

THOMSON AVIATION
Airborne Geophysical Survey



Tallaringa South, SA (GA#1298 – R1B)

Geophysical Survey Operations & Processing Report

September 2019

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1. Survey Details

Traverse Line Direction	090°
Traverse Line Spacing	200 meters
Tie Line Direction	000°
Tie Line Spacing	2000 meters
Survey Total Traverse Line Kilometres	132,959 km's
Survey Total Tie Line Kilometres	13,326 km's
Survey Total Line Kilometres	146,285 km's
Main Terrain Clearance	60 meters above ground level
Time Base – Magnetics	20 Hz
Time Base – Radiometrics	1 Hz

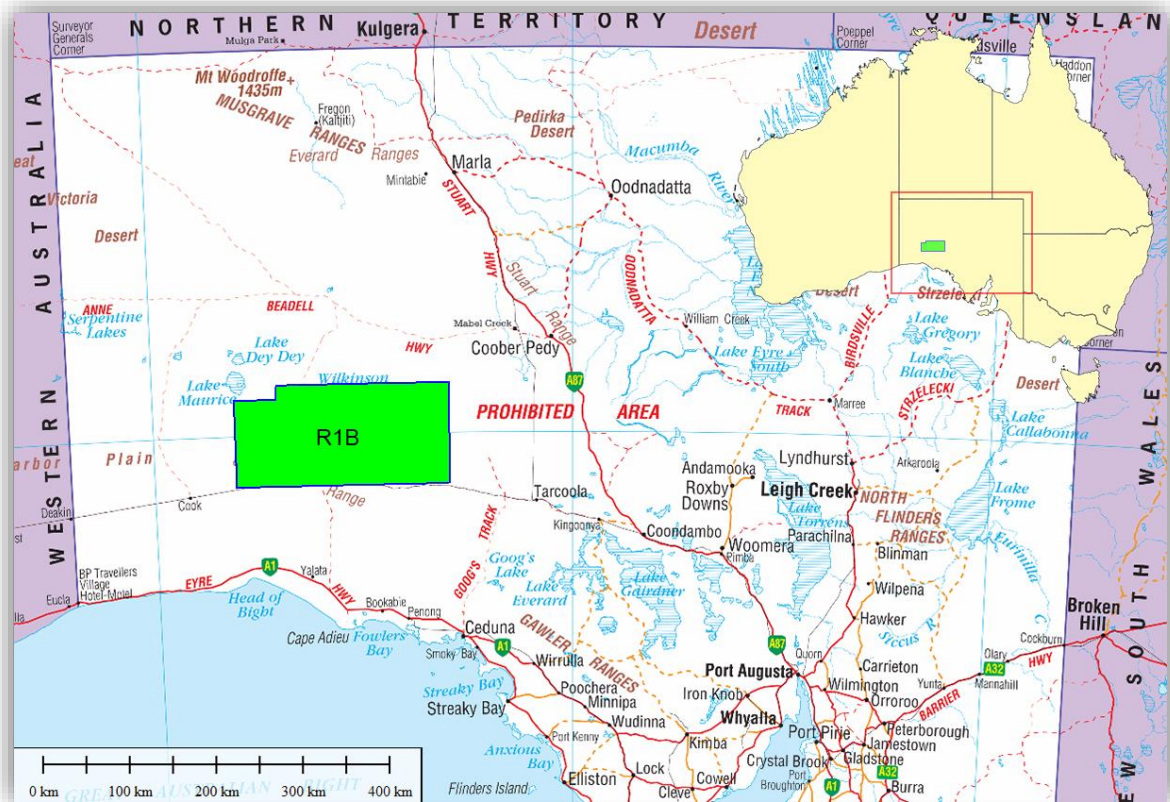


Figure 1. Survey Location Map

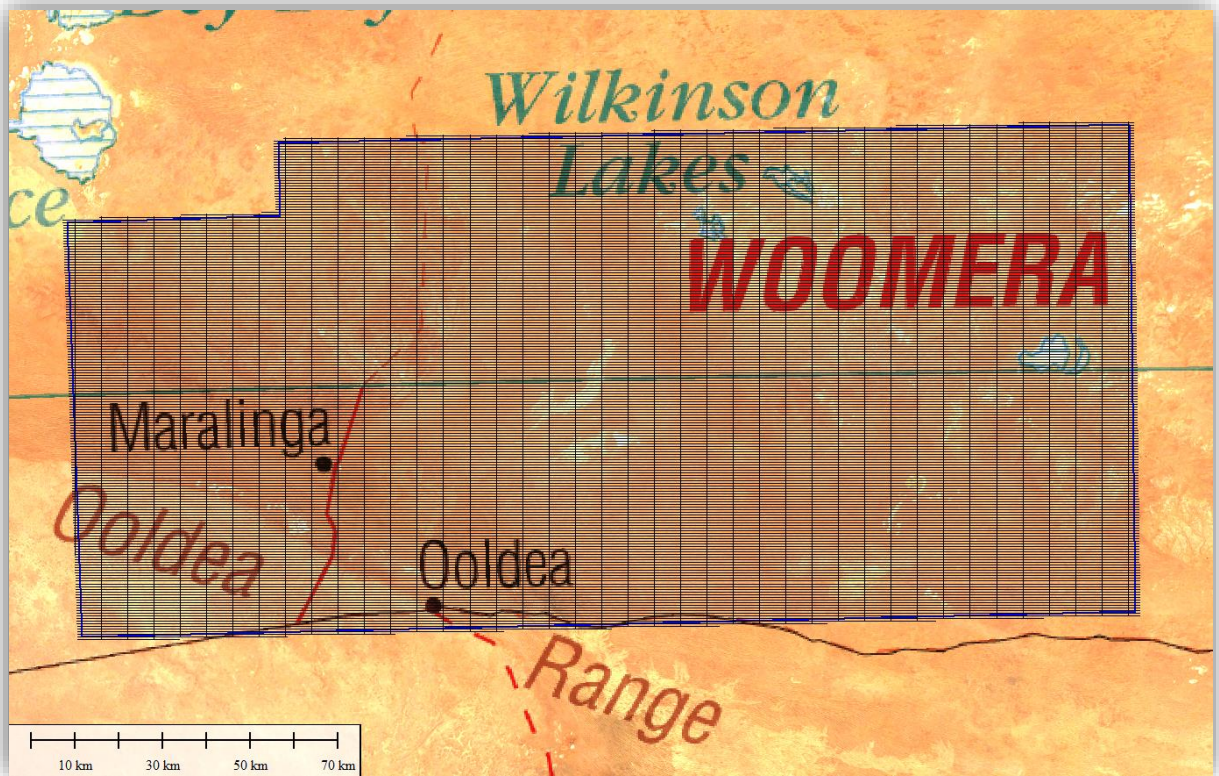


Figure 2. Block Map (Note: Only every 3rd line displayed for clarity)

Longitude	Latitude
131.5°	-29.5°
133.5°	-29.5°
133.5°	-30.5°
131.0°	-30.5°
131.0°	-29.65°
131.5°	-29.65°

Table 1. Survey Boundary Coordinates

1.1 Survey Summary

Survey Acquisition Mobilisation Date	16 th September 2017
Survey Acquisition Start Date	26 th September 2017
Survey Acquisition End Date	12 th May 2018
Survey Demobilisation Date	14 th May 2018

Survey Base	YCBP Coober Pedy Airport (Lat: -29.035639, Lon: 134.723432)
Crew Accommodation	Rental House (Russell Street, Coober Pedy, SA, 5723)

Traverse line ID range	1500010 - 1505600
Traverse line fiducial range	1602500 - 5834500
Tie line ID range	1590010 - 1591210
Tie line fiducial range	1918500 - 5869100



Figure 3. Survey Base Map

1.2 Survey Aircraft

Survey Aircraft	Cessna 210M (VH-SUX)	S/N: 21061042
Engine	Continental IO-550P	
Fuel Type	Avgas	
Fuel Burn	65 Litres per hour	
Typical Survey Speed	130 Knots	
Stall Speed	65 Knots	



Figure 4. Survey Aircraft VH-SUX

1.3 Survey Equipment Specifications

Total Field Magnetometer	G823 Optically pumped caesium Vapour
Sensitivity	0.0009 nT @ 20 Hz
Absolute Accuracy	<3 nT throughout entire range
Noise Envelope	0.0009 nT @ 20 Hz
Ambient Range	20,000 nT – 100,000 nT
Sampling Rate	20 Hz
Fiducial Precision	20 Hz

Fluxgate Magnetometer	Billingsley TFM100G2 triaxle fluxgate magnetometer
Sensitivity	100 μ V/nT
Absolute Accuracy	\pm 0.75% of full scale (0.5% typical)
Noise Envelope	20 picoTesla RMS/ Hz @1 Hz

Acquisition System	GeoResults ZDAS
Fiducial Precision	20 Hz

Navigation	Novatel OEM-V1 (Internal of ZDAS)
DGPS	L1 Omnistar VBS

Base GPS	Not required when using L1 Omnistar VBS
Horizontal Position	Typical < 1 meter
Vertical Position	Typical <3 meters
Sampling Rate	2 Hz
Fiducial Precision	0.05 s

Airborne Spectrometer	Radiation Solutions RSX-4 (x2)
Channels	1024
Downward detector volume	33 L in Total
Dead time	Effectively zero @ 1hz
Peak Resolution (208TI 2615 keV)	4% - 5%
NASVD Compatible	Yes
Sampling rate	1 Hz
Recorded Live/Dead time	0.001 sec

Radar Altimeter	Honeywell KRA405B
Operating Range	0 – 2500 feet
Accuracy	3% <500 feet, 5% >500feet
Laser Altimeter	TruSense S200
Operating Range	0 – 2500 feet
Accuracy	0.01 feet

Barometric Altimeter	Setra 296
Accuracy	0.25% Full Scale

Temperature & Humidity Sensor	Vaisala HMD50Y
Temperature Accuracy	0.2°
Humidity Accuracy	2% Relative Humidity

1.4 Survey Equipment Log & Serial Numbers

Total Field Magnetometer	Geometrics G823	S/N: 823247
Magnetometer Counter	Kroum Kmag4	S/N: 114
Fluxgate Magnetometer	Billingsley TFM1000G2	S/N: 904
Acquisition System	GeoResults ZDAS	S/N: Z101
Navigation	Novatel OEM-V1	S/N: 784822
Airborne Spectrometer #1	Radiation Solutions RSX-4	S/N: 5457
Airborne Spectrometer #2	Radiation Solutions RSX-4	S/N: 5458
Radar Altimeter	Honeywell KRA405B	S/N: 07651
Laser Altimeter	TruSense S200	S/N: 107476
Barometric Altimeter	Setra 296	S/N: 632722
Temperature & Humidity Sensor	Vaisala HMD50Y	S/N: C4232055
Base station diurnal monitor	Geometrics G823 GeoResults Diurnal Recorder	S/N: 823240 S/N: G101

- There was no equipment replaced or repairs carried out during the survey acquisition.

1.5 Data Acquisition Recording Parameters

GPS 3D Position	2 Hz
Fiducial Precision	20 Hz

Magnetometer Sampling rate	20 Hz
Radiometrics Sample rate	1 Hz

1.6 Survey Personnel

Paul Rogerson	Director, Survey Operations Manager
Billy Batjargal	Offsite data processor
John Zampieri	Offsite data processor
Timothy Hetherington	Technical, Offsite crew leader
Lachlan Bell	Field Operator
Michael Anderson	Field Operator
Andrew Langmead	Survey Pilot
David Sims	Survey Pilot
Gareth Henry	Survey Pilot
Hamish Johns	Survey Pilot
Terry Miller	Survey Pilot
Anthony Nixon	Survey Pilot

1.7 Base Station Diurnal Monitoring

Geometrics 823 Total Field Magnetometer	Primary diurnal recorder used for all data processing.
GeoResults Diurnal recorder with GPS sync	
Sampling Rate	1 Hz
Location	Lat: -29.035640 Lon: 134.721318

Geometrics 857 Total Field Magnetometer	Secondary diurnal recorder used for monitoring conditions.
Sampling Rate	0.2 Hz
Location	Lat: -29.036338 Lon: 134.721834

1.8 GPS Base Station Information

No GPS Base station is required when using L1 Omnistar VBS.

1.9 GPS System Accuracy

Ground calibrations are performed prior to all survey flights. The survey aircraft is parked in the same position and that position is recorded as per Schedule 3 S1.5 (e) (iii).

- Individual positions are tabulated in the Ground calibration table later this document.

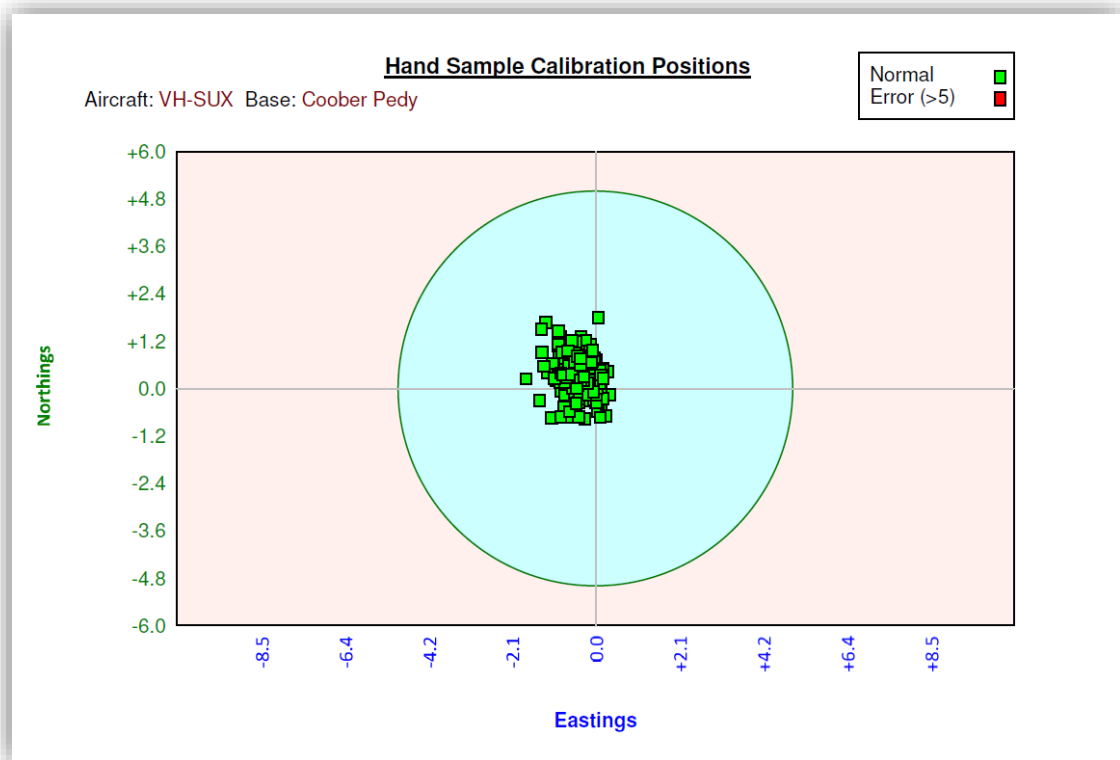


Figure 5. Daily GPS Position

2. Pre-Survey Calibrations

2.1 Altimeter Linearity Test Results

Altimeter linearity tests were carried out at Whyalla Airport on 15th February 2017. This involved a series of stacked survey lines beside the Whyalla runway. The results are tabled below as per Schedule 3 S1.6 (b)

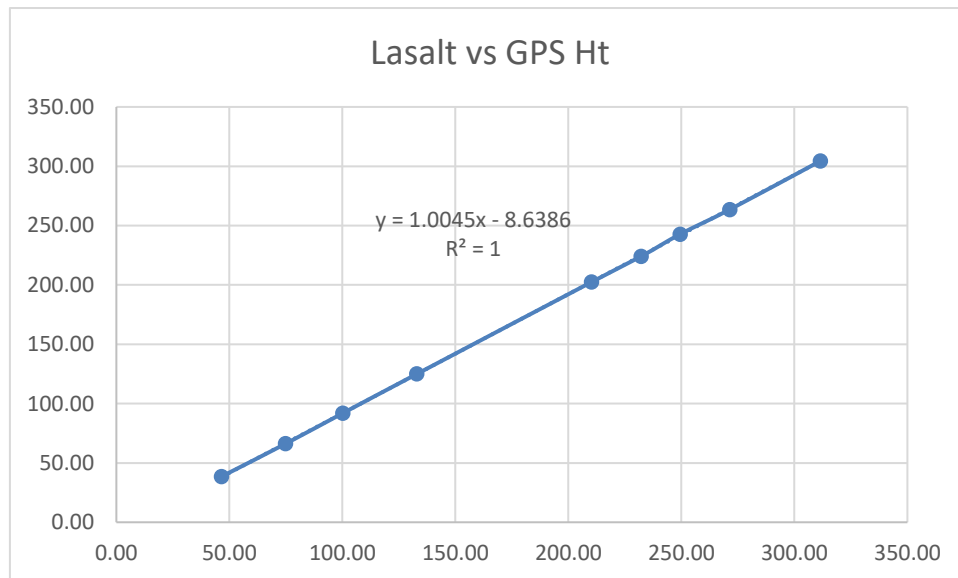
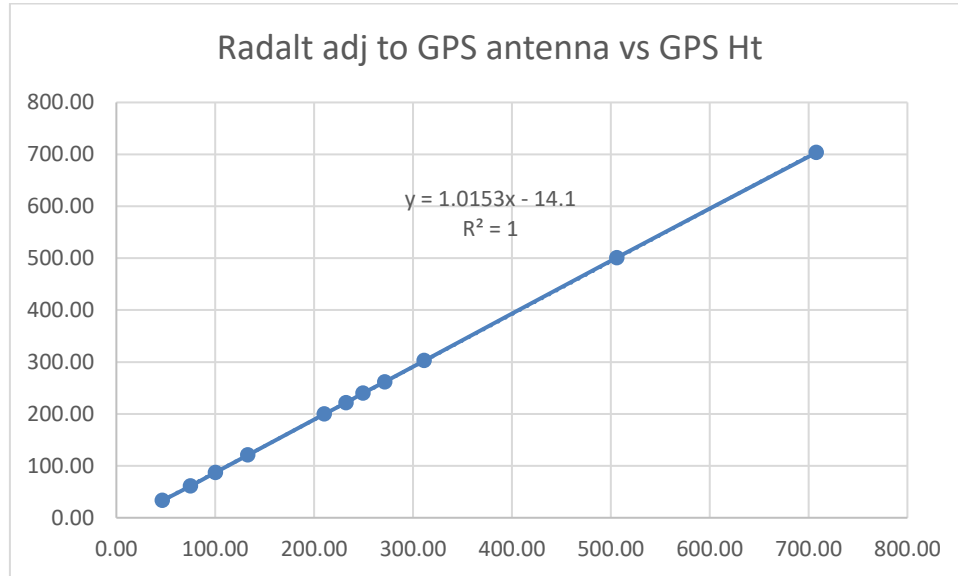
- Average height of Whyalla Airstrip at Aircraft GPS antenna: 12.50 (MASL)

GPSHt	Press	RadAlt	RadAlt adj to GPS	LasAlt
46.62	999.09	32.09	33.22	38.61
74.93	995.85	59.86	60.99	66.24
100.26	992.59	86.18	87.31	91.99
132.98	990.12	119.61	120.74	125.00
210.33	981.99	198.52	199.65	202.53
232.23	979.08	220.42	221.55	224.13
249.55	977.95	238.92	240.05	242.86
271.46	975.51	260.74	261.87	263.61
311.49	970.34	301.50	302.63	304.41
506.11	949.62	499.95	501.08	-
707.94	929.51	702.22	703.35	-

Table 2. Altimeter Linearity Test Results

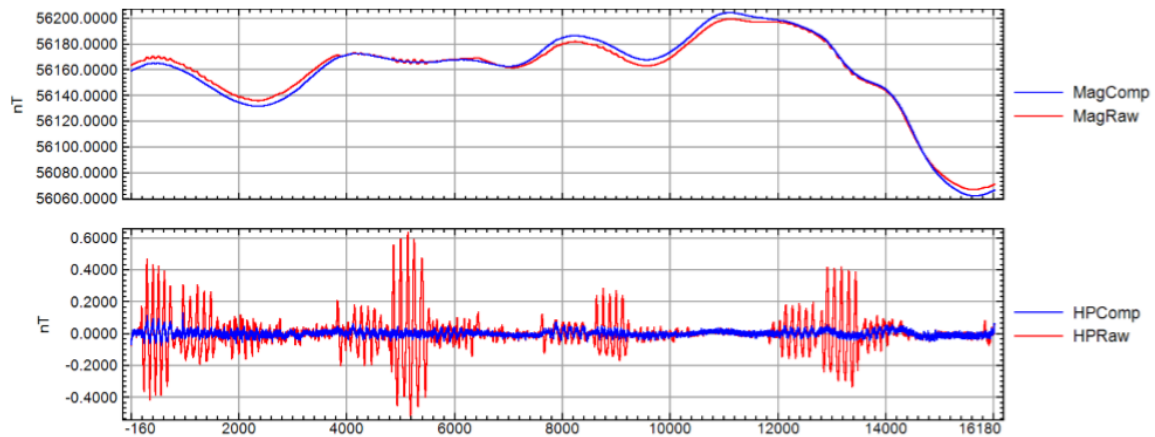


Figure 6. Whyalla Airport Map



2.2 Magnetometer Manoeuvre Noise Tests

Magnetometer Manoeuvre Noise Tests were carried out at Nullarbor Airport on 18th September 2017. This involved flying a series of survey lines at 10,000 feet on magnetic cardinal headings. The aircraft performed pitch, roll and yaw manoeuvres which are recorded and used to calculate a magnetic compensation solution. The results are tabled and graphed below as per Schedule 3 S1.9 (k)



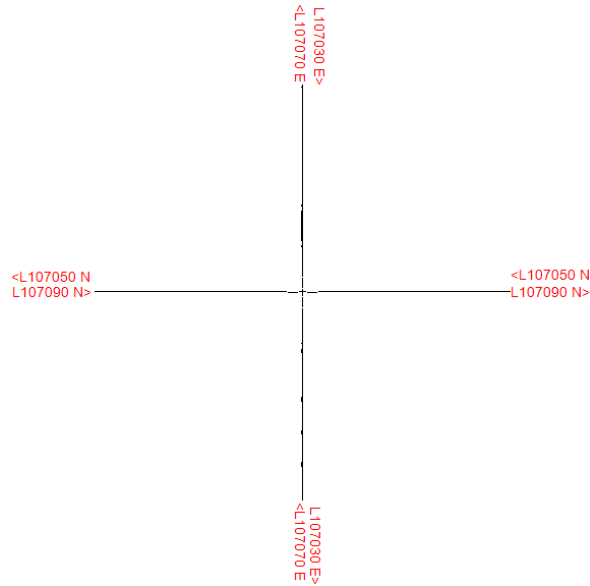
Direction	Pitch	Roll	Yaw	FOM
090	0.0846	0.0931	0.0967	
000	0.1849	0.1678	0.1033	
270	0.1005	0.0882	0.1035	
180	0.1202	0.0915	0.0595	
				1.2938

Table 3. Magnetometer Manoeuvre Noise Test Results

- Magnetometer Manoeuvre Noise Tests were repeated throughout the survey acquisition period after each aircraft maintenance.

2.3 Magnetometer Heading Error Test

Magnetometer Heading Error Tests were carried out at Nullarbor Airport on 10th May 2017. This involved flying a series of bi-directional survey lines at 10,000 feet on magnetic cardinal headings and in between magnetic cardinal headings. The results are tabled below as per Schedule 3 S1.9 (I)



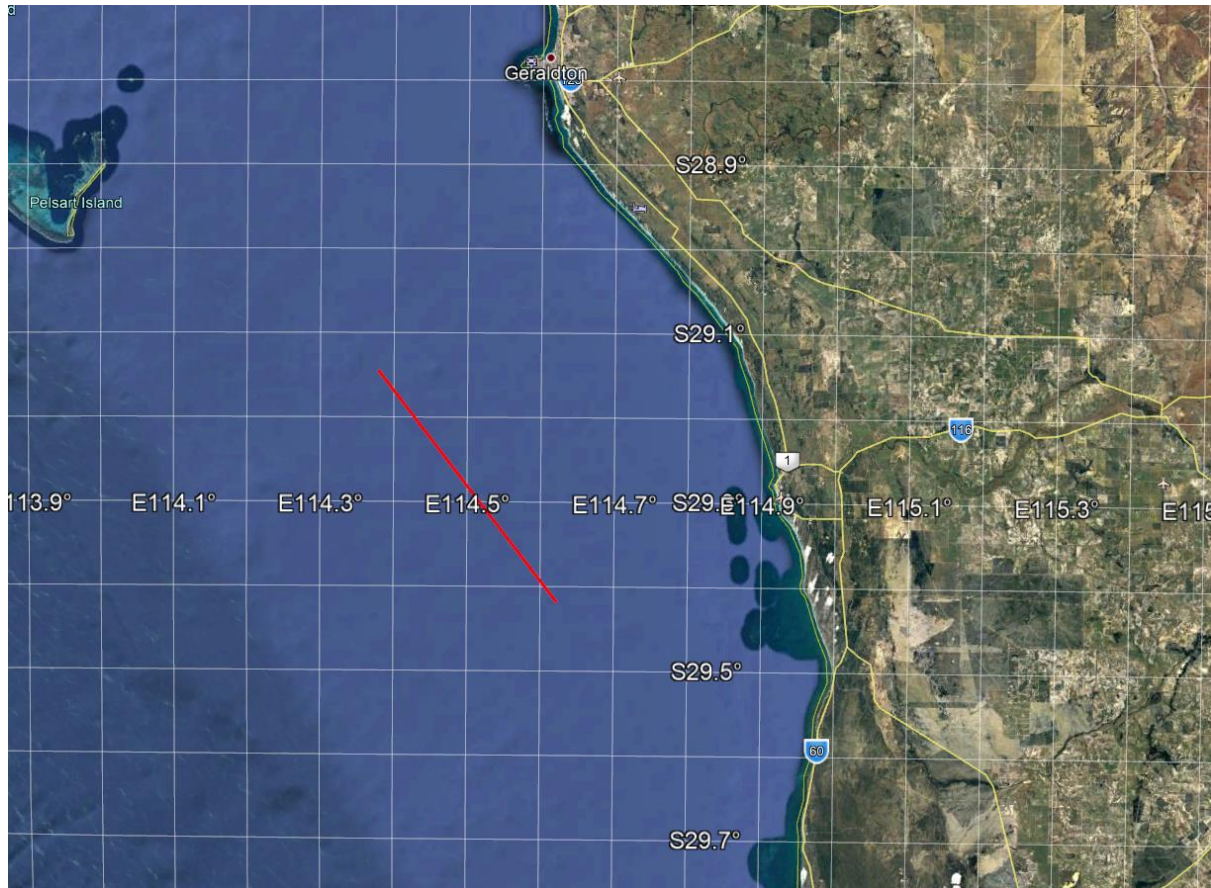
Heading (deg)	Easting of cross over point (m). MGA53	Northing of cross over point (m) MGA53	Raw magnetics value at cross over (nT)	Compensated magnetics value at cross over (nT)	Compensated and diurnal variation removed magnetics value at cross over point (nT)	Heading error Magnetics value difference of opposite headings at cross over point (nT)
000	682718.1	6524824.8	58312.0123	58307.2115	58308.1961	
180	682714.9	6524823.0	58306.4831	58309.2866	58309.1526	<u>-0.9565</u>
090	682714.7	6524824.3	58310.9493	58308.8377	58309.5034	
270	682714.9	6524825.1	58307.2505	58308.7840	58307.6430	<u>1.8604</u>

Table 4. Magnetometer Heading Error Test Results

2.4 Gamma-ray Spectrometer Calibrations

Details of Cosmic and Aircraft background calibration

The survey aircraft was flown over the ocean off the coast of Western Australia on 12th February 2019. Stacked survey lines were flown at various heights between 197 feet and 10,000 feet above sea level. The results are tabled and graphed below as per Schedule 3 S1.12 (g)



Location of the cosmic and aircraft background test flight

Line	Cosmic	GPSht	TC	K	U	Th
104040	221.629	1250.5	294.222	30.353	10.475	12.07
104050	243.572	1500.65	315.53	31.348	11.49	13.471
104060	271.659	1749.61	343.543	32.782	13.025	14.926
104070	302.248	2001.57	375.091	34.465	14.477	16.936
104080	338.416	2250.43	414.503	36.688	16.356	18.98
104090	377.876	2500.3	458.473	39	17.975	21.566
104100	419.673	2750.26	512.999	41.945	20.632	24.722
104110	473.632	3000.11	571.59	45.134	23.114	27.653
Aircraft background			43.496	16.782	0.000	0.000
Cosmic background			1.109	0.059	0.05	0.063

Table 5. Cosmic and Aircraft Background Flight Data

Cosmic stack result

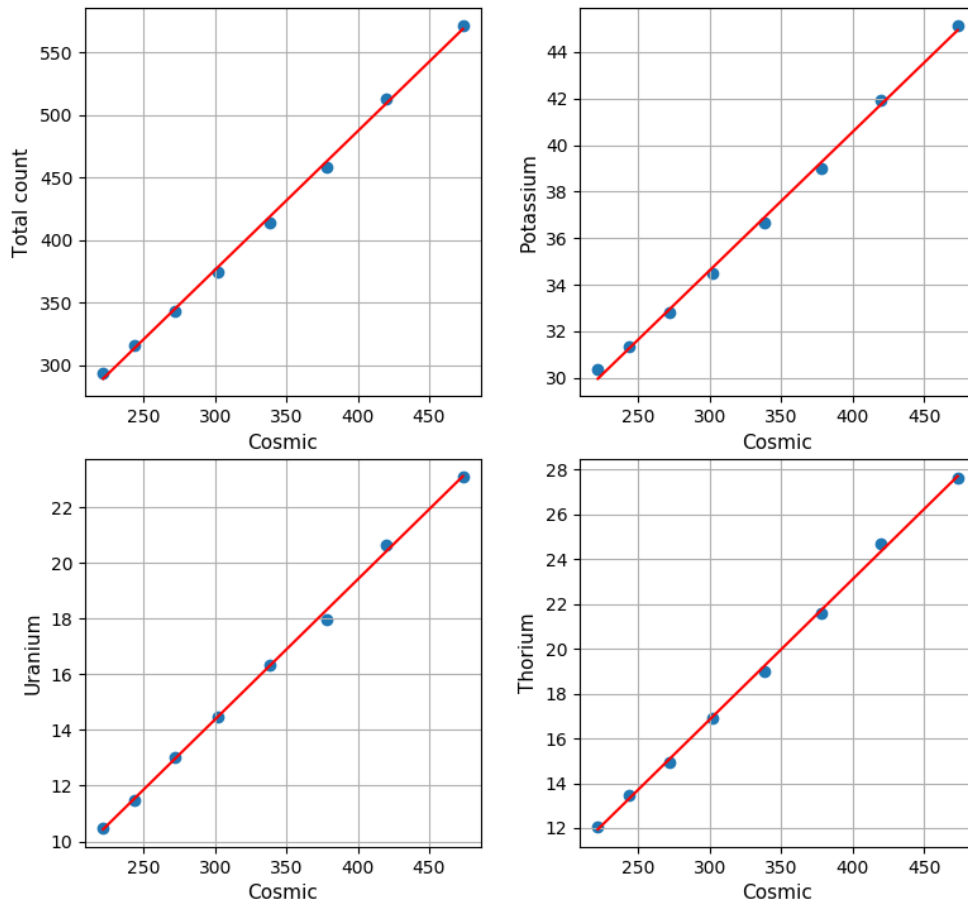


Figure 7. Gamma-ray Spectrometer Calibration Results

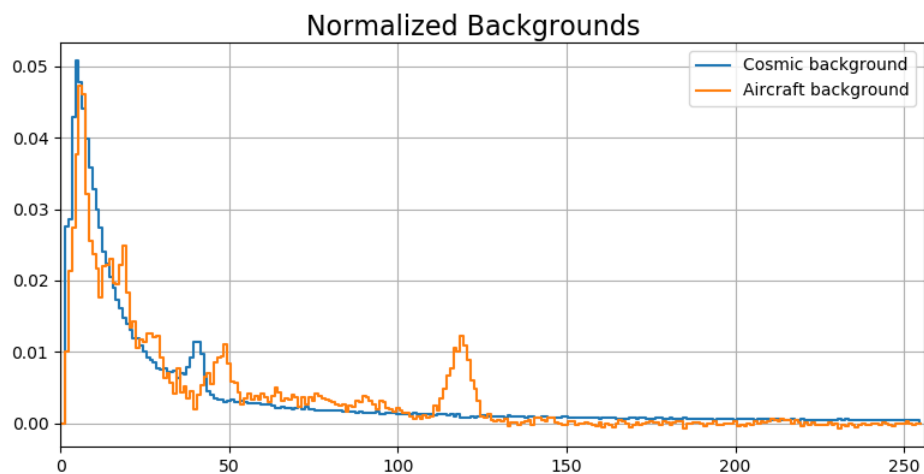


Figure 8. Normalized Backgrounds

2.5 Stripping Ratios from Calibration Pads

On 9th February 2019, the survey aircraft was parked in an undisturbed level position at Northam airport. The survey equipment was powered on and left for 120 minutes to temperature stabilise. Radiometric calibration pads were placed centred under each airborne spectrometer installed into the survey aircraft. Data was recorded and the following values were calculated and used as stripping ratios for the processing of the acquired radiometric survey data. The results are tabled below as per Schedule 3 S1.12 (l)

Aircraft	Detector #	Alpha	Beta	Gamma	a
VH-SUX	5457	0.300	0.447	0.783	0.039
	5458	0.301	0.447	0.791	0.045
	Average	0.300	0.447	0.787	0.042

Table 6. Gamma-ray Spectrometer Stripping Ratio Results.

- The reverse stripping ratios were adopted from theoretical physical constants. Note that the reverse stripping ratios 'b' and 'g' are not used in the processing.

2.6 System Sensitivities & Height Attenuation Co-efficient

On February 13th, 2019, the survey aircraft flew a series of stacked survey lines over the Carnamah Radiometric test range. An Exploranium GR320 handheld spectrometer was used to collect required samples at each point along the test range on the same day the survey aircraft flew. Series of stacked lines flown at the corresponding altitudes over Lake Yarra-Yarra was used as background measurement for the calculation.

The Aircraft and Cosmic Background values are for the windows only. During processing the equivalent 256 channel aircraft and cosmic backgrounds are removed.

The reference values of the height attenuation coefficients were determined from communication with Dr. Jens Hovgaard. These values are based on his testing and IAEA values. These ratios are determined by the natural laws of radiometric attenuation, so one set of ratios was used for the survey. The results are tabled below as per Schedule 3 S1.12 (n)

STP height	TC	K	U	Th
27.26	6544.46	614.43	146.50	291.24
50.70	5413.01	494.51	123.20	240.98
76.49	4452.72	391.68	102.85	198.61
102.15	3672.17	315.74	86.76	165.05
126.25	3072.51	255.95	71.94	137.95
152.17	2547.37	204.80	60.82	114.94
176.06	2180.07	174.09	52.45	98.66
203.69	1810.61	142.37	45.88	82.09
225.31	1556.69	118.87	39.81	69.91
253.69	1308.36	97.80	33.20	58.08

Table 7. Carnamah Range Test Data

Window	TC	K %	eU ppm	eTh ppm
Ground concentration Historic dry average	155.34	3.11	4.05	36.76
Ground concentration Measured on the day	156.47	3.38	4.16	35.55

Table 8. Carnamah Range Ground Concentration (Historic dry average concentration)

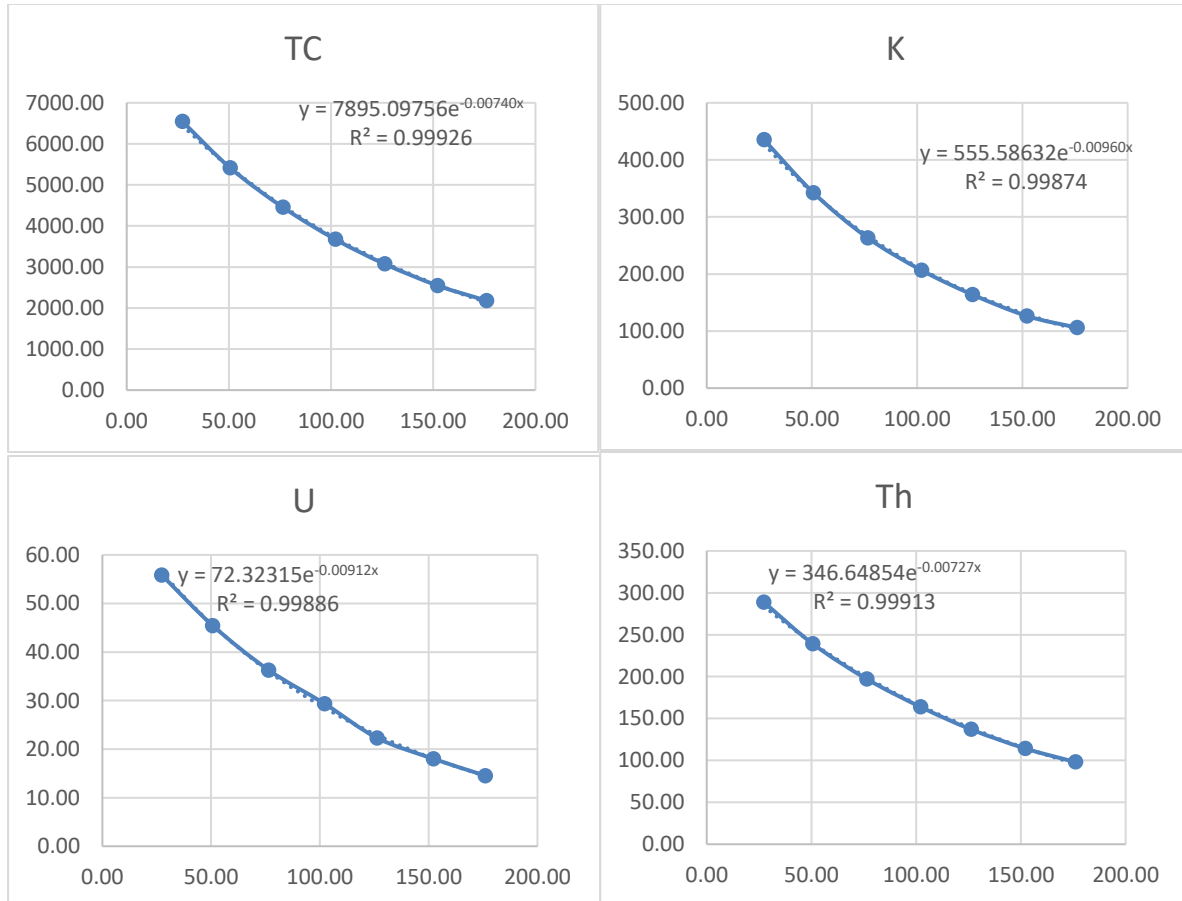


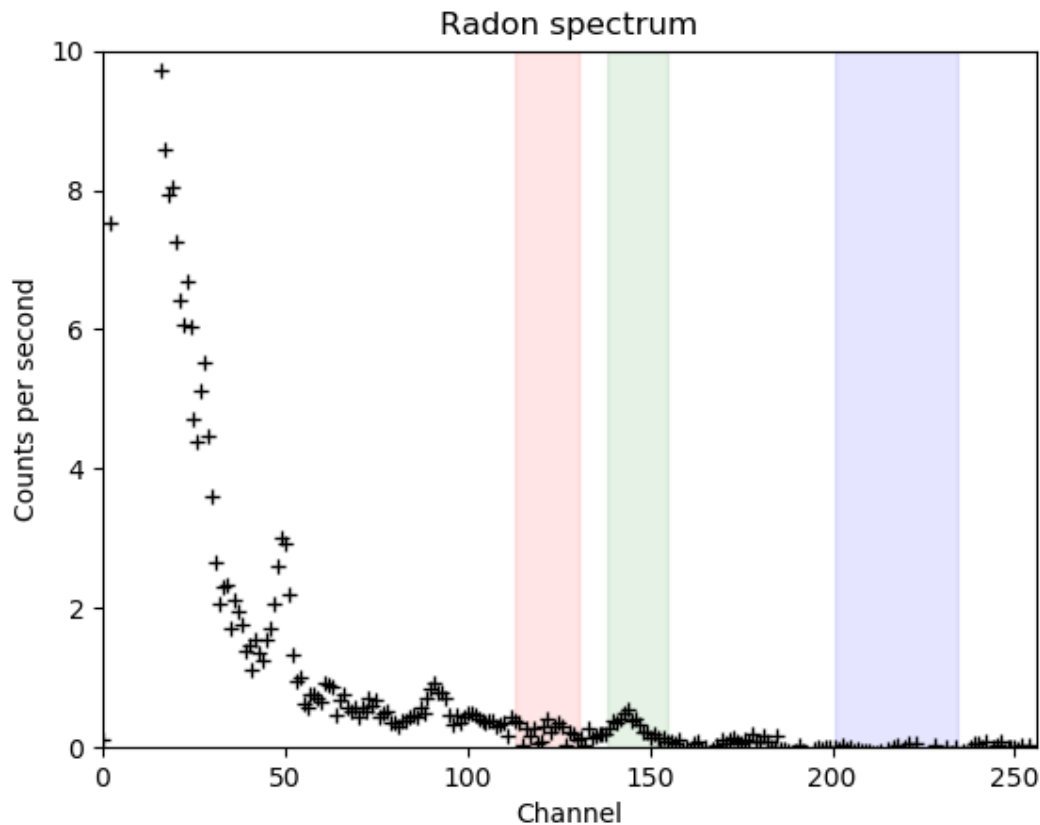
Figure 9: Attenuation Test Plots

Coefficient	Total Count	Potassium	Uranium	Thorium
Height attenuation test result	0.0074	0.0096	0.0091	0.0073
Height attenuation reference values	0.0074	0.0094	0.0084	0.0074
Sensitivity at 60m	32.76	137.51	28.08	6.43

Table 9. Gamma-ray Spectrometer Height Attenuation Coefficients

2.7 Radon spectrum

Following Radon spectrum was calculated by subtracting aircraft and cosmic background values from a survey level test line spectrum in the presence of atmospheric Radon. The test flight was performed over lake Yarra-Yarra in WA.



2.8 Results of Thorium Tests before & after Calibrations

- Thorium source tests were carried out before & after each calibration. The results are tabled below as per Schedule 3 S1.12 (p)

	Position			Hand Sample				Background				Normalized				Th Cal Results	
Date	Easting	Northing	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Th	ThPeak	%FWHM
09/06/2017	470668.28	6500570.23	152.23	15048.6	851.6	459.2	760.0	8992.3	671.6	314.0	348.2	6056.3	180.0	145.2	411.80	217.66	4.24
09/06/2017	470668.47	6500569.70	152.78	14870.2	839.8	447.7	761.9	8860.1	663.3	304.4	351.6	6009.9	176.5	143.3	410.3	217.76	4.20

Table 10. Th source test carried out at Northam Airport before & after radiometric pad calibration.

	Position			Hand Sample				Background				Normalized				Th Cal Results	
Date	Easting	Northing	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Th	ThPeak	%FWHM
10/06/2017	470661.30	6500575.80	152.96	13488.2	792.4	396.3	674.0	7089.6	593.4	235.6	255.6	6398.6	199.0	160.7	418.40	217.60	4.23
10/06/2017	470661.45	6500577.30	153.48	12729.2	764.4	347.3	666.7	6564.4	578.6	199.3	249.5	6164.8	185.8	148.0	417.2	217.56	4.21

Table 11. Th source test carried out at Northam Airport before & after Carnamah test range.

- A thorium source test was carried out before conducting the first survey flight at the project base location. The result is tabled below as per Schedule 3 S1.12 (q)

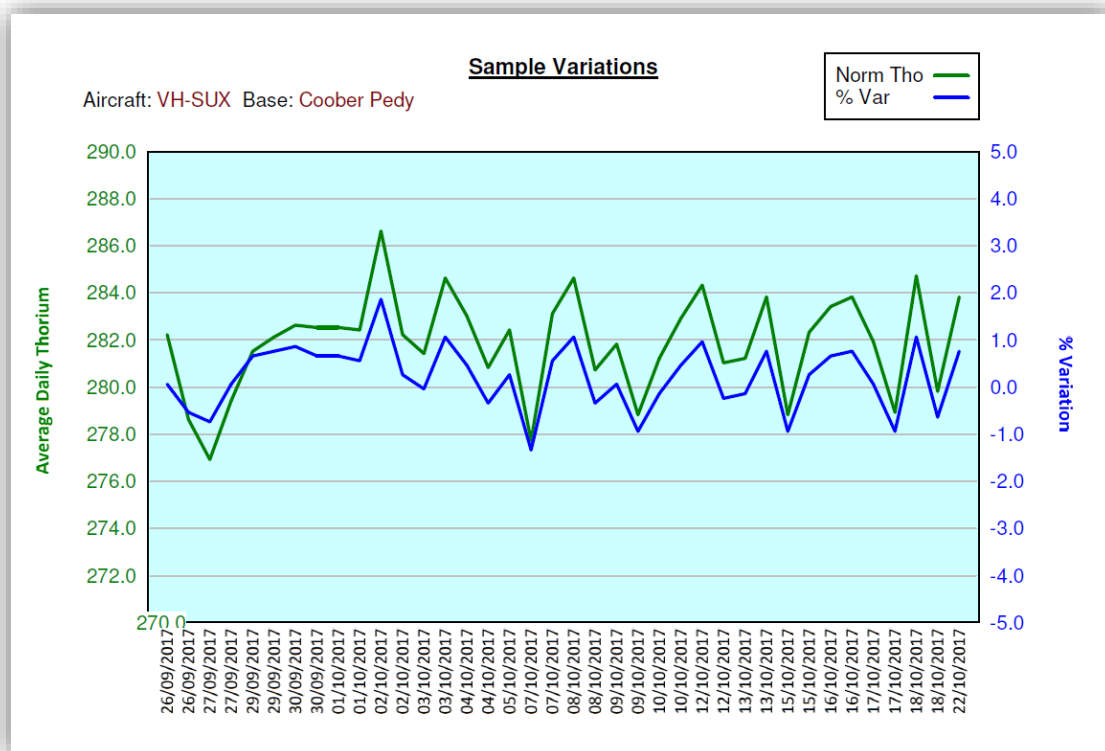
	Position			Hand Sample				Background				Normalized				Th Cal Results	
Date	Easting	Northing	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Th	ThPeak	%FWHM
19/09/2017	473206.70	6788146.09	227.7	8647.2	467.8	206.7	502.6	2643.0	285.9	63.9	93.7	6004.2	181.9	142.8	408.9	217.68	4.24

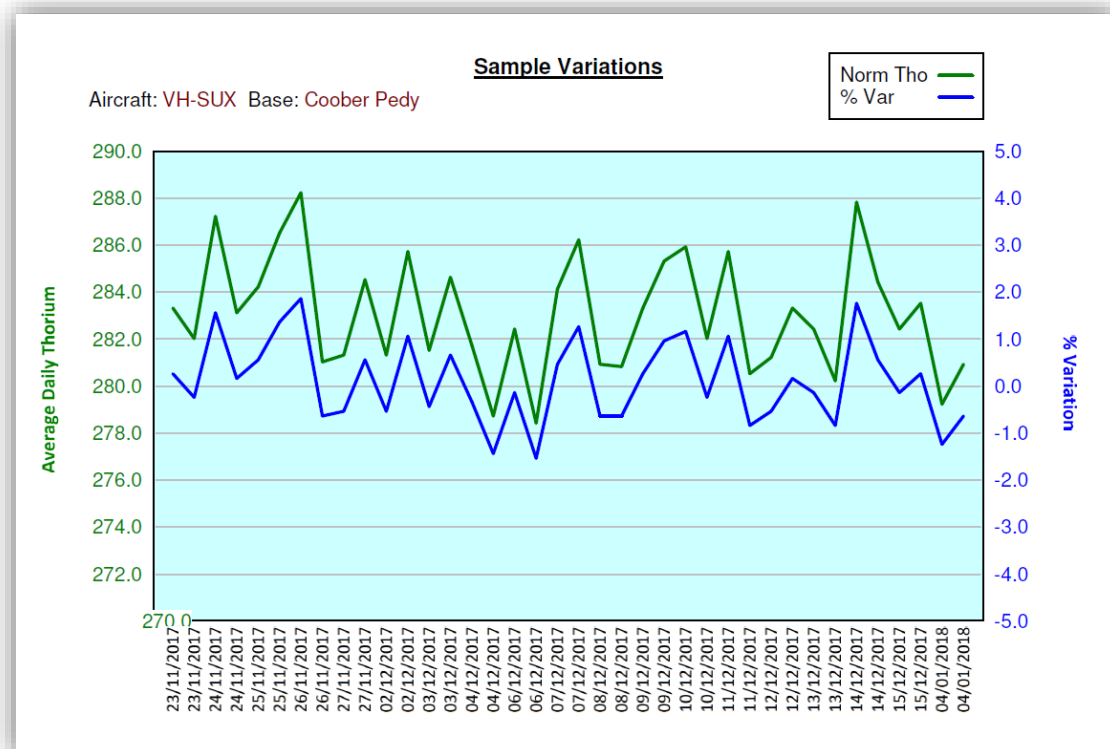
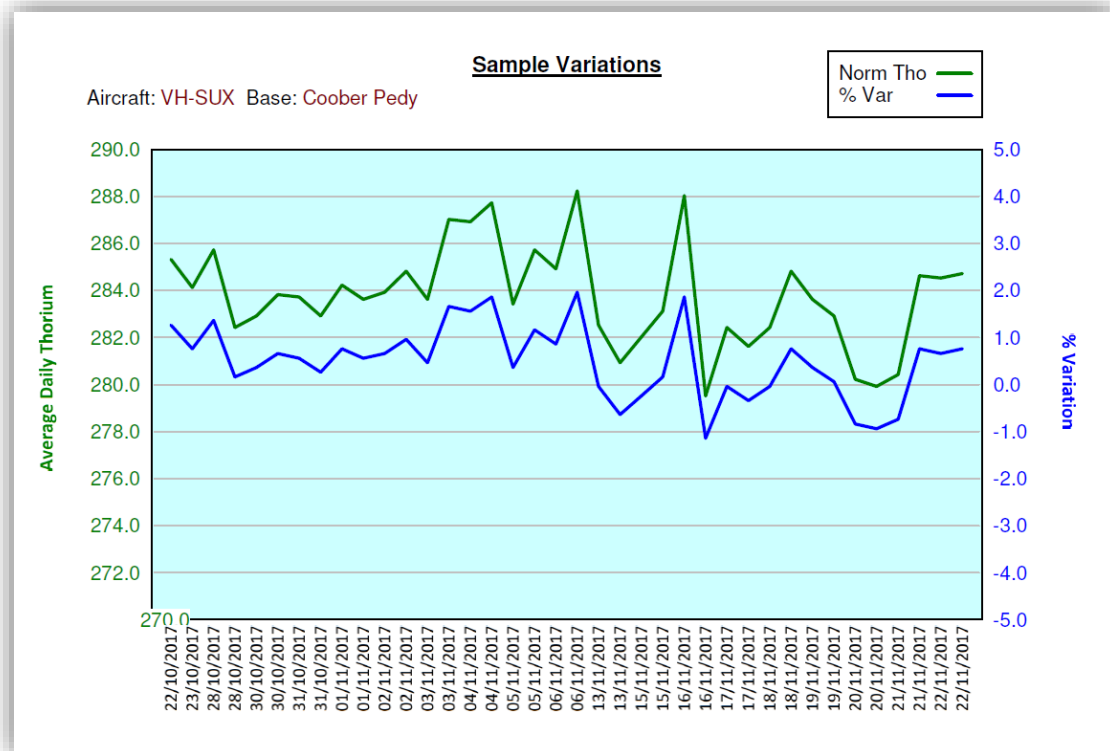
Table 12. Th source test carried out at Coober Pedy Airport prior to survey commencement.

