54885.20	520807.70	531327.30	613521.20	652739.60	47	305	2018
5026.00	55008.40	55657.70	521011.00	531530.00	613563.70	652778.40	47	305	2018
5027.00	55803.30	56451.80	521199.90	531716.30	613624.10	652846.30	47	305	2018
5028.00	34126.50	34722.40	521386.90	531908.40	613680.10	652896.70	49	306	2018
5029.00	34851.20	35572.20	521586.00	532103.60	613715.60	652928.80	49	306	2018
5030.00	35727.30	36319.80	521777.90	532293.40	613778.40	653003.70	49	306	2018
5031.00	36483.80	37203.80	521976.10	532489.00	613813.90	653036.40	49	306	2018
5032.00	37350.80	37716.00	526412.20	532679.10	613884.40	637256.30	49	306	2018
5032.01	37968.80	38197.40	522163.70	526434.20	637165.90	653105.50	49	306	2018
5033.00	38346.00	38722.70	522360.80	527669.00	633340.40	653141.80	49	306	2018
5033.01	35885.70	36206.50	527636.80	532869.20	613935.30	633449.10	75	83	19
5034.00	39215.80	39797.80	522552.60	533064.90	613989.30	653207.90	49	306	2018
5035.00	39951.20	40315.80	522752.10	528060.40	633444.50	653244.30	49	306	2018
5035.01	36991.30	37296.60	528034.20	533265.30	614022.60	633539.10	75	83	19
5036.00	33818.60	34439.80	522940.90	533454.50	614095.70	653310.00	50	308	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5037.00	34583.40	35302.30	523137.90	533652.70	614125.80	653344.80	50	308	2018
5038.00	35428.80	36036.80	523321.40	533837.30	614198.00	653414.10	50	308	2018
5039.00	36177.20	36900.50	523522.40	534035.00	614231.80	653449.10	50	308	2018
5040.00	37039.90	37652.70	523709.40	534230.00	614300.80	653517.20	50	308	2018
5041.00	37815.60	38543.80	523904.70	534424.50	614333.20	653554.80	50	308	2018
5042.00	56356.10	56961.20	524102.40	534620.00	614389.90	653610.60	40	294	2018
5043.00	57144.90	57829.30	524287.80	534806.30	614453.20	653674.50	40	294	2018
5044.00	57949.70	58525.10	524492.80	535001.40	614491.00	653711.40	40	294	2018
5045.00	58756.00	59523.20	524668.50	535197.60	614558.20	653778.50	40	294	2018
5046.00	59680.90	60297.70	524880.20	535390.40	614594.00	653814.20	40	294	2018
5047.00	60485.60	61177.80	525064.90	535580.60	614659.50	653881.60	40	294	2018
5048.00	48774.40	49477.70	525252.20	535769.10	614711.30	653931.90	44	298	2018
5049.00	49636.30	50263.60	525451.00	535973.60	614749.80	653972.70	44	298	2018
5050.00	50407.60	51113.40	525639.80	536163.50	614822.20	654035.80	44	298	2018
5051.00	51286.40	51941.70	525840.30	536354.50	614849.70	654074.70	44	298	2018
5052.00	52137.50	52838.70	526020.80	536544.00	614920.60	654139.30	44	298	2018
5053.00	53002.70	53643.20	526230.50	536744.20	614958.20	654173.80	44	298	2018
5054.00	54055.70	54778.40	526417.30	536938.90	615024.00	654246.60	44	298	2018
5055.00	54906.00	55568.70	526616.00	537130.60	615057.60	654280.30	44	298	2018
5056.00	55905.10	56382.10	530015.80	537318.40	615129.60	642364.70	44	298	2018
5056.01	56944.80	57157.20	526797.70	530047.00	642274.30	654349.00	44	298	2018
5057.00	57349.70	58009.00	527001.90	537515.20	615161.30	654382.10	44	298	2018
5058.00	48352.40	49005.10	527183.10	537704.70	615233.90	654454.40	46	300	2018
5059.00	49141.30	49721.50	527388.90	537900.10	615271.80	654487.00	46	300	2018
5060.00	49875.30	50583.90	527573.10	538085.20	615332.40	654555.90	46	300	2018
5061.00	50727.10	51329.00	527773.00	538290.20	615369.80	654589.00	46	300	2018
5062.01	51877.70	52485.80	527957.90	538475.90	615442.30	654659.90	47	305	2018
5063.00	52613.00	52921.00	528161.40	533473.30	634894.80	654691.10	47	305	2018
5063.01	37508.90	37860.90	533439.40	538666.60	615492.50	635000.80	75	83	19
5064.00	57557.90	58157.10	528352.40	538865.50	615527.40	654746.80	47	305	2018
5065.00	58307.20	58981.00	528542.90	539060.50	615594.60	654815.30	47	305	2018
5066.00	59235.30	59873.50	528652.60	539260.40	615629.30	654801.30	47	305	2018
5067.00	38726.80	39282.60	528929.00	538897.80	617723.50	654920.70	50	308	2018
5067.01	42388.30	42430.10	538879.40	539451.10	615684.20	617803.90	64	338	2018
5068.00	39593.50	40244.40	529125.80	539641.40	615732.00	654954.70	50	308	2018
5069.00	40364.60	40972.60	529315.90	539826.50	615804.70	655021.00	50	308	2018
5070.00	41128.40	41832.60	529511.10	540026.00	615838.40	655061.00	50	308	2018
5071.00	41957.30	42567.50	529701.90	540218.40	615905.10	655124.70	50	308	2018
5072.00	42695.00	43358.70	529898.40	540416.70	615940.20	655160.10	50	308	2018
5073.00	35888.50	36558.90	530095.10	540606.50	615996.00	655214.30	56	323	2018
5074.00	55124.20	55814.70	530291.40	540802.00	616043.70	655263.00	53	314	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5075.00	54040.60	54653.50	530470.60	540995.60	616113.30	655332.30	53	314	2018
5076.00	53267.30	53910.50	530673.50	541186.60	616145.90	655368.10	53	314	2018
5077.00	52537.90	53132.70	530862.50	541375.10	616217.00	655436.70	53	314	2018
5078.00	51683.80	52390.90	531061.70	541575.00	616249.50	655473.10	53	314	2018
5079.00	43496.10	44111.80	531244.50	541765.00	616318.20	655540.60	50	308	2018
5080.00	44267.10	44953.60	531436.70	541959.90	616352.40	655573.80	50	308	2018
5081.00	45041.40	45611.30	531633.40	542148.40	616422.90	655645.70	50	308	2018
5082.00	46054.60	46731.30	531830.70	542342.90	616457.10	655681.40	50	308	2018
5083.00	42859.30	43454.30	532017.60	542531.30	616522.80	655749.50	53	314	2018
5084.00	43593.00	44258.70	532221.50	542729.90	616561.40	655781.80	53	314	2018
5085.00	44384.00	45002.20	532404.70	542919.50	616631.00	655853.50	53	314	2018
5086.00	45129.70	45860.20	532601.20	543118.00	616667.40	655888.90	53	314	2018
5087.00	45977.40	46589.70	532792.50	543305.60	616736.60	655956.40	53	314	2018
5088.00	46738.20	47429.90	532986.70	543505.00	616766.50	655990.90	53	314	2018
5089.00	47578.00	48188.20	533178.70	543692.00	616835.50	656056.50	53	314	2018
5090.00	48593.00	49248.90	533377.70	543892.30	616872.40	656094.00	53	314	2018
5091.00	49374.10	49989.60	533565.20	544078.20	616940.10	656161.50	53	314	2018
5092.00	50135.60	50792.10	533765.80	544280.40	616978.20	656194.50	53	314	2018
5093.00	50940.60	51574.90	533951.10	544465.00	617046.20	656266.70	53	314	2018
5094.00	38260.30	38877.20	534149.60	544660.20	617093.50	656319.60	55	322	2018
5095.00	38995.70	39708.40	534346.70	544863.70	617134.70	656351.00	55	322	2018
5096.00	39832.00	40439.60	534532.80	545040.40	617196.20	656422.10	55	322	2018
5097.00	40585.20	41238.60	534728.70	545246.10	617234.80	656456.20	55	322	2018
5098.00	41395.20	42040.70	534922.80	545426.70	617299.00	656523.40	55	322	2018
5099.00	42165.80	42877.90	535113.60	545630.20	617336.90	656557.10	55	322	2018
5100.00	42994.00	43612.70	535303.90	545819.40	617407.60	656625.10	55	322	2018
5101.00	43743.00	44385.50	535501.40	546016.00	617442.70	656660.10	55	322	2018
5102.00	44526.60	45162.00	535697.30	546199.70	617508.10	656733.70	55	322	2018
5103.00	45297.80	46003.60	535888.00	546408.30	617549.00	656768.40	55	322	2018
5104.00	46121.50	46722.40	536079.70	546590.30	617617.10	656835.40	55	322	2018
5105.00	46819.00	47488.80	536273.10	546791.70	617651.90	656871.40	55	322	2018
5106.00	47630.00	48246.60	536463.50	546958.30	617716.50	656942.10	55	322	2018
5107.00	52285.90	52994.80	536670.80	547176.50	617750.50	656977.80	50	308	2018
5108.00	51572.90	52193.50	536855.40	547366.20	617822.70	657043.60	50	308	2018
5109.00	48333.10	49049.70	537050.80	547562.70	617856.70	657079.40	55	322	2018
5110.00	49185.60	49791.60	537236.40	547748.40	617924.60	657145.60	55	322	2018
5111.00	49899.30	50610.80	537433.00	547950.10	617963.20	657183.00	55	322	2018
5112.00	50757.60	51382.10	537626.60	548145.50	618029.70	657248.00	55	322	2018
5113.00	35327.90	35901.20	539480.80	548343.20	618084.80	651114.00	62	337	2018
5113.01	41581.30	41698.60	537823.50	539506.50	651010.60	657286.50	64	338	2018
5114.00	36277.20	36610.40	538063.90	543320.40	637537.90	657356.20	62	337	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5114.01	36828.50	37162.90	543292.70	548523.60	618115.30	637630.80	62	337	2018
5115.00	37337.90	38076.80	538206.50	548720.80	618185.30	657403.20	62	337	2018
5116.00	38208.90	38877.80	538403.80	548911.60	618218.60	657444.20	62	337	2018
5117.00	39090.30	39800.00	538592.30	549106.50	618287.20	657507.50	62	337	2018
5118.00	39930.60	40592.60	538825.80	549299.50	618323.90	657551.60	62	337	2018
5119.00	35680.90	36343.60	538980.50	549491.70	618393.80	657611.30	64	338	2018
5120.00	36475.80	37156.40	539175.00	549685.00	618428.40	657647.40	64	338	2018
5121.00	46110.90	46731.00	539375.40	549877.40	618477.20	657702.30	79	86	19
5122.00	46864.80	47546.30	539556.70	550061.90	618546.00	657765.50	79	86	19
5123.00	47622.30	48235.10	539775.30	550267.30	618587.20	657807.90	79	86	19
5124.00	48375.90	49060.20	539940.00	550454.40	618649.80	657869.30	79	86	19
5125.00	49143.30	49758.00	540114.50	550653.30	618685.70	657901.10	79	86	19
5126.00	33068.90	33676.60	540329.90	550839.40	618755.60	657972.50	54	317	2018
5127.00	34164.40	34904.20	540527.70	551034.60	618786.80	658011.50	54	317	2018
5128.00	35013.50	35625.10	540712.40	551222.10	618853.10	658077.30	54	317	2018
5129.00	35728.60	36401.60	540913.90	551428.90	618895.70	658112.00	54	317	2018
5130.00	36520.20	37130.50	541104.50	551614.80	618966.50	658184.20	54	317	2018
5131.00	37251.20	37975.00	541298.10	551815.90	618996.90	658218.40	54	317	2018
5132.00	38099.60	38691.10	541489.90	551999.80	619065.30	658282.90	54	317	2018
5133.00	38810.00	39512.30	541689.20	552202.50	619097.70	658324.20	54	317	2018
5134.00	33442.80	34102.40	541873.50	552379.20	619169.80	658391.80	56	323	2018
5135.00	34206.70	34875.10	542077.70	552586.50	619202.40	658423.10	56	323	2018
5136.00	35010.30	35666.30	542261.10	552777.60	619276.60	658493.90	56	323	2018
5137.00	36807.20	37457.80	542460.90	552967.80	619321.70	658542.90	56	323	2018
5138.00	37577.90	38252.00	542655.70	553164.70	619358.20	658578.10	56	323	2018
5139.00	38383.20	39008.40	542845.40	553358.90	619426.80	658645.00	56	323	2018
5140.00	39106.30	39770.40	543038.70	553553.50	619461.80	658683.90	56	323	2018
5141.00	39914.90	40565.10	543230.20	553742.00	619529.20	658752.10	56	323	2018
5142.00	40676.10	41349.50	543426.70	553940.10	619564.20	658787.90	56	323	2018
5143.00	41474.30	42093.90	543611.90	554131.00	619635.20	658851.70	56	323	2018
5144.00	42190.40	42870.70	543814.70	554326.70	619673.80	658890.40	56	323	2018
5145.00	43017.00	43653.60	543995.00	554510.40	619736.90	658956.20	56	323	2018
5146.00	43761.30	44437.10	544222.80	554711.80	619774.90	659002.50	56	323	2018
5147.00	44555.60	45202.80	544385.40	554903.60	619839.50	659058.60	56	323	2018
5148.00	45315.40	45950.00	544587.80	555096.80	619879.00	659100.90	56	323	2018
5149.00	37160.10	37824.10	544775.80	555286.60	619949.00	659167.20	57	324	2018
5150.00	37917.70	38526.40	544974.00	555485.70	619982.70	659202.10	57	324	2018
5151.00	38661.50	39371.00	545158.10	555672.40	620048.20	659270.30	57	324	2018
5152.00	39482.10	40110.50	545353.30	555870.20	620086.40	659305.70	57	324	2018
5153.00	40250.70	40911.20	545546.60	556061.00	620154.90	659372.70	57	324	2018
5154.00	41024.50	41657.60	545744.00	556261.40	620190.60	659405.50	57	324	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5155.00	41802.90	42494.70	545935.20	556438.70	620254.50	659476.10	57	324	2018
5156.00	42633.60	43264.30	546129.60	556648.20	620291.10	659507.90	57	324	2018
5157.00	43378.00	44045.30	546320.20	556830.80	620359.40	659576.50	57	324	2018
5158.00	44150.00	44768.40	546516.00	557030.80	620400.00	659615.90	57	324	2018
5159.00	44916.10	45638.10	546702.00	557225.00	620466.60	659685.40	57	324	2018
5160.00	45748.50	46401.30	546908.50	557423.40	620499.10	659724.10	57	324	2018
5161.00	46528.10	47184.20	547093.60	557608.00	620570.20	659785.90	57	324	2018
5162.00	47295.60	47883.60	547290.70	557806.30	620602.00	659825.50	57	324	2018
5163.00	37356.50	37978.40	547481.20	557984.70	620669.70	659886.60	64	338	2018
5164.00	38136.70	38819.50	547681.00	558192.90	620706.70	659925.80	64	338	2018
5165.00	38993.90	39619.10	547866.30	558372.30	620773.70	659997.40	64	338	2018
5166.00	39757.50	40414.20	548064.10	558574.80	620811.70	660029.20	64	338	2018
5167.00	40756.70	41370.10	548252.00	558762.20	620877.90	660098.60	64	338	2018
5168.00	56913.20	57545.90	548435.50	558961.20	620929.30	660151.80	70	54	19
5169.00	57677.00	58359.40	548640.70	559152.50	620966.30	660188.50	70	54	19
5170.00	40508.40	41104.00	548832.80	559346.60	621032.00	660254.60	81	87	19
5171.00	41225.10	41914.10	549035.30	559546.20	621069.80	660289.30	81	87	19
5172.00	42014.40	42616.90	549220.00	559691.00	621121.90	660356.00	81	87	19
5173.00	42731.50	43458.70	549410.50	559925.00	621173.50	660391.50	81	87	19
5174.00	62839.00	63462.00	549609.30	560120.30	621244.00	660463.70	76	84	19
5175.00	62030.50	62660.40	549800.90	560316.40	621278.30	660498.70	76	84	19
5176.00	43560.30	44167.20	549998.30	560504.00	621340.40	660569.80	81	87	19
5177.00	44270.20	44989.60	550174.50	560700.40	621382.10	660593.60	81	87	19
5178.00	50464.10	51169.50	550379.40	560896.20	621430.60	660652.70	81	87	19
5179.00	51286.30	51899.60	550573.60	561083.60	621504.90	660722.50	81	87	19
5180.00	52026.50	52742.60	550763.90	561274.10	621534.80	660755.70	81	87	19
5181.00	52866.20	53470.00	550958.40	561463.60	621599.90	660822.60	81	87	19
5182.00	50107.40	50748.60	551154.80	561668.00	621655.30	660877.30	82	88	19
5183.00	49357.90	49999.50	551349.20	561858.00	621692.50	660907.40	82	88	19
5184.00	48616.40	49245.10	551537.30	562044.10	621760.20	660976.00	82	88	19
5185.00	47823.40	48459.40	551735.00	562243.70	621789.70	661014.20	82	88	19
5186.00	43257.10	43945.10	551924.70	562447.70	621847.60	661067.20	74	70	19
5187.00	42495.20	43107.10	552121.60	562609.10	621911.80	661136.60	74	70	19
5188.00	53368.60	54006.60	552296.20	562815.70	621963.60	661182.80	73	68	19
5189.00	54112.80	54786.90	552497.40	563018.30	622003.70	661218.90	73	68	19
5190.00	36151.70	36773.60	552686.40	563214.50	622070.20	661289.60	74	70	19
5191.00	36917.60	37587.20	552886.90	563412.00	622104.80	661327.60	74	70	19
5192.00	37709.90	38328.20	553082.30	563625.90	622181.30	661394.50	74	70	19
5193.00	58470.40	59111.10	553270.40	563812.80	622233.20	661445.30	70	54	19
5194.00	59188.40	59868.80	553467.90	563978.90	622261.30	661476.40	70	54	19
5195.00	59976.30	60642.50	553661.10	564173.80	622328.50	661548.00	70	54	19

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5196.00	60758.50	61415.60	553870.70	564361.00	622362.50	661587.80	70	54	19
5197.00	38452.90	39185.60	554051.40	564567.70	622414.00	661632.60	74	70	19
5198.00	39311.40	39925.20	554244.70	564760.40	622482.70	661703.60	74	70	19
5199.00	40090.10	40766.20	554436.90	564956.00	622519.30	661735.70	74	70	19
5200.00	40908.30	41499.00	554625.80	565151.10	622586.10	661807.10	74	70	19
5201.00	41659.50	42386.20	554827.60	565337.60	622624.90	661844.10	74	70	19
5202.00	45125.70	45807.10	555018.60	565533.20	622677.60	661893.70	78	85	19
5203.00	45927.30	46538.80	555215.80	565719.50	622744.10	661960.60	78	85	19
5204.00	45125.70	45737.10	555398.00	565917.30	622796.40	662013.40	81	87	19
5205.00	45853.40	46546.20	555597.00	566109.80	622830.00	662047.80	81	87	19
5206.00	46658.40	47256.70	555788.80	566300.40	622897.60	662119.00	81	87	19
5207.00	48929.50	49550.10	555977.70	566495.90	622950.40	662167.60	76	84	19
5208.00	48112.00	48782.20	556177.30	566695.10	622987.90	662207.40	76	84	19
5209.00	47377.80	47997.60	556375.40	566883.90	623054.00	662273.10	76	84	19
5210.00	46596.00	47245.10	556570.30	567073.70	623088.80	662313.30	76	84	19
5211.00	47389.20	48089.70	556758.60	567267.60	623143.50	662360.80	81	87	19
5212.00	48183.10	48787.40	556942.70	567466.50	623214.00	662430.80	81	87	19
5213.00	48922.20	49585.90	557146.30	567647.20	623240.20	662466.60	81	87	19
5214.00	49690.80	50299.40	557328.10	567843.40	623312.70	662533.50	81	87	19
5215.00	47018.00	47653.20	557569.10	568042.80	623366.40	662396.60	82	88	19
5216.00	49739.70	50384.60	557720.30	568237.30	623400.20	662614.50	78	85	19
5217.00	48962.50	49583.40	557911.30	568432.00	623470.00	662685.10	78	85	19
5218.00	48200.90	48852.50	558109.50	568625.80	623504.90	662722.70	78	85	19
5219.00	47418.90	48040.90	558300.70	568812.60	623570.20	662790.50	78	85	19
5220.00	46636.30	47302.90	558502.90	569002.40	623605.30	662829.10	78	85	19
5221.00	50520.30	51141.10	558686.00	569192.60	623674.70	662892.90	78	85	19
5222.00	51285.60	51943.10	558885.80	569395.20	623709.70	662932.40	78	85	19
5223.00	52061.70	52690.20	559070.80	569587.90	623781.50	662996.80	78	85	19
5224.00	39471.20	40109.40	559274.70	569777.70	623834.00	663053.80	82	88	19
5225.00	40220.10	40871.30	559459.50	569975.10	623865.90	663082.90	82	88	19
5226.00	41004.60	41644.60	559654.20	570163.00	623932.90	663149.80	82	88	19
5227.00	41763.80	42403.30	559845.80	570360.40	623965.50	663187.40	82	88	19
5228.00	42524.00	43149.20	560038.10	570550.90	624034.70	663253.20	82	88	19
5229.00	43261.80	43903.20	560235.00	570741.30	624072.10	663289.20	82	88	19
5230.00	44018.80	44660.70	560426.00	570944.60	624141.50	663359.90	82	88	19
5231.00	44780.50	45417.40	560623.30	571134.20	624174.60	663394.50	82	88	19
5232.00	45546.50	46158.80	560817.40	571322.50	624244.00	663466.60	82	88	19
5233.00	46275.40	46920.10	561004.90	571516.40	624279.50	663495.90	82	88	19
5234.00	61178.20	61808.10	561195.10	571710.30	624349.80	663567.30	76	84	19
5235.00	60417.30	61057.90	561386.00	571910.70	624386.10	663601.70	76	84	19
5236.00	59643.50	60285.90	561584.10	572097.40	624456.10	663668.80	76	84	19

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5237.00	58863.30	59523.50	561778.30	572299.90	624489.20	663701.60	76	84	19
5238.00	58080.40	58709.50	561970.40	572487.70	624553.20	663776.90	76	84	19
5239.00	57301.10	57960.90	562164.10	572681.00	624590.90	663808.60	76	84	19
5240.00	56517.40	57140.10	562359.20	572874.90	624663.20	663876.90	76	84	19
5241.00	55703.80	56373.20	562550.80	573063.20	624694.90	663913.10	76	84	19
5242.00	54957.20	55587.10	562752.10	573251.50	624761.20	663986.80	76	84	19
5243.00	34618.80	35256.90	562934.00	573451.10	624817.20	664035.50	61	330	2018
5244.00	35391.70	36115.20	563131.90	573653.20	624850.60	664070.20	61	330	2018
5245.00	36248.60	36859.30	563325.70	573839.00	624917.90	664136.60	61	330	2018
5246.00	37019.80	37681.20	563519.50	574033.60	624951.60	664174.00	61	330	2018
5247.00	37828.70	38444.50	563710.10	574221.80	625022.40	664239.40	61	330	2018
5248.00	38609.20	39301.50	563904.00	574422.40	625060.20	664272.20	61	330	2018
5249.00	39434.80	40062.20	564097.80	574613.30	625124.40	664342.90	61	330	2018
5250.00	40199.90	40876.10	564293.70	574808.40	625163.20	664376.80	61	330	2018
5251.00	41030.10	41683.50	564478.80	574991.70	625229.90	664447.80	61	330	2018
5252.00	41843.20	42540.30	564677.70	575194.20	625263.50	664484.90	61	330	2018
5253.00	42665.20	43263.10	564868.60	575381.00	625338.10	664555.70	61	330	2018
5254.00	43413.40	44092.00	565063.30	575581.40	625370.20	664583.50	61	330	2018
5255.00	44215.70	44842.00	565250.40	575762.80	625437.40	664654.80	61	330	2018
5256.00	44998.40	45683.90	565452.60	575970.00	625473.60	664691.50	61	330	2018
5257.00	45808.60	46421.00	565640.10	576156.90	625540.30	664756.10	61	330	2018
5258.00	47721.80	48356.60	565835.60	576343.00	625592.70	664809.70	66	350	2018
5259.00	48523.50	49208.70	566034.50	576545.70	625623.30	664843.70	66	350	2018
5260.00	32401.20	33072.00	566226.40	576732.90	625697.70	664917.70	14	252	2018
5261.00	37758.70	38426.00	566415.30	576932.90	625730.40	664947.60	15	254	2018
5262.00	49377.30	50036.60	566608.10	577119.40	625793.50	665014.00	66	350	2018
5263.00	50226.80	50920.60	566806.60	577331.80	625834.60	665055.00	66	350	2018
5264.00	54897.90	55442.70	567003.60	575932.60	631778.90	665103.60	58	328	2018
5264.01	51078.40	51175.50	575903.40	577509.20	625903.10	631888.70	66	350	2018
5265.00	54114.90	54773.30	567190.40	577708.80	625953.20	665174.90	58	328	2018
5266.00	53324.20	53970.10	567384.80	577899.00	625985.90	665209.20	58	328	2018
5267.00	52570.00	53210.30	567575.10	578087.80	626055.40	665274.90	58	328	2018
5268.00	51807.20	52456.50	567778.30	578284.20	626092.30	665316.10	58	328	2018
5269.00	50998.40	51665.40	567962.90	578473.50	626162.10	665381.40	58	328	2018
5270.00	50229.50	50872.30	568157.70	578671.30	626198.90	665415.30	58	328	2018
5271.00	49457.20	50106.10	568350.00	578863.70	626263.70	665482.70	58	328	2018
5272.00	48676.50	49343.60	568545.70	579058.20	626299.20	665517.50	58	328	2018
5273.00	47885.30	48550.00	568737.80	579227.70	626358.80	665591.50	58	328	2018
5274.00	41060.50	41666.90	568930.00	579438.60	626418.20	665639.00	78	85	19
5275.00	41824.50	42509.50	569118.00	579636.50	626456.50	665672.40	78	85	19
5276.00	42615.90	43248.70	569313.20	579829.50	626525.10	665744.60	78	85	19

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5277.00	43399.10	44089.30	569509.40	580025.60	626557.60	665779.40	78	85	19
5278.00	44200.40	44834.00	569701.70	580207.30	626626.20	665844.40	78	85	19
5279.00	36655.20	37306.30	569893.40	580407.50	626683.00	665897.10	15	254	2018
5280.00	35910.10	36541.20	570087.40	580601.80	626716.90	665937.30	15	254	2018
5281.00	35168.30	35765.50	570281.00	580795.60	626789.10	666001.50	15	254	2018
5282.00	34359.90	35033.60	570475.80	580991.80	626820.80	666038.40	15	254	2018
5283.00	33581.50	34216.70	570660.30	581182.10	626890.40	666107.50	15	254	2018
5284.00	32852.10	33443.80	570864.30	581376.70	626922.40	666143.40	15	254	2018
5285.00	32110.50	32715.70	571053.80	581568.00	626991.90	666212.10	15	254	2018
5286.00	33212.40	33876.10	571243.80	581757.40	627028.40	666244.20	14	252	2018
5287.00	31153.30	31779.00	571439.60	581957.40	627081.20	666295.90	14	252	2018
5288.00	30390.10	31012.90	571634.20	582149.10	627147.00	666367.60	14	252	2018
5289.00	45856.10	46490.90	571823.40	582336.10	627199.40	666414.90	12	250	2018
5290.00	46633.70	47281.80	572022.80	582534.60	627233.60	666454.10	12	250	2018
5291.00	47390.10	48071.90	572212.50	582723.40	627305.70	666521.30	12	250	2018
5292.00	48212.70	48902.20	572399.90	582918.40	627338.60	666557.30	12	250	2018
5293.00	49028.80	49661.90	572599.30	583110.50	627403.30	666627.00	12	250	2018
5294.00	49789.20	50447.50	572792.00	583307.60	627442.30	666657.00	12	250	2018
5295.00	50566.70	51234.50	572987.40	583511.20	627508.70	666728.40	12	250	2018
5296.00	51367.80	52058.10	573182.50	583707.80	627547.50	666763.70	12	250	2018
5297.00	52166.80	52808.90	573369.40	583883.20	627611.50	666827.00	12	250	2018
5298.00	52943.40	53596.80	573566.90	584083.80	627648.60	666863.60	12	250	2018
5299.00	53710.70	54371.10	573760.10	584270.30	627716.30	666936.00	12	250	2018
5300.00	54504.30	55195.80	573947.80	584470.40	627753.90	666964.10	12	250	2018
5301.00	55318.70	55942.30	574140.30	584663.60	627819.60	667039.70	12	250	2018
5302.00	56086.50	56731.00	574337.20	584855.60	627854.20	667072.70	12	250	2018
5303.00	41560.30	42260.80	574531.60	585041.40	627920.80	667139.70	75	83	19
5304.00	40820.80	41432.00	574726.00	585235.00	627959.10	667177.50	75	83	19
5305.00	38715.50	39343.40	574912.20	585430.00	628026.40	667243.70	15	254	2018
5306.00	39512.20	40148.10	575112.10	585619.00	628058.60	667277.00	15	254	2018
5307.00	40254.90	40915.70	575299.00	585818.20	628128.20	667345.90	15	254	2018
5308.01	40031.90	40704.70	575500.00	586004.90	628179.80	667401.80	75	83	19
5309.00	41922.70	42564.60	575689.30	586198.80	628234.10	667453.30	15	254	2018
5310.00	42735.20	43388.40	575884.50	586397.60	628267.60	667485.70	15	254	2018
5311.00	33826.10	34530.70	576069.80	586592.60	628339.90	667555.90	20	267	2018
5312.00	34696.50	35386.50	576276.60	586790.90	628377.40	667591.20	20	267	2018
5313.00	35490.20	36166.80	576465.00	586975.60	628440.50	667660.90	20	267	2018
5314.00	36336.10	36993.80	576655.60	587171.10	628479.30	667694.80	20	267	2018
5315.00	37150.20	37807.80	576849.10	587363.30	628542.40	667763.10	20	267	2018
5316.00	55159.70	56508.80	566689.00	587550.10	628594.20	706464.30	25	271	2018
5317.00	56693.10	57911.10	566884.60	587754.80	628634.90	706494.60	25	271	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5318.00	58050.40	59400.30	567069.90	587940.40	628700.40	706562.70	25	271	2018
5319.00	59550.00	60764.60	567271.10	588140.20	628735.80	706600.00	25	271	2018
5320.00	30357.40	31580.20	567461.30	588325.40	628803.10	706666.80	28	274	2018
5321.00	32816.30	34112.40	567662.60	588527.40	628839.00	706704.10	28	274	2018
5322.00	34226.90	35529.90	567849.50	588717.40	628905.00	706773.50	28	274	2018
5323.00	35697.50	36994.80	568040.00	588910.10	628941.10	706806.50	28	274	2018
5324.00	37144.90	38439.40	568224.50	589107.10	629013.70	706872.30	28	274	2018
5325.00	38582.40	39851.60	568428.30	589303.60	629047.50	706909.50	28	274	2018
5326.00	39997.20	41256.50	568623.40	589479.40	629114.90	706977.30	28	274	2018
5327.00	48234.30	49495.70	568814.80	589672.70	629168.00	707027.00	28	274	2018
5328.00	49628.60	50946.00	569014.30	589872.90	629196.50	707062.00	28	274	2018
5329.00	51076.10	52348.70	569191.30	590066.00	629271.80	707130.70	28	274	2018
5330.00	52484.40	53768.00	569391.20	590259.30	629306.40	707163.30	28	274	2018
5331.00	53899.10	55187.90	569586.20	590456.50	629373.60	707233.90	28	274	2018
5332.00	55346.20	56677.40	569791.70	590650.30	629410.30	707273.50	28	274	2018
5333.00	56824.50	58099.40	569967.80	590840.40	629476.10	707338.20	28	274	2018
5334.00	58233.40	59451.70	570170.40	591036.30	629510.50	707371.30	28	274	2018
5335.00	41077.20	42365.20	570662.90	591223.90	629580.50	706306.10	30	278	2018
5336.00	42496.80	43693.50	570866.50	591426.50	629615.10	706288.00	30	278	2018
5337.00	43846.70	45178.70	571074.10	591616.90	629682.70	706313.20	30	278	2018
5338.00	45331.90	46528.40	571287.70	591813.90	629717.70	706298.90	30	278	2018
5339.00	46647.70	47956.00	571489.10	592001.50	629786.40	706321.30	30	278	2018
5340.00	48096.50	49290.50	571697.30	592207.30	629823.00	706306.90	30	278	2018
5341.00	49430.50	50728.10	571897.60	592385.80	629893.00	706331.60	30	278	2018
5342.00	50871.10	52091.40	572108.40	592586.60	629928.40	706321.10	30	278	2018
5343.00	30054.10	31349.80	572310.20	592770.70	629996.30	706342.90	31	279	2018
5344.00	31483.70	32703.60	572523.10	592976.60	630031.90	706333.00	31	279	2018
5345.00	32832.10	34188.30	572722.80	593156.90	630097.40	706348.00	31	279	2018
5346.00	34332.10	35554.90	572935.30	593357.90	630135.20	706336.40	31	279	2018
5347.00	35684.60	36973.50	573132.70	593543.20	630200.50	706360.00	31	279	2018
5348.00	37136.60	38327.60	573351.60	593744.40	630237.40	706343.30	31	279	2018
5349.00	38446.90	39748.00	573546.70	593933.00	630303.90	706364.90	31	279	2018
5350.00	39890.60	41093.40	573755.10	594135.90	630340.30	706357.30	31	279	2018
5351.00	47830.10	49106.00	573957.10	594317.60	630408.80	706377.50	31	279	2018
5352.00	49260.70	50447.80	574171.00	594518.00	630449.20	706376.30	31	279	2018
5353.00	50572.20	51873.40	574351.30	594704.20	630514.50	706440.80	31	279	2018
5354.00	52380.10	53196.50	580870.20	594901.30	630549.30	682908.40	31	279	2018
5354.01	54977.20	55395.20	574549.60	580888.50	682815.90	706480.50	70	54	19
5355.00	53328.80	54642.40	574737.10	595089.10	630619.00	706545.70	31	279	2018
5356.00	51598.40	52925.90	574936.00	595282.60	630665.40	706596.60	11	247	2018
5357.00	63326.20	64426.80	575130.10	595475.70	630706.60	706635.70	11	247	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5358.02	42840.90	44123.50	575317.70	595668.50	630768.90	706699.10	17	259	2018
5359.00	44274.40	45577.40	575510.70	595870.40	630806.60	706733.50	17	259	2018
5360.00	45697.60	46925.30	575705.60	596054.60	630873.30	706804.00	17	259	2018
5361.00	47091.20	48372.50	575914.00	596256.70	630910.70	706844.30	17	259	2018
5362.00	48491.80	49736.20	576088.40	596439.60	630980.90	706906.50	17	259	2018
5363.00	49878.30	51162.10	576282.10	596641.40	631014.10	706940.50	17	259	2018
5364.00	51284.80	52491.30	576481.30	596830.10	631079.50	707015.00	17	259	2018
5365.00	52647.10	53951.00	576685.70	597025.50	631116.00	707047.00	17	259	2018
5366.00	32930.70	34125.20	576864.80	597218.40	631187.60	707118.10	26	272	2018
5367.00	34285.30	35598.30	577066.30	597412.00	631219.20	707151.70	26	272	2018
5368.00	35727.60	36962.00	577247.60	597595.30	631288.70	707214.90	26	272	2018
5369.00	37124.50	38421.40	577453.00	597799.30	631324.50	707254.50	26	272	2018
5370.00	38546.30	39795.60	577632.10	597986.50	631394.50	707319.90	26	272	2018
5371.00	39950.50	41277.30	577835.30	598188.00	631430.70	707358.70	26	272	2018
5372.00	41422.70	42656.40	578023.60	598373.60	631497.40	707427.00	26	272	2018
5373.00	42806.70	44064.40	578215.30	598573.70	631536.50	707459.50	26	272	2018
5374.00	50078.80	51327.90	578412.50	598760.20	631600.40	707529.60	26	272	2018
5375.00	51468.30	52697.40	578610.80	598956.90	631636.50	707567.90	26	272	2018
5376.00	52840.30	54100.00	579101.10	599143.10	631699.70	706488.00	26	272	2018
5377.01	47059.40	48184.50	579321.30	599344.20	631737.80	706477.40	37	290	2018
5378.00	55594.20	56836.80	579516.30	599536.50	631805.70	706498.50	26	272	2018
5379.00	57014.00	58235.60	579721.90	599734.30	631843.50	706482.40	26	272	2018
5380.00	58379.10	59648.30	579926.90	599919.40	631910.20	706508.90	26	272	2018
5381.00	59796.90	61040.80	580138.70	600119.60	631945.70	706494.80	26	272	2018
5382.00	53704.10	54911.10	580344.20	600311.20	631999.80	706497.00	25	271	2018
5383.00	52252.30	53563.90	580541.10	600499.00	632067.90	706516.80	25	271	2018
5384.00	50893.80	52105.00	580755.90	600698.30	632104.00	706507.20	25	271	2018
5385.00	49421.00	50749.10	580952.70	600888.90	632168.80	706528.00	25	271	2018
5386.00	41014.30	42220.60	581164.90	601086.80	632203.30	706514.20	24	271	2018
5387.00	39600.60	40865.50	581371.80	601272.80	632276.40	706536.50	24	271	2018
5388.00	38216.90	39448.60	581593.40	601466.20	632306.20	706530.20	24	271	2018
5389.00	36818.00	38079.40	581778.20	601655.50	632377.80	706546.00	24	271	2018
5390.00	35443.20	36655.40	581993.40	601858.30	632412.90	706535.10	24	271	2018
5391.00	38466.10	39720.70	582200.90	602050.90	632463.40	706541.60	20	267	2018
5392.00	39879.00	41119.30	582397.40	602240.30	632534.80	706558.90	20	267	2018
5393.00	41297.50	42590.70	582602.30	602431.20	632566.30	706564.80	20	267	2018
5394.00	42753.40	43997.00	582788.20	602617.20	632634.30	706632.90	20	267	2018
5395.00	44159.40	45415.90	582987.10	602822.40	632673.00	706669.10	20	267	2018
5396.01	59118.70	60387.50	583180.70	603020.60	632743.80	706736.80	79	86	2019
5397.00	56268.90	57495.80	583372.10	603203.30	632776.60	706771.60	20	267	2018
5398.00	57642.60	58900.90	583564.60	603397.70	632842.70	706842.40	20	267	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5399.00	59069.90	60368.80	583759.00	603595.70	632881.40	706872.80	20	267	2018
5400.00	60544.30	61789.70	583956.60	603784.20	632950.30	706944.70	20	267	2018
5401.00	61975.80	63218.00	584152.20	603981.20	632984.30	706976.00	20	267	2018
5402.00	34166.10	35333.90	584341.30	604171.90	633049.00	707049.70	24	271	2018
5403.00	41646.30	43032.20	584531.40	604365.50	633104.70	707098.00	19	266	2018
5404.00	40331.40	41451.50	584732.10	604566.70	633139.60	707135.50	19	266	2018
5405.00	38808.20	40192.10	584921.00	604751.20	633206.60	707201.90	19	266	2018
5406.00	37492.30	38635.40	585115.50	604950.00	633238.40	707238.20	19	266	2018
5407.00	36023.20	37340.20	585303.50	605137.80	633306.80	707302.00	19	266	2018
5408.00	34682.70	35843.00	585499.60	605335.50	633349.40	707342.70	19	266	2018
5409.00	33126.30	34528.50	585692.10	605525.80	633416.10	707410.30	19	266	2018
5410.00	41570.90	42725.00	585887.60	605713.60	633467.80	707463.70	6	240	2018
5411.00	40044.40	41420.30	586077.10	605916.80	633502.20	707495.40	6	240	2018
5412.00	38733.90	39885.00	586269.90	606098.60	633571.90	707566.80	6	240	2018
5413.00	37240.00	38602.70	586470.00	606312.70	633607.20	707601.00	6	240	2018
5414.00	34758.90	35907.40	586658.60	606489.90	633673.90	707669.30	6	240	2018
5415.00	65598.10	66795.50	586858.20	606683.90	633705.60	707707.00	2	234	2018
5416.00	60981.50	62334.70	587045.00	606877.30	633776.50	707771.40	2	234	2018
5417.00	62474.20	62869.30	587634.00	594125.90	682116.00	706370.10	2	234	2018
5418.00	62972.60	63402.70	587832.30	594319.10	682180.30	706388.80	2	234	2018
5419.00	63498.50	63882.60	588039.50	594512.30	682220.40	706376.20	2	234	2018
5420.00	43873.50	44258.40	588241.80	594689.10	682287.40	706395.60	1	233	2018
5421.00	44388.60	44795.60	588446.50	594899.40	682321.70	706381.00	1	233	2018
5422.00	44913.70	45296.20	588646.20	595077.50	682384.10	706402.20	1	233	2018
5423.00	45397.90	45796.60	588857.80	595281.70	682423.70	706387.90	1	233	2018
5424.00	63946.50	64368.40	589061.40	595461.60	682487.30	706413.40	2	234	2018
5425.00	64482.20	64874.90	589278.50	595668.50	682530.40	706402.80	2	234	2018
5426.00	65012.00	65448.90	589469.10	595856.50	682593.30	706422.60	2	234	2018
5427.00	36037.70	36486.10	589686.90	596058.20	682631.40	706413.00	6	240	2018
5428.00	54726.60	55183.70	589883.60	596246.00	682698.00	706433.00	3	235	2018
5429.00	54172.50	54554.20	590099.90	596441.50	682736.20	706420.30	3	235	2018
5430.00	53549.50	53994.70	590303.70	596635.90	682803.00	706445.00	3	235	2018
5431.00	53018.90	53403.80	590508.70	596831.80	682840.80	706428.20	3	235	2018
5432.00	52411.20	52860.10	590708.10	597018.30	682907.30	706453.50	3	235	2018
5433.00	51870.50	52267.50	590919.40	597218.10	682946.40	706440.80	3	235	2018
5434.00	51280.20	51720.60	591112.90	597400.30	683011.00	706483.20	3	235	2018
5435.00	50756.00	51134.90	591314.70	597606.30	683044.40	706519.40	3	235	2018
5436.00	50124.90	50581.60	591502.70	597794.40	683115.30	706583.90	3	235	2018
5437.00	49589.70	49974.00	591696.90	597992.90	683149.70	706619.40	3	235	2018
5438.00	48986.10	49418.70	591893.10	598178.60	683221.20	706691.20	3	235	2018
5439.00	48459.70	48835.60	592091.20	598379.20	683252.00	706724.10	3	235	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5440.00	47910.20	48329.10	592277.10	598562.30	683319.00	706792.30	3	235	2018
5441.00	36605.90	36987.50	592469.10	598765.70	683375.50	706846.20	6	240	2018
5442.00	51677.90	52059.70	592664.00	598952.60	683426.30	706898.60	7	240	2018
5443.00	52198.10	52589.10	592862.60	599150.80	683459.80	706930.70	7	240	2018
5444.00	52730.90	53096.70	593053.90	599342.80	683529.60	706999.30	7	240	2018
5445.00	53250.50	53658.30	593250.40	599534.30	683564.00	707034.40	7	240	2018
5446.00	53786.80	54130.70	593430.40	599723.30	683631.00	707103.60	7	240	2018
5447.00	54260.10	54624.90	593634.30	599922.30	683672.30	707136.20	7	240	2018
5448.00	54790.40	55163.70	593823.20	600110.50	683733.70	707205.70	7	240	2018
5449.00	55320.30	55719.10	594020.00	600312.30	683774.20	707240.00	7	240	2018
5450.00	55843.50	56202.50	594206.50	600497.50	683839.50	707306.00	7	240	2018
5451.00	56346.40	56743.40	594407.40	600696.50	683874.10	707346.80	7	240	2018
5452.00	56904.50	57286.20	594597.70	600887.60	683942.60	707411.30	7	240	2018
5453.00	57436.40	57859.80	594784.90	601085.40	683977.00	707445.90	7	240	2018
5454.00	47650.40	48058.30	594978.30	601271.10	684044.00	707517.20	8	241	2018
5455.00	48192.90	48572.60	595180.80	601468.10	684081.50	707552.90	8	241	2018
5456.00	48726.00	49143.60	595367.30	601657.40	684150.70	707620.30	8	241	2018
5457.00	49290.20	49673.80	595566.60	601854.30	684186.90	707653.60	8	241	2018
5458.00	49807.20	50185.10	596064.50	602041.40	684253.80	706569.30	8	241	2018
5459.00	50320.50	50670.80	596274.30	602232.10	684292.00	706553.50	8	241	2018
5460.00	50809.90	51203.80	596474.60	602430.30	684361.20	706579.20	8	241	2018
5461.00	51346.20	51713.70	596680.40	602628.80	684392.60	706563.60	8	241	2018
5462.00	32087.90	32467.90	596890.70	602815.20	684460.20	706586.10	9	246	2018
5463.00	32620.40	32962.00	597100.70	603014.80	684499.80	706571.80	9	246	2018
5464.00	33096.20	33491.30	597306.40	603207.90	684565.00	706597.50	9	246	2018
5465.00	33624.70	33960.00	597511.40	603405.50	684601.80	706580.20	9	246	2018
5466.00	34104.80	34478.70	597714.50	603591.40	684671.90	706606.80	9	246	2018
5467.00	34617.00	34946.30	597926.40	603784.50	684706.40	706590.30	9	246	2018
5468.00	35098.50	35506.60	598125.70	603981.30	684771.70	706616.50	9	246	2018
5469.00	35646.40	35995.70	598337.80	604172.50	684808.70	706599.20	9	246	2018
5470.00	36132.00	36528.70	598537.10	604361.70	684876.50	706621.80	9	246	2018
5471.00	36665.20	37013.00	598747.40	604573.00	684914.30	706610.20	9	246	2018
5472.00	37161.80	37551.80	598948.90	604750.60	684978.80	706630.70	9	246	2018
5473.00	37686.10	38013.90	599155.20	604946.20	685014.30	706623.20	9	246	2018
5474.00	38162.70	38548.10	599361.10	605138.70	685081.10	706639.60	9	246	2018
5475.00	38679.10	39006.10	599558.80	605334.90	685116.30	706655.50	9	246	2018
5476.00	39151.40	39531.70	599753.10	605523.80	685186.70	706727.70	9	246	2018
5477.00	39665.70	40006.40	599948.70	605718.00	685225.20	706759.50	9	246	2018
5478.00	40142.40	40522.60	600137.50	605912.90	685290.80	706829.90	9	246	2018
5479.00	40650.40	40988.10	600328.10	606112.50	685328.20	706863.00	9	246	2018
5480.00	41128.60	41508.40	600525.60	606298.70	685393.50	706934.90	9	246	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5481.00	41643.40	41969.60	600719.30	606492.60	685430.80	706966.60	9	246	2018
5482.00	42124.30	42499.60	600910.80	606681.90	685495.10	707036.00	9	246	2018
5483.00	42619.60	42947.00	601102.30	606875.90	685532.00	707070.10	9	246	2018
5484.00	32624.90	33008.30	601297.00	607066.10	685599.20	707138.00	10	247	2018
5485.00	33157.70	33509.80	601495.60	607263.30	685640.10	707175.60	10	247	2018
5486.00	33642.10	34006.00	601683.00	607456.10	685706.20	707243.60	10	247	2018
5487.00	34152.40	34496.10	601880.90	607654.20	685742.50	707278.50	10	247	2018
5488.00	34651.70	35019.30	602071.40	607847.60	685810.50	707344.80	10	247	2018
5489.00	35163.90	35521.30	602267.60	608037.00	685846.00	707380.20	10	247	2018
5490.00	35674.00	36033.00	602458.50	608223.90	685912.80	707449.80	10	247	2018
5491.00	36187.80	36531.80	602652.80	608426.10	685947.00	707484.20	10	247	2018
5492.00	36678.50	37055.80	602839.20	608613.90	686013.60	707556.20	10	247	2018
5493.00	37213.10	37549.20	603042.40	608812.40	686049.60	707587.80	10	247	2018
5494.00	37691.20	38047.30	603232.50	608998.80	686121.00	707655.20	10	247	2018
5495.00	38199.70	38521.20	603425.70	609201.10	686154.10	707691.10	10	247	2018
5496.00	38673.50	39047.50	603611.90	609387.10	686223.50	707762.90	10	247	2018
5497.00	39182.70	39529.10	603811.30	609580.10	686257.00	707794.10	10	247	2018
5498.00	39697.00	40056.30	604298.50	609771.80	686323.50	706748.20	10	247	2018
5499.00	40191.70	40522.80	604508.40	609966.30	686360.80	706733.80	10	247	2018
5500.00	40677.30	41014.40	604711.30	610161.30	686432.00	706755.90	10	247	2018
5501.00	41152.00	41473.50	604918.90	610356.00	686466.90	706744.40	10	247	2018
5502.00	53457.50	53785.20	605131.60	610555.00	686516.10	706752.60	11	247	2018
5503.00	53943.40	54321.00	605329.60	610732.20	686581.90	706771.10	11	247	2018
5504.00	54456.10	54774.70	605542.20	610948.50	686619.70	706760.40	11	247	2018
5505.00	54913.90	55268.10	605743.70	611125.20	686691.00	706779.60	11	247	2018
5506.00	55413.50	55717.70	605953.50	611321.30	686724.00	706766.30	11	247	2018
5507.00	55875.50	56213.20	606151.70	611513.50	686793.70	706786.60	11	247	2018
5508.00	56382.90	56693.20	606362.30	611708.70	686824.90	706773.20	11	247	2018
5509.00	56861.70	57178.90	606560.90	611899.30	686891.80	706795.20	11	247	2018
5510.00	57304.90	57617.20	606770.40	612095.40	686929.70	706783.60	11	247	2018
5511.00	57774.90	58118.90	606976.10	612283.40	686997.60	706807.70	11	247	2018
5512.00	58265.70	58574.70	607186.70	612482.30	687036.20	706796.10	11	247	2018
5513.00	58727.00	59042.70	607389.50	612672.10	687103.00	706811.80	11	247	2018
5514.00	59196.30	59508.60	607600.40	612868.50	687134.30	706803.40	11	247	2018
5515.00	59655.40	59982.10	607798.40	613059.60	687204.70	706822.70	11	247	2018
5516.00	60122.60	60438.10	608003.20	613252.80	687237.20	706845.60	11	247	2018
5517.00	60589.10	60940.30	608190.40	613444.20	687310.10	706914.00	11	247	2018
5518.00	61068.60	61388.30	608387.90	613641.60	687342.40	706949.40	11	247	2018
5519.00	61537.80	61895.60	608578.00	613826.50	687409.30	707018.30	11	247	2018
5520.00	62019.20	62322.60	608771.60	614025.60	687450.70	707051.00	11	247	2018
5521.00	62458.60	62783.00	608960.00	614214.50	687512.00	707118.80	11	247	2018

FEM FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5522.01	54012.10	54309.20	609155.10	614409.40	687564.50	707170.50	70	54	2019
5523.00	33843.10	34194.20	609351.30	614608.00	687604.50	707211.50	16	258	2018
5524.00	34330.30	34641.50	609541.80	614792.80	687669.80	707275.40	16	258	2018
5525.00	34791.70	35138.70	609737.90	614998.70	687705.50	707312.10	16	258	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
501.00	59599.70	60832.70	526504.10	606994.20	612370.00	633951.10	2	234	2018
502.00	66967.40	68428.60	525983.90	606472.80	614309.60	635887.40	2	234	2018
503.00	50286.90	51618.80	525467.70	605955.80	616230.30	637814.80	79	86	2019
504.00	51702.20	53000.90	524947.90	605437.40	618167.60	639706.10	79	86	2019
505.00	57586.60	58844.00	524427.60	604918.00	620093.60	641675.10	79	86	2019
506.00	61379.90	62642.30	523914.10	604402.00	622034.40	643607.30	79	86	2019
507.00	45738.50	46986.30	523393.70	603886.30	623969.70	645555.00	66	350	2018
508.00	46376.80	47794.00	522873.80	603365.80	625890.20	647465.40	1	233	2018
509.00	42060.60	43353.40	522355.70	602848.40	627827.90	649415.30	1	233	2018
510.00	38517.70	39804.40	521838.40	602330.70	629760.00	651342.20	76	84	2019
511.00	38210.50	39449.20	521323.80	601810.40	631692.20	653264.10	75	83	2019
512.00	42746.30	44185.80	520801.00	601295.80	633632.40	655207.70	75	83	2019
513.00	39970.10	41330.80	520284.20	600776.80	635559.00	657129.30	76	84	2019
514.00	42785.40	44039.10	519769.20	600261.30	637492.20	659074.20	79	86	2019
515.00	44159.10	45588.80	519250.90	599744.20	639424.00	660997.80	79	86	2019
516.00	52305.50	53539.90	518730.80	599227.20	641354.00	662939.00	70	54	2019
517.00	44406.50	45627.30	518214.30	598705.80	643291.90	664871.90	75	83	2019
518.00	44618.90	45905.90	517697.20	598186.80	645229.70	666801.80	76	84	2019
519.00	45805.90	46259.30	571189.20	597669.20	661631.00	668729.90	75	83	2019
519.01	46610.40	47534.60	517174.90	571285.90	647148.30	661658.10	75	83	2019
520.00	41607.20	42896.10	516661.00	597151.50	649082.80	670655.30	76	84	2019
521.00	43093.90	44457.70	516142.10	596632.70	651017.50	672582.60	76	84	2019
522.00	38708.70	39002.70	576490.80	596118.10	669266.40	674527.10	37	290	2018
523.00	46095.40	46421.20	575975.00	595600.30	671205.90	676460.60	37	290	2018
524.00	39155.80	39470.90	575454.50	595080.00	673133.90	678388.30	37	290	2018
525.00	39593.10	39915.30	574937.90	594562.50	675056.70	680324.20	37	290	2018
526.00	40381.20	41065.20	574418.80	615105.40	676987.90	687895.60	37	290	2018
527.00	41182.60	41809.30	573900.10	614587.00	678928.50	689830.60	37	290	2018
528.00	41925.80	42604.50	573382.60	614073.70	680859.70	691760.30	37	290	2018
529.00	42707.30	43370.70	572863.40	613555.30	682785.50	693695.50	37	290	2018
530.00	43492.70	44176.20	572350.00	613033.00	684724.20	695621.20	37	290	2018
531.00	44295.90	44969.40	571828.50	612516.80	686653.90	697563.20	37	290	2018
532.00	45103.80	45787.40	571315.80	611999.60	688590.70	699485.60	37	290	2018
533.00	58822.20	59464.30	570795.30	611482.10	690517.20	701425.00	31	279	2018
534.00	58038.20	58716.00	570273.30	610963.70	692451.60	703359.80	31	279	2018
535.00	57261.70	57926.20	569761.40	610445.30	694385.40	705287.00	31	279	2018
536.00	56271.80	56959.60	569241.60	609926.80	696317.50	707217.90	31	279	2018
537.00	55611.70	56166.10	568722.30	604000.50	698252.00	707703.40	31	279	2018
538.00	54918.60	55390.20	568206.30	595755.50	700184.60	707563.90	31	279	2018
539.00	31775.60	32078.70	567686.70	587313.40	702120.60	707375.30	28	274	2018
540.00	32289.70	32490.10	567167.40	578873.90	704046.10	707185.00	28	274	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
541.00	32590.50	32648.20	566651.20	570434.00	705971.90	706992.40	28	274	2018
5001.00	30437.30	31117.60	516170.50	526690.60	612259.30	651500.00	44	298	2018
5002.00	31301.50	31918.40	516364.60	526890.30	612314.70	651554.70	44	298	2018
5003.00	32059.70	32721.40	516563.60	527081.60	612361.90	651604.80	44	298	2018
5004.00	32847.00	33464.00	516753.30	527275.10	612416.00	651656.70	44	298	2018
5005.00	33650.30	34301.80	516941.70	527466.70	612466.40	651708.10	44	298	2018
5006.00	34462.20	35086.10	517141.50	527662.00	612518.10	651759.00	44	298	2018
5007.00	35256.50	35941.90	517336.10	527853.50	612570.90	651813.20	44	298	2018
5008.00	36049.20	36707.80	517538.70	528051.90	612620.70	651861.10	44	298	2018
5009.00	36914.80	37587.50	517716.10	528241.00	612673.60	651915.20	44	298	2018
5010.00	37761.70	38406.50	517912.00	528436.50	612726.90	651968.70	44	298	2018
5011.00	38542.20	38958.30	522354.00	528628.40	612777.80	636171.20	44	298	2018
5011.01	39593.30	39873.00	518104.00	522371.90	636077.60	652022.00	44	298	2018
5012.00	39975.30	40609.50	518303.10	528819.10	612828.50	652072.50	44	298	2018
5013.00	40799.60	41513.60	518493.20	529008.80	612883.40	652123.50	44	298	2018
5014.00	41685.60	42329.40	518685.80	529201.50	612934.30	652178.70	44	298	2018
5015.00	42465.00	43174.60	518878.70	529396.70	612987.90	652226.10	44	298	2018
5016.00	49296.60	49978.70	519071.30	529599.90	613036.60	652279.00	37	290	2018
5017.00	50130.20	50708.70	519265.50	529791.00	613087.00	652330.50	37	290	2018
5018.00	50296.80	50968.80	519454.40	529981.90	613142.70	652382.00	40	294	2018
5019.00	51100.60	51670.90	519655.60	530169.40	613194.40	652433.80	40	294	2018
5020.00	51895.30	52604.80	519847.80	530368.30	613246.80	652486.20	40	294	2018
5021.00	52771.80	53363.70	520035.60	530556.70	613298.60	652535.90	40	294	2018
5022.00	53540.20	54223.40	520231.90	530752.20	613346.10	652590.50	40	294	2018
5023.00	54344.20	54920.40	520426.00	530946.00	613398.30	652641.40	40	294	2018
5024.00	55155.00	55872.50	520616.50	531136.50	613450.40	652696.30	40	294	2018
5025.00	54199.40	54885.30	520805.90	531331.90	613503.40	652745.70	47	305	2018
5026.00	55008.10	55657.80	521005.70	531531.90	613557.10	652798.10	47	305	2018
5027.00	55803.00	56451.80	521199.90	531721.10	613606.10	652846.20	47	305	2018
5028.00	34126.30	34722.50	521385.20	531912.90	613664.80	652903.00	49	306	2018
5029.00	34851.00	35572.50	521582.40	532108.30	613698.00	652942.00	49	306	2018
5030.00	35727.10	36319.80	521777.90	532296.70	613766.30	653003.60	49	306	2018
5031.00	36483.70	37204.00	521974.30	532492.10	613802.30	653042.80	49	306	2018
5032.00	37350.60	37715.80	526415.60	532682.40	613871.10	637244.70	49	306	2018
5032.01	37968.70	38197.50	522161.70	526436.10	637158.90	653112.50	49	306	2018
5033.00	38345.90	39077.50	522358.90	532883.20	613906.70	653148.00	49	306	2018
5034.00	39215.60	39797.90	522550.80	533068.40	613975.10	653214.60	49	306	2018
5035.00	39951.10	40674.70	522750.50	533267.80	614010.00	653250.50	49	306	2018
5036.00	33818.30	34439.90	522939.10	533459.90	614075.00	653316.60	50	308	2018
5037.00	34583.00	35302.30	523132.00	533652.70	614125.80	653368.20	50	308	2018
5038.00	35428.50	36036.90	523319.70	533842.50	614177.60	653420.30	50	308	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5039.00	36176.80	36900.50	523515.40	534035.00	614231.80	653474.40	50	308	2018
5040.00	37039.60	37652.80	523707.70	534235.40	614281.50	653523.80	50	308	2018
5041.00	37815.30	38543.80	523900.00	534424.50	614333.20	653571.90	50	308	2018
5042.00	56355.90	56961.30	524099.00	534621.80	614383.50	653623.50	40	294	2018
5043.00	57144.60	57829.40	524286.20	534811.10	614435.10	653680.50	40	294	2018
5044.00	57949.40	58525.10	524486.80	535001.40	614491.00	653732.10	40	294	2018
5045.00	58755.70	59523.30	524667.10	535201.50	614542.40	653783.70	40	294	2018
5046.00	59680.60	60297.70	524875.60	535390.40	614594.00	653832.60	40	294	2018
5047.00	60485.30	61177.90	525063.30	535584.70	614644.10	653887.40	40	294	2018
5048.00	48774.10	49477.80	525250.60	535773.40	614695.80	653937.50	44	298	2018
5049.00	49636.00	50263.60	525446.40	535973.60	614749.80	653990.70	44	298	2018
5050.00	50407.20	51113.50	525638.30	536169.80	614800.00	654041.20	44	298	2018
5051.00	51286.10	51941.70	525835.20	536354.50	614849.70	654092.90	44	298	2018
5052.00	52137.20	52838.80	526019.30	536548.00	614904.50	654145.00	44	298	2018
5053.00	53002.30	53643.30	526224.20	536745.90	614951.90	654197.40	44	298	2018
5054.00	54055.30	54778.40	526417.30	536944.50	615003.40	654246.60	44	298	2018
5055.00	54905.70	55568.70	526611.10	537130.60	615057.60	654297.70	44	298	2018
5056.00	55904.80	56382.10	530015.80	537322.90	615112.50	642364.70	44	298	2018
5056.01	56944.80	57157.20	526797.70	530047.00	642274.30	654349.00	44	298	2018
5057.00	57349.30	58009.00	526994.90	537515.10	615161.30	654405.70	44	298	2018
5058.00	48352.00	49005.10	527183.10	537711.10	615210.30	654454.40	46	300	2018
5059.00	49141.00	49721.60	527383.10	537901.80	615264.90	654508.10	46	300	2018
5060.00	49875.00	50583.90	527573.10	538089.90	615315.60	654555.90	46	300	2018
5061.00	50726.80	51329.00	527767.90	538290.20	615369.70	654608.50	46	300	2018
5062.01	51877.30	52485.80	527957.90	538482.40	615418.10	654659.90	47	305	2018
5063.00	52612.60	53210.50	528154.20	538671.90	615470.20	654716.80	47	305	2018
5064.00	57557.60	58157.10	528346.80	538865.50	615527.40	654767.20	47	305	2018
5065.00	58306.80	58981.00	528542.90	539066.40	615573.60	654815.30	47	305	2018
5066.00	59234.10	59873.50	528608.80	539260.40	615629.30	654872.80	47	305	2018
5067.00	38693.70	39282.60	528929.00	539449.80	615679.70	654920.70	50	308	2018
5068.00	39593.20	40244.40	529121.20	539641.40	615732.00	654972.80	50	308	2018
5069.00	40364.30	40972.70	529314.10	539831.40	615784.70	655027.50	50	308	2018
5070.00	41128.10	41832.70	529506.40	540027.70	615832.50	655077.50	50	308	2018
5071.00	41957.00	42567.50	529701.90	540223.80	615883.80	655124.70	50	308	2018
5072.00	42694.70	43358.70	529893.50	540416.70	615940.20	655177.40	50	308	2018
5073.00	35888.20	36559.00	530090.30	540608.30	615990.00	655231.60	56	323	2018
5074.00	55123.80	55814.70	530285.00	540802.00	616043.70	655286.20	53	314	2018
5075.00	54040.30	54653.50	530470.60	541000.60	616093.00	655332.30	53	314	2018
5076.00	53267.00	53910.50	530667.80	541186.50	616145.90	655387.90	53	314	2018
5077.00	52537.60	53132.70	530862.50	541380.70	616196.20	655436.70	53	314	2018
5078.00	51683.50	52390.90	531057.10	541574.90	616249.50	655490.40	53	314	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5079.00	43495.90	44111.80	531244.50	541768.80	616303.90	655540.60	50	308	2018
5080.00	44266.70	44953.60	531431.10	541959.90	616352.40	655596.50	50	308	2018
5081.00	45041.10	45611.30	531633.40	542153.50	616403.30	655645.70	50	308	2018
5082.00	46054.30	46731.30	531826.20	542342.90	616457.10	655698.70	50	308	2018
5083.00	42859.10	43454.30	532017.50	542535.20	616508.30	655749.50	53	314	2018
5084.00	43592.70	44258.70	532216.70	542729.90	616561.40	655799.40	53	314	2018
5085.00	44383.70	45002.20	532404.60	542924.70	616610.50	655853.50	53	314	2018
5086.00	45129.40	45860.30	532597.10	543119.60	616661.60	655905.40	53	314	2018
5087.00	45977.10	46589.70	532792.40	543311.90	616714.30	655956.40	53	314	2018
5088.00	46737.90	47429.90	532981.50	543505.00	616766.50	656009.10	53	314	2018
5089.00	47577.80	48188.30	533176.90	543695.20	616822.80	656063.10	53	314	2018
5090.00	48592.70	49248.90	533372.80	543892.30	616872.40	656112.20	53	314	2018
5091.00	49373.80	49989.60	533565.20	544083.50	616920.00	656161.50	53	314	2018
5092.00	50135.30	50792.20	533760.70	544281.90	616972.50	656213.30	53	314	2018
5093.00	50940.30	51574.90	533951.10	544470.30	617026.10	656266.70	53	314	2018
5094.00	38260.10	38877.20	534149.60	544664.10	617079.20	656319.60	55	322	2018
5095.00	38995.40	39708.50	534342.00	544865.00	617129.40	656368.70	55	322	2018
5096.00	39831.80	40439.60	534532.80	545044.40	617181.70	656422.10	55	322	2018
5097.00	40584.90	41238.60	534723.30	545246.10	617234.80	656476.10	55	322	2018
5098.00	41395.00	42040.80	534921.40	545430.60	617285.30	656529.20	55	322	2018
5099.00	42165.40	42877.90	535106.90	545630.20	617336.90	656578.60	55	322	2018
5100.00	42993.80	43612.80	535302.00	545822.70	617393.40	656631.40	55	322	2018
5101.00	43742.60	44385.50	535495.80	546016.00	617442.70	656684.90	55	322	2018
5102.00	44526.40	45162.00	535697.20	546203.60	617494.10	656733.70	55	322	2018
5103.00	45297.50	46003.70	535883.40	546409.60	617543.90	656784.90	55	322	2018
5104.00	46121.20	46722.40	536079.70	546595.60	617597.30	656835.40	55	322	2018
5105.00	46818.70	47488.90	536268.40	546793.00	617647.00	656890.90	55	322	2018
5106.00	47629.80	48246.60	536463.50	546962.60	617702.10	656942.10	55	322	2018
5107.00	52285.60	52994.80	536666.60	547176.40	617750.50	656993.90	50	308	2018
5108.00	51572.60	52193.50	536855.40	547371.30	617803.10	657043.60	50	308	2018
5109.00	48332.80	49049.70	537046.40	547562.70	617856.70	657094.90	55	322	2018
5110.00	49185.30	49791.60	537236.40	547752.90	617906.10	657145.60	55	322	2018
5111.00	49899.00	50610.90	537428.50	547951.50	617957.70	657199.20	55	322	2018
5112.00	50757.30	51382.20	537624.90	548150.10	618010.60	657254.30	55	322	2018
5113.00	35327.50	35901.10	539482.40	548349.50	618062.70	651108.10	62	337	2018
5113.01	41581.00	41698.40	537819.10	539503.50	651021.00	657303.40	64	338	2018
5114.00	36277.20	36610.20	538063.90	543317.30	637549.80	657356.20	62	337	2018
5114.01	36828.30	37162.90	543289.80	548523.60	618115.30	637642.60	62	337	2018
5115.00	37337.50	38076.90	538205.20	548725.60	618166.30	657408.10	62	337	2018
5116.00	38208.70	38877.80	538402.20	548911.60	618218.60	657456.30	62	337	2018
5117.00	39089.90	39800.00	538592.30	549111.50	618268.20	657507.50	62	337	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5118.00	39930.40	40592.60	538825.00	549299.50	618323.90	657564.20	62	337	2018
5119.00	35680.50	36343.60	538980.50	549497.20	618373.10	657611.30	64	338	2018
5120.00	36475.50	37156.50	539168.10	549686.50	618422.90	657664.00	64	338	2018
5121.00	46110.70	46731.00	539372.50	549877.40	618477.20	657714.80	79	86	2019
5122.00	46864.50	47546.40	539555.20	550066.30	618527.70	657771.30	79	86	2019
5123.00	47622.10	48235.20	539771.60	550269.10	618580.80	657819.80	79	86	2019
5124.00	48375.60	49060.30	539938.40	550459.20	618630.40	657874.90	79	86	2019
5125.00	49142.90	49758.00	540106.20	550653.30	618685.70	657924.00	79	86	2019
5126.00	33068.60	33676.60	540329.90	550844.50	618736.70	657972.50	54	317	2018
5127.00	34164.10	34904.20	540523.80	551034.60	618786.70	658026.80	54	317	2018
5128.00	35013.30	35625.10	540712.40	551225.30	618839.00	658077.30	54	317	2018
5129.00	35728.30	36401.70	540909.30	551430.60	618889.80	658129.80	54	317	2018
5130.00	36519.90	37130.50	541104.50	551619.90	618946.40	658184.20	54	317	2018
5131.00	37250.90	37975.00	541293.80	551815.90	618996.90	658234.00	54	317	2018
5132.00	38099.30	38691.20	541488.10	552004.80	619047.00	658289.50	54	317	2018
5133.00	38809.70	39512.30	541684.70	552202.50	619097.70	658341.10	54	317	2018
5134.00	33442.50	34102.40	541873.50	552384.80	619150.90	658391.80	56	323	2018
5135.00	34206.40	34875.10	542073.20	552586.50	619202.40	658440.60	56	323	2018
5136.00	35009.90	35666.30	542261.10	552784.00	619253.00	658493.90	56	323	2018
5137.00	36807.00	37457.80	542460.90	552971.00	619308.70	658542.90	56	323	2018
5138.00	37577.50	38252.00	542649.70	553164.70	619358.20	658600.80	56	323	2018
5139.00	38382.90	39008.50	542843.50	553364.10	619408.20	658651.90	56	323	2018
5140.00	39106.00	39770.40	543034.40	553553.50	619461.80	658701.40	56	323	2018
5141.00	39914.70	40565.10	543230.20	553745.40	619516.10	658752.10	56	323	2018
5142.00	40675.80	41349.50	543423.10	553940.10	619564.20	658806.10	56	323	2018
5143.00	41474.00	42094.00	543610.20	554135.60	619617.60	658858.30	56	323	2018
5144.00	42190.10	42870.80	543810.10	554328.40	619667.90	658908.20	56	323	2018
5145.00	43016.70	43653.70	543993.00	554514.70	619719.80	658962.30	56	323	2018
5146.00	43761.10	44437.20	544217.60	554713.30	619769.10	659013.00	56	323	2018
5147.00	44555.40	45202.90	544383.70	554906.60	619827.00	659064.90	56	323	2018
5148.00	45315.20	45950.10	544584.70	555098.20	619873.00	659113.00	56	323	2018
5149.00	37159.80	37824.10	544775.80	555291.90	619929.50	659167.20	57	324	2018
5150.00	37917.50	38526.50	544970.10	555487.50	619976.30	659215.70	57	324	2018
5151.00	38661.20	39371.00	545158.10	555677.40	620028.70	659270.30	57	324	2018
5152.00	39481.80	40110.60	545347.70	555871.90	620080.10	659325.40	57	324	2018
5153.00	40250.40	40911.20	545546.60	556066.50	620135.30	659372.70	57	324	2018
5154.00	41024.20	41657.70	545738.20	556263.00	620184.60	659425.90	57	324	2018
5155.00	41802.60	42494.80	545933.60	556443.10	620235.80	659481.80	57	324	2018
5156.00	42633.30	43264.30	546124.00	556648.20	620291.10	659529.00	57	324	2018
5157.00	43377.70	44045.40	546318.60	556835.80	620340.80	659582.40	57	324	2018
5158.00	44149.70	44768.50	546511.10	557032.40	620393.80	659636.20	57	324	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5159.00	44915.70	45638.10	546702.00	557230.60	620443.80	659685.40	57	324	2018
5160.00	45748.30	46401.30	546904.40	557423.40	620499.10	659735.40	57	324	2018
5161.00	46527.70	47184.30	547092.00	557614.30	620547.30	659791.80	57	324	2018
5162.00	47295.40	47883.60	547286.90	557806.20	620602.00	659838.80	57	324	2018
5163.00	37356.30	37978.50	547479.60	557988.30	620655.70	659892.60	64	338	2018
5164.00	38136.40	38819.50	547676.20	558192.90	620706.70	659943.40	64	338	2018
5165.00	38993.70	39619.10	547866.30	558375.60	620760.20	659997.40	64	338	2018
5166.00	39757.20	40414.20	548059.20	558574.80	620811.70	660047.00	64	338	2018
5167.00	40756.50	41370.10	548252.00	558765.80	620863.50	660098.60	64	338	2018
5168.00	56912.90	57545.90	548435.50	558966.60	620910.60	660151.80	70	54	2019
5169.00	57676.80	58359.50	548638.10	559154.00	620960.50	660201.70	70	54	2019
5170.00	40508.20	41104.00	548832.80	559350.40	621018.20	660254.60	81	87	2019
5171.00	41224.80	41914.10	549030.50	559546.20	621069.80	660308.80	81	87	2019
5172.00	42014.40	42616.90	549220.00	559690.90	621121.90	660356.00	81	87	2019
5173.00	42731.20	43458.70	549405.60	559925.00	621173.50	660410.20	81	87	2019
5174.00	62838.70	63462.00	549609.30	560125.40	621225.10	660463.70	76	84	2019
5175.00	62030.30	62660.50	549797.10	560318.00	621271.90	660512.20	76	84	2019
5176.00	43560.10	44167.10	549999.90	560507.20	621327.30	660563.60	81	87	2019
5177.00	44269.80	44989.70	550166.80	560702.00	621376.60	660619.30	81	87	2019
5178.00	50463.80	51169.50	550374.30	560896.20	621430.60	660671.00	81	87	2019
5179.00	51285.90	51899.60	550573.60	561092.60	621478.40	660722.50	81	87	2019
5180.00	52026.20	52742.60	550758.30	561274.10	621534.80	660773.80	81	87	2019
5181.00	52866.00	53470.00	550958.40	561467.00	621587.10	660822.60	81	87	2019
5182.00	50107.10	50748.60	551154.80	561673.30	621636.10	660877.30	82	88	2019
5183.00	49357.60	49999.60	551344.70	561859.50	621686.60	660926.10	82	88	2019
5184.00	48616.10	49245.20	551535.50	562049.30	621741.30	660981.70	82	88	2019
5185.00	47823.10	48459.40	551730.40	562243.70	621789.70	661032.70	82	88	2019
5186.00	43256.80	43945.20	551920.00	562449.70	621842.20	661084.50	74	70	2019
5187.00	42495.00	43107.10	552121.60	562612.30	621897.40	661136.60	74	70	2019
5188.00	53368.40	54006.70	552294.30	562818.40	621950.30	661188.70	73	68	2019
5189.00	54112.50	54787.00	552490.50	563020.00	621997.60	661240.10	73	68	2019
5190.00	36151.40	36773.60	552686.40	563219.10	622049.00	661289.60	74	70	2019
5191.00	36917.30	37587.20	552882.80	563412.00	622104.80	661343.70	74	70	2019
5192.00	37709.50	38328.20	553082.30	563637.20	622154.40	661394.50	74	70	2019
5193.00	58470.00	59111.10	553270.40	563823.00	622206.80	661445.30	70	54	2019
5194.00	59188.10	59868.90	553462.50	563979.90	622255.80	661495.00	70	54	2019
5195.00	59976.00	60642.50	553661.10	564178.70	622310.20	661548.00	70	54	2019
5196.00	60758.30	61415.60	553867.40	564360.90	622362.50	661600.00	70	54	2019
5197.00	38452.50	39185.60	554045.00	564567.70	622414.00	661656.00	74	70	2019
5198.00	39311.20	39925.20	554244.70	564764.30	622469.20	661703.60	74	70	2019
5199.00	40089.70	40766.20	554431.30	564956.00	622519.30	661758.60	74	70	2019

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5200.00	40908.10	41499.00	554625.80	565154.70	622571.10	661807.00	74	70	2019
5201.00	41659.20	42386.30	554823.20	565339.30	622619.10	661860.70	74	70	2019
5202.00	45125.40	45807.20	555013.60	565534.70	622671.80	661911.30	78	85	2019
5203.00	45927.00	46538.80	555215.80	565724.40	622725.20	661960.60	78	85	2019
5204.00	45125.40	45737.10	555398.00	565922.90	622775.20	662013.40	81	87	2019
5205.00	45853.10	46546.20	555592.20	566109.80	622830.00	662065.30	81	87	2019
5206.00	46658.20	47256.70	555788.80	566304.60	622883.90	662119.00	81	87	2019
5207.00	48929.20	49550.20	555975.80	566500.50	622932.60	662174.10	76	84	2019
5208.00	48111.70	48782.30	556172.20	566696.40	622981.40	662226.50	76	84	2019
5209.00	47377.50	47997.60	556375.40	566888.90	623035.10	662273.10	76	84	2019
5210.00	46595.80	47245.10	556567.20	567073.70	623088.80	662326.40	76	84	2019
5211.00	47388.90	48089.80	556753.30	567269.00	623138.00	662378.70	81	87	2019
5212.00	48182.80	48787.40	556942.70	567472.80	623193.50	662430.80	81	87	2019
5213.00	48921.90	49585.80	557141.10	567646.10	623245.40	662484.30	81	87	2019
5214.00	49690.50	50299.40	557328.10	567848.40	623292.10	662533.50	81	87	2019
5215.00	47017.60	47656.20	557520.20	568051.70	623342.90	662584.00	82	88	2019
5216.00	49739.40	50384.70	557715.10	568238.90	623394.20	662633.70	78	85	2019
5217.00	48962.20	49583.40	557911.30	568437.80	623450.50	662685.10	78	85	2019
5218.00	48200.60	48852.60	558104.70	568627.50	623499.00	662741.30	78	85	2019
5219.00	47418.60	48040.90	558300.70	568817.80	623552.60	662790.50	78	85	2019
5220.00	46636.10	47302.90	558498.80	569002.40	623605.30	662841.30	78	85	2019
5221.00	50520.00	51141.10	558686.00	569197.90	623656.20	662892.90	78	85	2019
5222.00	51285.40	51943.10	558882.60	569395.20	623709.70	662944.40	78	85	2019
5223.00	52061.30	52690.20	559070.80	569594.10	623757.40	662996.80	78	85	2019
5224.00	39470.90	40109.40	559274.70	569783.40	623813.00	663053.80	82	88	2019
5225.00	40219.80	40871.30	559454.40	569975.10	623865.90	663101.60	82	88	2019
5226.00	41004.40	41644.70	559652.50	570166.60	623919.50	663155.90	82	88	2019
5227.00	41763.50	42403.30	559840.60	570360.40	623965.50	663206.30	82	88	2019
5228.00	42523.80	43149.30	560036.40	570554.90	624020.90	663259.60	82	88	2019
5229.00	43261.50	43903.20	560230.10	570741.30	624072.10	663308.20	82	88	2019
5230.00	44018.50	44660.70	560426.00	570949.80	624121.30	663359.90	82	88	2019
5231.00	44780.20	45417.40	560618.00	571134.20	624174.60	663413.90	82	88	2019
5232.00	45546.30	46158.80	560817.40	571326.20	624230.10	663466.60	82	88	2019
5233.00	46275.00	46920.10	560998.80	571516.40	624279.50	663519.30	82	88	2019
5234.00	61177.90	61808.20	561193.50	571715.50	624331.20	663573.30	76	84	2019
5235.00	60417.00	61058.00	561380.50	571912.30	624380.10	663622.70	76	84	2019
5236.00	59643.10	60286.00	561582.60	572103.50	624431.60	663674.60	76	84	2019
5237.00	58862.90	59523.60	561771.60	572301.60	624483.20	663727.60	76	84	2019
5238.00	58080.20	58709.50	561970.40	572491.10	624540.40	663776.90	76	84	2019
5239.00	57300.80	57960.90	562159.10	572681.00	624590.90	663827.70	76	84	2019
5240.00	56517.00	57140.20	562357.70	572880.60	624639.80	663882.80	76	84	2019

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5241.00	55703.50	56373.20	562545.30	573063.20	624694.90	663932.70	76	84	2019
5242.00	54956.90	55587.10	562752.00	573257.00	624742.60	663986.80	76	84	2019
5243.00	34618.50	35256.90	562934.00	573456.40	624796.10	664035.40	61	330	2018
5244.00	35391.40	36115.30	563126.90	573654.30	624846.00	664089.30	61	330	2018
5245.00	36248.40	36859.40	563323.90	573842.70	624903.50	664142.90	61	330	2018
5246.00	37019.50	37681.20	563514.30	574033.60	624951.60	664193.60	61	330	2018
5247.00	37828.40	38444.60	563708.50	574227.70	625001.20	664245.30	61	330	2018
5248.00	38608.80	39301.60	563897.50	574423.70	625054.90	664296.50	61	330	2018
5249.00	39434.60	40062.20	564097.80	574617.00	625110.40	664342.90	61	330	2018
5250.00	40199.60	40876.20	564288.30	574809.90	625157.70	664397.20	61	330	2018
5251.00	41029.80	41683.50	564478.80	574997.50	625209.30	664447.80	61	330	2018
5252.00	41842.90	42540.30	564673.10	575194.20	625263.50	664502.40	61	330	2018
5253.00	42664.90	43263.10	564868.60	575386.50	625317.70	664555.70	61	330	2018
5254.00	43413.00	44092.10	565056.40	575583.00	625364.70	664608.60	61	330	2018
5255.00	44215.50	44842.00	565250.40	575766.80	625422.70	664654.80	61	330	2018
5256.00	44998.10	45684.00	565447.80	575971.40	625468.00	664710.20	61	330	2018
5257.00	45808.30	46421.10	565638.30	576161.90	625520.80	664762.70	61	330	2018
5258.00	47721.50	48356.70	565834.00	576348.60	625573.10	664816.00	66	350	2018
5259.00	48523.10	49208.60	566028.20	576544.00	625629.20	664867.90	66	350	2018
5260.00	32400.80	33072.00	566226.40	576739.00	625674.60	664917.70	14	252	2018
5261.00	37758.30	38426.00	566409.10	576932.90	625730.30	664971.10	15	254	2018
5262.00	49377.10	50036.80	566604.90	577122.80	625780.50	665026.00	66	350	2018
5263.00	50226.40	50920.70	566801.00	577333.20	625829.40	665077.50	66	350	2018
5264.00	54897.60	55540.10	566998.40	577520.10	625883.60	665122.80	58	328	2018
5265.00	54114.60	54773.30	567190.40	577713.60	625935.40	665174.90	58	328	2018
5266.00	53323.90	53970.10	567379.10	577899.00	625985.90	665229.50	58	328	2018
5267.00	52569.70	53210.40	567573.50	578092.70	626037.40	665280.90	58	328	2018
5268.00	51807.00	52456.50	567775.10	578284.20	626092.30	665328.30	58	328	2018
5269.00	50998.10	51665.40	567962.90	578478.30	626144.60	665381.40	58	328	2018
5270.00	50229.20	50872.40	568152.60	578672.90	626192.60	665435.40	58	328	2018
5271.00	49457.00	50106.20	568348.40	578867.00	626250.30	665488.60	58	328	2018
5272.00	48676.20	49343.60	568540.30	579058.20	626299.20	665536.20	58	328	2018
5273.00	47885.20	48550.00	568737.80	579227.70	626352.60	665591.50	58	328	2018
5274.00	41060.30	41667.00	568928.20	579442.20	626405.00	665645.30	78	85	2019
5275.00	41824.10	42509.50	569112.10	579636.50	626456.50	665694.80	78	85	2019
5276.00	42615.60	43248.70	569313.20	579834.80	626506.00	665744.60	78	85	2019
5277.00	43398.80	44089.30	569505.10	580025.60	626557.60	665796.70	78	85	2019
5278.00	44200.10	44834.10	569700.10	580212.70	626607.30	665850.60	78	85	2019
5279.00	36654.90	37306.30	569893.40	580412.70	626663.70	665897.10	15	254	2018
5280.00	35909.80	36541.30	570082.40	580603.40	626710.80	665955.20	15	254	2018
5281.00	35167.90	35765.50	570281.00	580802.70	626762.90	666001.50	15	254	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5282.00	34359.60	35033.70	570471.20	580993.30	626815.20	666055.50	15	254	2018
5283.00	33581.20	34216.70	570660.30	581187.30	626870.60	666107.50	15	254	2018
5284.00	32851.90	33443.80	570860.80	581376.70	626922.40	666156.60	15	254	2018
5285.00	32110.20	32715.70	571053.80	581572.60	626974.50	666212.10	15	254	2018
5286.00	33212.10	33876.20	571239.10	581758.80	627023.00	666262.80	14	252	2018
5287.00	31153.00	31779.10	571434.90	581959.00	627075.00	666313.50	14	252	2018
5288.00	30389.80	31012.90	571634.20	582154.60	627128.00	666367.50	14	252	2018
5289.00	45855.80	46491.00	571821.80	582341.50	627179.70	666421.00	12	250	2018
5290.00	46633.40	47281.80	572018.00	582534.60	627233.60	666471.50	12	250	2018
5291.00	47389.70	48071.90	572212.40	582731.30	627279.70	666521.30	12	250	2018
5292.00	48212.40	48902.30	572395.40	582919.80	627333.10	666573.80	12	250	2018
5293.00	49028.60	49661.90	572599.30	583114.40	627389.50	666627.00	12	250	2018
5294.00	49788.90	50447.60	572786.90	583309.30	627436.00	666674.90	12	250	2018
5295.00	50566.40	51234.50	572987.40	583518.90	627488.70	666728.40	12	250	2018
5296.00	51367.50	52058.20	573177.70	583709.20	627541.70	666781.60	12	250	2018
5297.00	52166.60	52809.00	573367.80	583886.80	627597.50	666833.20	12	250	2018
5298.00	52943.10	53596.80	573562.10	584083.80	627648.60	666881.90	12	250	2018
5299.00	53710.40	54371.10	573760.10	584275.50	627694.40	666936.00	12	250	2018
5300.00	54503.90	55195.90	573941.10	584472.00	627748.30	666988.70	12	250	2018
5301.00	55318.40	55942.30	574140.30	584668.90	627799.40	667039.70	12	250	2018
5302.00	56086.20	56731.00	574332.40	584855.60	627854.20	667090.10	12	250	2018
5303.00	41560.00	42260.90	574530.10	585046.50	627902.80	667145.70	75	83	2019
5304.00	40820.50	41432.00	574720.80	585235.00	627959.10	667196.80	75	83	2019
5305.00	38715.20	39343.40	574912.20	585435.20	628006.00	667243.70	15	254	2018
5306.00	39511.90	40148.10	575107.30	585619.00	628058.60	667295.50	15	254	2018
5307.00	40254.60	40915.80	575297.20	585823.20	628109.40	667352.20	15	254	2018
5308.01	40031.60	40704.70	575500.00	586010.10	628161.40	667401.80	75	83	2019
5309.00	41922.40	42564.60	575689.20	586202.90	628215.70	667453.30	15	254	2018
5310.00	42734.90	43388.40	575879.50	586397.60	628267.60	667503.00	15	254	2018
5311.00	33825.80	34530.70	576069.80	586598.10	628321.10	667555.90	20	267	2018
5312.00	34696.20	35386.60	576272.10	586792.30	628372.10	667609.10	20	267	2018
5313.00	35489.90	36166.80	576465.00	586980.80	628422.70	667660.90	20	267	2018
5314.00	36335.80	36993.90	576650.60	587172.80	628473.00	667712.90	20	267	2018
5315.00	37149.90	37807.80	576849.10	587368.70	628523.00	667763.10	20	267	2018
5316.00	55159.40	56508.80	566689.00	587555.10	628576.40	706464.30	25	271	2018
5317.00	56692.80	57911.20	566879.90	587756.30	628628.50	706512.80	25	271	2018
5318.00	58050.10	59400.40	567068.40	587945.70	628681.80	706568.30	25	271	2018
5319.00	59549.70	60764.60	567265.70	588140.20	628735.80	706619.30	25	271	2018
5320.00	30357.10	31580.20	567461.20	588330.40	628783.00	706666.80	28	274	2018
5321.00	32816.10	34112.40	567659.10	588527.40	628839.00	706717.60	28	274	2018
5322.00	34226.60	35529.90	567849.50	588722.30	628886.40	706773.50	28	274	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5323.00	35697.20	36994.80	568034.80	588910.10	628941.10	706825.90	28	274	2018
5324.00	37144.50	38439.40	568224.50	589116.90	628989.90	706872.30	28	274	2018
5325.00	38582.10	39851.60	568423.00	589303.60	629047.50	706925.80	28	274	2018
5326.00	39996.90	41256.50	568623.40	589484.10	629095.40	706977.30	28	274	2018
5327.00	48234.00	49495.80	568813.10	589676.80	629148.80	707033.70	28	274	2018
5328.00	49628.30	50945.90	569008.20	589871.30	629202.00	707080.50	28	274	2018
5329.00	51075.80	52348.80	569189.40	590071.10	629252.80	707137.70	28	274	2018
5330.00	52484.00	53768.10	569383.60	590260.60	629300.50	707186.20	28	274	2018
5331.00	53898.80	55187.90	569586.20	590461.80	629355.50	707233.90	28	274	2018
5332.00	55345.90	56677.50	569785.90	590652.30	629404.60	707291.70	28	274	2018
5333.00	56824.20	58099.40	569967.80	590845.40	629459.20	707338.20	28	274	2018
5334.00	58233.00	59451.70	570164.30	591036.30	629510.50	707396.00	28	274	2018
5335.00	41076.90	42365.20	570662.90	591229.60	629561.00	706306.10	30	278	2018
5336.00	42496.40	43693.50	570859.10	591426.50	629615.10	706314.50	30	278	2018
5337.00	43846.40	45178.70	571074.10	591622.40	629663.30	706313.20	30	278	2018
5338.00	45331.60	46528.40	571282.60	591813.90	629717.70	706319.20	30	278	2018
5339.00	46647.50	47956.10	571487.50	592005.00	629772.60	706327.10	30	278	2018
5340.00	48096.20	49290.50	571691.60	592207.30	629823.00	706327.20	30	278	2018
5341.00	49430.20	50728.10	571897.60	592390.90	629873.30	706331.60	30	278	2018
5342.00	50870.80	52091.50	572103.00	592587.90	629922.30	706340.30	30	278	2018
5343.00	30053.80	31349.80	572310.20	592774.90	629978.30	706342.90	31	279	2018
5344.00	31483.50	32703.70	572519.80	592978.20	630026.20	706346.20	31	279	2018
5345.00	32831.80	34188.40	572721.20	593161.50	630079.10	706353.90	31	279	2018
5346.00	34331.80	35555.00	572930.30	593359.80	630128.90	706355.80	31	279	2018
5347.00	35684.30	36973.50	573132.70	593548.10	630182.20	706360.00	31	279	2018
5348.00	37136.30	38327.60	573346.10	593744.40	630237.40	706363.90	31	279	2018
5349.00	38446.60	39748.10	573545.00	593938.60	630284.80	706370.80	31	279	2018
5350.00	39890.30	41093.40	573750.00	594135.90	630340.30	706376.30	31	279	2018
5351.00	47829.80	49106.00	573957.10	594322.20	630390.40	706377.50	31	279	2018
5352.00	49260.40	50447.90	574166.00	594519.80	630442.80	706395.00	31	279	2018
5353.00	50571.90	51873.50	574349.60	594708.80	630497.30	706446.90	31	279	2018
5354.00	51998.40	53196.50	574549.40	594901.30	630549.30	706494.80	31	279	2018
5355.00	53328.50	54642.40	574737.10	595094.00	630601.20	706545.70	31	279	2018
5356.00	51598.10	52926.00	574934.30	595287.00	630649.30	706602.70	11	247	2018
5357.00	63326.00	64426.90	575126.60	595477.50	630699.50	706648.90	11	247	2018
5358.02	42840.60	44123.60	575316.00	595673.10	630751.70	706705.00	17	259	2018
5359.00	44274.00	45577.40	575503.50	595870.40	630806.60	706758.20	17	259	2018
5360.00	45697.30	46925.30	575705.60	596059.30	630855.60	706804.00	17	259	2018
5361.00	47091.00	48372.50	575910.70	596256.70	630910.60	706857.20	17	259	2018
5362.00	48491.50	49736.30	576086.70	596444.20	630963.10	706912.90	17	259	2018
5363.00	49877.90	51162.10	576273.40	596641.40	631014.10	706964.80	17	259	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5364.00	51284.50	52491.30	576481.20	596834.50	631062.20	707015.00	17	259	2018
5365.00	52646.80	53951.00	576680.90	597025.50	631116.00	707065.90	17	259	2018
5366.00	32930.40	34125.20	576864.80	597223.60	631168.50	707118.10	26	272	2018
5367.00	34285.00	35598.30	577061.40	597412.00	631219.20	707169.70	26	272	2018
5368.00	35727.30	36962.10	577246.00	597599.80	631271.20	707221.20	26	272	2018
5369.00	37124.20	38421.40	577448.70	597799.30	631324.50	707271.70	26	272	2018
5370.00	38546.00	39795.70	577630.40	597991.30	631376.30	707326.00	26	272	2018
5371.00	39950.20	41277.40	577830.70	598189.60	631425.00	707376.00	26	272	2018
5372.00	41422.40	42656.40	578023.60	598378.20	631480.40	707427.00	26	272	2018
5373.00	42806.40	44064.50	578209.90	598575.60	631530.20	707478.20	26	272	2018
5374.00	50078.50	51327.90	578412.40	598765.30	631582.20	707529.60	26	272	2018
5375.00	51468.10	52697.40	578607.60	598956.90	631636.50	707580.50	26	272	2018
5376.00	52840.10	54100.10	579099.50	599146.70	631687.40	706494.30	26	272	2018
5377.01	47059.20	48184.50	579317.10	599344.20	631737.80	706491.90	37	290	2018
5378.00	55594.00	56836.80	579516.30	599540.00	631792.30	706498.50	26	272	2018
5379.00	57013.60	58235.60	579715.50	599734.30	631843.50	706507.70	26	272	2018
5380.00	58378.80	59648.30	579926.90	599924.10	631892.60	706508.90	26	272	2018
5381.00	59796.60	61040.80	580133.50	600119.60	631945.70	706513.70	26	272	2018
5382.00	53703.80	54911.10	580339.10	600311.20	631999.80	706516.50	25	271	2018
5383.00	52252.00	53564.00	580539.50	600503.50	632050.00	706522.60	25	271	2018
5384.00	50893.50	52105.00	580751.00	600698.30	632104.00	706526.00	25	271	2018
5385.00	49420.70	50749.20	580951.10	600893.40	632152.70	706534.10	25	271	2018
5386.00	41014.00	42220.60	581160.10	601086.80	632203.30	706533.60	24	271	2018
5387.00	39600.20	40865.60	581370.20	601278.70	632254.10	706542.50	24	271	2018
5388.00	38216.70	39448.60	581589.90	601466.20	632306.20	706543.30	24	271	2018
5389.00	36817.70	38079.50	581776.60	601660.40	632359.90	706551.60	24	271	2018
5390.00	35442.90	36655.40	581988.20	601858.30	632412.90	706553.90	24	271	2018
5391.00	38465.80	39720.70	582196.10	602050.90	632463.40	706559.40	20	267	2018
5392.00	39878.70	41119.40	582395.60	602245.40	632516.70	706565.10	20	267	2018
5393.00	41297.20	42590.70	582597.80	602431.20	632566.30	706581.60	20	267	2018
5394.00	42753.10	43997.00	582788.20	602621.90	632616.40	706632.80	20	267	2018
5395.00	44159.10	45415.90	582982.60	602822.40	632673.00	706687.30	20	267	2018
5396.01	59118.30	60387.50	583180.70	603027.10	632720.90	706736.80	79	86	2019
5397.00	56268.60	57495.80	583367.20	603203.30	632776.50	706790.10	20	267	2018
5398.00	57642.30	58900.90	583564.60	603402.50	632824.20	706842.40	20	267	2018
5399.00	59069.50	60368.90	583752.90	603597.30	632875.70	706895.70	20	267	2018
5400.00	60544.00	61789.70	583956.60	603789.30	632931.80	706944.70	20	267	2018
5401.00	61975.40	63218.10	584145.70	603982.80	632978.40	706999.20	20	267	2018
5402.00	34165.80	35333.90	584341.30	604176.70	633030.70	707049.70	24	271	2018
5403.00	41645.90	43032.30	584530.10	604371.10	633084.10	707103.00	19	266	2018
5404.00	40331.10	41451.50	584726.30	604566.70	633139.60	707156.20	19	266	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5405.00	38807.80	40192.10	584921.00	604756.50	633186.90	707201.90	19	266	2018
5406.00	37492.00	38635.40	585109.80	604950.00	633238.40	707259.20	19	266	2018
5407.00	36022.90	37340.30	585302.10	605141.90	633290.00	707307.50	19	266	2018
5408.00	34682.40	35843.10	585494.30	605337.10	633342.90	707361.60	19	266	2018
5409.00	33125.90	34528.50	585692.10	605531.50	633396.40	707410.30	19	266	2018
5410.00	41570.60	42725.00	585887.60	605718.90	633448.80	707463.70	6	240	2018
5411.00	40044.00	41420.40	586071.00	605918.20	633496.60	707518.40	6	240	2018
5412.00	38733.60	39885.00	586269.90	606104.30	633550.90	707566.80	6	240	2018
5413.00	37239.70	38602.80	586465.00	606314.20	633601.40	707617.00	6	240	2018
5414.00	34758.60	35907.40	586658.60	606495.20	633655.20	707669.20	6	240	2018
5415.00	65597.90	66795.50	586856.40	606683.90	633705.60	707719.90	2	234	2018
5416.00	60981.10	62334.80	587043.60	606883.70	633754.40	707776.60	2	234	2018
5417.00	62474.00	62869.40	587630.90	594127.60	682109.90	706382.70	2	234	2018
5418.00	62972.30	63402.70	587832.30	594324.00	682163.70	706388.80	2	234	2018
5419.00	63498.20	63882.70	588034.60	594514.10	682214.00	706395.30	2	234	2018
5420.00	43873.20	44258.40	588241.80	594694.20	682267.80	706395.60	1	233	2018
5421.00	44388.20	44795.60	588441.50	594899.40	682321.70	706404.20	1	233	2018
5422.00	44913.50	45296.30	588644.50	595080.80	682371.40	706408.90	1	233	2018
5423.00	45397.50	45796.60	588850.30	595281.70	682423.70	706410.00	1	233	2018
5424.00	63946.30	64368.50	589059.90	595463.70	682475.50	706419.20	2	234	2018
5425.00	64481.90	64875.00	589273.90	595670.20	682524.20	706420.80	2	234	2018
5426.00	65011.70	65449.00	589467.60	595860.80	682576.70	706427.90	2	234	2018
5427.00	36037.30	36486.10	589681.50	596058.20	682631.40	706432.10	6	240	2018
5428.00	54726.30	55183.80	589882.10	596250.30	682681.70	706438.20	3	235	2018
5429.00	54172.20	54554.20	590095.00	596441.50	682736.20	706438.10	3	235	2018
5430.00	53549.20	53994.70	590303.70	596640.30	682785.80	706445.00	3	235	2018
5431.00	53018.60	53403.80	590504.30	596831.80	682840.80	706446.80	3	235	2018
5432.00	52410.90	52860.10	590708.10	597023.40	682890.10	706453.50	3	235	2018
5433.00	51870.20	52267.60	590914.70	597219.80	682940.10	706459.80	3	235	2018
5434.00	51279.90	51720.60	591112.90	597404.70	682994.90	706483.20	3	235	2018
5435.00	50755.70	51134.90	591309.40	597606.30	683044.40	706537.90	3	235	2018
5436.00	50124.50	50581.70	591501.40	597800.80	683093.30	706588.90	3	235	2018
5437.00	49589.40	49974.00	591691.80	597992.90	683149.70	706639.60	3	235	2018
5438.00	48985.70	49418.70	591893.10	598184.50	683199.20	706691.20	3	235	2018
5439.00	48459.40	48835.60	592085.50	598379.20	683251.90	706744.30	3	235	2018
5440.00	47909.90	48329.20	592275.50	598567.00	683302.30	706797.50	3	235	2018
5441.00	36605.60	36987.50	592469.00	598769.60	683355.60	706846.20	6	240	2018
5442.00	51677.60	52059.70	592664.00	598957.30	683407.80	706898.60	7	240	2018
5443.00	52197.80	52589.10	592857.80	599150.80	683459.80	706949.10	7	240	2018
5444.00	52730.60	53096.70	593053.90	599348.60	683509.70	706999.30	7	240	2018
5445.00	53250.20	53658.30	593246.10	599534.30	683564.00	707051.80	7	240	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5446.00	53786.60	54130.70	593430.40	599727.30	683617.00	707103.60	7	240	2018
5447.00	54259.80	54625.00	593629.20	599924.10	683665.90	707156.40	7	240	2018
5448.00	54790.20	55163.80	593821.60	600114.10	683719.80	707211.90	7	240	2018
5449.00	55320.00	55719.20	594014.60	600313.70	683768.20	707258.30	7	240	2018
5450.00	55843.20	56202.60	594204.70	600503.20	683819.60	707312.50	7	240	2018
5451.00	56346.10	56743.40	594402.20	600696.50	683874.10	707365.10	7	240	2018
5452.00	56904.20	57286.30	594596.00	600892.90	683923.00	707417.30	7	240	2018
5453.00	57436.00	57859.80	594778.90	601085.40	683977.00	707469.60	7	240	2018
5454.00	47650.10	48058.30	594978.30	601275.90	684026.40	707517.20	8	241	2018
5455.00	48192.60	48572.60	595175.20	601468.10	684081.50	707573.10	8	241	2018
5456.00	48725.70	49143.60	595367.30	601662.10	684133.50	707620.30	8	241	2018
5457.00	49289.90	49673.90	595561.20	601856.00	684180.90	707673.60	8	241	2018
5458.00	49806.90	50185.10	596064.50	602046.40	684235.70	706569.30	8	241	2018
5459.00	50320.20	50670.90	596269.00	602234.00	684285.70	706573.00	8	241	2018
5460.00	50809.50	51203.80	596474.60	602437.40	684336.70	706579.20	8	241	2018
5461.00	51345.90	51713.70	596675.90	602628.80	684392.60	706582.50	8	241	2018
5462.00	32087.60	32467.90	596890.70	602819.80	684442.20	706586.10	9	246	2018
5463.00	32620.10	32962.10	597095.10	603016.30	684493.30	706591.60	9	246	2018
5464.00	33095.90	33491.30	597306.40	603212.80	684547.40	706597.50	9	246	2018
5465.00	33624.40	33960.00	597505.60	603405.50	684601.80	706603.00	9	246	2018
5466.00	34104.40	34478.70	597714.50	603597.60	684649.10	706606.80	9	246	2018
5467.00	34616.70	34946.40	597921.00	603786.20	684699.70	706611.60	9	246	2018
5468.00	35098.10	35506.60	598125.70	603986.90	684750.50	706616.50	9	246	2018
5469.00	35646.10	35995.80	598333.00	604174.20	684802.20	706619.00	9	246	2018
5470.00	36131.70	36528.80	598535.60	604366.40	684858.70	706627.10	9	246	2018
5471.00	36664.90	37013.10	598742.20	604574.40	684908.00	706630.10	9	246	2018
5472.00	37161.50	37551.80	598948.90	604755.20	684960.70	706630.70	9	246	2018
5473.00	37685.90	38013.90	599151.50	604946.20	685014.30	706637.80	9	246	2018
5474.00	38162.40	38548.10	599361.10	605143.60	685062.50	706639.60	9	246	2018
5475.00	38678.80	39006.10	599553.20	605334.90	685116.30	706677.70	9	246	2018
5476.00	39151.10	39531.70	599753.10	605528.90	685169.30	706727.60	9	246	2018
5477.00	39665.40	40006.50	599943.60	605719.70	685218.90	706779.70	9	246	2018
5478.00	40142.10	40522.60	600137.50	605918.20	685272.10	706829.90	9	246	2018
5479.00	40650.10	40988.20	600322.20	606114.00	685322.00	706882.80	9	246	2018
5480.00	41128.20	41508.40	600525.60	606304.90	685371.30	706934.90	9	246	2018
5481.00	41643.10	41969.70	600714.00	606494.40	685424.40	706987.20	9	246	2018
5482.00	42124.00	42499.60	600910.80	606686.70	685477.90	707036.00	9	246	2018
5483.00	42619.30	42947.00	601096.50	606875.80	685532.00	707090.60	9	246	2018
5484.00	32624.60	33008.40	601295.50	607070.40	685582.90	707143.80	10	247	2018
5485.00	33157.40	33509.90	601490.30	607265.00	685634.10	707194.70	10	247	2018
5486.00	33641.70	34006.00	601683.00	607462.30	685683.40	707243.60	10	247	2018