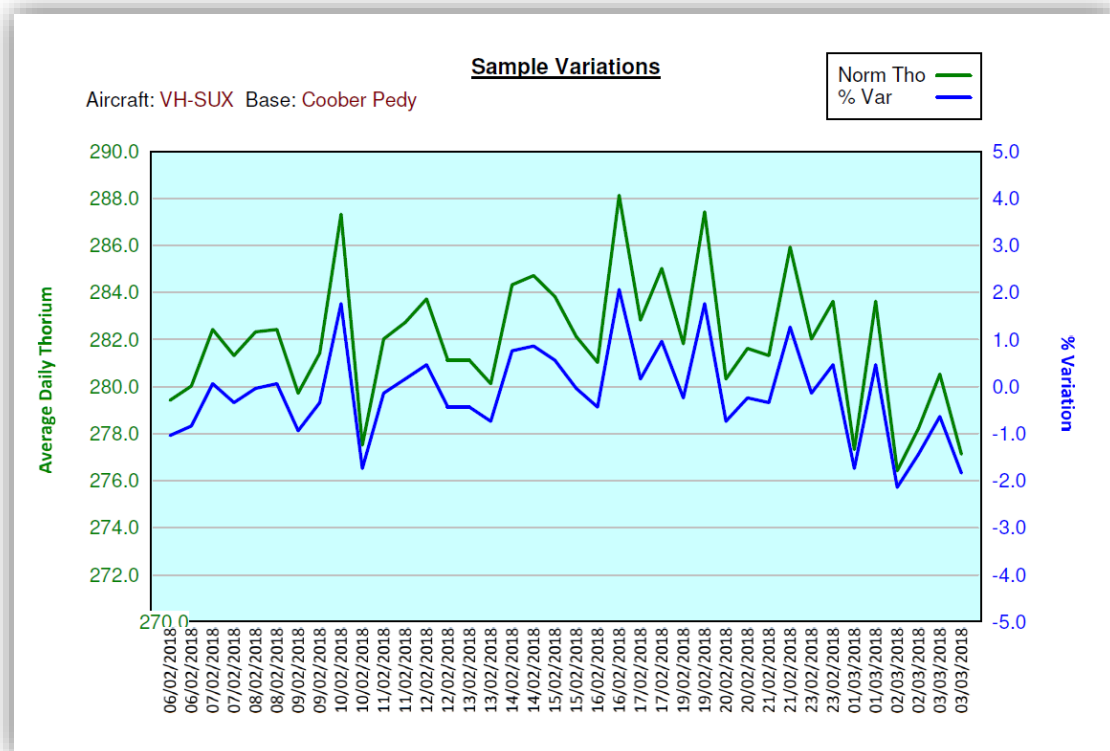
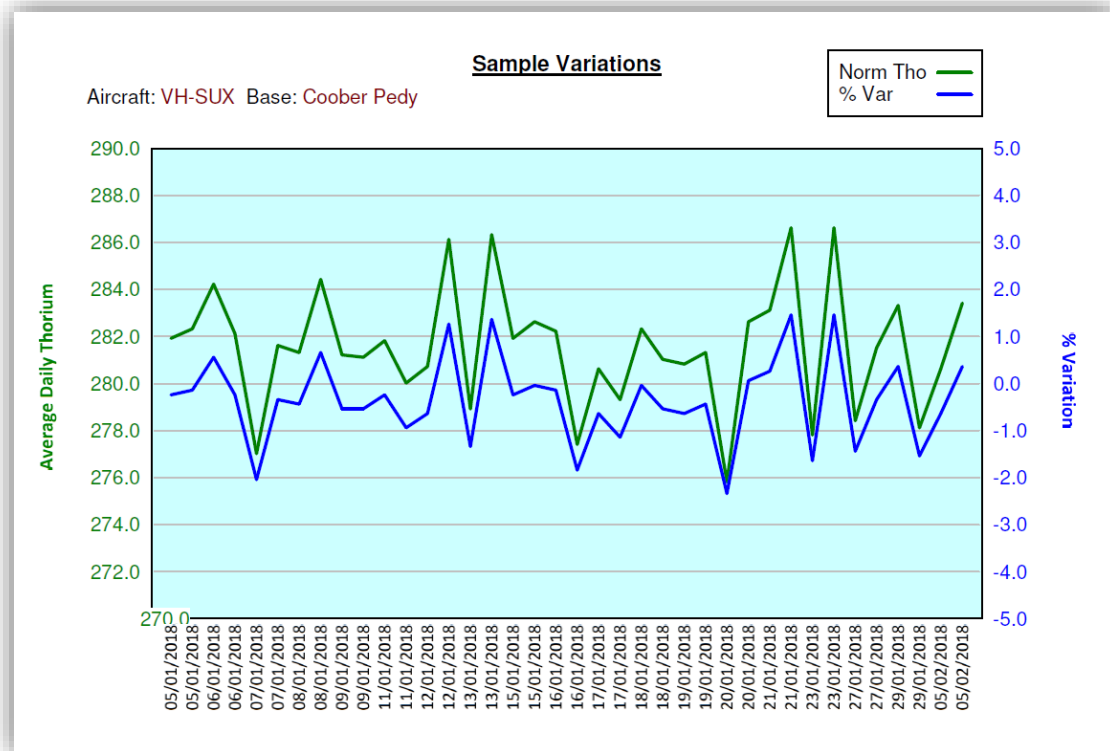
3. In-Field Data Quality Control

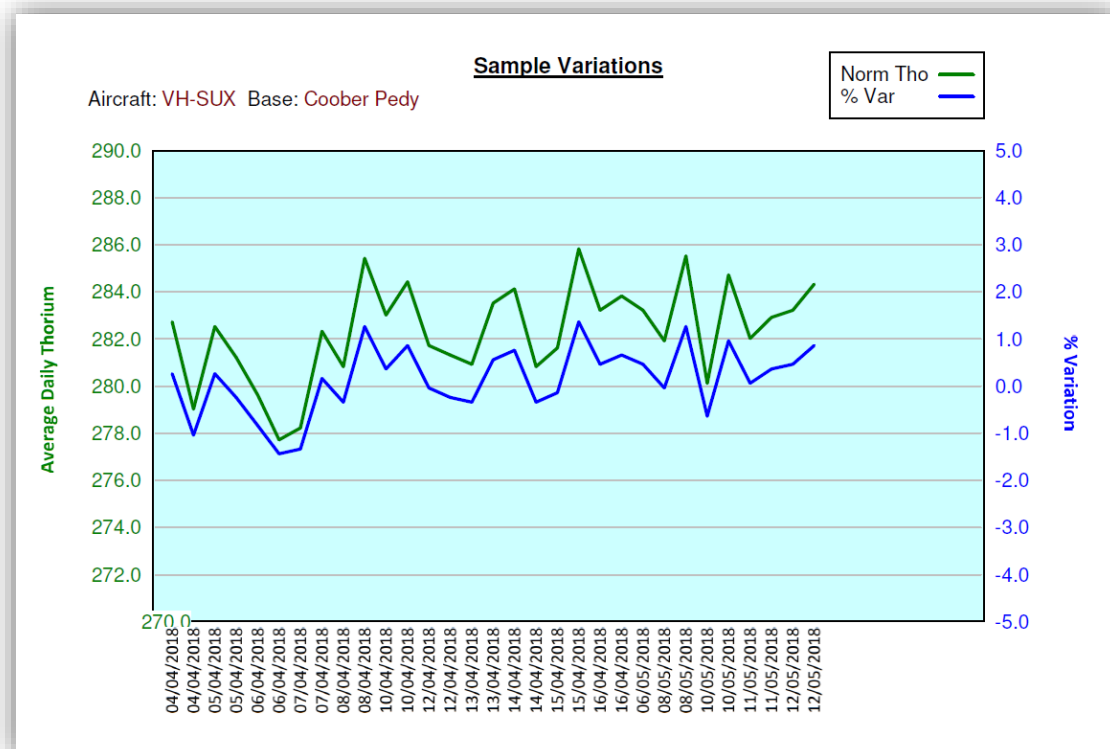
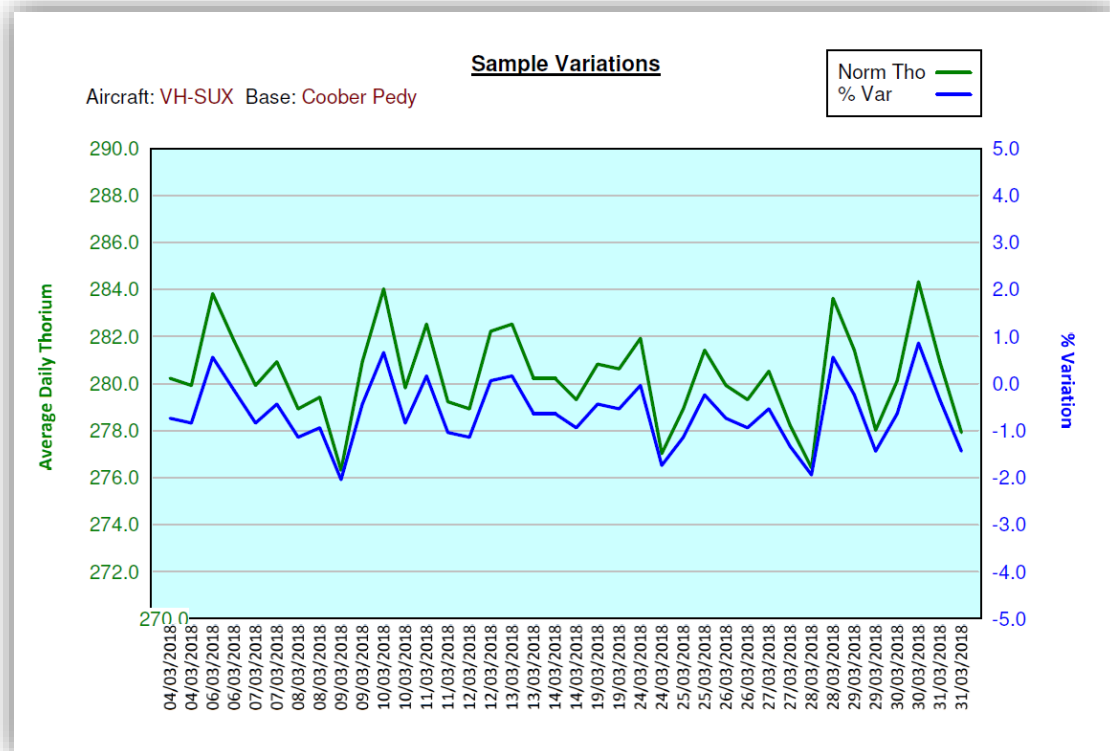
3.1 Daily Gamma Ray Spectrometer Tests

Thorium source tests were carried out before the day's first survey flight and after the day's last survey flight. The results are graphed and tabled below as per Schedule 3 S1.12 (r) & Schedule 3 S1.12 (s)









Av Normalized Th: 282.0 Min TH: 275.7 Max TH: 288.1 Standard Deviation: 2.5

Ground Cals - VH-SUX - Coober Pedy																				
		Position			Hand Sample				Background				Normalized				Th Cal Results		TH Chg	Diff
Date	Flt	East	North	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	ThPeak	% FWHM	±/- %	5 max
26/09/2017	1	473191.94	6788132.22	228.3	6938.5	418.6	172.1	377.9	2774.2	293.6	71.9	95.8	4164.3	125.0	100.2	282.1	217.63	4.50	0.0	0.0
26/09/2017	3	473191.64	6788131.92	228.2	6849.3	415.3	164.2	375.7	2715.7	290.5	66.1	97.2	4133.6	124.8	98.1	278.5	217.65	4.63	-0.6	0.4
27/09/2017	4	473192.24	6788132.67	227.5	6887.6	416.1	167.4	373.2	2744.0	294.9	68.3	96.4	4143.6	121.2	99.1	276.8	217.46	4.42	-0.8	0.5
27/09/2017	6	473191.10	6788132.45	228.0	6964.0	421.0	174.6	375.9	2817.3	296.5	74.9	96.6	4146.7	124.5	99.7	279.3	217.63	4.45	0.0	0.9
29/09/2017	8	473191.42	6788132.72	227.7	6885.8	420.9	165.5	377.7	2736.1	291.2	66.0	96.3	4149.7	129.7	99.5	281.4	217.63	4.46	0.6	0.7
29/09/2017	8	473191.64	6788132.55	226.2	7030.4	426.6	178.1	379.3	2909.7	299.3	80.1	97.3	4120.7	127.3	98.0	282.0	217.63	4.46	0.7	0.4
30/09/2017	9	473192.07	6788131.80	227.3	6792.6	402.4	164.7	373.6	2632.9	278.3	66.1	91.1	4159.7	124.1	98.6	282.5	217.64	4.47	0.8	0.4
30/09/2017	9	473192.28	6788132.08	227.8	6846.3	412.0	168.8	375.0	2671.9	281.8	69.4	92.6	4174.4	130.2	99.4	282.4	217.64	4.47	0.6	0.4
01/10/2017	10	473191.55	6788132.09	228.5	6814.1	410.0	167.9	374.0	2631.4	278.5	66.0	91.6	4182.7	131.5	101.9	282.4	217.59	4.38	0.6	0.4
01/10/2017	11	473191.93	6788131.89	227.8	6799.2	409.1	163.7	376.6	2634.1	281.1	66.1	94.3	4165.1	128.0	97.6	282.3	217.62	4.56	0.5	0.3
02/10/2017	12	473191.64	6788131.47	226.8	6844.1	411.4	167.3	380.3	2693.4	285.9	68.0	93.8	4150.7	125.5	99.3	286.5	217.53	4.49	1.8	0.8
02/10/2017	13	473191.36	6788132.12	227.8	6854.7	410.0	170.5	377.2	2704.7	287.7	68.1	95.1	4150.0	122.3	102.4	282.1	217.67	4.28	0.2	0.6
03/10/2017	14	473191.94	6788131.89	225.9	6868.6	415.8	168.8	374.9	2688.3	288.1	67.4	93.6	4180.3	127.7	101.4	281.3	217.66	4.41	-0.1	0.3
03/10/2017	14	473191.94	6788132.02	226.9	6869.6	413.4	168.3	378.3	2685.5	285.9	67.1	93.8	4184.1	127.5	101.2	284.5	217.66	4.41	1.0	0.2
04/10/2017	15	473191.98	6788131.66	224.5	6964.6	417.9	175.2	378.8	2797.1	291.9	73.9	95.9	4167.5	126.0	101.3	282.9	217.61	4.39	0.4	0.6
04/10/2017	15	473191.80	6788132.08	227.1	6966.6	419.7	173.7	378.2	2779.0	292.9	73.8	97.5	4187.6	126.8	99.9	280.7	217.61	4.39	-0.4	0.2
05/10/2017	16	473191.47	6788132.37	228.0	6832.0	413.6	165.1	375.7	2678.8	286.8	67.4	93.4	4153.2	126.8	97.7	282.3	217.67	4.33	0.2	0.5
07/10/2017	17	473191.56	6788132.25	227.4	6889.6	414.4	169.6	372.9	2716.0	285.5	70.3	95.3	4173.6	128.9	99.3	277.6	217.74	4.55	-1.4	0.4
07/10/2017	18	473191.50	6788131.98	227.8	6906.8	414.4	173.4	376.3	2698.6	284.4	68.3	93.3	4208.2	130.0	105.1	283.0	217.71	4.47	0.5	0.5
08/10/2017	19	473190.81	6788131.49	227.3	6823.6	411.4	165.9	376.7	2640.0	281.6	65.2	92.2	4183.6	129.8	100.7	284.5	217.57	4.51	1.0	1.3
08/10/2017	19	473191.12	6788131.77	228.0	6812.8	409.5	167.2	374.1	2641.4	282.9	66.0	93.5	4171.4	126.6	101.2	280.6	217.57	4.51	-0.4	0.9
09/10/2017	20	473191.04	6788131.52	227.1	6793.4	409.1	164.1	374.4	2627.7	280.1	64.7	92.7	4165.7	129.0	99.4	281.7	217.54	4.59	0.0	1.1
09/10/2017	21	473191.50	6788132.52	227.5	6850.2	414.6	165.3	376.6	2702.6	290.4	67.8	97.9	4147.6	124.2	97.5	278.7	217.65	4.33	-1.0	0.5
10/10/2017	22	473191.37	6788132.29	228.0	6908.9	418.4	171.2	377.2	2732.7	286.2	70.9	96.1	4176.2	132.2	100.3	281.1	217.71	4.48	-0.2	0.6
10/10/2017	22	473191.37	6788132.39	227.1	6896.1	414.5	169.1	378.5	2743.5	287.9	71.6	95.7	4152.6	126.6	97.5	282.8	217.71	4.48	0.4	0.6
12/10/2017	23	473191.47	6788132.86	226.9	6777.7	407.5	163.9	377.3	2626.4	282.2	64.4	93.1	4151.3	125.3	99.5	284.2	217.55	4.28	0.9	0.8
12/10/2017	23	473191.31	6788132.14	226.6	6814.7	411.4	163.4	376.0	2639.9	282.9	64.1	95.1	4174.8	128.5	99.3	280.9	217.55	4.28	-0.3	0.6
13/10/2017	24	473191.05	6788132.18	224.9	6872.2	418.0	168.2	376.5	2720.9	285.8	68.0	95.4	4151.3	132.2	100.2	281.1	217.52	4.42	-0.2	0.9
13/10/2017	25	473191.43	6788132.63	227.0	6858.5	411.6	167.3	378.1	2675.8	290.1	65.5	94.4	4182.7	121.5	101.8	283.7	217.65	4.47	0.7	0.7
15/10/2017	26	473191.41	6788132.47	226.4	6882.5	420.2	169.3	373.5	2730.7	291.8	69.9	94.8	4151.8	128.4	99.4	278.7	217.66	4.37	-1.0	0.6
15/10/2017	26	473191.35	6788132.62	227.2	6855.7	415.9	166.9	377.1	2686.2	287.3	66.5	94.9	4169.5	128.6	100.4	282.2	217.66	4.37	0.2	0.7
16/10/2017	27	473191.49	6788132.63	227.2	6873.7	416.9	164.9	379.5	2709.9	288.9	67.1	96.2	4163.8	128.0	97.8	283.3	217.62	4.42	0.6	0.6
16/10/2017	27	473190.91	6788132.46	223.7	6918.2	418.1	167.5	379.0	2733.7	291.6	69.2	95.3	4184.5	126.5	98.3	283.7	217.62	4.42	0.7	1.1
17/10/2017	28	473191.21	6788132.21	225.4	6923.8	420.3	170.5	378.4	2753.1	293.2	69.7	96.6	4170.7	127.1	100.8	281.8	217.60	4.45	0.0	0.7

Av Normalized Th: 282.0 Min TH: 275.7 Max TH: 288.1 Standard Deviation: 2.5

Ground Cals - VH-SUX - Coober Pedy																				
		Position			Hand Sample				Background				Normalized				Th Cal Results		TH Chg	Diff
Date	Flt	East	North	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	ThPeak	% FWHM	+/- 3%	5 max
17/10/2017	28	473191.31	6788131.52	223.2	6859.8	413.2	165.8	375.1	2696.6	292.2	64.9	96.3	4163.2	121.0	100.9	278.8	217.60	4.45	-1.0	0.9
18/10/2017	29	473191.20	6788132.45	227.1	6947.0	421.2	171.9	380.3	2775.4	292.6	70.6	95.7	4171.6	128.6	101.3	284.6	217.67	4.45	1.0	0.8
18/10/2017	30	473191.34	6788132.98	225.6	6938.1	418.5	171.7	376.9	2746.6	293.5	70.0	97.2	4191.5	125.0	101.7	279.7	217.71	4.44	-0.7	1.0
22/10/2017	31	473191.50	6788132.55	227.8	6878.6	420.3	166.8	380.3	2700.7	291.9	65.4	96.6	4177.9	128.4	101.4	283.7	217.66	4.60	0.7	0.6
22/10/2017	31	473191.47	6788132.26	226.5	6852.1	415.5	165.6	377.3	2644.3	287.9	63.6	92.1	4207.8	127.6	102.0	285.2	217.66	4.60	1.2	0.5
23/10/2017	32	473191.41	6788132.38	227.2	6925.7	418.2	168.6	381.8	2757.8	294.1	70.3	97.8	4167.9	124.1	98.3	284.0	217.56	4.60	0.7	0.6
28/10/2017	34	473191.00	6788133.37	226.8	6869.5	413.7	165.1	382.2	2698.7	290.4	65.9	96.6	4170.8	123.3	99.2	285.6	217.59	4.46	1.3	1.5
28/10/2017	35	473191.31	6788132.52	226.0	6883.9	415.5	165.5	378.5	2697.5	292.0	65.2	96.2	4186.4	123.5	100.3	282.3	217.69	4.47	0.1	0.7
30/10/2017	36	473191.49	6788132.58	228.1	6893.1	416.4	165.4	378.0	2673.0	287.9	64.3	95.2	4220.1	128.5	101.1	282.8	217.51	4.46	0.3	0.6
30/10/2017	37	473191.81	6788133.14	226.5	6848.0	417.0	165.6	377.5	2672.5	288.8	64.3	93.8	4175.5	128.2	101.3	283.7	217.77	4.53	0.6	0.9
31/10/2017	38	473191.43	6788133.37	227.4	6893.5	417.9	165.9	380.6	2704.3	292.7	66.0	97.0	4189.2	125.2	99.9	283.6	217.60	4.47	0.5	1.3
31/10/2017	39	473191.53	6788132.22	226.9	6876.9	415.0	166.6	378.9	2694.2	292.2	66.4	96.1	4182.7	122.8	100.2	282.8	217.72	4.58	0.2	0.4
01/11/2017	40	473191.31	6788132.63	227.2	6945.9	426.6	168.4	381.0	2739.9	296.4	68.1	96.9	4206.0	130.2	100.3	284.1	217.47	4.45	0.7	0.8
01/11/2017	41	473192.07	6788132.16	227.3	6936.3	419.1	171.0	381.2	2741.5	294.9	68.4	97.7	4194.8	124.2	102.6	283.5	217.67	4.38	0.5	0.1
02/11/2017	42	473191.65	6788132.45	227.3	6951.2	422.2	169.7	381.6	2778.7	293.2	71.2	97.8	4172.5	129.0	98.5	283.8	217.62	4.40	0.6	0.4
02/11/2017	43	473191.77	6788132.40	226.4	6922.2	419.0	167.8	381.4	2732.2	294.9	68.0	96.7	4190.4	124.1	99.8	284.7	217.67	4.38	0.9	0.2
03/11/2017	44	473191.23	6788132.54	227.2	7006.3	430.1	173.2	382.5	2815.2	297.1	72.1	99.0	4191.1	133.0	101.1	283.5	217.59	4.33	0.4	0.8
03/11/2017	45	473191.96	6788132.63	226.3	6960.5	422.4	170.9	383.3	2740.5	295.7	71.4	96.4	4220.0	126.7	99.5	286.9	217.68	4.44	1.6	0.4
04/11/2017	46	473191.42	6788132.79	226.3	6988.0	424.2	171.4	384.6	2797.5	297.0	71.7	97.8	4190.5	127.2	99.7	286.8	217.65	4.37	1.5	0.8
04/11/2017	46	473191.38	6788132.76	226.8	7088.3	430.1	177.4	383.9	2872.1	300.2	76.8	96.3	4216.2	129.9	100.6	287.6	217.65	4.37	1.8	0.8
05/11/2017	47	473191.48	6788131.52	225.5	6994.6	422.6	175.3	379.7	2839.1	296.6	75.5	96.4	4155.5	126.0	99.8	283.3	217.74	4.48	0.3	0.8
05/11/2017	47	473191.44	6788132.82	226.3	6975.6	424.6	170.5	381.5	2791.4	297.5	70.9	95.9	4184.2	127.1	99.6	285.6	217.74	4.48	1.1	0.8
06/11/2017	48	473190.99	6788132.74	226.5	6903.5	417.6	167.7	381.3	2714.1	293.5	65.6	96.5	4189.4	124.1	102.1	284.8	217.64	4.41	0.8	1.1
06/11/2017	48	473191.02	6788132.39	226.3	6870.7	415.5	164.6	381.5	2665.6	285.1	65.8	93.4	4205.1	130.4	98.8	288.1	217.64	4.41	1.9	0.9
13/11/2017	49	473190.50	6788131.93	225.8	6968.4	418.9	173.7	378.4	2783.5	292.1	73.0	96.0	4184.9	126.8	100.7	282.4	217.61	4.49	-0.1	1.5
13/11/2017	51	473191.45	6788131.89	226.8	7229.431	411.1	192.7	379.3	3108.06	307.5	95.2	98.5	4114.3	123.6	97.5	280.8	217.56	4.33	-0.7	0.6
15/11/2017	52	473191.15	6788132.07	227.5	6724.8	395.4	162.4	371.7	2509.3	266.8	62.0	89.8	4215.5	128.6	100.4	281.9	217.52	4.57	-0.3	0.8
15/11/2017	53	473191.31	6788132.66	228.2	6711.1	398.8	164.6	371.2	2575.2	276.4	64.3	88.2	4135.9	122.4	100.3	283.0	217.65	4.41	0.1	0.8
16/11/2017	54	473191.55	6788132.25	226.5	6747.5	398.7	162.6	371.2	2530.2	272.3	61.3	89.3	4217.3	126.4	101.3	287.9	217.59	4.45	1.8	0.4
16/11/2017	54	473191.00	6788132.81	226.9	6722.9	402.6	163.4	377.0	2557.5	275.1	63.2	91.6	4165.4	127.5	100.2	279.4	217.59	4.45	-1.2	1.1
17/11/2017	55	473190.15	6788132.49	226.4	6792.5	402.7	163.7	373.9	2633.1	280.4	66.8	91.6	4159.4	122.3	96.9	282.3	217.75	4.29	-0.1	1.8
17/11/2017	55	473191.95	6788132.97	225.7	6797.6	404.8	164.4	373.4	2623.7	278.9	66.8	92.8	4173.9	125.9	97.6	281.5	217.75	4.29	-0.4	0.8
18/11/2017	56	473190.15	6788132.49	226.4	6792.5	402.7	163.7	373.9	2633.1	280.4	66.8	91.6	4159.4	122.3	96.9	282.3	217.69	4.52	-0.1	1.8
18/11/2017	56	473191.92	6788132.21	226.6	6839.4	409.6	168.1	375.8	2670.0	283.6	68.3	91.1	4169.4	126.0	99.8	284.7	217.69	4.52	0.7	0.0
19/11/2017	57	473191.54	6788132.51	226.6	6865.5	413.3	167.3	376.8	2667.3	281.0	67.5	93.3	4198.2	132.3	99.8	283.5	217.56	4.48	0.3	0.5

Av Normalized Th: 282.0 Min TH: 275.7 Max TH: 288.1 Standard Deviation: 2.5

Ground Cals - VH-SUX - Coober Pedy																			
Position				Hand Sample				Background				Normalized				Th Cal Results			
Date	Flt	East	North	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	ThPeak	% FWHM	TH Chg
																			Diff
19/11/2017	57	473191.64	6788132.26	227.6	6963.6	417.9	177.8	375.0	2763.2	287.8	76.4	92.2	4200.4	130.1	101.4	282.8	217.56	4.48	0.0
20/11/2017	58	473191.25	6788131.65	227.0	6727.2	404.3	163.3	371.6	2587.2	275.7	63.7	91.5	4140.0	128.6	99.6	280.1	217.54	4.46	-0.9
20/11/2017	59	473191.32	6788132.63	228.0	6823.3	413.3	164.5	372.0	2655.0	281.8	67.7	92.2	4168.3	131.5	96.8	279.8	217.45	4.41	-1.0
21/11/2017	60	473190.69	6788132.63	227.2	6862.5	411.6	170.1	374.3	2707.6	284.7	70.7	94.0	4154.9	126.9	99.4	280.3	217.59	4.37	-0.8
21/11/2017	60	473191.90	6788132.35	227.3	6823.2	408.7	165.6	377.3	2644.0	282.4	65.4	92.8	4179.2	126.3	100.2	284.5	217.59	4.37	0.7
22/11/2017	61	473191.66	6788131.96	227.4	6893.9	414.7	167.1	378.0	2707.3	285.8	69.7	93.6	4186.6	128.9	97.4	284.4	217.69	4.37	0.6
22/11/2017	61	473191.78	6788131.95	227.8	7084.8	419.2	187.4	377.7	2878.8	294.0	84.9	93.1	4206.0	125.2	102.5	284.6	217.69	4.37	0.7
23/11/2017	62	473191.66	6788131.96	227.0	7344.0	516.5	181.5	386.5	3176.5	386.2	80.6	103.3	4167.5	130.3	100.9	283.2	217.66	4.55	0.2
23/11/2017	63	473191.41	6788132.82	227.5	6790.2	407.8	164.8	372.8	2620.5	280.5	65.5	90.9	4169.7	127.3	99.3	281.9	217.54	4.55	-0.3
24/11/2017	64	473191.07	6788132.85	226.4	6812.9	405.5	164.0	378.3	2591.8	279.0	63.6	91.2	4221.1	126.5	100.4	287.1	217.59	4.52	1.5
24/11/2017	65	473191.80	6788132.63	226.9	6829.3	410.7	167.8	374.9	2605.3	277.3	65.0	91.9	4224.0	133.4	102.8	283.0	217.67	4.45	0.1
25/11/2017	66	473191.63	6788132.95	227.7	6810.6	408.3	164.7	376.4	2627.4	280.0	64.4	92.3	4183.2	128.3	100.3	284.1	217.72	4.53	0.5
25/11/2017	67	473192.12	6788132.76	227.0	6848.9	408.9	164.0	376.8	2616.9	279.8	65.0	90.4	4232.0	129.1	99.0	286.4	217.48	4.58	1.3
26/11/2017	68	473191.66	6788132.35	227.8	6869.4	407.3	167.8	379.1	2638.2	278.5	66.3	91.0	4231.2	128.8	101.5	288.1	217.60	4.38	1.8
26/11/2017	69	473191.96	6788132.30	227.9	6828.0	408.1	166.1	373.9	2656.6	283.9	67.7	93.0	4171.4	124.2	98.4	280.9	217.70	4.36	-0.7
27/11/2017	70	473191.68	6788132.36	227.8	6908.8	416.6	170.0	376.7	2719.2	285.2	69.7	95.5	4189.6	131.4	100.3	281.2	217.56	4.48	-0.6
27/11/2017	71	473191.70	6788132.79	226.9	6844.9	411.4	166.9	376.0	2666.3	282.1	67.6	91.6	4178.6	129.3	99.3	284.4	217.56	4.44	0.5
02/12/2017	72	473191.64	6788132.60	226.3	6701.3	397.1	160.7	372.5	2533.7	273.4	60.1	91.3	4167.6	123.7	100.6	281.2	217.62	4.62	-0.6
02/12/2017	73	473191.62	6788133.00	227.7	6726.8	401.3	163.4	374.3	2540.9	274.7	61.6	88.7	4185.9	126.6	101.8	285.6	217.73	4.42	1.0
03/12/2017	74	473191.69	6788132.57	227.6	6717.3	397.1	161.5	373.4	2544.3	273.1	60.9	92.0	4173.0	124.0	100.6	281.4	217.48	4.51	-0.5
03/12/2017	75	473192.12	6788131.98	227.9	6766.5	405.9	163.9	376.6	2575.4	276.2	62.3	92.1	4191.1	129.7	101.6	284.5	217.76	4.62	0.6
04/12/2017	76	473191.80	6788132.26	226.8	6794.8	408.5	164.4	374.1	2584.0	277.1	63.3	92.5	4210.8	131.4	101.1	281.6	217.60	4.51	-0.4
04/12/2017	77	473191.64	6788132.63	226.1	6771.5	406.9	161.4	369.7	2570.8	276.0	63.2	91.1	4200.7	130.9	98.2	278.6	217.68	4.60	-1.5
06/12/2017	78	473192.12	6788132.73	227.4	6908.0	415.4	169.1	375.6	2719.1	286.8	70.8	93.3	4188.9	128.6	98.3	282.3	217.60	4.50	-0.2
06/12/2017	78	473191.48	6788132.43	227.1	6819.4	410.2	165.7	372.3	2663.8	284.0	65.7	94.0	4155.6	126.2	100.0	278.3	217.60	4.50	-1.6
07/12/2017	79	473191.38	6788132.09	226.9	6899.3	413.0	168.0	378.0	2681.9	284.8	67.1	94.0	4217.4	128.2	100.9	284.0	217.78	4.33	0.4
07/12/2017	79	473191.59	6788131.93	225.7	6839.2	409.5	166.8	380.0	2662.7	283.4	65.9	93.0	4176.5	126.1	100.9	286.1	217.78	4.33	1.2
08/12/2017	80	473191.94	6788131.89	226.4	6790.9	407.4	162.7	373.5	2607.9	278.3	61.4	92.7	4183.0	129.1	101.3	280.8	217.49	4.53	-0.7
08/12/2017	81	473191.89	6788132.26	227.0	6804.7	408.6	164.1	377.6	2670.2	283.2	63.7	96.9	4134.5	125.4	100.4	280.7	217.65	4.33	-0.7
09/12/2017	82	473191.59	6788132.89	224.9	6864.1	413.7	168.3	377.1	2679.3	289.2	66.5	93.9	4184.8	124.5	101.8	283.2	217.61	4.39	0.2
09/12/2017	83	473191.48	6788131.89	227.5	6865.8	411.1	167.0	379.0	2657.7	284.0	67.4	93.8	4208.1	127.1	99.6	285.2	217.55	4.35	0.9
10/12/2017	84	473191.41	6788132.91	226.7	6857.8	411.4	168.0	377.7	2653.9	280.5	66.3	91.8	4203.9	130.9	101.7	285.8	217.62	4.45	1.1
10/12/2017	85	473191.15	6788132.45	227.8	6870.7	415.3	167.2	375.3	2697.7	286.4	69.5	93.4	4173.0	128.9	97.7	281.9	217.66	4.46	-0.3
11/12/2017	86	473191.44	6788132.46	226.9	6863.7	410.5	167.4	379.0	2658.7	285.0	65.9	93.4	4205.0	125.5	101.5	285.6	217.61	4.52	1.0
11/12/2017	87	473191.64	6788132.08	227.9	6848.7	413.3	165.3	374.7	2701.9	289.4	68.9	94.3	4146.8	123.9	96.4	280.4	217.65	4.47	-0.9

Av Normalized Th: 282.0 Min TH: 275.7 Max TH: 288.1 Standard Deviation: 2.5

Ground Cals - VH-SUX - Coober Pedy																				
Position					Hand Sample				Background				Normalized				Th Cal Results		TH Chg	Diff
Date	Flt	East	North	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	ThPeak	% FWHM	+/- 3%	5 max
12/12/2017	88	473191.36	6788133.06	228.1	6896.5	416.8	168.5	377.4	2675.7	285.8	67.6	96.3	4220.8	131.0	100.9	281.1	217.67	4.32	-0.6	1.0
12/12/2017	88	473191.69	6788132.21	227.4	6898.5	414.0	168.4	376.3	2679.9	286.0	68.1	93.1	4218.6	128.0	100.3	283.2	217.67	4.32	0.1	0.3
13/12/2017	89	473191.64	6788132.47	227.3	6949.2	414.3	173.4	376.9	2763.9	293.9	70.9	94.6	4185.3	120.4	102.5	282.3	217.68	4.42	-0.2	0.4
13/12/2017	89	473191.80	6788132.86	226.7	6919.8	416.0	170.2	378.6	2760.0	290.2	70.4	98.5	4159.8	125.8	99.8	280.1	217.68	4.42	-0.9	0.7
14/12/2017	90	473191.36	6788132.35	226.9	6796.6	409.1	164.0	376.5	2583.2	276.5	63.3	90.8	4213.4	132.6	100.7	287.7	217.60	4.59	1.7	0.6
14/12/2017	91	473191.62	6788132.53	228.2	6834.4	412.0	167.4	375.4	2599.1	277.5	64.5	91.1	4235.3	134.5	102.9	284.3	217.67	4.45	0.5	0.4
15/12/2017	92	473190.99	6788133.01	227.4	6819.3	410.6	164.7	375.3	2616.9	283.0	62.7	93.0	4202.4	127.6	102.0	282.3	217.73	4.40	-0.2	1.2
15/12/2017	92	473191.47	6788133.13	226.7	6824.8	407.5	165.0	378.5	2686.4	284.3	67.6	95.1	4138.4	123.2	97.4	283.4	217.73	4.40	0.2	1.0
04/01/2018	93	473191.47	6788132.82	226.8	6856.3	419.1	164.2	375.0	2703.3	289.7	66.4	95.9	4153.0	129.4	97.8	279.1	217.60	4.46	-1.3	0.8
04/01/2018	94	473191.58	6788132.48	227.5	6900.5	421.8	168.9	376.9	2733.9	291.3	67.4	96.1	4166.6	130.5	101.5	280.8	217.64	4.36	-0.7	0.4
05/01/2018	95	473191.47	6788132.45	225.3	6967.5	426.4	169.8	378.1	2799.4	296.7	71.3	96.3	4168.1	129.7	98.5	281.8	217.61	4.44	-0.3	0.5
05/01/2018	96	473191.45	6788132.51	227.5	6933.5	421.7	170.2	378.0	2777.8	294.9	70.1	95.8	4155.7	126.8	100.1	282.2	217.64	4.41	-0.2	0.6
06/01/2018	97	473191.47	6788132.98	227.1	6928.6	424.1	167.5	381.9	2744.6	295.0	68.5	97.8	4184.0	129.1	99.0	284.1	217.54	4.48	0.5	0.9
06/01/2018	97	473191.50	6788132.82	227.7	7025.8	429.1	174.7	378.6	2836.5	300.8	74.9	96.6	4189.3	128.3	99.8	282.0	217.54	4.48	-0.3	0.7
07/01/2018	98	473191.61	6788132.88	227.9	6888.8	418.9	167.4	374.6	2711.6	290.2	67.2	97.7	4177.2	128.7	100.2	276.9	217.56	4.53	-2.1	0.7
07/01/2018	98	473191.80	6788132.56	227.5	7000.5	426.2	174.1	380.8	2822.0	298.4	74.4	99.3	4178.5	127.8	99.7	281.5	217.56	4.53	-0.4	0.4
08/01/2018	99	473191.57	6788133.33	226.8	6904.4	418.4	166.4	378.7	2734.8	290.4	68.1	97.5	4169.6	124.4	98.3	281.2	217.56	4.43	-0.5	1.2
08/01/2018	99	473191.66	6788132.97	227.6	6956.2	424.1	170.6	381.8	2793.2	290.4	72.2	97.5	4163.0	124.7	98.4	284.3	217.56	4.43	0.6	0.8
09/01/2018	100	473191.72	6788132.68	227.1	6857.5	414.6	163.3	376.2	2695.2	294.6	66.9	95.1	4162.3	124.2	96.4	281.1	217.61	4.54	-0.6	0.5
09/01/2018	100	473191.66	6788132.35	227.0	6898.8	419.6	166.1	377.9	2711.6	292.8	66.5	96.9	4178.2	126.8	99.6	281.0	217.61	4.54	-0.6	0.3
11/01/2018	101	473191.65	6788132.50	227.0	6942.2	421.2	172.1	378.5	2770.1	294.7	68.7	96.8	4172.1	126.5	103.4	281.7	217.59	4.52	-0.3	0.4
11/01/2018	101	473191.65	6788132.91	226.7	7070.9	429.6	178.9	379.4	2923.2	303.2	78.9	99.5	4147.7	126.4	100.0	279.9	217.59	4.52	-1.0	0.7
12/01/2018	102	473191.70	6788132.22	226.5	6894.4	421.6	167.5	381.0	2728.8	290.9	66.4	97.4	4165.6	130.7	101.1	280.6	217.58	4.39	-0.7	0.2
12/01/2018	102	473191.50	6788132.36	227.7	6928.5	421.5	169.9	389.9	2753.9	294.4	69.0	95.9	4174.6	129.7	100.9	286.0	217.58	4.39	1.2	0.5
13/01/2018	103	473191.96	6788132.63	226.5	6854.7	420.4	167.9	374.3	2682.1	290.7	67.5	95.5	4172.6	129.7	100.4	278.8	217.61	4.50	-1.4	0.4
13/01/2018	103	473191.69	6788133.04	227.5	6858.3	419.3	162.7	380.4	2685.6	288.5	66.8	94.2	4172.7	130.8	95.9	286.2	217.61	4.50	1.3	0.9
15/01/2018	104	473191.33	6788133.03	223.0	6913.1	420.2	169.3	378.7	2745.0	291.3	67.1	96.9	4168.1	128.9	102.2	281.8	217.64	4.59	-0.3	1.0
15/01/2018	104	473191.66	6788132.68	226.8	6913.7	424.1	168.7	378.6	2753.1	295.3	68.7	96.1	4160.6	128.8	100.0	282.5	217.64	4.59	-0.1	0.5
16/01/2018	105	473192.19	6788131.54	222.3	6990.0	423.5	172.7	380.2	2792.9	297.8	70.9	98.1	4197.1	125.7	101.8	282.1	217.59	4.46	-0.2	0.7
16/01/2018	105	473191.64	6788132.63	226.6	6956.1	427.1	172.7	376.1	2800.1	296.7	71.4	98.8	4156.0	130.4	101.3	277.3	217.59	4.46	-1.9	0.5
17/01/2018	106	473191.49	6788133.19	226.2	6971.9	424.4	171.1	379.0	2799.9	296.2	71.6	98.5	4172.0	128.2	99.5	280.5	217.63	4.35	-0.7	1.1
17/01/2018	106	473191.50	6788131.99	226.9	6979.7	426.3	171.7	376.4	2792.0	296.9	70.8	97.2	4187.7	129.4	100.9	279.2	217.63	4.35	-1.2	0.5
18/01/2018	107	473192.04	6788132.70	228.0	6939.0	423.9	170.0	378.2	2781.7	295.6	71.1	96.0	4157.3	128.3	98.9	282.2	217.53	4.45	-0.1	0.5
18/01/2018	107	473191.64	6788131.63	226.4	7021.2	426.9	174.2	378.7	2837.8	298.3	74.2	97.8	4183.4	128.6	100.0	280.9	217.53	4.45	-0.6	0.5
19/01/2018	108	473192.04	6788131.54	224.1	6958.6	424.8	171.6	377.3	2775.7	295.0	70.0	96.6	4182.9	128.8	101.6	280.7	217.56	4.42	-0.7	0.7

Av Normalized Th: 282.0 Min TH: 275.7 Max TH: 288.1 Standard Deviation: 2.5

Ground Cals - VH-SUX - Coober Pedy																			
Position				Hand Sample				Background				Normalized				Th Cal Results			
Date	Flt	East	North	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	ThPeak	% FWHM	TH Chg
																			Diff
19/01/2018	108	473191.64	6788132.48	227.0	6998.4	427.9	173.5	378.6	2771.3	295.3	70.5	97.4	4227.1	132.6	103.0	281.2	217.56	4.42	-0.5
20/01/2018	109	473191.33	6788132.88	226.9	6885.2	420.8	167.9	373.0	2770.8	294.6	68.5	97.3	4114.4	126.2	99.4	275.7	217.58	4.48	-2.4
20/01/2018	109	473191.48	6788132.82	227.0	6998.5	425.6	174.0	382.0	2813.3	298.8	73.8	99.5	4185.2	126.8	100.2	282.5	217.58	4.48	0.0
21/01/2018	110	473191.31	6788132.45	223.4	6957.9	421.8	171.8	380.5	2787.5	298.0	68.7	97.5	4170.4	123.8	103.1	283.0	217.63	4.57	0.2
21/01/2018	110	473191.61	6788132.62	226.3	7028.2	427.6	174.8	384.3	2798.2	295.0	71.5	97.8	4230.0	132.6	103.3	286.5	217.63	4.57	1.4
23/01/2018	111	473190.99	6788132.94	227.6	6918.1	425.0	168.0	376.2	2773.9	297.0	68.8	98.5	4144.2	128.0	99.2	277.7	217.65	4.53	-1.7
23/01/2018	111	473191.63	6788132.63	227.6	6962.7	423.6	168.2	384.4	2794.9	299.6	71.5	97.9	4167.8	124.0	96.7	286.5	217.65	4.53	1.4
27/01/2018	112	473191.33	6788132.25	224.8	7006.1	426.1	171.0	377.4	2827.3	299.2	71.2	99.1	4178.8	126.9	99.8	278.3	217.66	4.39	-1.5
27/01/2018	113	473191.80	6788132.95	227.1	7026.9	427.4	173.9	379.1	2862.5	301.7	74.9	97.7	4164.4	125.7	99.0	281.4	217.58	4.51	-0.4
29/01/2018	114	473191.59	6788132.82	227.7	6958.3	423.1	170.8	380.9	2785.0	294.7	69.4	97.7	4173.3	128.4	101.4	283.2	217.58	4.48	0.3
29/01/2018	114	473191.80	6788132.63	227.2	6934.6	419.1	168.5	378.9	2809.7	296.2	71.1	100.9	4124.9	122.9	97.4	278.0	217.58	4.48	-1.6
05/02/2018	115	473191.64	6788132.26	227.4	6921.0	416.3	168.9	374.4	2747.0	290.4	71.4	93.9	4174.0	125.9	97.5	280.5	217.61	4.51	-0.7
05/02/2018	115	473191.62	6788132.66	226.8	6855.2	413.2	168.3	375.8	2679.4	284.0	68.3	92.5	4175.8	129.2	100.0	283.5	217.61	4.51	0.3
06/02/2018	116	473191.30	6788132.85	225.6	6847.6	413.8	166.9	371.9	2678.4	288.2	67.0	92.6	4169.2	125.6	99.9	279.3	217.66	4.44	-1.1
06/02/2018	116	473191.60	6788132.72	226.9	6850.4	412.6	165.9	375.3	2711.7	288.5	67.9	95.4	4138.7	124.1	98.0	279.9	217.66	4.44	-0.9
07/02/2018	117	473191.78	6788132.63	227.2	6868.1	413.5	166.4	376.6	2682.8	287.0	66.3	94.3	4185.3	126.5	100.1	282.3	217.64	4.35	0.0
07/02/2018	117	473191.40	6788133.00	226.5	6876.2	418.0	169.5	375.9	2714.3	290.3	67.9	94.7	4161.9	127.7	101.6	281.2	217.64	4.35	-0.4
08/02/2018	118	473191.76	6788132.79	227.1	6911.8	420.3	170.5	378.2	2752.5	291.9	70.3	96.0	4159.3	128.4	100.2	282.2	217.61	4.30	-0.1
08/02/2018	118	473191.15	6788132.67	226.7	6909.4	419.9	170.0	375.6	2709.3	293.6	69.1	93.3	4200.1	126.3	100.9	282.3	217.61	4.30	0.0
09/02/2018	119	473191.73	6788132.08	225.1	6951.3	421.8	171.0	376.5	2774.1	290.7	72.7	96.9	4177.2	131.1	98.3	279.6	217.67	4.39	-1.0
09/02/2018	119	473191.12	6788132.81	227.3	6889.9	417.5	168.1	375.0	2707.8	287.9	69.4	93.7	4182.1	129.6	98.7	281.3	217.67	4.39	-0.4
10/02/2018	120	473191.30	6788132.90	225.8	7017.8	417.6	169.8	384.1	2714.9	292.0	68.6	96.9	4302.9	125.6	101.2	287.2	217.65	4.56	1.7
10/02/2018	120	473191.79	6788133.19	227.7	6835.9	416.3	169.5	372.0	2719.5	291.6	69.0	94.6	4116.4	124.7	100.5	277.4	217.65	4.56	-1.8
11/02/2018	121	473191.52	6788132.67	228.4	6920.6	418.5	169.3	378.7	2706.0	288.1	67.0	96.8	4214.6	130.4	102.3	281.9	217.52	4.41	-0.2
11/02/2018	121	473191.31	6788132.87	227.7	6950.8	418.8	170.8	378.2	2713.9	290.6	68.5	95.6	4236.9	128.2	102.3	282.6	217.52	4.41	0.1
12/02/2018	122	473191.64	6788132.53	228.6	6880.2	417.4	164.0	378.2	2675.4	290.0	64.4	94.6	4204.8	127.4	99.6	283.6	217.76	4.42	0.4
12/02/2018	122	473191.84	6788132.94	227.3	6933.3	418.7	173.4	376.8	2774.0	296.5	71.1	95.8	4159.3	122.2	102.3	281.0	217.76	4.42	-0.5
13/02/2018	123	473191.84	6788132.94	227.3	6933.3	418.7	173.4	376.8	2774.0	296.5	71.1	95.8	4159.3	122.2	102.3	281.0	217.66	4.41	-0.5
13/02/2018	123	473191.31	6788133.30	227.6	7011.7	421.0	176.0	374.9	2821.3	297.5	75.7	94.9	4190.4	123.5	100.3	280.0	217.66	4.41	-0.8
14/02/2018	124	473191.14	6788132.39	226.4	6898.5	417.3	167.8	377.7	2723.4	290.4	66.9	93.5	4175.1	126.9	100.9	284.2	217.65	4.51	0.7
14/02/2018	124	473191.65	6788133.03	227.7	6955.9	418.5	171.3	380.2	2737.3	292.3	68.7	95.6	4218.6	126.2	102.6	284.6	217.65	4.51	0.8
15/02/2018	125	473191.63	6788133.29	226.1	6894.5	418.9	167.8	377.8	2697.4	291.4	67.5	94.1	4197.1	127.5	100.3	283.7	217.65	4.43	0.5
15/02/2018	125	473191.20	6788132.51	227.2	6929.7	417.8	169.8	378.8	2751.1	292.8	69.4	96.8	4178.6	125.0	100.4	282.0	217.65	4.43	-0.1
16/02/2018	126	473190.99	6788133.05	226.5	6834.8	414.9	163.5	374.5	2650.5	284.7	66.2	93.6	4184.3	130.2	97.3	280.9	217.62	4.40	-0.5
16/02/2018	126	473191.15	6788132.86	227.5	6887.8	415.1	168.5	381.6	2687.7	289.7	66.5	93.6	4200.1	125.4	102.0	288.0	217.62	4.40	2.0