MAGNETIC FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5487.00	34152.10	34496.20	601875.90	607656.10	685735.90	707297.20	10	247	2018
5488.00	34651.40	35019.30	602071.40	607852.30	685791.60	707344.80	10	247	2018
5489.00	35163.60	35521.40	602262.30	608038.70	685839.80	707399.30	10	247	2018
5490.00	35673.70	36033.00	602458.50	608228.90	685894.20	707449.80	10	247	2018
5491.00	36187.50	36531.80	602647.90	608426.10	685947.00	707503.50	10	247	2018
5492.00	36678.20	37055.80	602839.20	608619.10	685994.30	707556.20	10	247	2018
5493.00	37212.80	37549.20	603037.10	608812.40	686049.60	707606.70	10	247	2018
5494.00	37690.90	38047.30	603232.50	609003.60	686102.10	707655.20	10	247	2018
5495.00	38199.40	38521.20	603420.00	609201.10	686154.10	707712.10	10	247	2018
5496.00	38673.20	39047.50	603611.90	609391.60	686204.70	707762.90	10	247	2018
5497.00	39182.40	39529.10	603806.10	609580.10	686257.00	707813.40	10	247	2018
5498.00	39696.70	40056.30	604298.50	609776.40	686304.90	706748.20	10	247	2018
5499.00	40191.40	40522.80	604503.30	609966.30	686360.80	706752.80	10	247	2018
5500.00	40676.90	41014.50	604709.60	610166.90	686408.80	706762.10	10	247	2018
5501.00	41151.70	41473.60	604913.60	610357.60	686461.20	706763.00	10	247	2018
5502.00	53457.20	53785.20	605126.60	610555.00	686516.10	706770.20	11	247	2018
5503.00	53943.10	54321.00	605329.60	610736.50	686564.90	706771.10	11	247	2018
5504.00	54455.80	54774.70	605537.00	610948.50	686619.70	706779.70	11	247	2018
5505.00	54913.50	55268.10	605743.70	611131.40	686667.60	706779.60	11	247	2018
5506.00	55413.20	55717.80	605948.10	611322.80	686718.20	706786.20	11	247	2018
5507.00	55875.20	56213.30	606150.10	611518.50	686775.20	706792.30	11	247	2018
5508.00	56382.60	56693.20	606356.40	611708.70	686824.90	706793.70	11	247	2018
5509.00	56861.40	57179.00	606559.30	611904.10	686874.00	706801.00	11	247	2018
5510.00	57304.60	57617.20	606764.90	612095.40	686929.70	706803.80	11	247	2018
5511.00	57774.60	58118.90	606976.10	612287.80	686981.60	706807.70	11	247	2018
5512.00	58265.40	58574.80	607181.80	612484.00	687029.90	706815.30	11	247	2018
5513.00	58726.70	59042.80	607387.80	612677.10	687084.80	706818.10	11	247	2018
5514.00	59196.00	59508.60	607595.30	612868.50	687134.30	706822.30	11	247	2018
5515.00	59655.10	59982.20	607796.90	613064.00	687187.80	706828.70	11	247	2018
5516.00	60122.30	60438.10	607997.20	613252.80	687237.20	706866.30	11	247	2018
5517.00	60588.80	60940.40	608188.90	613449.00	687292.50	706919.50	11	247	2018
5518.00	61068.30	61388.30	608382.10	613641.60	687342.40	706970.30	11	247	2018
5519.00	61537.50	61895.60	608578.00	613831.10	687393.10	707018.30	11	247	2018
5520.00	62018.90	62322.70	608765.70	614027.40	687444.30	707072.80	11	247	2018
5521.00	62458.40	62783.10	608958.30	614217.60	687499.60	707125.20	11	247	2018
5522.01	54011.90	54309.30	609153.40	614412.80	687551.20	707176.80	70	54	2019
5523.00	33842.80	34194.30	609347.00	614609.40	687598.80	707228.40	16	258	2018
5524.00	34330.00	34641.60	609540.20	614797.50	687651.30	707281.40	16	258	2018
5525.00	34791.40	35138.70	609733.00	614998.70	687705.50	707330.20	16	258	2018

SPECTROMETER FLOWN LINES - Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
501.00	59600.50	60832.50	526557.80	606981.50	612386.70	633947.60	2	234	2018
502.00	66967.50	68428.50	525988.90	606466.90	614310.90	635885.70	2	234	2018
503.00	50287.50	51618.50	525506.30	605938.70	616240.50	637809.90	79	86	2019
504.00	51702.50	53000.50	524973.60	605421.20	618175.10	639704.50	79	86	2019
505.00	57586.50	58843.50	524421.20	604887.10	620091.70	641668.30	79	86	2019
506.00	61380.50	62641.50	523966.60	604366.10	622049.00	643598.10	79	86	2019
507.00	45738.50	46985.50	523393.70	603833.90	623969.70	645541.00	66	350	2018
508.00	46377.50	47793.50	522899.60	603328.10	625896.90	647455.00	1	233	2018
509.00	42060.50	43353.50	522349.70	602854.70	627826.30	649416.90	1	233	2018
510.00	38518.50	39804.50	521887.50	602336.70	629772.70	651343.90	76	84	2019
511.00	38210.50	39448.50	521323.80	601763.70	631692.20	653251.10	75	83	2019
512.00	42746.50	44185.50	520819.00	601284.60	633637.10	655204.00	75	83	2019
513.00	39970.50	41330.50	520302.60	600753.60	635564.00	657123.30	76	84	2019
514.00	42785.50	44038.50	519775.60	600220.80	637494.00	659061.70	79	86	2019
515.00	44159.50	45588.50	519267.90	599721.90	639428.30	660992.20	79	86	2019
516.00	52305.50	53539.50	518730.80	599201.40	641354.10	662932.20	70	54	2019
517.00	44406.50	45626.50	518214.30	598648.90	643291.80	664857.20	75	83	2019
518.00	44619.50	45905.50	517736.60	598160.50	645239.70	666795.10	76	84	2019
519.00	45806.50	46258.50	571237.10	597636.10	661643.20	668720.30	75	83	2019
519.01	46610.50	47534.50	517180.30	571279.40	647149.90	661656.50	75	83	2019
520.00	41607.50	42895.50	516681.10	597116.80	649088.60	670645.20	76	84	2019
521.00	43094.50	44457.50	516153.50	596593.00	651020.50	672571.90	76	84	2019
522.00	38709.50	39002.50	576543.80	596104.90	669281.30	674523.50	37	290	2018
523.00	46095.50	46420.50	575981.50	595557.70	671207.50	676449.90	37	290	2018
524.00	39156.50	39470.50	575479.40	595034.90	673140.40	678376.60	37	290	2018
525.00	39593.50	39914.50	574963.00	594516.30	675063.40	680312.60	37	290	2018
526.00	40381.50	41064.50	574458.80	615087.10	676998.50	687890.80	37	290	2018
527.00	41182.50	41808.50	573893.50	614540.00	678926.60	689818.80	37	290	2018
528.00	41926.50	42604.50	573382.50	614028.90	680859.80	691749.10	37	290	2018
529.00	42707.50	43370.50	572877.00	613543.00	682789.00	693692.00	37	290	2018
530.00	43493.50	44175.50	572391.30	612985.90	684735.00	695608.60	37	290	2018
531.00	44296.50	44969.50	571866.30	612523.20	686664.70	697564.80	37	290	2018
532.00	45104.50	45787.50	571309.40	611961.90	688589.00	699475.90	37	290	2018
533.00	58822.50	59463.50	570845.10	611463.10	690530.90	701419.90	31	279	2018
534.00	58038.50	58715.50	570292.80	610933.20	692456.80	703351.70	31	279	2018
535.00	57262.50	57925.50	569805.80	610401.10	694397.90	705274.90	31	279	2018
536.00	56272.50	56959.50	569285.70	609921.00	696329.70	707216.20	31	279	2018
537.00	55612.50	56165.50	568761.30	603948.20	698262.80	707689.30	31	279	2018
538.00	54918.50	55389.50	568200.10	595712.70	700183.10	707552.40	31	279	2018
539.00	31775.50	32078.50	567679.90	587300.80	702119.00	707371.80	28	274	2018
540.00	32290.50	32489.50	567203.80	578827.80	704055.90	707172.70	28	274	2018

SPECTROMETER FLOWN LINES - Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
541.00	32590.50	32647.50	566651.20	570388.20	705971.90	706980.10	28	274	2018
5001.00	30437.50	31117.50	516172.10	526687.60	612269.90	651494.30	44	298	2018
5002.00	31301.50	31918.50	516364.60	526892.10	612308.00	651554.70	44	298	2018
5003.00	32060.50	32721.50	516562.00	527069.90	612403.80	651610.90	44	298	2018
5004.00	32847.50	33463.50	516762.30	527266.80	612449.50	651624.70	44	298	2018
5005.00	33650.50	34301.50	516946.90	527463.60	612477.70	651689.30	44	298	2018
5006.00	34462.50	35085.50	517147.10	527651.00	612558.40	651739.30	44	298	2018
5007.00	35256.50	35941.50	517341.50	527853.60	612570.90	651791.60	44	298	2018
5008.00	36049.50	36707.50	517543.80	528047.00	612640.60	651840.90	44	298	2018
5009.00	36915.50	37587.50	517716.10	528230.60	612710.60	651915.20	44	298	2018
5010.00	37762.50	38406.50	517925.70	528436.50	612726.90	651916.40	44	298	2018
5011.00	38542.50	38957.50	522364.00	528623.50	612793.80	636127.80	44	298	2018
5011.01	39593.50	39872.50	518111.20	522369.10	636087.90	651993.60	44	298	2018
5012.00	39975.50	40609.50	518307.40	528819.10	612828.50	652059.30	44	298	2018
5013.00	40799.50	41513.50	518494.60	529010.40	612877.70	652118.10	44	298	2018
5014.00	41686.50	42329.50	518701.20	529203.20	612927.80	652123.40	44	298	2018
5015.00	42465.50	43174.50	518880.40	529388.90	613016.10	652219.90	44	298	2018
5016.00	49296.50	49978.50	519074.60	529601.40	613031.10	652267.10	37	290	2018
5017.00	50130.50	50708.50	519271.00	529787.30	613101.10	652310.00	37	290	2018
5018.00	50297.50	50968.50	519459.40	529970.80	613183.90	652364.10	40	294	2018
5019.00	51100.50	51670.50	519653.60	530160.70	613224.60	652441.30	40	294	2018
5020.00	51895.50	52604.50	519851.90	530365.10	613258.50	652470.10	40	294	2018
5021.00	52772.50	53363.50	520049.40	530552.90	613311.60	652487.20	40	294	2018
5022.00	53540.50	54223.50	520230.50	530747.70	613362.90	652596.30	40	294	2018
5023.00	54344.50	54919.50	520431.90	530928.70	613461.20	652619.30	40	294	2018
5024.00	55155.50	55872.50	520616.50	531128.80	613478.80	652696.30	40	294	2018
5025.00	54199.50	54884.50	520820.20	531330.40	613509.30	652696.80	47	305	2018
5026.00	55008.50	55657.50	521012.70	531526.20	613576.70	652771.80	47	305	2018
5027.00	55803.50	56451.50	521205.40	531713.00	613636.10	652826.30	47	305	2018
5028.00	34126.50	34722.50	521385.20	531908.40	613680.10	652903.00	49	306	2018
5029.00	34851.50	35571.50	521591.40	532092.70	613756.50	652909.00	49	306	2018
5030.00	35727.50	36319.50	521783.50	532290.00	613790.50	652983.50	49	306	2018
5031.00	36483.50	37203.50	521970.80	532484.40	613831.40	653055.60	49	306	2018
5032.00	37350.50	37715.50	526420.70	532684.00	613864.40	637227.10	49	306	2018
5032.01	37968.50	38197.50	522161.80	526439.90	637144.70	653112.50	49	306	2018
5033.00	38346.50	39076.50	522370.00	532866.80	613965.80	653110.60	49	306	2018
5033.01	35885.50	36205.50	527652.60	532872.80	613922.50	633390.60	75	83	19
5034.00	39215.50	39797.50	522557.90	533070.20	613968.00	653187.70	49	306	2018
5035.00	39951.50	40674.50	522756.80	533264.90	614021.20	653225.80	49	306	2018
5035.01	36991.50	37296.50	528038.10	533263.60	614028.80	633526.40	75	83	19
5036.00	33818.50	34439.50	522946.40	533456.30	614088.80	653290.40	50	308	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5037.00	34583.50	35301.50	523139.30	533641.20	614171.20	653338.90	50	308	2018
5038.00	35428.50	36036.50	523326.60	533842.50	614177.60	653395.50	50	308	2018
5039.00	36177.50	36900.50	523527.70	534035.00	614231.80	653430.20	50	308	2018
5040.00	37039.50	37652.50	523712.50	534237.10	614275.00	653503.90	50	308	2018
5041.00	37815.50	38543.50	523903.10	534420.40	614349.10	653560.50	50	308	2018
5042.00	56356.50	56960.50	524109.00	534607.30	614434.00	653584.70	40	294	2018
5043.00	57144.50	57828.50	524300.60	534812.70	614429.10	653626.10	40	294	2018
5044.00	57949.50	58524.50	524488.80	534991.70	614529.40	653725.20	40	294	2018
5045.00	58756.50	59522.50	524678.20	535190.70	614584.30	653742.20	40	294	2018
5046.00	59680.50	60297.50	524874.00	535387.20	614606.30	653838.70	40	294	2018
5047.00	60485.50	61177.50	525069.40	535582.00	614654.40	653863.80	40	294	2018
5048.00	48774.50	49477.50	525255.40	535767.60	614716.50	653920.80	44	298	2018
5049.00	49636.50	50263.50	525454.10	535971.90	614756.20	653960.60	44	298	2018
5050.00	50407.50	51113.50	525638.30	536165.10	614816.60	654041.20	44	298	2018
5051.00	51286.50	51941.50	525841.90	536350.90	614862.40	654068.60	44	298	2018
5052.00	52137.50	52838.50	526023.80	536544.00	614920.60	654127.80	44	298	2018
5053.00	53002.50	53642.50	526227.30	536732.00	615002.40	654185.60	44	298	2018
5054.00	54055.50	54778.50	526415.80	536941.70	615013.70	654252.10	44	298	2018
5055.00	54906.50	55568.50	526624.10	537127.40	615069.70	654251.20	44	298	2018
5056.00	55905.50	56381.50	530024.80	537312.10	615152.30	642330.30	44	298	2018
5056.01	56945.50	57156.50	526808.40	530036.50	642313.10	654308.80	44	298	2018
5057.00	57349.50	58008.50	526998.40	537508.00	615190.70	654393.90	44	298	2018
5058.00	48352.50	49004.50	527192.80	537703.20	615239.80	654418.70	46	300	2018
5059.00	49141.50	49721.50	527392.70	537900.10	615271.80	654472.90	46	300	2018
5060.00	49875.50	50583.50	527578.90	538082.20	615343.60	654533.90	46	300	2018
5061.00	50727.50	51328.50	527779.90	538281.40	615403.40	654563.10	46	300	2018
5062.00	51985.50	52322.50	533251.50	538476.20	615431.80	634928.10	46	300	2018
5062.01	51877.50	52485.50	527963.20	538479.10	615430.30	654640.60	47	305	2018
5063.00	52613.50	53210.50	528170.20	538671.90	615470.20	654659.20	47	305	2018
5063.01	37508.50	37860.50	533445.30	538673.10	615468.70	634979.00	75	83	19
5064.00	57557.50	58156.50	528344.90	538854.50	615568.60	654774.10	47	305	2018
5065.00	58307.50	58980.50	528550.90	539056.00	615610.40	654786.60	47	305	2018
5066.00	59234.50	59873.50	528623.40	539260.40	615629.30	654849.00	47	305	2018
5067.00	38694.50	39282.50	528931.00	539437.40	615727.40	654913.50	50	308	2018
5067.01	42388.50	42429.50	538882.00	539440.30	615718.60	617793.90	64	338	2018
5068.00	39593.50	40244.50	529125.90	539643.00	615725.90	654954.80	50	308	2018
5069.00	40364.50	40972.50	529317.60	539828.10	615798.00	655014.50	50	308	2018
5070.00	41128.50	41832.50	529512.60	540024.30	615844.20	655055.40	50	308	2018
5071.00	41957.50	42567.50	529701.90	540214.80	615919.20	655124.60	50	308	2018
5072.00	42695.50	43358.50	529906.70	540413.70	615951.60	655131.10	50	308	2018
5073.00	35888.50	36558.50	530095.00	540599.70	616019.80	655214.20	56	323	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5074.00	55124.50	55814.50	530296.10	540798.80	616055.40	655245.70	53	314	2018
5075.00	54040.50	54653.50	530470.60	540997.30	616106.50	655332.30	53	314	2018
5076.00	53267.50	53910.50	530677.20	541186.50	616145.90	655354.90	53	314	2018
5077.00	52537.50	53132.50	530866.70	541382.60	616189.30	655422.30	53	314	2018
5078.00	51683.50	52390.50	531057.10	541569.30	616270.90	655490.40	53	314	2018
5079.00	43496.50	44111.50	531249.70	541757.20	616346.80	655521.90	50	308	2018
5080.00	44267.50	44953.50	531442.50	541958.30	616358.10	655551.20	50	308	2018
5081.00	45041.50	45610.50	531648.60	542146.70	616429.40	655591.10	50	308	2018
5082.00	46054.50	46730.50	531829.20	542329.80	616503.60	655687.20	50	308	2018
5083.00	42859.50	43453.50	532032.40	542527.50	616537.30	655696.50	53	314	2018
5084.00	43593.50	44258.50	532229.40	542726.50	616573.10	655752.50	53	314	2018
5085.00	44384.50	45001.50	532416.70	542910.80	616665.20	655809.40	53	314	2018
5086.00	45129.50	45859.50	532598.50	543107.40	616707.90	655899.90	53	314	2018
5087.00	45977.50	46589.50	532796.00	543303.50	616744.10	655943.40	53	314	2018
5088.00	46738.50	47429.50	532991.90	543498.70	616789.80	655972.60	53	314	2018
5089.00	47578.50	48187.50	533190.80	543683.90	616867.40	656010.90	53	314	2018
5090.00	48593.50	49248.50	533385.90	543886.00	616894.40	656063.50	53	314	2018
5091.00	49374.50	49989.50	533567.00	544071.50	616966.90	656155.00	53	314	2018
5092.00	50135.50	50791.50	533764.10	544271.40	617012.40	656200.80	53	314	2018
5093.00	50940.50	51574.50	533957.70	544466.70	617039.50	656240.30	53	314	2018
5094.00	38260.50	38876.50	534161.10	544656.30	617107.70	656275.10	55	322	2018
5095.00	38995.50	39708.50	534343.50	544864.90	617129.40	656362.80	55	322	2018
5096.00	39832.50	40439.50	534534.60	545030.70	617232.40	656415.60	55	322	2018
5097.00	40585.50	41238.50	534734.00	545244.60	617240.10	656436.30	55	322	2018
5098.00	41395.50	42040.50	534925.50	545420.80	617319.70	656511.80	55	322	2018
5099.00	42165.50	42877.50	535108.60	545624.70	617359.60	656573.20	55	322	2018
5100.00	42994.50	43612.50	535307.60	545810.50	617442.90	656612.30	55	322	2018
5101.00	43743.50	44385.50	535508.70	546016.10	617442.70	656629.10	55	322	2018
5102.00	44526.50	45161.50	535705.60	546201.70	617501.10	656703.00	55	322	2018
5103.00	45297.50	46003.50	535883.30	546406.90	617554.10	656784.90	55	322	2018
5104.00	46121.50	46722.50	536077.80	546590.30	617617.10	656841.80	55	322	2018
5105.00	46819.50	47488.50	536281.10	546787.70	617666.40	656839.10	55	322	2018
5106.00	47630.50	48246.50	536465.10	546948.00	617752.50	656935.60	55	322	2018
5107.00	52285.50	52994.50	536665.20	547171.40	617766.90	656999.30	50	308	2018
5108.00	51572.50	52193.50	536855.40	547373.00	617796.50	657043.60	50	308	2018
5109.00	48333.50	49049.50	537056.50	547560.10	617867.20	657058.60	55	322	2018
5110.00	49185.50	49791.50	537238.30	547749.80	617918.50	657139.10	55	322	2018
5111.00	49899.50	50610.50	537436.00	547945.70	617979.30	657172.20	55	322	2018
5112.00	50757.50	51381.50	537636.40	548147.10	618023.30	657210.20	55	322	2018
5113.00	35327.50	35900.50	539492.40	548349.50	618062.60	651072.50	62	337	2018
5113.01	41581.50	41698.50	537826.40	539505.00	651015.80	657275.30	64	338	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5114.00	36277.50	36609.50	538064.40	543306.30	637591.90	657339.00	62	337	2018
5114.01	36828.50	37162.50	543292.70	548517.60	618139.20	637630.80	62	337	2018
5115.00	37337.50	38076.50	538210.30	548725.70	618166.30	657388.60	62	337	2018
5116.00	38209.50	38877.50	538409.40	548906.90	618235.90	657408.20	62	337	2018
5117.00	39090.50	39799.50	538600.30	549104.00	618296.70	657477.90	62	337	2018
5118.00	39930.50	40592.50	538825.40	549298.00	618329.80	657557.90	62	337	2018
5119.00	35680.50	36343.50	538982.10	549497.20	618373.00	657605.30	64	338	2018
5120.00	36475.50	37156.50	539167.90	549686.50	618422.90	657663.80	64	338	2018
5121.00	46111.50	46730.50	539383.50	549870.00	618507.50	657664.60	79	86	2019
5122.00	46864.50	47546.50	539553.50	550066.40	618527.70	657777.00	79	86	2019
5123.00	47622.50	48234.50	539778.10	550256.90	618625.40	657795.80	79	86	2019
5124.00	48376.50	49059.50	539950.90	550444.80	618688.50	657829.60	79	86	2019
5125.00	49143.50	49757.50	540118.60	550645.50	618715.80	657889.60	79	86	2019
5126.00	33068.50	33676.50	540331.60	550846.20	618730.40	657965.90	54	317	2018
5127.00	34164.50	34903.50	540528.90	551025.00	618823.90	658006.40	54	317	2018
5128.00	35013.50	35624.50	540722.70	551222.20	618853.10	658038.60	54	317	2018
5129.00	35728.50	36401.50	540912.30	551427.20	618901.50	658117.90	54	317	2018
5130.00	36520.50	37130.50	541104.50	551609.70	618986.60	658184.20	54	317	2018
5131.00	37251.50	37974.50	541302.50	551808.40	619023.90	658202.90	54	317	2018
5132.00	38099.50	38690.50	541500.20	552001.50	619059.20	658243.40	54	317	2018
5133.00	38810.50	39511.50	541696.50	552190.30	619137.40	658296.00	54	317	2018
5134.00	33442.50	34102.50	541871.80	552385.00	619150.90	658398.00	56	323	2018
5135.00	34206.50	34874.50	542074.70	552577.20	619237.60	658434.80	56	323	2018
5136.00	35010.50	35665.50	542274.40	552774.50	619288.30	658445.00	56	323	2018
5137.00	36807.50	37457.50	542465.40	552963.00	619341.40	658524.80	56	323	2018
5138.00	37577.50	38251.50	542649.70	553156.90	619386.30	658600.80	56	323	2018
5139.00	38383.50	39008.50	542843.50	553353.50	619445.40	658651.90	56	323	2018
5140.00	39106.50	39770.50	543041.60	553554.90	619455.90	658672.10	56	323	2018
5141.00	39915.50	40564.50	543240.80	553731.80	619568.30	658715.50	56	323	2018
5142.00	40676.50	41349.50	543431.60	553940.10	619564.20	658763.70	56	323	2018
5143.00	41474.50	42093.50	543618.80	554127.80	619647.00	658825.40	56	323	2018
5144.00	42190.50	42870.50	543816.20	554323.30	619685.40	658884.50	56	323	2018
5145.00	43017.50	43653.50	543996.50	554503.60	619765.50	658950.00	56	323	2018
5146.00	43761.50	44436.50	544227.00	554703.00	619809.60	658991.50	56	323	2018
5147.00	44555.50	45202.50	544390.40	554905.00	619833.20	659039.60	56	323	2018
5148.00	45315.50	45949.50	544589.30	555089.30	619908.90	659094.80	56	323	2018
5149.00	37160.50	37823.50	544785.20	555279.50	619975.00	659131.20	57	324	2018
5150.00	37917.50	38526.50	544970.00	555487.60	619976.30	659215.70	57	324	2018
5151.00	38661.50	39370.50	545165.60	555672.50	620048.20	659242.30	57	324	2018
5152.00	39482.50	40110.50	545360.80	555870.20	620086.40	659279.30	57	324	2018
5153.00	40250.50	40910.50	545558.10	556064.70	620141.80	659330.80	57	324	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5154.00	41024.50	41657.50	545744.00	556259.80	620196.60	659405.60	57	324	2018
5155.00	41803.50	42494.50	545938.30	556429.70	620291.90	659464.70	57	324	2018
5156.00	42633.50	43263.50	546127.70	556635.70	620340.00	659515.00	57	324	2018
5157.00	43378.50	44045.50	546317.00	556822.70	620390.50	659588.30	57	324	2018
5158.00	44150.50	44768.50	546524.60	557032.50	620393.80	659582.10	57	324	2018
5159.00	44916.50	45637.50	546711.40	557219.30	620489.40	659652.10	57	324	2018
5160.00	45748.50	46400.50	546907.90	557410.20	620550.10	659723.80	57	324	2018
5161.00	46528.50	47183.50	547104.90	557601.80	620593.20	659744.00	57	324	2018
5162.00	47295.50	47883.50	547288.90	557804.50	620608.70	659832.10	57	324	2018
5163.00	37356.50	37978.50	547479.60	557984.70	620669.70	659892.60	64	338	2018
5164.00	38136.50	38819.50	547677.80	558192.80	620706.70	659937.50	64	338	2018
5165.00	38994.50	39618.50	547875.80	558362.50	620814.00	659961.80	64	338	2018
5166.00	39757.50	40413.50	548064.10	558562.60	620857.00	660029.20	64	338	2018
5167.00	40756.50	41369.50	548261.70	558765.80	620863.40	660062.90	64	338	2018
5168.00	56913.50	57545.50	548442.50	558955.90	620947.90	660127.50	70	54	2019
5169.00	57677.50	58359.50	548647.40	559154.00	620960.50	660155.40	70	54	2019
5170.00	40508.50	41103.50	548841.20	559344.80	621038.90	660222.10	81	87	2019
5171.00	41225.50	41913.50	549041.70	559537.00	621107.50	660263.40	81	87	2019
5172.00	42014.50	42616.50	549226.90	559689.50	621128.80	660331.40	81	87	2019
5173.00	42731.50	43458.50	549410.60	559921.60	621185.50	660391.50	81	87	2019
5174.00	62839.50	63461.50	549617.00	560111.70	621275.50	660434.30	76	84	2019
5175.00	62030.50	62660.50	549800.90	560318.00	621271.90	660498.80	76	84	2019
5176.00	43560.50	44166.50	550009.50	560500.90	621353.50	660526.40	81	87	2019
5177.00	44270.50	44989.50	550180.40	560698.80	621387.60	660574.40	81	87	2019
5178.00	50464.50	51169.50	550386.10	560896.20	621430.60	660628.50	81	87	2019
5179.00	51286.50	51899.50	550575.30	561079.20	621518.20	660716.50	81	87	2019
5180.00	52026.50	52742.50	550763.90	561272.60	621540.30	660755.70	81	87	2019
5181.00	52866.50	53469.50	550967.00	561458.50	621619.30	660792.10	81	87	2019
5182.00	50107.50	50748.50	551156.50	561666.20	621661.60	660871.20	82	88	2019
5183.00	49357.50	49999.50	551343.10	561858.00	621692.50	660932.40	82	88	2019
5184.00	48616.50	49244.50	551547.90	562042.50	621766.50	660941.30	82	88	2019
5185.00	47823.50	48458.50	551736.60	562229.10	621845.30	661007.90	82	88	2019
5186.00	43257.50	43944.50	551930.70	562436.30	621880.60	661044.10	74	70	2019
5187.00	42495.50	43106.50	552132.20	562604.60	621933.50	661099.60	74	70	2019
5188.00	53368.50	54006.50	552298.00	562817.00	621956.90	661176.80	73	68	2019
5189.00	54112.50	54786.50	552490.30	563011.50	622028.40	661240.10	73	68	2019
5190.00	36151.50	36773.50	552688.10	563217.60	622056.10	661283.10	74	70	2019
5191.00	36917.50	37586.50	552885.60	563400.20	622146.30	661333.00	74	70	2019
5192.00	37709.50	38327.50	553094.20	563637.10	622154.30	661349.10	74	70	2019
5193.00	58470.50	59110.50	553280.50	563810.30	622239.90	661410.30	70	54	2019
5194.00	59188.50	59868.50	553469.70	563975.60	622277.60	661470.10	70	54	2019

SPECTROMETER FLOWN LINES - Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5195.00	59976.50	60642.50	553661.10	564170.60	622340.70	661548.00	70	54	2019
5196.00	60758.50	61415.50	553870.50	564359.40	622368.40	661587.70	70	54	2019
5197.00	38452.50	39185.50	554045.00	564566.00	622419.90	661656.10	74	70	2019
5198.00	39311.50	39924.50	554255.80	564758.50	622489.40	661657.60	74	70	2019
5199.00	40090.50	40765.50	554442.60	564944.80	622559.40	661712.90	74	70	2019
5200.00	40908.50	41498.50	554634.30	565147.30	622601.00	661773.40	74	70	2019
5201.00	41659.50	42385.50	554827.60	565326.30	622666.00	661844.10	74	70	2019
5202.00	45125.50	45806.50	555015.30	565523.90	622712.10	661905.40	78	85	2019
5203.00	45927.50	46538.50	555220.20	565716.20	622756.70	661941.10	78	85	2019
5204.00	45125.50	45736.50	555408.00	565921.00	622782.30	661974.90	81	87	2019
5205.00	45853.50	46545.50	555598.60	566099.60	622867.50	662042.00	81	87	2019
5206.00	46658.50	47256.50	555792.30	566298.40	622904.50	662105.90	81	87	2019
5207.00	48929.50	49549.50	555989.10	566495.90	622950.40	662128.40	76	84	2019
5208.00	48112.50	48781.50	556185.90	566685.30	623032.70	662175.70	76	84	2019
5209.00	47377.50	47997.50	556377.10	566888.80	623035.10	662266.70	76	84	2019
5210.00	46596.50	47244.50	556578.30	567062.60	623124.80	662280.50	76	84	2019
5211.00	47389.50	48089.50	556763.70	567264.60	623154.40	662342.80	81	87	2019
5212.00	48183.50	48787.50	556941.00	567458.00	623241.30	662436.90	81	87	2019
5213.00	48922.50	49585.50	557151.50	567643.00	623261.10	662448.90	81	87	2019
5214.00	49690.50	50299.50	557326.40	567848.40	623292.10	662540.00	81	87	2019
5215.00	47018.50	47655.50	557531.10	568032.10	623395.70	662540.10	82	88	2019
5216.00	49739.50	50384.50	557716.90	568235.70	623406.20	662627.30	78	85	2019
5217.00	48962.50	49583.50	557909.50	568432.00	623470.00	662691.90	78	85	2019
5218.00	48200.50	48852.50	558103.10	568625.80	623504.90	662747.60	78	85	2019
5219.00	47418.50	48040.50	558307.60	568819.50	623546.70	662764.40	78	85	2019
5220.00	46636.50	47302.50	558506.70	568996.30	623629.40	662816.80	78	85	2019
5221.00	50520.50	51140.50	558695.80	569189.10	623687.10	662853.90	78	85	2019
5222.00	51285.50	51942.50	558884.20	569385.60	623747.10	662938.40	78	85	2019
5223.00	52061.50	52689.50	559082.70	569590.90	623769.40	662955.00	78	85	2019
5224.00	39471.50	40109.50	559272.80	569772.20	623855.20	663059.90	82	88	2019
5225.00	40220.50	40870.50	559466.20	569963.00	623911.50	663058.00	82	88	2019
5226.00	41004.50	41644.50	559655.80	570164.80	623926.20	663143.70	82	88	2019
5227.00	41763.50	42402.50	559840.60	570348.20	624017.50	663206.30	82	88	2019
5228.00	42524.50	43148.50	560049.60	570540.90	624069.00	663208.40	82	88	2019
5229.00	43261.50	43902.50	560230.00	570732.50	624116.00	663308.20	82	88	2019
5230.00	44018.50	44660.50	560429.40	570949.70	624121.30	663347.40	82	88	2019
5231.00	44780.50	45417.50	560623.20	571135.80	624168.40	663394.50	82	88	2019
5232.00	45546.50	46158.50	560822.40	571322.50	624244.00	663448.30	82	88	2019
5233.00	46275.50	46919.50	561006.40	571506.50	624315.90	663490.00	82	88	2019
5234.00	61178.50	61807.50	561204.50	571705.00	624368.50	663531.20	76	84	2019
5235.00	60417.50	61057.50	561389.80	571904.60	624410.30	663587.70	76	84	2019

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5236.00	59643.50	60285.50	561589.80	572097.40	624456.10	663645.70	76	84	2019
5237.00	58863.50	59523.50	561781.70	572299.90	624489.20	663688.70	76	84	2019
5238.00	58080.50	58709.50	561970.40	572486.00	624559.50	663776.90	76	84	2019
5239.00	57301.50	57960.50	562170.90	572674.10	624615.90	663783.10	76	84	2019
5240.00	56517.50	57139.50	562368.00	572873.50	624669.00	663841.10	76	84	2019
5241.00	55703.50	56372.50	562545.40	573054.40	624733.10	663932.70	76	84	2019
5242.00	54957.50	55586.50	562760.00	573246.20	624780.00	663949.50	76	84	2019
5243.00	34618.50	35256.50	562940.30	573456.40	624796.10	664012.30	61	330	2018
5244.00	35391.50	36114.50	563128.40	573645.30	624882.20	664082.90	61	330	2018
5245.00	36248.50	36858.50	563339.30	573840.90	624910.70	664086.80	61	330	2018
5246.00	37019.50	37680.50	563514.20	574024.00	624988.70	664193.60	61	330	2018
5247.00	37828.50	38444.50	563710.10	574225.70	625008.30	664239.40	61	330	2018
5248.00	38609.50	39301.50	563908.90	574422.40	625060.20	664254.00	61	330	2018
5249.00	39434.50	40061.50	564110.30	574618.80	625103.40	664298.30	61	330	2018
5250.00	40199.50	40875.50	564286.40	574799.40	625196.20	664404.10	61	330	2018
5251.00	41030.50	41683.50	564478.90	574984.20	625257.30	664447.90	61	330	2018
5252.00	41843.50	42539.50	564682.40	575182.20	625308.80	664467.40	61	330	2018
5253.00	42665.50	43262.50	564879.00	575375.60	625358.40	664515.90	61	330	2018
5254.00	43413.50	44091.50	565065.00	575573.50	625397.30	664577.20	61	330	2018
5255.00	44215.50	44841.50	565259.30	575766.90	625422.70	664621.70	61	330	2018
5256.00	44998.50	45683.50	565454.10	575963.70	625495.90	664685.30	61	330	2018
5257.00	45808.50	46420.50	565648.80	576158.60	625533.80	664723.10	61	330	2018
5258.00	47721.50	48356.50	565837.20	576348.60	625573.10	664803.50	66	350	2018
5259.00	48523.50	49208.50	566034.40	576542.20	625634.90	664843.70	66	350	2018
5260.00	32401.50	33071.50	566234.30	576728.60	625715.10	664886.30	14	252	2018
5261.00	37758.50	38425.50	566412.20	576923.20	625761.40	664959.40	15	254	2018
5262.00	49377.50	50036.50	566609.70	577116.00	625806.50	665008.00	66	350	2018
5263.00	50226.50	50920.50	566802.40	577330.30	625839.70	665071.90	66	350	2018
5264.00	54897.50	55539.50	566996.60	577509.50	625918.40	665129.20	58	328	2018
5264.01	51078.50	51175.50	575903.50	577507.60	625909.40	631888.70	66	350	2018
5265.00	54114.50	54772.50	567202.00	577715.20	625929.40	665127.10	58	328	2018
5266.00	53324.50	53969.50	567390.40	577889.70	626022.50	665188.90	58	328	2018
5267.00	52570.50	53210.50	567572.00	578080.10	626085.60	665287.00	58	328	2018
5268.00	51807.50	52456.50	567783.00	578284.20	626092.40	665297.90	58	328	2018
5269.00	50998.50	51665.50	567961.40	578472.00	626168.00	665387.20	58	328	2018
5270.00	50229.50	50871.50	568157.80	578658.30	626248.70	665415.30	58	328	2018
5271.00	49457.50	50105.50	568359.40	578858.50	626283.70	665447.40	58	328	2018
5272.00	48676.50	49343.50	568545.80	579056.40	626304.90	665517.50	58	328	2018
5273.00	47885.50	48549.50	568745.50	579226.90	626371.10	665563.80	58	328	2018
5274.00	41060.50	41666.50	568937.10	579438.50	626418.20	665613.90	78	85	2019
5275.00	41824.50	42509.50	569118.00	579636.50	626456.50	665672.40	78	85	2019

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5276.00	42615.50	43248.50	569316.50	579836.60	626499.70	665732.20	78	85	2019
5277.00	43399.50	44088.50	569515.20	580012.70	626603.20	665756.40	78	85	2019
5278.00	44200.50	44833.50	569709.50	580205.60	626632.50	665813.30	78	85	2019
5279.00	36655.50	37305.50	569906.30	580402.30	626702.20	665847.30	15	254	2018
5280.00	35910.50	36540.50	570094.00	580590.80	626759.60	665913.40	15	254	2018
5281.00	35168.50	35765.50	570281.10	580792.20	626802.20	666001.50	15	254	2018
5282.00	34359.50	35033.50	570469.70	580990.30	626826.40	666061.20	15	254	2018
5283.00	33581.50	34216.50	570663.70	581182.10	626890.40	666095.30	15	254	2018
5284.00	32852.50	33443.50	570871.00	581371.70	626940.70	666117.00	15	254	2018
5285.00	32110.50	32715.50	571057.00	581567.90	626991.90	666199.80	15	254	2018
5286.00	33212.50	33875.50	571245.50	581748.70	627060.70	666238.00	14	252	2018
5287.00	31153.50	31778.50	571442.90	581949.40	627112.20	666284.20	14	252	2018
5288.00	30390.50	31012.50	571640.90	582141.80	627172.40	666342.40	14	252	2018
5289.00	45856.50	46490.50	571829.90	582328.90	627225.60	666390.10	12	250	2018
5290.00	46633.50	47281.50	572019.60	582530.30	627251.00	666465.70	12	250	2018
5291.00	47390.50	48071.50	572219.00	582715.50	627331.60	666499.20	12	250	2018
5292.00	48212.50	48901.50	572397.00	582908.20	627377.30	666568.30	12	250	2018
5293.00	49028.50	49661.50	572605.70	583116.30	627382.60	666603.20	12	250	2018
5294.00	49789.50	50447.50	572797.10	583307.60	627442.30	666639.10	12	250	2018
5295.00	50566.50	51234.50	572987.40	583516.30	627495.40	666728.40	12	250	2018
5296.00	51367.50	52057.50	573177.70	583698.70	627582.40	666781.50	12	250	2018
5297.00	52166.50	52808.50	573375.80	583888.60	627590.50	666802.50	12	250	2018
5298.00	52943.50	53596.50	573568.50	584079.00	627667.00	666857.50	12	250	2018
5299.00	53710.50	54370.50	573768.90	584273.70	627701.70	666903.20	12	250	2018
5300.00	54504.50	55195.50	573951.10	584465.60	627770.80	666951.70	12	250	2018
5301.00	55318.50	55941.50	574153.80	584667.00	627806.10	666990.70	12	250	2018
5302.00	56086.50	56730.50	574337.20	584847.40	627884.80	667072.70	12	250	2018
5303.00	41560.50	42260.50	574536.00	585038.00	627932.70	667121.80	75	83	19
5304.00	40820.50	41431.50	574720.80	585226.80	627991.10	667196.70	75	83	19
5305.00	38715.50	39343.50	574910.60	585430.10	628026.50	667250.00	15	254	2018
5306.00	39512.50	40147.50	575117.00	585609.40	628093.60	667258.40	15	254	2018
5307.00	40255.50	40915.50	575302.80	585808.30	628165.50	667333.40	15	254	2018
5308.00	41120.50	41806.50	575491.50	586007.60	628184.50	667358.60	15	254	2018
5308.01	40032.50	40704.50	575503.30	585994.90	628216.70	667390.30	75	83	19
5309.00	41922.50	42564.50	575691.10	586201.50	628221.80	667446.70	15	254	2018
5310.00	42735.50	43388.50	575889.50	586399.20	628261.80	667468.30	15	254	2018
5311.00	33826.50	34530.50	576073.30	586585.40	628364.80	667544.10	20	267	2018
5312.00	34696.50	35386.50	576276.60	586790.90	628377.40	667591.20	20	267	2018
5313.00	35490.50	36166.50	576469.40	586970.50	628458.10	667643.00	20	267	2018
5314.00	36336.50	36993.50	576662.30	587166.00	628498.20	667670.80	20	267	2018
5315.00	37150.50	37807.50	576853.90	587357.90	628561.80	667745.10	20	267	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5316.00	55159.50	56508.50	566694.00	587553.50	628582.40	706446.80	25	271	2018
5317.00	56693.50	57910.50	566891.00	587745.50	628673.00	706470.40	25	271	2018
5318.00	58050.50	59399.50	567082.00	587938.60	628706.50	706517.70	25	271	2018
5319.00	59550.50	60764.50	567280.00	588138.60	628741.60	706567.90	25	271	2018
5320.00	30357.50	31579.50	567475.00	588323.70	628809.80	706616.50	28	274	2018
5321.00	32816.50	34112.50	567666.10	588529.00	628832.80	706690.60	28	274	2018
5322.00	34227.50	35529.50	567855.40	588707.40	628942.10	706749.40	28	274	2018
5323.00	35697.50	36994.50	568040.00	588905.90	628958.30	706806.50	28	274	2018
5324.00	37144.50	38439.50	568222.60	589117.00	628990.00	706879.20	28	274	2018
5325.00	38582.50	39851.50	568430.10	589301.90	629054.00	706904.00	28	274	2018
5326.00	39997.50	41256.50	568623.30	589474.70	629134.50	706977.30	28	274	2018
5327.00	48234.50	49495.50	568818.20	589669.90	629180.80	707013.50	28	274	2018
5328.00	49628.50	50945.50	569012.20	589865.20	629224.40	707068.20	28	274	2018
5329.00	51076.50	52348.50	569195.30	590059.40	629297.20	707116.80	28	274	2018
5330.00	52484.50	53767.50	569393.00	590252.30	629336.00	707157.60	28	274	2018
5331.00	53899.50	55187.50	569593.10	590449.50	629397.90	707206.30	28	274	2018
5332.00	55346.50	56677.50	569797.40	590652.50	629404.60	707255.30	28	274	2018
5333.00	56824.50	58099.50	569966.10	590840.50	629476.10	707345.00	28	274	2018
5334.00	58233.50	59451.50	570172.00	591032.90	629523.30	707365.20	28	274	2018
5335.00	41077.50	42364.50	570674.60	591218.50	629599.90	706262.40	30	278	2018
5336.00	42496.50	43693.50	570861.00	591426.50	629615.10	706307.90	30	278	2018
5337.00	43846.50	45178.50	571077.30	591620.60	629669.80	706301.60	30	278	2018
5338.00	45331.50	46528.50	571280.90	591815.80	629711.40	706326.10	30	278	2018
5339.00	46647.50	47955.50	571497.10	592004.90	629772.60	706292.00	30	278	2018
5340.00	48096.50	49290.50	571697.20	592207.30	629823.00	706306.90	30	278	2018
5341.00	49430.50	50727.50	571907.00	592385.90	629893.00	706296.00	30	278	2018
5342.00	50871.50	52091.50	572115.60	592587.80	629922.30	706295.30	30	278	2018
5343.00	30054.50	31349.50	572315.20	592765.00	630020.30	706324.70	31	279	2018
5344.00	31483.50	32703.50	572519.90	592974.90	630037.70	706346.20	31	279	2018
5345.00	32832.50	34187.50	572735.80	593151.00	630121.90	706300.30	31	279	2018
5346.00	34332.50	35554.50	572941.80	593350.30	630160.60	706310.50	31	279	2018
5347.00	35684.50	36973.50	573132.70	593544.90	630194.40	706360.00	31	279	2018
5348.00	37136.50	38327.50	573349.70	593742.80	630243.80	706350.20	31	279	2018
5349.00	38447.50	39747.50	573554.90	593921.90	630342.00	706335.30	31	279	2018
5350.00	39890.50	41093.50	573753.40	594137.30	630334.00	706363.60	31	279	2018
5351.00	47830.50	49105.50	573965.80	594311.40	630433.30	706344.50	31	279	2018
5352.00	49260.50	50447.50	574167.70	594512.60	630468.30	706388.80	31	279	2018
5353.00	50572.50	51873.50	574349.60	594699.50	630531.60	706446.90	31	279	2018
5354.00	51998.50	53196.50	574551.30	594901.30	630549.30	706488.10	31	279	2018
5354.01	54977.50	55492.50	574554.10	582436.70	677051.90	706462.80	70	54	19
5355.00	53328.50	54642.50	574735.40	595094.00	630601.20	706551.70	31	279	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5356.00	51598.50	52925.50	574942.50	595281.10	630670.80	706572.40	11	247	2018
5357.00	63326.50	64426.50	575135.30	595470.50	630727.70	706615.80	11	247	2018
5358.00	32233.50	32641.50	589410.70	595665.40	630797.80	654106.00	16	258	2018
5358.01	35913.50	36697.50	575333.30	587189.60	661780.00	706658.20	16	258	2018
5358.02	42840.50	44123.50	575317.60	595674.70	630746.00	706699.10	17	259	2018
5359.00	44274.50	45577.50	575512.50	595872.00	630800.70	706727.30	17	259	2018
5360.00	45697.50	46924.50	575720.20	596056.20	630867.40	706752.20	17	259	2018
5361.00	47091.50	48372.50	575918.80	596256.80	630910.70	706824.90	17	259	2018
5362.00	48491.50	49735.50	576100.00	596444.30	630963.10	706861.90	17	259	2018
5363.00	49878.50	51161.50	576286.40	596631.00	631052.60	706928.40	17	259	2018
5364.00	51284.50	52490.50	576495.30	596834.50	631062.20	706962.10	17	259	2018
5365.00	52647.50	53950.50	576692.10	597017.90	631145.80	707021.80	17	259	2018
5366.00	32930.50	34124.50	576876.40	597221.90	631174.80	707074.30	26	272	2018
5367.00	34285.50	35597.50	577069.60	597399.20	631265.90	707139.70	26	272	2018
5368.00	35727.50	36961.50	577255.80	597596.80	631282.90	707183.70	26	272	2018
5369.00	37124.50	38421.50	577452.90	597800.80	631318.50	707254.50	26	272	2018
5370.00	38546.50	39795.50	577633.90	597983.30	631406.60	707313.70	26	272	2018
5371.00	39950.50	41277.50	577835.30	598191.10	631419.20	707358.70	26	272	2018
5372.00	41422.50	42656.50	578021.70	598376.60	631486.00	707433.70	26	272	2018
5373.00	42806.50	44064.50	578211.70	598575.70	631530.20	707472.00	26	272	2018
5374.00	50078.50	51327.50	578418.30	598765.40	631582.20	707505.30	26	272	2018
5375.00	51468.50	52697.50	578613.90	598958.60	631630.20	707555.30	26	272	2018
5376.00	52840.50	54099.50	579109.50	599139.70	631712.10	706456.60	26	272	2018
5377.00	54240.50	55465.50	579327.40	599332.20	631785.40	706447.40	26	272	2018
5377.01	47059.50	48184.50	579323.30	599344.20	631737.80	706470.10	37	290	2018
5378.00	55594.50	56836.50	579521.10	599531.10	631825.70	706479.00	26	272	2018
5379.00	57014.50	58235.50	579729.90	599732.40	631849.60	706450.90	26	272	2018
5380.00	58379.50	59647.50	579941.00	599912.90	631933.80	706458.70	26	272	2018
5381.00	59796.50	61040.50	580131.70	600114.80	631963.90	706520.00	26	272	2018
5382.00	53704.50	54910.50	580351.10	600301.60	632038.30	706471.00	25	271	2018
5383.00	52252.50	53563.50	580547.50	600496.00	632079.80	706493.30	25	271	2018
5384.00	50893.50	52104.50	580751.00	600689.80	632136.90	706526.00	25	271	2018
5385.00	49421.50	50748.50	580962.80	600881.40	632195.50	706491.70	25	271	2018
5386.00	41014.50	42220.50	581168.20	601085.20	632209.50	706501.40	24	271	2018
5387.00	39600.50	40865.50	581371.80	601274.30	632270.80	706536.50	24	271	2018
5388.00	38217.50	39448.50	581603.40	601464.70	632312.20	706490.80	24	271	2018
5389.00	36818.50	38079.50	581776.60	601647.50	632407.70	706551.60	24	271	2018
5390.00	35443.50	36655.50	581998.60	601859.80	632406.90	706516.40	24	271	2018
5391.00	38466.50	39720.50	582207.30	602047.80	632474.80	706517.90	20	267	2018
5392.00	39879.50	41119.50	582393.80	602232.00	632564.90	706571.30	20	267	2018
5393.00	41297.50	42590.50	582602.30	602428.10	632578.20	706564.80	20	267	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5394.00	42753.50	43996.50	582796.50	602615.60	632640.20	706603.00	20	267	2018
5395.00	44159.50	45415.50	582988.70	602815.80	632696.60	706663.10	20	267	2018
5396.00	54905.50	56102.50	583196.60	603001.60	632772.60	706681.70	20	267	2018
5396.01	59118.50	60387.50	583180.70	603023.80	632732.40	706736.80	79	86	19
5397.00	56268.50	57495.50	583365.60	603198.80	632794.30	706796.30	20	267	2018
5398.00	57642.50	58900.50	583571.90	603399.30	632836.50	706816.90	20	267	2018
5399.00	59069.50	60368.50	583753.00	603590.80	632898.50	706895.80	20	267	2018
5400.00	60544.50	61789.50	583960.00	603780.80	632962.60	706932.00	20	267	2018
5401.00	61975.50	63217.50	584147.40	603973.50	633014.00	706993.40	20	267	2018
5402.00	34166.50	35333.50	584347.60	604165.60	633073.50	707026.90	24	271	2018
5403.00	41646.50	43031.50	584540.80	604362.80	633115.00	707062.90	19	266	2018
5404.00	40331.50	41451.50	584734.10	604566.70	633139.60	707128.70	19	266	2018
5405.00	38808.50	40191.50	584929.90	604747.10	633221.40	707166.40	19	266	2018
5406.00	37492.50	38635.50	585119.20	604951.60	633232.30	707224.20	19	266	2018
5407.00	36023.50	37339.50	585314.00	605133.60	633323.70	707263.60	19	266	2018
5408.00	34682.50	35842.50	585496.00	605327.30	633382.10	707355.30	19	266	2018
5409.00	33126.50	34528.50	585692.10	605523.00	633426.00	707410.30	19	266	2018
5410.00	41570.50	42724.50	585896.20	605720.60	633442.50	707431.00	6	240	2018
5411.00	40044.50	41419.50	586078.70	605905.20	633546.70	707489.70	6	240	2018
5412.00	38733.50	39884.50	586276.90	606106.30	633544.00	707534.30	6	240	2018
5413.00	37240.50	38602.50	586478.10	606309.90	633618.80	707574.20	6	240	2018
5414.00	34758.50	35907.50	586657.00	606496.90	633649.00	707675.50	6	240	2018
5415.00	65598.50	66795.50	586862.40	606684.00	633705.60	707681.40	2	234	2018
5416.00	60981.50	62334.50	587047.90	606877.30	633776.60	707761.00	2	234	2018
5417.00	62474.50	62868.50	587638.60	594112.40	682164.40	706351.20	2	234	2018
5418.00	62972.50	63402.50	587835.20	594320.70	682174.80	706377.90	2	234	2018
5419.00	63498.50	63882.50	588039.60	594510.40	682226.80	706376.20	2	234	2018
5420.00	43873.50	44258.50	588240.10	594689.20	682287.40	706402.10	1	233	2018
5421.00	44388.50	44795.50	588445.30	594898.10	682327.80	706386.80	1	233	2018
5422.00	44913.50	45295.50	588658.00	595080.80	682371.30	706355.50	1	233	2018
5423.00	45397.50	45796.50	588850.40	595280.10	682429.80	706410.00	1	233	2018
5424.00	63946.50	64368.50	589059.90	595462.10	682487.40	706419.20	2	234	2018
5425.00	64482.50	64874.50	589283.00	595662.00	682555.30	706384.80	2	234	2018
5426.00	65012.50	65448.50	589474.50	595849.40	682620.90	706401.40	2	234	2018
5427.00	36037.50	36485.50	589684.20	596049.60	682664.50	706422.60	6	240	2018
5428.00	54726.50	55183.50	589886.40	596247.40	682692.60	706422.50	3	235	2018
5429.00	54172.50	54553.50	590099.80	596432.10	682776.90	706420.30	3	235	2018
5430.00	53549.50	53994.50	590306.40	596636.00	682803.00	706434.50	3	235	2018
5431.00	53018.50	53403.50	590503.00	596826.60	682860.00	706453.10	3	235	2018
5432.00	52411.50	52859.50	590715.60	597013.20	682924.40	706425.10	3	235	2018
5433.00	51870.50	52267.50	590919.40	597218.10	682946.40	706440.80	3	235	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5434.00	51280.50	51720.50	591114.40	597395.80	683027.20	706478.00	3	235	2018
5435.00	50756.50	51134.50	591323.70	597600.10	683070.20	706488.30	3	235	2018
5436.00	50124.50	50581.50	591504.00	597800.80	683093.30	706578.90	3	235	2018
5437.00	49589.50	49973.50	591693.50	597984.70	683180.40	706632.90	3	235	2018
5438.00	48986.50	49418.50	591896.00	598172.60	683243.30	706680.50	3	235	2018
5439.00	48459.50	48835.50	592087.40	598377.60	683258.00	706737.50	3	235	2018
5440.00	47910.50	48328.50	592286.20	598557.60	683335.60	706761.20	3	235	2018
5441.00	36605.50	36987.50	592469.10	598770.70	683348.90	706846.20	6	240	2018
5442.00	51677.50	52059.50	592667.30	598958.80	683401.60	706886.40	7	240	2018
5443.00	52198.50	52588.50	592869.00	599140.40	683496.20	706906.00	7	240	2018
5444.00	52730.50	53096.50	593057.30	599350.60	683503.10	706986.80	7	240	2018
5445.00	53250.50	53657.50	593250.40	599521.40	683612.70	707034.40	7	240	2018
5446.00	53786.50	54130.50	593433.80	599729.40	683610.10	707090.00	7	240	2018
5447.00	54260.50	54624.50	593641.40	599915.00	683697.90	707109.40	7	240	2018
5448.00	54790.50	55163.50	593826.60	600108.70	683740.60	707193.20	7	240	2018
5449.00	55320.50	55718.50	594023.50	600303.50	683809.70	707227.70	7	240	2018
5450.00	55843.50	56202.50	594206.50	600497.50	683839.50	707306.00	7	240	2018
5451.00	56346.50	56743.50	594409.20	600698.00	683868.20	707340.70	7	240	2018
5452.00	56904.50	57285.50	594609.90	600887.60	683942.60	707369.10	7	240	2018
5453.00	57436.50	57859.50	594786.40	601081.40	683993.80	707440.00	7	240	2018
5454.00	47650.50	48057.50	594990.10	601269.60	684049.80	707471.40	8	241	2018
5455.00	48192.50	48572.50	595173.30	601466.50	684087.60	707579.80	8	241	2018
5456.00	48726.50	49143.50	595368.90	601649.50	684179.30	707614.80	8	241	2018
5457.00	49290.50	49673.50	595572.00	601849.10	684204.80	707633.70	8	241	2018
5458.00	49807.50	50184.50	596074.10	602036.50	684271.90	706533.40	8	241	2018
5459.00	50320.50	50670.50	596274.30	602226.80	684311.10	706553.50	8	241	2018
5460.00	50809.50	51203.50	596479.90	602437.30	684336.70	706562.10	8	241	2018
5461.00	51346.50	51713.50	596685.00	602625.60	684404.20	706544.80	8	241	2018
5462.00	32087.50	32467.50	596896.30	602821.40	684436.20	706562.40	9	246	2018
5463.00	32620.50	32961.50	597102.50	603006.90	684532.00	706565.20	9	246	2018
5464.00	33096.50	33490.50	597319.70	603203.20	684582.50	706552.30	9	246	2018
5465.00	33624.50	33959.50	597507.50	603396.10	684636.20	706595.40	9	246	2018
5466.00	34104.50	34478.50	597717.30	603596.10	684654.80	706595.30	9	246	2018
5467.00	34617.50	34946.50	597935.10	603788.10	684693.10	706554.90	9	246	2018
5468.00	35098.50	35506.50	598127.30	603981.20	684771.60	706611.10	9	246	2018
5469.00	35646.50	35995.50	598339.40	604169.10	684821.60	706592.70	9	246	2018
5470.00	36132.50	36528.50	598540.00	604354.10	684906.10	706611.30	9	246	2018
5471.00	36665.50	37012.50	598752.50	604565.20	684945.50	706590.40	9	246	2018
5472.00	37161.50	37551.50	598953.40	604755.30	684960.70	706614.20	9	246	2018
5473.00	37686.50	38013.50	599162.70	604939.30	685040.90	706594.30	9	246	2018
5474.00	38162.50	38547.50	599370.70	605142.00	685068.70	706604.90	9	246	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5475.00	38679.50	39005.50	599566.40	605324.10	685155.30	706626.00	9	246	2018
5476.00	39151.50	39531.50	599756.40	605522.10	685192.50	706715.90	9	246	2018
5477.00	39665.50	40006.50	599945.30	605719.70	685218.90	706773.00	9	246	2018
5478.00	40142.50	40522.50	600139.10	605911.00	685297.00	706824.40	9	246	2018
5479.00	40650.50	40987.50	600330.00	606103.20	685364.90	706856.40	9	246	2018
5480.00	41128.50	41508.50	600524.00	606300.20	685387.90	706940.70	9	246	2018
5481.00	41643.50	41969.50	600721.10	606490.80	685437.20	706959.80	9	246	2018
5482.00	42124.50	42499.50	600912.30	606678.80	685506.50	707030.30	9	246	2018
5483.00	42619.50	42946.50	601100.30	606867.30	685564.10	707076.90	9	246	2018
5484.00	32624.50	33007.50	601309.00	607071.80	685577.40	707091.70	10	247	2018
5485.00	33157.50	33509.50	601492.10	607258.40	685658.10	707188.30	10	247	2018
5486.00	33642.50	34005.50	601690.90	607449.90	685728.90	707213.20	10	247	2018
5487.00	34152.50	34495.50	601882.60	607643.30	685781.70	707272.30	10	247	2018
5488.00	34651.50	35018.50	602084.00	607850.70	685797.90	707298.30	10	247	2018
5489.00	35163.50	35521.50	602260.70	608040.30	685833.70	707405.70	10	247	2018
5490.00	35674.50	36032.50	602466.20	608215.60	685943.70	707419.90	10	247	2018
5491.00	36187.50	36531.50	602647.90	608421.20	685965.30	707503.50	10	247	2018
5492.00	36678.50	37055.50	602844.00	608614.00	686013.60	707539.20	10	247	2018
5493.00	37213.50	37548.50	603049.30	608800.50	686092.70	707562.60	10	247	2018
5494.00	37691.50	38046.50	603245.40	608993.80	686139.80	707606.00	10	247	2018
5495.00	38199.50	38520.50	603421.90	609188.60	686201.30	707705.10	10	247	2018
5496.00	38673.50	39047.50	603611.90	609387.00	686223.50	707762.90	10	247	2018
5497.00	39182.50	39528.50	603807.90	609571.40	686294.20	707807.00	10	247	2018
5498.00	39697.50	40055.50	604310.70	609764.10	686354.70	706702.70	10	247	2018
5499.00	40191.50	40522.50	604505.00	609961.70	686377.90	706746.50	10	247	2018
5500.00	40677.50	41014.50	604709.60	610158.40	686443.50	706762.10	10	247	2018
5501.00	41152.50	41473.50	604927.50	610356.00	686467.00	706713.40	10	247	2018
5502.00	53457.50	53784.50	605131.50	610544.20	686556.00	706752.60	11	247	2018
5503.00	53943.50	54320.50	605337.20	610730.70	686587.60	706743.10	11	247	2018
5504.00	54456.50	54774.50	605548.90	610945.10	686631.60	706734.60	11	247	2018
5505.00	54913.50	55267.50	605752.70	611131.40	686667.60	706745.40	11	247	2018
5506.00	55413.50	55717.50	605953.50	611318.20	686735.60	706766.30	11	247	2018
5507.00	55875.50	56212.50	606162.90	611513.40	686793.70	706747.00	11	247	2018
5508.00	56382.50	56692.50	606354.40	611699.00	686862.50	706800.50	11	247	2018
5509.00	56861.50	57178.50	606567.40	611902.50	686880.00	706771.60	11	247	2018
5510.00	57304.50	57616.50	606763.10	612084.30	686969.20	706810.50	11	247	2018
5511.00	57774.50	58118.50	606982.80	612289.30	686976.30	706784.30	11	247	2018
5512.00	58265.50	58574.50	607183.40	612478.90	687048.90	706808.90	11	247	2018
5513.00	58727.50	59042.50	607392.80	612663.90	687133.40	706799.40	11	247	2018
5514.00	59196.50	59508.50	607603.90	612867.00	687140.00	706790.90	11	247	2018
5515.00	59655.50	59981.50	607807.70	613058.00	687210.30	706787.00	11	247	2018

SPECTROMETER FLOWN LINES – Tellus A5 Block
IRENET95, Irish Transverse Mercator

LINE	START	END	MIN X	MAX X	MIN Y	MAX Y	FLIGHT	DAY	YEAR
5516.00	60122.50	60437.50	608001.10	613242.90	687273.30	706852.50	11	247	2018
5517.00	60589.50	60939.50	608202.00	613437.70	687333.50	706870.50	11	247	2018
5518.00	61068.50	61387.50	608386.00	613628.40	687390.90	706956.40	11	247	2018
5519.00	61537.50	61895.50	608579.40	613831.10	687393.10	707013.10	11	247	2018
5520.00	62019.50	62322.50	608777.40	614023.70	687457.10	707029.30	11	247	2018
5521.00	62458.50	62782.50	608968.60	614216.10	687505.90	707087.10	11	247	2018
5522.00	33372.50	33682.50	609170.80	614412.40	687564.10	707133.20	16	258	2018
5522.01	54012.50	54308.50	609167.20	614402.70	687591.10	707126.00	70	54	2019
5523.00	33843.50	34193.50	609357.20	614598.60	687643.80	707189.00	16	258	2018
5524.00	34330.50	34641.50	609541.80	614789.60	687682.10	707275.40	16	258	2018
5525.00	34791.50	35138.50	609734.60	614995.50	687717.50	707324.20	16	258	2018

Appendix IV

Equipment List

PART	Serial No.	Description	Manufacturer
Aircraft C-GSGF	DHC-6-642	Twin Otter Series 300, DE HAVILLAND	DE HAVILLAND
Laser Profilometer	9994938	LD90-3300VHS-FLP 11-28VDC laser rangefinder. 1-400m capability	Riegl
RadarTranceiver	4403206	TRA-3000	FreeFlight Systems
Collins Radar Altimeter	7497	860F-1 Radio Altimeter 0-2500ft	Collins
Barometric Sensor	1347373	HONEYWELL MODEL TJE Absolute Pressure Sensor	HONEYWELL
Data Acquisition Computer	CDAC-13	CPCI Data Acquisition computer	SGL
GPS Receiver	DAB06340038	OEMV-3, 72-ch, L1/L2	Novatel
Spectrometer detector 5-Pack	5444	RSX-5	Radiation Solutions Inc
Electromagnetics System	SG-FEM	SGL 4 frequency vertically mounted EM system (912 3005 11962 24510)	SGL
Spectrometer detector 5-Pack	5557	RSX-5	Radiation Solutions Inc
Spectrometer detector 5-Pack	5558	RSX-5	Radiation Solutions Inc
Spectrometer detector 5-Pack	5632	RSX-5	Radiation Solutions Inc
Magnetometer Sensor	75368-C1576	model G-822A, Sensor S/N C1576	Geometrics
Fluxgate Magnetometer	487	TFM100G2-1E	Billingsley Aerospace and Deence
SGRef Station	M-SGREF-62	CPCI ground station - 28Vdc input	SGL
GPS Receiver	DAB13020013	OEMV-3, 72-ch, L1/L2	Novatel
GPS Antenna	NZT07260011	Model 702L,L1/L2 Kinematic GPS Ant.	Novatel
Magnetometer Sensor	75215-C377	model G-822A, Sensor S/N C377	Geometrics
SGRef Station	M-SGREF-59	CPCI ground station - 28Vdc input	SGL
GPS Receiver	DAB14070001	OEMV-3, 72-ch, L1/L2	Novatel
GPS Antenna	NZT07260023	Model 702,L1/L2 Kinematic GPS Ant.	Novatel
Magnetometer Sensor	75409-C3235	model G-822A, Sensor S/N C3235	Geometrics

Appendix V

GEOPHYSICAL SURVEY AIRCRAFT

de Havilland DHC-6 Twin Otter

Registration	C-GSGF
Serial #	642

The de Havilland DHC-6 Twin Otter is an all metal, high wing, twin-engine, short takeoff and landing (STOL) aircraft. The Twin Otter is powered by two Pratt & Whitney Canada PT6A-27 engines. These engines drive a constant speed, fully feathering, reversible propeller. The PT6 turbine engines provide ample power for climbing over steep terrain, working at altitudes up to 7,000 m and can withstand frequent rapid power changes. The aircraft is highly maneuverable, rugged in design and can be flown at speeds from 80 to 160 knots. The low stall speeds and abundant available power make the Twin Otter a safe and effective aircraft for surveys requiring drape flying over rough topography, low air speeds or flights at high altitude. The aircraft has fixed gear, extendable flaps and manually adjustable trim tabs on the primary controls for the roll and pitch axes and full rudder trim for the yaw axis. The aircraft is equipped with full de-icing equipment and sufficient avionics for instrument flying including a flight control system. Supplementary fuel can be added for transoceanic flight. The Twin Otter is certified for IFR flights in known icing conditions.

GEOPHYSICAL SURVEYING

The SGL Twin Otter is fully equipped for airborne magnetic, gravity, radiometric and frequency-domain EM surveys. EM fields are measured with the SGL frequency-domain EM system (**SGFEM**). The four-frequency EM transmitter is located in the right wingtip EM pod, and the receiver is located in the left wingtip EM pod. The magnetic field is measured by one sensor mounted in a stinger that is rigidly attached to the tail of the aircraft, and a second sensor can be mounted in the left wingtip EM pod. Gravity surveys are performed using SGL's state-of-the-art **AIRGrav** system. The Twin Otter can carry up to 63 litres of detector crystals for gamma-ray spectrometer surveys.

DE HAVILLAND DHC-6 TWIN OTTER SPECIFICATIONS

Crew Capacity:
- 2 pilots, 1 operator (optional)

Fuselage:
- semi-monocoque

Wings:
- strut braced, high wing
- outboard ailerons and trim tab, full span flaps

Tail:
- conventional stabilizers
- elevator and rudder with trim tabs

Power Plant:
- Pratt & Whitney Canada PT6A-27, 680 shp, free-turbine gas engine, overhaul 3,600 hours
- three-blade, fully-feathering, constant-speed, reversible propeller, overhaul 3,000 hours or 5 years

Systems:
- dual flight controls with IFR instruments and avionics
- 2-axis autopilot
- full airframe and propeller de-icing

Dimensions:

Wing span	65 ft	19.8 m
Exterior length	51 ft 9 in	15.8 m
Exterior height	19 ft 6 in	5.94 m
Interior usable length	18 ft 5 in	5.61 m
Interior usable width	4 ft 4 in	1.32 m
Interior height	4 ft 11 in	1.5 m
Usable fuel capacity	385 US gal	1,455 l

Weights:

Empty	8,100 lb	3,674 kg
Maximum take-off	12,500 lb	5,670 kg

Performance (2,000 ft ASL, standard day, maximum take-off weight, 1,900 rpm, 1,375 ft-lb tq):

Range, maximum range power (plus reserve)	920 nm	1,704 km
Cruise speed at maximum range power	170 kt	315 km/h
Fuel flow at maximum range power	50 US gal/h	189 l/h
Stall airspeed, landing configuration	58 kt	107 km/h
Service ceiling	25,000 ft	7,620 m
Minimum required runway length	2,500 ft	762 m
Rate of climb	1,600 ft/min	488 m/min
Maximum sustained climb gradient	650 ft/nm	107 m/km

Type of Aviation Fuel: Jet A, A-1, B, JP-1, 4, 5, 8

Maximum Endurance: 8 hours plus 1 hour reserve at maximum range power

GEOPHYSICAL CAPABILITIES

SGFEM, frequency-domain EM

AIRGrav, SGL airborne gravimeter

Magnetic total field

Horizontal magnetic gradient

Gamma-ray spectrometer, up to 63 litres (3,840 in^3) of detector crystals

SGMethane, methane gas sensing

Additional Features:
- Tail stinger 6.8 m long and 22 cm in diameter, capable of housing a 1 kg sensor
- HF radio
- Video camera mount with 23 cm diameter glass covered opening in the belly of the aircraft
- Two instrument racks, standard 48 cm (19 in) width
- Radar altimeter, 0-750 m
- Electrical power capacity, 28 VDC at 200 amp
- Static inverters, 115 VAC - 400 Hz, 110 VAC - 60 Hz
- GPS receiver and antenna

Appendix VI

SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**		
Total Remaining (km)	25572.0	14682.0	**km Reflown This Week**		
Percent Complete (%)			**Flight Time This Week (h)**		
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 1		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS									
6-Aug	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with showers		**Remarks**	Mobilization continues. Configuration of aircraft from ferry mode to survey mode commences.					
Geomag	quiet								
7-Aug	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with showers		**Remarks**	Mobilization continues. Configuration of aircraft from ferry mode to survey mode continues.					
Geomag	quiet								
8-Aug	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with showers		**Remarks**	Mobilization continues. Configuration of aircraft from ferry mode to survey mode completed.					
Geomag	quiet								
9-Aug	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Partly sunny with showers		**Remarks**	Mobilization continues. Calibration of FEM system underway. Entire crew attends safety meeting.					
Geomag	quiet								
10-Aug	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Sunny and warm.		**Remarks**	Mobilization continues. Calibration of FEM system continues. Darren returns to Ottawa.					
Geomag	quiet								
11-Aug	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with showers		**Remarks**	Mobilization continues. Calibration of FEM system completed. Test flight cancelled due to weather. Allan returns to Canada.					
Geomag	quiet								
12-Aug	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with showers		**Remarks**	Mobilization continues. Test flight cancelled due to weather.					
Geomag	quiet								
Comments	Mobilization continues. Aircraft reconfiguration from ferry mode to survey mode completed. FEM calibrations completed. Test flight waiting for weather to improve.								

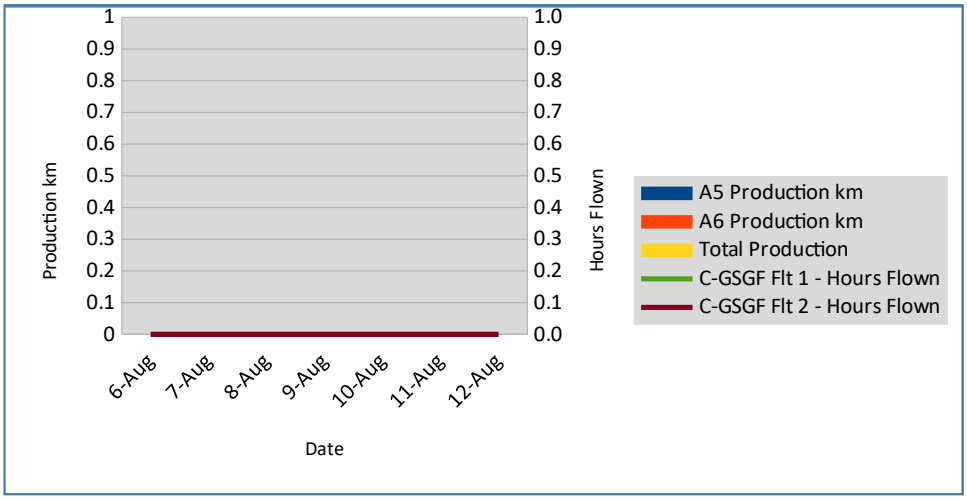
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	36
Allan Ott	AME		11-Aug-18	ON SITE	6	25
Craig McMahon	Technician			ON SITE	7	25
Steve Gebhardt	Lead Pilot			ON SITE	7	31
Andre Lafontaine	Pilot			ON SITE	7	10
Darren McBeth	AME		10-Aug-18	ON SITE	5	6
Dave Money	AME					
Charles Dicks	Pilot					
Diana Kuiper	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	292.5	997.5
Inductions		6
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings	1	1
GSI PR Complaints		

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

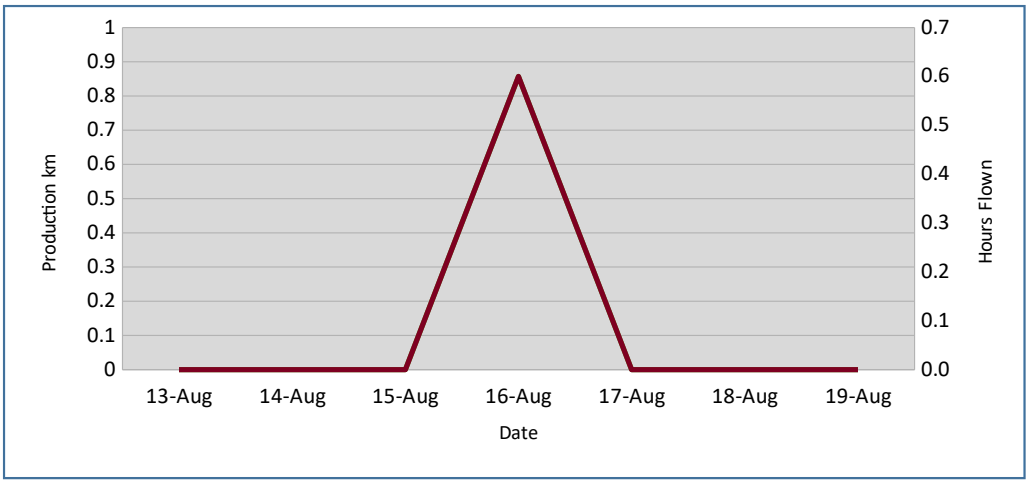
SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**		
Total Remaining (km)	25572.0	14682.0	**km Reflown This Week**		
Percent Complete (%)			**Flight Time This Week (h)**	1.2	
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 2		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS			**1.2**						
13-Aug	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Thick mountain fog		**Remarks**	Mobilization continues. Test flight cancelled due to weather. Jim Hodgson, from GSI, visits crew and Kerry airport base.					
Geomag	quiet								
14-Aug	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Thick mountain fog		**Remarks**	Mobilization continues. Test flight cancelled due to weather. Dave Money arrives in Kerry.					
Geomag	quiet								
15-Aug	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Thick mountain fog		**Remarks**	Mobilization continues. Test flight cancelled due to weather.					
Geomag	quiet								
16-Aug	**Thursday**		**1.2**						
	C-GSGF Flt 1	9001	0.6						
	C-GSGF Flt 2	9002	0.6						
Weather	Overcast with sunny spells and showers.		**Remarks**	Mobilization continues. Test flight aborted due to technical issue with FEM system. Second test flight confirms all systems working.					
Geomag	quiet								
17-Aug	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast and very windy.		**Remarks**	Mobilization continues. Test flight cancelled due to weather.					
Geomag	quiet								
18-Aug	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast and very windy, tropical storm overnight.		**Remarks**	Mobilization continues. Test flight cancelled due to weather.					
Geomag	quiet								
19-Aug	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy fog all day. Windy.		**Remarks**	Mobilization continues. Test flight cancelled due to weather.					
Geomag	quiet								
Comments	Weather continues to hamper flights. Two short test flights at airport to test functionality of all systems. Mobilization continues.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	43
Allan Ott	AME					25
Craig McMahon	Technician			ON SITE	7	32
Steve Gebhardt	Lead Pilot			ON SITE	7	38
Andre Lafontaine	Pilot			ON SITE	7	17
Darren McBeth	AME					6
Dave Money	AME	14-Aug-18		ON SITE	6	6
Charles Dicks	Pilot					
Diana Kuiper	Geophysicist					
Allan Ott	AME					
Scott Hames	Technician					
Darren McBeth	AME					
John Burnham	AME					
Steven Hyde	Pilot					
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	255	1252.5
Inductions	1	7
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		1
GSI PR Complaints		

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)	1052.1	962.2	**Total km Flown to Date**	1052.1	962.2
Total Remaining (km)	24519.9	13719.8	**km Reflown This Week**		
Percent Complete (%)	4.1	6.6	**Flight Time This Week (h)**	18.0	
Prod km/Day This Week	150.3	137.5	**Prod km/Flt Hour This Week**	111.9	

WEEKLY PRODUCTION

Week 3		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**18.0**	**63.0**		**1052.1**	**962.2**		
20-Aug	**Monday**		**0.7**						
	C-GSGF Flt 1	9003	0.7						
	C-GSGF Flt 2								
Weather	Overcast.		**Remarks**	Mobilization continues. Test flight aborted due to low lying fog in mountains, no access to either block.					
Geomag	quiet								
21-Aug	**Tuesday**		**2.8**	**6.0**		**266.2**			
	C-GSGF Flt 1	1	2.8	6.0		266.2			
	C-GSGF Flt 2								
Weather	Cloudy with sun, windy.		**Remarks**	Mobilization completed. First flight in A5 block, no access to A6 block due to fog.					
Geomag	quiet								
22-Aug	**Wednesday**		**3.1**	**10.0**		**469.1**			
	C-GSGF Flt 1	2	3.1	10.0		469.1			
	C-GSGF Flt 2								
Weather	Fog in am, cloudy with sun pm.		**Remarks**	Flight delayed due to weather. Flight short due to airport closing at 8 pm.					
Geomag	quiet								
23-Aug	**Thursday**		**3.9**	**13.0**		**316.8**			
	C-GSGF Flt 1	3	3.9	13.0		316.8			
	C-GSGF Flt 2								
Weather	Very windy, cloudy.		**Remarks**	Flight delayed due to weather.					
Geomag	quiet								
24-Aug	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, windy, heavy rain.		**Remarks**	No flight due to weather. Diana Kuiper, geophysicist, and Charles Dicks, pilot, arrive from Canada.					
Geomag	quiet								
25-Aug	**Saturday**		**7.5**	**34.0**			**962.2**		
	C-GSGF Flt 1	4	3.5	16.0			452.8		
	C-GSGF Flt 2	5	4.0	18.0			509.4		
Weather	Clear and calm.		**Remarks**	An excellent day, two full flights.					
Geomag	quiet								
26-Aug	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain, strong winds.		**Remarks**	No flight due to weather. Allan Ott returns to Kerry.					
Geomag	quiet								
Comments	What a great start to the production of the project.								

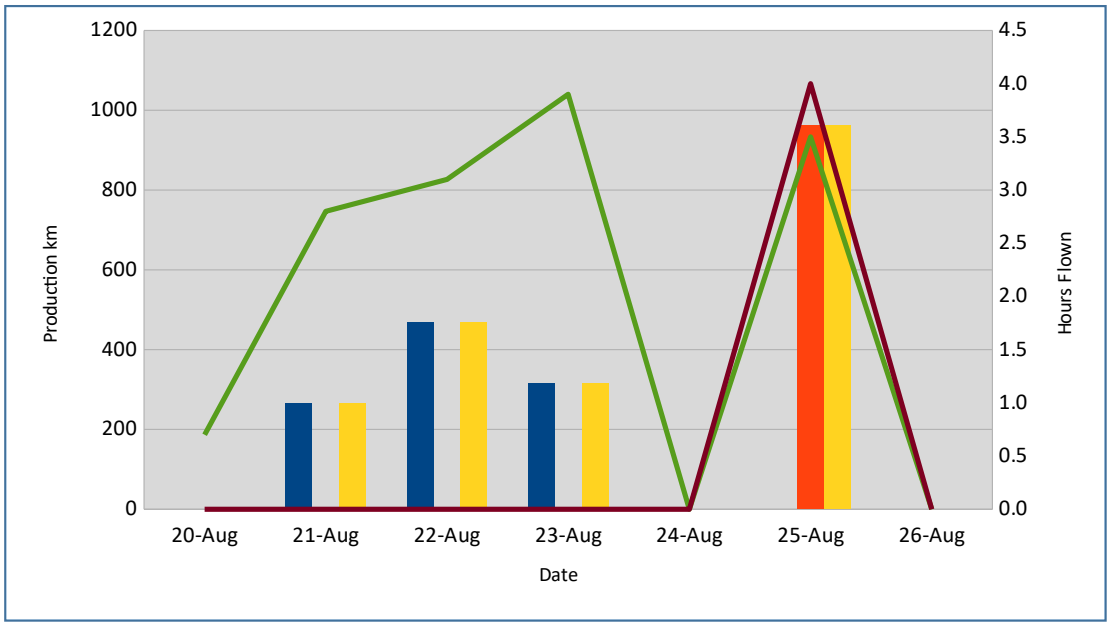
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	50
Allan Ott	AME					25
Craig McMahon	Technician			ON SITE	7	39
Steve Gebhardt	Lead Pilot			ON SITE	7	45
Andre Lafontaine	Pilot			ON SITE	7	24
Darren McBeth	AME					6
Dave Money	AME			ON SITE	7	13
Charles Dicks	Pilot	23-Aug-18		ON SITE	4	4
Diana Kuiper	Geophysicist	23-Aug-18		ON SITE	4	4
Allan Ott	AME	26-Aug-18		ON SITE	1	1
Scott Hames	Technician					
Darren McBeth	AME					
John Burnham	AME					
Steven Hyde	Pilot					
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	330	1582.5
Inductions	2	9
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		1
GSI PR Complaints		

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)	912.8		**Total km Flown to Date**	1964.9	962.2
Total Remaining (km)	23607.1	13719.8	**km Reflown This Week**		56.6
Percent Complete (%)	7.7	6.6	**Flight Time This Week (h)**	10.4	
Prod km/Day This Week	130.4		**Prod km/Flt Hour This Week**	87.8	

WEEKLY PRODUCTION

Week 4		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**10.4**	**27.0**	**2.0**	**912.8**			**56.6**
27-Aug	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain and very windy.		**Remarks**	No flight due to weather. Andre departs project.					
Geomag	quiet								
28-Aug	**Tuesday**		**7.5**	**19.0**	**2.0**	**723.5**			**56.6**
	C-GSGF Flt 1	6	4.5	7.0	2.0	431.9			56.6
	C-GSGF Flt 2	7	3.0	12.0		291.6			
Weather	Overcast and windy, rain in pm.		**Remarks**	Two flights, second flight aborted due to rain.					
Geomag	quiet								
29-Aug	**Wednesday**		**2.3**	**8.0**		**189.3**			
	C-GSGF Flt 1	8	2.3	8.0		189.3			
	C-GSGF Flt 2								
Weather	Partly cloudy.		**Remarks**	Flight delayed due to calibrations. Flight aborted due to instrument malfunction, flight diverted to Shannon Airport. Dave departs project.					
Geomag	quiet								
30-Aug	**Thursday**		**0.6**						
	C-GSGF Flt 1	ferry	0.6						
	C-GSGF Flt 2								
Weather	Partly cloudy.		**Remarks**	Aircraft maintenance completed in Shannon. Aircraft ferried back to Kerry Airport. Craig departs project. Aircraft part shipped to Ireland.					
Geomag	quiet								
31-Aug	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Partly cloudy, showers, windy.		**Remarks**	Production put on hold while crew awaits aircraft part. Second aircraft part shipped to Ireland.					
Geomag	quiet								
1-Sep	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog, partly sunny, very warm.		**Remarks**	Waiting for aircraft part.					
Geomag	quiet								
2-Sep	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, rain, fog.		**Remarks**	Aircraft part arrives in Dublin, clears customs and is delivered to Kerry. Installed, aircraft ready for surveying.					
Geomag	quiet								
Comments	Production started off well this week. Incident with aircraft on Wednesday halts progress. By end of day Sunday aircraft serviceable again, ready for production on Monday. Weather is very promising this coming week.								

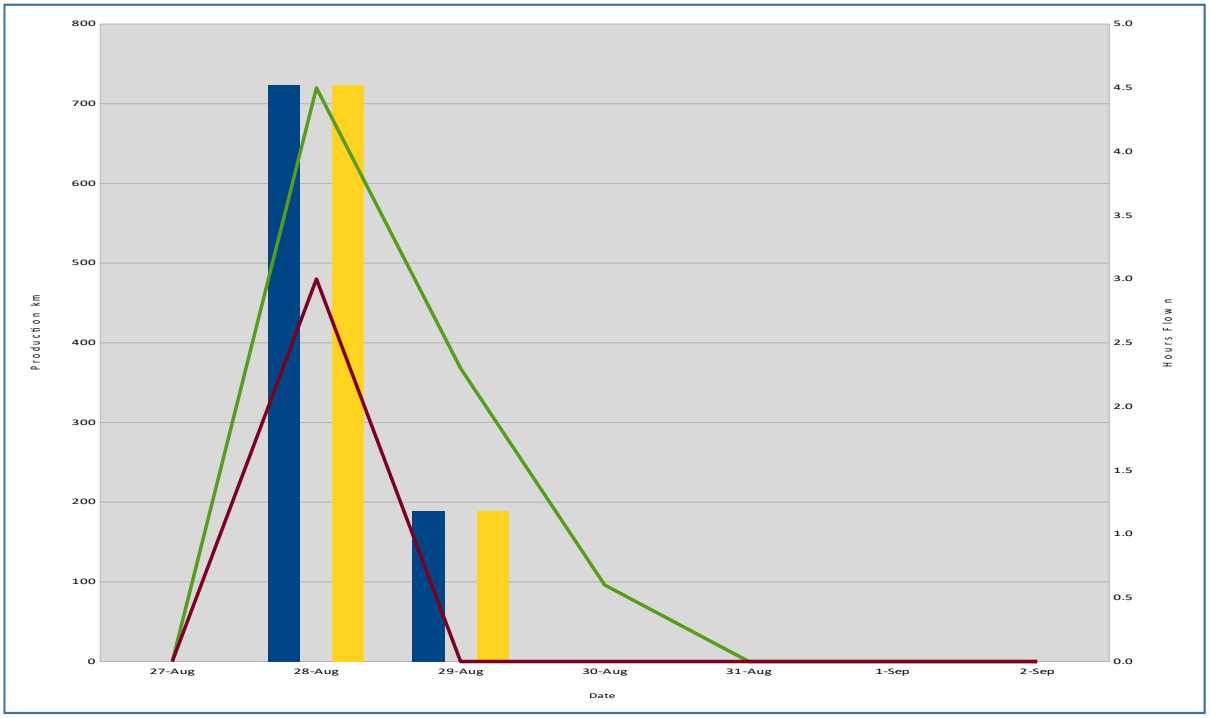
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	57
Allan Ott	AME					25
Craig McMahon	Technician		30-Aug-18	ON SITE	4	43
Steve Gebhardt	Lead Pilot			ON SITE	7	52
Andre Lafontaine	Pilot		27-Aug-18	ON SITE	1	25
Darren McBeth	AME					6
Dave Money	AME		29-Aug-18	ON SITE	3	16
Charles Dicks	Pilot			ON SITE	7	11
Diana Kuiper	Geophysicist			ON SITE	7	11
Allan Ott	AME			ON SITE	7	8
Scott Hames	Technician					
Darren McBeth	AME					
John Burnham	AME					
Steven Hyde	Pilot					
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	322.5	1905
Inductions		9
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		1
GSI PR Complaints		

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)	2189.8		**Total km Flown to Date**	4154.7	962.2
Total Remaining (km)	21417.3	13719.8	**km Reflown This Week**		
Percent Complete (%)	16.2	6.6	**Flight Time This Week (h)**	20.6	
Prod km/Day This Week	312.8		**Prod km/Flt Hour This Week**	106.3	

WEEKLY PRODUCTION

Week 5		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**20.6**	**80.0**		**2189.8**			
3-Sep	**Monday**		**4.4**	**22.0**		**494.7**			
	C-GSGF Flt 1	9	4.4	22.0		494.7			
	C-GSGF Flt 2								
Weather	Sunny and warm.		**Remarks**	Full production flight.					
Geomag	quiet								
4-Sep	**Tuesday**		**9.1**	**40.0**		**964.3**			
	C-GSGF Flt 1	10	4.5	18.0		396.5			
	C-GSGF Flt 2	11	4.6	22.0		567.8			
Weather	Overcast with sunny periods.		**Remarks**	Two full flights. After second flight a maintenance issue with the aircraft became apparent.					
Geomag	micropulsations								
5-Sep	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, mist, rain.		**Remarks**	Aircraft fuel leak being investigated.					
Geomag	quiet								
6-Sep	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain all day.		**Remarks**	Maintenance on aircraft completed.					
Geomag	quiet								
7-Sep	**Friday**		**5.0**	**14.0**		**568.4**			
	C-GSGF Flt 1	12	1.0						
	C-GSGF Flt 2	13	4.0	14.0		568.4			
Weather	Overcast with fog and mist.		**Remarks**	Leak test passes. First flight aborted due to weather. Full flight follows. Fuel leak resurfaces. Further maintenance required.					
Geomag	unsettled								
8-Sep	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, mist, rain.		**Remarks**	Maintenance on aircraft completed.					
Geomag	unsettled								
9-Sep	**Sunday**		**2.1**	**4.0**		**162.4**			
	C-GSGF Flt 1	14	2.1	4.0		162.4			
	C-GSGF Flt 2								
Weather	Overcast, rain showers, gale.		**Remarks**	Flight aborted due to weather.					
Geomag									
Comments	An average week of production. Maintenance of aircraft and weather slowed production.								

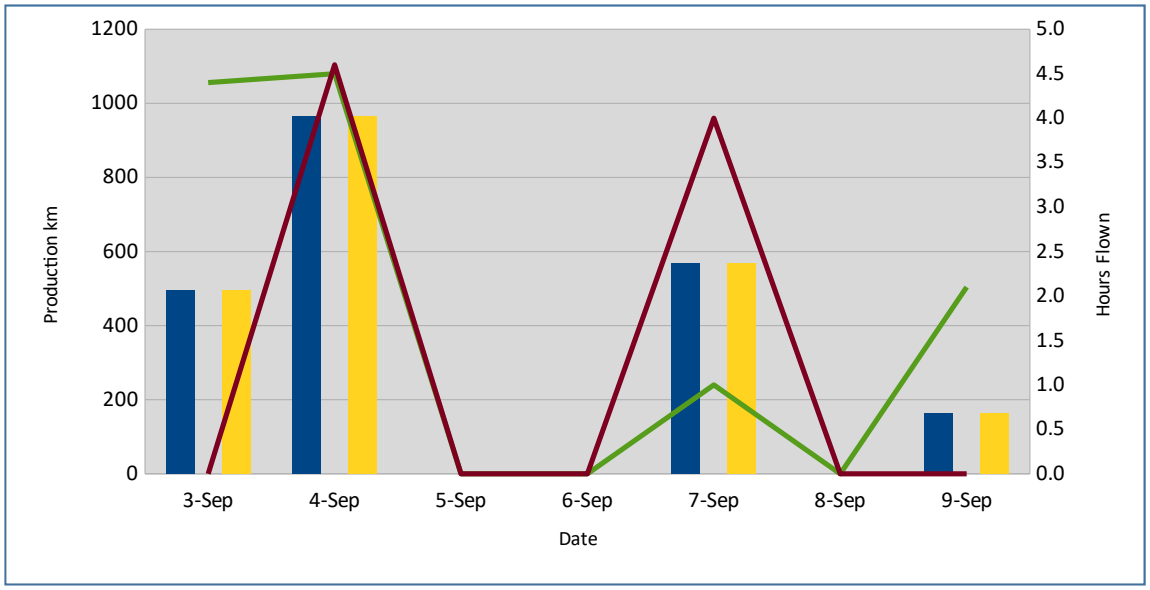
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	64
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	59
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	18
Diana Kuiper	Geophysicist			ON SITE	7	18
Allan Ott	AME			ON SITE	7	15
Scott Hames	Technician					
Darren McBeth	AME					
John Burnham	AME					
Steven Hyde	Pilot					
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	2167.5
Inductions		9
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		1
GSI PR Complaints		

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	1278.4		**Total km Flown to Date**	5433.1	962.2
Total Remaining (km)	20138.9	13719.8	**km Reflown This Week**	68.6	
Percent Complete (%)	21.2	6.6	**Flight Time This Week (h)**	12.6	
Prod km/Day This Week	182.6		**Prod km/Flt Hour This Week**	101.5	

WEEKLY PRODUCTION

Week 6		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**12.6**	**26.0**	**0.9**	**1278.4**		**68.6**	
10-Sep	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Wind, rain, fog, mist, gale.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
11-Sep	**Tuesday**		**4.2**	**14.0**		**568.4**			
	C-GSGF Flt 1	15	4.2	14.0		568.4			
	C-GSGF Flt 2								
Weather	Overcast, mist, rain		**Remarks**	Full flight completed. Fuel leak resurfaces. Further maintenance required. Scott Hames, technician, arrives in Kerry.					
Geomag	unsettled								
12-Sep	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, windy.		**Remarks**	Maintenance on aircraft. Entire crew attends safety meeting.					
Geomag	unsettled								
13-Sep	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, windy.		**Remarks**	Maintenance on aircraft. Darren, AME, arrives in Kerry.					
Geomag	unsettled								
14-Sep	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast		**Remarks**	Maintenance on aircraft completed.					
Geomag	unsettled								
15-Sep	**Saturday**		**2.6**	**4.9**		**149.8**			
	C-GSGF Flt 1	16	2.6	4.9		149.8			
	C-GSGF Flt 2								
Weather	Overcast, gale overnight		**Remarks**	Leak test passes. Flight aborted due to weather.					
Geomag	unsettled								
16-Sep	**Sunday**		**5.8**	**7.1**	**0.9**	**560.2**		**68.6**	
	C-GSGF Flt 1	17	1.5						
	C-GSGF Flt 2	18	4.3	7.1	0.9	560.2		68.6	
Weather	Partly sunny.		**Remarks**	First flight aborted due to technical problems with FEM system and weather in block. Full production flight in afternoon.					
Geomag	unsettled								
Comments	Aircraft maintenance completed and ready for production. Flights over weekend but weather continues to be an issue with low cloud cover in A5 block and fog in A6 block.								

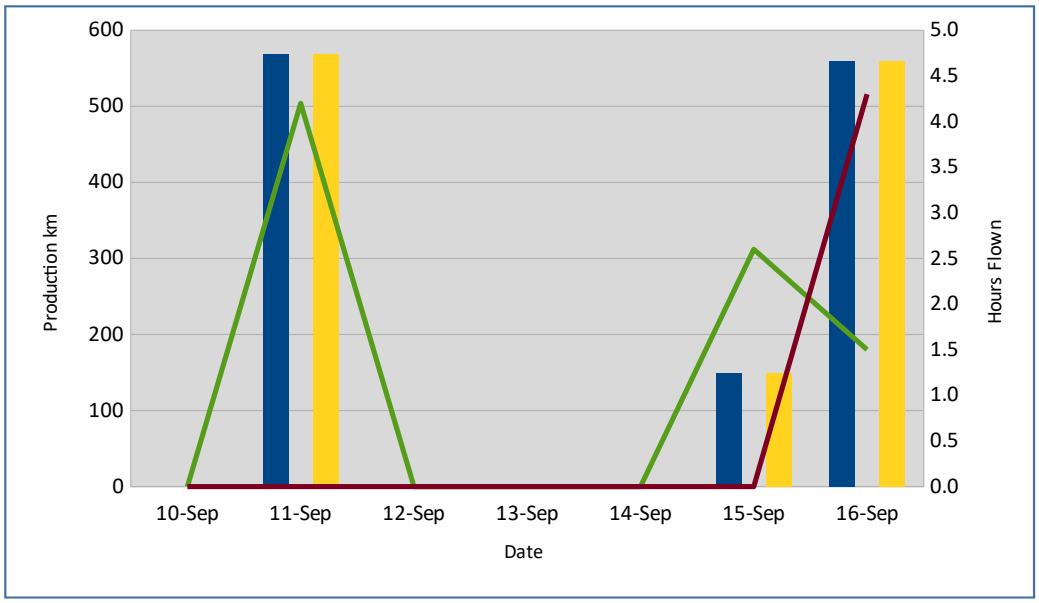
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	71
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	66
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	25
Diana Kuiper	Geophysicist			ON SITE	7	25
Allan Ott	AME			ON SITE	7	22
Scott Hames	Technician	11-Sep-18		ON SITE	6	6
Darren McBeth	AME	13-Sep-18		ON SITE	4	4
John Burnham	AME					
Steven Hyde	Pilot					
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	337.5	2505
Inductions	1	10
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings	1	2
GSI PR Complaints	1	1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	536.2		**Total km Flown to Date**	5969.3	962.2
Total Remaining (km)	19602.7	13719.8	**km Reflown This Week**		
Percent Complete (%)	23.3	6.6	**Flight Time This Week (h)**	4.6	
Prod km/Day This Week	76.6		**Prod km/Flt Hour This Week**	116.6	

WEEKLY PRODUCTION

Week 7		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**4.6**	**7.0**		**536.2**			
17-Sep	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Helene – strong wind, rain.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
18-Sep	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	No flight due to weather.					
Geomag	unsettled								
19-Sep	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Ali – severe winds		**Remarks**	No flight due to weather.					
Geomag	unsettled								
20-Sep	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain all day.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
21-Sep	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Strong winds all day		**Remarks**	No flight due to weather.					
Geomag	unsettled								
22-Sep	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain all day, heavy at times.		**Remarks**	Flight attempted late in day. Mechanical problem with aircraft cancelled flight. Aircraft maintenance completed.					
Geomag	unsettled								
23-Sep	**Sunday**		**4.6**	**7.0**		**536.2**			
	C-GSGF Flt 1	19	4.6	7.0		536.2			
	C-GSGF Flt 2								
Weather	Fog in am, windy, overcast.		**Remarks**	Full production flight. Too windy for a second one.					
Geomag	unsettled								
Comments	Two major storms swept Ireland this week making it a non productive week. Sunday cleared enough for a flight which was a relief.								

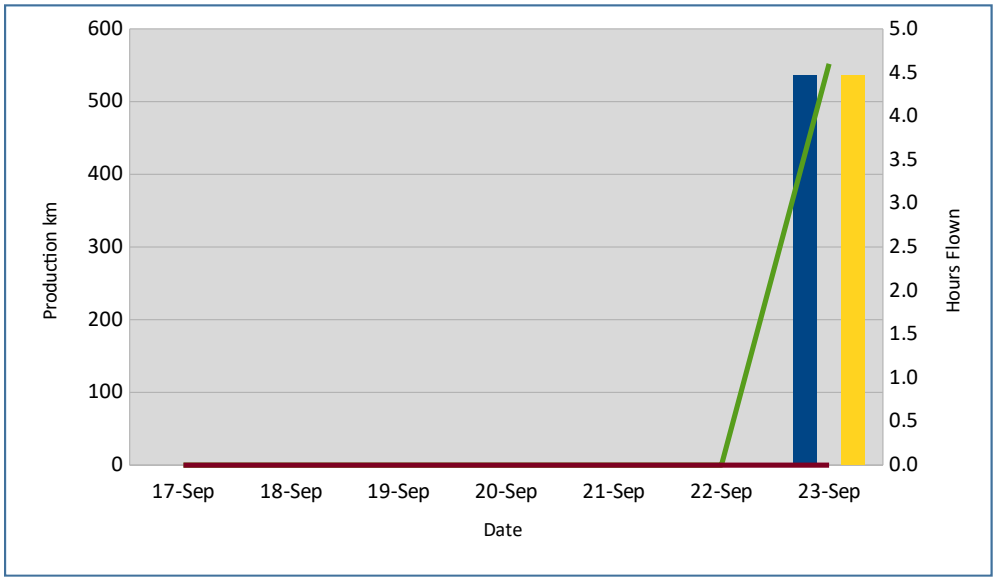
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	78
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	73
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	32
Diana Kuiper	Geophysicist			ON SITE	7	32
Allan Ott	AME					22
Scott Hames	Technician			ON SITE	7	13
Darren McBeth	AME			ON SITE	7	11
John Burnham	AME					
Steven Hyde	Pilot					
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	315	2820
Inductions		10
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		2
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	3386.9		**Total km Flown to Date**	9356.2	962.2
Total Remaining (km)	16215.8	13719.8	**km Reflown This Week**		
Percent Complete (%)	36.6	6.6	**Flight Time This Week (h)**	26.9	
Prod km/Day This Week	483.8		**Prod km/Flt Hour This Week**	125.9	

WEEKLY PRODUCTION									
Week 8		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS			**26.9**	**46.0**		**3386.9**			
24-Sep	**Monday**		**7.9**	**16.0**		**1045.7**			
	C-GSGF Flt 1	20	4.4	10.0		586.1			
	C-GSGF Flt 2	21	3.5	6.0		459.6			
Weather	Sunny, warm, calm.		**Remarks**	Two full production flights. Second flight shortened due to daylight hours.					
Geomag	micropulsations								
25-Sep	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
26-Sep	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
27-Sep	**Thursday**		**2.4**						
	C-GSGF Flt 1	22	1.0						
	C-GSGF Flt 2	23	1.4						
Weather	Sunny, thick fog in blocks.		**Remarks**	Two attempts at production, flights aborted due to fog.					
Geomag	micropulsations								
28-Sep	**Friday**		**8.3**	**14.0**		**1091.4**			
	C-GSGF Flt 1	24	4.1	6.0		460.8			
	C-GSGF Flt 2	25	4.2	8.0		630.6			
Weather	Sunny and brisk		**Remarks**	Two full production flights.					
Geomag	micropulsations								
29-Sep	**Saturday**		**8.3**	**16.0**		**1249.8**			
	C-GSGF Flt 1	26	4.1	8.0		628.8			
	C-GSGF Flt 2	27	4.2	8.0		621.0			
Weather	Sunny, cold...becomes overcast.		**Remarks**	Two full production flights.					
Geomag	quiet								
30-Sep	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, mist, very windy.		**Remarks**	Pilot rest day.					
Geomag	quiet								
Comments	Most productive week of 2018.								