Av Normalized Th: 282.0 Min TH: 275.7 Max TH: 288.1 Standard Deviation: 2.5

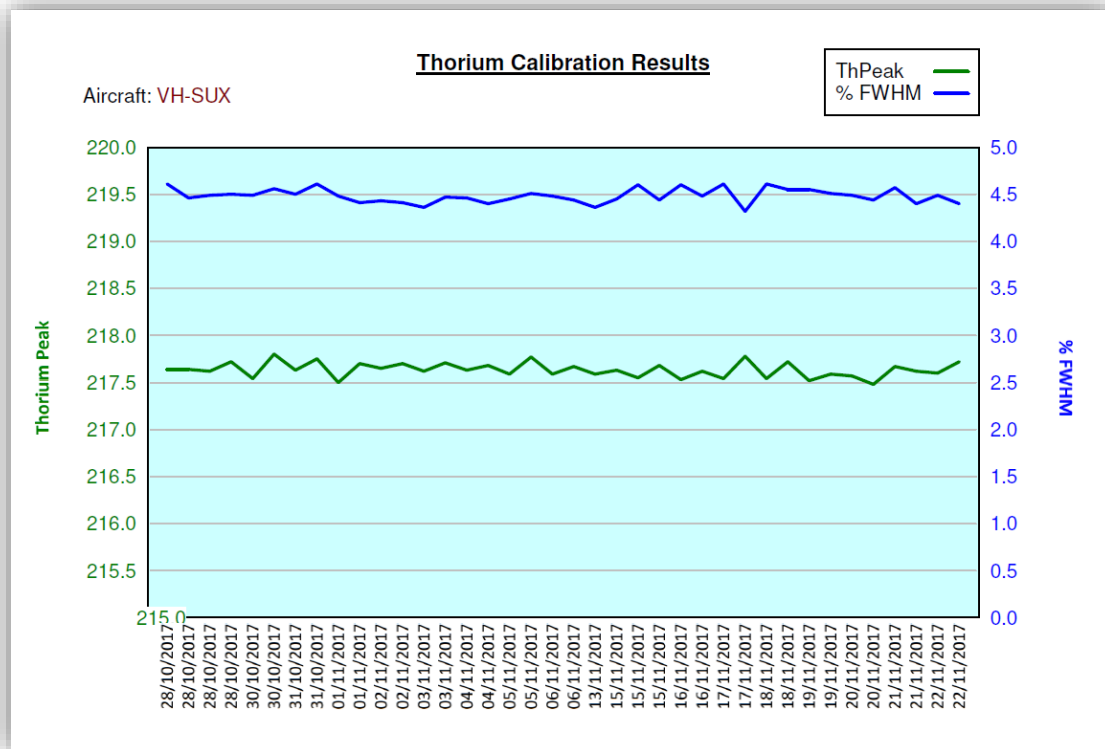
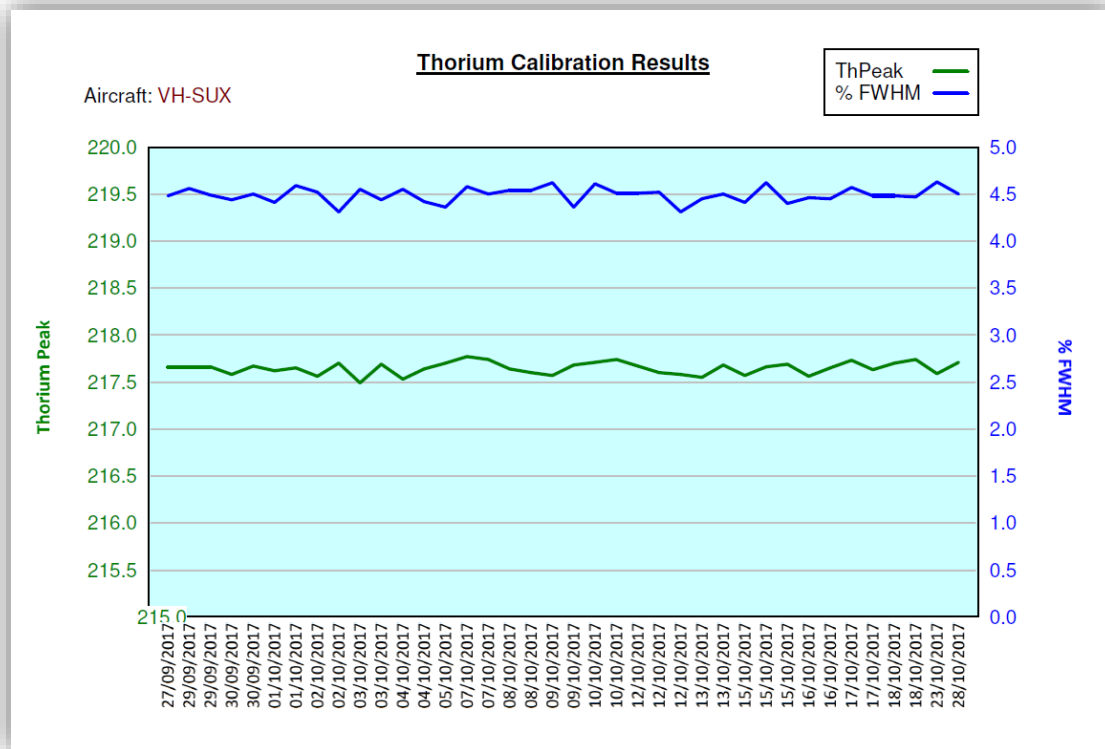
Ground Cals - VH-SUX - Coober Pedy																				
		Position			Hand Sample				Background				Normalized				Th Cal Results		TH Chg	Diff
Date	Flt	East	North	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	ThPeak	% FWHM	TH Chg	
																		+/-	3% 5 max	
17/02/2018	127	473191.15	6788133.33	226.3	6888.1	418.5	167.8	377.4	2737.3	291.9	68.0	94.7	4150.8	126.6	99.8	282.7	217.60	4.44	0.1	1.4
17/02/2018	127	473190.56	6788133.16	227.1	6951.4	419.4	171.5	380.4	2744.7	292.5	70.1	95.5	4206.7	126.9	101.4	284.9	217.60	4.44	0.9	1.7
19/02/2018	128	473190.82	6788132.88	227.0	6924.9	417.2	168.7	378.4	2750.0	293.2	68.1	96.7	4174.9	124.0	100.6	281.7	217.63	4.54	-0.3	1.3
19/02/2018	128	473191.47	6788132.72	227.2	7098.6	429.1	174.0	383.9	2746.4	294.5	70.7	96.6	4352.2	134.6	103.3	287.3	217.63	4.54	1.7	0.7
20/02/2018	129	473191.08	6788133.18	226.4	6950.9	421.4	170.4	378.0	2765.2	295.3	69.3	97.8	4185.7	126.1	101.1	280.2	217.70	4.58	-0.8	1.3
20/02/2018	129	473191.47	6788132.32	227.9	6993.6	421.3	174.0	378.5	2822.0	297.4	73.4	97.0	4171.6	123.9	100.6	281.5	217.70	4.58	-0.3	0.5
21/02/2018	130	473191.31	6788132.74	226.3	7011.7	424.8	173.6	376.9	2777.4	286.6	73.2	95.7	4234.3	138.2	100.4	281.2	217.70	4.33	-0.4	0.8
21/02/2018	130	473191.51	6788132.82	228.0	7106.5	431.4	178.7	382.9	2874.1	300.4	77.0	97.1	4232.4	131.0	101.7	285.8	217.70	4.33	1.2	0.7
23/02/2018	131	473191.15	6788132.91	226.7	6934.2	420.6	169.1	378.7	2749.5	292.0	68.1	96.8	4184.7	128.6	101.0	281.9	217.68	4.42	-0.2	1.0
23/02/2018	131	473191.42	6788132.82	226.5	6949.9	419.5	174.8	379.8	2765.4	292.2	70.7	96.3	4184.5	127.3	104.1	283.5	217.68	4.42	0.4	0.8
01/03/2018	132	473191.64	6788132.91	226.1	6809.0	416.7	165.4	373.7	2704.2	290.5	66.6	96.5	4104.8	126.2	98.8	277.2	217.73	4.41	-1.8	0.8
01/03/2018	132	473191.36	6788132.89	227.3	6866.7	416.8	166.6	380.2	2743.2	293.6	69.1	96.7	4123.5	123.2	97.5	283.5	217.73	4.41	0.4	0.9
02/03/2018	133	473191.47	6788133.33	226.4	6936.9	421.8	171.8	376.1	2782.5	295.4	70.1	98.8	4154.4	126.4	101.7	276.3	217.65	4.54	-2.2	1.2
02/03/2018	133	473191.95	6788132.08	227.9	6901.7	422.0	170.3	376.5	2777.8	294.4	71.1	98.4	4123.9	127.6	99.2	278.1	217.65	4.54	-1.5	0.1
03/03/2018	134	473191.55	6788132.60	226.5	6899.1	424.0	168.2	377.5	2735.4	291.5	67.9	97.1	4163.7	132.5	100.3	280.4	217.62	4.31	-0.7	0.5
03/03/2018	134	473191.64	6788132.45	227.1	6870.2	416.9	165.0	372.9	2723.7	292.6	68.5	95.9	4146.5	124.3	96.5	277.0	217.62	4.31	-1.9	0.4
04/03/2018	135	473191.57	6788133.37	226.6	6901.4	420.3	167.5	376.4	2724.9	291.6	67.2	96.3	4181.2	128.7	100.3	280.1	217.68	4.53	-0.8	1.2
04/03/2018	135	473191.96	6788132.26	227.6	6894.4	415.3	170.5	376.5	2765.4	295.8	70.5	96.7	4129.0	119.5	100.0	279.8	217.68	4.53	-0.9	0.0
06/03/2018	136	473191.53	6788133.00	227.2	6869.4	419.8	168.3	379.0	2705.4	290.1	67.5	95.3	4164.0	129.7	100.8	283.7	217.70	4.46	0.5	0.9
06/03/2018	137	473191.55	6788132.73	227.1	6907.3	422.1	168.0	378.3	2732.2	293.7	67.7	96.6	4175.1	128.4	100.3	281.7	217.59	4.43	-0.2	0.6
07/03/2018	138	473191.50	6788133.00	227.2	6924.0	424.8	169.4	377.6	2777.1	294.6	69.9	97.8	4146.9	130.2	99.5	279.8	217.68	4.41	-0.9	0.9
07/03/2018	138	473191.32	6788132.78	227.1	6926.4	419.3	173.3	377.5	2790.3	296.7	71.0	96.7	4136.1	125.2	102.3	280.8	217.68	4.41	-0.5	0.8
08/03/2018	139	473191.59	6788132.82	226.7	6949.0	421.5	170.7	375.3	2817.6	299.0	71.5	96.5	4131.4	122.5	99.2	278.8	217.48	4.52	-1.2	0.7
08/03/2018	140	473191.38	6788133.00	227.4	6954.3	425.8	172.0	374.8	2780.7	296.1	71.6	95.5	4173.6	129.7	100.4	279.3	217.51	4.58	-1.0	1.0
09/03/2018	141	473191.46	6788133.04	227.6	6890.0	419.8	168.0	372.5	2762.0	293.3	69.1	96.3	4128.0	126.5	98.9	276.2	217.75	4.46	-2.1	1.0
09/03/2018	141	473192.04	6788132.37	224.6	6961.4	422.1	172.9	378.0	2807.2	298.5	72.1	97.2	4154.2	123.6	100.8	280.8	217.75	4.46	-0.5	0.2
10/03/2018	142	473191.15	6788133.18	226.9	6882.8	419.5	167.0	377.6	2698.6	291.9	68.8	93.7	4184.2	127.6	100.2	283.9	217.70	4.42	0.6	1.2
10/03/2018	142	473191.51	6788132.53	227.2	6942.1	420.5	171.1	375.4	2785.9	297.3	70.6	95.7	4156.2	123.2	100.5	279.7	217.70	4.42	-0.9	0.5
11/03/2018	143	473191.31	6788132.63	226.1	6929.7	422.0	169.9	378.6	2766.9	295.8	70.1	96.2	4162.8	126.2	99.8	282.4	217.75	4.35	0.1	0.8
11/03/2018	144	473191.29	6788133.18	227.4	6929.7	423.3	169.4	374.6	2779.9	298.8	70.5	95.5	4149.8	124.5	98.6	279.1	217.61	4.39	-1.1	1.2
12/03/2018	145	473191.03	6788133.55	228.4	6941.7	423.5	168.1	376.6	2799.8	297.3	70.5	97.8	4141.9	126.2	97.6	278.8	217.64	4.52	-1.2	1.6
12/03/2018	146	473191.15	6788132.81	227.8	6948.1	422.4	172.6	379.0	2788.4	297.5	71.1	96.9	4159.7	124.9	101.5	282.1	217.67	4.39	0.0	1.0
13/03/2018	147	473191.31	6788132.98	226.4	6888.8	419.7	167.9	378.8	2747.4	294.8	67.1	96.4	4141.4	124.9	100.8	282.4	217.55	4.54	0.1	1.0
13/03/2018	148	473190.88	6788132.50	227.3	6888.7	416.4	166.7	377.0	2731.1	291.3	68.9	96.9	4157.6	125.1	97.8	280.1	217.53	4.45	-0.7	1.1
14/03/2018	149	473191.21	6788132.66	226.7	6957.4	425.9	170.5	377.9	2814.4	297.5	70.6	97.8	4143.0	128.4	99.9	280.1	217.70	4.57	-0.7	0.9

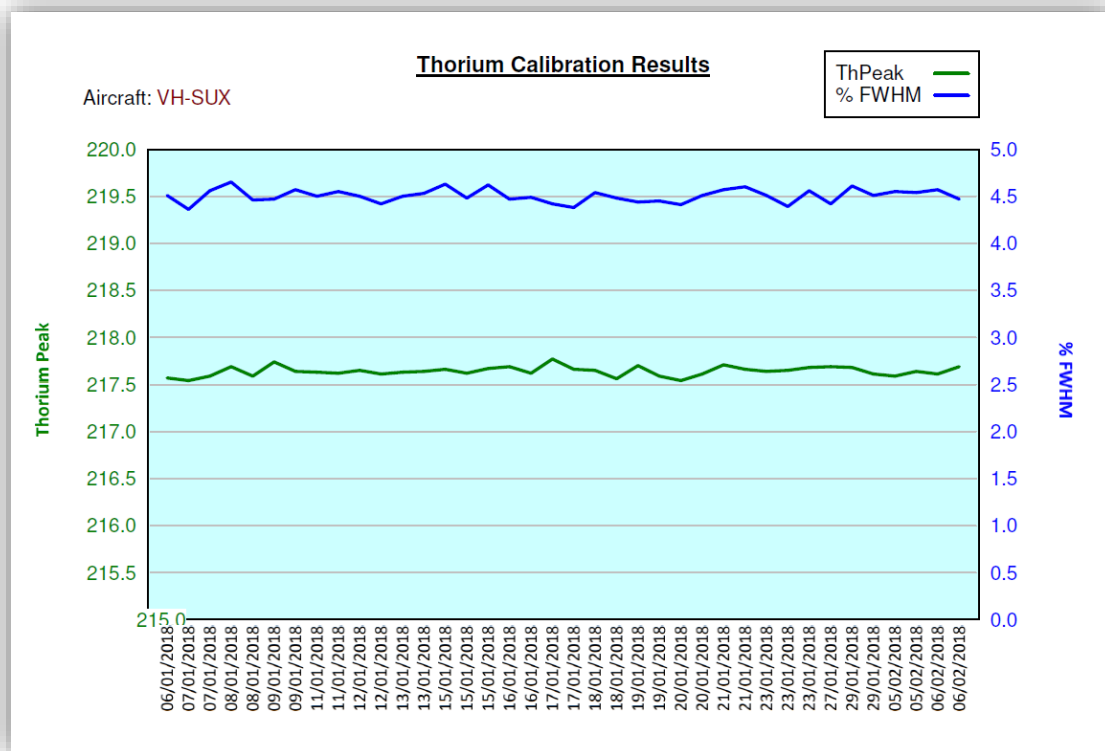
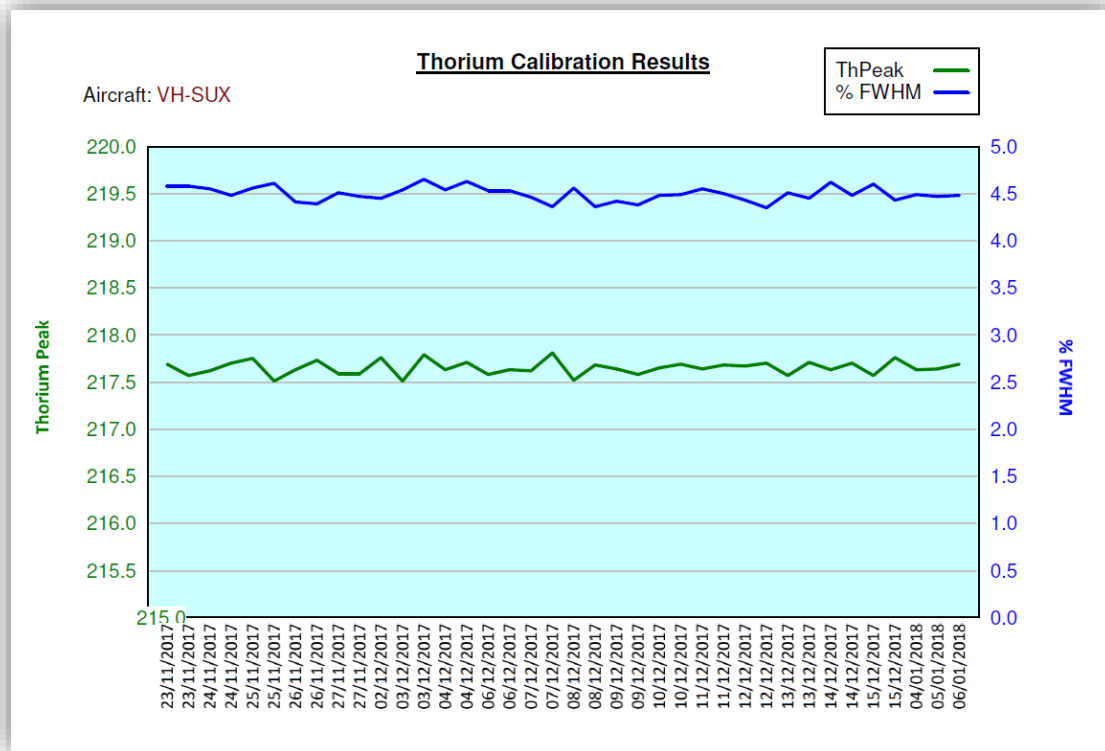
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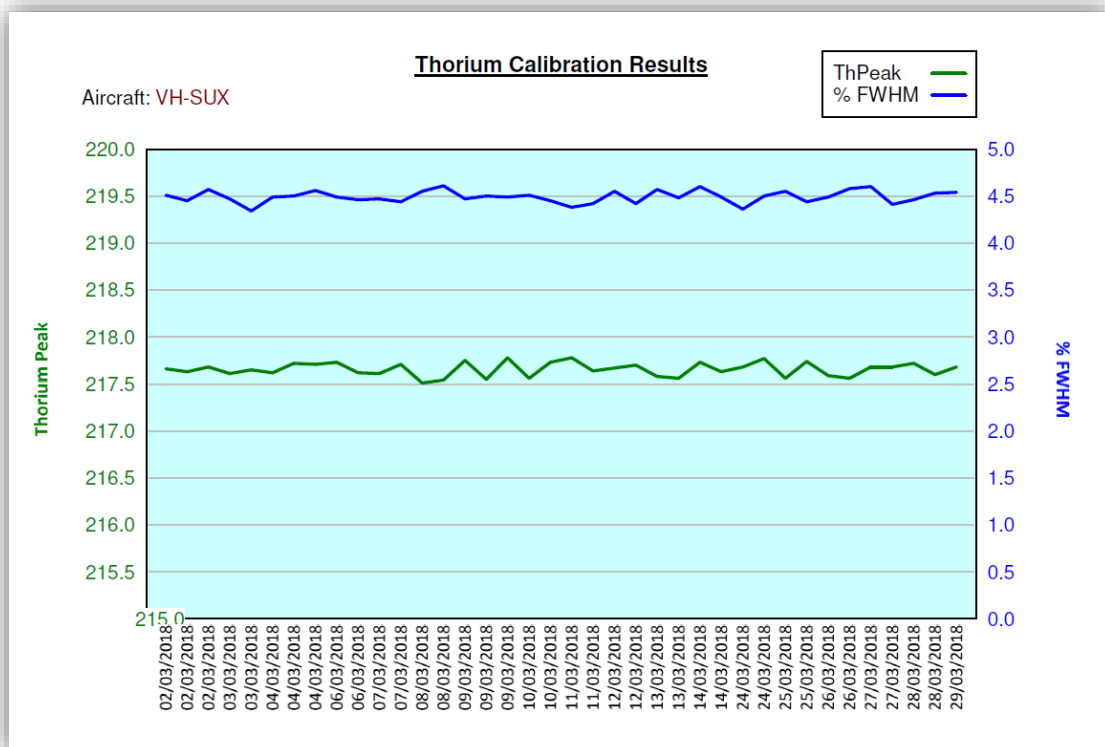
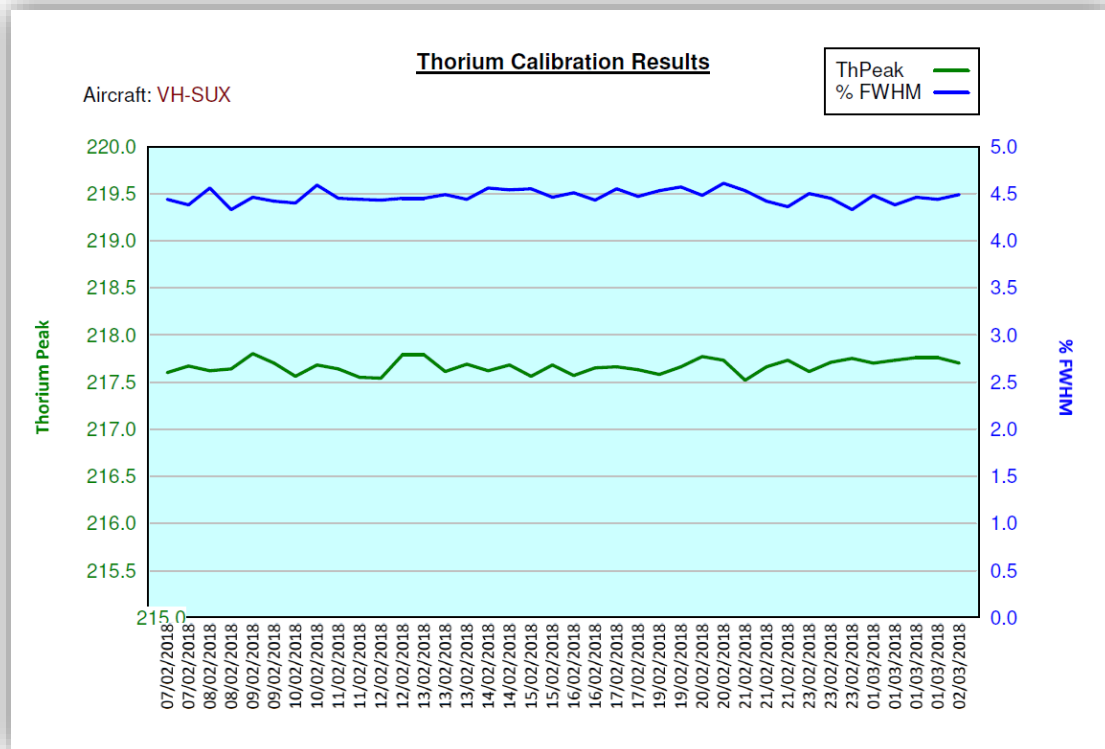
Ground Cals - VH-SUX - Coober Pedy																				
		Position			Hand Sample				Background				Normalized				Th Cal Results		TH Chg	Diff
Date	Flt	East	North	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	ThPeak	% FWHM	±- 3%	5 max
14/03/2018	150	473191.15	6788133.00	228.0	6907.4	419.2	172.2	378.0	2786.2	298.8	70.4	98.8	4121.2	120.4	101.8	279.2	217.60	4.46	-1.0	1.1
19/03/2018	151	473191.43	6788131.87	225.3	6881.3	423.2	165.8	377.0	2719.5	294.5	64.5	96.3	4161.8	128.7	101.3	280.7	217.56	4.45	-0.5	0.6
19/03/2018	151	473191.31	6788132.88	227.7	6869.8	419.7	166.9	377.1	2724.5	295.1	66.2	96.6	4145.3	124.6	100.7	280.5	217.56	4.45	-0.6	0.9
24/03/2018	164	473191.76	6788132.46	227.8	6927.8	422.7	168.7	379.9	2776.8	293.9	69.8	98.1	4151.0	128.8	98.9	281.8	217.56	4.49	-0.1	0.3
24/03/2018	166	473191.86	6788132.15	227.2	6953.0	423.8	173.8	374.5	2811.8	300.0	73.7	97.6	4141.2	123.8	100.1	276.9	217.74	4.47	-1.8	0.1
25/03/2018	167	473191.80	6788132.75	227.6	6855.8	419.2	165.5	374.9	2719.6	293.5	66.1	96.1	4136.2	125.7	99.4	278.8	217.53	4.52	-1.2	0.5
25/03/2018	168	473191.27	6788133.19	228.2	6852.7	417.2	166.0	376.7	2698.8	293.7	65.6	95.4	4153.9	123.5	100.4	281.3	217.71	4.41	-0.3	1.2
26/03/2018	169	473190.61	6788132.81	228.1	6880.8	418.0	167.8	376.5	2722.0	293.5	67.8	96.7	4158.8	124.5	100.0	279.8	217.56	4.46	-0.8	1.5
26/03/2018	170	473190.66	6788133.92	227.5	6915.6	422.2	167.9	378.2	2744.4	291.3	65.9	99.0	4171.2	130.9	102.0	279.2	217.53	4.55	-1.0	2.1
27/03/2018	171	473190.97	6788133.69	227.8	6958.1	418.9	171.9	379.1	2797.6	295.8	70.5	98.7	4160.5	123.1	101.4	280.4	217.65	4.57	-0.6	1.8
27/03/2018	172	473191.21	6788133.34	227.6	6969.8	429.5	172.3	378.6	2833.1	298.8	73.2	100.5	4136.7	130.7	99.1	278.1	217.65	4.38	-1.4	1.3
28/03/2018	173	473190.97	6788133.33	227.4	7022.8	430.2	174.5	376.4	2882.9	302.7	75.0	100.1	4139.9	127.5	99.5	276.3	217.69	4.43	-2.0	1.5
28/03/2018	174	473191.55	6788133.55	227.9	6981.4	422.2	170.3	381.2	2831.7	300.5	71.6	97.7	4149.7	121.7	98.7	283.5	217.57	4.50	0.5	1.4
29/03/2018	175	473191.99	6788134.04	226.2	6907.8	423.9	167.9	378.9	2762.4	295.9	68.6	97.6	4145.4	128.0	99.3	281.3	217.65	4.51	-0.3	1.8
29/03/2018	176	473191.17	6788132.63	227.7	6930.4	424.5	169.7	376.7	2791.0	300.2	70.1	98.8	4139.4	124.3	99.6	277.9	217.52	4.43	-1.5	0.9
30/03/2018	177	473191.78	6788133.36	226.8	6918.1	421.4	166.6	378.4	2756.2	295.4	68.0	98.4	4161.9	126.0	98.6	280.0	217.56	4.40	-0.7	1.2
30/03/2018	178	473191.40	6788133.18	228.1	6916.7	420.8	168.3	380.9	2733.6	294.0	65.5	96.7	4183.1	126.8	102.8	284.2	217.59	4.51	0.8	1.1
31/03/2018	179	473191.67	6788133.47	227.0	6942.1	421.0	172.2	379.0	2787.7	298.1	70.1	98.2	4154.4	122.9	102.1	280.8	217.67	4.33	-0.4	1.3
31/03/2018	180	473191.40	6788133.03	225.9	6994.9	425.1	173.5	375.6	2852.2	302.6	74.8	97.8	4142.7	122.5	98.7	277.8	217.65	4.42	-1.5	1.0
04/04/2018	182	473192.05	6788132.59	225.1	6950.6	421.4	172.0	379.1	2790.7	294.7	70.3	96.5	4159.9	126.7	101.7	282.6	217.67	4.54	0.2	0.4
04/04/2018	185	473191.26	6788132.87	227.6	6955.5	423.7	171.1	376.6	2814.4	298.2	71.5	97.7	4141.1	125.5	99.6	278.9	217.67	4.46	-1.1	0.9
05/04/2018	186	473191.42	6788133.43	226.9	6983.0	425.5	173.7	380.4	2812.0	297.7	71.9	98.0	4171.0	127.8	101.8	282.4	217.66	4.57	0.2	1.3
05/04/2018	187	473191.15	6788133.00	227.0	6950.4	423.1	169.5	379.2	2791.7	297.1	71.8	98.1	4158.7	126.0	97.7	281.1	217.60	4.39	-0.3	1.1
06/04/2018	188	473191.60	6788132.96	227.2	7009.3	430.8	169.0	377.8	2841.6	301.3	72.1	98.3	4167.7	129.5	96.9	279.5	217.61	4.44	-0.9	0.8
06/04/2018	189	473191.24	6788132.83	228.1	6942.6	420.5	169.1	375.5	2822.8	302.8	72.2	97.9	4119.8	117.7	96.9	277.6	217.65	4.46	-1.5	0.9
07/04/2018	190	473191.31	6788133.46	226.4	6935.3	420.5	171.8	374.5	2839.2	301.5	72.1	96.4	4096.1	119.0	99.7	278.1	217.63	4.59	-1.4	1.4
07/04/2018	191	473190.98	6788133.37	227.4	7041.3	429.3	174.0	379.7	2816.8	296.6	72.9	97.5	4224.5	132.7	101.1	282.2	217.65	4.51	0.1	1.5
08/04/2018	192	473191.08	6788133.16	226.9	6991.9	423.1	169.9	380.6	2813.3	299.9	71.5	99.9	4178.6	123.2	98.4	280.7	217.63	4.47	-0.4	1.3
08/04/2018	193	473191.04	6788132.63	226.9	6971.0	423.4	170.4	380.9	2809.1	298.4	71.9	95.6	4161.9	125.0	98.5	285.3	217.65	4.39	1.2	1.0
10/04/2018	194	473191.54	6788132.94	226.5	6996.1	427.6	171.2	381.8	2821.8	301.5	71.3	98.9	4174.3	126.1	99.9	282.9	217.47	4.45	0.3	0.8
10/04/2018	194	473191.71	6788132.38	227.8	6931.1	419.7	166.5	381.8	2766.1	296.5	68.2	97.5	4165.0	123.2	98.3	284.3	217.47	4.45	0.8	0.3
12/04/2018	195	473191.09	6788132.59	225.2	6884.9	418.4	167.0	379.9	2722.4	291.4	66.9	98.3	4162.5	127.0	100.1	281.6	217.61	4.49	-0.1	0.9
12/04/2018	196	473191.62	6788132.45	228.1	6946.5	425.3	168.9	380.4	2782.6	297.6	69.1	99.2	4163.9	127.7	99.8	281.2	217.62	4.46	-0.3	0.4
13/04/2018	197	473191.31	6788132.60	227.1	7048.5	428.9	175.3	379.2	2879.2	301.9	75.5	98.4	4169.3	127.0	99.8	280.8	217.62	4.40	-0.4	0.7
13/04/2018	197	473191.54	6788132.46	227.9	6972.4	423.9	170.8	381.4	2817.0	299.2	71.9	98.0	4155.4	124.7	98.9	283.4	217.62	4.40	0.5	0.5

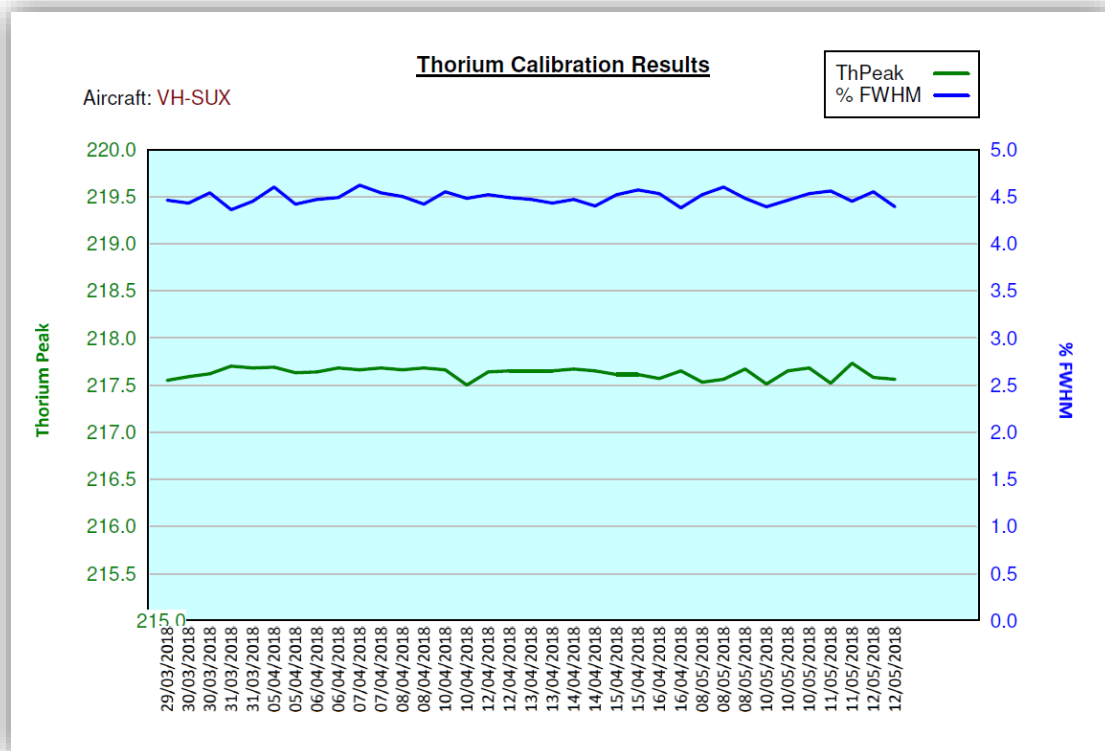
Av Normalized Th: 282.0 Min TH: 275.7 Max TH: 288.1 Standard Deviation: 2.5

Ground Cals - VH-SUX - Coober Pedy																				
		Position			Hand Sample				Background				Normalized				Th Cal Results		TH Chg	Diff
Date	Flt	East	North	GPS Ht	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	TC	Pot	Ura	Tho	ThPeak	% FVHM	±/- %	5 max
14/04/2018	198	473191.64	6788132.88	226.9	6886.8	421.8	167.6	379.8	2740.8	295.6	66.7	95.8	4146.0	126.2	100.9	284.0	217.64	4.44	0.7	0.7
14/04/2018	199	473191.89	6788133.03	227.6	6927.7	422.2	169.0	381.0	2734.7	293.0	67.2	100.3	4193.0	129.2	101.8	280.7	217.62	4.37	-0.4	0.8
15/04/2018	200	473191.73	6788132.87	226.7	6909.6	418.4	168.4	379.1	2751.2	293.7	67.1	97.6	4158.4	124.7	101.3	281.5	217.58	4.49	-0.2	0.7
15/04/2018	201	473190.55	6788133.75	226.8	6927.6	418.2	166.8	383.3	2746.3	291.3	67.4	97.6	4181.3	126.9	99.4	285.7	217.58	4.54	1.3	2.1
16/04/2018	202	473191.21	6788133.20	226.9	6980.0	426.1	172.0	381.3	2800.7	297.1	71.5	98.2	4179.3	129.0	100.5	283.1	217.54	4.50	0.4	1.2
16/04/2018	203	473191.75	6788133.04	227.7	6907.2	422.1	167.3	380.6	2736.4	292.9	66.4	96.9	4170.8	129.2	100.9	283.7	217.62	4.35	0.6	0.8
06/05/2018	204	473191.37	6788132.92	227.0	6978.4	424.9	169.3	378.8	2761.2	293.8	71.0	95.7	4217.2	131.1	98.3	283.1	217.53	4.48	0.4	0.9
08/05/2018	205	473191.47	6788133.07	227.9	6975.8	424.7	170.6	379.9	2800.6	297.8	69.6	98.1	4175.2	126.9	101.0	281.8	217.64	4.45	-0.1	1.0
08/05/2018	205	473191.62	6788132.54	227.6	6978.5	423.0	173.2	381.4	2812.5	297.7	73.1	96.0	4166.0	125.3	100.1	285.4	217.64	4.45	1.2	0.5
10/05/2018	206	473191.84	6788133.21	226.8	6943.2	422.8	169.2	378.4	2759.9	294.8	68.3	98.4	4183.3	128.0	100.9	280.0	217.65	4.50	-0.7	1.0
10/05/2018	206	473191.80	6788132.91	227.9	6901.4	419.9	167.4	381.4	2720.0	291.0	66.3	96.8	4181.4	128.9	101.1	284.6	217.65	4.50	0.9	0.7
11/05/2018	207	473191.44	6788132.25	225.8	6895.6	417.8	166.2	378.9	2724.5	292.0	65.8	97.0	4171.1	125.8	100.4	281.9	217.70	4.42	0.0	0.5
11/05/2018	207	473191.54	6788132.85	228.4	6908.0	422.1	164.2	379.2	2709.9	291.4	66.3	96.4	4198.1	130.7	97.9	282.8	217.70	4.42	0.3	0.7
12/05/2018	208	473192.12	6788132.50	227.7	6970.6	421.0	172.2	382.4	2786.0	293.9	70.3	99.3	4184.6	127.1	101.9	283.1	217.55	4.52	0.4	0.3
12/05/2018	209	473191.54	6788133.00	227.0	6940.9	422.9	167.5	381.1	2776.2	294.4	70.8	96.9	4164.7	125.5	96.7	284.2	217.53	4.36	0.8	0.9



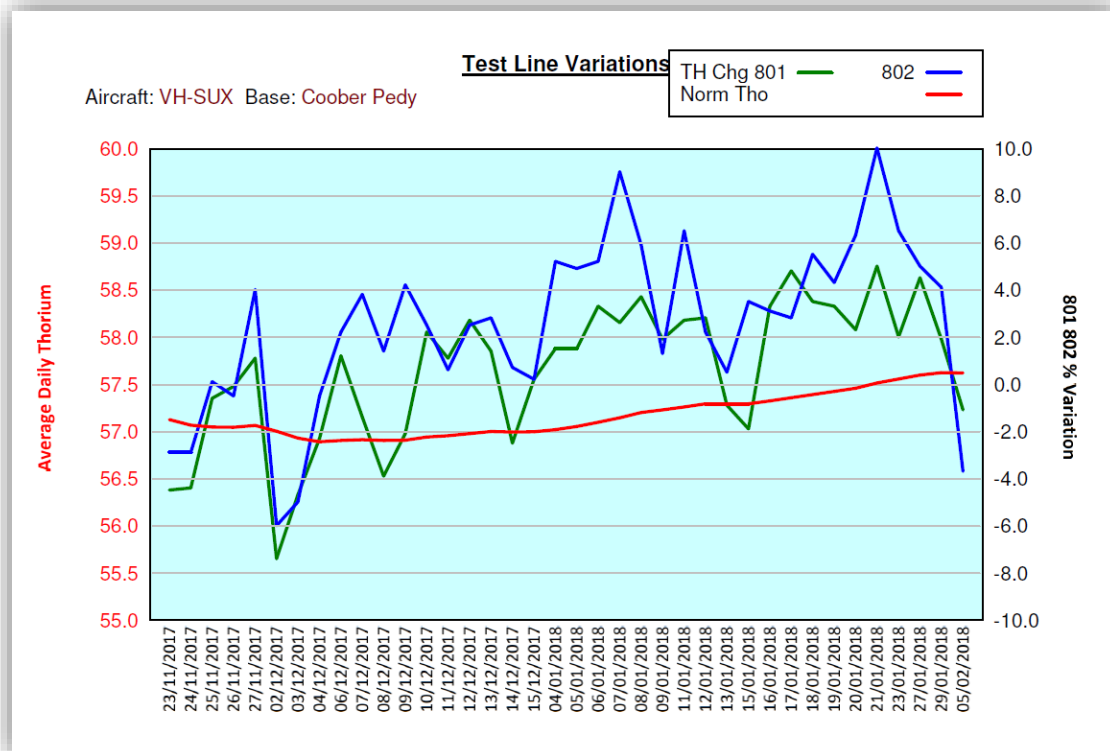
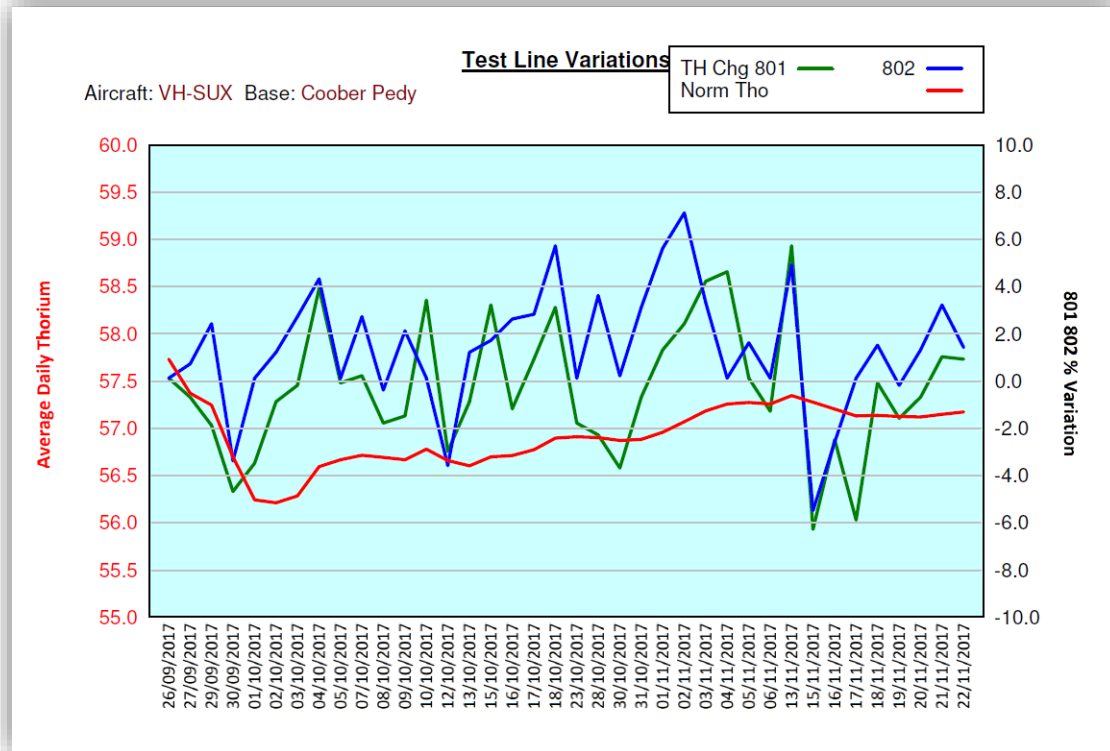


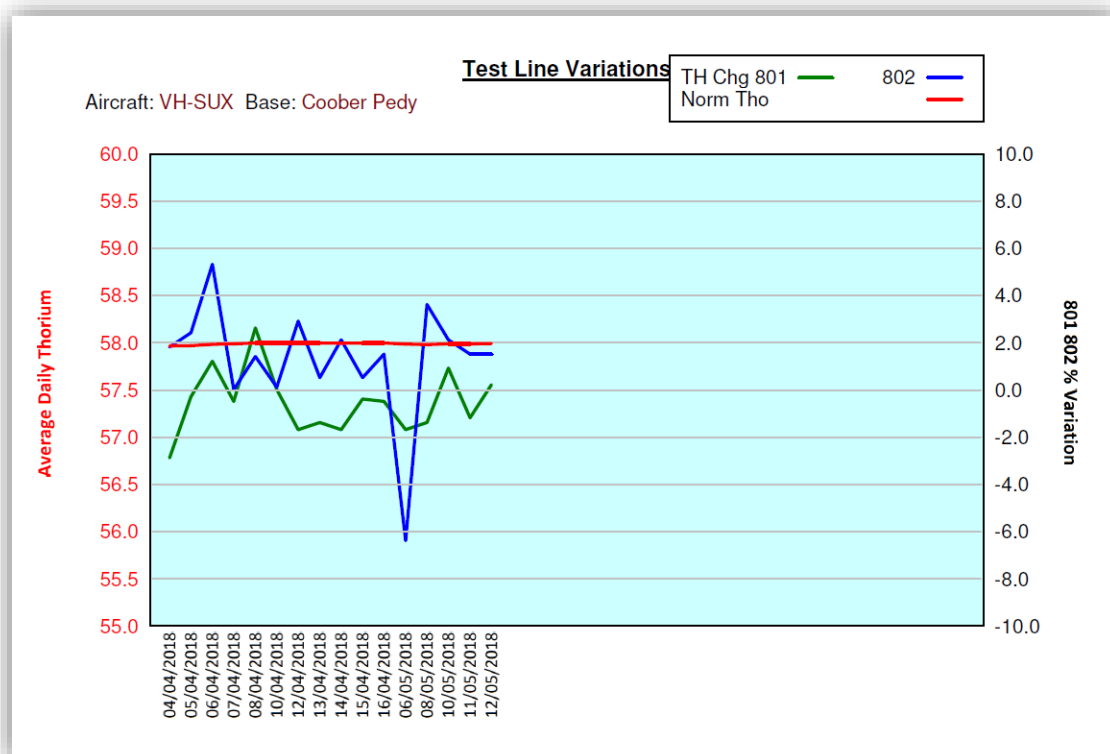
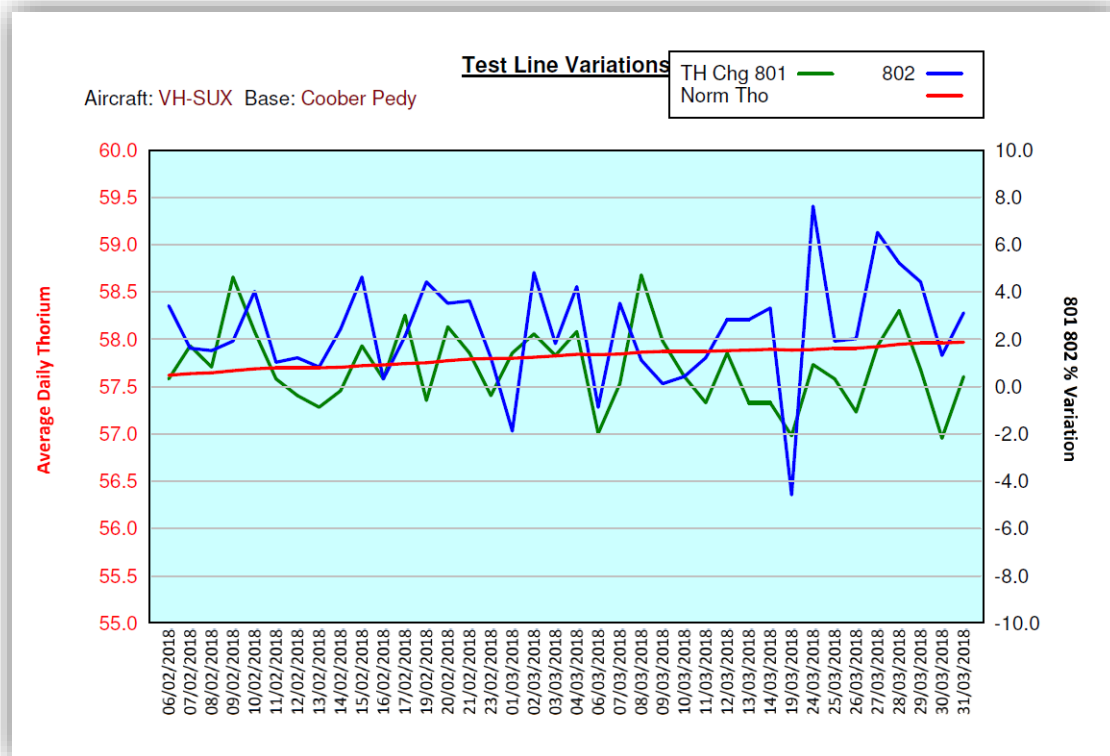




3.2 Daily Radiometric Test Line Checks

A survey test line was defined and flown before the day's first survey flight and after the day's last survey flight. The results are graphed and tabled below as per Schedule 3 S1.12 (u) & Schedule 3 S1.12 (x)





Av Normalized Th: 58.0 Min TH: 52.7 Max TH: 63.2 Standard Deviation: 1.7

Test Lines - VH-SUX - Coober Pedy												
		801				TH Chg		802				TH Chg
Date	Flt	TC	Pot	Ura	Tho	+/- 10%	Flt	TC	Pot	Ura	Tho	+/- 10%
26/09/2017	1	1760.9	155.3	56.1	57.7	0.0						
27/09/2017	4	1662.6	148.9	49.7	56.8	-0.8	6	1693.6	149.4	52.4	57.8	0.6
29/09/2017	8	1631.2	144.1	48.2	55.9	-2.0	8	1759.2	154.2	56.3	58.7	2.3
30/09/2017	9	1565.9	139.1	46.6	54.1	-4.8	9	1638.0	144.5	50.2	54.5	-3.5
01/10/2017	10	1584.8	138.7	48.1	54.2	-3.6	11	1595.9	143.0	47.1	56.2	0.0
02/10/2017	12	1645.5	145.6	51.2	55.6	-1.0	13	1674.7	146.9	52.5	56.8	1.1
03/10/2017	14	1642.6	144.6	50.6	56.0	-0.3	14	1721.3	150.7	55.3	57.8	2.6
04/10/2017	15	1745.7	149.7	57.0	58.6	3.8	15	1804.1	153.9	59.8	59.0	4.2
05/10/2017	16	1611.5	142.7	47.8	56.5	-0.2						
07/10/2017	17	1706.7	148.5	54.1	56.7	0.1	18	1718.0	148.8	53.6	58.2	2.6
08/10/2017	19	1588.9	142.5	46.4	55.6	-1.9	19	1683.9	148.0	53.3	56.4	-0.5
09/10/2017	20	1571.7	141.8	45.8	55.7	-1.6	21	1654.4	147.9	49.9	57.8	2.0
10/10/2017	22	1699.7	148.4	53.0	58.6	3.3						
12/10/2017	23	1540.1	140.1	44.0	54.9	-3.1	23	1603.7	142.5	48.8	54.5	-3.7
13/10/2017	24	1636.9	144.3	50.8	56.0	-1.0	25	1629.5	143.7	48.2	57.2	1.1
15/10/2017	26	1687.7	148.2	51.8	58.4	3.1	26	1794.8	153.5	59.1	57.6	1.6
16/10/2017	27	1632.3	144.0	47.9	55.9	-1.3	27	1738.9	152.8	54.0	58.1	2.5
17/10/2017	28	1678.2	147.8	52.3	57.2	0.8	28	1756.3	150.5	56.6	58.3	2.7
18/10/2017	29	1769.0	155.4	56.9	58.5	3.0	30	1735.1	154.6	52.1	60.1	5.6
23/10/2017	32	1647.3	141.2	52.5	55.8	-1.9						
28/10/2017	34	1565.5	136.8	45.9	55.5	-2.4	35	1641.8	147.0	48.0	58.9	3.5
30/10/2017	36	1535.6	138.2	43.6	54.7	-3.8	37	1603.2	144.8	45.2	56.9	0.1
31/10/2017	38	1604.3	141.7	47.3	56.4	-0.8	39	1638.5	145.8	48.7	58.6	3.0
01/11/2017	40	1629.1	145.6	48.6	57.6	1.2	41	1678.7	149.8	51.2	60.1	5.5
02/11/2017	42	1739.3	151.4	56.4	58.3	2.3	43	1731.8	154.7	52.1	61.1	7.0
03/11/2017	44	1744.5	153.0	54.1	59.5	4.1	45	1727.3	153.2	52.9	59.0	3.2
04/11/2017	46	1749.9	152.9	55.3	59.8	4.5						
05/11/2017							47	1732.0	153.4	53.3	58.1	1.5
06/11/2017	48	1602.0	142.8	46.5	56.4	-1.4						
13/11/2017	50	1827.4	158.0	59.6	60.5	5.6	51	1793.2	159.1	55.7	60.1	4.8
15/11/2017	52	1534.4	134.9	46.5	53.6	-6.4	53	1587.7	142.5	46.2	54.0	-5.6
16/11/2017	54	1558.5	139.8	45.4	55.7	-2.6	54	1570.8	140.8	45.1	55.6	-2.7
17/11/2017	55	1634.0	140.9	52.5	53.7	-6.0	55	1611.4	142.2	48.4	57.1	0.0
18/11/2017	56	1644.5	145.8	49.6	57.0	-0.2	56	1705.2	150.9	54.1	57.9	1.4

Av Normalized Th: 58.0 Min TH: 52.7 Max TH: 63.2 Standard Deviation: 1.7

Test Lines - VH-SUX - Coober Pedy												
		801				TH Chg		802				TH Chg
Date	Flt	TC	Pot	Ura	Tho	+/- 10%	Flt	TC	Pot	Ura	Tho	+/- 10%
19/11/2017	57	1681.6	146.0	53.5	56.1	-1.7	57	1795.3	150.3	60.5	56.9	-0.3
20/11/2017	58	1589.4	140.9	47.2	56.6	-0.8	59	1686.3	149.2	52.3	57.8	1.2
21/11/2017	60	1756.3	152.4	56.2	57.6	0.9	60	1818.9	155.8	59.9	58.9	3.1
22/11/2017	61	1707.6	150.5	53.3	57.6	0.8	61	1810.1	150.7	63.2	57.9	1.3
23/11/2017	62	1523.8	134.9	44.9	54.5	-4.6	63	1592.9	140.0	48.2	55.4	-3.0
24/11/2017	64	1533.0	137.0	44.5	54.5	-4.5	65	1568.7	137.6	46.8	55.3	-3.0
25/11/2017	66	1604.4	142.0	48.5	56.6	-0.7						
26/11/2017	68	1610.6	144.6	48.8	56.9	-0.2	69	1626.1	144.6	48.9	56.7	-0.6
27/11/2017	70	1784.7	151.4	59.3	57.6	1.0	71	1684.6	148.6	52.0	59.3	3.9
02/12/2017	73	1490.3	135.9	40.9	52.7	-7.5	73	1522.0	137.5	44.0	53.5	-6.1
03/12/2017	74	1517.8	137.9	44.3	54.2	-4.8	75	1560.2	139.8	45.3	54.0	-5.1
04/12/2017	76	1566.5	139.1	45.8	55.5	-2.4	77	1569.5	140.8	46.0	56.5	-0.6
06/12/2017	78	1691.2	148.1	51.3	57.5	1.1	78	1732.0	153.4	53.3	58.1	2.1
07/12/2017	79	1661.0	144.8	51.6	56.0	-1.5	79	1727.3	153.2	52.9	59.0	3.7
08/12/2017	80	1530.4	137.6	43.6	54.6	-4.0	81	1592.2	143.2	45.6	57.6	1.3
09/12/2017	82	1663.0	144.5	51.9	55.6	-2.2	83	1710.8	152.5	51.3	59.2	4.1
10/12/2017	84	1674.8	147.1	52.5	58.1	2.1	85	1700.4	150.5	52.2	58.3	2.4
11/12/2017	86	1623.6	144.9	48.0	57.5	1.0	87	1704.7	151.4	51.3	57.2	0.5
12/12/2017	88	1672.1	148.9	50.5	58.4	2.6	88	1694.9	150.8	51.7	58.3	2.4
13/12/2017	89	1704.9	147.9	52.7	57.7	1.3	89	1732.1	151.1	53.4	58.5	2.7
14/12/2017	90	1595.5	144.7	47.0	55.5	-2.6	91	1636.7	146.8	48.3	57.3	0.6
15/12/2017	92	1604.0	143.4	46.9	57.0	0.1	92	1613.2	143.7	48.0	57.0	0.1
04/01/2018	93	1643.0	144.7	49.7	57.8	1.4	94	1707.1	152.4	51.4	59.9	5.1
05/01/2018	95	1717.5	150.2	53.3	57.8	1.4	96	1774.3	157.7	55.0	59.8	4.8
06/01/2018	97	1688.4	148.6	51.6	58.9	3.2	97	1817.2	159.4	58.8	60.0	5.1
07/01/2018	98	1642.1	145.2	48.0	58.5	2.5	98	1778.6	153.3	55.9	62.2	8.9
08/01/2018	99	1664.5	148.9	49.8	59.2	3.6	99	1750.6	150.7	55.2	60.5	5.8
09/01/2018	100	1625.2	144.9	47.6	58.2	1.8	100	1670.4	150.2	49.5	57.9	1.2
11/01/2018	101	1716.1	151.0	53.3	58.7	2.6	101	1878.6	160.1	63.6	60.9	6.4
12/01/2018	102	1680.3	150.5	49.3	58.8	2.7	102	1680.0	150.4	50.2	58.5	2.1
13/01/2018	103	1613.8	144.5	47.3	56.7	-1.0	103	1626.6	145.3	48.3	57.5	0.4
15/01/2018	104	1680.2	149.1	50.0	56.1	-2.0	104	1727.1	152.5	53.0	59.2	3.4
16/01/2018	105	1744.4	153.3	55.1	59.1	3.2	105	1746.0	153.3	54.5	59.0	3.0
17/01/2018	106	1748.1	151.4	54.3	60.0	4.7	106	1768.3	154.2	55.2	58.9	2.7
18/01/2018	107	1768.1	154.7	55.4	59.3	3.4	107	1829.3	159.2	58.1	60.5	5.4

Av Normalized Th: 58.0 Min TH: 52.7 Max TH: 63.2 Standard Deviation: 1.7

Test Lines - VH-SUX - Coober Pedy												
		801				TH Chg		802				TH Chg
Date	Flt	TC	Pot	Ura	Tho	+/- 10%	Flt	TC	Pot	Ura	Tho	+/- 10%
19/01/2018	108	1732.4	150.9	52.9	59.2	3.2	108	1778.6	157.1	53.6	59.8	4.2
20/01/2018	109	1739.8	151.5	52.2	58.7	2.2	109	1785.0	155.5	57.0	61.0	6.2
21/01/2018	110	1734.0	153.5	52.6	60.3	4.9	110	1826.9	156.6	57.0	63.2	9.9
23/01/2018	111	1676.5	148.8	50.2	58.6	1.9	111	1735.8	153.5	53.5	61.2	6.4
27/01/2018	112	1785.0	154.9	55.3	60.1	4.4	113	1837.5	157.7	59.0	60.4	4.9
29/01/2018	114	1683.2	149.9	49.8	58.6	1.8	114	1736.3	153.1	52.6	59.9	4.0
05/02/2018	115	1694.7	148.3	52.9	56.9	-1.2	115	1690.6	150.7	52.1	55.4	-3.8
06/02/2018	116	1665.0	147.5	50.5	57.7	0.2	116	1697.3	148.8	51.2	59.5	3.3
07/02/2018	117	1652.9	145.8	48.9	58.5	1.6	117	1716.9	151.2	53.2	58.5	1.5
08/02/2018	118	1702.3	149.1	52.1	58.0	0.7	118	1722.1	152.7	53.8	58.4	1.4
09/02/2018	119	1729.7	149.8	54.5	60.2	4.5	119	1729.8	153.2	52.7	58.7	1.8
10/02/2018	120	1698.3	151.1	51.0	58.9	2.2	120	1749.7	153.6	53.2	59.9	3.9
11/02/2018	121	1665.7	147.4	49.6	57.8	0.2	121	1721.3	152.3	51.8	58.2	0.9
12/02/2018	122	1617.2	144.8	47.7	57.4	-0.5	122	1714.9	150.9	54.5	58.3	1.1
13/02/2018	123	1643.7	148.3	49.2	57.1	-1.0	123	1751.7	154.3	55.8	58.1	0.7
14/02/2018	124	1681.5	146.8	51.5	57.5	-0.3	124	1738.8	151.2	53.9	59.0	2.3
15/02/2018	125	1702.7	148.8	51.1	58.6	1.6	125	1734.4	152.2	52.2	60.3	4.5
16/02/2018	126	1643.3	145.9	48.4	57.8	0.2	126	1702.1	151.0	51.5	57.8	0.2
17/02/2018	127	1737.6	151.0	53.8	59.4	2.9	127	1729.7	152.1	53.9	58.9	2.0
19/02/2018	128	1665.9	146.5	49.9	57.3	-0.7	128	1780.9	155.8	55.0	60.2	4.3
20/02/2018	129	1728.9	152.4	52.3	59.1	2.4	129	1809.8	154.4	58.5	59.7	3.4
21/02/2018	130	1831.0	158.0	60.0	58.5	1.3	130	1843.1	157.4	61.5	59.8	3.5
23/02/2018	131	1667.8	147.2	48.9	57.5	-0.5	131	1734.3	150.5	54.1	58.4	1.1
01/03/2018	132	1672.5	149.8	49.2	58.5	1.3	132	1605.6	141.8	48.5	56.6	-2.0
02/03/2018	133	1731.6	152.5	54.3	59.0	2.1	133	1721.7	152.8	53.5	60.5	4.7
03/03/2018	134	1667.4	148.9	49.0	58.5	1.2	134	1655.6	147.6	48.7	58.8	1.7
04/03/2018	135	1697.8	149.8	51.7	59.1	2.2	135	1705.7	150.6	51.6	60.2	4.1
06/03/2018	136	1613.4	142.5	47.5	56.6	-2.1	137	1671.5	147.6	49.8	57.2	-1.0
07/03/2018	138	1719.8	150.6	52.7	57.8	0.0	138	1769.3	157.1	54.3	59.8	3.4
08/03/2018	139	1744.5	152.9	53.1	60.5	4.6	140	1747.8	153.7	54.6	58.4	1.0
09/03/2018	141	1682.4	148.2	50.9	58.9	1.8						
10/03/2018	142	1670.6	150.0	49.1	58.0	0.3	142	1722.8	152.6	53.0	58.0	0.3
11/03/2018	143	1676.8	146.6	51.4	57.4	-0.8	144	1737.5	152.1	55.6	58.5	1.1
12/03/2018	145	1704.7	150.0	51.9	58.6	1.3	146	1741.5	151.9	53.1	59.4	2.7
13/03/2018	147	1660.3	147.0	49.6	57.4	-0.8	148	1707.5	151.0	50.1	59.4	2.7

Av Normalized Th: 58.0 Min TH: 52.7 Max TH: 63.2 Standard Deviation: 1.7

Test Lines - VH-SUX - Coober Pedy												
		801				TH Chg		802				TH Chg
Date	Flt	TC	Pot	Ura	Tho	+/- 10%	Flt	TC	Pot	Ura	Tho	+/- 10%
14/03/2018	149	1710.6	148.9	52.2	57.4	-0.8	150	1684.7	148.9	49.9	59.7	3.2
19/03/2018	151	1612.4	142.8	46.6	56.6	-2.2	151	1621.0	146.3	47.5	55.1	-4.7
24/03/2018	165	1737.3	151.8	53.0	58.3	0.8	166	1813.0	158.5	55.3	62.2	7.5
25/03/2018	167	1642.7	149.9	47.8	58.0	0.2	168	1649.5	148.2	47.5	58.9	1.8
26/03/2018	169	1609.8	145.2	47.6	57.2	-1.2	170	1657.7	147.6	47.5	59.0	1.9
27/03/2018	171	1693.1	146.5	53.2	58.8	1.6	172	1759.1	154.3	54.3	61.6	6.4
28/03/2018	173	1817.8	155.2	59.1	59.7	3.1	174	1754.4	151.6	54.2	60.9	5.1
29/03/2018	175	1663.2	146.7	50.7	58.3	0.6	176	1724.6	152.6	52.8	60.4	4.3
30/03/2018	177	1635.4	145.6	49.3	56.6	-2.3	178	1659.9	147.6	48.6	58.6	1.2
31/03/2018	179	1699.0	147.6	52.0	58.1	0.3	180	1782.8	157.2	56.3	59.7	3.0
04/04/2018	182	1721.6	149.6	55.0	56.2	-3.0	185	1750.1	156.3	53.2	58.9	1.7
05/04/2018	186	1758.8	151.1	55.4	57.7	-0.4	187	1717.7	151.9	52.9	59.3	2.3
06/04/2018	188	1739.8	149.9	56.0	58.6	1.1	189	1784.0	157.8	54.1	61.0	5.2
07/04/2018	190	1767.5	152.2	56.3	57.6	-0.6	191	1791.1	155.4	57.1	57.9	-0.1
08/04/2018	192	1744.4	152.4	55.9	59.4	2.5	193	1760.2	156.0	53.2	58.7	1.3
10/04/2018	194	1723.5	149.9	53.5	57.9	-0.1						
12/04/2018	195	1599.1	143.5	45.4	56.9	-1.8	196	1696.5	151.5	49.5	59.6	2.8
13/04/2018	197	1717.4	149.0	53.9	57.1	-1.5	197	1709.0	150.3	52.1	58.2	0.4
14/04/2018	198	1613.7	141.9	47.7	56.9	-1.8	199	1657.5	148.0	48.0	59.1	2.0
15/04/2018	200	1622.5	143.5	47.5	57.7	-0.5	201	1636.7	144.8	48.4	58.2	0.4
16/04/2018	202	1669.1	145.8	51.7	57.6	-0.6	203	1651.8	148.0	48.3	58.8	1.4
06/05/2018	204	1701.9	149.5	53.1	56.9	-1.8	204	1666.4	146.5	50.3	54.2	-6.5
08/05/2018	205	1698.0	149.6	51.3	57.1	-1.5	205	1753.9	154.2	54.3	60.0	3.5
10/05/2018	206	1640.7	146.2	48.5	58.4	0.8	206	1632.7	145.4	47.3	59.1	2.0
11/05/2018	207	1594.0	144.9	46.0	57.2	-1.3	207	1615.4	145.1	45.8	58.8	1.4
12/05/2018	208	1687.9	147.1	52.1	58.0	0.1	209	1639.7	147.6	47.2	58.8	1.4

4. Data Processing

4.1 Equipment and Software

Geosoft Oasis Montaj and Intrepid Geophysics software along with internally developed software and scripts were used in the data processing.

4.2 Elevation

- The processing steps for digital elevation data were as follows:
 1. Parallax check. No parallax correction was required for the GPS data due to the relative location of the altimeter and GPS antennas on the aircraft.
 2. De-spiking of laser and radar altimeter data using non-linear filter and 4th difference filter. Further manual editing was also performed where required.
 3. Check and edit the GPS height data for spikes and edit where required.
 4. Calculation of raw laser and radar digital elevation data by subtracting the laser and radar altimeter from the GPS altitude, respectively. Height difference between GPS antenna and radar altimeter (1.13m) were also included.
 5. Tie line levelling: tie line levelling was applied to the data by minimizing the error between the tie lines and the traverse lines using the least-squares method with polynomial order of 0. Further levelling steps were applied to individual lines with shorter smoothing lengths where required.
 6. Micro-levelling was applied to the Polynomial levelled data to remove any residual levelling artefacts using Intrepid Data Processing software. The software uses a two-step process involving decorrugation and micro-levelling. Decorrugation is first applied to the Polynomial levelled gridded data, which detects residual features parallel to the acquisition line direction and produces a grid of the corrections required to remove the levelling artefacts. Micro-levelling is then applied, which extrapolates the correction values from the de-corrugation grid to an appropriate value for each point in the traverse lines. It then applies the corrections to the point data to remove the residual levelling artefacts. This micro-levelling process is based on a paper by Minty, 1991. At each step of the processing, care was taken to keep features that deemed real were remained intact. If it was not possible to determine whether a feature is real or is a residual error, it was preferred to leave it intact in the data.

Following are the micro-levelling parameters for the elevation data:

Across line high-pass cut-off: 500m

Along line low-pass cut-off: 10000m

Maximum amplitude of correction: 1m

In addition to the micro-levelling described by above parameters, careful local micro-levelling was applied where required with appropriate parameters.

7. N values that were used for adjusting the final DEM value was obtained from AusGeoid09 v1.01 supplied by Geoscience Australia. Adjustment to AHD was performed using the following formula:

$$DEM (AHD) = DEM (Ellipsoid) - N \text{ value}$$

4.3 Magnetics

1. The diurnal base station data was checked for spikes and steps, and suitably filtered prior to the removal of diurnal variations from the aircraft magnetic data.
2. The diurnal data was filtered with a 3 point wide Naudy filter to identify and remove noise below 0.05nT.
3. The filtered diurnal is then applied to the survey data by synchronising the diurnal data time with the aircraft survey time. The average diurnal base station value was added to the survey data.
4. The aircraft data was subject to field QC during the acquisition phase, and then additional QC during the final processing.
5. Parallax correction of 0.135 seconds was applied to the coordinates to match with the magnetic sensor location.
6. A fourth difference filter was run on the raw magnetic survey data in order to identify any remaining spikes in the data, which were manually edited from the data.
7. The X and Y positioning of the data was then checked for spikes before applying the IGRF correction. Any spikes in the positions were manually edited.
8. The IGRF 2015 (Geosoft) correction, was calculated at each data point considering the height above sea level using the GPS altitude. Individual flight date was used for this calculation. This regional magnetic gradient was subtracted from the survey data points.
9. The data was compensated post flight using a 16-terms model based on the work done by C.D. Hardwick.
10. Magnetic compensation sequences were flown before acquisition commenced and after routine maintenance was performed. The resulting coefficients were used for post flight magnetic compensation using Geometrics MagComp software until the next routine maintenance.
11. Tie line levelling was applied to the data by least squares minimisation, using a polynomial fit of order 0, of the differences in magnetic values at the crossover points of the survey traverse and tie line data.
12. The least squares tie line levelling process employs a two pass Gauss-Seidel iterative scheme. The essential steps in this process are:
13. In the first pass the tie lines were first adjusted to minimise, in the least squares sense, the crossover values with the traverse line values being held constant.
14. The second pass held the levelled tied line values constant, and minimised in the least squares sense, the crossover values with traverses.
15. The DC correction values to be applied to the traverse lines and tie lines were then applied to the data.
16. Micro-levelling was applied to the Polynomial levelled data to remove any residual levelling artefacts using Intrepid Data Processing software. The software uses a two-step process involving de-corrugation and micro-levelling.
17. De-corrugation is first applied to the Polynomial levelled gridded data, which detects residual features parallel to the acquisition line direction and produces a grid of the corrections required to remove the levelling artefacts.
18. Micro-levelling is then applied, which extrapolates the correction values from the de-corrugation grid to an appropriate value for each point in the traverse lines. It then applies the corrections to the point data to remove the residual levelling artefacts.

Following are the micro-levelling parameters for the magnetics data:

Across line high-pass cut-off: 500m

Along line low-pass cut-off: 10000m

Maximum amplitude of correction: 1nT

In addition to the micro-levelling described by above parameters, careful local micro-levelling was applied where required with appropriate parameters.

- This micro-levelling process is based on a paper by Minty, 1991.

4.4 Radiometrics

The processing steps for radiometric data were as follows:

- A parallax correction of 0.6 sec was applied to the coordinates to match with the geophysical sensor location on the aircraft.
- Checked radar and laser altimeter, pressure and temperature data for spikes. De-spiking and manual edits were performed where required.
- NASVD spectral smoothing
- Examine the output to determine the number of components required.
- Select 8 components for spectral reconstruction.

Standard 256 channel radiometric corrections done:

- Dead-time correction performed on 256 channel data.
- Check if energy recalibration required
- Remove 256 channel aircraft and cosmic backgrounds from the data
- Remove background radon from window data using spectral ratio method.
- Perform STP height corrected spectral stripping
- Perform STP height correction of window data to specified survey height (60m).
- Micro-levelling
- Conversion to ground concentration using coefficients derived from Carnamah radiometric calibration range.

Noise Adjusted Singular Value Decomposition (NASVD) reconstruction, as described by Hovgaard and Grasty (1997), has been applied to the radiometric data to reduce the random noise inherent to the gamma-ray spectrometric method. It should be noted that the results achieved using NASVD smoothing are dependent on the statistics of the population of gamma-ray spectra which will vary based on factors such as location, equipment used and time of flying. Performing NASVD with different parameters to that used in this processing may give different results. Care should be exercised when using the NASVD reconstructed radiometric products for further analysis as artefacts of various types may have been generated as a result of applying the technique.

After consulting with Dr. Brian Minty and Geoscience Australia, NASVD spectral processing was done using the first 8 components. This step was done per block basis with permission from Geoscience Australia.

Micro-levelling was applied where required with the following general parameters: Across line high-pass cut-off: 500m

Along line low-pass cut-off: 10000m

Maximum amplitude of correction: appropriate amplitude per TC, K, U and Th windows

In addition to the micro-levelling described by above parameters, careful local micro-levelling was applied where required with appropriate parameters.

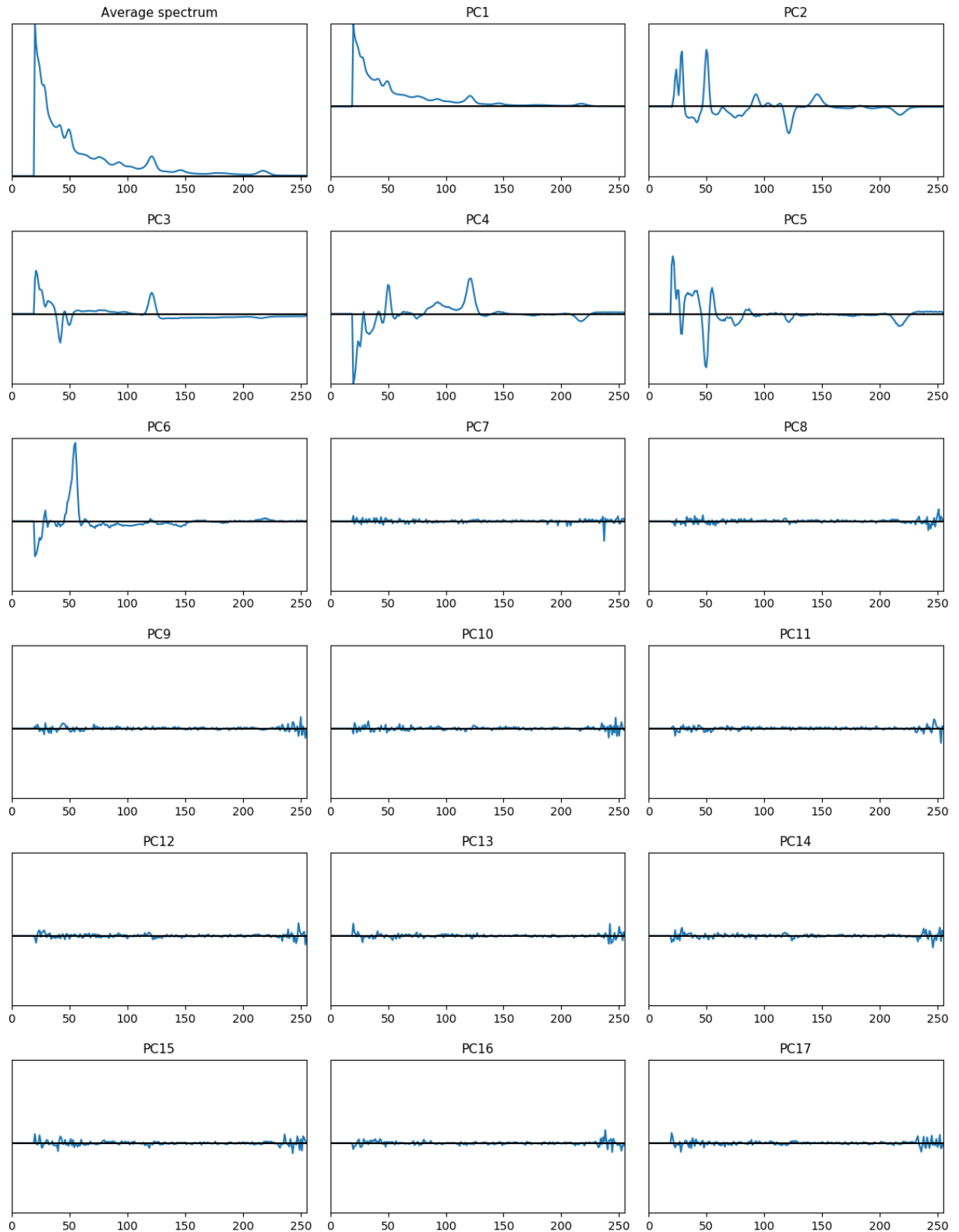


Figure 10. NASVD Principal Component Plots

5. Deliverable Items

The deliverable items included all digital data. The located data conformed to ASEG-GDF II format and the gridded data was supplied in ERMapper format. The description of the delivered data is below:

File name	Definition
P1298_RawEdited_Mag	Raw magnetic data
P1298_RawEdited_Elev	Raw elevation data
P1298_RawEdited_Rad	Raw 256 channel and window radiometric data
P1298_Final_Mag	Final magnetic data
P1298_Final_Elev	Final elevation data
P1298_Final_Rad	Final Radiometric Data

File name	Definition	Units
P1298_TMI.ers	Magnetics	nT
P1298_RTP.ers	Magnetics reduced to the pole	nT
P1298_RTP_fft1VD.ers	First vertical derivative of magnetics reduced to the pole	nT/m
P1298_DEMradar.ers	Final elevation (AHD) gridded data. Radar	m (AHD)
P1298_DEMlaser.ers	Final elevation (AHD) gridded data. Laser	m (AHD)
P1298_DoseRate_nasvd.ers	Dose Rate (no spectral smoothing)	nGy/hr
P1298_K_nasvd.ers	Potassium Concentration (no spectral smoothing)	percent
P1298_U_nasvd.ers	Uranium Concentration (no spectral smoothing)	ppm
P1298_Th_nasvd.ers	Thorium Concentration (no spectral smoothing)	ppm
P1298_DoseRate_no_nasvd.ers	Dose Rate (spectral smoothing)	nGy/hr
P1298_K_no_nasvd.ers	Potassium Concentration (spectral smoothing)	percent
P1298_U_no_nasvd.ers	Uranium Concentration (spectral smoothing)	ppm
P1298_Th_no_nasvd.ers	Thorium Concentration (spectral smoothing)	ppm

6. Format of Located ASCII Files

Elevation:

Column	Format	Dummy	Unit
RT	A4	-	-
Survey	I6	-9999	-
Flight	I5	-99	-
Line	I9	-999999	-
Fid	I9	-999999	-
Date Code	I10	-9999999	-
Bearing	I5	-99	degrees
Longitude GDA94	F13.7	-999.9999999	degrees
Latitude GDA94	F13.7	-999.9999999	degrees
Easting GDA94	F11.2	-999999.99	metres
Northing GDA94	F12.2	-9999999.99	metres
GeoidN	F7.2	-99.99	metres
GPS Height	F8.2	-999.99	metres
Zone	I4	-9	-
Radar Alt	F8.2	-999.99	metres
Laser Alt	F8.2	-999.99	metres
Laser Height	F8.2	-999.99	metres
DEM Laser	F8.2	-999.99	metres
DEM Radar	F8.2	-999.99	metres

Magnetics:

Column	Format	Dummy	Unit
RT	A4	-	-
Survey	I6	-9999	-
Flight	I5	-99	-
Line	I9	-999999	-
Fid	I9	-999999	-
Date Code	I10	-9999999	-
Bearing	I5	-99	degrees
Longitude GDA94	F13.7	-999.9999999	degrees
Latitude GDA94	F13.7	-999.9999999	degrees
Easting GDA94	F11.2	-999999.99	metres
Northing GDA94	F12.2	-9999999.99	metres
GPS Height	F8.2	-999.99	metres
Zone	I4	-9	-
Radar Alt	F8.2	-999.99	metres
Laser Alt	F8.2	-999.99	metres
DEM Laser	F8.2	-999.99	metres
DEM Radar	F8.2	-999.99	metres
Magnetics Raw Edited Compensated	F11.3	-99999.999	nT
Magnetics Final Tielevelled	F11.3	-99999.999	nT
Magnetics Final Microlevelled	F11.3	-99999.999	nT
Magnetics Final Microlevelled 1VD	F11.3	-99999.999	nT
Magnetic Diurnal	F11.3	-99999.999	nT
Magnetic IGRF	F11.3	-99999.999	nT

Radiometrics :

Column	Format	Dummy	Unit
RT	A4	-	-
Survey	I6	-9999	-
Flight	I5	-99	-
Line	I9	-999999	-
Fid	I9	-999999	-
Date Code	I10	-9999999	-
Bearing	I5	-99	degrees
Longitude GDA94	F13.7	-999.9999999	degrees
Latitude GDA94	F13.7	-999.9999999	degrees
Easting GDA94	F11.2	-999999.99	metres
Northing GDA94	F12.2	-9999999.99	metres
GPS Height	F8.2	-999.99	metres
Zone	I4	-9	-
Radar Alt	F8.2	-999.99	metres
Laser Alt	F8.2	-999.99	metres
DEM Laser	F8.2	-999.99	metres
DEM Radar	F8.2	-999.99	metres
Pressure	F8.2	-999.99	mbar
Temperature	F7.2	-99.99	degC
Dose no NASVD	F10.2	-99999.99	nGy/hr
K percent no NASVD	F9.2	-9999.99	%
U ppm no NASVD	F9.2	-9999.99	ppm
Th ppm no NASVD	F9.2	-9999.99	ppm
Dose NASVD	F10.2	-99999.99	nGy/hr
K percent NASVD	F9.2	-9999.99	%
U ppm NASVD	F9.2	-9999.99	ppm
Th ppm NASVD	F9.2	-9999.99	ppm

7. References

- Briggs I. C., 1974: Machine contouring using minimum curvature. Geophysics. Vol. 39, No. 1. February 1974. pp. 39-48.
- Geoscience Australia, 2010. 1 Second SRTM Derived DSM and DEM User Guide, 2010. (Distributed by Geoscience Australia with the 1 second DEM products.)
- Minty, B.R.S., 1991. Simple Micro-Levelling for Aeromagnetic Data, Exploration Geophysics (1991), 22, 591-592.
- Smith, W. H. F, and P. Wessel, 1990, Gridding with continuous curvature splines in tension, Geophysics 55, 293-305
- IAEA, 2003, Guidelines for radioelement mapping using gamma ray spectrometry data
- Hovgaard, J. and Grasty, R.L., 1997, Reducing statistical noise in airborne gamma-ray data through spectral component analysis: In "Proceedings of Exploration 97: Fourth Decennial Conference on Mineral Exploration" edited by A.G. Gubins, 1997, 753-764.
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8. Flight Logs

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
26/09/2017	1	Tallaringa South	L Bell	VH-SUX				Flew a Comp Box.
26/09/2017	2	Tallaringa South	L Bell	VH-SUX				Flew a Cloverleaf.
26/09/2017	3	Tallaringa South	L Bell	VH-SUX				Flew a Parallax. Afternoon flight abandoned due to high winds, no post test line flown.
26/09/2017		Tallaringa South			0.5			Half day standby due to unsuitable survey weather.
27/09/2017	4	Tallaringa South	L Bell	VH-SUX				Flew a Comp Box. Comp Box accepted.
27/09/2017		Tallaringa South		VH-SUX				Flight 005 was inhouse ICUS training.
27/09/2017	6	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300010-300020 and Tie Lines 391200-391210. All lines accepted, except for a section of Trav Line 300020 due to the sample separation being exceeded.
28/09/2017		Tallaringa South		VH-SUX				Flight 007 was inhouse ICUS training.
28/09/2017		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
29/09/2017	8	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 300030 and flew Tie Lines 390010 and 391190. All lines accepted, except for a section of Trav Line 300030 which will be reflown due to out of spec diurnal data. Flight abandoned early due to unsuitable diurnal activity.
29/09/2017		Tallaringa South			0.5			Half day standby due to unsuitable diurnal activity and survey weather.
30/09/2017	9	Tallaringa South	L Bell	VH-SUX				Flew Tie Line 391180. Line accepted. Flight abandoned due to unsuitable diurnal activity.
30/09/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather and diurnal activity.
01/10/2017	10	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300040-300050 and Tie Line 390020-390030 and 391170. All lines accepted.
01/10/2017	11	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305590-305600 and flew Tie Lines 391150-391160. All lines accepted.
02/10/2017	12	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305530-305580. All lines accepted.
02/10/2017	13	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300060-300070 and Tie Lines 390040-390050 and 391130-391140. All lines accepted. Sample separation exceeded in Tie Line 390050, will be patched.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
03/10/2017	14	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300080-300090 and Tie Lines 390060-390070 and 391110-391120. All lines accepted, except for a section of 300080, due to out of spec mag noise. Afternoon flight abandoned due to unsuitable survey weather.
04/10/2017	15	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305500-305520. All lines accepted. Morning flight and afternoon flight abandoned due to unsuitable survey weather.
04/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
05/10/2017	16	Tallaringa South	L Bell	VH-SUX				Flight 016 was abandoned due to unsuitable survey weather.
05/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
06/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
07/10/2017	17	Tallaringa South	L Bell	VH-SUX				Flew Tie Lines 391080-391100. All lines accepted. Flight abandoned early due to unsuitable survey conditions.
07/10/2017	18	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305460-305490. All lines accepted.
08/10/2017	19	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305520 and 305405-305430. All lines accepted. Trav Line 305430 was abandoned before completion due to unsuitable survey weather and will be completed at a later date.
08/10/2017		Tallaringa South			0.5			Half day standby due to unsuitable survey weather.
09/10/2017	20	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300100-300110 and Tie Lines 390080-390090 and 391060-391070. All lines accepted.
09/10/2017	21	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305380-305410. All lines accepted.
10/10/2017	22	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305340-305370. All lines accepted. Afternoon flight abandoned due to unsuitable survey weather. Afternoon test flight not flown due to afternoon test flight being abandoned.
10/10/2017		Tallaringa South			0.5			Half day standby due to unsuitable survey weather.
11/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
12/10/2017	23	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305320-305330. All lines accepted except for a section of 305330 due to out of spec diurnal.
12/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
13/10/2017	24	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300120-300150. All lines accepted, except for a section from Trav Line 300120, due to the Sample Separation being exceeded, and 300140, due to out of spec diurnal.
13/10/2017	25	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 305300-305310. All lines accepted, except for a section of 305310, due to out of spec diurnal.
14/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
15/10/2017	26	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 305280-305290. All lines accepted, except for a section of Trav Line 305280, due to out of spec diurnal, and a section of Trav Line 305290 due to the sample separation being exceeded. Flight abandoned early due to unsuitable diurnal activity. Afternoon flight abandoned due to unsuitable diurnal activity.
15/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
16/10/2017	27	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305220-305270. All lines accepted except for sections of Trav Line 305250 and 305240, due to out of spec mag noise and out of spec diurnal data respectively.
17/10/2017	28	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 305200-305210. Flight and lines abandoned due to unsuitable survey weather. Both lines will be completed at a later date.
17/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
18/10/2017	29	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300160-300190. All lines accepted, except for a section of Trav Lines 300190 and 300160 due to the height limit being exceeded.
18/10/2017	30	Tallaringa South	L Bell	VH-SUX				Flew Patches for Trav Lines 305430, 305330, 30531, 305290, 305280, 305110, 305210 and 305201. All lines accepted.
19/10/2017		Tallaringa South		VH-SUX				Ferry flight from Coober Pedy to Adelaide.
19/10/2017		Tallaringa South				1.0		Full day standby due to scheduled maintenance of the plane.
20/10/2017		Tallaringa South				1.0		Full day standby due to scheduled maintenance of the plane.
21/10/2017		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
22/10/2017		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
22/10/2017		Tallaringa South		VH-SUX				Ferry flight from Adelaide to Coober Pedy.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
22/10/2017	31	Tallaringa South	M Anderson	VH-SUX				Flew Comp Box.
23/10/2017	32	Tallaringa South	M Anderson	VH-SUX				Flew Trav Lines 305160-305190. All lines accepted, except for a section of 305160 due to out of spec diurnal.
23/10/2017	33	Tallaringa South	M Anderson	VH-SUX				Flew a Comp Box, accepted. Afternoon test line not flown due to unsuitable survey weather.
24/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
25/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
26/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
27/10/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather
28/10/2017	34	Tallaringa South	M Anderson	VH-SUX				Trav lines 30445 and 46 flown also trav lines 30514 and 15 flown. all lines accepted.
28/10/2017	35	Tallaringa South	M Anderson	VH-SUX				Trav lines 30020-23 flown all data accepted.
29/10/2017		Tallaringa South			1.0			Full day standby due to strong wind.
30/10/2017	36	Tallaringa South	M Anderson	VH-SUX				Trav lines 305100 to 305130 flown. Mag spike and xtrack in line 305120 and 305130 patch will be made for both. All other lines accepted in full.
30/10/2017	37	Tallaringa South	M Anderson	VH-SUX				Trav lines 30024 and 025 flown. All lines accepted.
31/10/2017	38	Tallaringa South	M Anderson	VH-SUX				Trav lines 30026 to 30029 flown. All lines accepted
31/10/2017	39	Tallaringa South	M Anderson	VH-SUX				Trav lines 30508 and 09 flown in addition to ties 390100 to 390150. Line 390120 requires patch due to line not being completed. All other lines and data accepted
01/11/2017	40	Tallaringa South	M Anderson	VH-SUX				Trav lines 30506 and 30507 flown. Tie lines 39016 to 39021 completed too. All lines completed.
01/11/2017	41	Tallaringa South	M Anderson	VH-SUX				Trav lines 30030 to 30033 flown in addition to tie line 39105. All lines and data accepted.
02/11/2017	42	Tallaringa South	M Anderson	VH-SUX				Trav lines 30034 to 30037 flown, all lines accepted. 30034 has a speed bust, will be patched.
02/11/2017	43	Tallaringa South	M Anderson	VH-SUX				Trav lines 30504 and 30505 flown in addition to tie lines 39022 to 39027. All lines accepted.
03/11/2017	44	Tallaringa South	M Anderson	VH-SUX				Trav lines 304980-305030 flown. All other lines accepted in full.
03/11/2017	45	Tallaringa South	M Anderson	VH-SUX				Trav lines 300380 and 300390 flown, both lines accepted. 300380 will be patched, all other lines accepted in full.
04/11/2017	46	Tallaringa South	M Anderson	VH-SUX				Trav lines 30040 and 30041 flown. 30041 flown incomplete will be finished at next opportunity

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
04/11/2017		Tallaringa South		VH-SUX				Ferry Coober Pedy to Adelaide for unscheduled maintenance
04/11/2017		Tallaringa South				0.5		Unscheduled maintenance in Adelaide expected to return tomorrow.
05/11/2017		Tallaringa South		VH-SUX				Ferry Adelaide to Coober Pedy.
05/11/2017	47	Tallaringa South	M Anderson	VH-SUX				Trav lines 30042 and 30043 flown and accepted.
06/11/2017	48	Tallaringa South	M Anderson	VH-SUX				Trav lines 30044 to 30047 flown. Out of spec speed on line 30046 in two different spots. Both patched. All other data accepted.
07/11/2017		Tallaringa South			1.0			Full day standby due to strong wind
08/11/2017		Tallaringa South			1.0			Full day standby due to unsettled diurnal.
09/11/2017		Tallaringa South				1.0		Full day standby due to SUX being in Adelaide for scheduled 110 hour maintenance
09/11/2017		Tallaringa South		VH-SUX				SUX was flown from Coober Pedy to Adelaide for scheduled maintenance.
10/11/2017		Tallaringa South				1.0		Full day standby due to SUX being in Adelaide for 110 hour maintenance.
11/11/2017		Tallaringa South				1.0		Full day standby due to SUX being in Adelaide for 110 hourly maintenance
11/11/2017		Tallaringa South		VH-SUX				SUX was flown from Adelaide to Port Augusta, was unable to fly to Coober Pedy due to weather.
12/11/2017		Tallaringa South		VH-SUX				SUX was flown from Port Augusta to Coober Pedy.
12/11/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
13/11/2017	49	Tallaringa South	L Bell	VH-SUX				Flew a Comp Box, which was accepted.
13/11/2017	50	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300480-300490. All lines accepted.
13/11/2017	51	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 304960-304970. All lines accepted, but only partially flown due to unsuitable weather, they will be completed at a later date.
14/11/2017		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
15/11/2017	52	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300500-300530. All lines accepted.
15/11/2017	53	Tallaringa South	L Bell	VH-SUX				Flew Patches for Trav Lines 304960-304970, 305120-305130, 305160, 305240-305250, Patches for Tie Lines 390050 and 390120, Trav Lines 304950 and 305420 and Tie Lines 390280-390290. All patches and lines accepted. Height bust in Tie Line 390290 due to buildings (Maralinga community).

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
16/11/2017	54	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300540-300550. Both lines have sections that will need to be reflighted due to unsettled diurnal activity.
16/11/2017		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
17/11/2017	55	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303200-303230. All lines accepted. Afternoon flight abandoned due to unsuitable survey weather.
18/11/2017	56	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 303240-303270. All lines accepted, except for a section of Trav Line 303240 and 303260, both due to the Height specification being exceeded. Afternoon flight abandoned due to unsuitable survey weather.
19/11/2017	57	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302880-302910. All lines accepted, Trav Lines 302880-302890 were not completed due to unsuitable survey weather and will be completed at a later date.
19/11/2017		Tallaringa South			0.5			Half day standby due to unsuitable survey weather.
20/11/2017	58	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302840-302870. All lines accepted.
20/11/2017	59	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302950-302920. All lines accepted, except for a section of 302930 and 302950, both due to out of spec diurnals.
21/11/2017	60	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302960-302970. All lines accepted, except for sections of 302960 and 302970 due to the flight path deviation being exceeded and out of spec diurnal, respectively.
21/11/2017		Tallaringa South			0.5			Half day standby due to unsuitable diurnal activity.
22/11/2017	61	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302980-302990. All lines accepted. Flight abandoned early due to unsuitable survey weather.
22/11/2017		Tallaringa South			0.5			Half day standby due to unsuitable survey weather.
23/11/2017	62	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303000-303030. All lines accepted. Trav Line 303000 will be completed at a later date.
23/11/2017	63	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 300560 and Flew Trav Patches 300021, 300031, 300081, 300121, 300141, 300161, 300191, 300381, 300411, 300541 and 300551. All lines and patches accepted except for a section of Trav Line 300560, due to the speed limit being exceeded.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
24/11/2017	64	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303040-303070. All lines accepted. Trav Lines 303040-303050 will be completed at a later date.
24/11/2017	65	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302800-302830. All lines accepted, except for sections of Trav Lines 302800 and 302820, both due to mag noise exceeding specifications.
25/11/2017	66	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302760-302790. All lines accepted except for a section of Trav Line 302760 due to mag noise, 302770 due to out of spec diurnal, 302780 due to height specification being exceeded and 302790 due to out of spec diurnal.
25/11/2017	67	Tallaringa South	L Bell	VH-SUX				Flew part of Trav Line 303080. Flight and line abandoned due to unsuitable diurnal activity.
26/11/2017	68	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303090-303120. All lines accepted, except for a section of Trav Line 303090 due to the speed specifications being exceeded.
26/11/2017	69	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302720-302750. All lines accepted, except for a section of Trav Line 302730 due to a height bust and 302720 due to out of spec diurnal.
27/11/2017	70	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 302710 and Trav Patches 302771, 302881, 302891, 302971, 303041, 303052 and 303081. All lines and patches accepted, except for Trav Patch 302281, due to multiple speed busts.
27/11/2017	71	Tallaringa South	L Bell	VH-SUX				Flew Tie Line 321040 and Trav Patches 30001, 303241, 302951, 302801, 302821, 303261, 302802, 302761, 302931, 302962, 302791, 302822 and 302781. All lines and patches accepted.
28/11/2017		Tallaringa South		VH-SUX				Ferry flight from Coober Pedy to Adelaide for scheduled maintenance.
28/11/2017		Tallaringa South				1.0		Plane in Adelaide for scheduled maintenance.
29/11/2017		Tallaringa South				1.0		Plane in Adelaide for scheduled maintenance.
30/11/2017		Tallaringa South				1.0		Plane in Adelaide for scheduled maintenance.
01/12/2017		Tallaringa South			1.0			Full day standby due to strong wind. VH-SUX is still in Adelaide waiting for weather to clear.
02/12/2017		Tallaringa South		VH-SUX				Ferry from Adelaide to Coober Pedy following 110 hour maintenance.
02/12/2017	72	Tallaringa South	M Anderson	VH-SUX				Compbox carried out and accepted.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
02/12/2017	73	Tallaringa South	M Anderson	VH-SUX				Flew lines 30269 to 30270. Patch required for line 302690 due to out of spec diurnal. All other data accepted
03/12/2017	74	Tallaringa South	M Anderson	VH-SUX				Flew lines 30265 to 30268 and patch 30269.1 All data accepted.
03/12/2017	75	Tallaringa South	M Anderson	VH-SUX				Flew lines 30313 to 30316. All data accepted.
04/12/2017	76	Tallaringa South	M Anderson	VH-SUX				Flew lines 30317 to 30319 and line 30328. All data accepted.
04/12/2017	77	Tallaringa South	M Anderson	VH-SUX				Flew lines 30261 to 30264. All lines will be reflown in full due to strobes being left on during flight
05/12/2017		Tallaringa South			1.0			Fullday standby due to unsuitable diurnal activity
06/12/2017	78	Tallaringa South	M Anderson	VH-SUX				Flew lines 303290 to 303320. Patch needed on line 303310 due to out of spec diurnal.
06/12/2017		Tallaringa South			0.5			Halfday standby allocated for unsettled diurnal activity
07/12/2017	79	Tallaringa South	M Anderson	VH-SUX				Flew lines 30491 to 30494. All data accepted.
07/12/2017		Tallaringa South			0.5			Halfday standby allocated due to strong wind.
08/12/2017	80	Tallaringa South	M Anderson	VH-SUX				Flew lines 30487 to 30490. All data accepted.
08/12/2017	81	Tallaringa South	M Anderson	VH-SUX				Flew lines 30333 to 30336 and patch 30331.1. Line 30336 requires patch due to diurnal. All other data accepted.
09/12/2017	82	Tallaringa South	M Anderson	VH-SUX				Flew lines 30337 to 30338 in addition to patches 30273.1, 30288.2, 30272.1, 30309.1, 30336.1 and 30297.3 all data accepted.
09/12/2017	83	Tallaringa South	M Anderson	VH-SUX				Flew lines 30483 to 30486. All data accepted.
10/12/2017	84	Tallaringa South	M Anderson	VH-SUX				Flew lines 30479 to 30482. All data accepted.
10/12/2017	85	Tallaringa South	M Anderson	VH-SUX				Flew lines 30339 to 30342. All data accepted.
11/12/2017	86	Tallaringa South	M Anderson	VH-SUX				Flew lines 30343 to 30346. 1.4km speed bust due to tailwind and downhill terrain. All data accepted.
11/12/2017	87	Tallaringa South	M Anderson	VH-SUX				Flew lines 30474 to 30477. Patch needed for out of spec diurnal on line 30476. All other data accepted.
12/12/2017	88	Tallaringa South	M Anderson	VH-SUX				Flew lines 30471 to 30473 in addition to patches 30476.1, 30308.2 and line 30478. All data accepted.
12/12/2017		Tallaringa South			0.5			Half day standby allocated due to high temperature and thermals. No afternoon flight as a result
13/12/2017	89	Tallaringa South	M Anderson	VH-SUX				Flew lines 30347 to 30350 all data accepted.
13/12/2017		Tallaringa South			0.5			Halfday standby due to high afternoon temperature
14/12/2017	90	Tallaringa South	M Anderson	VH-SUX				Flew lines 30351 and 30352. All data accepted.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
14/12/2017	91	Tallaringa South	M Anderson	VH-SUX				Flew lines 30467 to 30470. All data accepted.
15/12/2017	92	Tallaringa South	M Anderson	VH-SUX				Flew lines 30462, 463, 465 and 30466. Height bust 30462 patch made. All other data accepted.
15/12/2017		Tallaringa South				0.5		Halfday standby due to plane out of hours.
03/01/2018		Tallaringa South		VH-SUX				Ferry Flight from Adelaide to Coober Pedy after Christmas break (scheduled maintenance done during break).
04/01/2018	93	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303530-303560. All lines accepted.
04/01/2018	94	Tallaringa South	L Bell	VH-SUX				Flew a Comp Box.
05/01/2018	95	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303570-303600. All lines accepted.
05/01/2018	96	Tallaringa South	L Bell	VH-SUX				Flew a Comp Box.
06/01/2018	97	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303610-303640. All lines accepted, except for Trav Line 303620, due to out of spec diurnal.
07/01/2018	98	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303650-303680. All lines accepted.
08/01/2018	99	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303690-303720. All lines accepted.
09/01/2018	100	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303730-303760 and Tie Lines 391020-391030. All lines accepted, except for Tie Lines 391020-391030, both due to out of spec diurnal. Trav Lines 303750-303760 only partially flown due to unsuitable survey weather over the western end of the block.
10/01/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
11/01/2018	101	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303770-303800. Lines all partially flown due to unsuitable survey weather on the western side of the block. All lines accepted.
11/01/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
12/01/2018	102	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303810-303840. All lines accepted. Trav Lines 303830-303840 only partially flown due to unsuitable survey weather. Height bust in Trav Line 303840 due to Mobella/occupied building.
12/01/2018		Tallaringa South			0.5			Half day standby due to unsuitable survey weather.
13/01/2018	103	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303850-303880. All lines accepted. Height bust in Trav Lines 303850-303870, due to occupied buildings/Mobella.
14/01/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather and diurnal activity.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
15/01/2018	104	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303890-3039230 and Tie Lines 391009-391010. All lines accepted, except for part of Trav Line 303920, due to out of spec diurnal.
16/01/2018	105	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303791-303801 and 303930-303940 and Tie Lines 390980-390990. All lines accepted.
17/01/2018	106	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303621, 303751-303761, 303950-303980 and 304621. All lines accepted.
18/01/2018	107	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303771-303782 and 303990-304000 and Tie Lines 390960-390970. All lines accepted.
19/01/2018	108	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 303831-303841 and 304010-304020 and Tie Lines 390940-390950. All lines accepted.
20/01/2018	109	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 304030-304060 and Tie Lines 390920-390930. All lines accepted.
21/01/2018	110	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 304070 to 304120, in addition to patching 30392.1 All data accepted.
22/01/2018		Tallaringa South			1.0			Full day standby due to unsettled diurnal activity in the morning.
23/01/2018	111	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30411.1. to 30416.0. All data accepted.
24/01/2018		Tallaringa South				1.0		Full day standby allocated due to VH-SUX undertaking 110 hourly maintenance.
24/01/2018		Tallaringa South		VH-SUX				Ferry Coober Pedy to Adelaide for 110 hour maintenance.
25/01/2018		Tallaringa South				1.0		Full day standby due to plane being in Adelaide for maintenance
26/01/2018		Tallaringa South		VH-SUX				Ferry Adelaide to Coober Pedy.
26/01/2018		Tallaringa South				1.0		Full day standby due to plane arriving back in Coober Pedy following maintenance.
27/01/2018	112	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30417 to 30420. All data accepted.
27/01/2018	113	Tallaringa South	M Anderson	VH-SUX				Compbox flown and accepted.
28/01/2018		Tallaringa South			1.0			Full day standby due to thunderstorms on block and overnight rain.
29/01/2018	114	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30421, 30423.1, 30424 and 30425, all require patches as they are incomplete. Pilot aborted due to strong wind at the end of the line. All data accepted.
30/01/2018		Tallaringa South			1.0			Full day standby allocated due to strong wind and heavy rain.