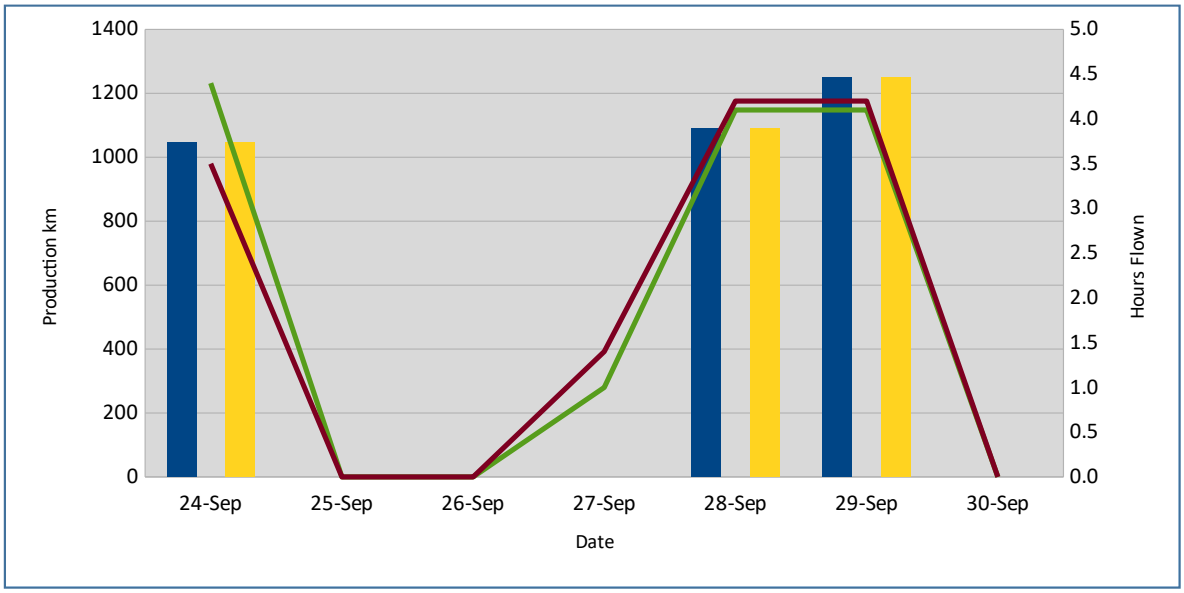
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	85
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	80
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	39
Diana Kuiper	Geophysicist			ON SITE	7	39
Allan Ott	AME			ON SITE	7	29
Scott Hames	Technician			ON SITE	7	20
Darren McBeth	AME		24-Sep-18	ON SITE	1	12
John Burnham	AME					
Steven Hyde	Pilot					
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	322.5	3142.5
Inductions		10
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		2
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	3136.6		**Total km Flown to Date**	12492.8	962.2
Total Remaining (km)	13079.2	13719.8	**km Reflown This Week**		
Percent Complete (%)	48.9	6.6	**Flight Time This Week (h)**	21.4	
Prod km/Day This Week	448.1		**Prod km/Flt Hour This Week**	146.6	

WEEKLY PRODUCTION

Week 9		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**21.4**	**45.0**		**3136.6**			
1-Oct	**Monday**		**8.6**	**18.0**		**1245.3**			
	C-GSGF Flt 1	28	4.4	10.0		600.5			
	C-GSGF Flt 2	29	4.2	8.0		644.8			
Weather	Overcast and windy.		**Remarks**	Two full production flights.					
Geomag	unsettled								
2-Oct	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, low ceilings, fog.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
3-Oct	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, low ceilings, fog.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
4-Oct	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, heavy rain in pm.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
5-Oct	**Friday**		**4.2**	**8.0**		**634.0**			
	C-GSGF Flt 1	30	4.2	8.0		634.0			
	C-GSGF Flt 2								
Weather	Overcast, fog, rain.		**Remarks**	Full flight in afternoon.					
Geomag	unsettled								
6-Oct	**Saturday**		**8.6**	**19.0**		**1257.3**			
	C-GSGF Flt 1	31	4.2	8.0		630.9			
	C-GSGF Flt 2	32	4.4	11.0		626.4			
Weather	Sunny, bright skies. Rain in A6.		**Remarks**	Two full production flights.					
Geomag	unsettled								
7-Oct	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast and windy.		**Remarks**	No flight due to weather. Scott departs for Ottawa.					
Geomag	unsettled								
Comments	Another above average week of production.								

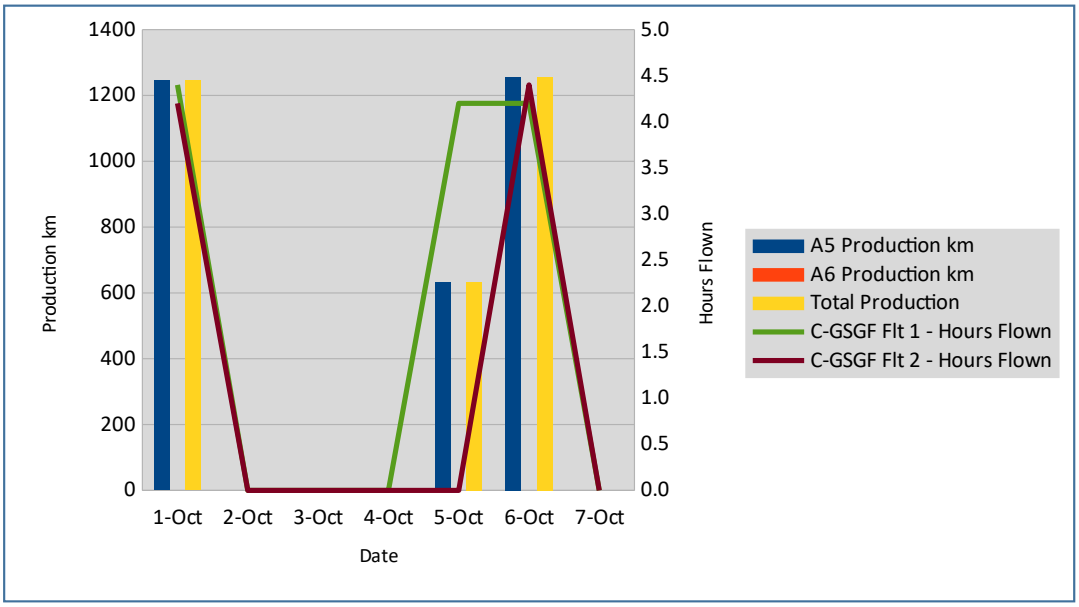
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	92
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	87
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	46
Diana Kuiper	Geophysicist			ON SITE	7	46
Allan Ott	AME			ON SITE	7	36
Scott Hames	Technician		7-Oct-18	ON SITE	7	27
Darren McBeth	AME					12
John Burnham	AME					
Steven Hyde	Pilot					
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	315	3457.5
Inductions		10
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		2
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)		922.8	**Total km Flown to Date**	12492.8	1885.0
Total Remaining (km)	13079.2	12797.0	**km Reflown This Week**		
Percent Complete (%)	48.9	12.8	**Flight Time This Week (h)**	8.3	
Prod km/Day This Week		131.8	**Prod km/Flt Hour This Week**	111.2	

WEEKLY PRODUCTION									
Week 10		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS			**8.3**	**36.0**			**922.8**		
8-Oct	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	No flight due to weather. Allan, AME, departs and John, AME, arrives Kerry.					
Geomag	unsettled								
9-Oct	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Strong gale		**Remarks**	No flight due to weather.					
Geomag	unsettled								
10-Oct	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Strong gale		**Remarks**	No flight due to weather.					
Geomag	unsettled								
11-Oct	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Strong gale		**Remarks**	No flight due to weather.					
Geomag	unsettled								
12-Oct	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Callum – violent winds		**Remarks**	No flight due to weather. Steven Hyde, pilot, arrives in Kerry.					
Geomag	unsettled								
13-Oct	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	heavy rain all day – flooding		**Remarks**	No flight due to weather. Safety meeting, all crew present.					
Geomag	unsettled								
14-Oct	**Sunday**		**8.3**	**36.0**			**922.8**		
	C-GSGF Flt 1	33	4.7	18.0			509.4		
	C-GSGF Flt 2	34	3.6	18.0			413.4		
Weather	Clear, sunny, calm – frost		**Remarks**	Two full production flights.					
Geomag	unsettled								
Comments	Strong winds hampered the project this week. A very productive day on Sunday.								

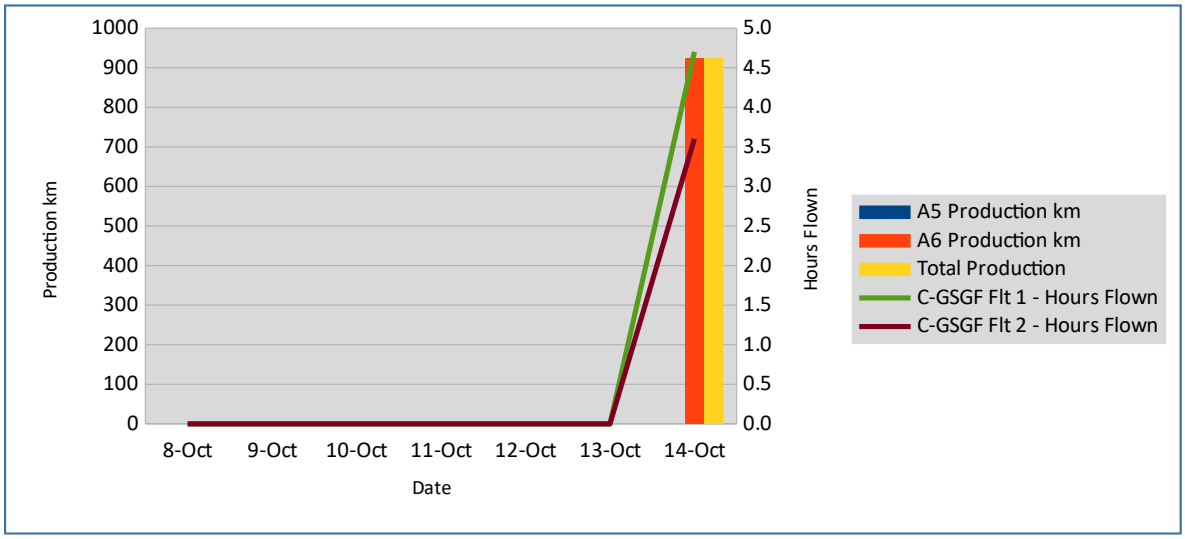
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	99
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	94
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	53
Diana Kuiper	Geophysicist			ON SITE	7	53
Allan Ott	AME		8-Oct-18	ON SITE	1	37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME	8-Oct-18		ON SITE	7	7
Steven Hyde	Pilot	12-Oct-18		ON SITE	3	3
Ania Smetny-Sowa	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	292.5	3750
Inductions	2	12
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings	1	3
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)	984.9	933.8	**Total km Flown to Date**	13477.7	2818.8
Total Remaining (km)	12094.3	11863.2	**km Reflown This Week**	77.4	
Percent Complete (%)	52.7	19.2	**Flight Time This Week (h)**	22.3	
Prod km/Day This Week	140.7	133.4	**Prod km/Flt Hour This Week**	86.0	

WEEKLY PRODUCTION

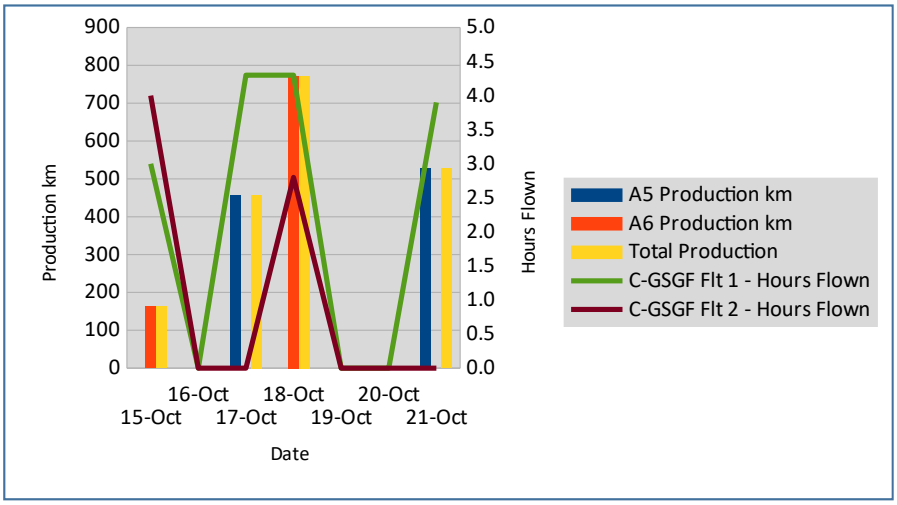
Week 11		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**22.3**	**72.0**	**1.0**	**984.9**	**933.8**	**77.4**	
15-Oct	**Monday**		**7.0**	**8.0**			**162.4**		
	C-GSGF Flt 1	35	3.0						
	C-GSGF Flt 2	36	4.0	8.0			162.4		
Weather	Clear, sunny, calm – frost		**Remarks**	Training flight in am. Magnetic compensation calibration, cosmic and heading tests completed in pm, with small amount of production.					
Geomag	unsettled								
16-Oct	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, rain, wind		**Remarks**	No flight due to weather.					
Geomag	quiet								
17-Oct	**Wednesday**		**4.3**	**13.0**	**1.0**	**457.1**		**77.4**	
	C-GSGF Flt 1	37	4.3	13.0	1.0	457.1		77.4	
	C-GSGF Flt 2								
Weather	Overcast, rain, mist		**Remarks**	Flight delayed due to weather. Full production flight completed.					
Geomag	micropulsations								
18-Oct	**Thursday**		**7.1**	**38.0**			**771.4**		
	C-GSGF Flt 1	38	4.3	24.0			487.2		
	C-GSGF Flt 2	39	2.8	14.0			284.2		
Weather	Overcast becomes clear – frost		**Remarks**	Two full production flights. First flight delayed due to heavy frost, second flight as long as daylight allowed.					
Geomag	micropulsations								
19-Oct	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog, mist, overcast.		**Remarks**	No flight due to weather.					
Geomag	quiet								
20-Oct	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog, mist, overcast.		**Remarks**	No flight due to weather. Ania, geophysicist, arrives in Kerry.					
Geomag	quiet								
21-Oct	**Sunday**		**3.9**	**13.0**		**527.8**			
	C-GSGF Flt 1	40	3.9	13.0		527.8			
	C-GSGF Flt 2								
Weather	Fog, mist, overcast, partly sunny.		**Remarks**	Flight delayed due to weather. Full production flight completed.					
Geomag	quiet								
Comments	An average week of production. Great production in A6 block, making excellent progress. Flying 4/7 days is very good for Ireland in October.								

Signed Alison McCleary Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	106
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	101
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	60
Diana Kuiper	Geophysicist			ON SITE	7	60
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	14
Steven Hyde	Pilot			ON SITE	7	10
Ania Smetny-Sowa	Geophysicist	20-Oct-18		ON SITE	2	2

HSE Statistics	This Week	Project Totals
SGL Person Hours	330	4080
Inductions	1	13
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		3
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	1197.7	964.3	**Total km Flown to Date**	14675.4	3783.1
Total Remaining (km)	10896.6	10898.9	**km Reflown This Week**		
Percent Complete (%)	57.4	25.8	**Flight Time This Week (h)**	18.8	
Prod km/Day This Week	171.1	137.8	**Prod km/Flt Hour This Week**	115.0	

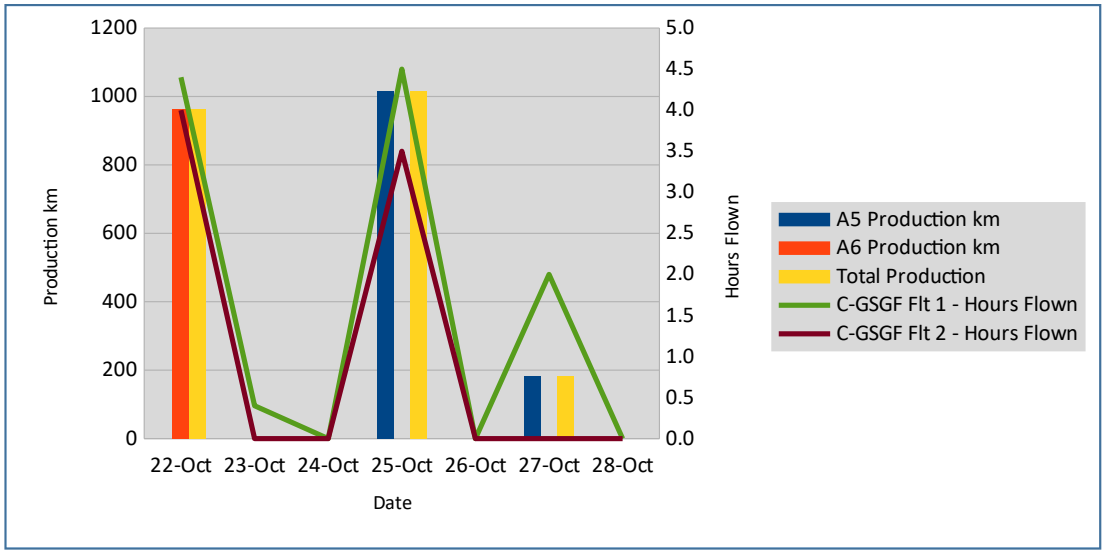
WEEKLY PRODUCTION

Week 12		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**18.8**	**68.5**		**1197.7**	**964.3**		
22-Oct	**Monday**		**8.4**	**39.0**			**964.3**		
	C-GSGF Flt 1	41	4.4	18.0			525.4		
	C-GSGF Flt 2	42	4.0	21.0			438.9		
Weather	Clear and calm, mostly sunny.		**Remarks**	Two full production flights.					
Geomag	quiet								
23-Oct	**Tuesday**		**0.4**						
	C-GSGF Flt 1	43	0.4						
	C-GSGF Flt 2								
Weather	Overcast, low cloud, hazy.		**Remarks**	Flight attempted but weather not good enough to get to either block.					
Geomag	quiet								
24-Oct	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, low cloud, hazy.		**Remarks**	No flight due to weather.					
Geomag	quiet								
25-Oct	**Thursday**		**8.0**	**25.0**		**1015.0**			
	C-GSGF Flt 1	44	4.5	15.0		609.0			
	C-GSGF Flt 2	45	3.5	10.0		406.0			
Weather	Overcast, partly cloudy.		**Remarks**	Two full production flights.					
Geomag	micropulsations								
26-Oct	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale – strong winds, hail, rain		**Remarks**	No flight due to weather. Steven Hyde returns to Canada.					
Geomag	micropulsations								
27-Oct	**Saturday**		**2.0**	**4.5**		**182.7**			
	C-GSGF Flt 1	46	2.0	4.5		182.7			
	C-GSGF Flt 2								
Weather	Overcast, heavy rain showers, windy		**Remarks**	Flight aborted due to weather.					
Geomag	micropulsations								
28-Oct	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Sunny and calm.		**Remarks**	Half the crew sick will stomach bug. Unfortunately no flying.					
Geomag	quiet								
Comments	Average week. Two very productive days. Good progress for the last week in October.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	113
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	108
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	67
Diana Kuiper	Geophysicist		23-Oct-18	ON SITE	2	62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	21
Steven Hyde	Pilot		26-Oct-18	ON SITE	5	15
Ania Smetny-Sowa	Geophysicist			ON SITE	7	9

HSE Statistics	This Week	Project Totals
SGL Person Hours	315	4395
Inductions		13
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		3
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	1360.1	493.4	**Total km Flown to Date**	16035.5	4276.5
Total Remaining (km)	9536.5	10405.5	**km Reflown This Week**	20.3	
Percent Complete (%)	62.7	29.1	**Flight Time This Week (h)**	15.1	
Prod km/Day This Week	194.3	70.5	**Prod km/Flt Hour This Week**	122.7	

WEEKLY PRODUCTION

Week 13		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**15.1**	**51.5**	**0.5**	**1360.1**	**493.4**	**20.3**	
29-Oct	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain all day		**Remarks**	No flight due to weather.					
Geomag	quiet								
30-Oct	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain showers all day		**Remarks**	No flight due to weather.					
Geomag	quiet								
31-Oct	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain and overcast.		**Remarks**	No flight due to weather.					
Geomag	quiet								
1-Nov	**Thursday**		**6.9**	**25.5**	**0.5**	**304.5**	**493.4**	**20.3**	
	C-GSGF Flt 1	47	4.0	18.0			493.4		
	C-GSGF Flt 2	48	2.9	7.5	0.5	304.5		20.3	
Weather	Partly sunny, heavy rain – frost		**Remarks**	Two production flights utilizing all daylight hours.					
Geomag	unsettled								
2-Nov	**Friday**		**2.6**	**8.0**		**324.8**			
	C-GSGF Flt 1	49	2.6	8.0		324.8			
	C-GSGF Flt 2								
Weather	Sunny and calm in am, gale		**Remarks**	Flight aborted due to weather. Hurricane Oscar passes between Ireland and Iceland today and Saturday, strong winds, heavy rain.					
Geomag	quiet								
3-Nov	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
4-Nov	**Sunday**		**5.6**	**18.0**		**730.8**			
	C-GSGF Flt 1	50	4.4	16.0		649.6			
	C-GSGF Flt 2	51	1.2	2.0		81.2			
Weather	Windy, partly sunny, rain showers.		**Remarks**	Full production flight, second flight aborted due to weather.					
Geomag	micropulsations								
Comments	Another average week. Flight on Sunday was our most production single flight in 2018.								

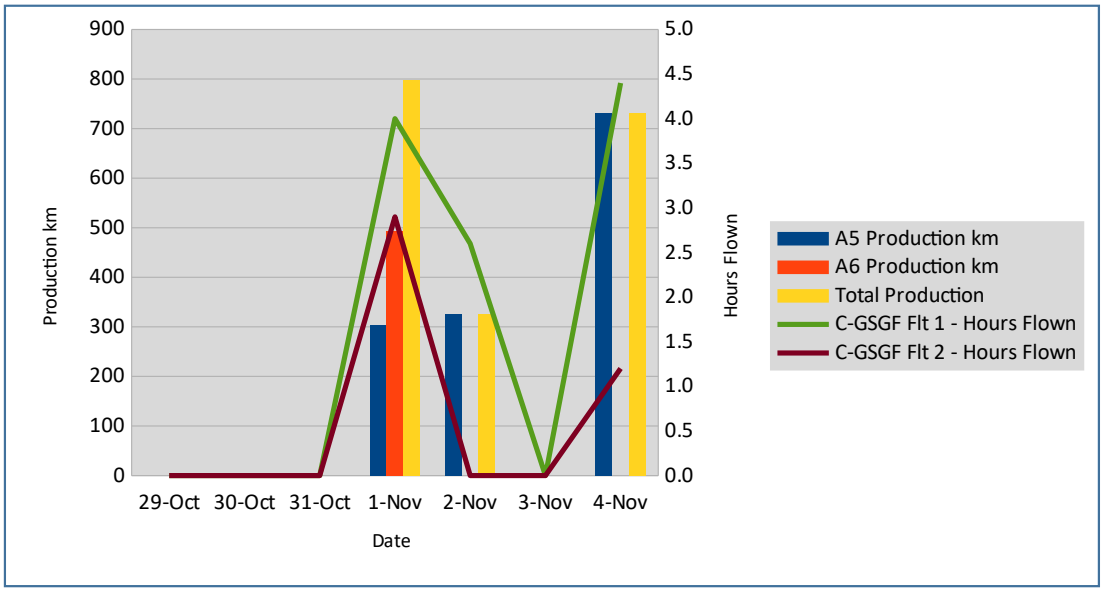
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	120
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	115
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	74
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	28
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist			ON SITE	7	16

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	4657.5
Inductions		13
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		3
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	649.6		**Total km Flown to Date**	16685.1	4276.5
Total Remaining (km)	8886.9	10405.5	**km Reflown This Week**		
Percent Complete (%)	65.2	29.1	**Flight Time This Week (h)**	4.8	
Prod km/Day This Week	92.8		**Prod km/Flt Hour This Week**	135.3	

WEEKLY PRODUCTION

Week 14		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**4.8**	**16.0**		**649.6**			
5-Nov	**Monday**		**0.4**						
	C-GSGF Flt 1	52	0.4						
	C-GSGF Flt 2								
Weather	Overcast, low cloud in blocks.		**Remarks**	Flight aborted due to weather.					
Geomag	unsettled								
6-Nov	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	No flight due to weather.					
Geomag	unsettled								
7-Nov	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain and strong winds.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
8-Nov	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain and strong winds.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
9-Nov	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	No flight due to weather.					
Geomag	unsettled								
10-Nov	**Saturday**		**4.4**	**16.0**		**649.6**			
	C-GSGF Flt 1	53	4.4	16.0		649.6			
	C-GSGF Flt 2								
Weather	Partly sunny with showers.		**Remarks**	Full production flight.					
Geomag	active								
11-Nov	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, heavy rain, windy.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
Comments	A quieter than normal week, with lots of autumn weather.								

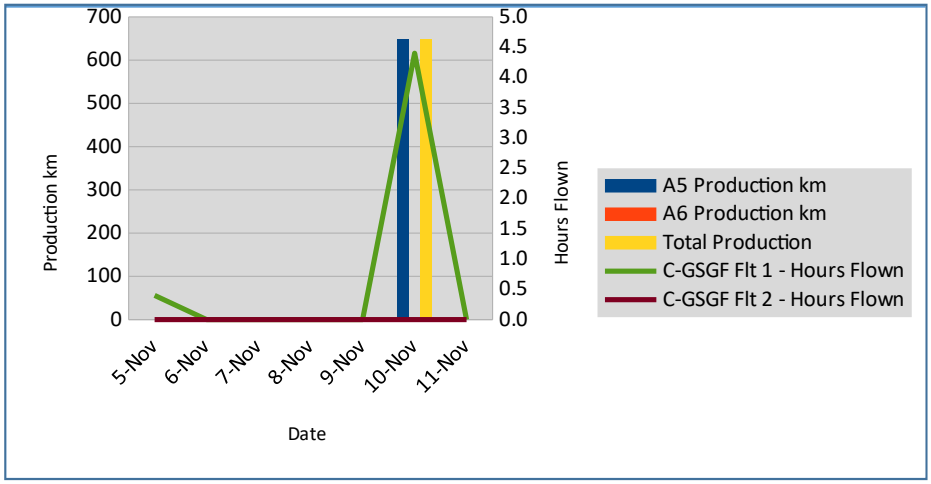
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	127
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	122
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	81
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	35
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist			ON SITE	7	23

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	4920
Inductions		13
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		3
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
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Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
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Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

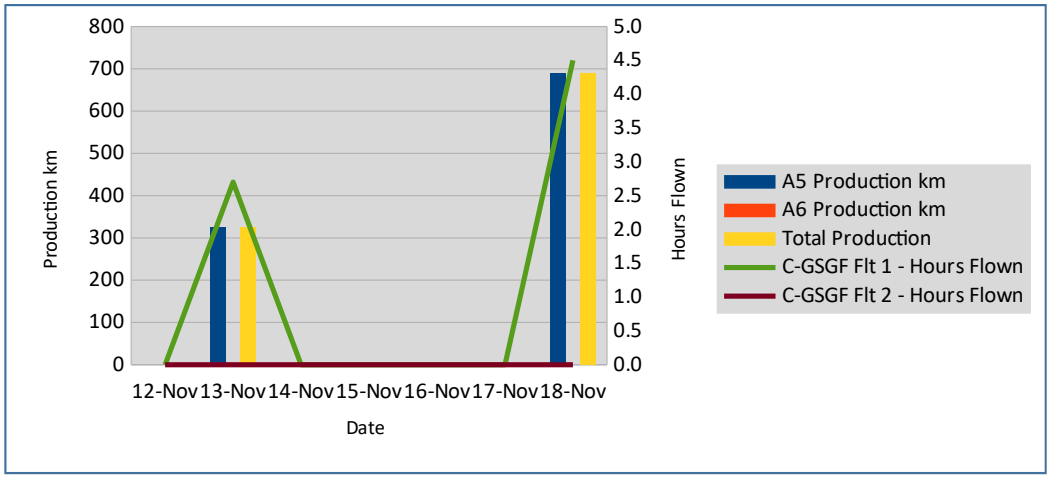
SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	1015.0		**Total km Flown to Date**	17700.1	4276.5
Total Remaining (km)	7871.9	10405.5	**km Reflown This Week**		
Percent Complete (%)	69.2	29.1	**Flight Time This Week (h)**	7.2	
Prod km/Day This Week	145.0		**Prod km/Flt Hour This Week**	141.0	

WEEKLY PRODUCTION									
Week 15		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS			**7.2**	**25.0**		**1015.0**			
12-Nov	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain showers all day.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
13-Nov	**Tuesday**		**2.7**	**8.0**		**324.8**			
	C-GSGF Flt 1	54	2.7	8.0		324.8			
	C-GSGF Flt 2								
Weather	Overcast, heavy rain in afternoon		**Remarks**	Production flight aborted due to weather.					
Geomag	micropulsations								
14-Nov	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain all day.		**Remarks**	No flight due to weather. Safety meeting, all crew present.					
Geomag	quiet								
15-Nov	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain continues most of the day.		**Remarks**	No flight due to weather.					
Geomag	quiet								
16-Nov	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, low cloud cover.		**Remarks**	No flight due to weather.					
Geomag	quiet								
17-Nov	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, low cloud cover.		**Remarks**	No flight due to weather.					
Geomag	quiet								
18-Nov	**Sunday**		**4.5**	**17.0**		**690.2**			
	C-GSGF Flt 1	55	4.5	17.0		690.2			
	C-GSGF Flt 2								
Weather	Overcast becomes partly cloudy. Windy day.		**Remarks**	Full production flight completed after winds calm, a bit.					
Geomag	quiet								
Comments	A quiet week that ended off strong.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	134
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	129
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	88
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	42
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist			ON SITE	7	30

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	5182.5
Inductions		13
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings	1	4
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	1624.0		**Total km Flown to Date**	19324.1	4276.5
Total Remaining (km)	6247.9	10405.5	**km Reflown This Week**		
Percent Complete (%)	75.6	29.1	**Flight Time This Week (h)**	15.6	
Prod km/Day This Week	232.0		**Prod km/Flt Hour This Week**	104.1	

WEEKLY PRODUCTION

Week 16		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**15.6**	**40.0**		**1624.0**			
19-Nov	**Monday**		**4.4**	**16.0**		**649.6**			
	C-GSGF Flt 1	56	4.4	16.0		649.6			
	C-GSGF Flt 2								
Weather	Clear and windy, overcast in pm		**Remarks**	Full production flight. Second flight cancelled due to weather.					
Geomag	micropulsations								
20-Nov	**Tuesday**		**3.8**	**14.0**		**568.4**			
	C-GSGF Flt 1	57	3.8	14.0		568.4			
	C-GSGF Flt 2								
Weather	Overcast w/sunny periods – frost		**Remarks**	Full production flight, aborted due to weather. Take off delayed due to frost.					
Geomag	quiet								
21-Nov	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast and misty.		**Remarks**	No flight due to weather.					
Geomag	quiet								
22-Nov	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with low clouds.		**Remarks**	No flight due to weather.					
Geomag	quiet								
23-Nov	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with low clouds.		**Remarks**	No flight due to weather.					
Geomag	quiet								
24-Nov	**Saturday**		**3.2**	**10.0**		**406.0**			
	C-GSGF Flt 1	58	3.2	10.0		406.0			
	C-GSGF Flt 2								
Weather	Overcast and hazy.		**Remarks**	Flight delayed due to poor visibility. Full production flight with limited daylight hours.					
Geomag	unsettled								
25-Nov	**Sunday**		**4.2**						
	C-GSGF Flt 1	59	3.0						
	C-GSGF Flt 2	60	1.2						
Weather	Clear and hazy, windy – frost		**Remarks**	Donegal Bay test completed. Bundoran test attempted but too windy.					
Geomag	unsettled								
Comments	An average week, flying 4 days in a the week is an achievement in November.								

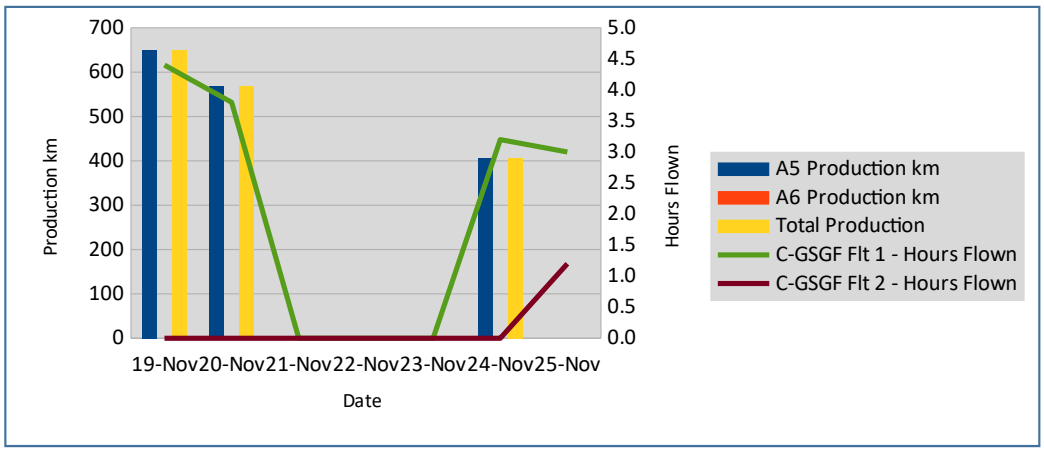
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	141
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	136
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	95
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	49
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist			ON SITE	7	37
Jean Deschenes	Pilot					

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	5445
Inductions		13
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		1

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)	609.0		**Total km Flown to Date**	19933.1	4276.5
Total Remaining (km)	5638.9	10405.5	**km Reflown This Week**		
Percent Complete (%)	77.9	29.1	**Flight Time This Week (h)**	4.5	
Prod km/Day This Week	87.0		**Prod km/Flt Hour This Week**	135.3	

WEEKLY PRODUCTION

Week 17		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**4.5**	**15.0**		**609.0**			
26-Nov	**Monday**		**4.5**	**15.0**		**609.0**			
	C-GSGF Flt 1	61	4.5	15.0		609.0			
	C-GSGF Flt 2								
Weather	Overcast.		**Remarks**	Full production flight. Jean, pilot, arrives in Kerry for flight training.					
Geomag	micropulsations								
27-Nov	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain, gale.		**Remarks**	Pilot rest day.					
Geomag									
28-Nov	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Diana – wind and rain		**Remarks**	No flight due to weather.					
Geomag	quiet								
29-Nov	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain showers all day		**Remarks**	No flight due to weather.					
Geomag	quiet								
30-Nov	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast and windy		**Remarks**	No flight due to weather and ill pilot.					
Geomag	quiet								
1-Dec	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, low cloud cover, windy		**Remarks**	No flight due to weather.					
Geomag	quiet								
2-Dec	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, rain, windy		**Remarks**	No flight due to weather.					
Geomag	quiet								
Comments	A poor weather week.								

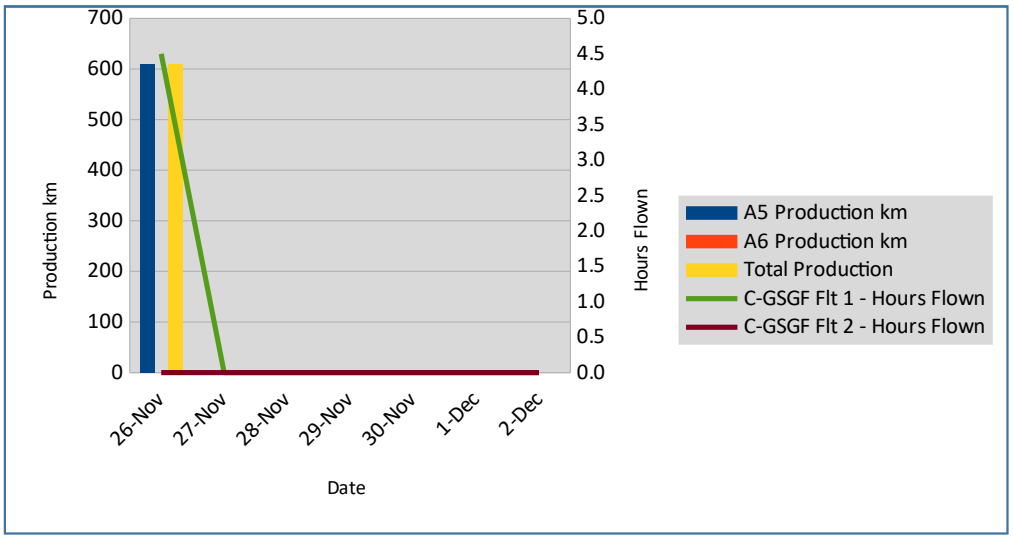
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	148
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	143
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot			ON SITE	7	102
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	56
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist			ON SITE	7	44
Jean Deschenes	Pilot	26-Nov-18		ON SITE	7	7

HSE Statistics	This Week	Project Totals
SGL Person Hours	315	5760
Inductions	1	14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints	1	2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	527.8		**Total km Flown to Date**	20460.9	4276.5
Total Remaining (km)	5111.1	10405.5	**km Reflown This Week**	34.6	
Percent Complete (%)	80.0	29.1	**Flight Time This Week (h)**	6.5	
Prod km/Day This Week	75.4		**Prod km/Flt Hour This Week**	81.2	

WEEKLY PRODUCTION

Week 18		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**6.5**	**13.0**	**0.9**	**527.8**		**34.6**	
3-Dec	**Monday**		**4.0**	**6.0**		**243.6**			
	C-GSGF Flt 1	62	2.5	6.0		243.6			
	C-GSGF Flt 2	63	1.5						
Weather	Partly sunny.		**Remarks**	Flight training completed.					
Geomag	quiet								
4-Dec	**Tuesday**		**2.5**	**7.0**	**0.9**	**284.2**		**34.6**	
	C-GSGF Flt 1	64	2.5	7.0	0.9	284.2		34.6	
	C-GSGF Flt 2								
Weather	Overcast, heavy rain.		**Remarks**	Production flight aborted due to weather.					
Geomag	quiet								
5-Dec	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog, mist, overcast.		**Remarks**	No flight due to weather.					
Geomag	quiet								
6-Dec	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Windy, overcast.		**Remarks**	No flight due to weather.					
Geomag	quiet								
7-Dec	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale, w/hail, thunder, strong wind		**Remarks**	No flight due to weather. Andre arrives in Kerry.					
Geomag	quiet								
8-Dec	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale continues		**Remarks**	No flight due to weather.					
Geomag	quiet								
9-Dec	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Strong winds, partly cloudy.		**Remarks**	No flight due to weather.					
Geomag	quiet								
Comments	Weather slowed production down considerably.								

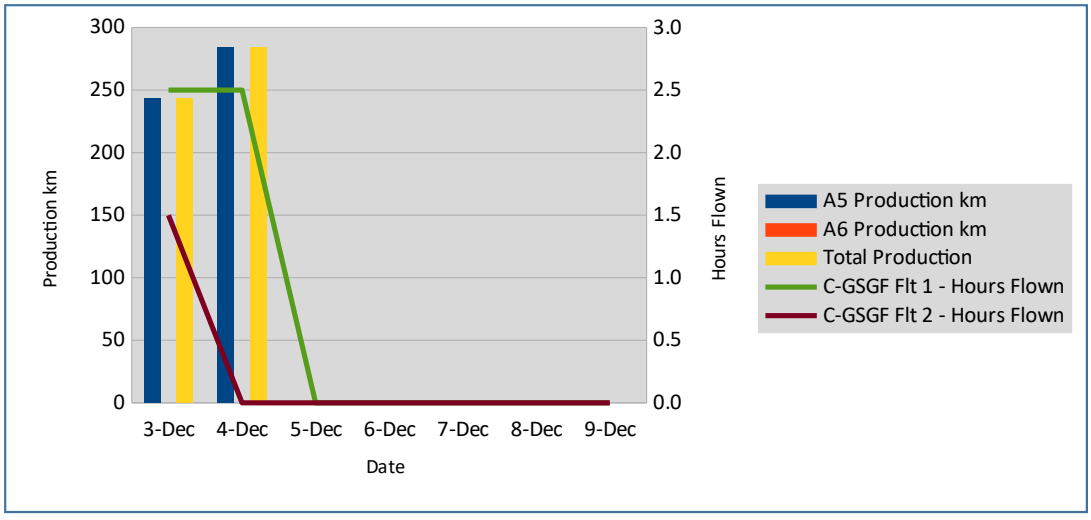
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	155
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	150
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot		3-Dec-18	ON SITE	1	103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	63
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist			ON SITE	7	51
Jean Deschenes	Pilot		8-Dec-18	ON SITE	6	13
Andre Lafontaine	Pilot	7-Dec-18		ON SITE	3	3

HSE Statistics	This Week	Project Totals
SGL Person Hours	285	6045
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)	1	1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	245.7		**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**	12.3	
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**	3.4	
Prod km/Day This Week	35.1		**Prod km/Flt Hour This Week**	72.3	

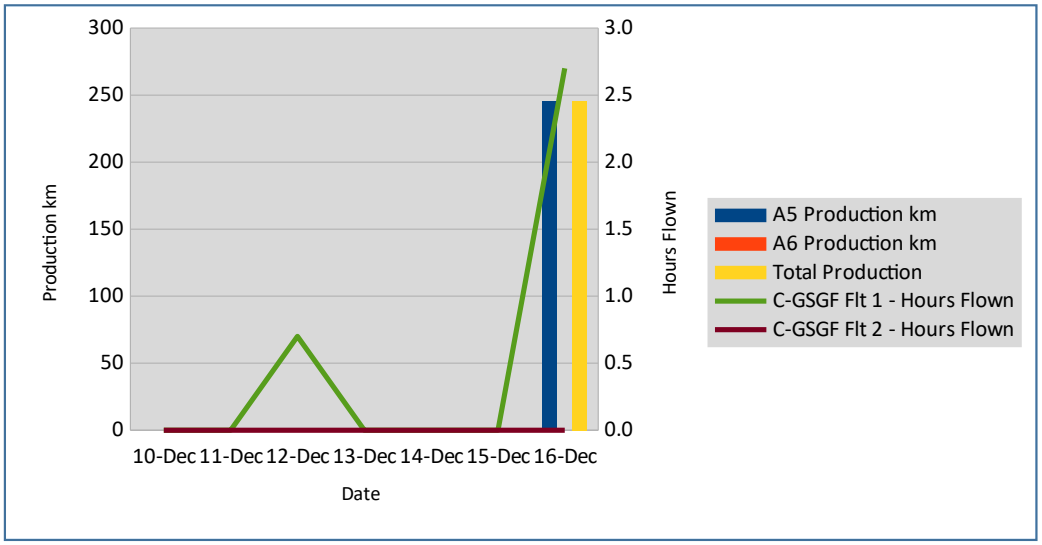
WEEKLY PRODUCTION

Week 19		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**3.4**	**5.0**	**0.3**	**245.7**		**12.3**	
10-Dec	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast		**Remarks**	Flight attempted but aborted prior to takeoff. Poor visibility.					
Geomag	quiet								
11-Dec	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, heavy rain showers		**Remarks**	No flight due to weather.					
Geomag	quiet								
12-Dec	**Wednesday**		**0.7**						
	C-GSGF Flt 1	65	0.7						
	C-GSGF Flt 2								
Weather	Strong gale with wind and rain		**Remarks**	No flight due to weather.					
Geomag	quiet								
13-Dec	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale continues, overcast		**Remarks**	No flight due to weather.					
Geomag	quiet								
14-Dec	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, strong winds		**Remarks**	No flight due to weather, poor visibility.					
Geomag	quiet								
15-Dec	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Deidre, violet wind, heavy rain with flooding.		**Remarks**	No flight due to weather.					
Geomag	quiet								
16-Dec	**Sunday**		**2.7**	**5.0**	**0.3**	**245.7**		**12.3**	
	C-GSGF Flt 1	66	2.7	5.0	0.3	245.7		12.3	
	C-GSGF Flt 2								
Weather	Rain showers, partly cloudy.		**Remarks**	Flight aborted due to weather.					
Geomag	quiet								
Comments	Our slowest week due to weather.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	162
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	157
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME			ON SITE	7	70
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist			ON SITE	7	58
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot			ON SITE	7	10

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	6307.5
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**	1.1	
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION

Week 20		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**1.1**						
17-Dec	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	No flight due to weather					
Geomag	quiet								
18-Dec	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain, overcast, strong wind		**Remarks**	No flight due to weather					
Geomag	quiet								
19-Dec	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain and overcast		**Remarks**	No flight due to weather					
Geomag	quiet								
20-Dec	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with rain showers		**Remarks**	No production flight due to weather. Considered Bundoran and Donegal tests, with ferry to Sligo but not possible due to weather.					
Geomag	quiet								
21-Dec	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast with rain showers		**Remarks**	Ferry to Sligo not possible due to weather. John and Ania go home for Christmas..					
Geomag	quiet								
22-Dec	**Saturday**		**1.1**						
	C-GSGF Flt 1	67	1.1						
	C-GSGF Flt 2								
Weather	Overcast, partly sunny		**Remarks**	Aircraft ferried to Sligo for maintenance. Survey flying will recommence beginning of February.					
Geomag	quiet								
23-Dec	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy fog and rain		**Remarks**	Andre goes home for Christmas.					
Geomag	quiet								
Comments	No production this week. The aircraft has been moved to Sligo for Christmas and will remain there for maintenance in January. Survey will recommence upon completion of maintenance in the beginning of February.								

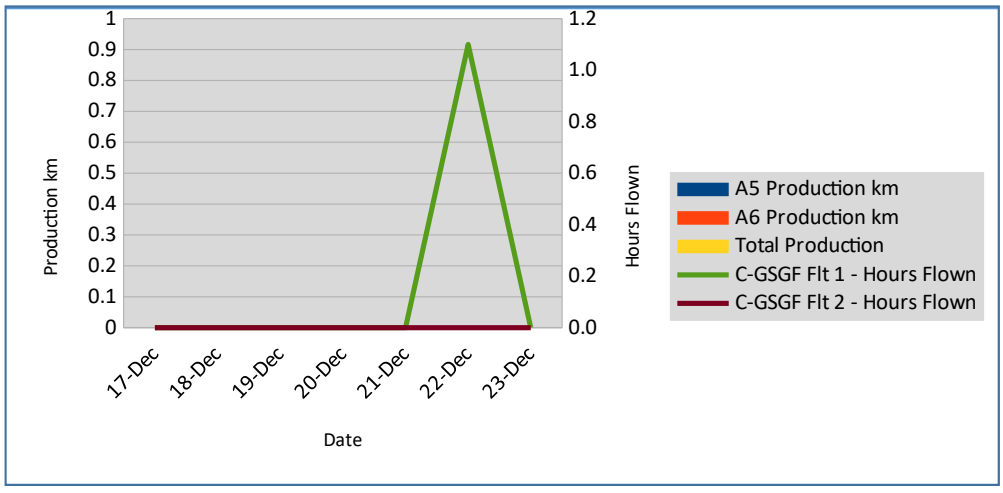
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	169
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	164
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME		21-Dec-18	ON SITE	5	75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist		21-Dec-18	ON SITE	5	63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot		23-Dec-18	ON SITE	7	17

HSE Statistics	This Week	Project Totals
SGL Person Hours	232.5	6540
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**		
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 21		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS									
24-Dec	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
25-Dec	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
26-Dec	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
27-Dec	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
28-Dec	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
29-Dec	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
30-Dec	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
Comments	Christmas Break								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE		176
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE		171
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					
George Sakgaev	Pilot					
Dwayne Bailey	AME					
Keith Wells	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours		6540
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN

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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**		
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 22		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS									
31-Dec	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
1-Jan	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Christmas Break					
Geomag									
2-Jan	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Gerry arrives in Sligo					
Geomag									
3-Jan	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	Maintenance on SGF commences. Mike, Nathan and Emmett arrive in Sligo.					
Geomag									
4-Jan	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
5-Jan	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
6-Jan	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
Comments	Maintenance on SGF commences								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE		183
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE		178
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					
George Sakgaev	Pilot					
Dwayne Bailey	AME					
Keith Wells	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours		6540
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN

SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**		
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 23		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS									
7-Jan	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
8-Jan	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
9-Jan	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
10-Jan	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
11-Jan	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
12-Jan	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
13-Jan	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
Comments	Maintenance on SGF continues								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE		190
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE		185
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					
George Sakgaev	Pilot					
Dwayne Bailey	AME					
Keith Wells	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours		6540
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN

SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**		
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 24		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS									
14-Jan	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
15-Jan	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
16-Jan	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
17-Jan	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
18-Jan	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
19-Jan	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
20-Jan	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
Comments	Maintenance on SGF continues								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE		197
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE		192
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					
George Sakgaev	Pilot					
Dwayne Bailey	AME					
Keith Wells	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours		6540
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN

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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**		
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 25		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS									
21-Jan	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
22-Jan	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues. Emmett departs Sligo.					
Geomag									
23-Jan	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
24-Jan	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
25-Jan	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues. Nathan departs Sligo.					
Geomag									
26-Jan	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
27-Jan	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
Comments	Maintenance on SGF continues								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE		204
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE		199
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					
George Sakgaev	Pilot					
Dwayne Bailey	AME					
Keith Wells	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours		6540
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN

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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**		
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 26		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS									
28-Jan	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
29-Jan	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
30-Jan	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
31-Jan	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
1-Feb	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues. Mike departs Sligo.					
Geomag									
2-Feb	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
3-Feb	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
Comments	Maintenance on SGF continues								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE		211
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE		206
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					
George Sakgaev	Pilot					
Dwayne Bailey	AME					
Keith Wells	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours		6540
Inductions		14
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN

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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

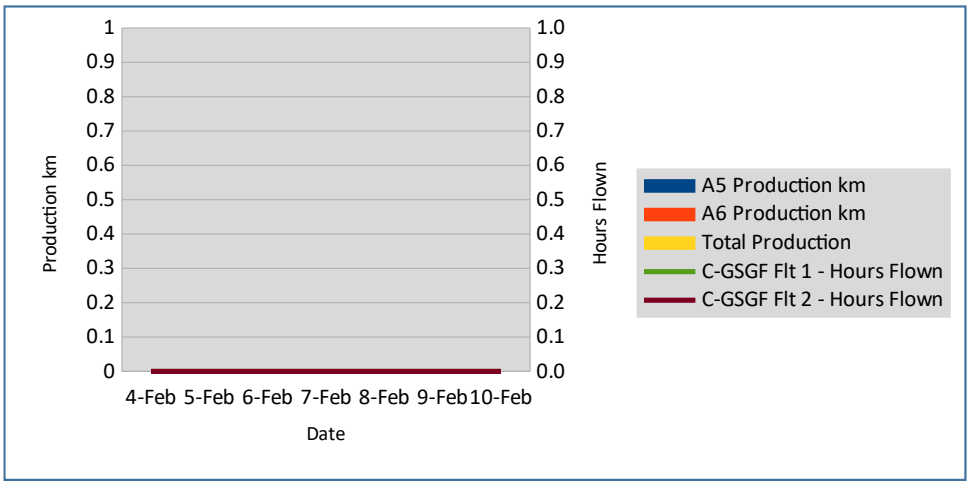
SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**		
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION									
Week 27		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS									
4-Feb	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues					
Geomag									
5-Feb	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	SGF maintenance continues. Scott arrives in Sligo.					
Geomag									
6-Feb	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	Weather prohibits pod installation. Alison and Steve drive to Sligo.					
Geomag									
7-Feb	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Calmer but storm continues		**Remarks**	Pod installation completed.					
Geomag									
8-Feb	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Erik – violent winds		**Remarks**	FEM system started up and ground data recorded.					
Geomag									
9-Feb	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	Alison returns to Kerry. George arrives in Sligo.					
Geomag									
10-Feb	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	Flight test planned but cancelled due to due to weather.					
Geomag									
Comments	Crew begins to arrive in Sligo for FEM system startup and test flights.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	218
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	213
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician	5-Feb-19		ON SITE	6	6
George Sakgaev	Pilot	9-Feb-19		ON SITE	2	2
Dwayne Bailey	AME					
Keith Wells	Geophysicist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	165	6705
Inductions	1	15
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		4
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)			**Total km Flown to Date**	20706.6	4276.5
Total Remaining (km)	4865.4	10405.5	**km Reflown This Week**		
Percent Complete (%)	81.0	29.1	**Flight Time This Week (h)**	3.3	
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION

Week 28		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**3.3**						
11-Feb	**Monday**		**1.7**						
	C-GSGF Flt 1	68	1.7						
	C-GSGF Flt 2								
Weather	Clear and calm		**Remarks**	Bundoran test flight completed. Data approved by head office.					
Geomag	quiet								
12-Feb	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	Ferry to Kerry planned but cancelled due to weather. Further FEM ground calibrations completed.					
Geomag	quiet								
13-Feb	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	Ferry to Kerry planned but cancelled due to weather. Scott drives to Sligo.					
Geomag	quiet								
14-Feb	**Thursday**		**1.6**						
	C-GSGF Flt 1	69	1.6						
	C-GSGF Flt 2								
Weather	Overcast and windy		**Remarks**	Ferry from Sligo to Kerry completed. Geo systems powered up and further FEM ground calibrations completed.					
Geomag	quiet								
15-Feb	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	First production flight of 2019 planned but cancelled due to weather. Scott returns to Canada.					
Geomag	quiet								
16-Feb	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale and rain		**Remarks**	First production flight of 2019 planned but cancelled due to weather. Keith, geophysicist, arrives in Kerry.					
Geomag	quiet								
17-Feb	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale and heavy rain showers		**Remarks**	First production flight of 2019 planned but cancelled due to weather. Safety meeting, all crew present.					
Geomag	quiet								
Comments	Full crew now in Kerry. Bundoran test flight completed. Aircraft maintenance signed off and SGF returns to Kerry airport. Plane ready for first survey flight of 2019. Weather including strong winds and rain prohibit start of production.								