Daily Log								
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31/01/2018		Tallaringa South			1.0			Full day standby due to strong wind and rain.
01/02/2018		Tallaringa South			1.0			Full day standby due to rain and strong wind.
02/02/2018		Tallaringa South			1.0			Full day standby due to wind and rain.
03/02/2018		Tallaringa South			1.0			Full day standby due to ground too wet for survey
04/02/2018		Tallaringa South			1.0			Full day standby as ground too wet for survey. Hoping to fly tomorrow morning.
05/02/2018	115	Tallaringa South	M Anderson	VH-SUX				Flew travs 30423.2, 30424.1, 30425.2, 30426 and 427 plus 30421.1 all data accepted.
06/02/2018	116	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30428 to 30431 in addition to line 39091. All data accepted.
07/02/2018	117	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30432 to 30437. 30436 and 30437 need patched as they are incomplete.
08/02/2018	118	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30438 to 30440 and patches 30436.1 and 30447.1 in addition to trav 30422.1. All data accepted.
09/02/2018	119	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30442 to 30444 and part lines 30447 and 30448. All data accepted.
10/02/2018	120	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30449 to 30452. All data accepted.
11/02/2018	121	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30453 to 30456 and travs 30460, 30461. Which will be patched. All data accepted. Magspike on lines 304530 and 304540. Patches will be made.
12/02/2018	122	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30447.1 and 30448.2, and ties 39054 to 39057. All data accepted.
13/02/2018	123	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30457 to 30460 in addition to patches 30453.1 and 30454.1. All data accepted.
14/02/2018	124	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30464 and 30461.1 in addition to ties 39048 to 39053. All data accepted.
15/02/2018	125	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30057 and 30058 plus 30259 and 30260 in addition to ties 39046 and 39047. All data accepted.
16/02/2018	126	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30059 to 30062. All data accepted.
17/02/2018	127	Tallaringa South	M Anderson	VH-SUX				Flew trav lines 30063 to 30066. Three patches made on line 300630 due to speed busts caused by tailwind. All other data accepted.
18/02/2018		Tallaringa South			1.0			No flying possible due to storms in the area and some diurnal activity.
19/02/2018	128	Tallaringa South	M Anderson	VH-SUX				Later take off due to storm activity in the area. Trav lines completed.

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20/02/2018	129	Tallaringa South	M Anderson	VH-SUX				Fine conditions for morning ops with increasing winds
21/02/2018	130	Tallaringa South	M Anderson	VH-SUX				One flight completed in the morning with increasing winds towards the end of the flight
22/02/2018		Tallaringa South			1.0			No Operations due to strong winds
23/02/2018	131	Tallaringa South	M Anderson	VH-SUX				Only 2 lines completed due to poor weather.
24/02/2018		Tallaringa South		VH-SUX				Aircraft ferried to Adelaide for maintenance.
25/02/2018		Tallaringa South				1.0		MA
26/02/2018		Tallaringa South				1.0		MA
27/02/2018		Tallaringa South				1.0		ma
28/02/2018		Tallaringa South		VH-SUX				Aircraft returned from maintenance
01/03/2018	132	Tallaringa South	M Anderson	VH-SUX				Trav lines continued to the southern end of the survey area. Post maintenance compbox completed post survey flight and will need to be reviewed.
02/03/2018	133	Tallaringa South	M Anderson	VH-SUX				Trav lines completed
03/03/2018	134	Tallaringa South	M Anderson	VH-SUX				Trav lines completed
04/03/2018	135	Tallaringa South	M Anderson	VH-SUX				
05/03/2018		Tallaringa South			1.0			Poor weather grounded operations for the day.
06/03/2018	136	Tallaringa South	M Anderson	VH-SUX				Trav lines completed to the southern portion of the survey area
06/03/2018	137	Tallaringa South	M Anderson	VH-SUX				2 trav lines completed
07/03/2018	138	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301030-301040. All lines accepted. Flight abandoned due to unsuitable survey weather.
07/03/2018		Tallaringa South			0.5			Half day standby due to unsuitable survey weather.
08/03/2018	139	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301050-301080. All lines accepted.
08/03/2018	140	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302570-302580 and Tie Line 390900. All lines accepted, except for a section of Trav Line 302580, due to out of spec mag noise.
09/03/2018	141	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 302610-302640. All lines accepted.
09/03/2018		Tallaringa South			0.5			Half day standby due to unsuitable survey weather.
10/03/2018	142	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301090-301120. All lines accepted, except for a section of Trav Line 301120 and all of Trav Line 301110, both due to out of spec diurnal.
11/03/2018	143	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302530-302560. All lines accepted.
11/03/2018	144	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301130-301160. All lines accepted, except for a section of Trav Line 301160 due to out of spec diurnal.

Daily Log								
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12/03/2018	145	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301170-301200. All lines accepted.
12/03/2018	146	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301210-301240. All lined accepted.
13/03/2018	147	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302490-302520. All lines accepted.
13/03/2018	148	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301250-301280. All lines accepted.
14/03/2018	149	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301290-301320. All lines accepted. Trav Line 301290 and 301300 were cut short due to low cloud, both will be completed at a later date.
14/03/2018	150	Tallaringa South	L Bell	VH-SUX				Flew Tie Lines 390790-390890. All lines accepted.
15/03/2018		Tallaringa South		VH-SUX				Ferry Flight from Coober Pedy to Griffith for scheduled maintenance.
15/03/2018		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
16/03/2018		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
17/03/2018		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
18/03/2018		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
19/03/2018		Tallaringa South		VH-SUX				Ferry Flight from Griffith to Coober Pedy after scheduled maintenance.
19/03/2018	151	Tallaringa South	L Bell	VH-SUX				Comp Box Flight.
19/03/2018	152	Tallaringa South	L Bell	VH-SUX				Comp Box Flight.
20/03/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
21/03/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
22/03/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
23/03/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
24/03/2018	164	Tallaringa South	L Bell	VH-SUX				Comp Box Flight.
24/03/2018	165	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302470-302480. All lines accepted.
24/03/2018	166	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301330-301360. All lines accepted.
25/03/2018	167	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301370-301400. All lines accepted.
25/03/2018	168	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 302451-302460. All lines accepted except for a section of Trav line 302451 due to diurnal out of spec.
26/03/2018	169	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302410-302440. All lines accepted.
26/03/2018	170	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301410-301440. All lines accepted.
27/03/2018	171	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301450-301480. All lines accepted.
27/03/2018	172	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302370-302400. All lines accepted, except for a section of Trav Line 302400, due to out of spec diurnal.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
28/03/2018	173	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 300342, 300561, 300631, 300701, 301121 and 301160, and flew Tie Lines 390770-390780, 391021 and 391031. All lines accepted.
28/03/2018	174	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301490-301510 and 301111. All lines accepted.
29/03/2018	175	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301291, 301301, 302401, 302452, 302581, 304411 and 304981. Also flew Tie Lines 390300-390340.
29/03/2018	176	Tallaringa South	L Bell	VH-SUX				Flew Tie Lines 390690-390760. All lines accepted, except for Tie Line 390730-390740, both due to out of spec diurnal.
30/03/2018	177	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 304982 and Tie Lines 390731-390741 and 390630-390680. All lines accepted.
30/03/2018	178	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 301520-301550. All lines accepted, except for a section of Trav Line 301520, due to out of spec diurnal.
31/03/2018	179	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301560-301590. All lines accepted.
31/03/2018	180	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302350-302360. All lines accepted.
01/04/2018		Tallaringa South		VH-SUX				Ferry flight from Coober Pedy to Griffith.
01/04/2018		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
02/04/2018		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
03/04/2018		Tallaringa South				1.0		Full day standby due to scheduled maintenance.
03/04/2018		Tallaringa South		VH-SUX				Ferry flight from Griffith to Coober Pedy.
04/04/2018	182	Tallaringa South	L Bell	VH-SUX				Comp Box Flight.
04/04/2018	183	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301600-301610. All lines accepted.
04/04/2018	184	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302330-302340. All lines accepted.
04/04/2018	185	Tallaringa South	L Bell	VH-SUX				Comp Box Flight.
05/04/2018	186	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302290-302320. All lines accepted, except for a section of Trav Line 302290, due to out of spec diurnal.
05/04/2018	187	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301521 and 301620 and Tie Lines 390350-390390. All lines accepted.
06/04/2018	188	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301630-301660. All lines accepted, except for a section of Trav Line 301630 due to a speed bust.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
06/04/2018	189	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302010-302020 and 301910-301980. All lines accepted.
07/04/2018	190	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301870-301900, 302000 and 302280. All lines accepted.
07/04/2018	191	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 301670-301680. All lines accepted.
08/04/2018	192	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 301690-301720. All lines accepted, except for sections of Trav Lines 301690 and 301720, both due to speed busts.
08/04/2018	193	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301830-301860, 301990 and 302030. All lines accepted.
09/04/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.
10/04/2018	194	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301730-301760. All lines accepted. Afternoon flight abandoned due to unsuitable diurnal activity.
11/04/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather and diurnal activity.
12/04/2018	195	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301770-301800. All lines accepted.
12/04/2018	196	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301831-301861. All lines accepted.
13/04/2018	197	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 301871-301921. All lines accepted.
14/04/2018	198	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301810-301820 and 302040-302050. All lines accepted, except for sections of Trav Line 301820, due to speed busts.
14/04/2018	199	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301931-301961 and Tie Lines 390400-390410. All lines accepted.
15/04/2018	200	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302060-302090 and 301971-301981. All lines accepted, except for Trav Line 301971-301981, which were abandoned due to low clouds on the line, and will be reflight in full.
15/04/2018	201	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302100-302130. All lines accepted, except for a section of Trav Line 302100 due to out of spec diurnal.
16/04/2018	202	Tallaringa South	L Bell	VH-SUX				Flew Trav Line 302140-302170. All lines accepted.
16/04/2018	203	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301972-301982 and Tie Lines 390420-390450. All lines accepted.
17/04/2018		Tallaringa South		VH-SUX				Ferry Flight from Coober Pedy to Griffith.
04/05/2018		Tallaringa South		VH-SUX				Ferry Flight from Griffith to Coober Pedy.
05/05/2018		Tallaringa South			1.0			Full day standby due to unsuitable survey weather.

Daily Log								
Date	Flt Num	Block(s)	Operator(s)	Aircraft	SBY	MNT	SUS	Comments
06/05/2018	204	Tallaringa South	L Bell	VH-SUX				Comp Box Flight.
06/05/2018		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
07/05/2018		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
08/05/2018	205	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302240-302270. All lines accepted, except for Trav Line 302240, due to out of spec diurnal. Will be reflight at a later date.
09/05/2018		Tallaringa South			1.0			Full day standby due to unsuitable diurnal activity.
10/05/2018	206	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302210-302241. All lines accepted.
11/05/2018	207	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302180-302190 and flew Tie Lines 390580-390620. All lines accepted. Tie Line 390590 170m too short, due to pilot turning off line too quickly. Trav Line 302180 will be reflight due to out of spec diurnal.
12/05/2018	208	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 302183, 302200, 302291 and 303591. All lines accepted, except for Trav Line 302291 and 303591, which will be reflight due to speed busts.
12/05/2018	209	Tallaringa South	L Bell	VH-SUX				Flew Trav Lines 301631, 301691, 301721, 301821, 301822, 302101, 302131, 302291, 302851, 302911, 301111, 303431, 303593 and flew Tie Line 390592. All lines accepted.

9. Processed Grids

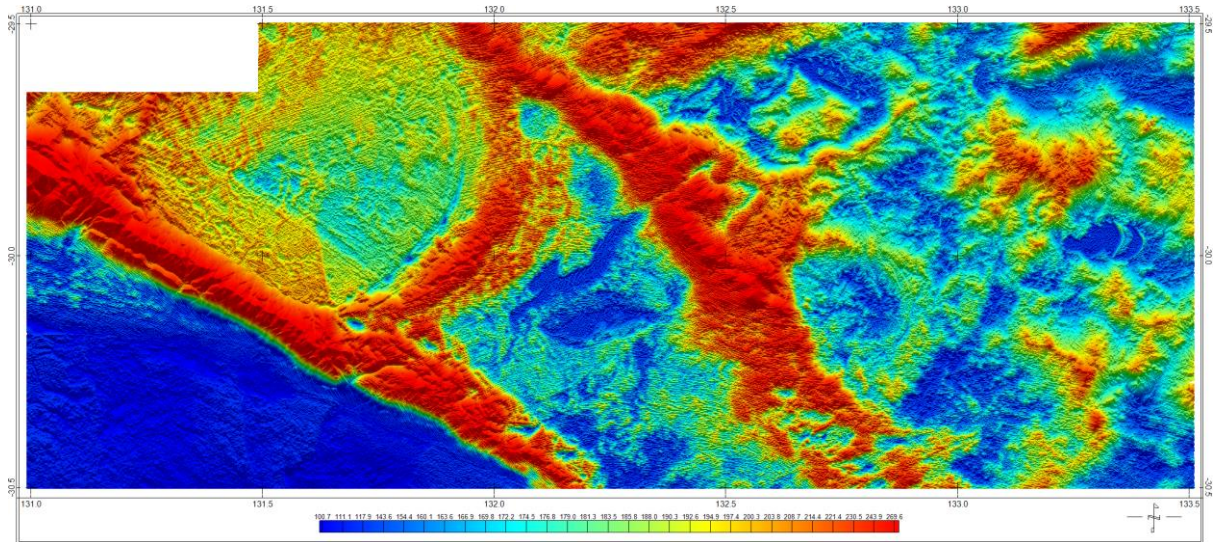


Figure 11. Digital Elevation Model

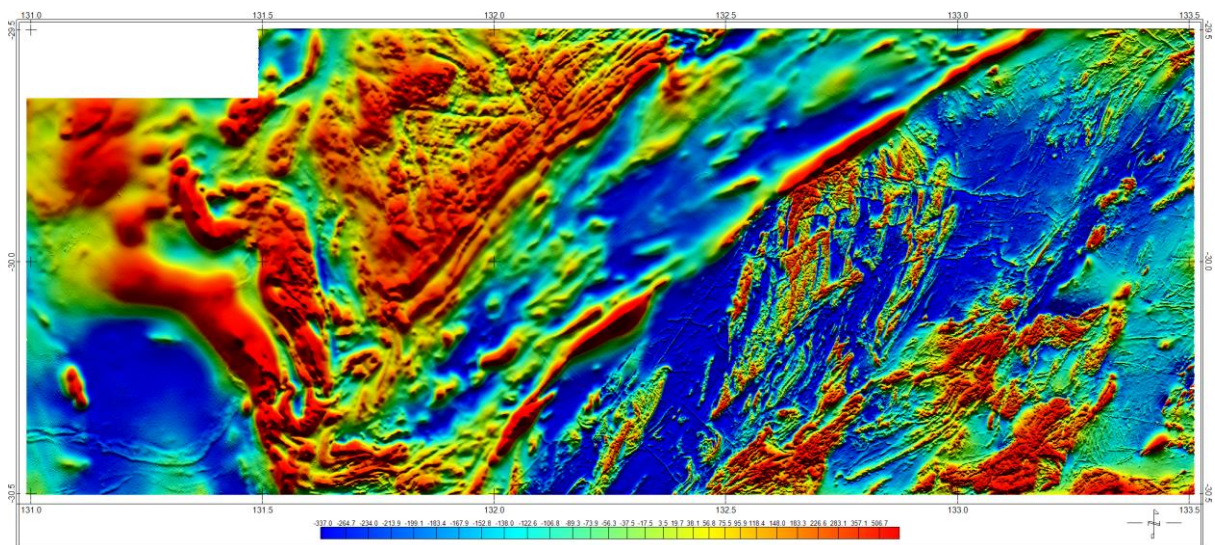


Figure 12. Reduced to Pole Total Magnetic Intensity

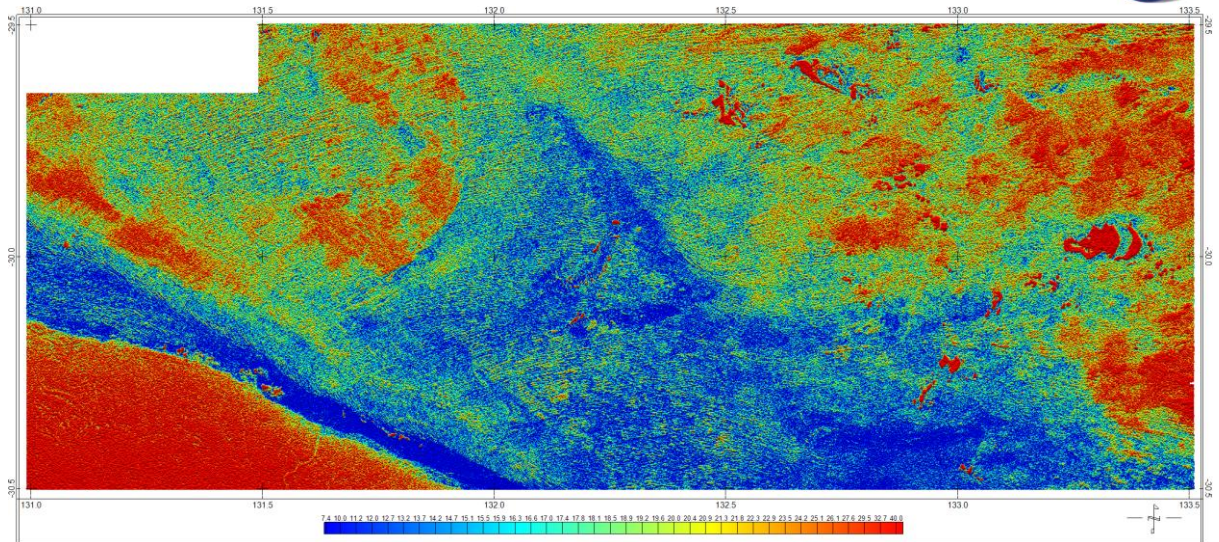


Figure 13. Dose Rate

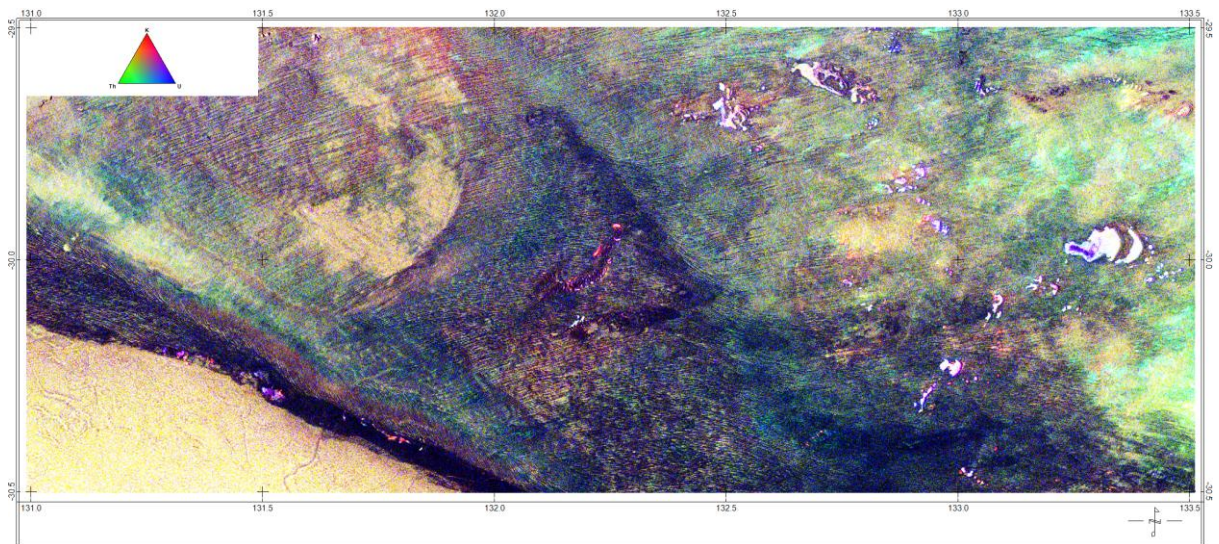
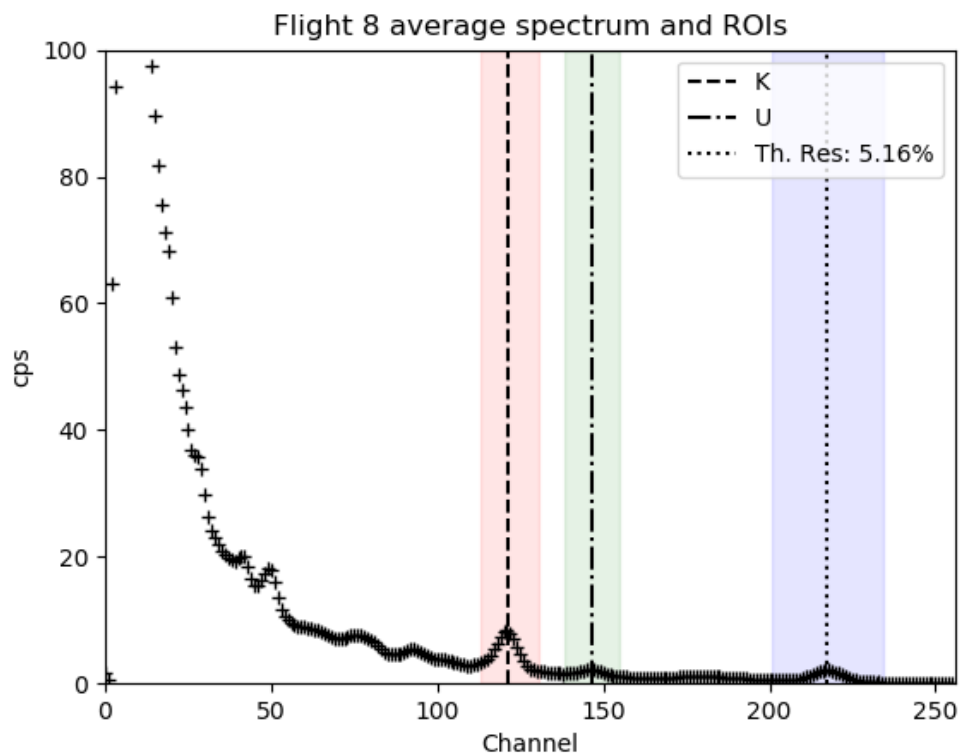
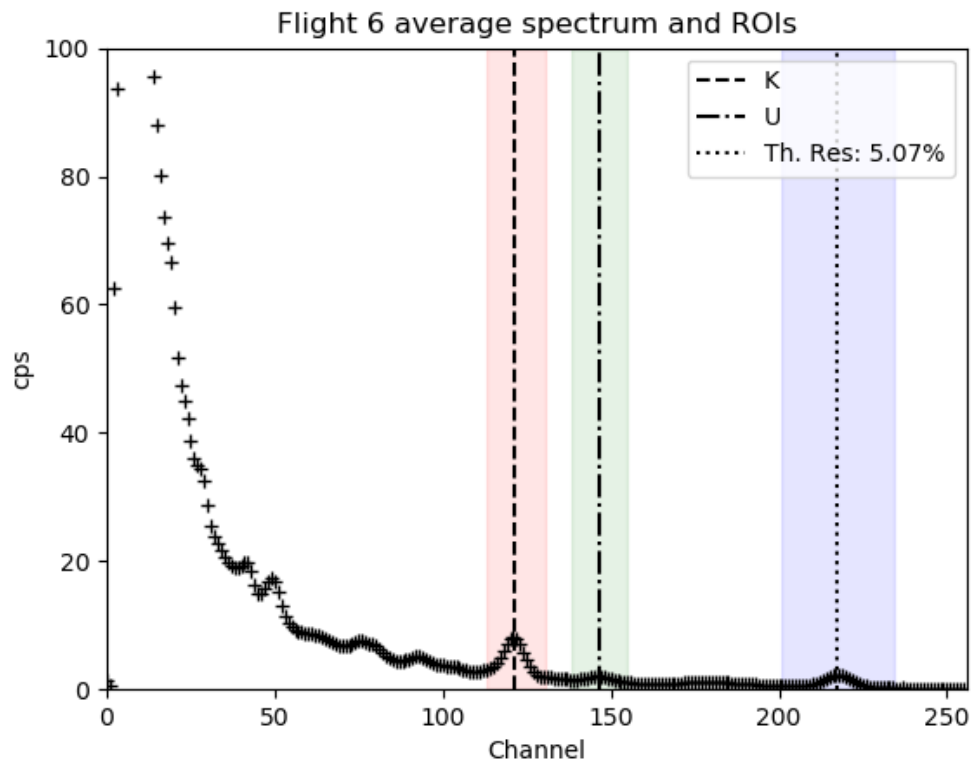
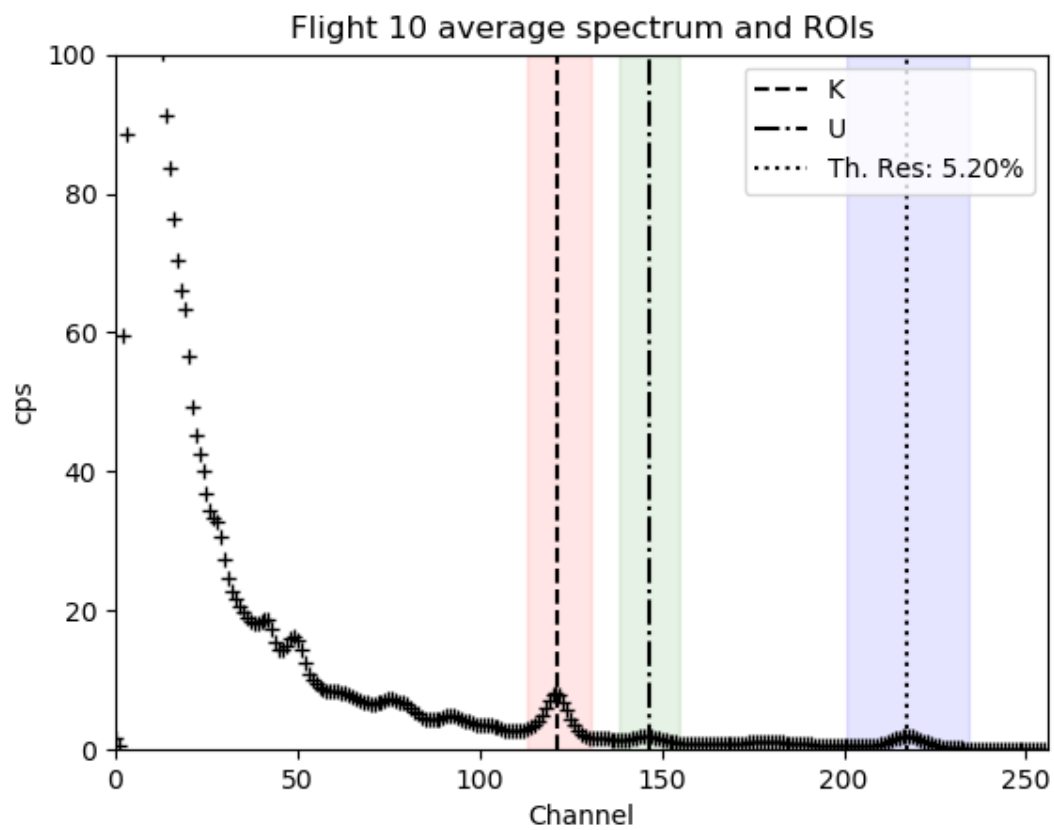
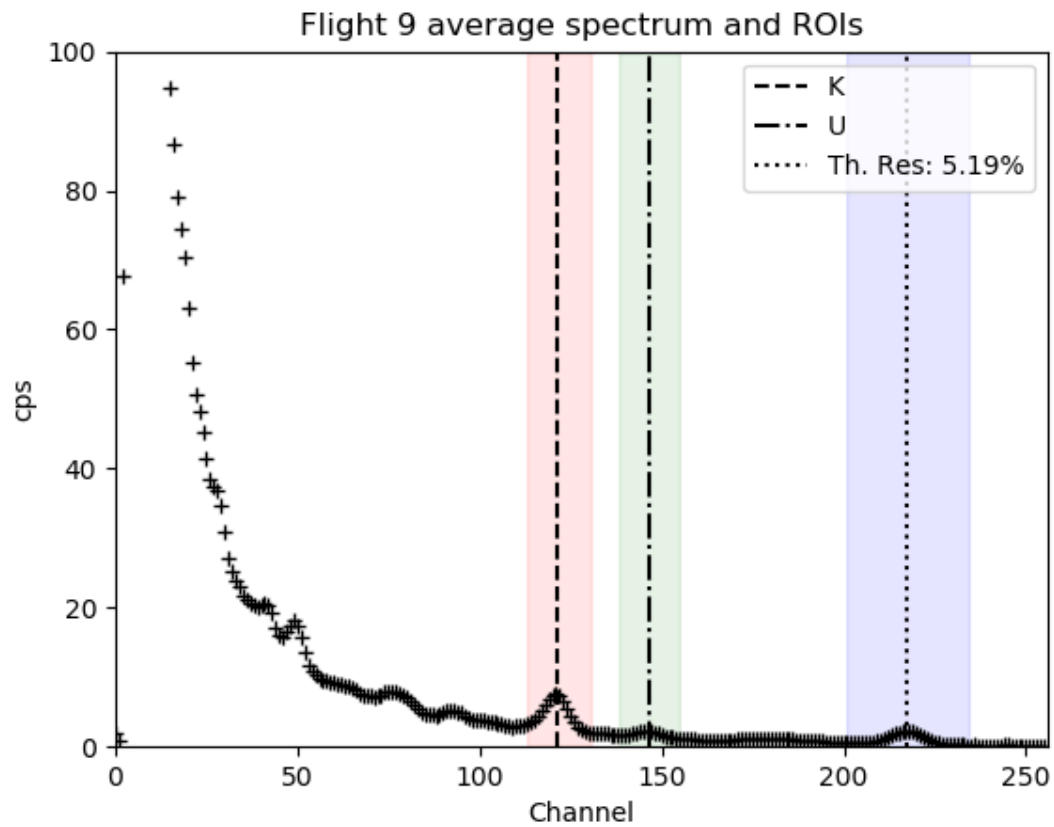
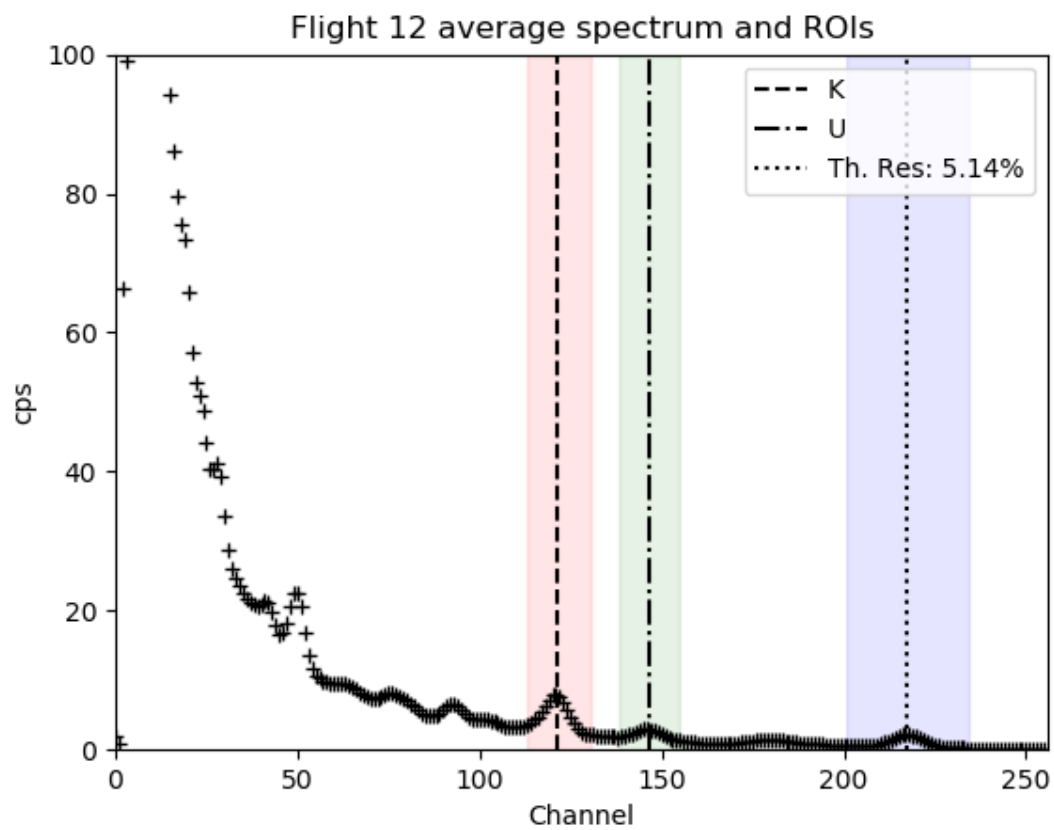
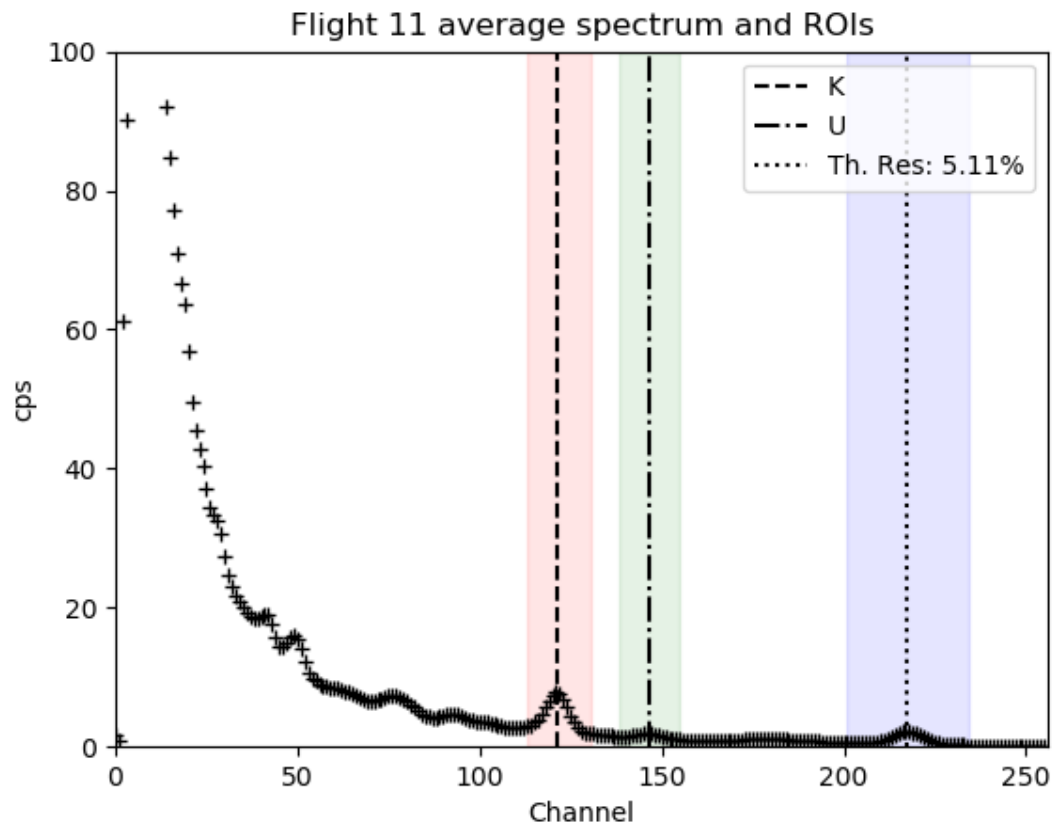


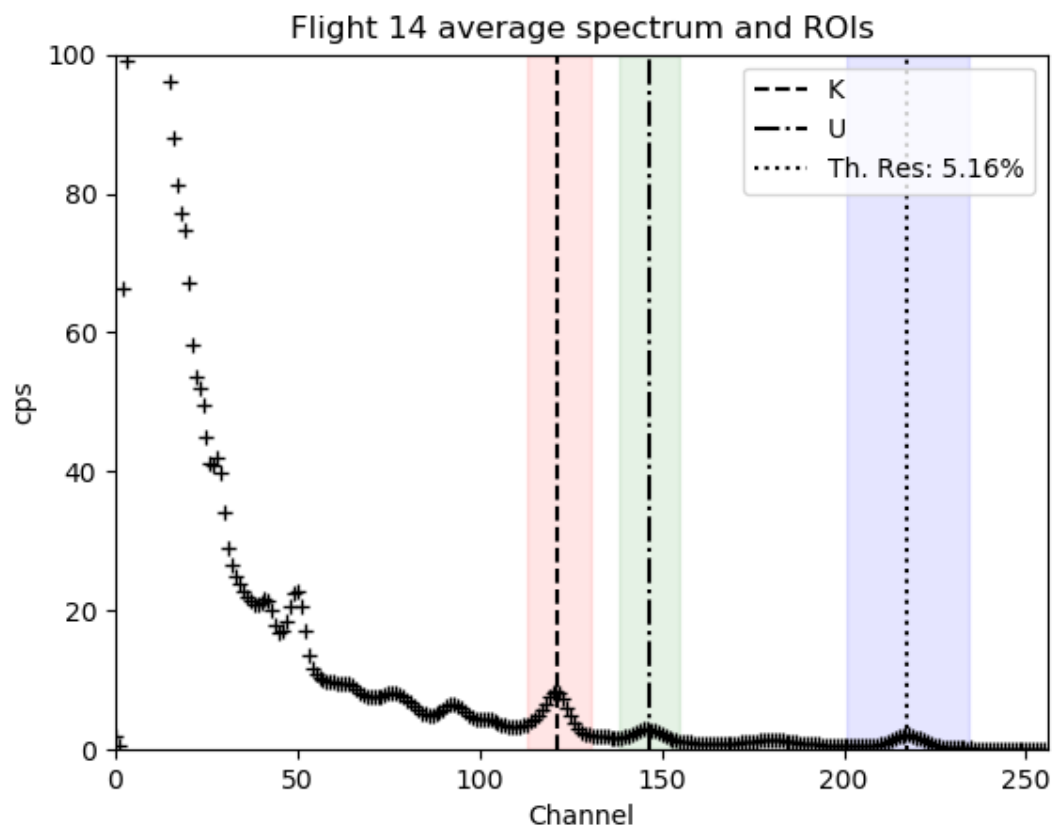
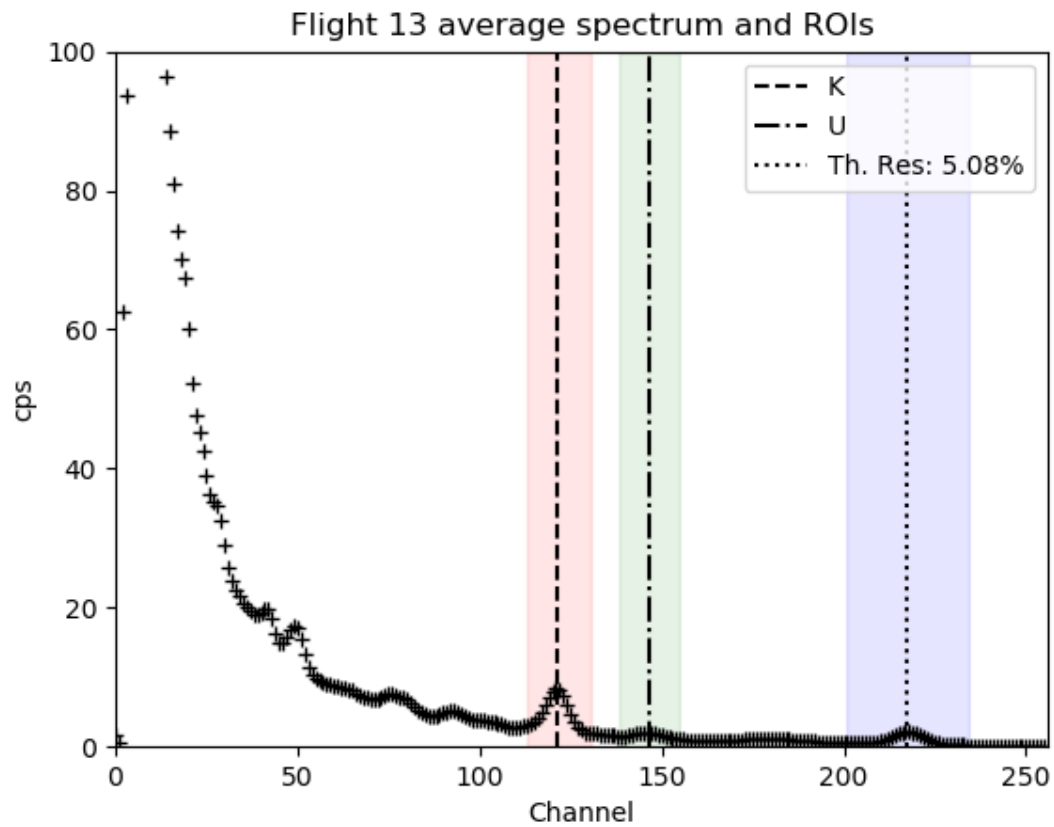
Figure 14. Ternary

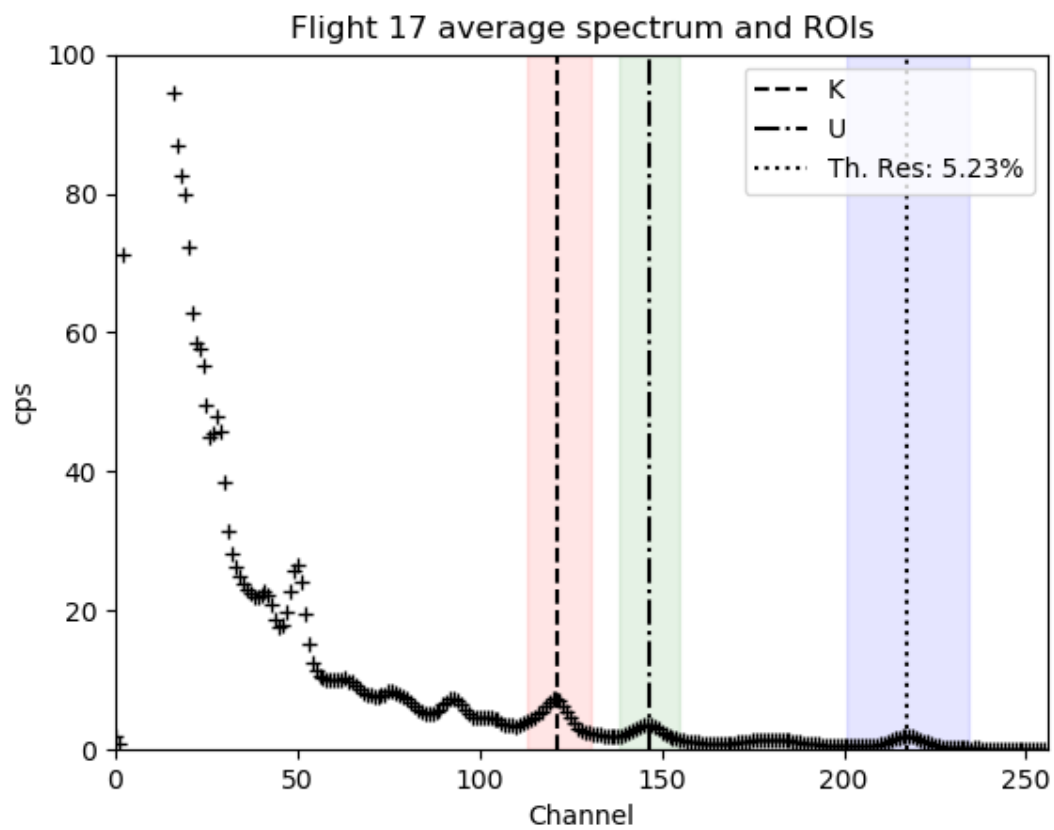
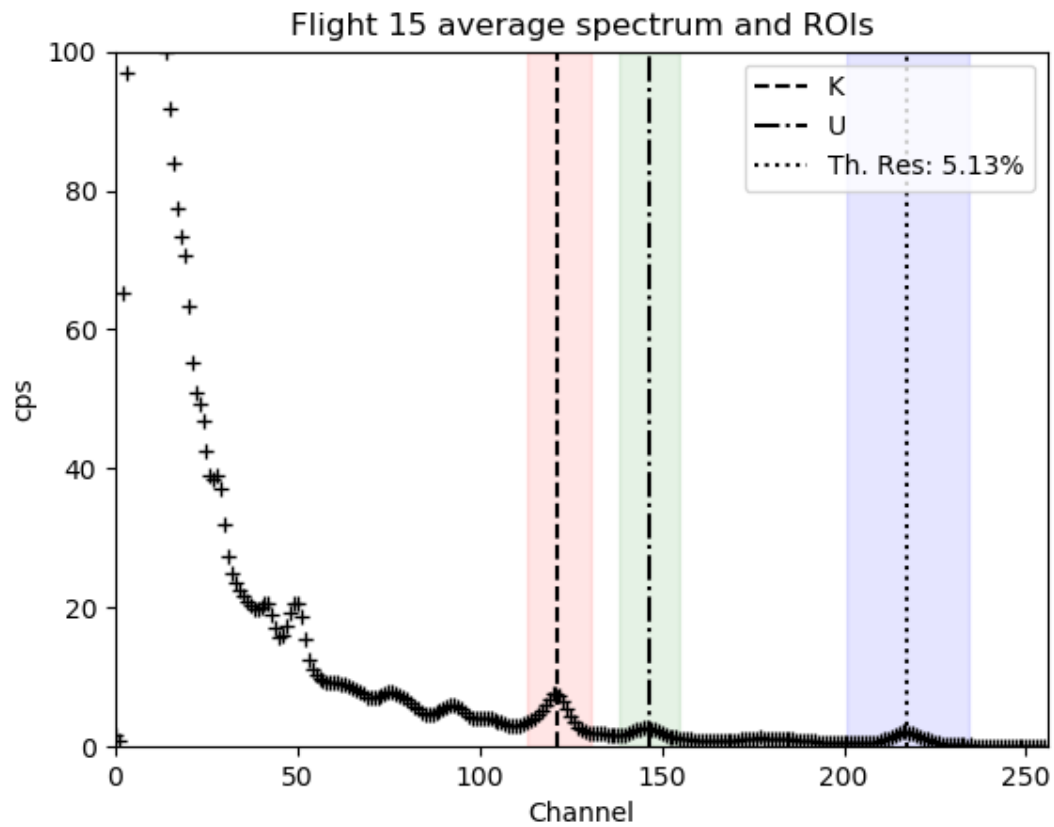
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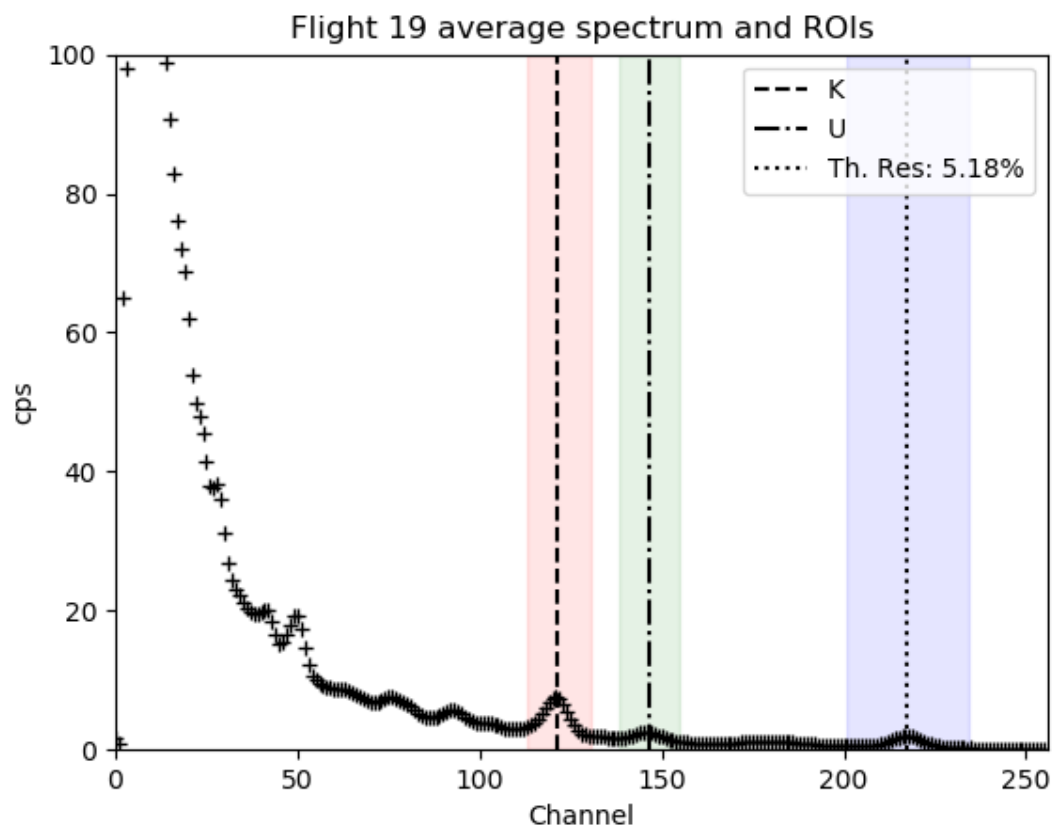
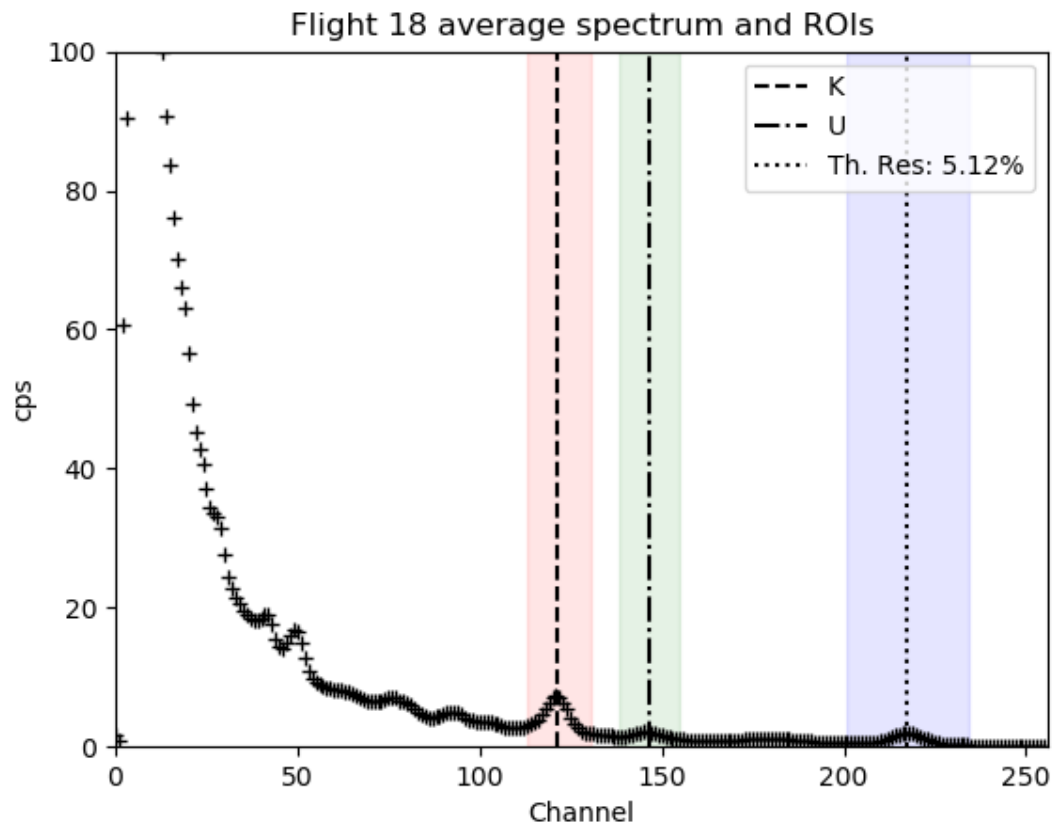


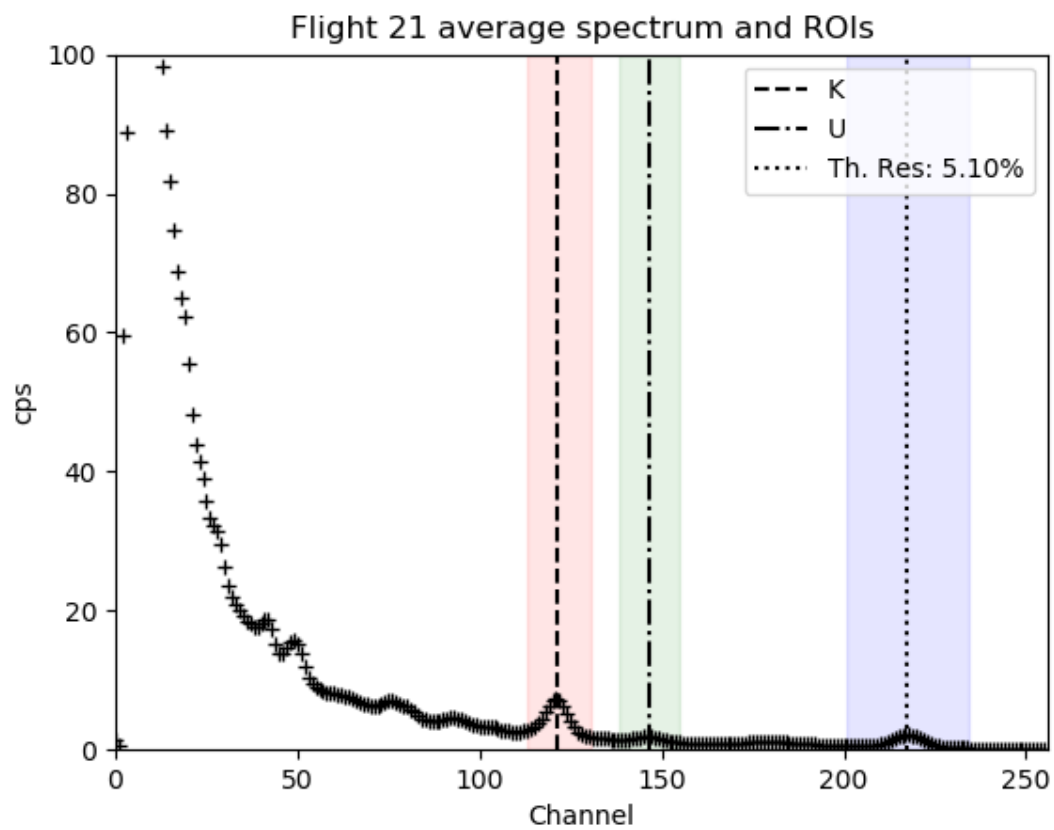
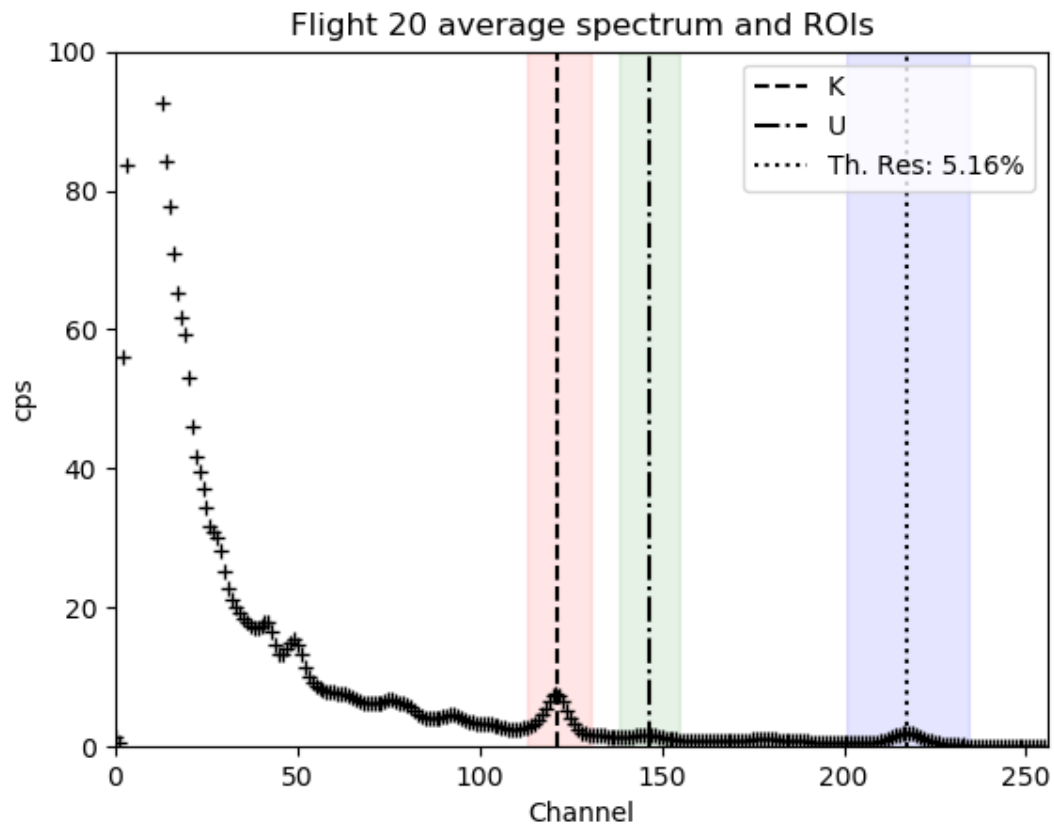


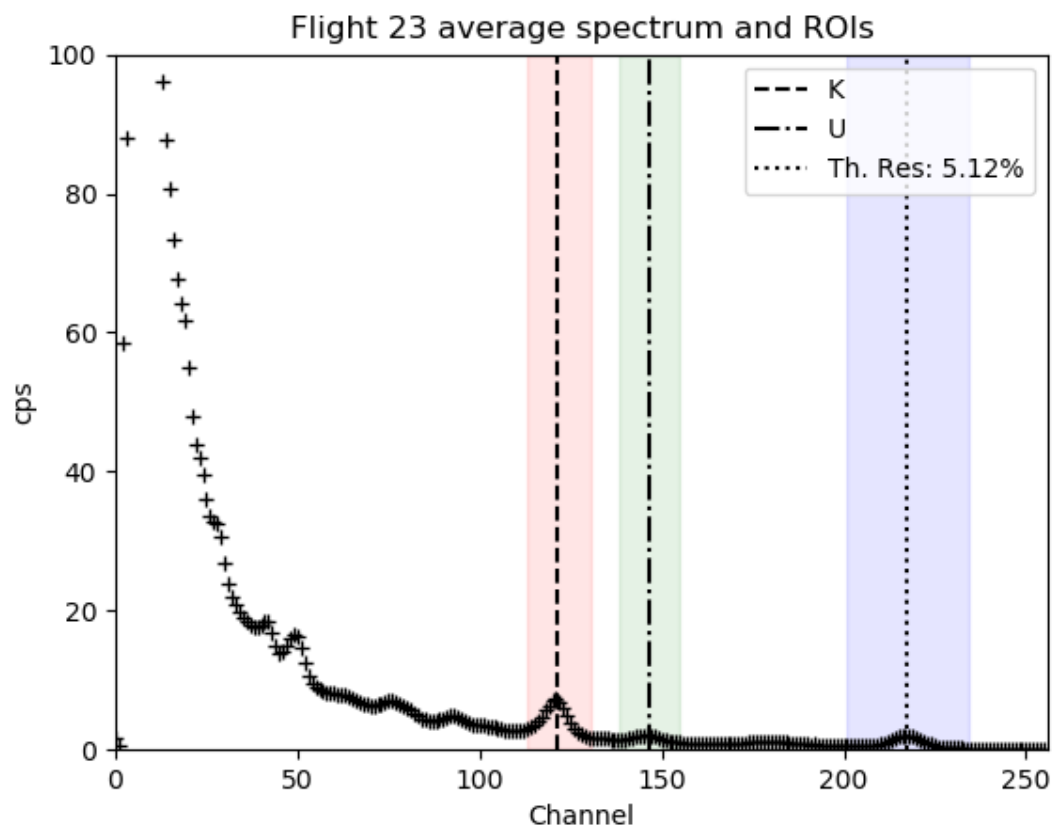
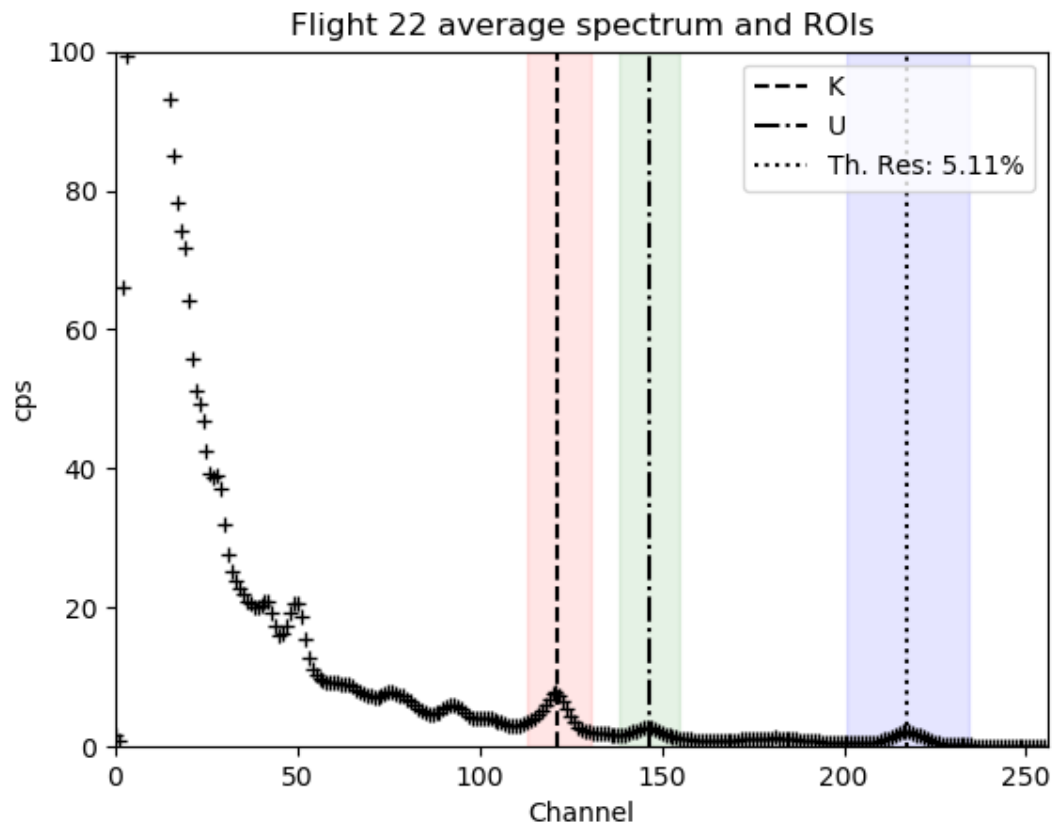


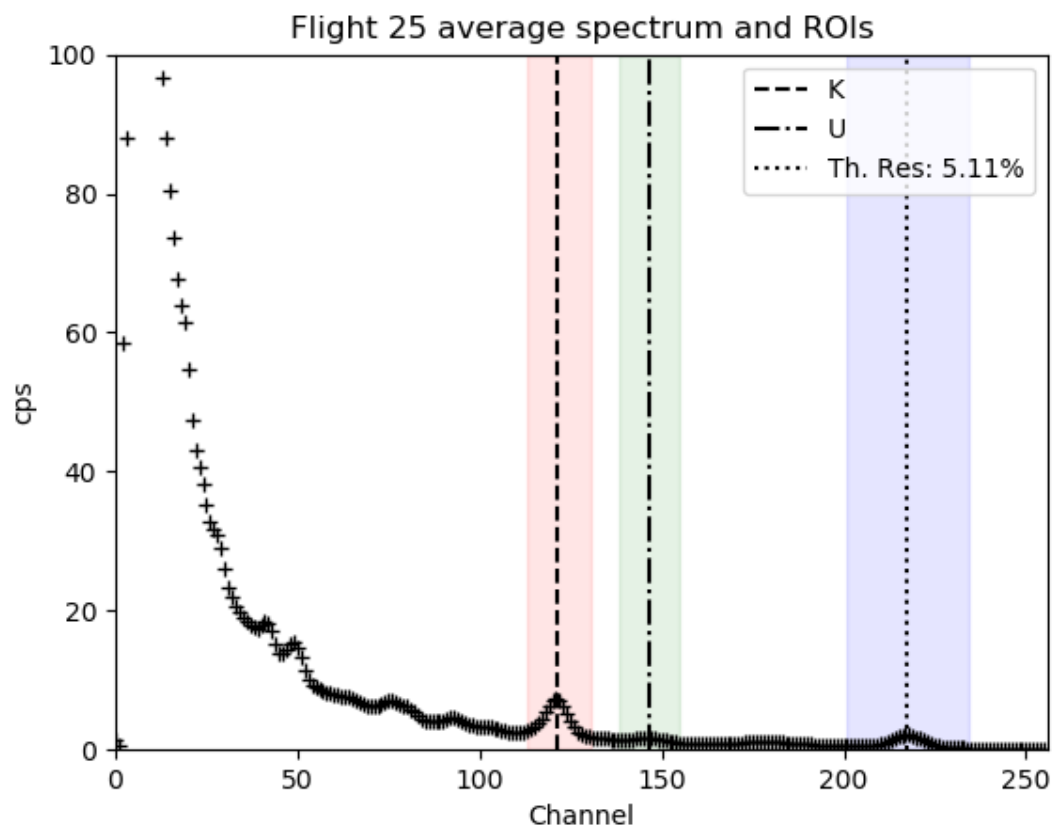
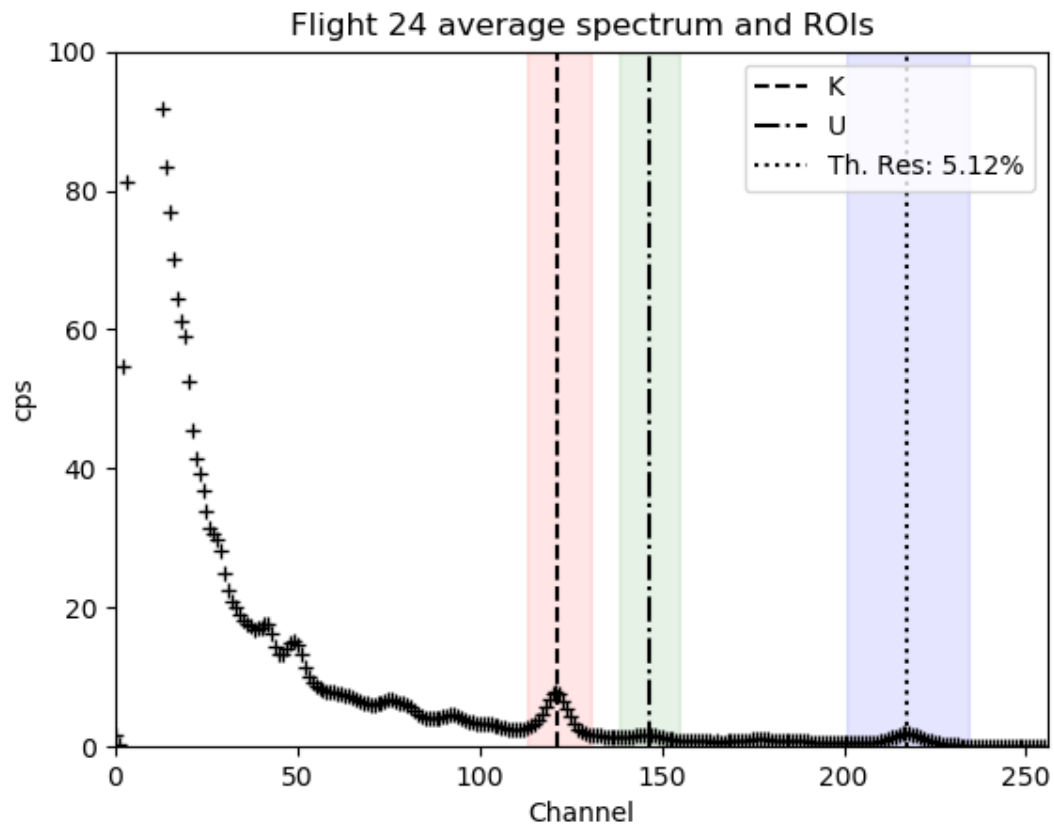


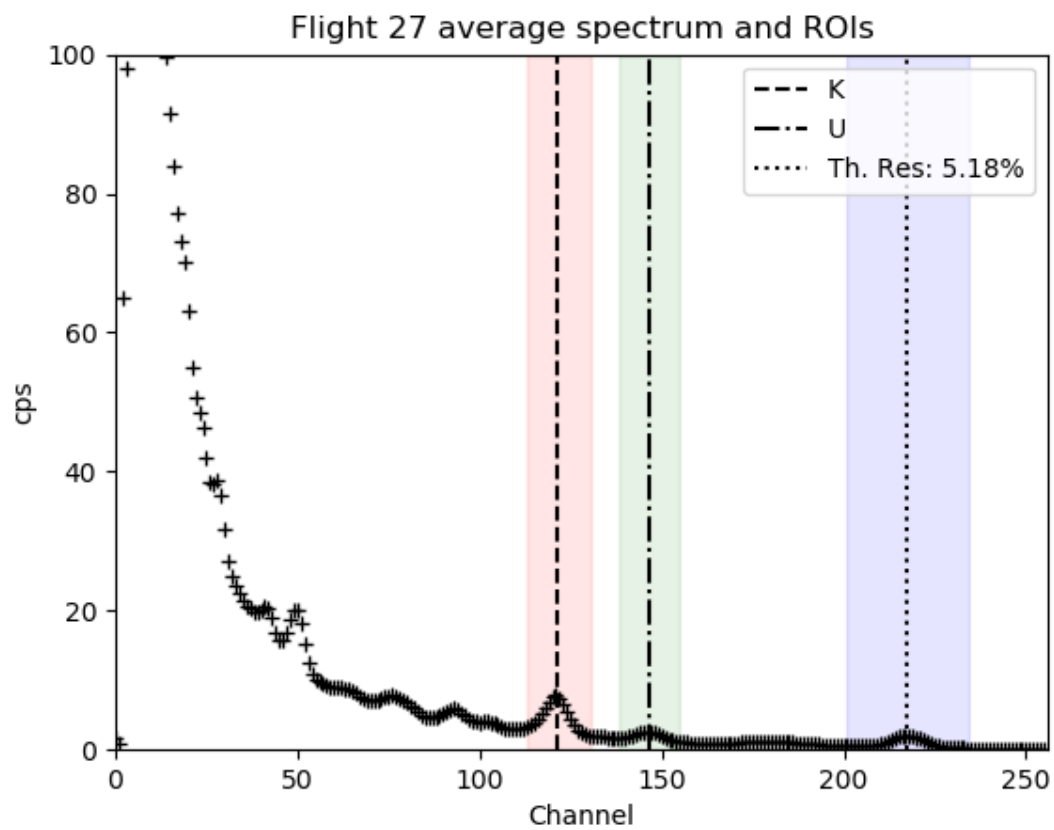
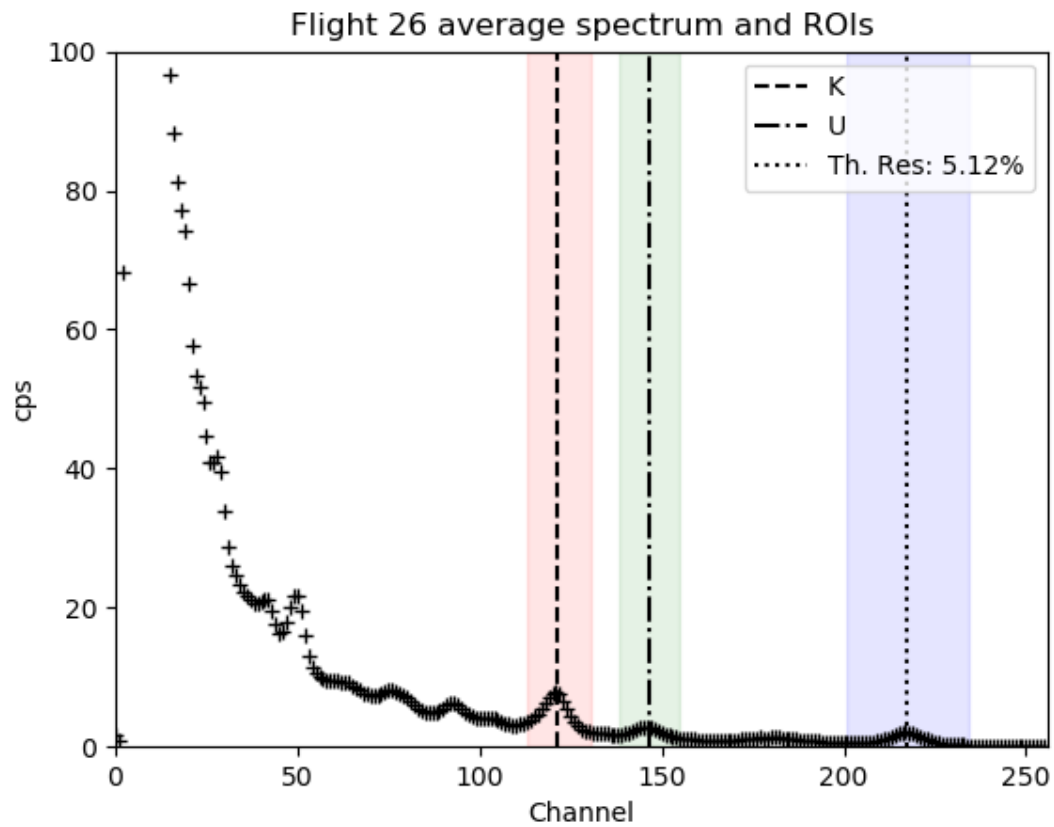


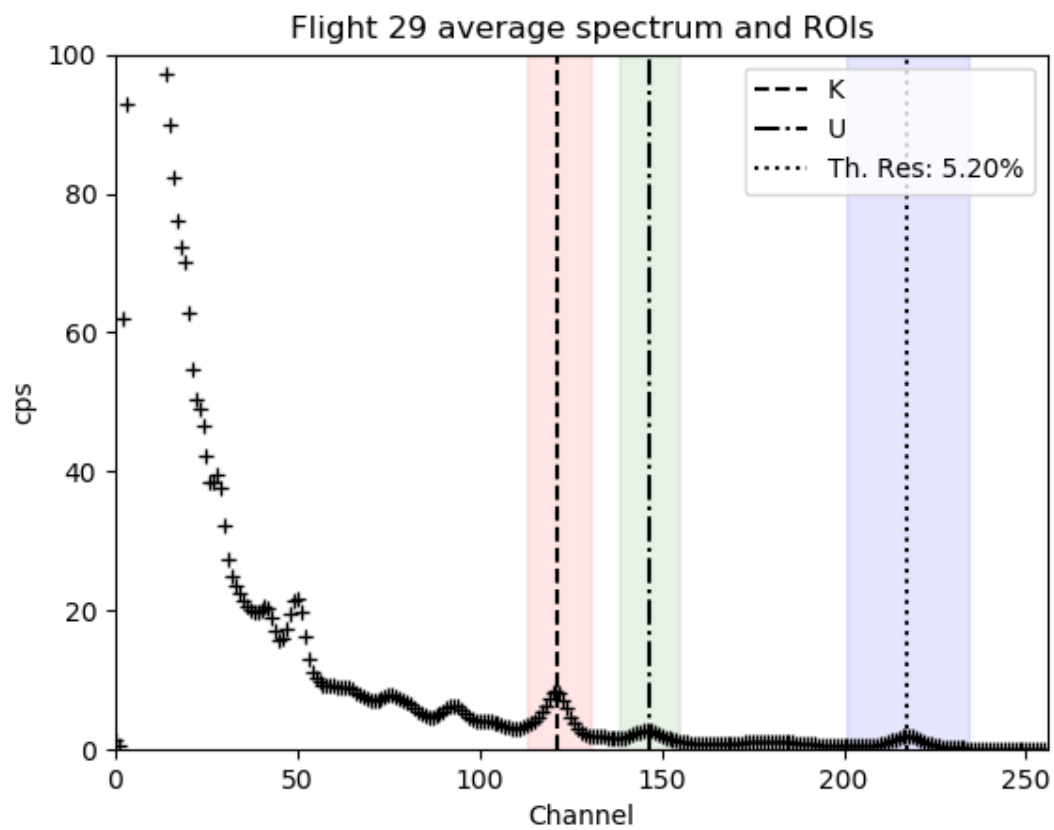
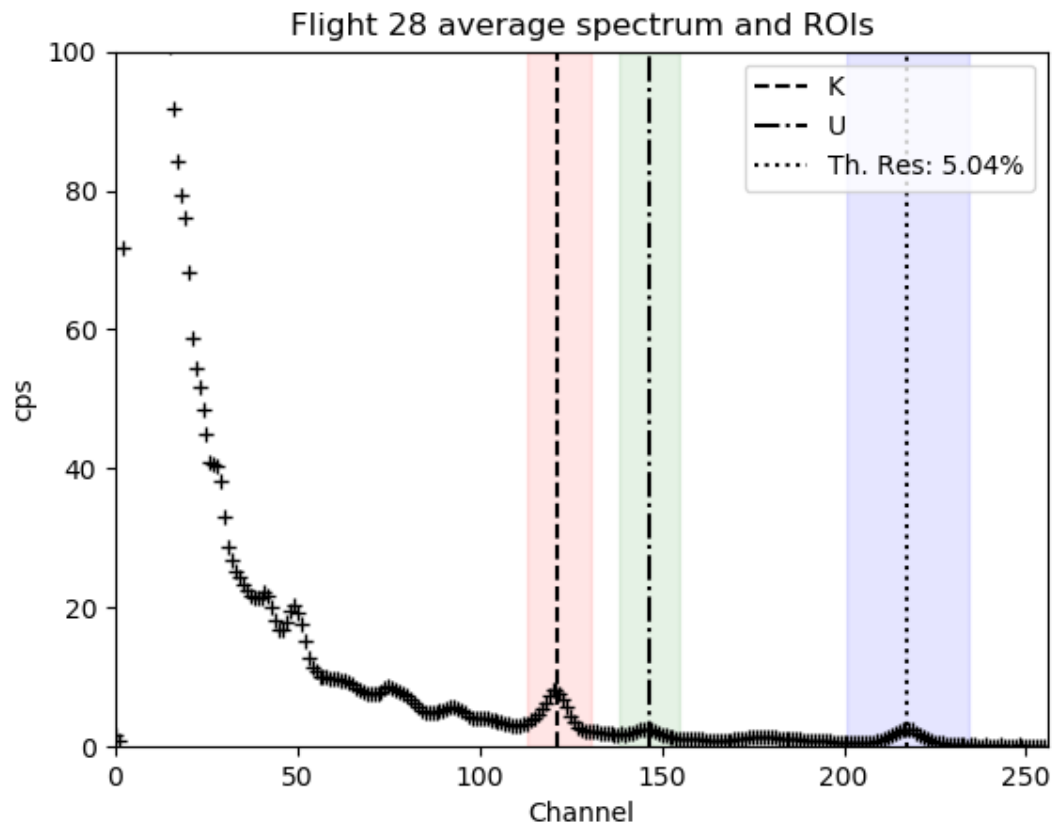


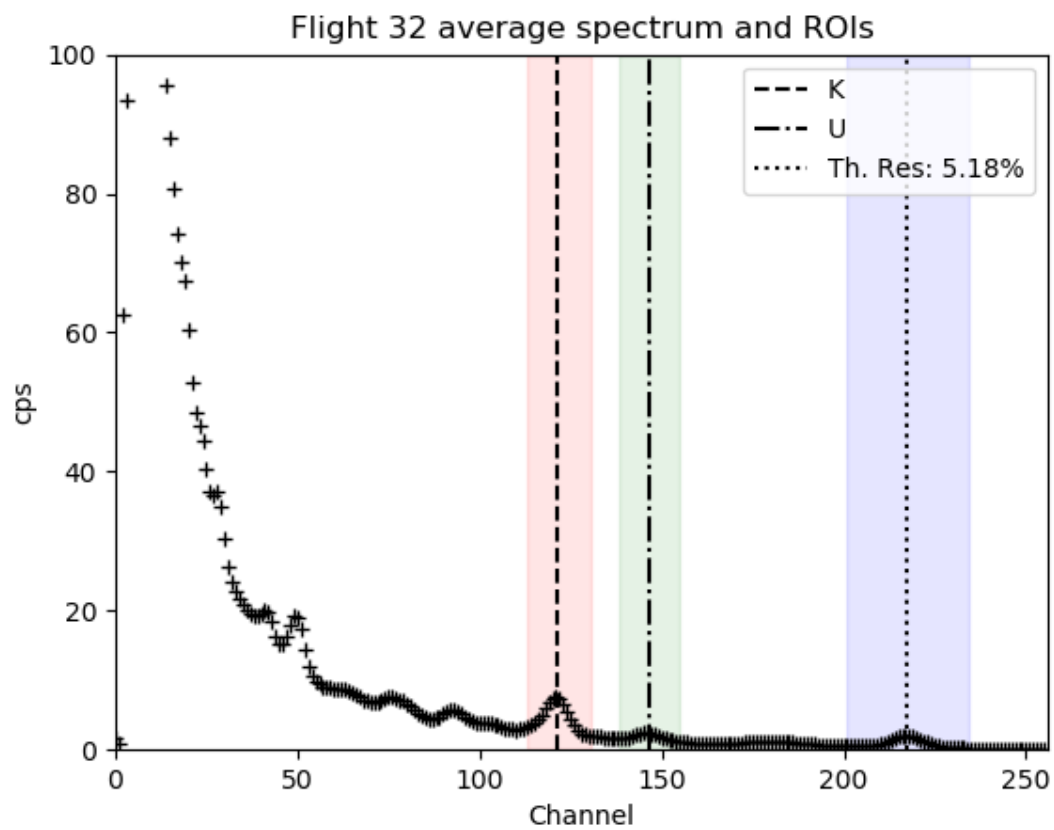
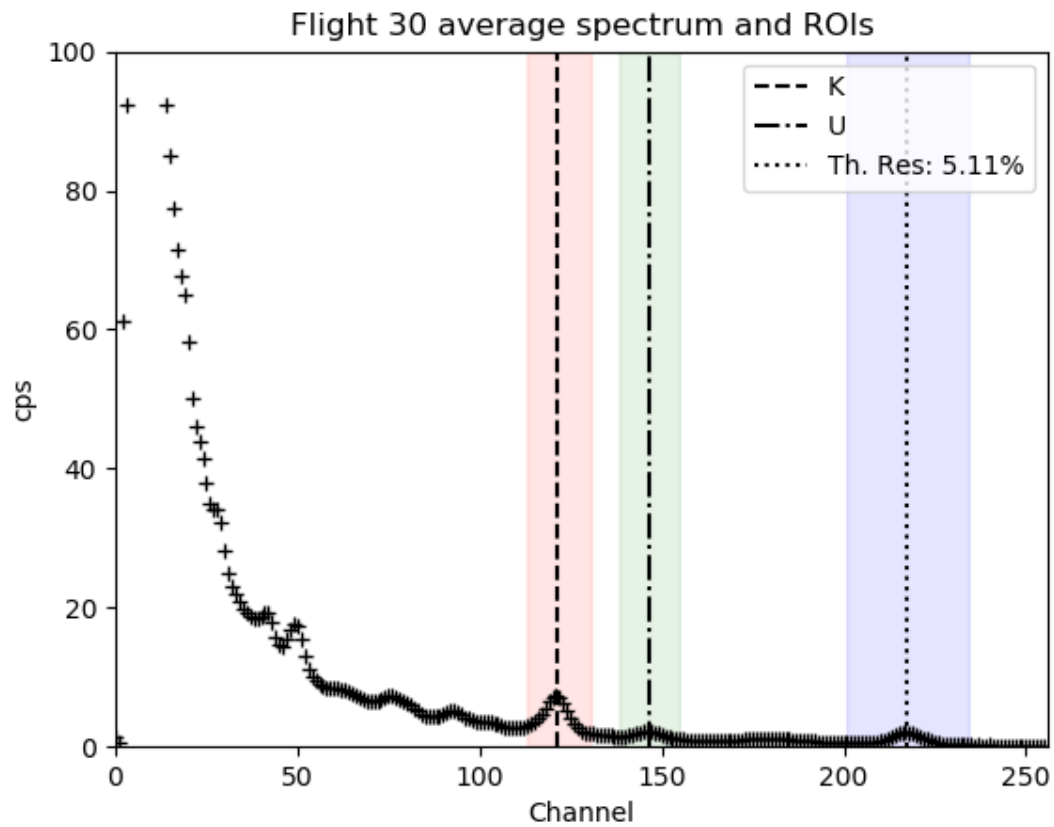


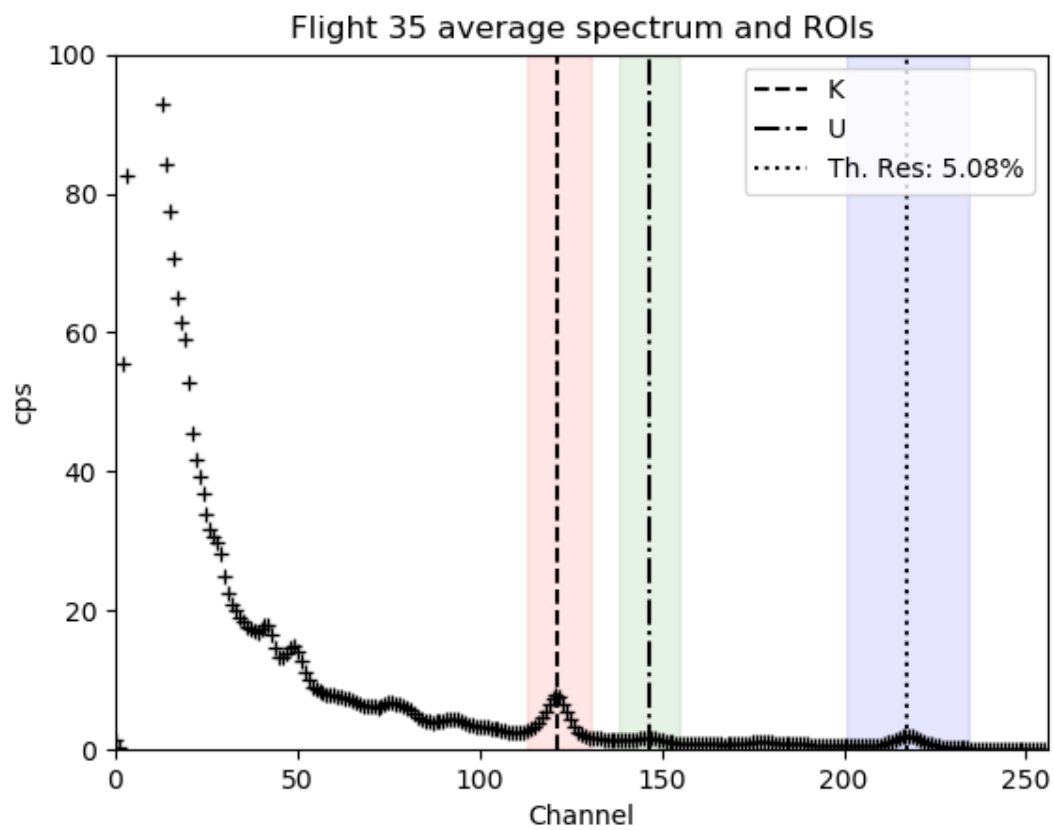
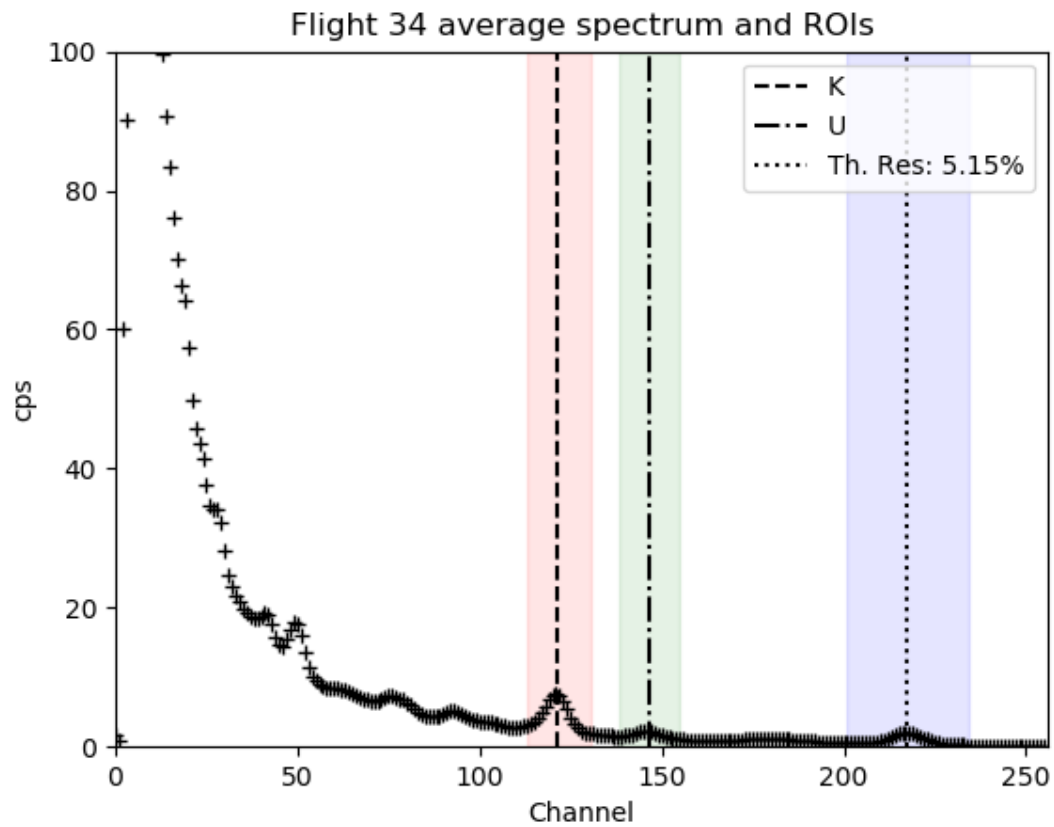


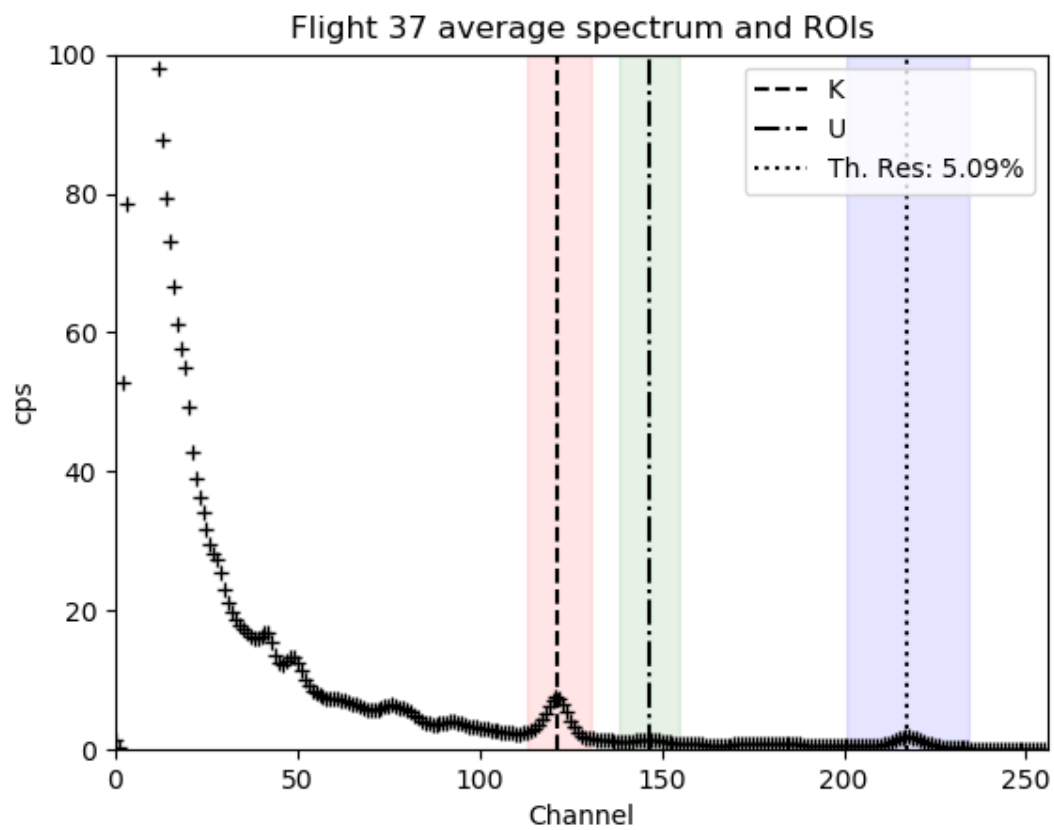
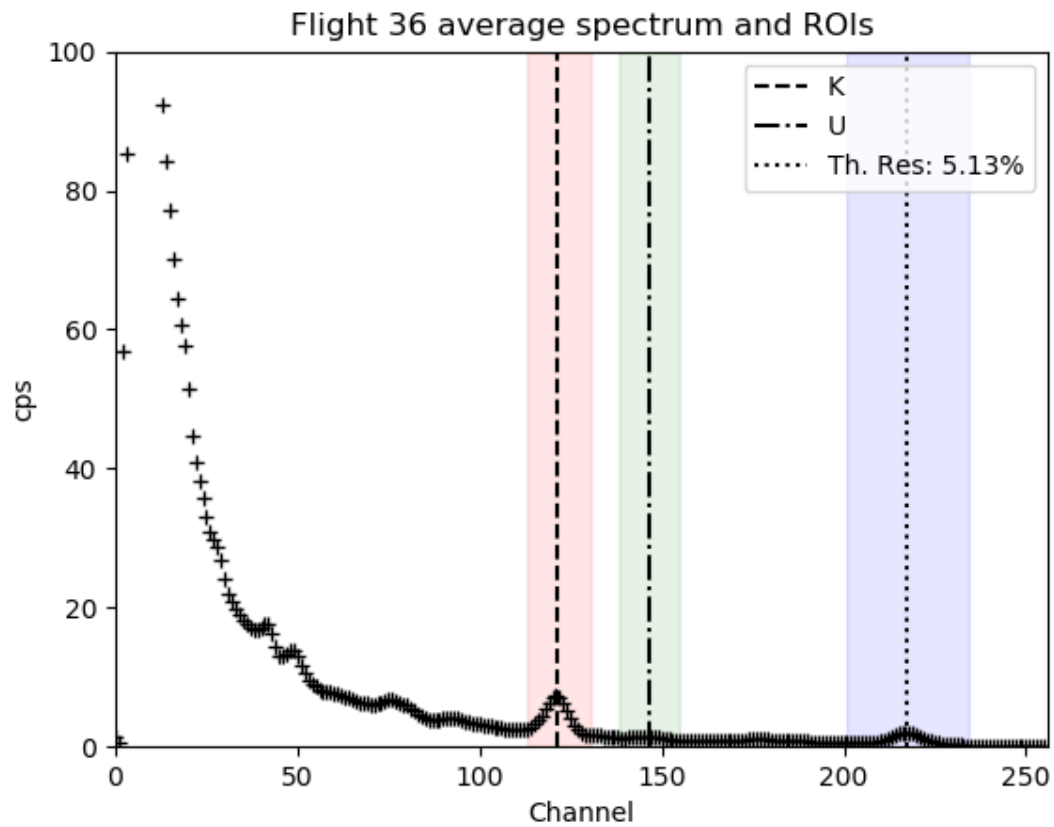