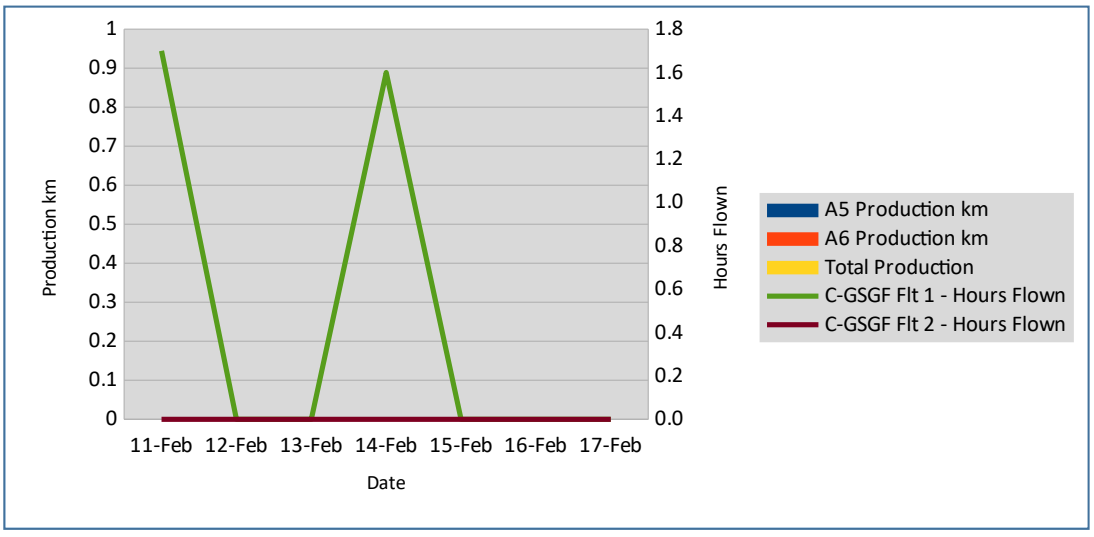
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	225
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	220
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician		15-Feb-19	ON SITE	5	11
George Sakgaev	Pilot			ON SITE	7	9
Dwayne Bailey	AME	12-Feb-19		ON SITE	6	6
Keith Wells	Geophysicist	16-Feb-19		ON SITE	2	2

HSE Statistics	This Week	Project Totals
SGL Person Hours	255	6960
Inductions	2	17
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings	1	5
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	326.9		**Total km Flown to Date**	21033.5	4276.5
Total Remaining (km)	4538.5	10405.5	**km Reflown This Week**	50.7	
Percent Complete (%)	82.3	29.1	**Flight Time This Week (h)**	3.5	
Prod km/Day This Week	46.7		**Prod km/Flt Hour This Week**	93.4	

WEEKLY PRODUCTION

Week 29		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**3.5**	**7.0**	**1.4**	**326.9**		**50.7**	
18-Feb	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	First production flight of 2019 planned but cancelled due to weather.					
Geomag	quiet								
19-Feb	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale, heavy rain all day		**Remarks**	First production flight of 2019 planned but cancelled due to weather.					
Geomag	quiet								
20-Feb	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale, rain showers and mist		**Remarks**	First production flight of 2019 planned but cancelled due to weather.					
Geomag	quiet								
21-Feb	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale		**Remarks**	First production flight of 2019 planned but cancelled due to weather.					
Geomag	quiet								
22-Feb	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Severe gale with flooding		**Remarks**	First production flight of 2019 planned but cancelled due to weather.					
Geomag	quiet								
23-Feb	**Saturday**		**3.5**	**7.0**	**1.4**	**326.9**		**50.7**	
	C-GSGF Flt 1	70	3.5	7.0	1.4	326.9		50.7	
	C-GSGF Flt 2								
Weather	Strong winds diminish, blue sky		**Remarks**	First production flight of 2019 completed. Flight delayed due to strong winds and shortened due to available daylight.					
Geomag	quiet								
24-Feb	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, windy		**Remarks**	No flight due to weather					
Geomag	quiet								
Comments	The start of production in 2019 continued to be hampered by strong winds, which have been blowing daily most of February. We got a break on the 23rd and our first production flight of 2019 has been completed.								

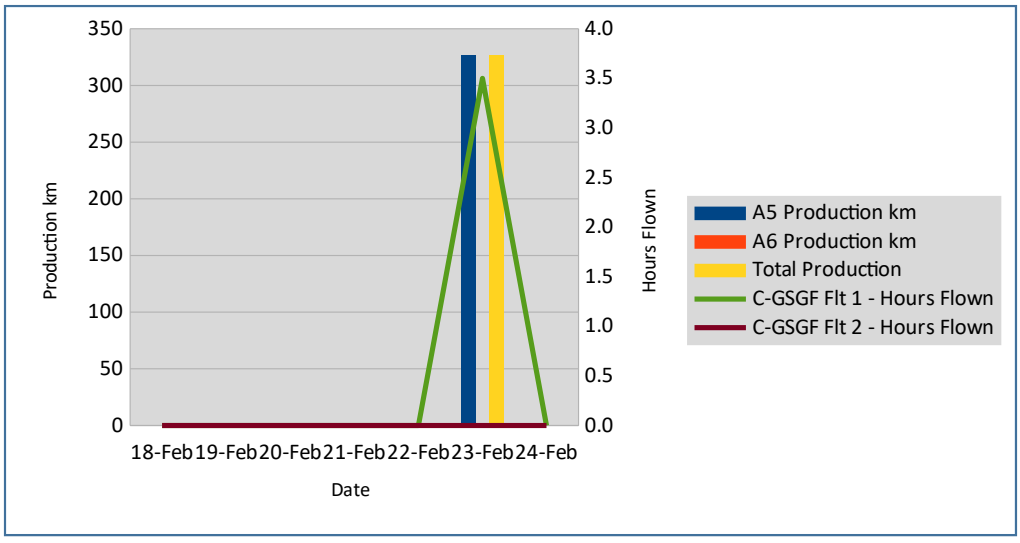
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	232
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	227
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot			ON SITE	7	16
Dwayne Bailey	AME			ON SITE	7	13
Keith Wells	Geophysicist			ON SITE	7	9

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	7222.5
Inductions		17
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		5
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)			**Total km Flown to Date**	21033.5	4276.5
Total Remaining (km)	4538.5	10405.5	**km Reflown This Week**		
Percent Complete (%)	82.3	29.1	**Flight Time This Week (h)**	4.6	
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

WEEKLY PRODUCTION

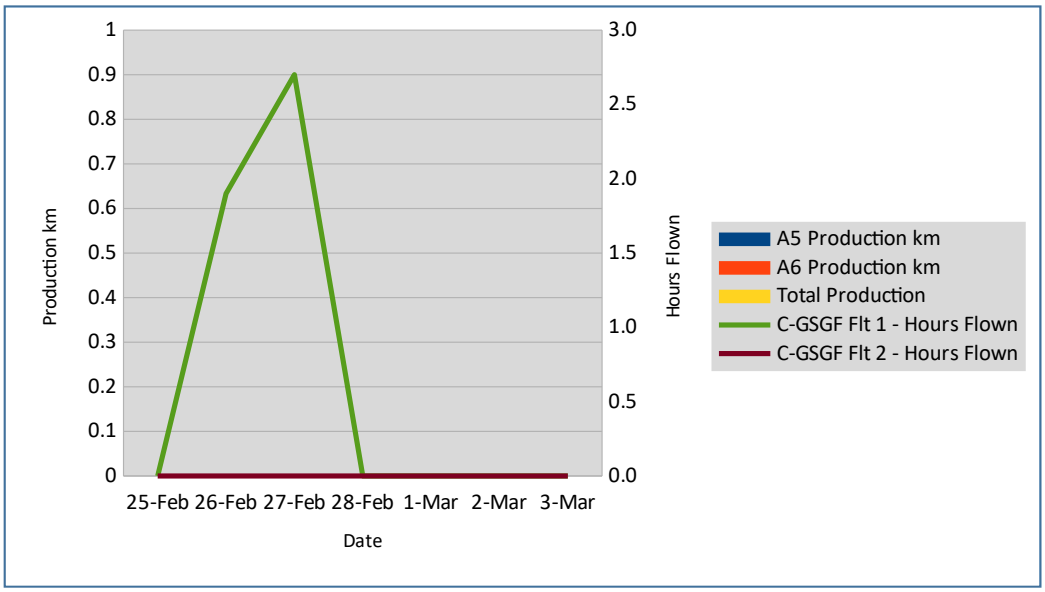
Week 30		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**4.6**						
25-Feb	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	clear, warm, windy, fog inland		**Remarks**	No flight due to weather					
Geomag	quiet								
26-Feb	**Tuesday**		**1.9**						
	C-GSGF Flt 1	71	1.9						
	C-GSGF Flt 2								
Weather	clear, warm, windy, fog inland		**Remarks**	Production not possible due to fog. Magnetic compensation calibration completed prior to flight being aborted.					
Geomag	quiet								
27-Feb	**Wednesday**		**2.7**						
	C-GSGF Flt 1	72	2.7						
	C-GSGF Flt 2								
Weather	clear, warm, windy, fog inland		**Remarks**	Flight training completed. Production flight cancelled due to thick fog in both blocks.					
Geomag	quiet								
28-Feb	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, rain, mist, fog.		**Remarks**	No flight due to weather					
Geomag	quiet								
1-Mar	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, rain, mist, fog.		**Remarks**	No flight due to weather					
Geomag	quiet								
2-Mar	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale – strong winds all day		**Remarks**	No flight due to weather					
Geomag	quiet								
3-Mar	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Freya – heavy rain, snow		**Remarks**	No flight due to weather					
Geomag	quiet								
Comments	The warmest weather Ireland has seen in over 100 years at the beginning of the week created heavy fog which hampered any production. Gale and storm at the end of the week bringing temperatures near to zero.								

Signed Alison McCleary Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	239
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	234
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot			ON SITE	7	23
Dwayne Bailey	AME			ON SITE	7	20
Keith Wells	Geophysicist			ON SITE	7	16

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	7485
Inductions		17
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		5
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)	81.2		**Total km Flown to Date**	21114.7	4276.5
Total Remaining (km)	4457.3	10405.5	**km Reflown This Week**		
Percent Complete (%)	82.6	29.1	**Flight Time This Week (h)**	1.3	
Prod km/Day This Week	11.6		**Prod km/Flt Hour This Week**	62.5	

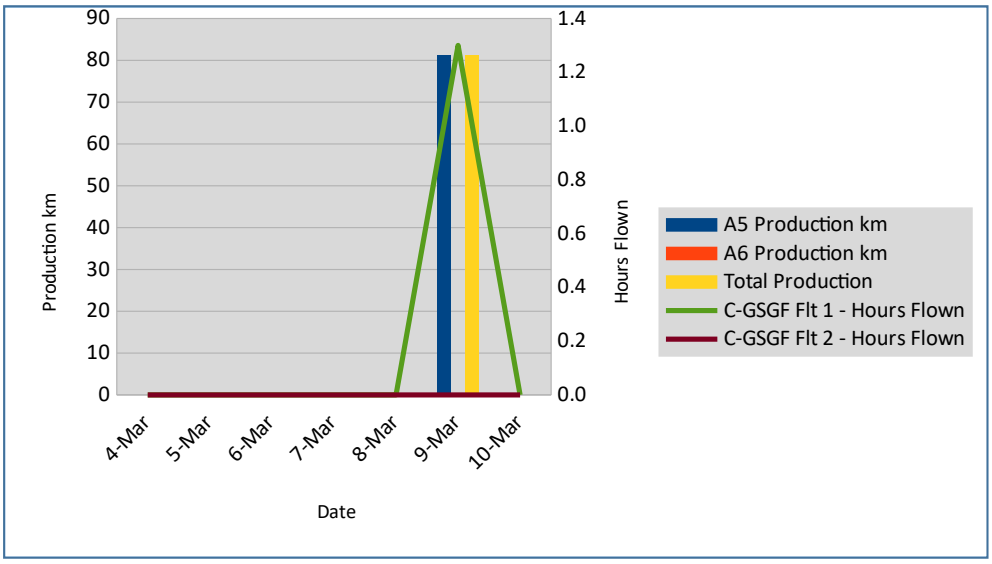
WEEKLY PRODUCTION

Week 31		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**1.3**	**2.0**		**81.2**			
4-Mar	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Windy with rain showers		**Remarks**	No flight due to weather.					
Geomag	quiet								
5-Mar	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Very windy, rain in afternoon		**Remarks**	No flight due to weather.					
Geomag	quiet								
6-Mar	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain in morning, very windy		**Remarks**	No flight due to weather.					
Geomag	quiet								
7-Mar	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Very windy, clear		**Remarks**	No flight due to weather.					
Geomag	quiet								
8-Mar	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Windy with rain showers in am		**Remarks**	No flight due to weather.					
Geomag	quiet								
9-Mar	**Saturday**		**1.3**	**2.0**		**81.2**			
	C-GSGF Flt 1	73	1.3	2.0		81.2			
	C-GSGF Flt 2								
Weather	Windy and overcast		**Remarks**	Flight delayed, and then aborted, due to weather.					
Geomag	quiet								
10-Mar	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale – extremely windy with regular hail/sleet showers		**Remarks**	No flight due to weather.					
Geomag	quiet								
Comments	The weather continues to hamper production.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	246
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	241
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot			ON SITE	7	30
Dwayne Bailey	AME			ON SITE	7	27
Keith Wells	Geophysicist			ON SITE	7	23

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	7747.5
Inductions		17
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		5
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)	406.0		**Total km Flown to Date**	21520.7	4276.5
Total Remaining (km)	4051.3	10405.5	**km Reflown This Week**		
Percent Complete (%)	84.2	29.1	**Flight Time This Week (h)**	3.2	
Prod km/Day This Week	58.0		**Prod km/Flt Hour This Week**	126.9	

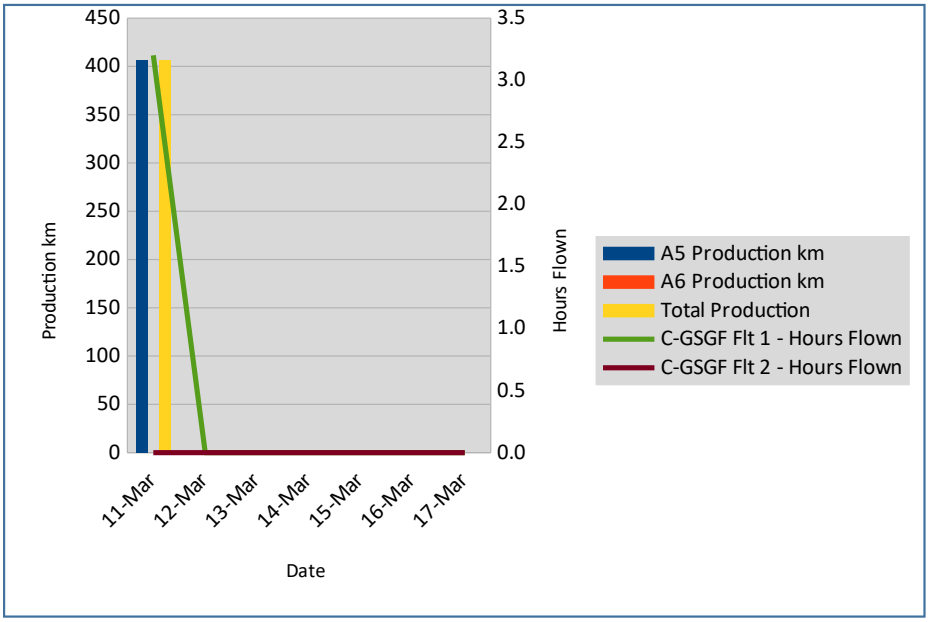
WEEKLY PRODUCTION

Week 32		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**3.2**	**10.0**		**406.0**			
11-Mar	**Monday**		**3.2**	**10.0**		**406.0**			
	C-GSGF Flt 1	74	3.2	10.0		406.0			
	C-GSGF Flt 2								
Weather	Overcast, rain showers, strong winds in pm		**Remarks**	Production flight aborted due to strong winds and rain.					
Geomag	micropulsations								
12-Mar	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Gareth – very strong winds		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
13-Mar	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Very strong winds continue		**Remarks**	No flight due to weather.					
Geomag	unsettled								
14-Mar	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Strong winds continue		**Remarks**	No flight due to weather.					
Geomag	unsettled								
15-Mar	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain all day		**Remarks**	No flight due to weather.					
Geomag	unsettled								
16-Mar	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Strong winds, rain, poor visibility		**Remarks**	No flight due to weather.					
Geomag	unsettled								
17-Mar	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, strong winds		**Remarks**	No flight due to weather.					
Geomag	unsettled								
Comments	Another week of poor weather. Short weather window on Monday allowed for partial production flight.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	253
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	248
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot			ON SITE	7	37
Dwayne Bailey	AME			ON SITE	7	34
Keith Wells	Geophysicist			ON SITE	7	30

HSE Statistics	This Week	Project Totals
SGL Person Hours	262.5	8010
Inductions		17
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		5
GSI PR Complaints		2

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)	414.4		**Total km Flown to Date**	21935.1	4276.5
Total Remaining (km)	3636.9	10405.5	**km Reflown This Week**	101.5	
Percent Complete (%)	85.8	29.1	**Flight Time This Week (h)**	4.0	
Prod km/Day This Week	59.2		**Prod km/Flt Hour This Week**	103.6	

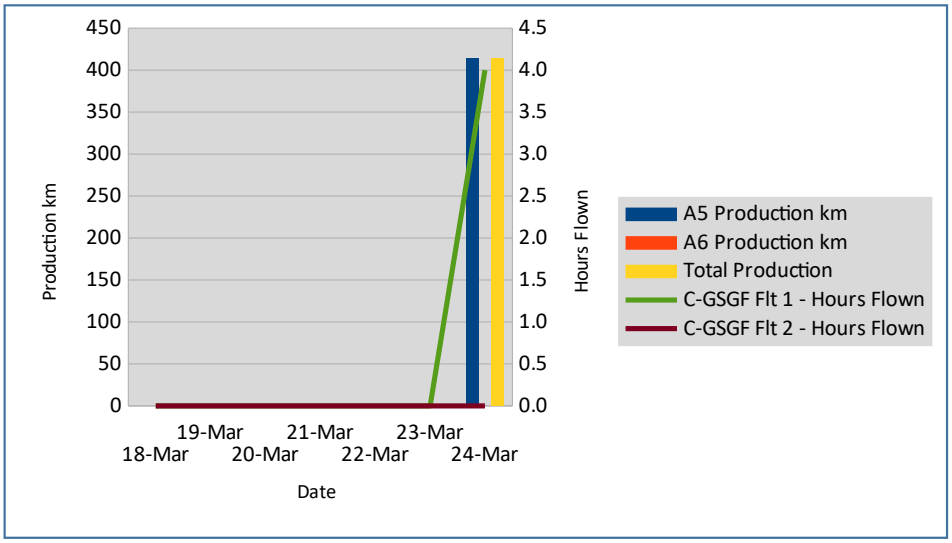
WEEKLY PRODUCTION

Week 33		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**4.0**	**6.0**	**2.5**	**414.4**		**101.5**	
18-Mar	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Windy and overcast.		**Remarks**	No flight due to weather.					
Geomag	quiet								
19-Mar	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog and mist, calm.		**Remarks**	No flight due to weather, poor visibility.					
Geomag	quiet								
20-Mar	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog and mist, calm.		**Remarks**	No flight due to weather, poor visibility. Safety meeting, all crew present. Welcome spring.					
Geomag	quiet								
21-Mar	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog, overcast, mild.		**Remarks**	Flight delayed due to poor visibility. Flight attempted, further delays due to technical geophysical equipment issues. Flight cancelled due to marginal weather. Keith returns to Canada.					
Geomag	quiet								
22-Mar	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain, fog, overcast.		**Remarks**	No flight due to weather, poor visibility.					
Geomag	quiet								
23-Mar	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, calm, cool.		**Remarks**	No flight due to ill pilot.					
Geomag	quiet								
24-Mar	**Sunday**		**4.0**	**6.0**	**2.5**	**414.4**		**101.5**	
	C-GSGF Flt 1	75	4.0	6.0	2.5	414.4		101.5	
	C-GSGF Flt 2								
Weather	Overcast, calm, cool.		**Remarks**	Full production flight.					
Geomag	quiet								
Comments	Another poor week of weather in Ireland. Started to show improvements by the weekend, forecast is very promising for the coming week.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	260
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	255
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot			ON SITE	7	44
Dwayne Bailey	AME			ON SITE	7	41
Keith Wells	Geophysicist		21-Mar-19	ON SITE	4	34

HSE Statistics	This Week	Project Totals
SGL Person Hours	240	8250
Inductions		17
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings	1	6
GSI PR Complaints	1	3

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)	3636.9		**Total km Flown to Date**	25572.0	4276.5
Total Remaining (km)		10405.5	**km Reflown This Week**	76.6	
Percent Complete (%)	100.0	29.1	**Flight Time This Week (h)**	27.0	
Prod km/Day This Week	519.6		**Prod km/Flt Hour This Week**	134.7	

WEEKLY PRODUCTION

Week 34		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**27.0**	**78.0**	**1.0**	**3636.9**		**76.6**	
25-Mar	**Monday**		**7.4**	**20.0**		**1025.5**			
	C-GSGF Flt 1	76	4.0	9.0		578.9			
	C-GSGF Flt 2	77	3.4	11.0		446.6			
Weather	Partial cloud, warm, calm.		**Remarks**	Two full production flights.					
Geomag	micropulsations								
26-Mar	**Tuesday**		**4.2**	**15.0**		**609.0**			
	C-GSGF Flt 1	78	4.2	15.0		609.0			
	C-GSGF Flt 2								
Weather	Clear, warm, calm...ocean fog.		**Remarks**	Flight delayed due to fog over Shannon River and airport. Full production flight.					
Geomag	quiet								
27-Mar	**Wednesday**		**5.7**	**11.0**	**1.0**	**702.8**		**76.6**	
	C-GSGF Flt 1	79	3.7	9.0		536.2			
	C-GSGF Flt 2	80	2.0	2.0	1.0	166.6		76.6	
Weather	Clear, warm, calm.		**Remarks**	Two production flights.					
Geomag	quiet								
28-Mar	**Thursday**		**4.5**	**17.0**		**690.2**			
	C-GSGF Flt 1	81	4.5	17.0		690.2			
	C-GSGF Flt 2								
Weather	clear, warm, breezy...ocean fog.		**Remarks**	Flight delayed due to fog. Full production flight.					
Geomag	unsettled								
29-Mar	**Friday**		**4.0**	**15.0**		**609.4**			
	C-GSGF Flt 1	82	4.0	15.0		609.4			
	C-GSGF Flt 2								
Weather	Clear, warm, calm...ocean fog.		**Remarks**	Full production flight. A5 block now complete.					
Geomag	micropulsations								
30-Mar	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, cool, light winds.		**Remarks**	Pilot rest day.					
Geomag	quiet								
31-Mar	**Sunday**		**1.2**						
	C-GSGF Flt 1	83	1.2						
	C-GSGF Flt 2								
Weather	Overcast, warm, calm.		**Remarks**	Training flight only, including ground training.					
Geomag	quiet								
Comments	The most productive week for the Tellus 2018 blocks. A5 block complete, well done everyone.								

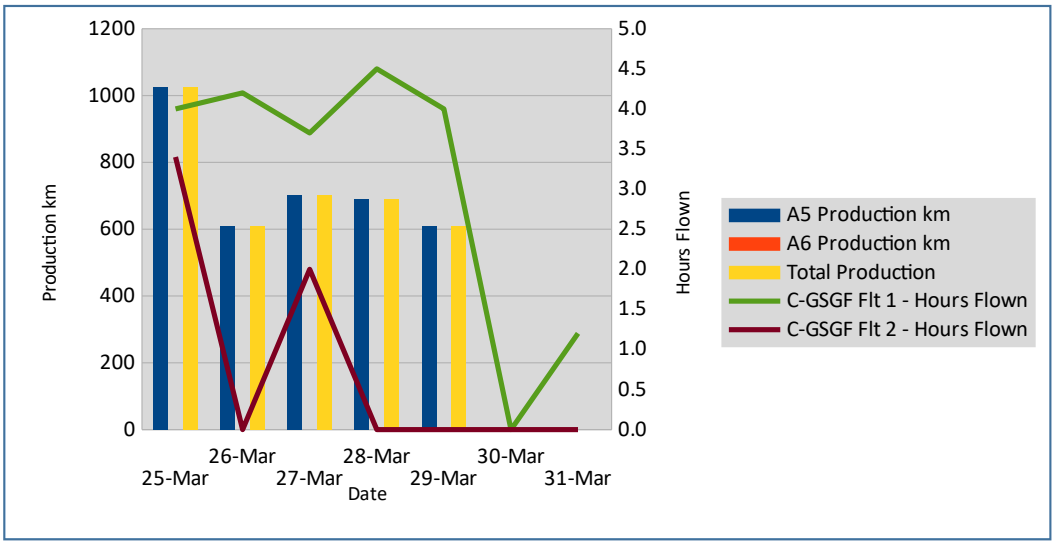
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	267
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	262
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot			ON SITE	7	51
Dwayne Bailey	AME			ON SITE	7	48
Keith Wells	Geophysicist					34

HSE Statistics	This Week	Project Totals
SGL Person Hours	210	8460
Inductions		17
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		6
GSI PR Complaints	1	4

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)		254.1	**Total km Flown to Date**	25572.0	4530.6
Total Remaining (km)		10151.4	**km Reflown This Week**		
Percent Complete (%)	100.0	30.9	**Flight Time This Week (h)**	4.0	
Prod km/Day This Week		36.3	**Prod km/Flt Hour This Week**	63.5	

WEEKLY PRODUCTION

Week 35		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**4.0**	**7.0**			**254.1**		
1-Apr	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, cool, windy, mist.		**Remarks**	No flight due to weather.					
Geomag	quiet								
2-Apr	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale, strong winds, hail, rain.		**Remarks**	No flight due to weather.					
Geomag	quiet								
3-Apr	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, strong winds.		**Remarks**	No flight due to weather.					
Geomag	quiet								
4-Apr	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, rain, hail, calm.		**Remarks**	No flight due to weather.					
Geomag	quiet								
5-Apr	**Friday**		**2.7**	**7.0**			**254.1**		
	C-GSGF Flt 1	84	2.7	7.0			254.1		
	C-GSGF Flt 2								
Weather	Partly cloudy, calm, frost in am.		**Remarks**	Production flight aborted due to weather. Jean, pilot, arrives in Kerry.					
Geomag	micropulsations								
6-Apr	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, mist, rain showers.		**Remarks**	No flight due to weather.					
Geomag	unsettled								
7-Apr	**Sunday**		**1.3**						
	C-GSGF Flt 1	85	1.3						
	C-GSGF Flt 2								
Weather	Fog, overcast, ocean fog.		**Remarks**	Flight attempted but aborted due to thick fog, no production.					
Geomag	unsettled								
Comments	Weather returned to normal this week. Spring must be almost here, hoping it settles soon. Two attempts to get to Waterford test line made, both aborted due to weather.								

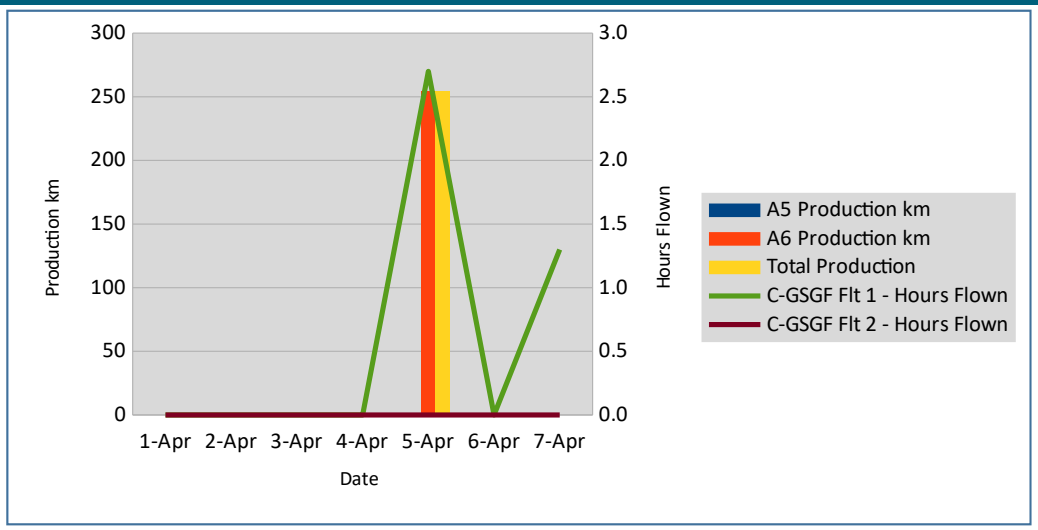
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	274
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	269
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot			ON SITE	7	58
Dwayne Bailey	AME			ON SITE	7	55
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot	5-Apr-19		ON SITE	3	3
Nathan Shirey	AME					

HSE Statistics	This Week	Project Totals
SGL Person Hours	232.5	8692.5
Inductions		17
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		6
GSI PR Complaints		4

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)			**Total km Flown to Date**	25572.0	4530.6
Total Remaining (km)		10151.4	**km Reflown This Week**		
Percent Complete (%)	100.0	30.9	**Flight Time This Week (h)**	1.2	
Prod km/Day This Week			**Prod km/Flt Hour This Week**		

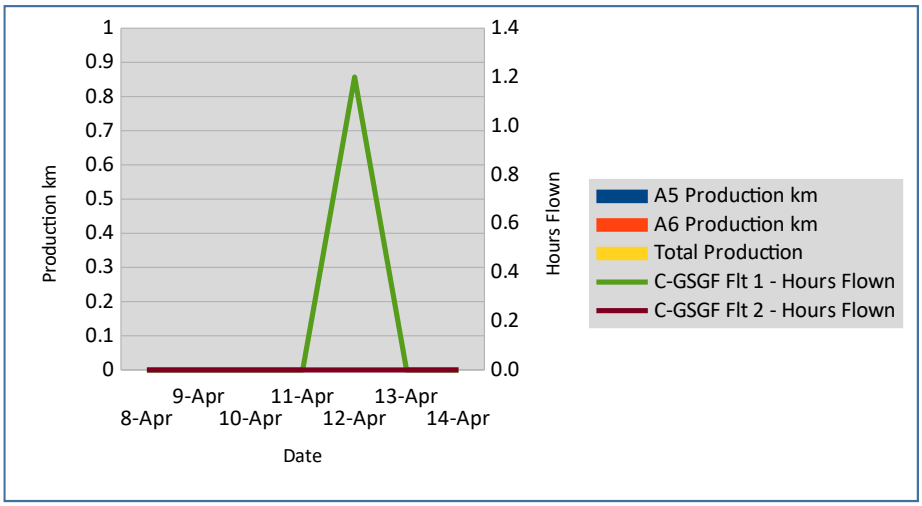
WEEKLY PRODUCTION

Week 36		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**1.2**						
8-Apr	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, mist.		**Remarks**	No flight due to poor visibility. George and Dwayne depart Ireland.					
Geomag	quiet								
9-Apr	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, mist.		**Remarks**	No flight due to poor visibility. Maintenance on geophysical survey equipment. Nathan, AME, arrives in Kerry.					
Geomag	quiet								
10-Apr	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, mist.		**Remarks**	No flight due to poor visibility. Maintenance on geophysical survey equipment.					
Geomag	quiet								
11-Apr	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, mist.		**Remarks**	No flight due to poor visibility. Maintenance on geophysical survey equipment.					
Geomag	quiet								
12-Apr	**Friday**		**1.2**						
	C-GSGF Flt 1	86	1.2						
	C-GSGF Flt 2								
Weather	Partly sunny, windy.		**Remarks**	Calibration flight for FEM system completed.					
Geomag	quiet								
13-Apr	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale, very strong winds, heavy rain.		**Remarks**	Further maintenance required on FEM system. Technician will be here on Tuesday. Weather not conducive for production. Safety meeting, all crew present.					
Geomag	quiet								
14-Apr	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale continues, wind and rain.		**Remarks**	Weather continues to be miserable. Status orange weather alert issued. Waiting for a technician.					
Geomag	quiet								
Comments	Weather turned from poor visibility to strong gale with status orange weather alert. Weather forecast to clear mid week. Geophysical survey equipment maintenance underway. Scott, technician, arrives on Tuesday for further assistance.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	281
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	276
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot		8-Apr-19	ON SITE	1	59
Dwayne Bailey	AME		8-Apr-19	ON SITE	1	56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot			ON SITE	7	10
Nathan Shirey	AME	9-Apr-19		ON SITE	6	6

HSE Statistics	This Week	Project Totals
SGL Person Hours	217.5	8910
Inductions	1	18
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings	1	7
GSI PR Complaints		4

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)		885.3	**Total km Flown to Date**	25572.0	5415.9
Total Remaining (km)		9266.1	**km Reflown This Week**		36.3
Percent Complete (%)	100.0	36.9	**Flight Time This Week (h)**	8.7	
Prod km/Day This Week		126.5	**Prod km/Flt Hour This Week**	101.8	

WEEKLY PRODUCTION

Week 37		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**8.7**	**31.0**	**1.0**		**885.3**		**36.3**
15-Apr	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	overcast, fog		**Remarks**	Waiting for a technician. Weather not conducive for production.					
Geomag	quiet								
16-Apr	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	partly sunny, windy		**Remarks**	Scott, technician, arrives.					
Geomag	quiet								
17-Apr	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	overcast, fog, strong winds		**Remarks**	FEM maintenance complete. Weather not conducive for production.					
Geomag	quiet								
18-Apr	**Thursday**		**1.1**						
	C-GSGF Flt 1	87	1.1						
	C-GSGF Flt 2								
Weather	sunny, hazy, windy		**Remarks**	Calibration flight for FEM system completed.					
Geomag	quiet								
19-Apr	**Friday**		**7.6**	**31.0**	**1.0**		**885.3**		**36.3**
	C-GSGF Flt 1	88	3.8	16.0			460.8		
	C-GSGF Flt 2	89	3.8	15.0	1.0		424.5		36.3
Weather	sunny, hazy, calm, very warm		**Remarks**	Two full production flights.					
Geomag	unsettled								
20-Apr	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy fog, overcast, warm		**Remarks**	No flight due to weather, poor visibility. Further FEM maintenance completed.					
Geomag	unsettled								
21-Apr	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy fog, mist, rain, warm		**Remarks**	No flight due to weather, poor visibility.					
Geomag	unsettled								
Comments	FEM maintenance completed. Fog over weekend disrupted production.								

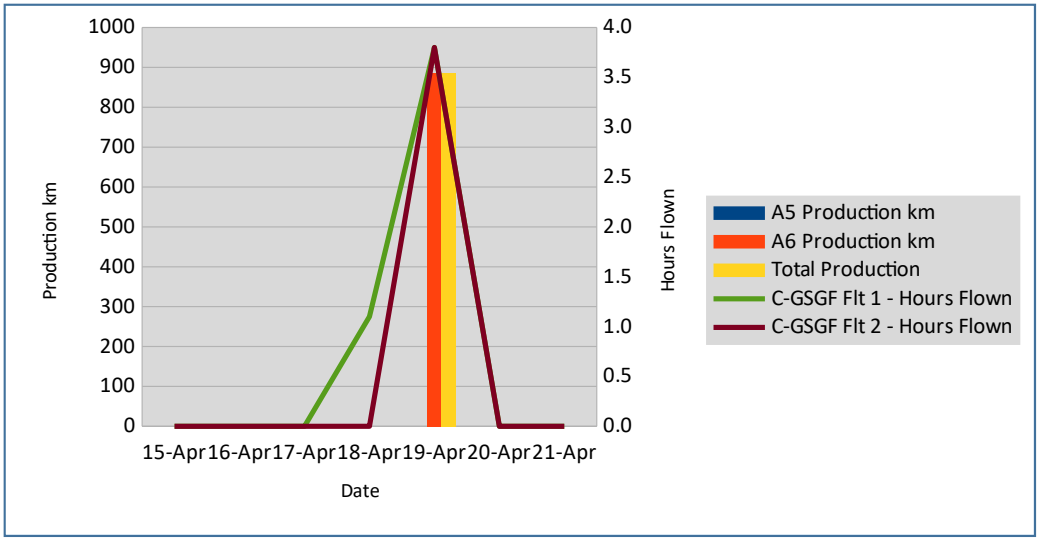
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	288
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	283
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot			ON SITE	7	17
Nathan Shirey	AME			ON SITE	7	13
Scott Hames	Technician	16-Apr-19		ON SITE	6	6

HSE Statistics	This Week	Project Totals
SGL Person Hours	255	9165
Inductions		18
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		7
GSI PR Complaints		4

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
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Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)		764.7	**Total km Flown to Date**	25572.0	6180.6
Total Remaining (km)		8501.4	**km Reflown This Week**		
Percent Complete (%)	100.0	42.1	**Flight Time This Week (h)**	11.8	
Prod km/Day This Week		109.2	**Prod km/Flt Hour This Week**	64.8	

WEEKLY PRODUCTION

Week 38		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**11.8**	**22.8**			**764.7**		
22-Apr	**Monday**		**2.8**						
	C-GSGF Flt 1	90	2.8						
	C-GSGF Flt 2								
Weather	Sunny, windy		**Remarks**	Waterford test line completed. Too windy for production.					
Geomag	unsettled								
23-Apr	**Tuesday**		**1.7**	**6.0**			**217.8**		
	C-GSGF Flt 1	91	1.7	6.0			217.8		
	C-GSGF Flt 2								
Weather	Fog, mist, overcast		**Remarks**	Flight delayed due to weather. Flight aborted due to poor visibility.					
Geomag	unsettled								
24-Apr	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog, mist, overcast		**Remarks**	No flight due to weather.					
Geomag	quiet								
25-Apr	**Thursday**		**2.9**						
	C-GSGF Flt 1	92	1.7						
	C-GSGF Flt 2	93	1.2						
Weather	Partly sunny, rain showers, windy		**Remarks**	Two flights, both aborted due to technical difficulties.					
Geomag	quiet								
26-Apr	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Storm Hannah, violent winds.		**Remarks**	No flight due to weather.					
Geomag	quiet								
27-Apr	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Gale continues, strong winds		**Remarks**	No flight due to weather.					
Geomag	quiet								
28-Apr	**Sunday**		**4.4**	**16.8**			**546.9**		
	C-GSGF Flt 1	94	4.4	16.8			546.9		
	C-GSGF Flt 2								
Weather	Fog, overcast, windy		**Remarks**	Fog in the morning. Full production flight in the afternoon.					
Geomag	micropulsations								
Comments	Waterford test line completed. Poor visibility and Storm Hannah affected production.								

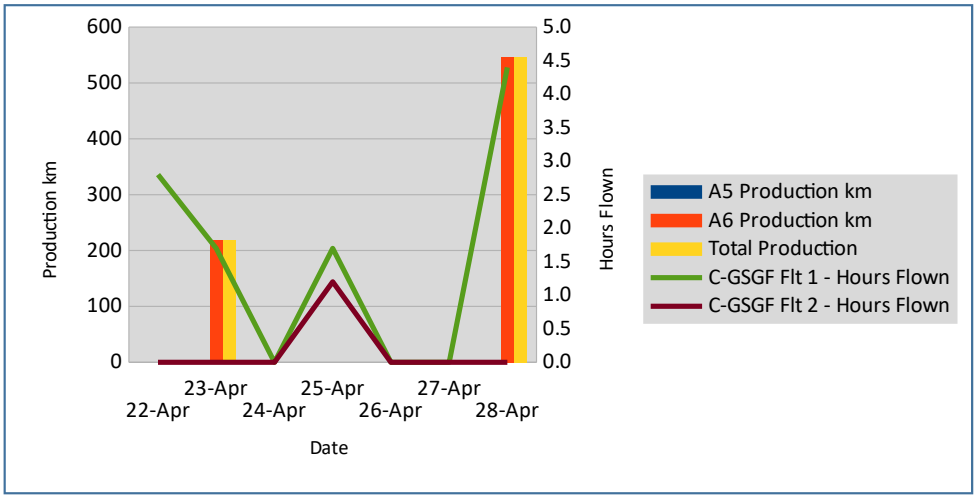
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	295
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	290
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot			ON SITE	7	24
Nathan Shirey	AME			ON SITE	7	20
Scott Hames	Technician		26-Apr-19	ON SITE	5	11
Charles Dicks	Pilot					
Mike Devenny	AME					

HSE Statistics	This Week	Project Totals
SGL Person Hours	247.5	9412.5
Inductions		18
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		7
GSI PR Complaints	1	5

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)		1578.4	**Total km Flown to Date**	25572.0	7759.0
Total Remaining (km)		6923.0	**km Reflown This Week**		583.8
Percent Complete (%)	100.0	52.8	**Flight Time This Week (h)**	17.9	
Prod km/Day This Week		225.5	**Prod km/Flt Hour This Week**	88.2	

WEEKLY PRODUCTION

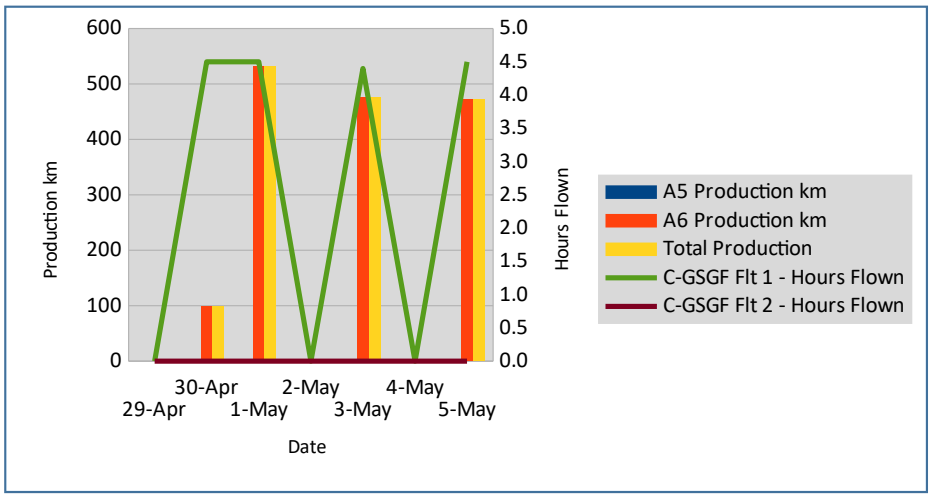
Week 39		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**17.9**	**48.2**	**19.8**		**1578.4**		**583.8**
29-Apr	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, mist, fog.		**Remarks**	No flight due to weather.					
Geomag	quiet								
30-Apr	**Tuesday**		**4.5**	**3.0**	**16.0**		**98.7**		**452.8**
	C-GSGF Flt 1	95	4.5	3.0	16.0		98.7		452.8
	C-GSGF Flt 2								
Weather	Partly sunny, calm.		**Remarks**	Flight delayed for fog. Full production flight.					
Geomag	quiet								
1-May	**Wednesday**		**4.5**	**18.2**	**0.8**		**531.6**		**22.1**
	C-GSGF Flt 1	96	4.5	18.2	0.8		531.6		22.1
	C-GSGF Flt 2								
Weather	Overcast, rain showers, mist		**Remarks**	Full production flight.					
Geomag	micropulsations								
2-May	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain all day, misty		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
3-May	**Friday**		**4.4**	**14.0**			**476.2**		
	C-GSGF Flt 1	97	4.4	14.0			476.2		
	C-GSGF Flt 2								
Weather	Overcast, partly sunny		**Remarks**	Full production flight.					
Geomag	micropulsations								
4-May	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Sunny and calm		**Remarks**	No flight - aircraft requires maintenance.					
Geomag	micropulsations								
5-May	**Sunday**		**4.5**	**13.0**	**3.0**		**471.9**		**108.9**
	C-GSGF Flt 1	98	4.5	13.0	3.0		471.9		108.9
	C-GSGF Flt 2								
Weather	Sunny and calm		**Remarks**	Full production flight.					
Geomag	micropulsations								
Comments	A busy week. Best week of production in A6 block to date. The weather is starting to be more summer like.								

Signed Alison McCleary Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	302
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	297
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot		4-May-19	ON SITE	6	30
Nathan Shirey	AME		4-May-19	ON SITE	6	26
Scott Hames	Technician					11
Charles Dicks	Pilot	2-May-19		ON SITE	4	4
Mike Devenny	AME	4-May-19		ON SITE	2	2
Ray Molland	DOM					

HSE Statistics	This Week	Project Totals
SGL Person Hours	240	9652.5
Inductions	1	19
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		7
GSI PR Complaints		5

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)		2553.3	**Total km Flown to Date**	25572.0	10312.3
Total Remaining (km)		4369.7	**km Reflown This Week**		72.6
Percent Complete (%)	100.0	70.2	**Flight Time This Week (h)**	19.8	
Prod km/Day This Week		364.8	**Prod km/Flt Hour This Week**	129.0	

WEEKLY PRODUCTION									
Week 40		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS			**19.8**	**69.0**	**2.0**		**2553.3**		**72.6**
6-May	**Monday**		**4.6**	**17.0**			**593.1**		
	C-GSGF Flt 1	99	4.6	17.0			593.1		
	C-GSGF Flt 2								
Weather	Overcast, partly sunny, calm		**Remarks**	Full production flight.					
Geomag	micropulsations								
7-May	**Tuesday**		**0.6**						
	C-GSGF Flt 1	100	0.6						
	C-GSGF Flt 2								
Weather	Overcast, windy, rain showers		**Remarks**	No production flight due to weather. Short FEM calibration flight was completed.					
Geomag	micropulsations								
8-May	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, heavy rain showers		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
9-May	**Thursday**		**4.5**	**16.0**	**2.0**		**580.8**		**72.6**
	C-GSGF Flt 1	101	4.5	16.0	2.0		580.8		72.6
	C-GSGF Flt 2								
Weather	Partly sunny and calm		**Remarks**	Full production flight.					
Geomag	micropulsations								
10-May	**Friday**		**1.3**	**2.0**			**72.6**		
	C-GSGF Flt 1	102	1.3	2.0			72.6		
	C-GSGF Flt 2								
Weather	Partly sunny and calm		**Remarks**	Geophysical system maintenance in the morning. A short flight was completed to confirm everything is in working order.					
Geomag	quiet								
11-May	**Saturday**		**4.4**	**16.0**			**653.4**		
	C-GSGF Flt 1	103	4.4	16.0			653.4		
	C-GSGF Flt 2								
Weather	Sunny and calm		**Remarks**	Full production flight.					
Geomag	unsettled								
12-May	**Sunday**		**4.4**	**18.0**			**653.4**		
	C-GSGF Flt 1	104	4.4	18.0			653.4		
	C-GSGF Flt 2								
Weather	Sunny and windy		**Remarks**	Full production flight.					
Geomag	micropulsations								
Comments	The fourth most productive week for Tellus 2018. Weather is meant to continue to be sunny.								

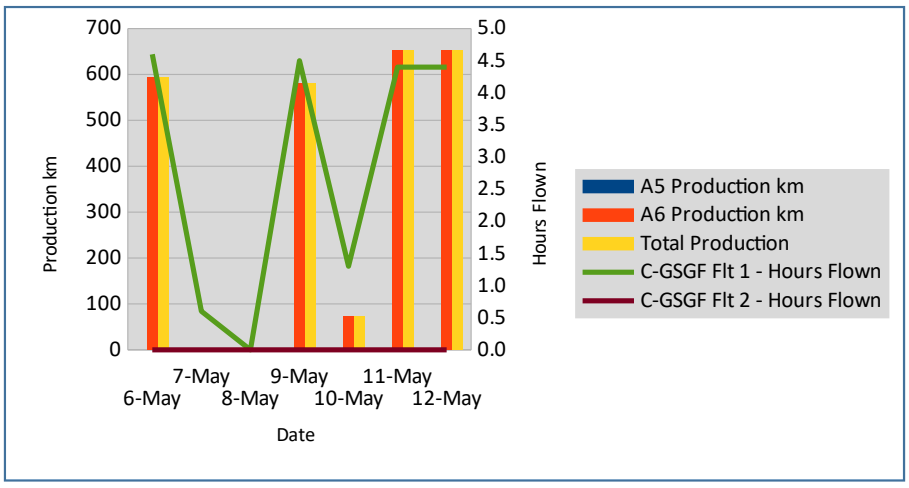
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	309
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	304
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot					30
Nathan Shirey	AME					26
Scott Hames	Technician					11
Charles Dicks	Pilot			ON SITE	7	11
Mike Devenny	AME			ON SITE	7	9
Ray Molland	DOM					

HSE Statistics	This Week	Project Totals
SGL Person Hours	210	9862.5
Inductions		19
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		7
GSI PR Complaints	1	6

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)		1279.8	**Total km Flown to Date**	25572.0	11592.1
Total Remaining (km)		3089.9	**km Reflown This Week**		36.3
Percent Complete (%)	100.0	79.0	**Flight Time This Week (h)**	10.1	
Prod km/Day This Week		182.8	**Prod km/Flt Hour This Week**	126.7	

WEEKLY PRODUCTION

Week 41		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**10.1**	**42.0**	**1.0**		**1279.8**		**36.3**
13-May	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Sunny, windy, warm		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
14-May	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Sunny, windy, warm		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
15-May	**Wednesday**		**4.6**	**20.0**			**657.2**		
	C-GSGF Flt 1	105	4.6	20.0			657.2		
	C-GSGF Flt 2								
Weather	Overcast, windy, warm, hazy		**Remarks**	Full production flight.					
Geomag	micropulsations								
16-May	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, rain showers, misty		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
17-May	**Friday**		**1.0**	**1.0**			**28.3**		
	C-GSGF Flt 1	106	1.0	1.0			28.3		
	C-GSGF Flt 2								
Weather	Overcast, ocean fog, misty		**Remarks**	Flight aborted due to poor visibility.					
Geomag	micropulsations								
18-May	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, rain showers, misty		**Remarks**	Pilot rest day.					
Geomag	micropulsations								
19-May	**Sunday**		**4.5**	**21.0**	**1.0**		**594.3**		**36.3**
	C-GSGF Flt 1	107	4.5	21.0	1.0		594.3		36.3
	C-GSGF Flt 2								
Weather	Partly sunny, windy		**Remarks**	Full production flight.					
Geomag	micropulsations								
Comments	Production slower this week but still great progress. A6 almost completed.								