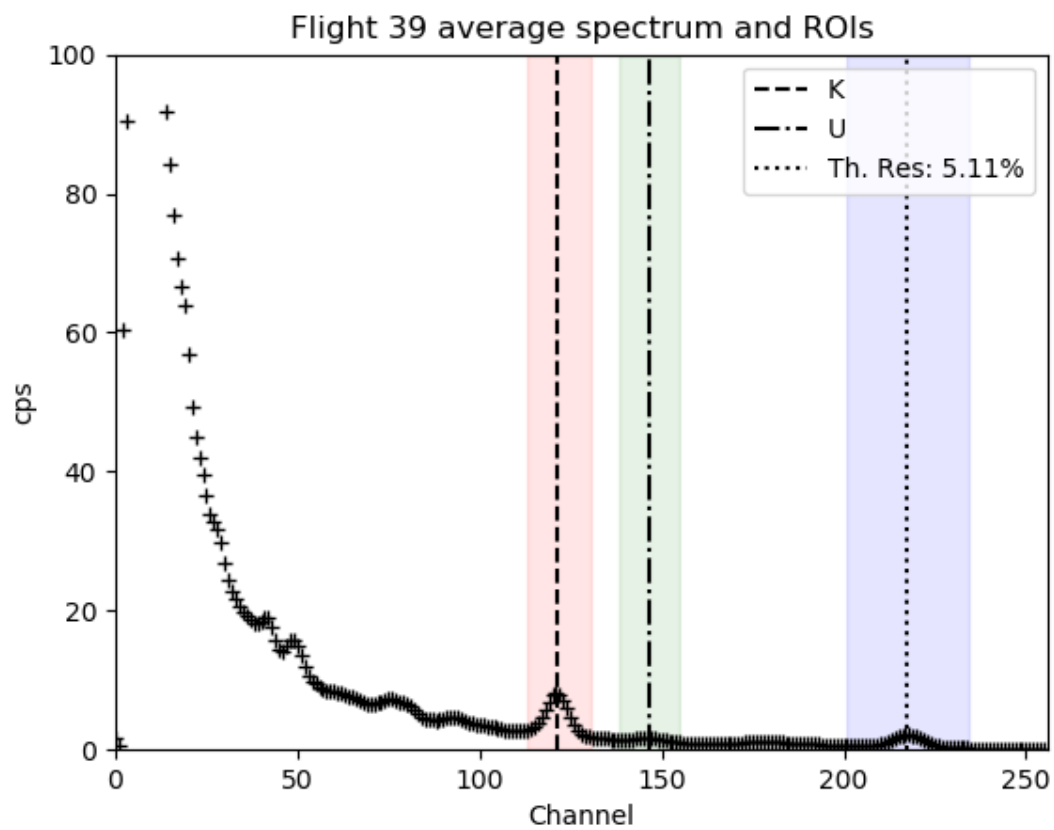
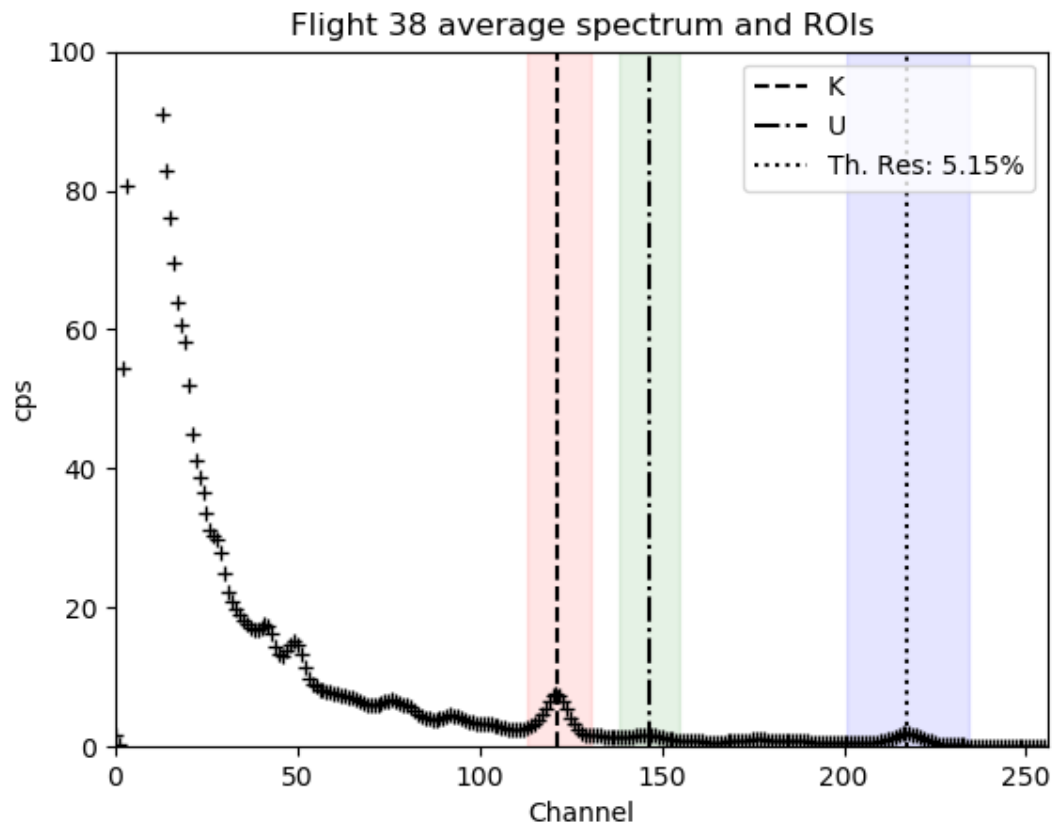


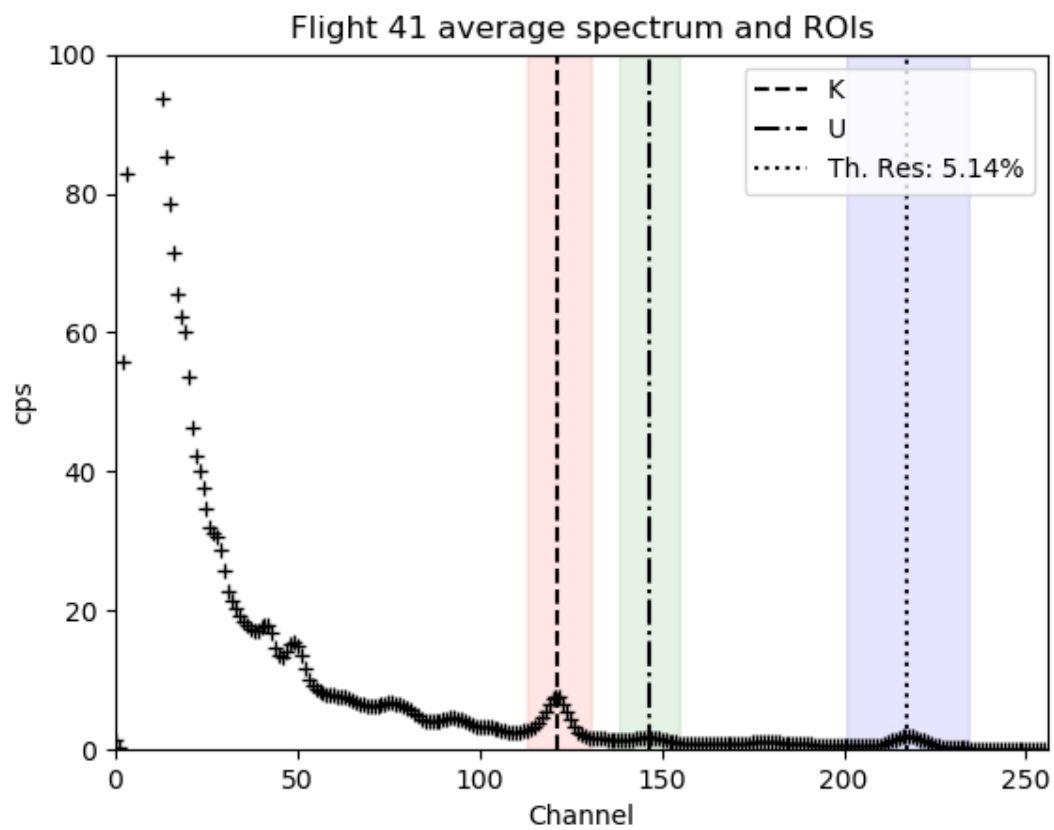
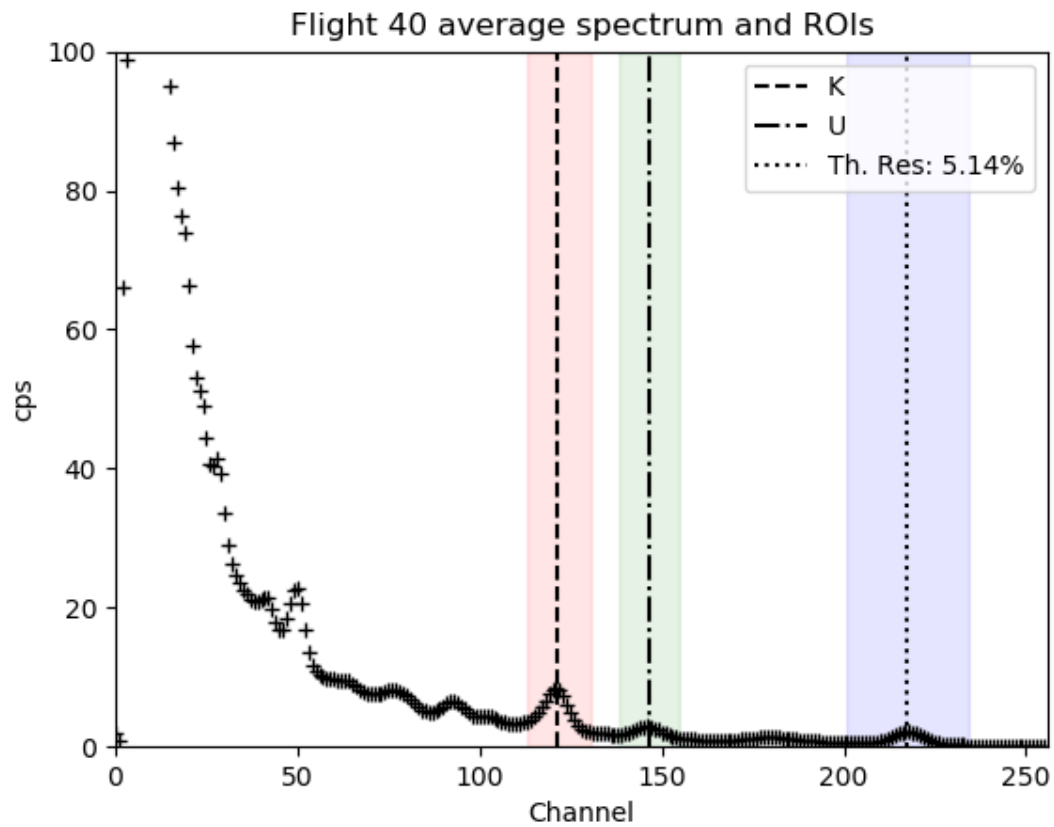


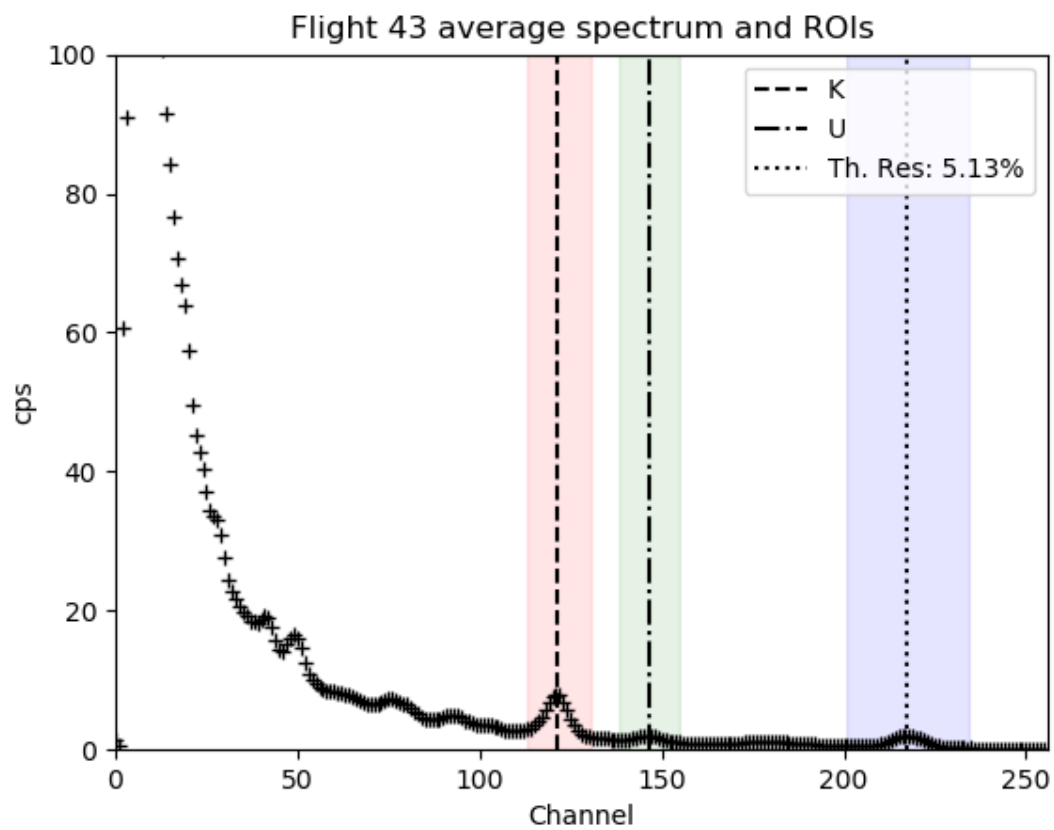
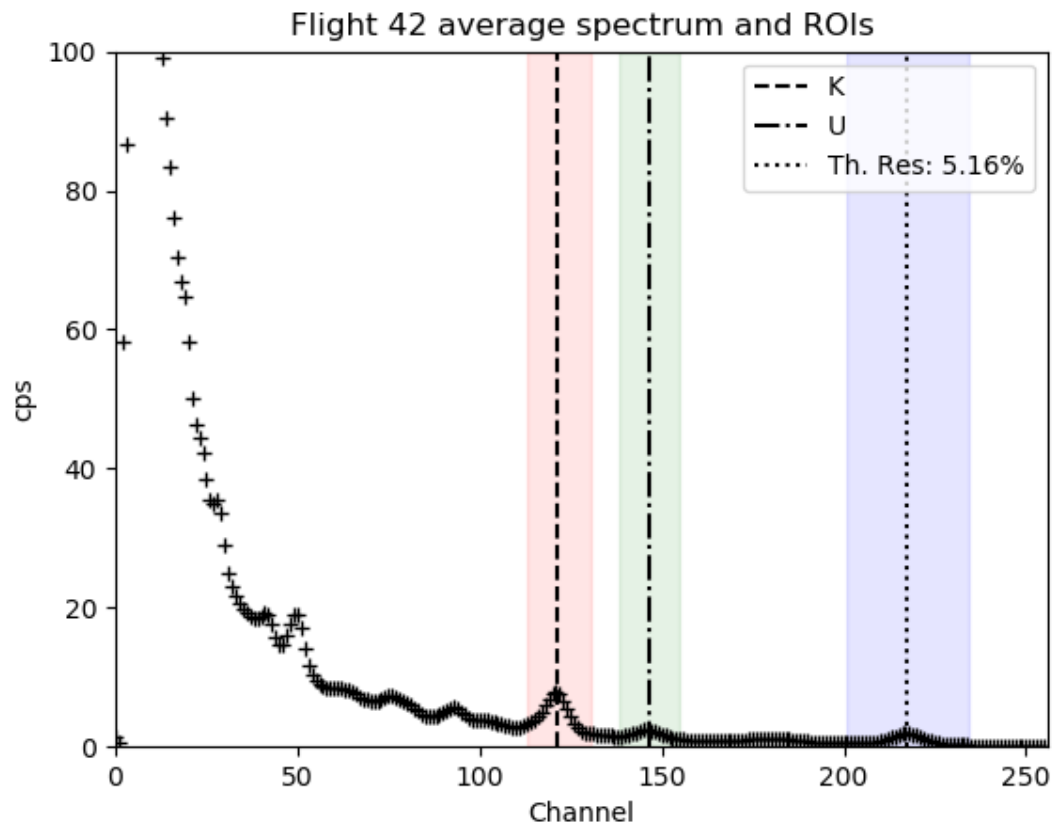


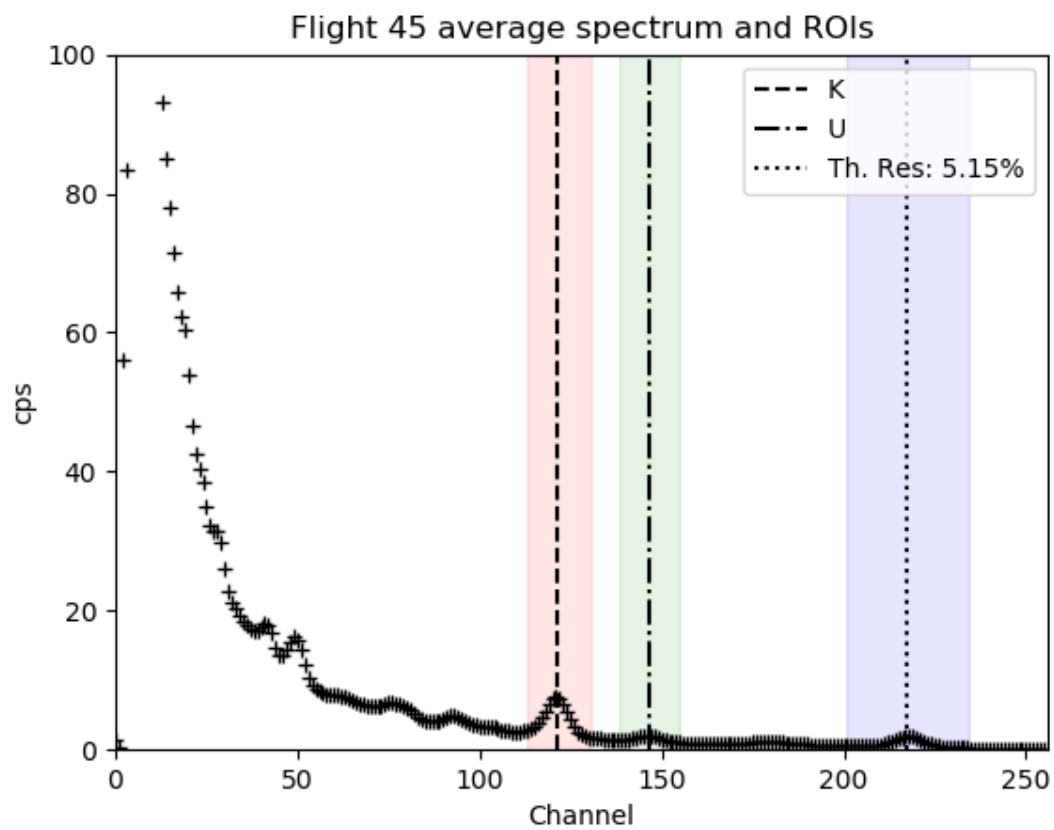
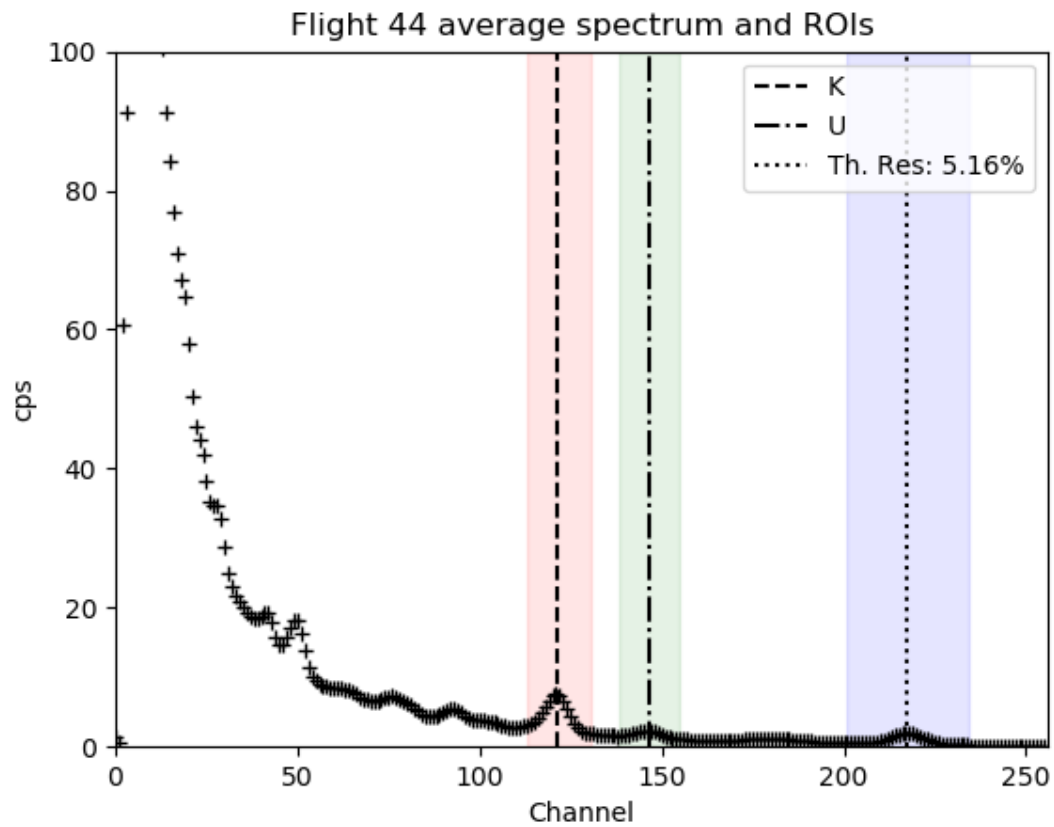


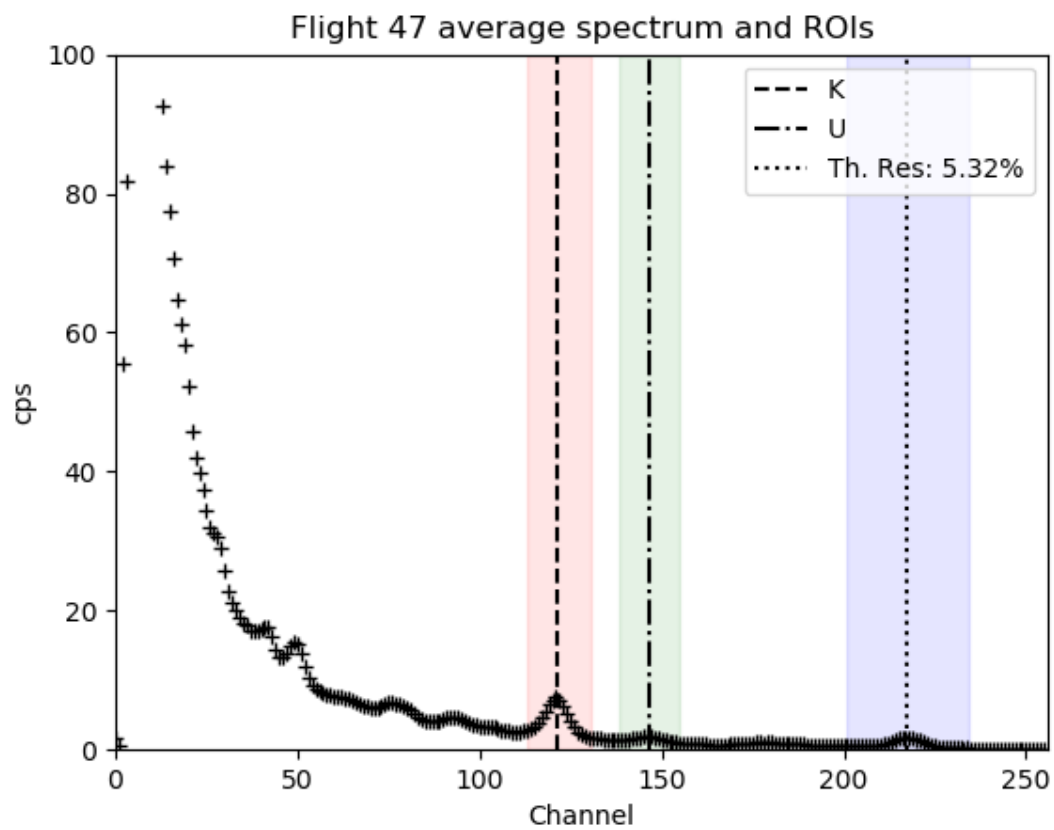
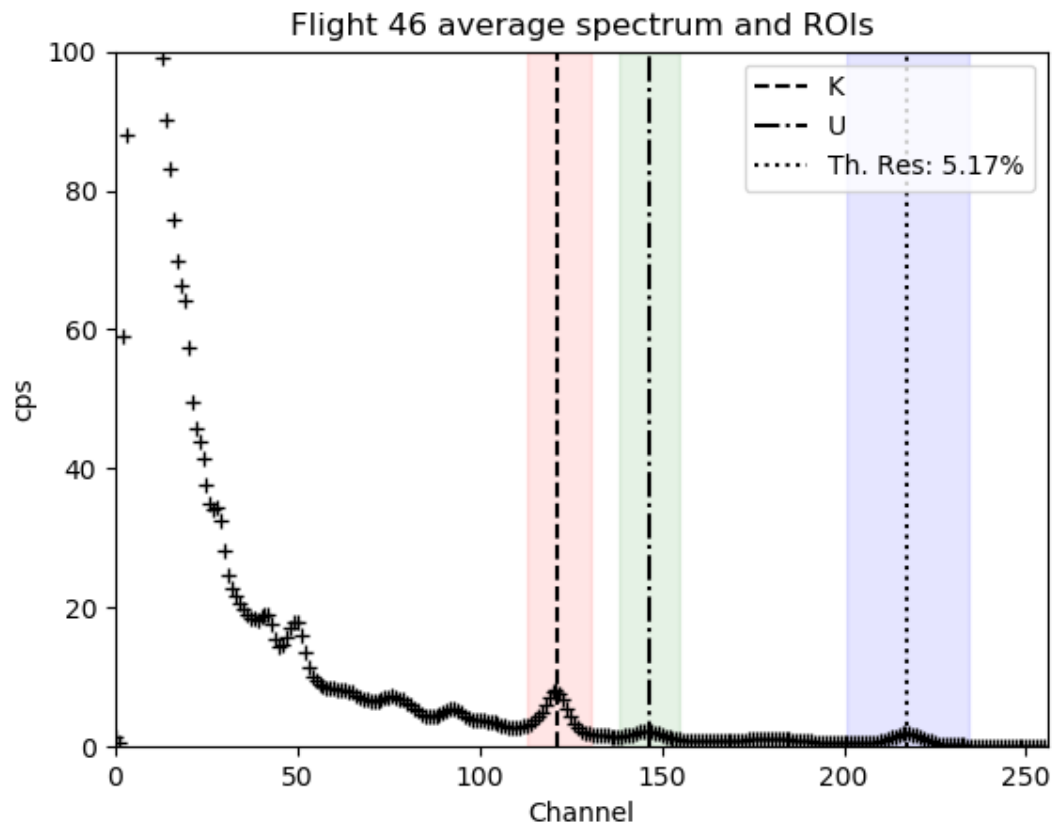


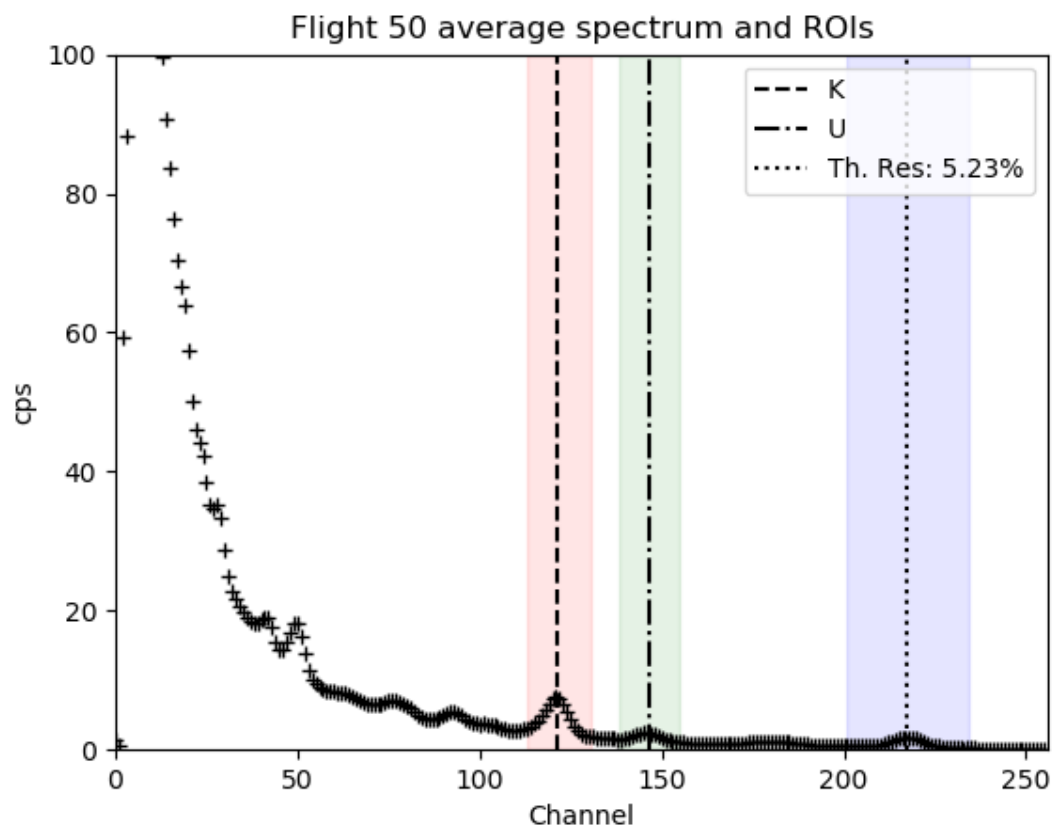
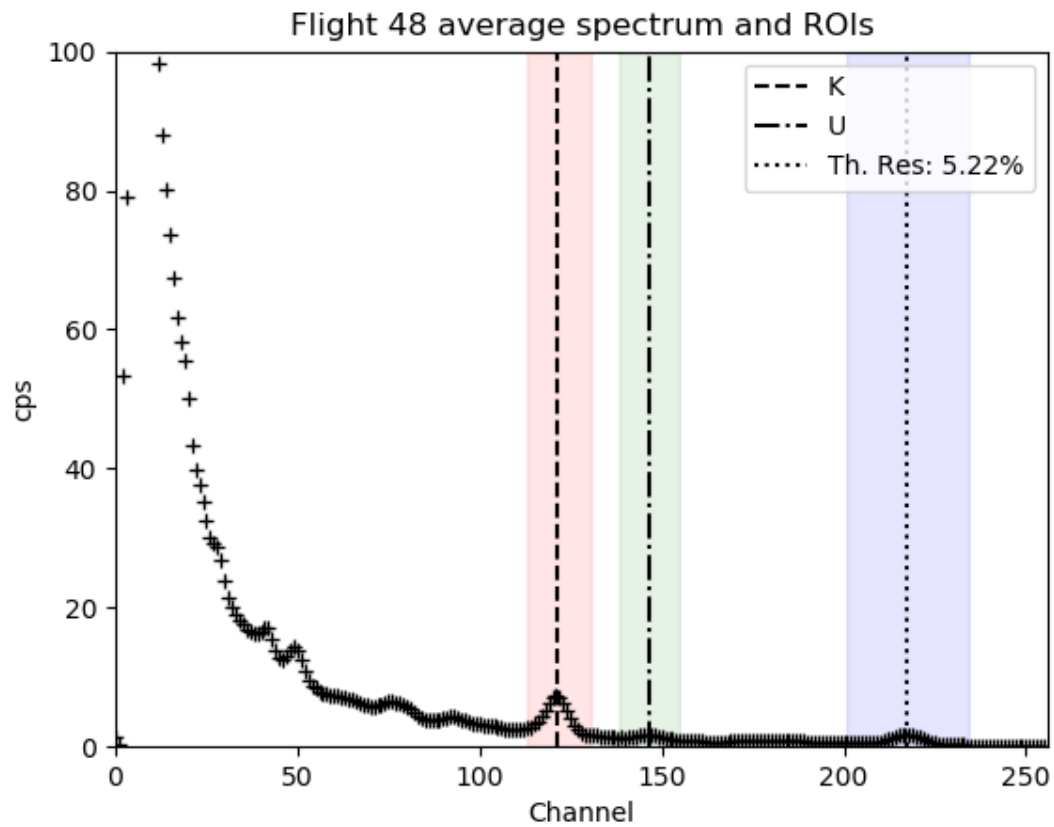


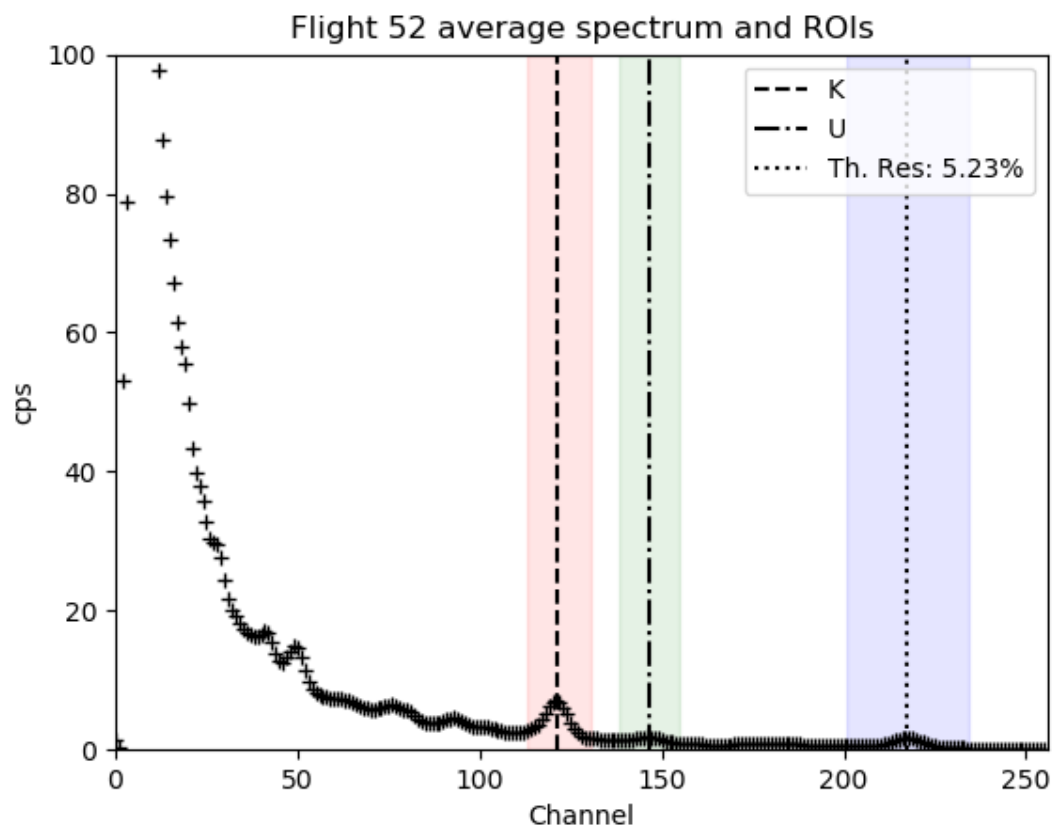
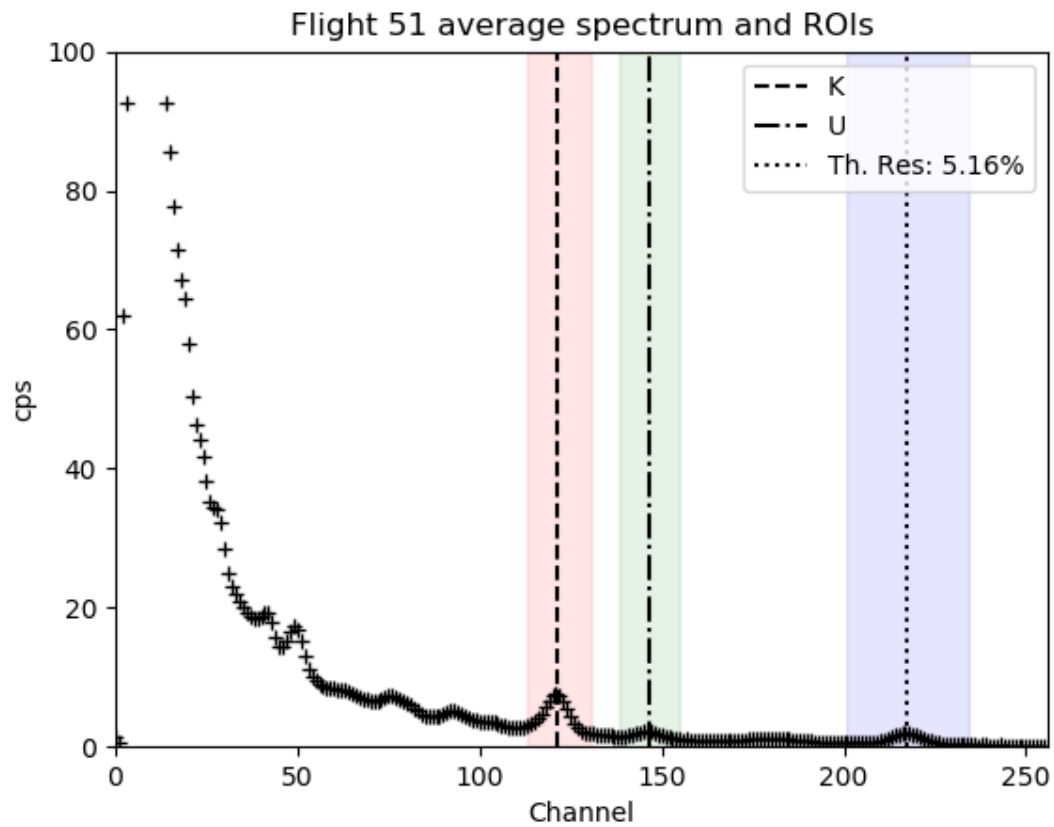


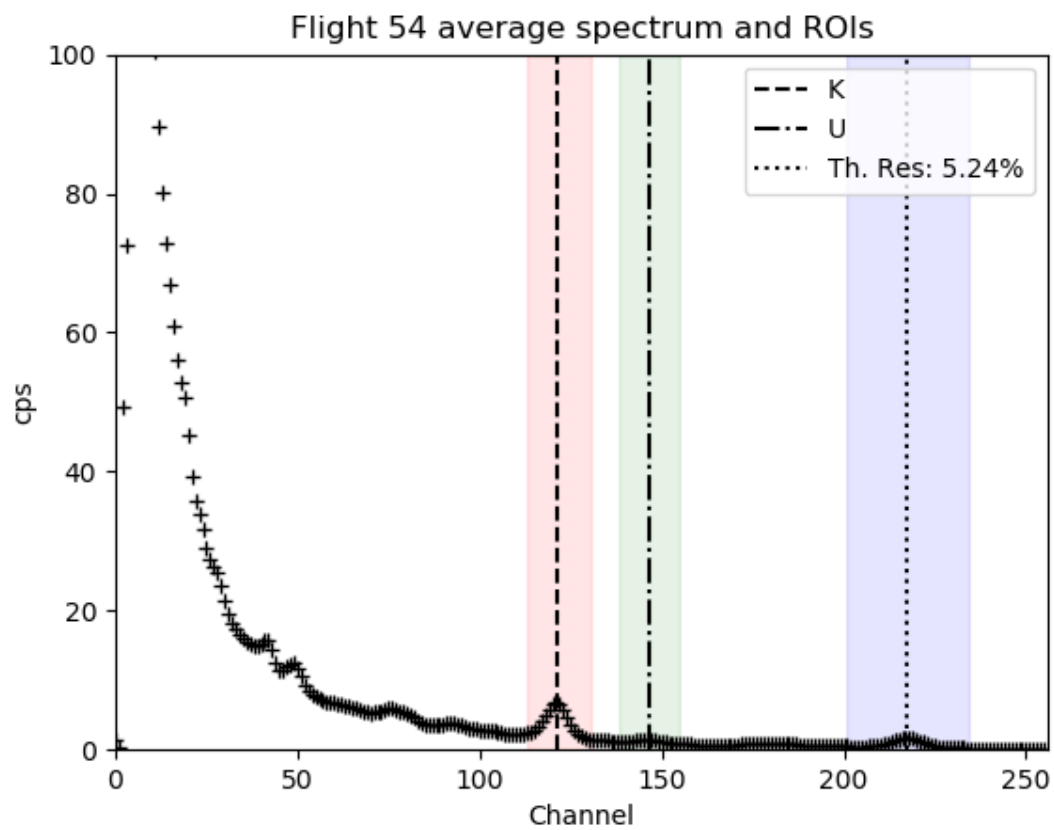
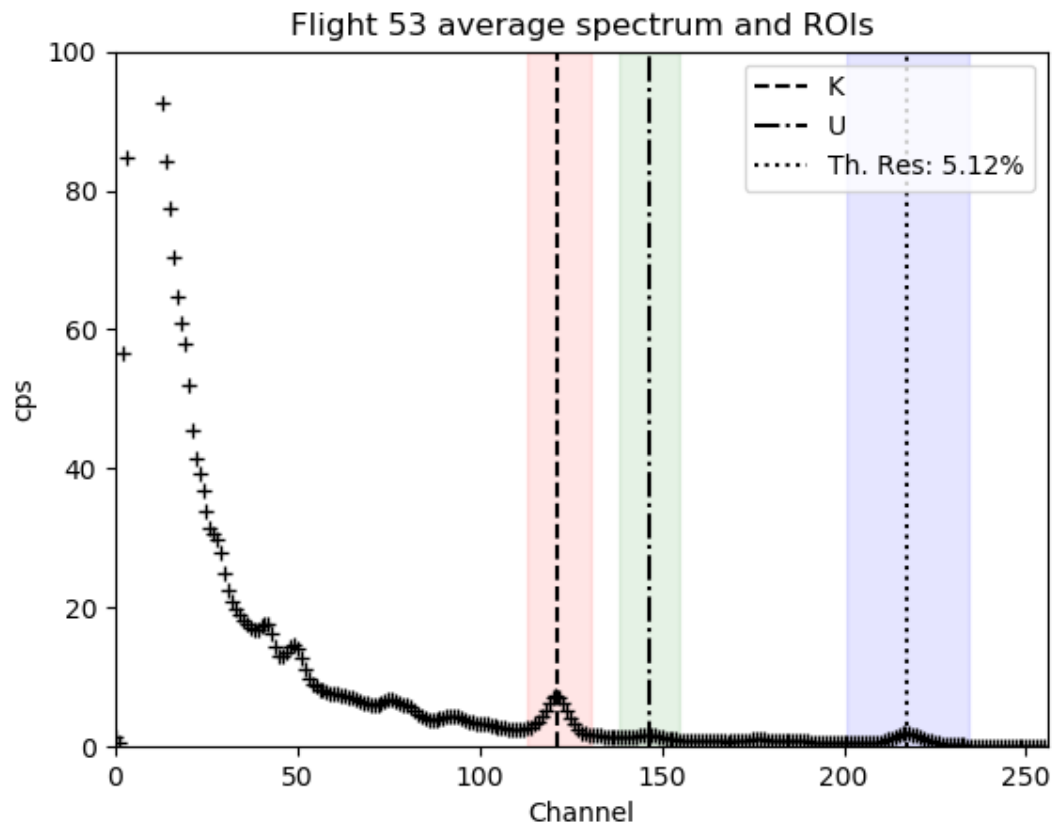


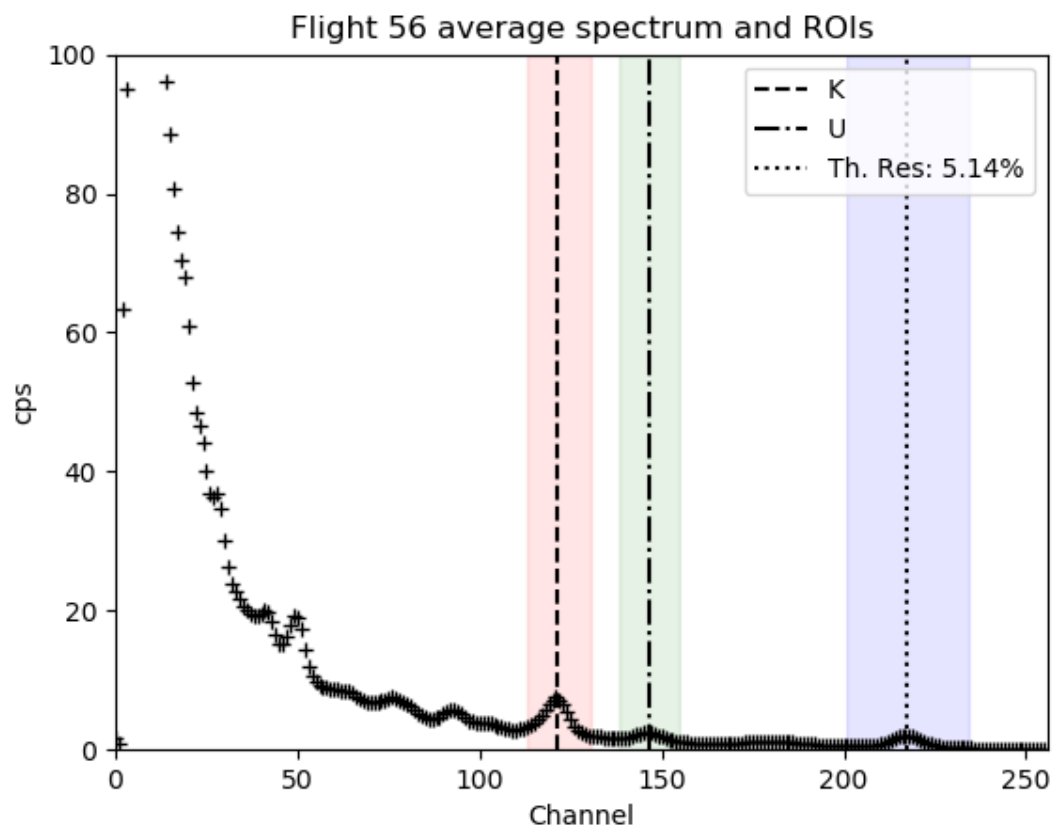
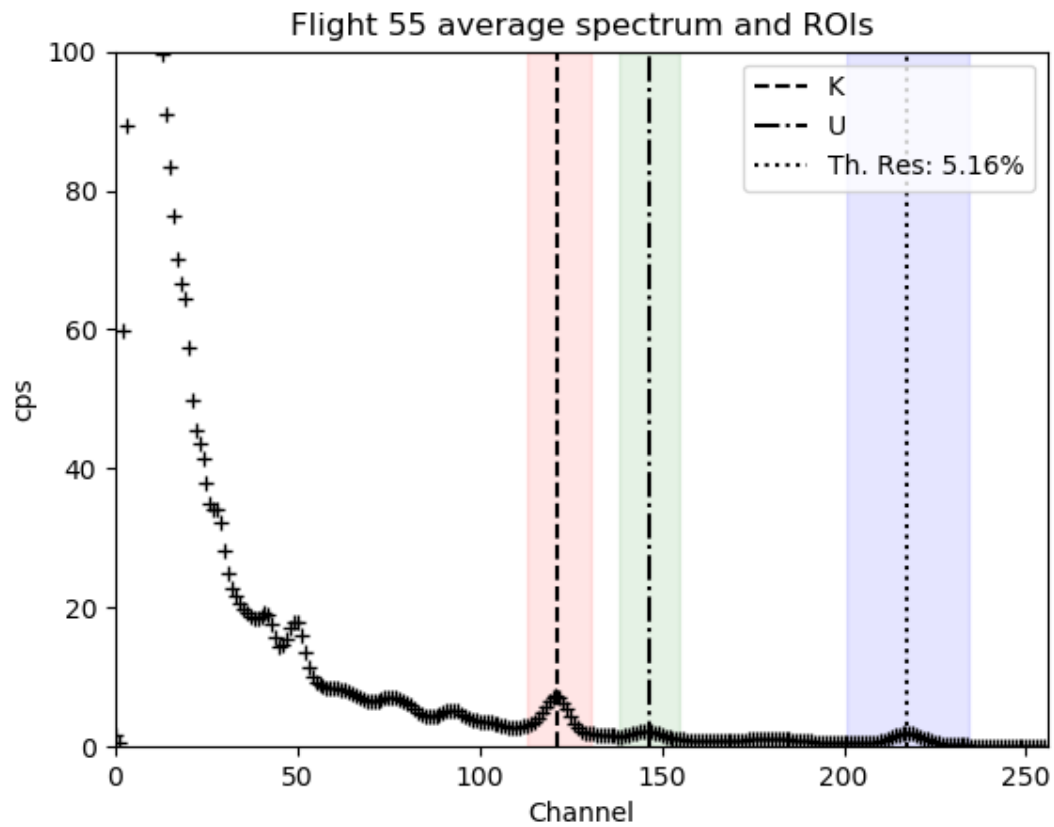