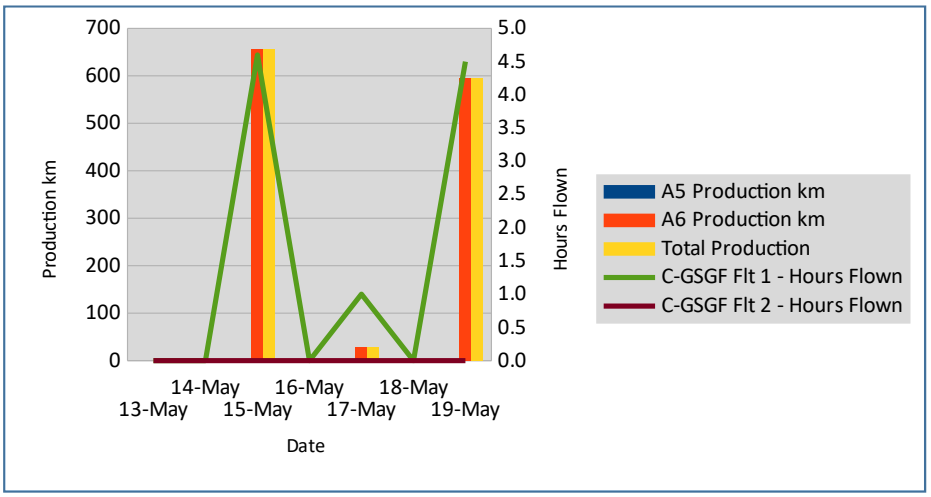
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	316
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	311
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot					30
Nathan Shirey	AME					26
Scott Hames	Technician					11
Charles Dicks	Pilot			ON SITE	7	18
Mike Devenny	AME			ON SITE	7	16
Ray Molland	DOM					

HSE Statistics	This Week	Project Totals
SGL Person Hours	210	10072.5
Inductions		19
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		7
GSI PR Complaints		6

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

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SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)		1935.8	**Total km Flown to Date**	25572.0	13527.9
Total Remaining (km)		1154.1	**km Reflown This Week**		
Percent Complete (%)	100.0	92.1	**Flight Time This Week (h)**	13.4	
Prod km/Day This Week		276.5	**Prod km/Flt Hour This Week**	144.5	

WEEKLY PRODUCTION									
Week 42		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS			**13.4**	**52.0**			**1935.8**		
20-May	**Monday**		**4.5**	**18.0**			**653.4**		
	C-GSGF Flt 1	108	4.5	18.0			653.4		
	C-GSGF Flt 2								
Weather	Partly sunny, warm		**Remarks**	Full production flight.					
Geomag	micropulsations								
21-May	**Tuesday**		**4.6**	**18.0**			**690.4**		
	C-GSGF Flt 1	109	4.6	18.0			690.4		
	C-GSGF Flt 2								
Weather	Sunny, warm, calm		**Remarks**	Full production flight.					
Geomag	micropulsations								
22-May	**Wednesday**		**4.3**	**16.0**			**592.0**		
	C-GSGF Flt 1	110	4.3	16.0			592.0		
	C-GSGF Flt 2								
Weather	Partly sunny, warm		**Remarks**	Full production flight. Aircraft maintenance commences post flight.					
Geomag	unsettled								
23-May	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, misty, warm		**Remarks**	No flight, aircraft maintenance completed.					
Geomag	unsettled								
24-May	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain, mist, overcast		**Remarks**	No flight due to weather.					
Geomag	unsettled								
25-May	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain, mist, overcast		**Remarks**	No flight due to weather. Alison and Steve drive to Newcastle Airport and Waterford Airport to determine next base location.					
Geomag	unsettled								
26-May	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, mist, windy		**Remarks**	No flight due to weather. Alison and Steve return from base location trip.					
Geomag	unsettled								
Comments	This week started out great, but aircraft maintenance followed by poor weather slowed production. Further aircraft maintenance is scheduled for May 29 – 30.								

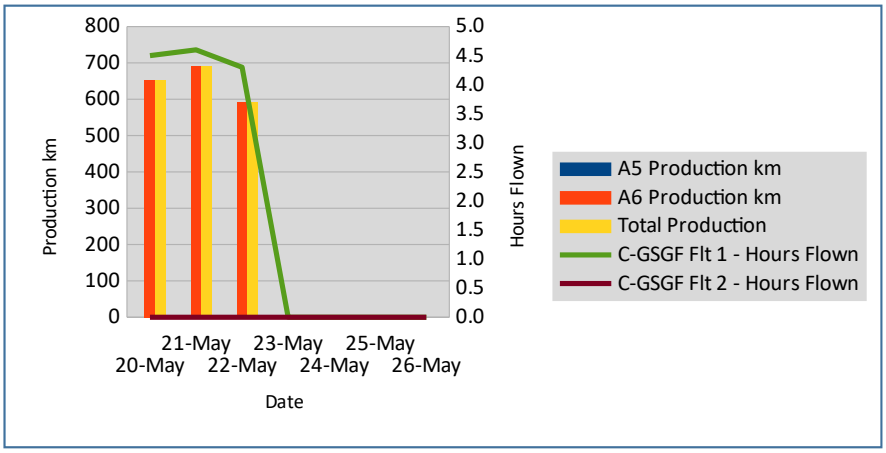
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	323
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	318
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot					30
Nathan Shirey	AME					26
Scott Hames	Technician					11
Charles Dicks	Pilot			ON SITE	7	25
Mike Devenny	AME			ON SITE	7	23
Ray Molland	DOM					
Mario Guevremont	AME specialist					

HSE Statistics	This Week	Project Totals
SGL Person Hours	210	10282.5
Inductions		19
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		7
GSI PR Complaints		6

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)		251.1	**Total km Flown to Date**	25572.0	13779.0
Total Remaining (km)		903.0	**km Reflown This Week**		391.3
Percent Complete (%)	100.0	93.8	**Flight Time This Week (h)**	7.2	
Prod km/Day This Week		35.9	**Prod km/Flt Hour This Week**	34.9	

WEEKLY PRODUCTION

Week 43		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**7.2**	**7.0**	**11.0**		**251.1**		**391.3**
27-May	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, rain, windy		**Remarks**	No flight due to weather. Safety meeting, all crew present.					
Geomag	quiet								
28-May	**Tuesday**		**5.6**	**7.0**	**11.0**		**251.1**		**391.3**
	C-GSGF Flt 1	111	4.4	7.0	11.0		251.1		391.3
	C-GSGF Flt 2	112	1.2						
Weather	Overcast, rain showers		**Remarks**	Full production flight. Aircraft ferried to Weston Airport for maintenance in a hangar.					
Geomag	quiet								
29-May	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rain, fog, overcast		**Remarks**	Maintenance on aircraft completed.					
Geomag	quiet								
30-May	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain, mist, fog, overcast, windy		**Remarks**	Ferry of aircraft from Weston back to Kerry delayed due to weather.					
Geomag	quiet								
31-May	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Thick fog, overcast, rain, wind		**Remarks**	Ferry of aircraft from Weston back to Kerry delayed due to weather.					
Geomag	quiet								
1-Jun	**Saturday**		**1.6**						
	C-GSGF Flt 1	113	1.6						
	C-GSGF Flt 2								
Weather	Continued fog, overcast, wind		**Remarks**	Aircraft returned to Kerry. Ready for production to continue.					
Geomag	quiet								
2-Jun	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Strong gale, overcast		**Remarks**	No flight due to weather.					
Geomag	quiet								
Comments	Maintenance carried out on aircraft in a hangar at Weston Airport. Production hampered by poor weather including a strong gale and heavy fog.								

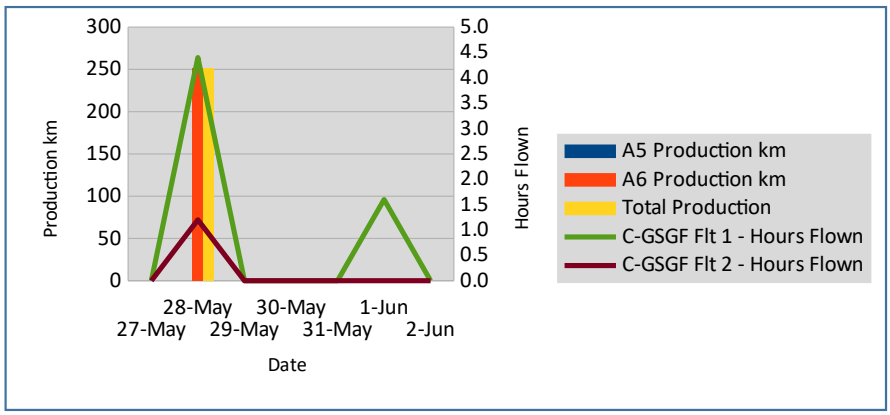
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	330
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	325
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot					30
Nathan Shirey	AME					26
Scott Hames	Technician					11
Charles Dicks	Pilot			ON SITE	7	32
Mike Devenny	AME		30-May-19	ON SITE	4	27
Ray Molland	DOM	28-May-19	30-May-19	ON SITE	3	3
Mario Guevremont	AME specialist	28-May-19	30-May-19	ON SITE	3	3
Ania Smetny-Sowa	Geophysicist					
John Burnham	AME					

HSE Statistics	This Week	Project Totals
SGL Person Hours	232.5	10515
Inductions	2	21
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings	1	8
GSI PR Complaints		6

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



SANDER GEOPHYSICS AIRBORNE GEOPHYSICAL SURVEY

260 Hunt Club Road, Ottawa, ON K1V 1C1 Canada Tel: +1 613-521-9626 Fax: +1 613-521-0215 www.sgl.com

SURVEY DETAILS			
Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY					
	A5	**A6**		**A5**	**A6**
Production This Week (km)		201.3	**Total km Flown to Date**	25572.0	13980.3
Total Remaining (km)		701.7	**km Reflown This Week**		12.2
Percent Complete (%)	100.0	95.2	**Flight Time This Week (h)**	3.7	
Prod km/Day This Week		28.8	**Prod km/Flt Hour This Week**	54.4	

WEEKLY PRODUCTION									
Week 44		**Flight No.**	**Flight Time**	**No. of Lines Flown**	**No. Reflight Lines Flown**	**Production (km)**		**Reflown (km)**	
						A5	**A6**	**A5**	**A6**
TOTALS			**3.7**	**11.0**	**0.7**		**201.3**		**12.2**
3-Jun	**Monday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, windy, rain showers		**Remarks**	No flight due to weather.					
Geomag	quiet								
4-Jun	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, windy, rain showers		**Remarks**	No flight due to weather.					
Geomag	quiet								
5-Jun	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, heavy rain showers		**Remarks**	No flight due to weather.					
Geomag	quiet								
6-Jun	**Thursday**		**2.2**	**9.7**			**176.9**		
	C-GSGF Flt 1	114	2.2	9.7			176.9		
	C-GSGF Flt 2								
Weather	Partly sunny, rain showers		**Remarks**	Flight aborted due to rain.					
Geomag	micropulsations								
7-Jun	**Friday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, fog, mist, rain, windy		**Remarks**	No flight due to weather.					
Geomag	micropulsations								
8-Jun	**Saturday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Rain in am, strong winds in pm		**Remarks**	No flight due to weather.					
Geomag	quiet								
9-Jun	**Sunday**		**1.5**	**1.3**	**0.7**		**24.4**		**12.2**
	C-GSGF Flt 1	115	1.5	1.3	0.7		24.4		12.2
	C-GSGF Flt 2								
Weather	Heavy rain showers, partly sunny		**Remarks**	Flight aborted due to rain.					
Geomag	quiet								
Comments	"The weather this week hasn't been particularly kind..." as reported by local weather office. This resulted in a slow production week and A6 still almost complete.								

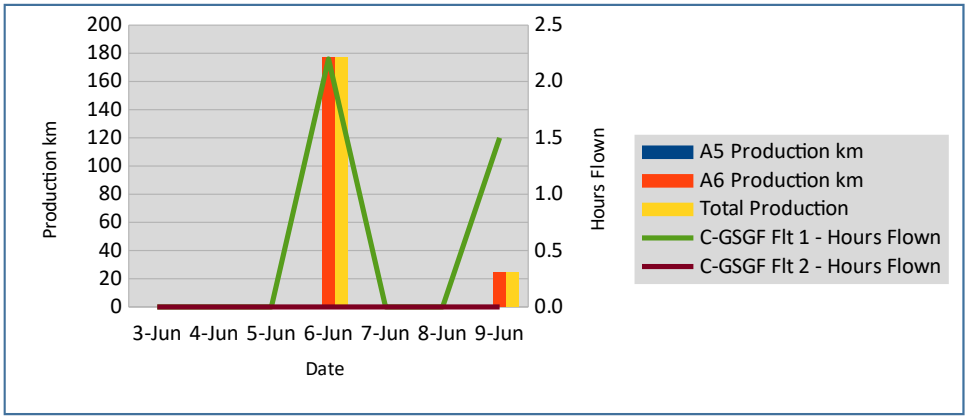
Signed Alison McCleary

Enter 1 to right when week is complete 1

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	337
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	332
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot					30
Nathan Shirey	AME					26
Scott Hames	Technician					11
Charles Dicks	Pilot			ON SITE	7	39
Mike Devenny	AME					27
Ray Molland	DOM					3
Mario Guevremont	AME specialist					3
Ania Smetny-Sowa	Geophysicist	4-Jun-19		ON SITE	6	6
John Burnham	AME	5-Jun-19		ON SITE	5	5

HSE Statistics	This Week	Project Totals
SGL Person Hours	240	10755
Inductions		21
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		8
GSI PR Complaints		6

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



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SURVEY DETAILS

Survey Name	Tellus	**Client Name**	Geological Survey of Ireland
Survey Location	Kerry, Ireland	**Contact Name**	Jim Hodgson
Project Code	GSI___18.IRL	**Contact Phone**	+353 1678 2742
Total km	40254	**Client Address**	Beggar's Bush, Haddington Road, Dublin 4, Ireland
Line Spacing	200 m by 2000 m		
Survey Type	MAG/SPEC/FEM	**Email**	jim.hodgson@gsi.ie / tellus@gsi.ie

SURVEY PRODUCTION SUMMARY

	A5	A6		A5	A6
Production This Week (km)		701.7	**Total km Flown to Date**	25572.0	14682.0
Total Remaining (km)			**km Reflown This Week**		371.9
Percent Complete (%)	100.0	100.0	**Flight Time This Week (h)**	11.8	
Prod km/Day This Week		100.2	**Prod km/Flt Hour This Week**	59.5	

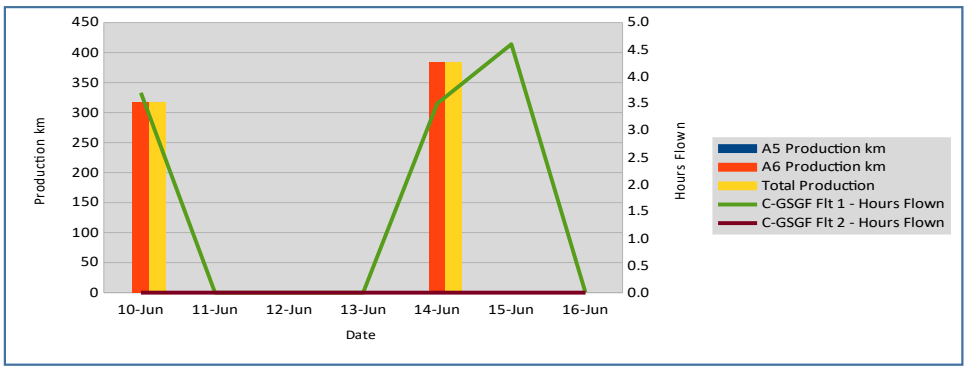
WEEKLY PRODUCTION

Week 45		Flight No.	Flight Time	No. of Lines Flown	No. Reflight Lines Flown	Production (km)		Reflown (km)	
						A5	A6	A5	A6
TOTALS			**11.8**	**19.0**	**14.0**		**701.7**		**371.9**
10-Jun	**Monday**		**3.7**	**11.4**	**6.0**		**317.2**		**117.8**
	C-GSGF Flt 1	116	3.7	11.4	6.0		317.2		117.8
	C-GSGF Flt 2								
Weather	Partly sunny, heavy rain showers		**Remarks**	Flight aborted due to rain.					
Geomag	quiet								
11-Jun	**Tuesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Overcast, gale with strong winds		**Remarks**	No flight due to weather.					
Geomag	quiet								
12-Jun	**Wednesday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Heavy rains showers, strong wind		**Remarks**	No flight due to weather.					
Geomag	quiet								
13-Jun	**Thursday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather	Fog, mist, overcast		**Remarks**	No flight due to weather.					
Geomag	quiet								
14-Jun	**Friday**		**3.5**	**7.6**	**3.0**		**384.5**		**72.6**
	C-GSGF Flt 1	117	3.5	7.6	3.0		384.5		72.6
	C-GSGF Flt 2								
Weather	Partly sunny, rain showers		**Remarks**	Flight aborted due to rain. Only reflights remain to complete A6.					
Geomag									
15-Jun	**Saturday**		**4.6**		**5.0**				**181.5**
	C-GSGF Flt 1	118	4.6		5.0				181.5
	C-GSGF Flt 2								
Weather			**Remarks**	Reflights completed, A6 block now complete. Production in A7 block commences.					
Geomag									
16-Jun	**Sunday**								
	C-GSGF Flt 1								
	C-GSGF Flt 2								
Weather			**Remarks**	See Week 1 Tellus 2019 A7 Block.pdf.					
Geomag									
Comments	A6 block completed. This marks the end of Tellus 2018. Well done to all involved and thank you.								

PERSONNEL ON SITE THIS WEEK						
Name	**Position**	**Arrival This Week**	**Departure This Week**	**On Site?**	**No. of Days On Site This Week**	**No. of Days on Site To Date**
Alison McCleary	Crew Chief			ON SITE	7	344
Allan Ott	AME					25
Craig McMahon	Technician					43
Steve Gebhardt	Lead Pilot			ON SITE	7	339
Andre Lafontaine	Pilot					25
Darren McBeth	AME					6
Dave Money	AME					16
Charles Dicks	Pilot					103
Diana Kuiper	Geophysicist					62
Allan Ott	AME					37
Scott Hames	Technician					27
Darren McBeth	AME					12
John Burnham	AME					75
Steven Hyde	Pilot					15
Ania Smetny-Sowa	Geophysicist					63
Jean Deschenes	Pilot					13
Andre Lafontaine	Pilot					17
Scott Hames	Technician					11
George Sakgaev	Pilot					59
Dwayne Bailey	AME					56
Keith Wells	Geophysicist					34
Jean Deschenes	Pilot					30
Nathan Shirey	AME					26
Scott Hames	Technician					11
Charles Dicks	Pilot		13-Jun-19	ON SITE	4	43
Mike Devenny	AME					27
Ray Molland	DOM					3
Mario Guevremont	AME specialist					3
Ania Smetny-Sowa	Geophysicist			ON SITE	7	13
John Burnham	AME			ON SITE	7	12
Jean Deschenes	Pilot	13-Jun-19		ON SITE	4	4

HSE Statistics	This Week	Project Totals
SGL Person Hours	270	11025
Inductions		21
Near Miss		
First Aid Case (FAC)		
Medical Treatment Case (MTC)		1
Restricted Work Case (RWC)		1
Lost Time Injuries (LTI)		
Safety Meetings		8
GSI PR Complaints		6

WEEKLY PRODUCTION KILOMETRES AND HOURS FLOWN



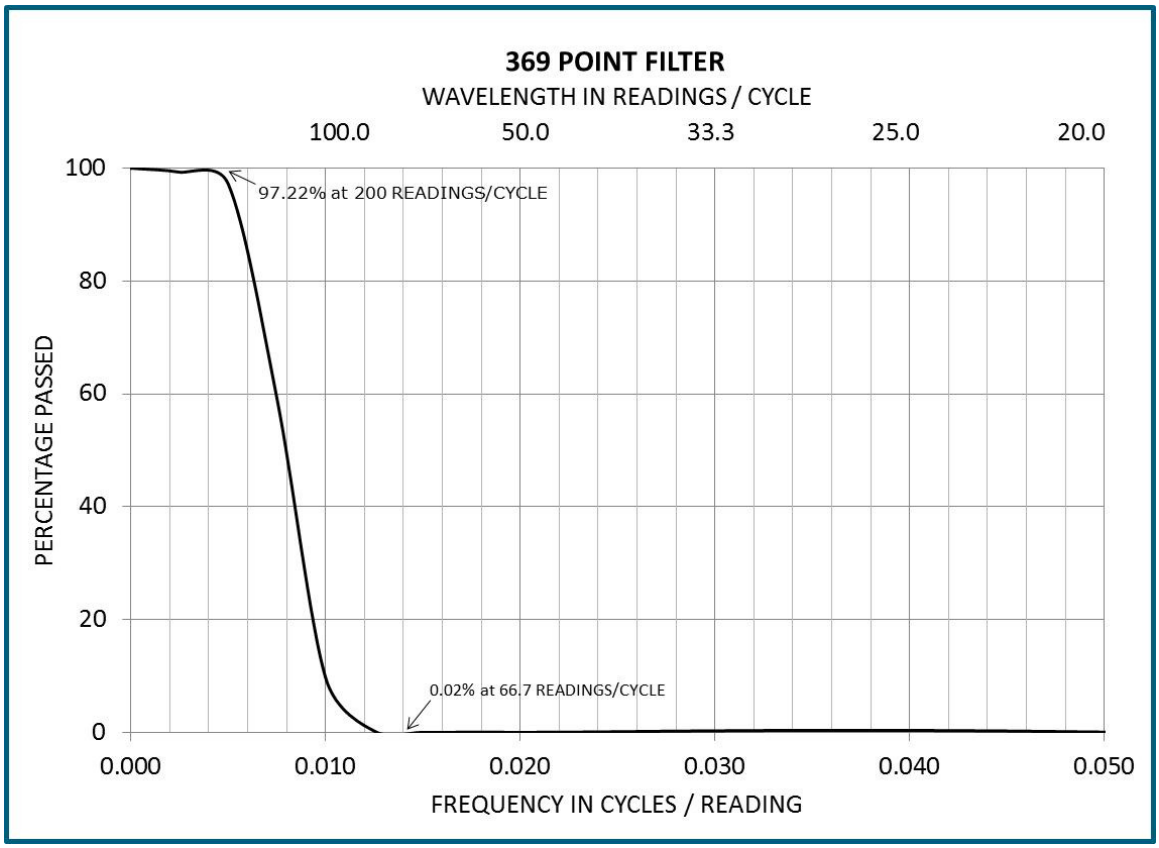
SGL

Appendix VII

Line No.	Flight	Re-flight Line No.	Re-flight Flight No.	Reason for Re-flight
5033.00	49	5033.01	75	Frequency Domain Data
5035.00	49	5035.01	75	Frequency Domain Data
5063.00	48	5063.01	75	Frequency Domain Data
5067.00	50	5067.01	64	Frequency Domain Data
5264.00	58	5264.01	66	Frequency Domain Data
5308.00	15	5308.01	75	Frequency Domain Data
5354.00	31	5354.01	70	Frequency Domain Data
5377.00	26	5377.01	37	Frequency Domain Data
5396.00	20	5396.01	80	Frequency Domain Data
5522.00	16	5522.01	70	Frequency Domain Data

SGL

Appendix VIII


369 POINT FILTER
WAVELENGTH IN READINGS / CYCLE
100.0
50.0
33.3
25.0
20.0
100
80
60
40
20
0
PERCENTAGE PASSED
97.22% at 200 READINGS/CYCLE
0.02% at 66.7 READINGS/CYCLE
0.000
0.010
0.020
0.030
0.040
0.050
FREQUENCY IN CYCLES / READING

SGL

Appendix IX

GROUND STATION SELECTION – Tellus A5 Block

LINE NUMBER	REFERENCE STATION
501.00	2
502.00	2
503.00	2
504.00	1
505.00	2
506.00	2
507.00	2
508.00	2
509.00	2
510.00	2
511.00	1
512.00	2
513.00	2
514.00	2
515.00	1
516.00	2
517.00	2
518.00	2
519.00	1
519.01	2
520.00	2
521.00	2
522.00	2
523.00	2
524.00	2
525.00	1
526.00	2
527.00	2
528.00	2
529.00	2
530.00	2
531.00	2
532.00	2
533.00	2
534.00	2
535.00	2
536.00	2
537.00	2
538.00	2
539.00	2
540.00	2

GROUND STATION SELECTION – Tellus A5 Block

LINE NUMBER	REFERENCE STATION
541.00	2
5001.00	2
5002.00	2
5003.00	1
5004.00	2
5005.00	1
5006.00	2
5007.00	1
5008.00	2
5009.00	1
5010.00	2
5011.00	2
5011.01	2
5012.00	2
5013.00	2
5014.00	2
5015.00	2
5016.00	2
5017.00	2
5018.00	2
5019.00	2
5020.00	2
5021.00	2
5022.00	2
5023.00	2
5024.00	2
5025.00	2
5026.00	2
5027.00	2
5028.00	2
5029.00	1
5030.00	2
5031.00	2
5032.00	2
5032.01	2
5033.00	2
5034.00	2
5035.00	2
5036.00	1
5037.00	2
5038.00	1

LINE NUMBER	REFERENCE STATION
5039.00	2
5040.00	2
5041.00	2
5042.00	2
5043.00	2
5044.00	2
5045.00	2
5046.00	2
5047.00	2
5048.00	2
5049.00	2
5050.00	2
5051.00	2
5052.00	2
5053.00	2
5054.00	2
5055.00	2
5056.00	2
5056.01	2
5057.00	2
5058.00	1
5059.00	2
5060.00	2
5061.00	2
5062.01	2
5063.00	1
5064.00	2
5065.00	2
5066.00	2
5067.00	1
5068.00	2
5069.00	2
5070.00	2
5071.00	2
5072.00	2
5073.00	2
5074.00	2
5075.00	2
5076.00	2
5077.00	2
5078.00	2

GROUND STATION SELECTION – Tellus A5 Block

LINE NUMBER	REFERENCE STATION
5079.00	2
5080.00	1
5081.00	1
5082.00	2
5083.00	1
5084.00	2
5085.00	2
5086.00	2
5087.00	2
5088.00	2
5089.00	2
5090.00	2
5091.00	1
5092.00	2
5093.00	2
5094.00	1
5095.00	2
5096.00	2
5097.00	2
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5104.00	2
5105.00	2
5106.00	2
5107.00	2
5108.00	2
5109.00	2
5110.00	2
5111.00	2
5112.00	2
5113.00	1
5113.01	2
5114.00	2
5114.01	2
5115.00	2
5116.00	1
5117.00	1

LINE NUMBER	REFERENCE STATION
5118.00	2
5119.00	2
5120.00	2
5121.00	1
5122.00	1
5123.00	2
5124.00	2
5125.00	1
5126.00	2
5127.00	2
5128.00	2
5129.00	2
5130.00	2
5131.00	2
5132.00	2
5133.00	2
5134.00	1
5135.00	2
5136.00	2
5137.00	1
5138.00	1
5139.00	2
5140.00	2
5141.00	2
5142.00	2
5143.00	2
5144.00	2
5145.00	2
5146.00	2
5147.00	2
5148.00	2
5149.00	2
5150.00	1
5151.00	1
5152.00	1
5153.00	1
5154.00	1
5155.00	1
5156.00	2
5157.00	2
5158.00	2

LINE NUMBER	REFERENCE STATION
5159.00	2
5160.00	2
5161.00	2
5162.00	2
5163.00	2
5164.00	2
5165.00	2
5166.00	2
5167.00	2
5168.00	2
5169.00	2
5170.00	2
5171.00	2
5172.00	1
5173.00	1
5174.00	2
5175.00	2
5176.00	1
5177.00	2
5178.00	2
5179.00	2
5180.00	2
5181.00	2
5182.00	2
5183.00	2
5184.00	2
5185.00	2
5186.00	2
5187.00	1
5188.00	2
5189.00	2
5190.00	2
5191.00	2
5192.00	2
5193.00	2
5194.00	2
5195.00	2
5196.00	2
5197.00	2
5198.00	2
5199.00	1

GROUND STATION SELECTION – Tellus A5 Block

LINE NUMBER	REFERENCE STATION
5200.00	2
5201.00	2
5202.00	2
5203.00	2
5204.00	2
5205.00	2
5206.00	2
5207.00	2
5208.00	2
5209.00	2
5210.00	1
5211.00	2
5212.00	2
5213.00	2
5214.00	2
5215.00	2
5216.00	2
5217.00	2
5218.00	2
5219.00	1
5220.00	2
5221.00	2
5222.00	2
5223.00	2
5224.00	2
5225.00	2
5226.00	2
5227.00	2
5228.00	2
5229.00	2
5230.00	2
5231.00	2
5232.00	2
5233.00	2
5234.00	2
5235.00	2
5236.00	2
5237.00	2
5238.00	2
5239.00	2
5240.00	2

LINE NUMBER	REFERENCE STATION
5241.00	2
5242.00	2
5243.00	2
5244.00	2
5245.00	2
5246.00	2
5247.00	1
5248.00	1
5249.00	1
5250.00	2
5251.00	2
5252.00	2
5253.00	2
5254.00	2
5255.00	2
5256.00	2
5257.00	2
5258.00	2
5259.00	2
5260.00	2
5261.00	1
5262.00	2
5263.00	2
5264.00	2
5265.00	2
5266.00	2
5267.00	2
5268.00	2
5269.00	2
5270.00	2
5271.00	2
5272.00	2
5273.00	2
5274.00	2
5275.00	2
5276.00	2
5277.00	2
5278.00	2
5279.00	2
5280.00	2
5281.00	2

LINE NUMBER	REFERENCE STATION
5282.00	2
5283.00	1
5284.00	2
5285.00	2
5286.00	2
5287.00	2
5288.00	2
5289.00	1
5290.00	2
5291.00	2
5292.00	2
5293.00	2
5294.00	2
5295.00	2
5296.00	2
5297.00	2
5298.00	2
5299.00	2
5300.00	2
5301.00	1
5302.00	2
5303.00	2
5304.00	2
5305.00	2
5306.00	2
5307.00	2
5308.01	2
5309.00	2
5310.00	2
5311.00	2
5312.00	2
5313.00	2
5314.00	2
5315.00	2
5316.00	2
5317.00	2
5318.00	2
5319.00	2
5320.00	1
5321.00	2
5322.00	1

LINE NUMBER	REFERENCE STATION
5323.00	2
5324.00	2
5325.00	2
5326.00	2
5327.00	2
5328.00	2
5329.00	2
5330.00	2
5331.00	2
5332.00	1
5333.00	2
5334.00	2
5335.00	2
5336.00	2
5337.00	2
5338.00	2
5339.00	2
5340.00	2
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5342.00	2
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5344.00	2
5345.00	1
5346.00	2
5347.00	2
5348.00	2
5349.00	2
5350.00	2
5351.00	2
5352.00	2
5353.00	2
5354.00	2
5355.00	2
5356.00	2
5357.00	1
5358.02	2
5359.00	1
5360.00	2
5361.00	2
5362.00	2
5363.00	2

LINE NUMBER	REFERENCE STATION
5364.00	2
5365.00	2
5366.00	1
5367.00	2
5368.00	2
5369.00	2
5370.00	2
5371.00	2
5372.00	2
5373.00	1
5374.00	2
5375.00	1
5376.00	2
5377.01	2
5378.00	2
5379.00	2
5380.00	1
5381.00	2
5382.00	2
5383.00	2
5384.00	2
5385.00	2
5386.00	2
5387.00	2
5388.00	2
5389.00	2
5390.00	2
5391.00	2
5392.00	2
5393.00	2
5394.00	2
5395.00	2
5396.01	2
5397.00	2
5398.00	2
5399.00	2
5400.00	2
5401.00	2
5402.00	1
5403.00	2
5404.00	2

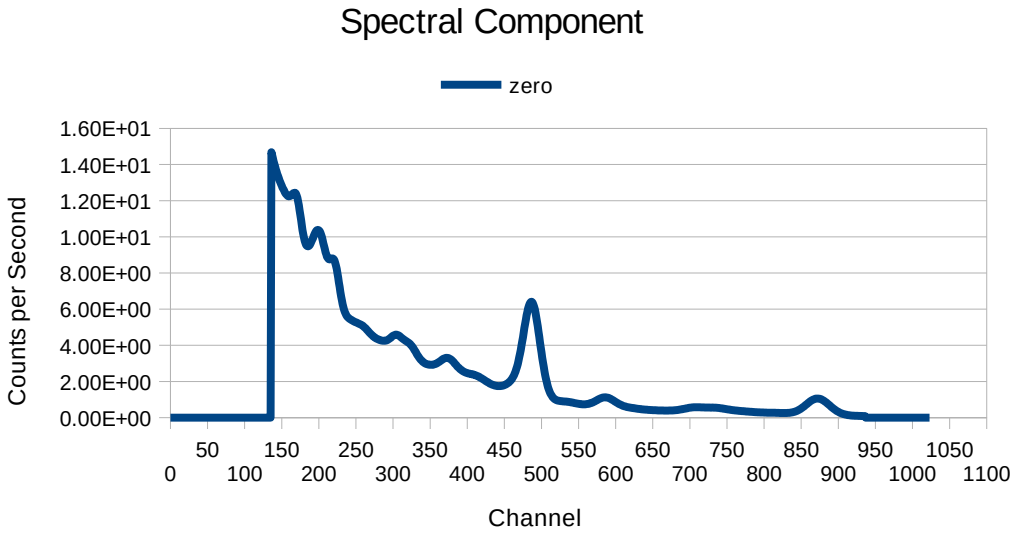
LINE NUMBER	REFERENCE STATION
5405.00	2
5406.00	1
5407.00	2
5408.00	1
5409.00	2
5410.00	2
5411.00	2
5412.00	2
5413.00	2
5414.00	2
5415.00	2
5416.00	2
5417.00	2
5418.00	2
5419.00	2
5420.00	2
5421.00	2
5422.00	2
5423.00	2
5424.00	2
5425.00	2
5426.00	2
5427.00	2
5428.00	2
5429.00	2
5430.00	2
5431.00	2
5432.00	2
5433.00	2
5434.00	2
5435.00	2
5436.00	2
5437.00	2
5438.00	2
5439.00	2
5440.00	2
5441.00	2
5442.00	2
5443.00	2
5444.00	2
5445.00	2

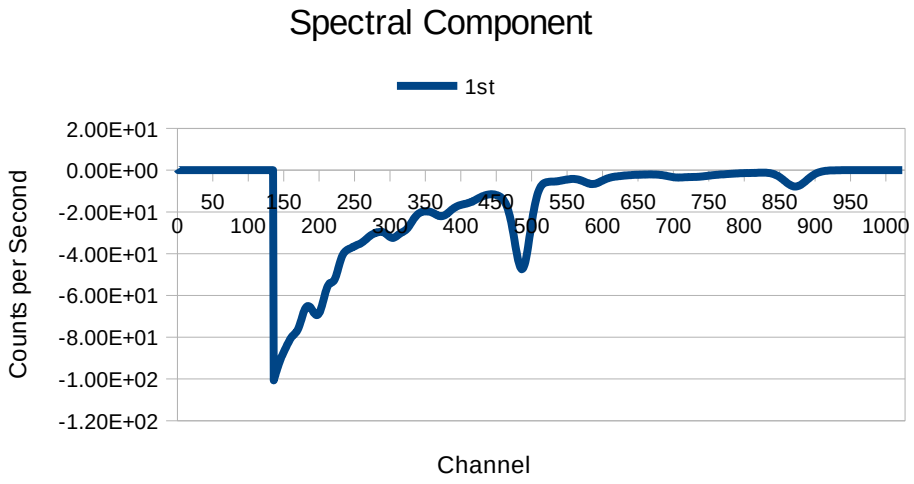
LINE NUMBER	REFERENCE STATION
5446.00	2
5447.00	2
5448.00	2
5449.00	2
5450.00	2
5451.00	2
5452.00	2
5453.00	2
5454.00	2
5455.00	2
5456.00	2
5457.00	2
5458.00	2
5459.00	2
5460.00	2
5461.00	2
5462.00	2
5463.00	2
5464.00	2
5465.00	2
5466.00	2
5467.00	2
5468.00	2
5469.00	2
5470.00	2
5471.00	1
5472.00	2
5473.00	2
5474.00	2
5475.00	2
5476.00	2
5477.00	2
5478.00	2
5479.00	2
5480.00	2
5481.00	2
5482.00	2
5483.00	2
5484.00	2
5485.00	2
5486.00	2

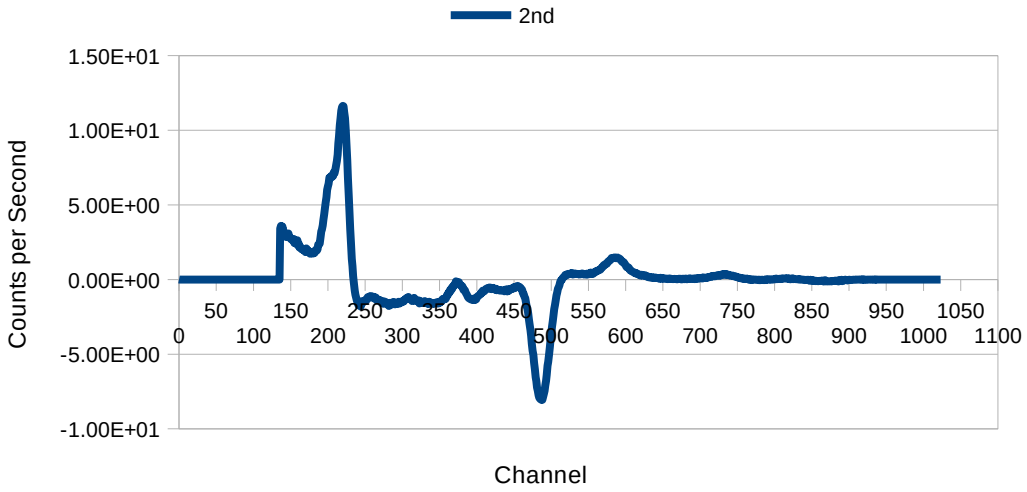
LINE NUMBER	REFERENCE STATION
5487.00	2
5488.00	2
5489.00	2
5490.00	2
5491.00	2
5492.00	2
5493.00	2
5494.00	2
5495.00	2
5496.00	2
5497.00	1
5498.00	2
5499.00	2
5500.00	2
5501.00	2
5502.00	2
5503.00	2
5504.00	2
5505.00	2
5506.00	2
5507.00	2
5508.00	2
5509.00	2
5510.00	2
5511.00	2
5512.00	2
5513.00	2
5514.00	2
5515.00	2
5516.00	2
5517.00	2
5518.00	2
5519.00	2
5520.00	2
5521.00	2
5522.01	2
5523.00	2
5524.00	2
5525.00	2

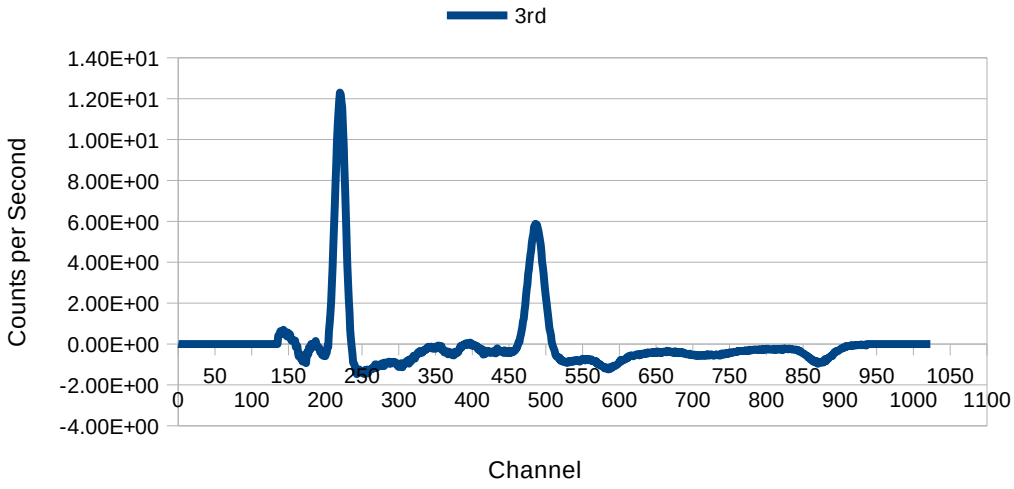
SGL

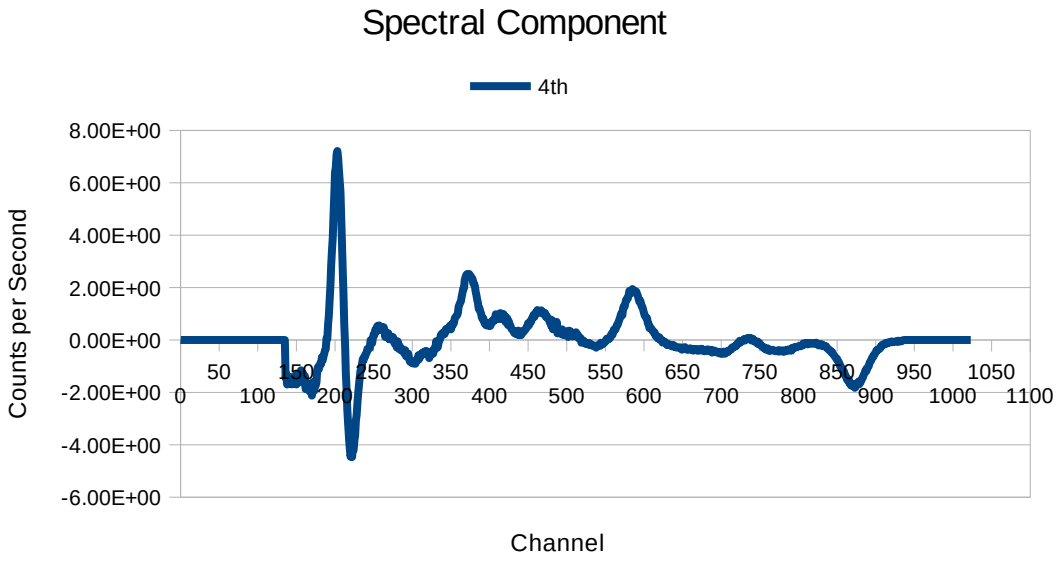
Appendix X

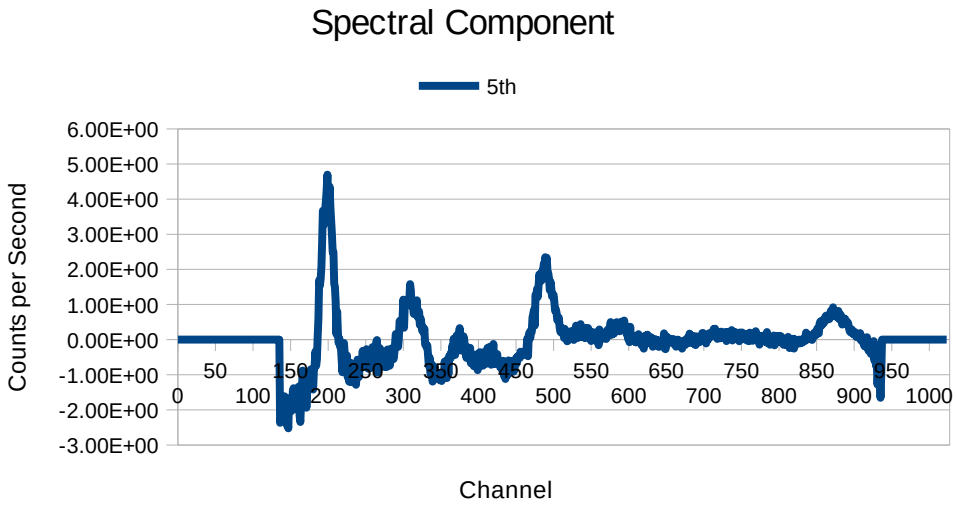

Spectral Component
zero
1.60E+01
1.40E+01
1.20E+01
1.00E+01
8.00E+00
6.00E+00
4.00E+00
2.00E+00
0.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel

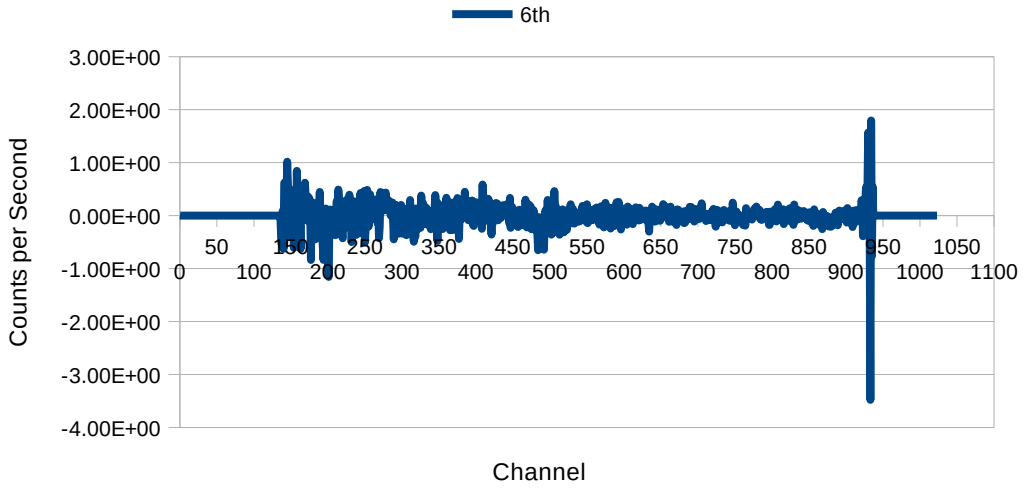

Spectral Component
1st
2.00E+01
0.00E+00
-2.00E+01
-4.00E+01
-6.00E+01
-8.00E+01
-1.00E+02
-1.20E+02
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
Channel

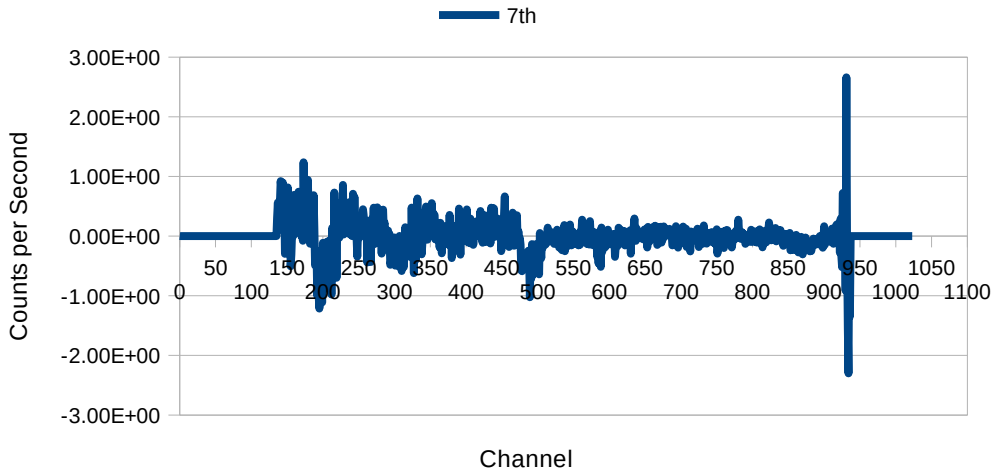

2nd
1.50E+01
1.00E+01
5.00E+00
0.00E+00
-5.00E+00
-1.00E+01
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel

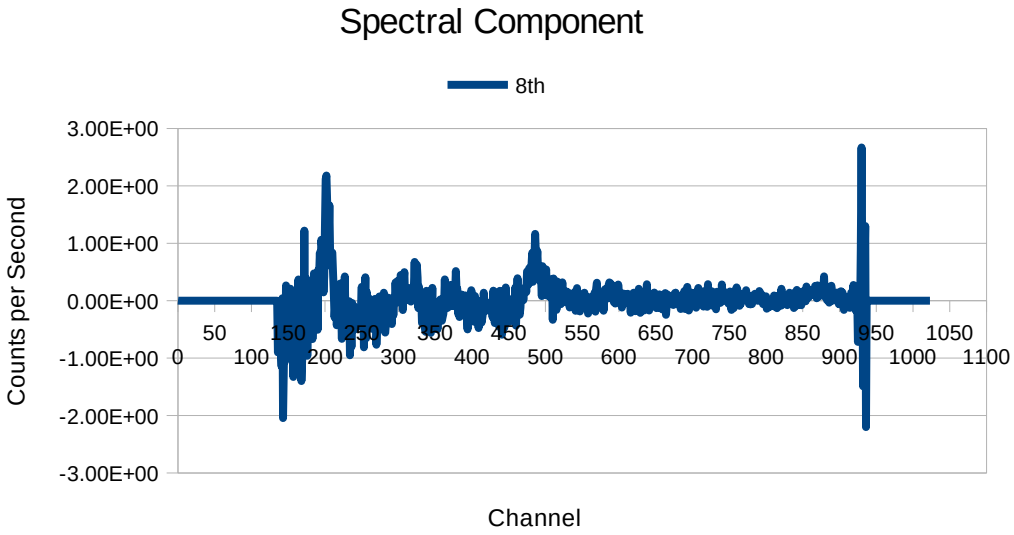

3rd
1.40E+01
1.20E+01
1.00E+01
8.00E+00
6.00E+00
4.00E+00
2.00E+00
0.00E+00
-2.00E+00
-4.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel

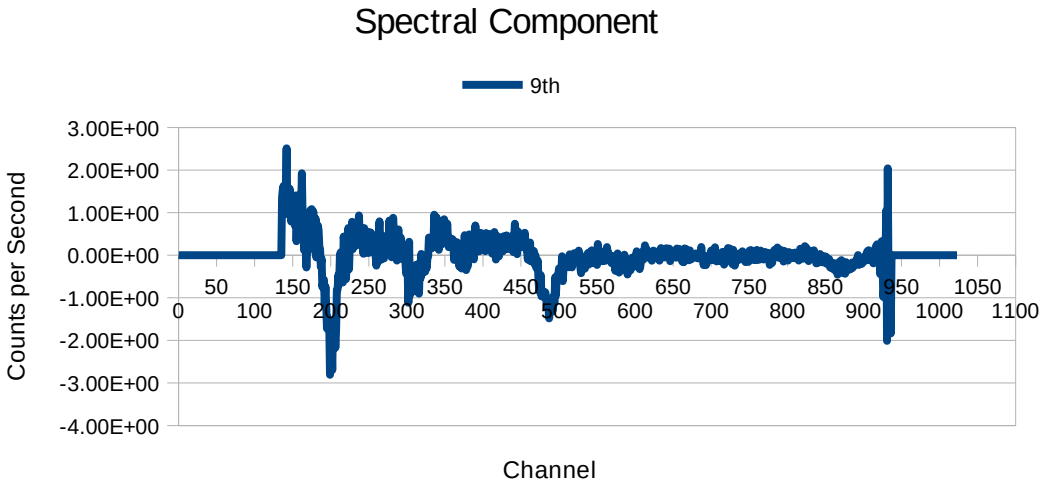

Spectral Component
4th
8.00E+00
6.00E+00
4.00E+00
2.00E+00
0.00E+00
-2.00E+00
-4.00E+00
-6.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel

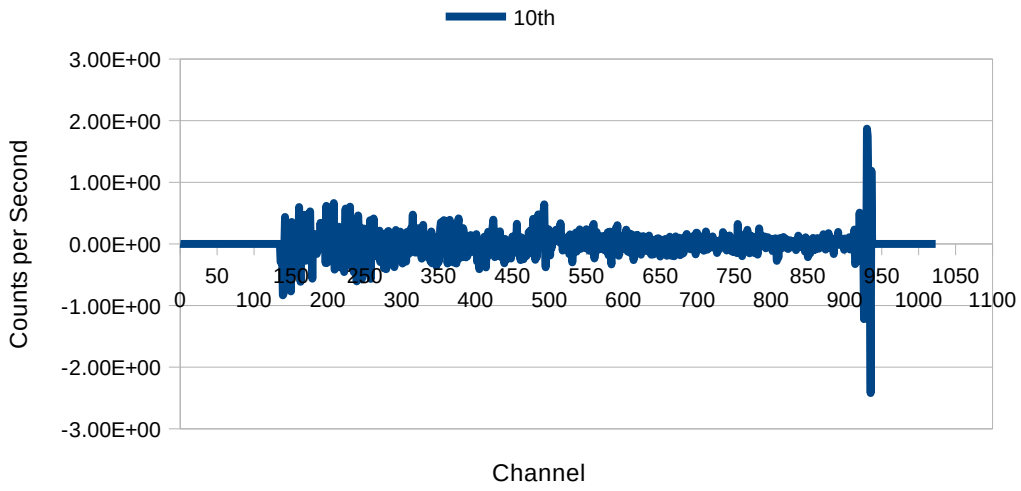

Spectral Component
5th
6.00E+00
5.00E+00
4.00E+00
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
Channel

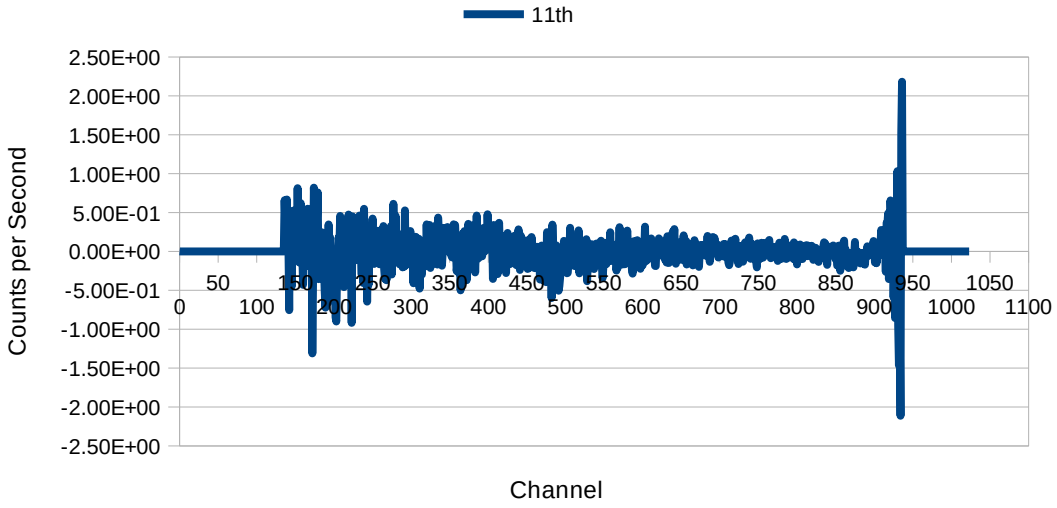

6th
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
-4.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel

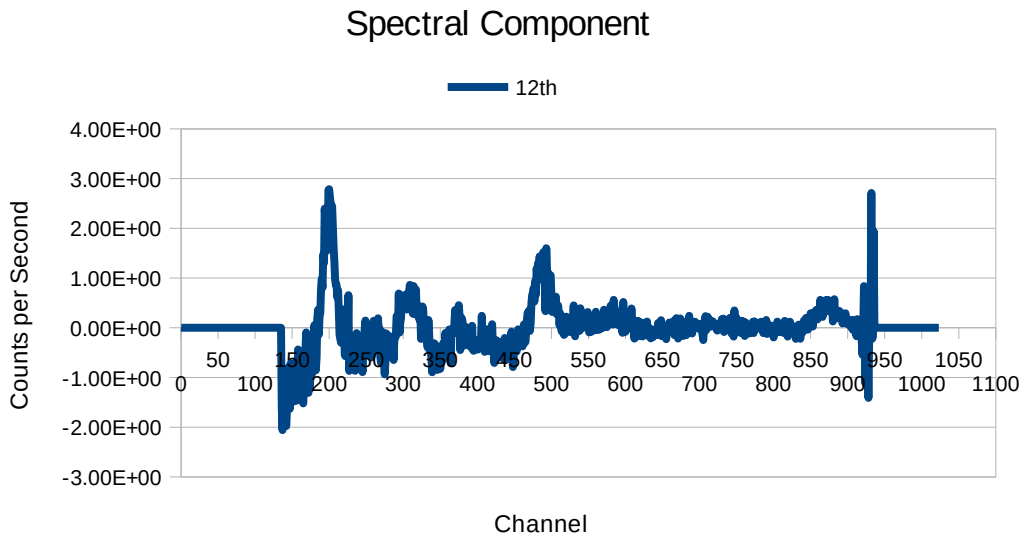

7th
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel

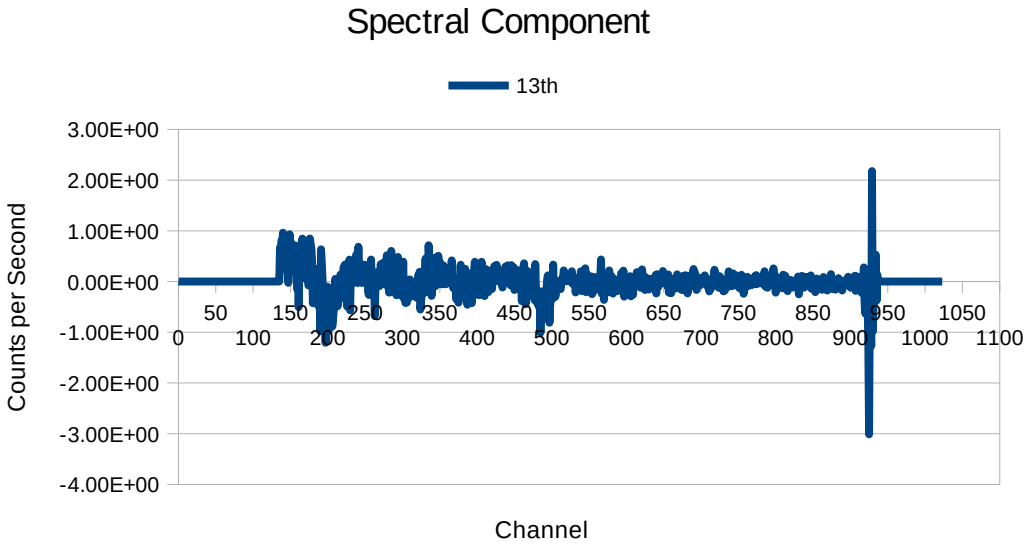

Spectral Component
8th
Counts per Second
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel

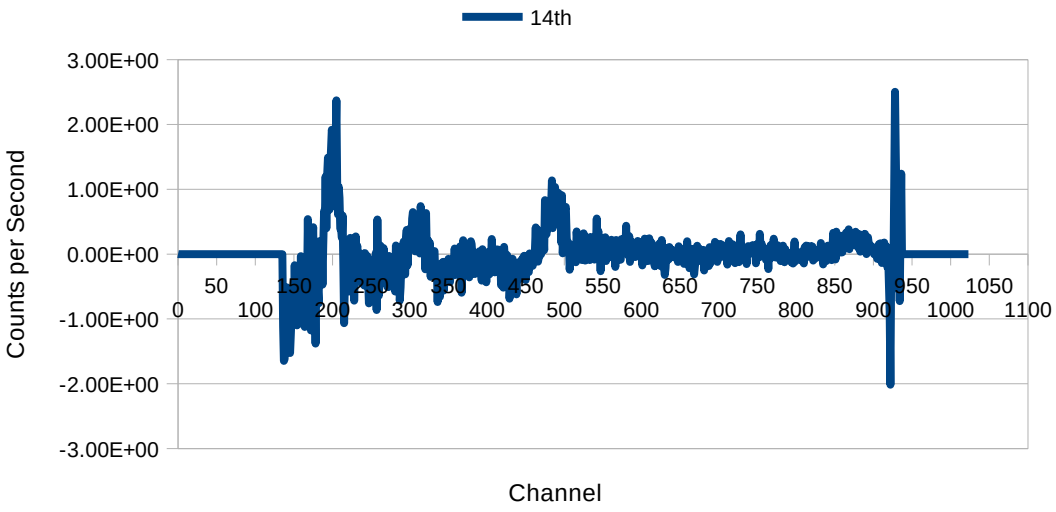

Spectral Component
9th
Counts per Second
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
-4.00E+00
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel


10th
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel


11th
2.50E+00
2.00E+00
1.50E+00
1.00E+00
5.00E-01
0.00E+00
-5.00E-01
-1.00E+00
-1.50E+00
-2.00E+00
-2.50E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel


Spectral Component
12th
4.00E+00
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel


Spectral Component
13th
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
-4.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel


14th
3.00E+00
2.00E+00
1.00E+00
0.00E+00
-1.00E+00
-2.00E+00
-3.00E+00
Counts per Second
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100
Channel

SGL

Appendix XI

SPECTROMETER DATA BY LINE SCALING – Tellus A5 Block

Tot-SCALE	K-SCALE	U-SCALE	Th-SCALE	LINE	T1	T2
1.05	1.10	1.00	1.10	0503.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0504.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0505.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0506.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	0507.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	0510.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0511.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0512.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	0513.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0514.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0515.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0516.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0517.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	0518.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	0519.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	0520.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	0521.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	5033.0.1	00000.00	99999.99
1.10	1.10	1.00	1.10	5035.0.1	00000.00	99999.99
1.10	1.10	1.00	1.10	5063.0.1	00000.00	99999.99
1.05	1.10	1.00	1.10	5113.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5114.0.1	00000.00	99999.99
1.05	1.10	1.00	1.10	5115.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5116.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5117.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5118.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5119.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5120.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5121.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5122.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5123.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5124.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5125.0.0	00000.00	99999.99
1.00	1.00	0.90	1.00	5150.0.0	38287.50	99999.99
1.00	1.00	0.90	1.00	5151.0.0	38935.50	00000.00
1.00	1.00	0.90	1.00	5152.0.0	39863.50	99999.99
1.05	1.10	1.00	1.10	5163.0.0	00000.00	99999.99
1.05	1.15	1.00	1.15	5164.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5165.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5166.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5167.0.0	00000.00	99999.99

SPECTROMETER DATA BY LINE SCALING – Tellus A5 Block

Tot-SCALE	K-SCALE	U-SCALE	Th-SCALE	LINE	T1	T2
1.05	1.10	1.00	1.10	5168.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5169.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5170.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5171.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5172.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5173.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5174.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5175.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5176.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5177.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5178.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5179.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5180.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5181.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5182.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5183.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5184.0.0	00000.00	99999.99
1.05	1.10	1.00	1.10	5185.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5186.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5187.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5188.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5189.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5190.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5191.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5192.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5193.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5194.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5195.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5196.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5197.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5198.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5199.0.0	00000.00	99999.99
1.10	1.20	1.00	1.20	5200.0.0	00000.00	99999.99
1.10	1.20	1.00	1.20	5201.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5202.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5203.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5204.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5205.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5206.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5207.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5208.0.0	00000.00	99999.99

SPECTROMETER DATA BY LINE SCALING – Tellus A5 Block

Tot-SCALE	K-SCALE	U-SCALE	Th-SCALE	LINE	T1	T2
1.10	1.15	1.00	1.15	5209.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5210.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5211.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5212.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5213.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5214.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5215.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5216.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5217.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5218.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5219.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5220.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5221.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5222.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5223.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5224.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5225.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5226.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5227.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5228.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5229.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5230.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5231.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5232.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5233.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5234.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5235.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5236.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5237.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5238.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5239.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5240.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5241.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5242.0.0	00000.00	99999.99
1.12	1.17	1.00	1.17	5243.0.0	00000.00	99999.99
1.15	1.20	1.00	1.20	5244.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5245.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5246.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5247.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5248.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5249.0.0	00000.00	99999.99

SPECTROMETER DATA BY LINE SCALING – Tellus A5 Block

Tot-SCALE	K-SCALE	U-SCALE	Th-SCALE	LINE	T1	T2
1.10	1.15	1.00	1.15	5250.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5251.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5252.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5253.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5254.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5255.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5256.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5257.0.0	00000.00	99999.99
1.15	1.20	1.00	1.20	5258.0.0	00000.00	99999.99
1.15	1.20	1.00	1.20	5259.0.0	00000.00	99999.99
1.05	1.05	1.00	1.05	5260.0.0	00000.00	99999.99
1.05	1.05	1.00	1.05	5261.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5262.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5263.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5264.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	5265.0.0	00000.00	99999.99
1.10	1.10	1.00	1.10	5266.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5267.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5268.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5269.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5270.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5271.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5272.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5273.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5274.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5275.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5276.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5277.0.0	00000.00	99999.99
1.10	1.15	1.00	1.15	5278.0.0	00000.00	99999.99
1.30	1.50	1.00	1.50	5303.0.0	41930.50	41891.50
1.10	1.10	1.00	1.10	5303.0.0	00000.00	41890.50
1.10	1.10	1.00	1.10	5304.0.0	41141.50	99999.99
1.30	1.50	1.00	1.50	5304.0.0	41105.50	41140.50
1.10	1.10	1.00	1.10	5308.0.1	00000.00	99999.99
1.00	1.00	0.70	1.00	5311.0.0	34008.50	33912.50
1.00	1.00	1.70	1.00	5311.0.0	00000.00	33911.50
1.00	1.00	0.80	1.00	5311.0.0	34034.50	34052.50
1.00	1.00	0.80	1.00	5311.0.0	34141.50	34179.50
1.00	1.00	0.70	1.00	5312.0.0	35221.50	35294.50
1.00	1.00	1.70	1.00	5312.0.0	99999.99	35295.50
1.00	1.00	0.80	1.00	5312.0.0	35178.50	35161.50

SPECTROMETER DATA BY LINE SCALING – Tellus A5 Block

Tot-SCALE	K-SCALE	U-SCALE	Th-SCALE	LINE	T1	T2
1.00	1.00	0.80	1.00	5312.0.0	35070.50	35035.50
1.00	1.00	0.70	1.00	5313.0.0	35665.50	35576.50
1.00	1.00	1.30	1.00	5313.0.0	00000.00	35575.50
1.00	1.00	0.80	1.00	5313.0.0	35692.50	35707.50
1.00	1.00	0.80	1.00	5313.0.0	35790.50	35707.50
1.00	1.00	0.70	1.00	5314.0.0	36911.50	36780.50
1.00	1.00	1.30	1.00	5314.0.0	99999.99	36781.50
1.00	1.00	0.70	1.00	5315.0.0	37228.50	37361.50
1.00	1.00	1.30	1.00	5315.0.0	00000.00	37360.50
1.10	1.10	1.00	1.10	5354.0.1	00000.00	99999.99
1.10	1.10	1.00	1.10	5358.0.0	32354.50	32405.50
1.10	1.10	1.00	1.10	5358.0.2	42920.50	43062.50
1.00	1.10	1.00	1.10	5366.0.0	33037.50	00000.00
0.90	1.00	0.80	1.00	5366.0.0	32957.50	00000.00
0.90	1.00	0.40	1.00	5366.0.0	32957.50	33038.50
1.00	1.00	0.80	1.00	5366.0.0	33039.50	33111.50
1.00	1.10	1.00	1.10	5367.0.0	35481.50	99999.99
1.00	1.00	0.80	1.00	5367.0.0	35570.50	99999.99
1.00	1.00	0.60	1.00	5367.0.0	35570.50	35482.50
1.00	1.00	1.40	1.00	5367.0.0	35505.50	35480.50
1.00	1.00	0.70	1.00	5367.0.0	35464.50	35399.50
1.00	1.00	0.80	1.00	5368.0.0	35754.50	00000.00
1.00	1.00	0.60	1.00	5368.0.0	35754.50	35808.50
1.00	1.00	0.70	1.00	5368.0.0	35860.50	35918.50
1.00	1.00	1.20	1.00	5369.0.0	38375.50	99999.99
1.00	1.00	1.20	1.00	5369.0.0	38272.50	38247.50
1.00	1.00	1.20	1.00	5370.0.0	38593.50	00000.00
1.00	1.00	1.20	1.00	5370.0.0	38692.50	38724.50
1.10	1.10	1.00	1.10	5396.0.1	00000.00	99999.99
1.10	1.10	1.00	1.10	5522.0.1	00000.00	99999.99

SGL

Appendix XII

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
501.00	2	59589.92	60842.68	C0501.0F_0002
502.00	2	66957.68	68438.68	C0502.0B_0002
503.00	79	50277.13	51628.85	C0503.0F_0079
504.00	79	51692.26	53010.91	C0504.0B_0079
505.00	79	57576.90	58854.08	C0505.0F_0079
506.00	79	61370.13	62652.35	C0506.0B_0079
507.00	66	45728.71	46996.24	C0507.0F_0066
508.00	1	46367.03	47803.98	C0508.0B_9004
509.00	1	42050.89	43363.41	C0509.0F_9004
510.00	76	38507.99	39814.41	C0510.0F_0076
511.00	75	38200.69	39459.30	C0511.0F_0075
512.00	75	42736.60	44195.80	C0512.0B_0075
513.00	76	39960.32	41340.79	C0513.0B_0076
514.00	79	42775.63	44049.09	C0514.0F_0079
515.00	79	44149.39	45598.83	C0515.0B_0079
516.00	70	52295.73	53549.85	C0516.0F_0070
517.00	75	44396.68	45637.29	C0517.0F_0075
518.00	76	44609.09	45915.92	C0518.0F_0076
519.00	75	45796.15	46357.54	C0519.0B_0075
519.01	75	46550.34	47544.54	C0519.0B_0075
520.00	76	41597.41	42906.16	C0520.0F_0076
521.00	76	43084.05	44467.71	C0521.0B_0076
522.00	37	38698.92	39012.71	C0522.0F_0037
523.00	37	46085.58	46431.21	C0523.0F_0037
524.00	37	39146.00	39480.92	C0524.0B_0037
525.00	37	39583.37	39925.32	C0525.0F_0037
526.00	37	40371.43	41075.18	C0526.0B_0037
527.00	37	41172.85	41819.35	C0527.0F_0037
528.00	37	41916.06	42614.50	C0528.0B_0037
529.00	37	42697.59	43380.69	C0529.0F_0037
530.00	37	43482.90	44186.23	C0530.0B_0037
531.00	37	44286.20	44979.43	C0531.0F_0037
532.00	37	45094.03	45797.47	C0532.0B_0037
533.00	31	58812.46	59474.31	C0533.0B_0031
534.00	31	58028.49	58725.98	C0534.0F_0031
535.00	31	57251.98	57936.25	C0535.0B_0031
536.00	31	56262.01	56969.63	C0536.0F_0031
537.00	31	55601.94	56176.10	C0537.0B_0031
538.00	31	54908.81	55400.18	C0538.0F_0031
539.00	28	31765.81	32088.73	C0539.0F_0028
540.00	28	32279.97	32500.06	C0540.0B_0028

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
541.00	28	32580.76	32658.21	C0541.0F_0028
616.00	41	59363.53	59925.56	Unavailable
5001.00	44	30427.56	31127.59	T5001.0F_0044
5002.00	44	31291.79	31928.46	T5002.0B_0044
5003.00	44	32050.00	32731.39	T5003.0F_0044
5004.00	44	32837.24	33474.01	T5004.0B_0044
5005.00	44	33640.58	34311.81	T5005.0F_0044
5006.00	44	34452.40	35096.11	T5006.0B_0044
5007.00	44	35246.75	35951.89	T5007.0F_0044
5008.00	44	36039.36	36717.77	T5008.0B_0044
5009.00	44	36905.10	37597.51	T5009.0F_0044
5010.00	44	37751.94	38416.50	T5010.0B_0044
5011.00	44	38532.51	39045.93	T5011.0F_0044
5011.01	44	39508.23	39882.98	T5011.0F_0044
5012.00	44	39965.55	40619.48	T5012.0B_0044
5013.00	44	40789.83	41523.61	T5013.0F_0044
5014.00	44	41675.90	42339.41	T5014.0B_0044
5015.00	44	42455.23	43184.63	T5015.0F_0044
5016.00	37	49286.93	49988.70	T5016.0F_0037
5017.00	37	50120.43	50718.66	T5017.0B_0037
5018.00	40	50287.05	50978.81	T5018.0F_0040
5019.00	40	51090.79	51680.94	T5019.0B_0040
5020.00	40	51885.53	52614.84	T5020.0F_0040
5021.00	40	52761.99	53373.75	T5021.0B_0040
5022.00	40	53530.53	54233.41	T5022.0F_0040
5023.00	40	54334.43	54930.40	T5023.0B_0040
5024.00	40	55145.27	55882.44	T5024.0F_0040
5025.00	47	54189.68	54895.27	T5025.0F_0047
5026.00	47	54998.36	55667.79	T5026.0B_0047
5027.00	47	55793.30	56461.85	T5027.0F_0047
5028.00	49	34116.43	34732.42	T5028.0F_0049
5029.00	49	34841.12	35582.29	T5029.0B_0049
5030.00	49	35717.29	36329.81	T5030.0F_0049
5031.00	49	36473.74	37213.83	T5031.0B_0049
5032.00	49	37340.77	37783.18	T5032.0F_0049
5032.01	49	37930.77	38207.43	T5032.0F_0049
5033.00	49	38335.99	39087.30	T5033.0B_0049
5033.01	75	35875.66	36274.48	T5033.0F_0075
5034.00	49	39205.75	39807.85	T5034.0F_0049
5035.00	49	39941.14	40684.50	T5035.0B_0049
5035.01	75	36949.52	37306.64	T5035.0B_0075

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5036.00	50	33808.52	34449.89	T5036.0F_0050
5037.00	50	34573.32	35312.33	T5037.0B_0050
5038.00	50	35418.71	36046.87	T5038.0F_0050
5039.00	50	36167.12	36910.58	T5039.0B_0050
5040.00	50	37029.83	37662.79	T5040.0F_0050
5041.00	50	37805.55	38553.80	T5041.0B_0050
5042.00	40	56346.10	56971.28	T5042.0B_0040
5043.00	40	57134.87	57839.36	T5043.0F_0040
5044.00	40	57939.65	58535.17	T5044.0B_0040
5045.00	40	58745.98	59533.23	T5045.0F_0040
5046.00	40	59670.82	60307.76	T5046.0B_0040
5047.00	40	60475.58	61187.83	T5047.0F_0040
5048.00	44	48764.38	49487.77	T5048.0F_0044
5049.00	44	49626.29	50273.62	T5049.0B_0044
5050.00	44	50397.51	51123.47	T5050.0F_0044
5051.00	44	51276.39	51951.70	T5051.0B_0044
5052.00	44	52127.44	52848.75	T5052.0F_0044
5053.00	44	52992.61	53653.26	T5053.0B_0044
5054.00	44	54045.69	54788.44	T5054.0F_0044
5055.00	44	54895.95	55578.72	T5055.0B_0044
5056.00	44	55895.02	56433.99	T5056.0F_0044
5056.01	44	56860.92	57167.20	T5056.0F_0044
5057.00	44	57339.62	58019.01	Unavailable
5058.00	46	48342.32	49015.11	T5058.0F_0046
5059.00	46	49131.22	49731.59	T5059.0B_0046
5060.00	46	49865.30	50593.96	T5060.0F_0046
5061.00	46	50717.02	51339.01	T5061.0B_0046
5062.00	46	51975.56	52345.13	T5062.0F_0046
5062.01	47	51867.61	52495.82	T5062.0F_0047
5063.00	47	52602.92	53220.49	T5063.0B_0047
5063.01	75	37498.82	37884.80	T5063.0F_0075
5064.00	47	57547.85	58167.17	T5064.0B_0047
5065.00	47	58297.11	58991.02	T5065.0F_0047
5066.00	47	59225.22	59883.51	T5066.0B_0047
5067.00	50	38683.98	39292.63	T5067.0F_0050
5067.01	64	41882.56	42440.17	Unavailable
5068.00	50	39583.47	40254.41	T5068.0B_0050
5069.00	50	40354.52	40982.66	T5069.0F_0050
5070.00	50	41118.40	41842.66	T5070.0B_0050
5071.00	50	41947.29	42577.58	T5071.0F_0050
5072.00	50	42684.92	43368.73	T5072.0B_0050

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5073.00	56	35878.45	36568.99	T5073.0B_0056
5074.00	53	55114.12	55824.73	T5074.0B_0053
5075.00	53	54030.58	54663.53	T5075.0F_0053
5076.00	53	53257.26	53920.52	T5076.0B_0053
5077.00	53	52527.85	53142.73	T5077.0F_0053
5078.00	53	51673.74	52400.92	T5078.0B_0053
5079.00	50	43486.08	44121.84	T5079.0F_0050
5080.00	50	44257.04	44963.61	T5080.0B_0050
5081.00	50	45031.36	45621.32	T5081.0F_0050
5082.00	50	46044.59	46741.34	T5082.0B_0050
5083.00	53	42849.29	43464.30	T5083.0F_0053
5084.00	53	43582.94	44268.74	T5084.0B_0053
5085.00	53	44373.93	45012.20	T5085.0F_0053
5086.00	53	45119.69	45870.28	T5086.0B_0053
5087.00	53	45967.31	46599.72	T5087.0F_0053
5088.00	53	46728.18	47439.90	T5088.0B_0053
5089.00	53	47568.00	48198.25	T5089.0F_0053
5090.00	53	48582.98	49258.93	T5090.0B_0053
5091.00	53	49364.07	49999.63	T5091.0F_0053
5092.00	53	50125.52	50802.18	T5092.0B_0053
5093.00	53	50930.54	51584.92	T5093.0F_0053
5094.00	55	38250.30	38887.23	T5094.0F_0055
5095.00	55	38985.63	39718.48	T5095.0B_0055
5096.00	55	39821.98	40449.63	T5096.0F_0055
5097.00	55	40575.18	41248.62	T5097.0B_0055
5098.00	55	41385.19	42050.76	T5098.0F_0055
5099.00	55	42155.73	42887.90	T5099.0B_0055
5100.00	55	42983.95	43622.78	T5100.0F_0055
5101.00	55	43732.92	44395.55	T5101.0B_0055
5102.00	55	44516.57	45172.02	T5102.0F_0055
5103.00	55	45287.79	46013.66	T5103.0B_0055
5104.00	55	46111.41	46732.45	T5104.0F_0055
5105.00	55	46808.99	47498.86	T5105.0B_0055
5106.00	55	47619.92	48256.60	T5106.0F_0055
5107.00	50	52275.88	53004.80	T5107.0B_0050
5108.00	50	51562.85	52203.56	T5108.0F_0050
5109.00	55	48323.07	49059.74	T5109.0B_0055
5110.00	55	49175.56	49801.65	T5110.0F_0055
5111.00	55	49889.29	50620.86	T5111.0B_0055
5112.00	55	50747.58	51392.17	T5112.0F_0055
5113.00	62	35317.87	36012.47	T5113.0F_0062

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5113.01	64	41571.27	41730.45	T5113.0B_0064
5114.00	62	36267.14	36643.15	T5114.0B_0062
5114.01	62	36793.46	37172.95	T5114.0B_0062
5115.00	62	37327.83	38086.86	T5115.0F_0062
5116.00	62	38198.90	38887.85	T5116.0B_0062
5117.00	62	39080.26	39810.09	T5117.0F_0062
5118.00	62	39920.51	40602.66	T5118.0B_0062
5119.00	64	35670.82	36353.67	T5119.0F_0064
5120.00	64	36465.73	37166.47	T5120.0B_0064
5121.00	79	46100.87	46741.03	T5121.0B_0079
5122.00	79	46854.76	47556.38	T5122.0F_0079
5123.00	79	47612.25	48245.19	T5123.0B_0079
5124.00	79	48365.86	49070.27	T5124.0F_0079
5125.00	79	49133.28	49768.04	T5125.0B_0079
5126.00	54	33058.86	33686.67	T5126.0F_0054
5127.00	54	34154.36	34914.20	T5127.0B_0054
5128.00	54	35003.50	35635.16	T5128.0F_0054
5129.00	54	35718.53	36411.65	T5129.0B_0054
5130.00	54	36510.11	37140.52	T5130.0F_0054
5131.00	54	37241.16	37985.03	T5131.0B_0054
5132.00	54	38089.55	38701.17	T5132.0F_0054
5133.00	54	38799.99	39522.30	T5133.0B_0054
5134.00	56	33432.72	34112.40	T5134.0F_0056
5135.00	56	34196.62	34885.11	T5135.0B_0056
5136.00	56	35000.21	35676.31	T5136.0F_0056
5137.00	56	36797.20	37467.89	T5137.0F_0056
5138.00	56	37567.82	38262.01	T5138.0B_0056
5139.00	56	38373.18	39018.49	T5139.0F_0056
5140.00	56	39096.26	39780.41	T5140.0B_0056
5141.00	56	39904.90	40575.13	T5141.0F_0056
5142.00	56	40666.06	41359.53	T5142.0B_0056
5143.00	56	41464.27	42103.97	T5143.0F_0056
5144.00	56	42180.36	42880.79	T5144.0B_0056
5145.00	56	43006.96	43663.67	T5145.0F_0056
5146.00	56	43751.27	44447.15	T5146.0B_0056
5147.00	56	44545.60	45212.88	T5147.0F_0056
5148.00	56	45305.39	45960.08	T5148.0B_0056
5149.00	57	37150.04	37834.13	T5149.0F_0057
5150.00	57	37907.67	38536.47	T5150.0B_0057
5151.00	57	38651.46	39381.01	T5151.0F_0057
5152.00	57	39472.10	40120.59	T5152.0B_0057

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5153.00	57	40240.61	40921.25	T5153.0F_0057
5154.00	57	41014.42	41667.68	T5154.0B_0057
5155.00	57	41792.85	42504.76	T5155.0F_0057
5156.00	57	42623.52	43274.32	T5156.0B_0057
5157.00	57	43367.97	44055.39	T5157.0F_0057
5158.00	57	44139.95	44778.49	T5158.0B_0057
5159.00	57	44906.03	45648.11	T5159.0F_0057
5160.00	57	45738.50	46411.32	T5160.0B_0057
5161.00	57	46518.01	47194.26	T5161.0F_0057
5162.00	57	47285.58	47893.63	Unavailable
5163.00	64	37346.47	37988.49	T5163.0F_0064
5164.00	64	38126.63	38829.55	T5164.0B_0064
5165.00	64	38983.85	39629.10	T5165.0F_0064
5166.00	64	39747.43	40424.25	T5166.0B_0064
5167.00	64	40746.65	41380.13	T5167.0F_0064
5168.00	70	56903.20	57555.9	T5168.0F_0070
5169.00	70	57666.98	58369.46	T5169.0B_0070
5170.00	81	40498.38	41114.03	T5170.0F_0081
5171.00	81	41215.06	41924.16	T5171.0B_0081
5172.00	81	42004.40	42626.97	T5172.0F_0081
5173.00	81	42721.48	43468.77	T5173.0B_0081
5174.00	76	62828.93	63472.04	T5174.0F_0076
5175.00	76	62020.49	62670.46	T5175.0B_0076
5176.00	81	43550.29	44177.20	T5176.0F_0081
5177.00	81	44260.14	44999.69	T5177.0B_0081
5178.00	81	50454.07	51179.51	T5178.0B_0081
5179.00	81	51276.21	51909.65	T5179.0F_0081
5180.00	81	52016.45	52752.65	T5180.0B_0081
5181.00	81	52856.19	53480.07	Unavailable
5182.00	82	50097.37	50758.65	T5182.0F_0082
5183.00	82	49347.82	50009.59	T5183.0B_0082
5184.00	82	48606.31	49255.18	T5184.0F_0082
5185.00	82	47813.34	48469.41	T5185.0B_0082
5186.00	74	43247.08	43955.16	T5186.0B_0074
5187.00	74	42485.13	43117.10	T5187.0F_0074
5188.00	73	53358.59	54016.64	T5188.0F_0073
5189.00	73	54102.77	54796.96	T5189.0B_0073
5190.00	74	36141.68	36783.63	T5190.0F_0074
5191.00	74	36907.60	37597.24	T5191.0B_0074
5192.00	74	37699.84	38338.21	T5192.0F_0074
5193.00	70	58460.33	59121.12	T5193.0F_0070

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5194.00	70	59178.32	59878.87	T5194.0B_0070
5195.00	70	59966.29	60652.55	T5195.0F_0070
5196.00	70	60748.47	61425.67	T5196.0B_0070
5197.00	74	38442.84	39195.63	T5197.0B_0074
5198.00	74	39301.37	39935.23	T5198.0F_0074
5199.00	74	40080.04	40776.25	T5199.0B_0074
5200.00	74	40898.30	41509.02	T5200.0F_0074
5201.00	74	41649.49	42396.28	T5201.0B_0074
5202.00	78	45115.65	45817.18	T5202.0B_0078
5203.00	78	45917.23	46548.88	T5203.0F_0078
5204.00	81	45115.65	45747.14	T5204.0F_0081
5205.00	81	45843.34	46556.24	T5205.0B_0081
5206.00	81	46648.38	47266.72	T5206.0F_0081
5207.00	76	48919.45	49560.14	T5207.0F_0076
5208.00	76	48102.00	48792.26	T5208.0B_0076
5209.00	76	47367.76	48007.65	T5209.0F_0076
5210.00	76	46586.00	47255.15	T5210.0B_0076
5211.00	81	47379.15	48099.78	T5211.0B_0081
5212.00	81	48173.02	48797.40	T5212.0F_0081
5213.00	81	48912.18	49595.91	T5213.0B_0081
5214.00	81	49680.76	50309.42	T5214.0F_0081
5215.00	82	47007.93	47663.27	T5215.0F_0082
5216.00	78	49729.61	50394.63	T5216.0B_0078
5217.00	78	48952.45	49593.46	T5217.0F_0078
5218.00	78	48190.87	48862.56	T5218.0B_0078
5219.00	78	47408.87	48050.94	T5219.0F_0078
5220.00	78	46626.27	47312.94	T5220.0B_0078
5221.00	78	50510.23	51151.17	T5221.0F_0078
5222.00	78	51275.57	51953.12	T5222.0B_0078
5223.00	78	52051.61	52700.26	T5223.0F_0078
5224.00	82	39461.11	40119.43	T5224.0F_0082
5225.00	82	40210.05	40881.37	T5225.0B_0082
5226.00	82	40994.53	41654.69	T5226.0F_0082
5227.00	82	41753.77	42413.30	T5227.0B_0082
5228.00	82	42514.00	43159.28	T5228.0F_0082
5229.00	82	43251.71	43913.26	T5229.0B_0082
5230.00	82	44008.78	44670.75	T5230.0F_0082
5231.00	82	44770.42	45427.43	T5231.0B_0082
5232.00	82	45536.47	46168.82	T5232.0F_0082
5233.00	82	46265.32	46930.14	T5233.0B_0082
5234.00	76	61168.14	61818.14	T5234.0F_0076

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5235.00	76	60407.29	61067.96	T5235.0B_0076
5236.00	76	59633.41	60295.98	T5236.0F_0076
5237.00	76	58853.22	59533.53	T5237.0B_0076
5238.00	76	58070.40	58719.52	T5238.0F_0076
5239.00	76	57291.04	57970.95	T5239.0B_0076
5240.00	76	56507.31	57150.18	T5240.0F_0076
5241.00	76	55693.74	56383.28	T5241.0B_0076
5242.00	76	54947.18	55597.14	T5242.0F_0076
5243.00	61	34608.73	35266.93	T5243.0F_0061
5244.00	61	35381.68	36125.21	T5244.0B_0061
5245.00	61	36238.60	36869.36	T5245.0F_0061
5246.00	61	37009.79	37691.21	T5246.0B_0061
5247.00	61	37818.67	38454.56	T5247.0F_0061
5248.00	61	38599.11	39311.58	T5248.0B_0061
5249.00	61	39424.80	40072.25	T5249.0F_0061
5250.00	61	40189.82	40886.16	T5250.0B_0061
5251.00	61	41020.04	41693.55	T5251.0F_0061
5252.00	61	41833.19	42550.32	T5252.0B_0061
5253.00	61	42655.11	43273.10	T5253.0F_0061
5254.00	61	43403.33	44102.06	T5254.0B_0061
5255.00	61	44205.63	44852.03	T5255.0F_0061
5256.00	61	44988.39	45693.96	T5256.0B_0061
5257.00	61	45798.57	46431.08	T5257.0F_0061
5258.00	66	47711.71	48366.60	T5258.0F_0066
5259.00	66	48513.44	49218.73	T5259.0B_0066
5260.00	14	32391.15	33082.03	T5260.0F_0014
5261.00	15	37748.64	38436.02	T5261.0B_0015
5262.00	66	49367.30	50046.69	T5262.0F_0066
5263.00	66	50216.78	50930.61	T5263.0B_0066
5264.00	58	54887.81	55550.08	Unavailable
5264.01	66	51068.36	51287.43	T5264.0F_0066
5265.00	58	54104.89	54783.35	T5265.0F_0058
5266.00	58	53314.20	53980.10	T5266.0B_0058
5267.00	58	52559.99	53220.34	T5267.0F_0058
5268.00	58	51797.18	52466.54	T5268.0B_0058
5269.00	58	50988.35	51675.44	T5269.0F_0058
5270.00	58	50219.45	50882.34	T5270.0B_0058
5271.00	58	49447.19	50116.17	T5271.0F_0058
5272.00	58	48666.43	49353.61	T5272.0B_0058
5273.00	58	47875.25	48560.01	T5273.0F_0058
5274.00	78	41050.48	41676.95	T5274.0F_0078

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5275.00	78	41814.45	42519.57	T5275.0B_0078
5276.00	78	42605.84	43258.73	T5276.0F_0078
5277.00	78	43389.09	44099.30	T5277.0B_0078
5278.00	78	44190.36	44844.07	T5278.0F_0078
5279.00	15	36645.14	37316.38	T5279.0F_0015
5280.00	15	35900.09	36551.27	T5280.0B_0015
5281.00	15	35158.22	35775.55	T5281.0F_0015
5282.00	15	34349.86	35043.64	T5282.0B_0015
5283.00	15	33571.43	34226.71	T5283.0F_0015
5284.00	15	32842.07	33453.82	T5284.0B_0015
5285.00	15	32100.46	32725.73	T5285.0F_0015
5286.00	14	33202.34	33886.18	T5286.0B_0014
5287.00	14	31143.25	31789.07	T5287.0B_0014
5288.00	14	30380.09	31022.94	T5288.0F_0014
5289.00	12	45846.03	46500.96	T5289.0F_0012
5290.00	12	46623.69	47291.84	T5290.0B_0012
5291.00	12	47380.01	48081.96	T5291.0F_0012
5292.00	12	48202.70	48912.28	T5292.0B_0012
5293.00	12	49018.80	49671.91	T5293.0F_0012
5294.00	12	49779.13	50457.59	T5294.0B_0012
5295.00	12	50556.70	51244.53	T5295.0F_0012
5296.00	12	51357.79	52068.16	T5296.0B_0012
5297.00	12	52156.76	52818.98	T5297.0F_0012
5298.00	12	52933.34	53606.85	T5298.0B_0012
5299.00	12	53700.67	54381.12	T5299.0F_0012
5300.00	12	54494.21	55205.88	T5300.0B_0012
5301.00	12	55308.68	55952.30	T5301.0F_0012
5302.00	12	56076.48	56741.04	T5302.0B_0012
5303.00	75	41550.27	42270.85	T5303.0F_0075
5304.00	75	40810.75	41442.06	T5304.0B_0075
5305.00	15	38705.44	39353.42	T5305.0F_0015
5306.00	15	39502.13	40158.13	T5306.0B_0015
5307.00	15	40244.89	40925.74	T5307.0F_0015
5308.00	15	41110.11	41816.91	T5308.0B_0015
5308.01	75	40021.88	40714.74	T5308.0F_0075
5309.00	15	41912.63	42574.61	T5309.0F_0015
5310.00	15	42725.15	43398.43	T5310.0B_0015
5311.00	20	33816.03	34540.74	T5311.0F_0020
5312.00	20	34686.44	35396.59	T5312.0B_0020
5313.00	20	35480.17	36176.84	T5313.0F_0020
5314.00	20	36326.07	37003.88	T5314.0B_0020

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5315.00	20	37140.19	37817.82	T5315.0F_0020
5316.00	25	55149.65	56518.81	T5316.0F_0025
5317.00	25	56683.03	57921.16	T5317.0B_0025
5318.00	25	58040.34	59410.33	T5318.0F_0025
5319.00	25	59539.97	60774.66	T5319.0B_0025
5320.00	28	30347.38	31590.24	T5320.0F_0028
5321.00	28	32806.26	34122.45	T5321.0B_0028
5322.00	28	34216.88	35539.91	T5322.0F_0028
5323.00	28	35687.50	37004.85	T5323.0B_0028
5324.00	28	37134.81	38449.42	T5324.0F_0028
5325.00	28	38572.39	39861.66	T5325.0B_0028
5326.00	28	39987.12	41266.54	T5326.0F_0028
5327.00	28	48224.21	49505.78	T5327.0F_0028
5328.00	28	49618.52	50956.00	T5328.0B_0028
5329.00	28	51066.01	52358.72	T5329.0F_0028
5330.00	28	52474.34	53778.08	T5330.0B_0028
5331.00	28	53889.04	55197.99	T5331.0F_0028
5332.00	28	55336.14	56687.45	T5332.0B_0028
5333.00	28	56814.48	58109.44	T5333.0F_0028
5334.00	28	58223.31	59461.73	T5334.0B_0028
5335.00	30	41067.16	42375.23	T5335.0F_0030
5336.00	30	42486.71	43703.53	T5336.0B_0030
5337.00	30	43836.69	45188.74	T5337.0F_0030
5338.00	30	45321.81	46538.41	T5338.0B_0030
5339.00	30	46637.68	47966.08	T5339.0F_0030
5340.00	30	48086.42	49300.52	T5340.0B_0030
5341.00	30	49420.42	50738.15	T5341.0F_0030
5342.00	30	50861.10	52101.45	T5342.0B_0030
5343.00	31	30044.03	31359.81	T5343.0F_0031
5344.00	31	31473.69	32713.65	T5344.0B_0031
5345.00	31	32822.08	34198.36	T5345.0F_0031
5346.00	31	34322.04	35564.96	T5346.0B_0031
5347.00	31	35674.54	36983.50	T5347.0F_0031
5348.00	31	37126.51	38337.65	T5348.0B_0031
5349.00	31	38436.89	39758.08	T5349.0F_0031
5350.00	31	39880.59	41103.41	T5350.0B_0031
5351.00	31	47820.05	49116.03	T5351.0F_0031
5352.00	31	49250.65	50457.89	T5352.0B_0031
5353.00	31	50562.13	51883.47	T5353.0F_0031
5354.00	31	51988.59	53206.54	T5354.0B_0031
5354.01	70	54967.20	55521.69	T5354.0B_0070

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5355.00	31	53318.71	54652.45	T5355.0F_0031
5356.00	11	51588.39	52935.96	T5356.0F_0011
5357.00	11	63316.20	64436.88	T5357.0B_0011
5358.00	16	32223.04	32662.74	T5358.0F_0016
5358.01	16	35903.04	36701.00	T5358.1B_0016
5358.02	17	42830.87	44133.59	T5358.0F_0017 + T5358.0F_0017_1
5359.00	17	44264.33	45587.40	T5359.0B_0017
5360.00	17	45687.59	46935.36	T5360.0F_0017
5361.00	17	47081.17	48382.52	T5361.0B_0017
5362.00	17	48481.72	49746.27	T5362.0F_0017
5363.00	17	49868.23	51172.15	T5363.0B_0017
5364.00	17	51274.80	52501.33	T5364.0F_0017 + T5364.0F_0017_1
5365.00	17	52637.03	53961.02	T5365.0B_0017
5366.00	26	32920.65	34135.20	T5366.0F_0026
5367.00	26	34275.23	35608.30	T5367.0B_0026
5368.00	26	35717.56	36972.09	T5368.0F_0026
5369.00	26	37114.45	38431.44	T5369.0B_0026
5370.00	26	38536.21	39805.67	T5370.0F_0026
5371.00	26	39940.47	41287.34	T5371.0B_0026
5372.00	26	41412.66	42666.42	T5372.0F_0026
5373.00	26	42796.65	44074.49	T5373.0B_0026
5374.00	26	50068.77	51337.94	T5374.0F_0026
5375.00	26	51458.28	52707.46	T5375.0B_0026
5376.00	26	52830.29	54110.02	T5376.0F_0026
5377.00	26	54229.98	55476.29	T5377.0B_0026
5377.01	37	47049.35	48194.54	T5377.0B_0037
5378.00	26	55584.19	56846.84	T5378.0F_0026
5379.00	26	57003.93	58245.63	T5379.0B_0026
5380.00	26	58369.08	59658.30	T5380.0F_0026
5381.00	26	59786.83	61050.81	T5381.0B_0026
5382.00	25	53694.04	54921.18	T5382.0B_0025
5383.00	25	52242.22	53573.99	T5383.0F_0025
5384.00	25	50883.73	52115.06	T5384.0B_0025
5385.00	25	49410.99	50759.15	T5385.0F_0025
5386.00	24	41004.22	42230.60	T5386.0B_0024
5387.00	24	39590.52	40875.59	T5387.0F_0024
5388.00	24	38206.86	39458.62	T5388.0B_0024
5389.00	24	36807.94	38089.46	T5389.0F_0024
5390.00	24	35433.13	36665.43	T5390.0B_0024
5391.00	20	38456.06	39730.73	T5391.0B_0020

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5392.00	20	39868.92	41129.36	T5392.0F_0020
5393.00	20	41287.45	42600.71	T5393.0B_0020
5394.00	20	42743.36	44007.04	T5394.0F_0020
5395.00	20	44149.36	45425.96	T5395.0B_0020
5396.00	20	54894.91	56113.35	T5396.0F_0020
5396.01	79	59108.61	60397.55	T5396.0F_0079
5397.00	20	56258.87	57505.88	T5397.0B_0020
5398.00	20	57632.57	58910.93	T5398.0F_0020
5399.00	20	59059.81	60378.88	T5399.0B_0020
5400.00	20	60534.22	61799.74	T5400.0F_0020
5401.00	20	61965.71	63228.07	T5401.0B_0020
5402.00	24	34156.10	35343.92	T5402.0F_0024
5403.00	19	41636.21	43042.25	Unavailable
5404.00	19	40321.38	41461.55	Unavailable
5405.00	19	38798.12	40202.14	Unavailable
5406.00	19	37482.28	38645.41	Unavailable
5407.00	19	36013.18	37350.29	Unavailable
5408.00	19	34672.69	35853.09	Unavailable
5409.00	19	33116.22	34538.56	Unavailable
5410.00	6	41560.82	42735.01	T5410.0F_0006
5411.00	6	40034.33	41430.37	T5411.0B_0006
5412.00	6	38723.83	39895.00	T5412.0F_0006
5413.00	6	37229.91	38612.71	T5413.0B_0006
5414.00	6	34748.85	35917.45	T5414.0F_0006
5415.00	2	65588.10	66805.51	T5415.0B_0002
5416.00	2	60971.42	62344.75	T5416.0F_0002
5417.00	2	62464.20	62879.36	T5417.0B_0002
5418.00	2	62962.59	63412.76	T5418.0F_0002
5419.00	2	63488.45	63892.67	T5419.0B_0002
5420.00	1	43863.42	44268.46	T5420.0F_9004
5421.00	1	44378.52	44805.65	T5421.0B_9004
5422.00	1	44903.70	45306.26	T5422.0F_9004
5423.00	1	45387.81	45806.64	T5423.0B_9004
5424.00	2	63936.50	64378.45	T5424.0F_0002
5425.00	2	64472.12	64884.98	T5425.0B_0002
5426.00	2	65001.98	65458.93	T5426.0F_0002
5427.00	6	36027.63	36496.13	T5427.0B_0006
5428.00	3	54716.57	55193.70	T5428.0F_0003
5429.00	3	54162.44	54564.26	T5429.0B_0003
5430.00	3	53539.48	54004.71	T5430.0F_0003
5431.00	3	53008.81	53413.85	T5431.0B_0003

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5432.00	3	52401.15	52870.11	T5432.0F_0003
5433.00	3	51860.48	52277.57	T5433.0B_0003
5434.00	3	51270.14	51730.62	T5434.0F_0003
5435.00	3	50745.98	51144.90	T5435.0B_0003
5436.00	3	50114.85	50591.69	T5436.0F_0003
5437.00	3	49579.65	49984.03	T5437.0B_0003
5438.00	3	48976.01	49428.71	T5438.0F_0003
5439.00	3	48449.64	48845.60	T5439.0B_0003
5440.00	3	47900.17	48339.15	T5440.0F_0003
5441.00	6	36595.88	36997.54	T5441.0F_0006
5442.00	7	51667.84	52069.72	T5442.0F_0007
5443.00	7	52188.04	52599.14	T5443.0B_0007
5444.00	7	52720.85	53106.77	T5444.0F_0007
5445.00	7	53240.44	53668.35	T5445.0B_0007
5446.00	7	53776.79	54140.70	T5446.0F_0007
5447.00	7	54250.03	54634.99	T5447.0B_0007
5448.00	7	54780.37	55173.74	T5448.0F_0007
5449.00	7	55310.23	55729.18	T5449.0B_0007
5450.00	7	55833.46	56212.59	T5450.0F_0007
5451.00	7	56336.38	56753.43	T5451.0B_0007
5452.00	7	56894.46	57296.29	T5452.0F_0007
5453.00	7	57426.32	57869.80	T5453.0B_0007
5454.00	8	47640.38	48068.33	T5454.0F_0008
5455.00	8	48182.84	48582.65	T5455.0B_0008
5456.00	8	48715.95	49153.67	T5456.0F_0008
5457.00	8	49280.12	49683.84	T5457.0B_0008
5458.00	8	49797.17	50195.13	T5458.0F_0008
5459.00	8	50310.41	50680.89	T5459.0B_0008
5460.00	8	50799.82	51213.80	T5460.0F_0008
5461.00	8	51336.14	51723.71	T5461.0B_0008
5462.00	9	32077.89	32477.99	T5462.0F_0009
5463.00	9	32610.31	32972.06	T5463.0B_0009
5464.00	9	33086.20	33501.37	T5464.0F_0009
5465.00	9	33614.63	33970.03	T5465.0B_0009
5466.00	9	34094.74	34488.73	T5466.0F_0009
5467.00	9	34606.92	34956.38	T5467.0B_0009
5468.00	9	35088.47	35516.62	T5468.0F_0009
5469.00	9	35636.32	36005.76	T5469.0B_0009
5470.00	9	36121.94	36538.79	T5470.0F_0009
5471.00	9	36655.14	37023.04	T5471.0B_0009
5472.00	9	37151.80	37561.86	T5472.0F_0009

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5473.00	9	37676.10	38023.92	T5473.0B_0009
5474.00	9	38152.69	38558.17	T5474.0F_0009
5475.00	9	38669.07	39016.11	T5475.0B_0009
5476.00	9	39141.38	39541.71	T5476.0F_0009
5477.00	9	39655.64	40016.49	T5477.0B_0009
5478.00	9	40132.37	40532.64	T5478.0F_0009
5479.00	9	40640.39	40998.16	T5479.0B_0009
5480.00	9	41118.58	41518.41	T5480.0F_0009
5481.00	9	41633.37	41979.67	T5481.0B_0009
5482.00	9	42114.26	42509.62	T5482.0F_0009
5483.00	9	42609.60	42957.07	T5483.0B_0009
5484.00	10	32614.88	33018.39	T5484.0F_0010
5485.00	10	33147.64	33519.89	T5485.0B_0010
5486.00	10	33632.04	34016.02	T5486.0F_0010
5487.00	10	34142.35	34506.15	T5487.0B_0010
5488.00	10	34641.68	35029.37	T5488.0F_0010
5489.00	10	35153.81	35531.39	T5489.0B_0010
5490.00	10	35663.92	36043.05	T5490.0F_0010
5491.00	10	36177.75	36541.83	T5491.0B_0010
5492.00	10	36668.50	37065.80	T5492.0F_0010
5493.00	10	37203.03	37559.23	T5493.0B_0010
5494.00	10	37681.14	38057.39	T5494.0F_0010
5495.00	10	38189.64	38531.22	T5495.0B_0010
5496.00	10	38663.44	39057.50	T5496.0F_0010
5497.00	10	39172.64	39539.15	T5497.0B_0010
5498.00	10	39686.98	40066.35	T5498.0F_0010
5499.00	10	40181.62	40532.86	T5499.0B_0010
5500.00	10	40667.21	41024.44	T5500.0F_0010
5501.00	10	41141.96	41483.59	T5501.0B_0010
5502.00	11	53447.49	53795.22	T5502.0B_0011
5503.00	11	53933.36	54331.05	T5503.0F_0011
5504.00	11	54446.07	54784.71	T5504.0B_0011
5505.00	11	54903.81	55278.15	T5505.0F_0011
5506.00	11	55403.45	55727.77	T5506.0B_0011
5507.00	11	55865.42	56223.28	T5507.0F_0011
5508.00	11	56372.84	56703.22	T5508.0B_0011
5509.00	11	56851.70	57188.96	T5509.0F_0011
5510.00	11	57294.85	57627.25	T5510.0B_0011
5511.00	11	57764.83	58128.91	T5511.0F_0011
5512.00	11	58255.68	58584.78	T5512.0B_0011
5513.00	11	58716.94	59052.79	T5513.0F_0011

DIGITAL VIDEO INVENTORY – Tellus A5 Block

FLIGHT LINE	FLIGHT	DATA TIME START	DATA TIME END	VIDEO FILENAME(.avi)
5514.00	11	59186.26	59518.60	T5514.0B_0011
5515.00	11	59645.38	59992.16	T5515.0F_0011
5516.00	11	60112.56	60448.10	T5516.0B_0011
5517.00	11	60579.03	60950.35	T5517.0F_0011
5518.00	11	61058.54	61398.32	T5518.0B_0011
5519.00	11	61527.78	61905.67	T5519.0F_0011
5520.00	11	62009.13	62332.69	T5520.0B_0011
5521.00	11	62448.60	62793.07	T5521.0F_0011
5522.00	16	33362.54	33693.16	T5522.0F_0016
5522.01	70	54002.10	54319.28	T5522.0F_0070
5523.00	16	33833.09	34204.25	T5523.0B_0016
5524.00	16	34320.27	34651.59	T5524.0F_0016
5525.00	16	34781.66	35148.71	T5525.0B_0016