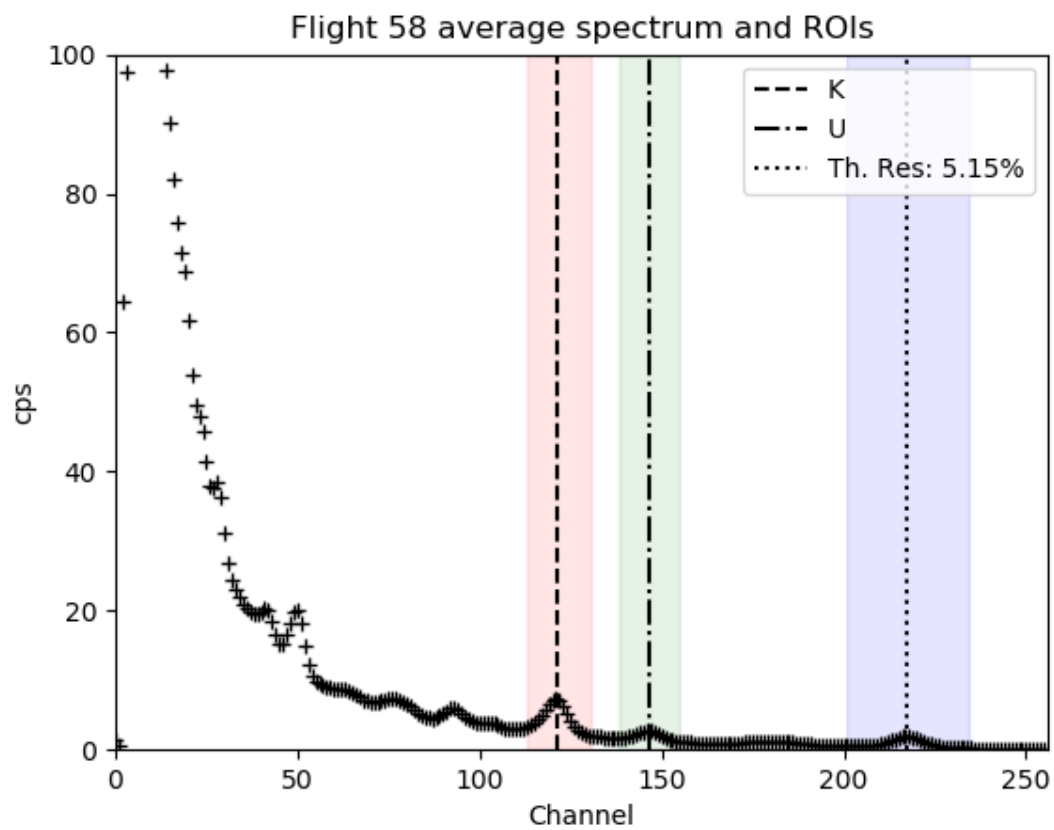
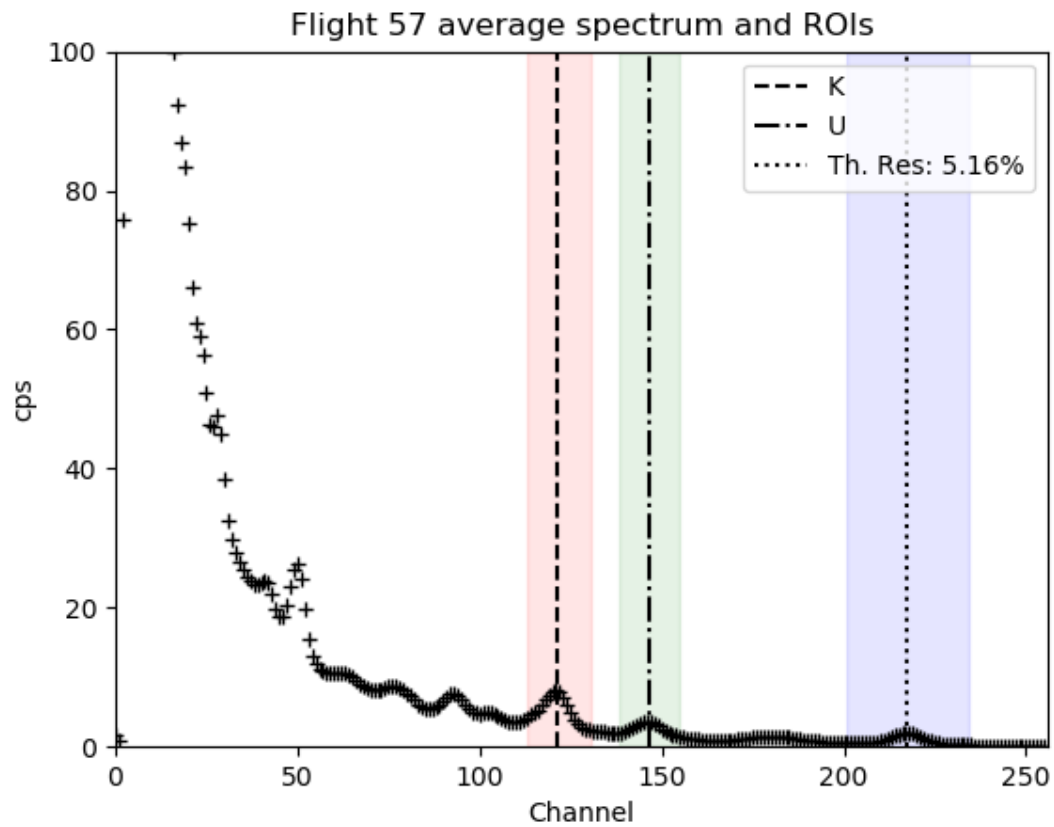


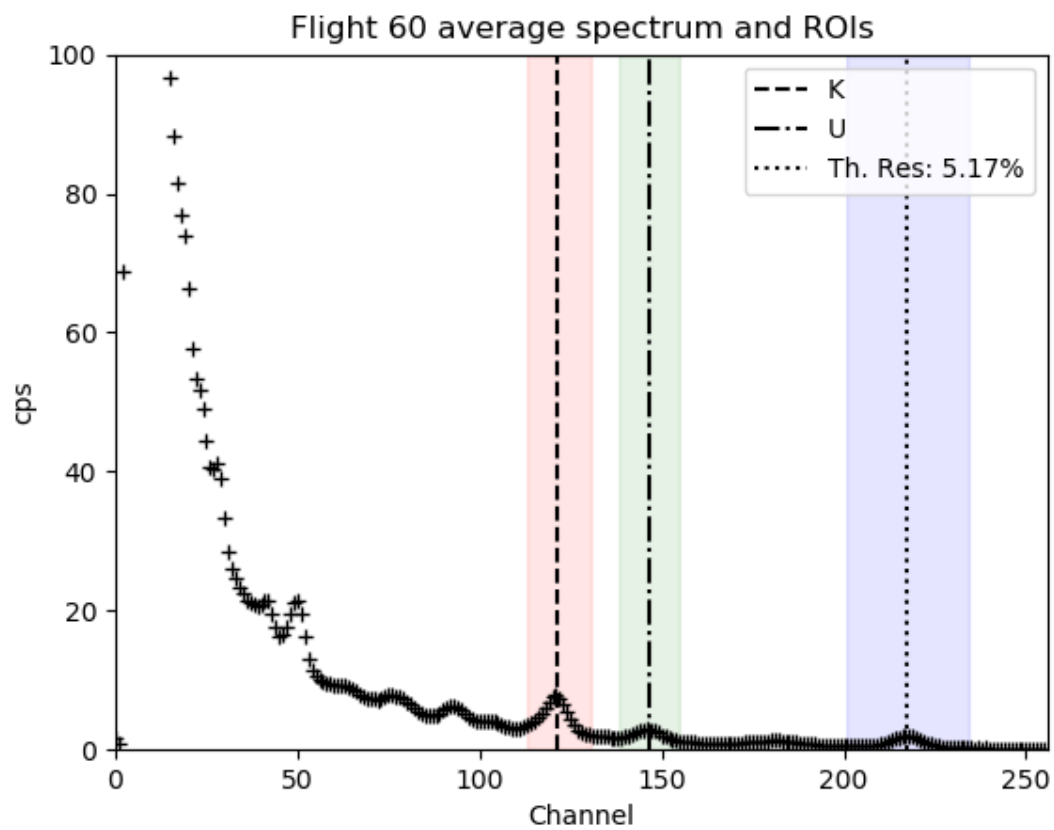
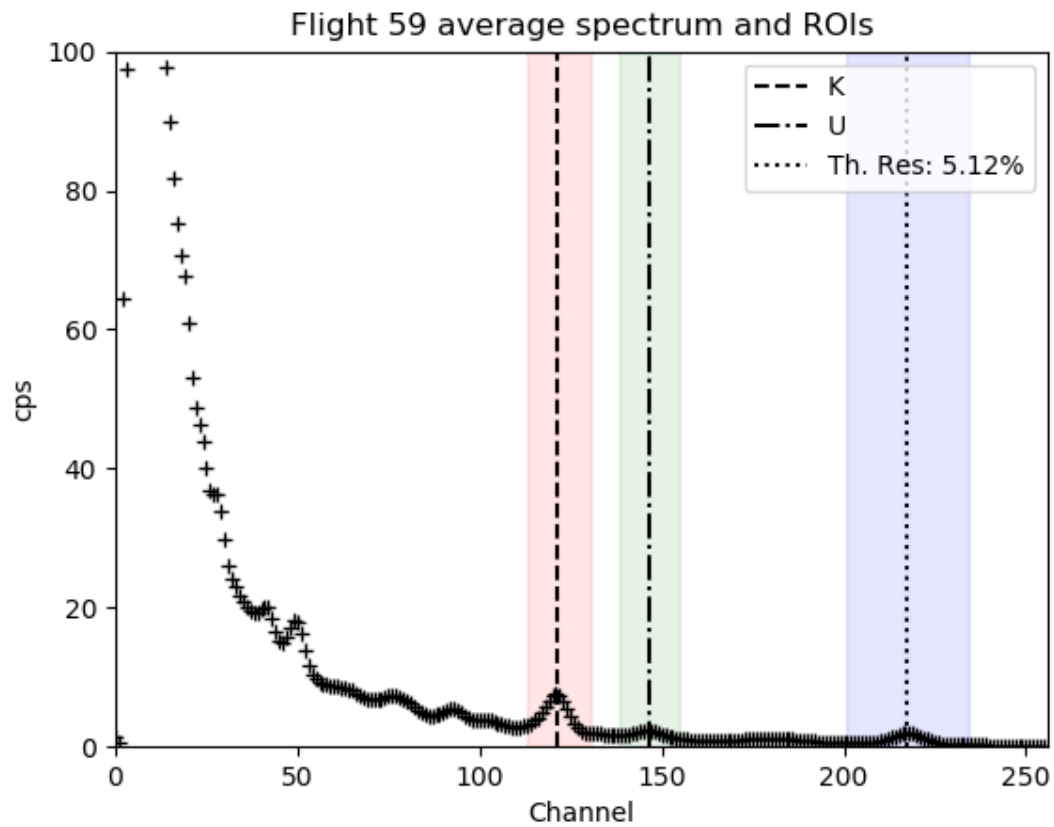


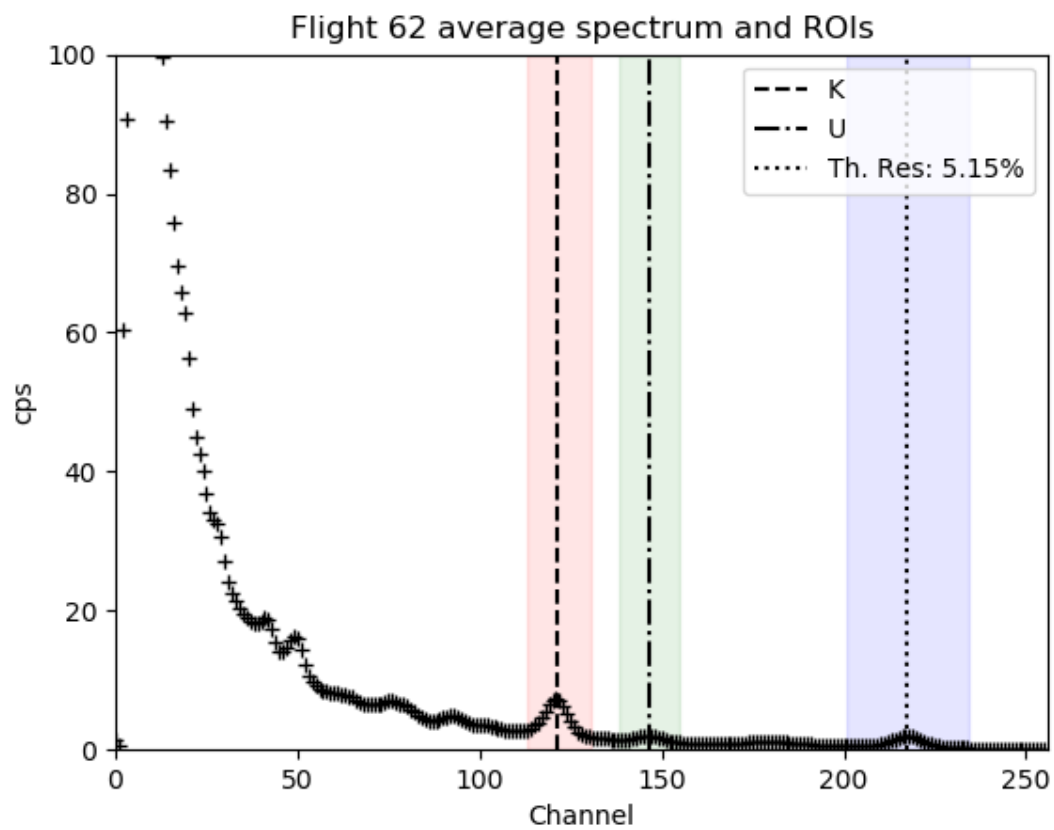
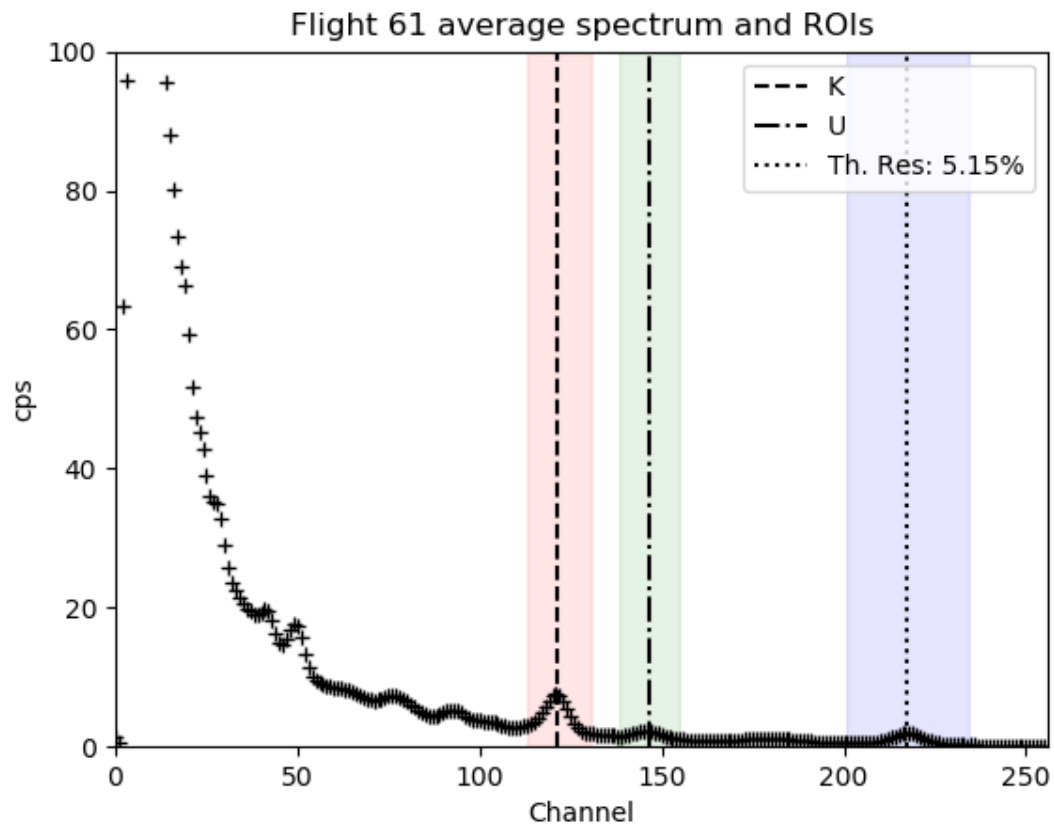


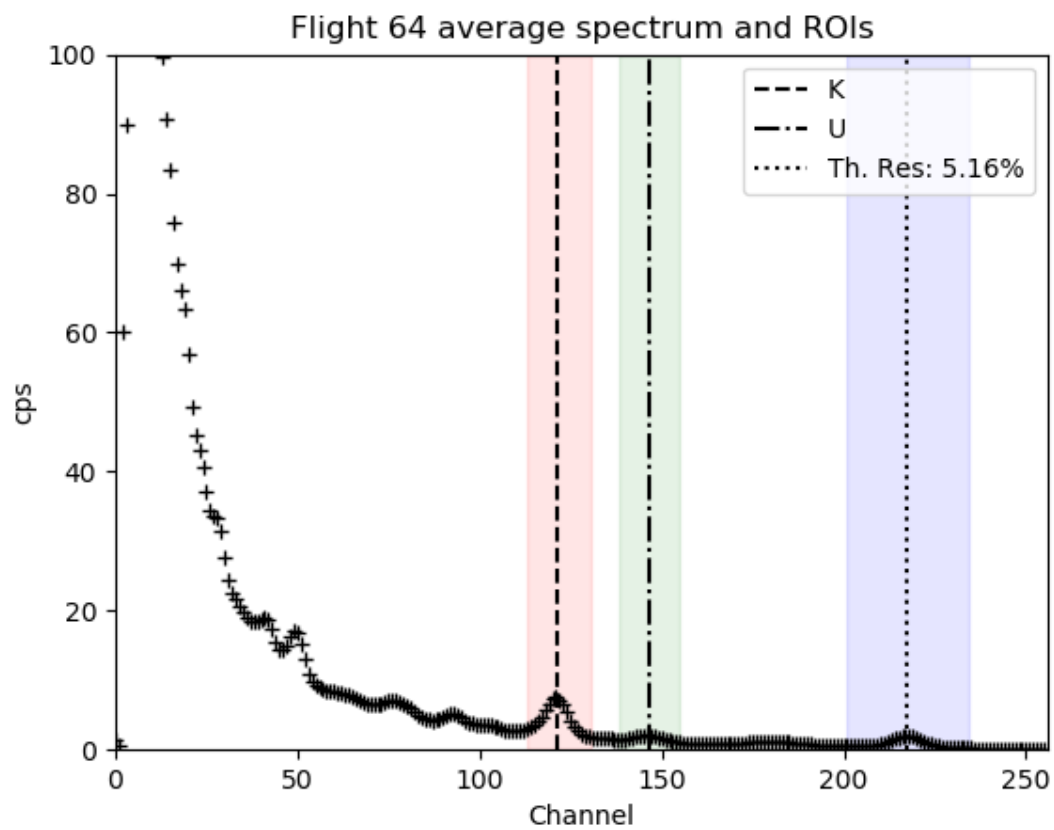
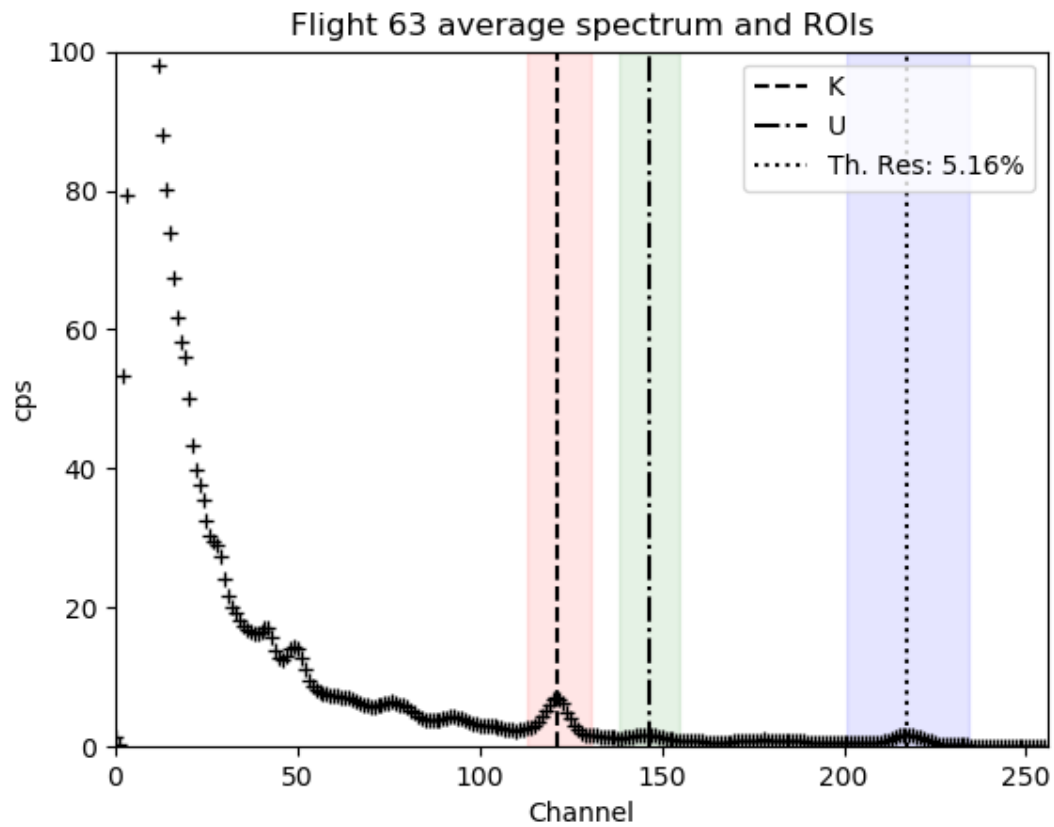


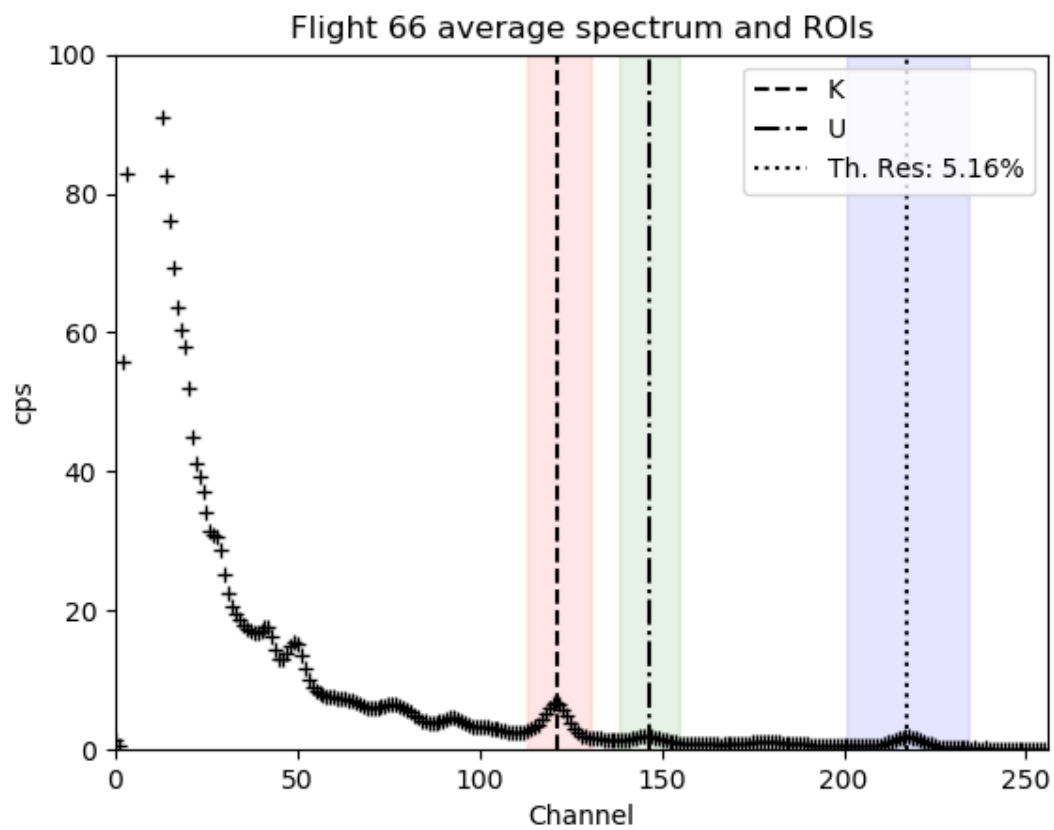
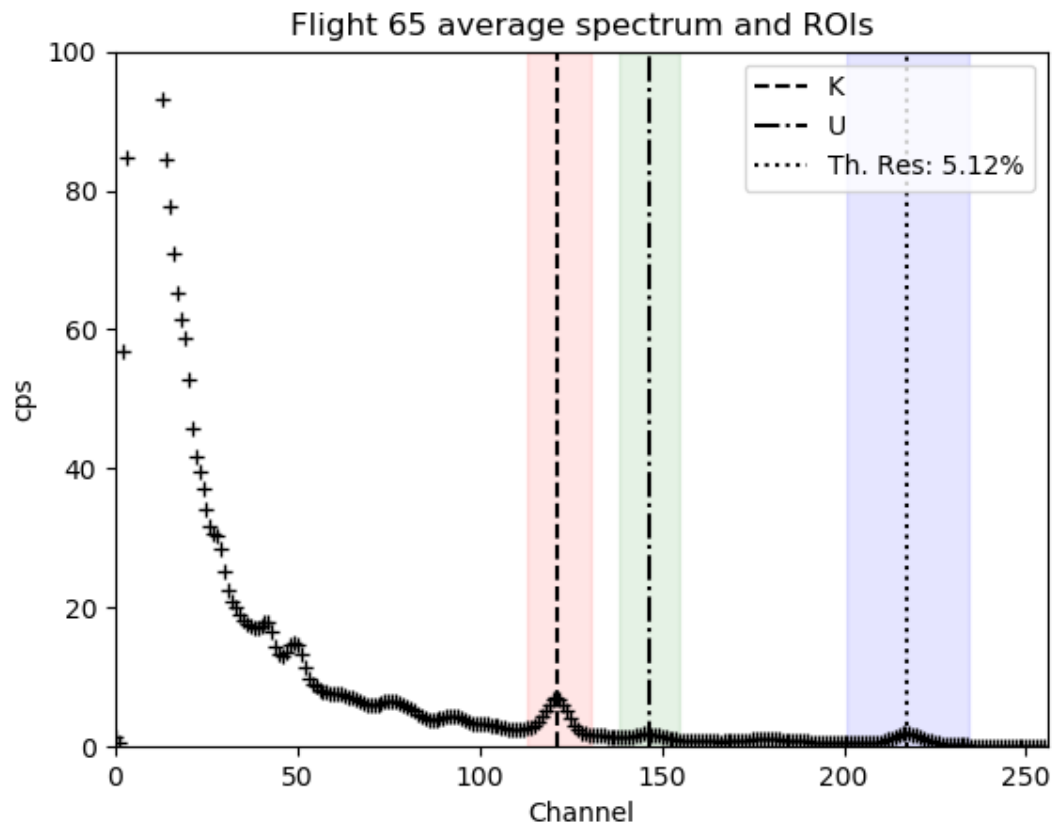


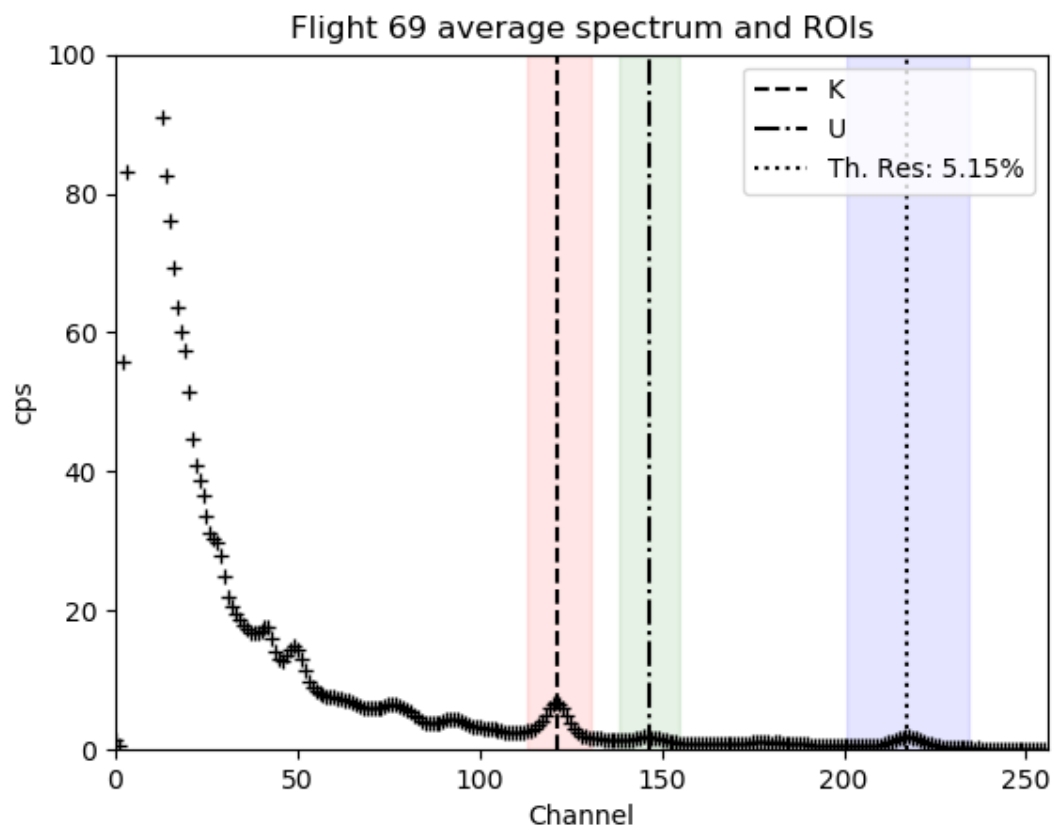
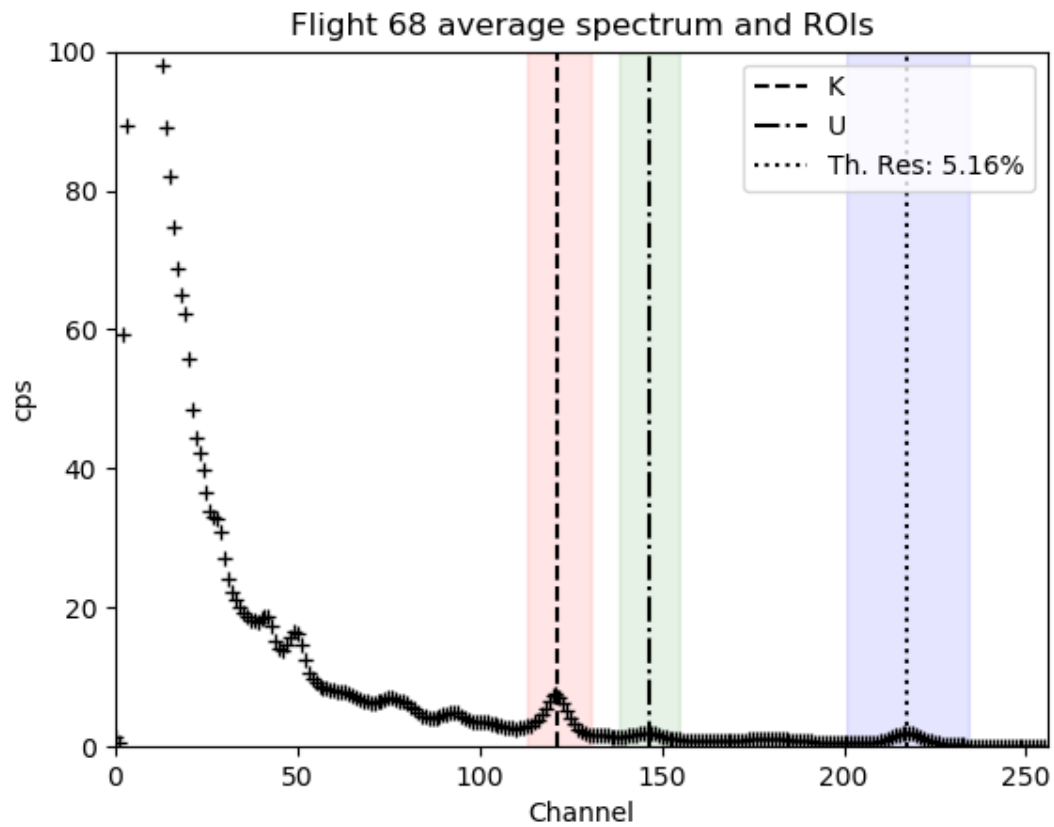


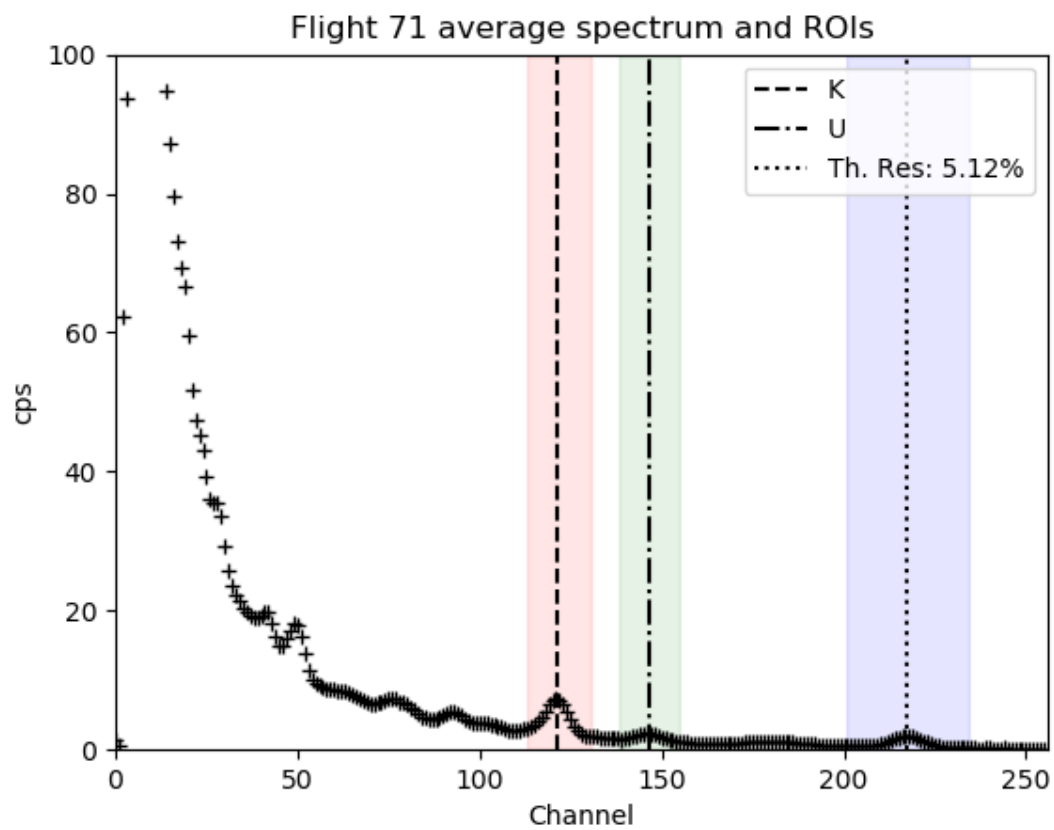
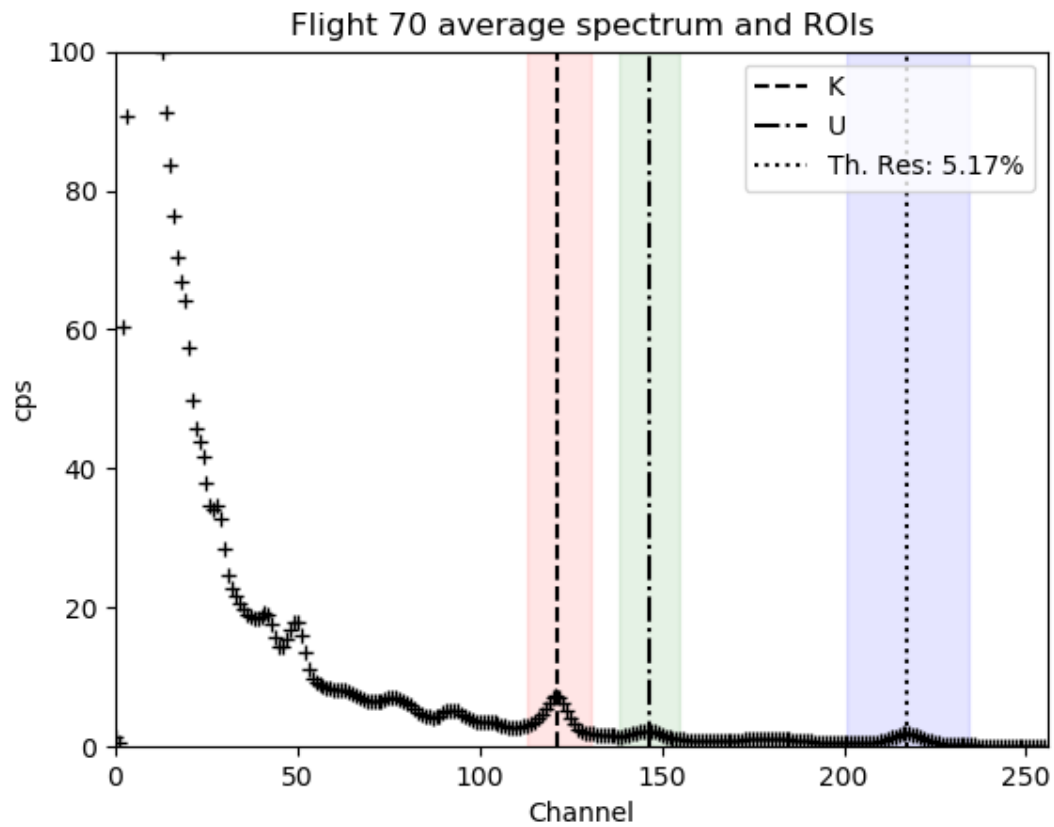


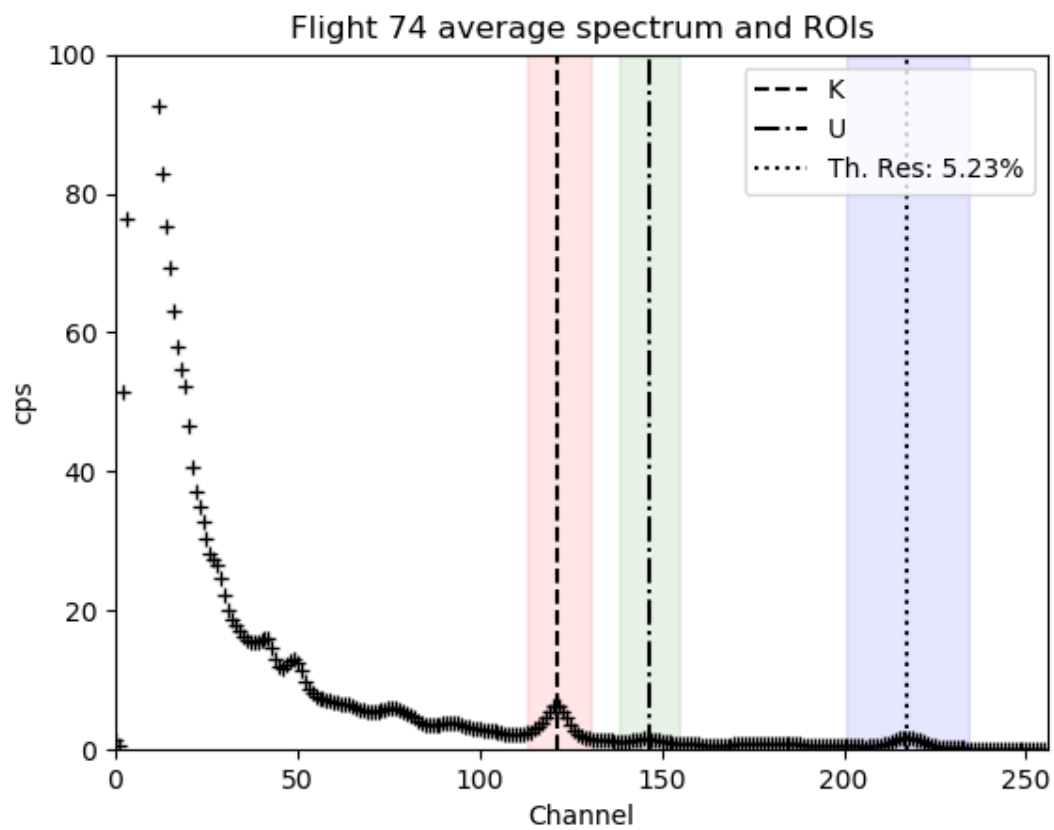
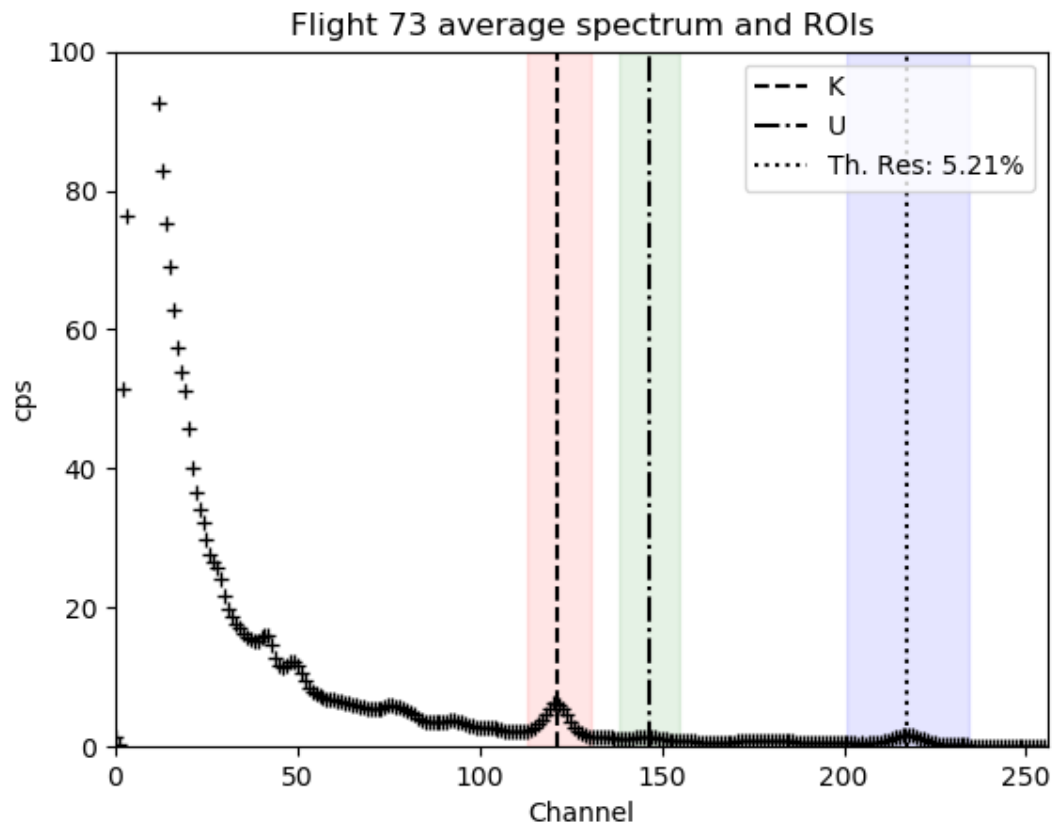


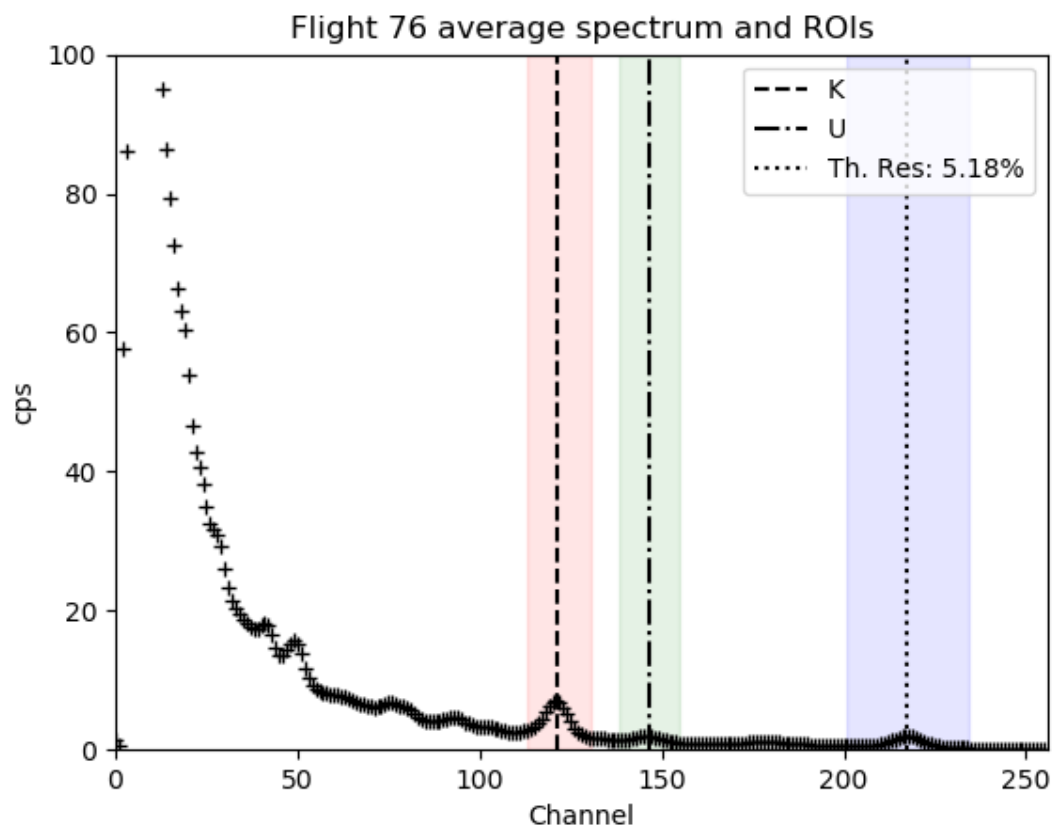
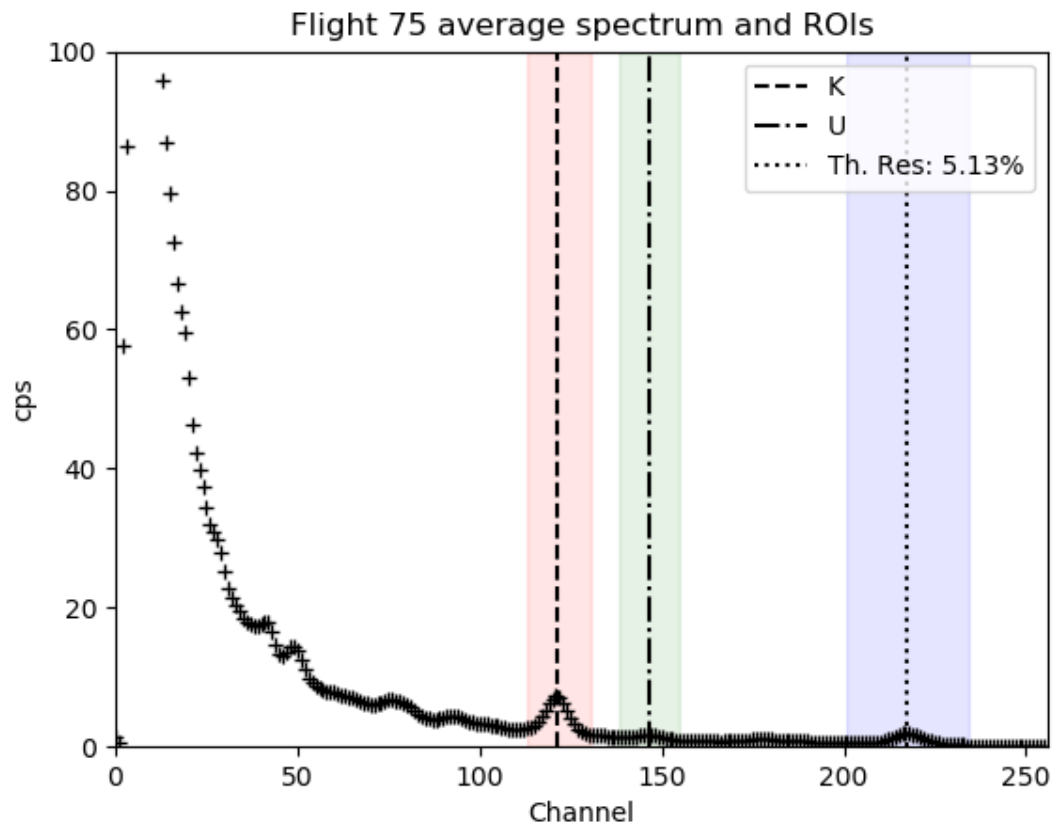


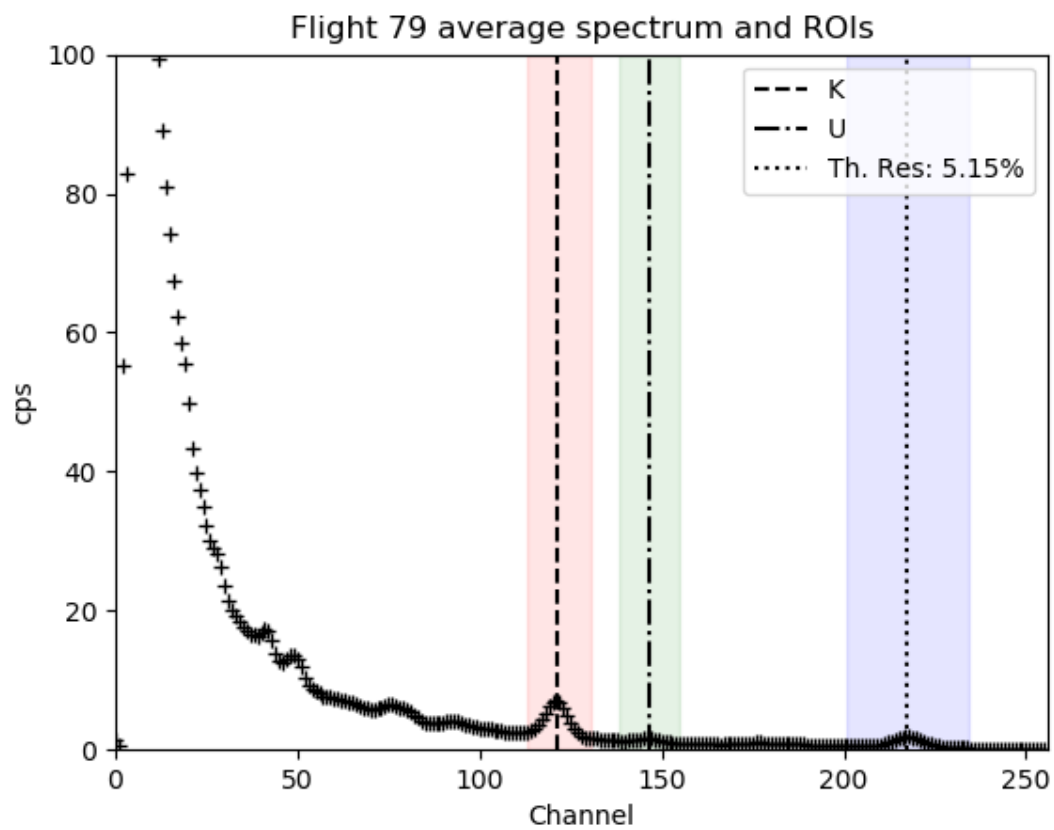
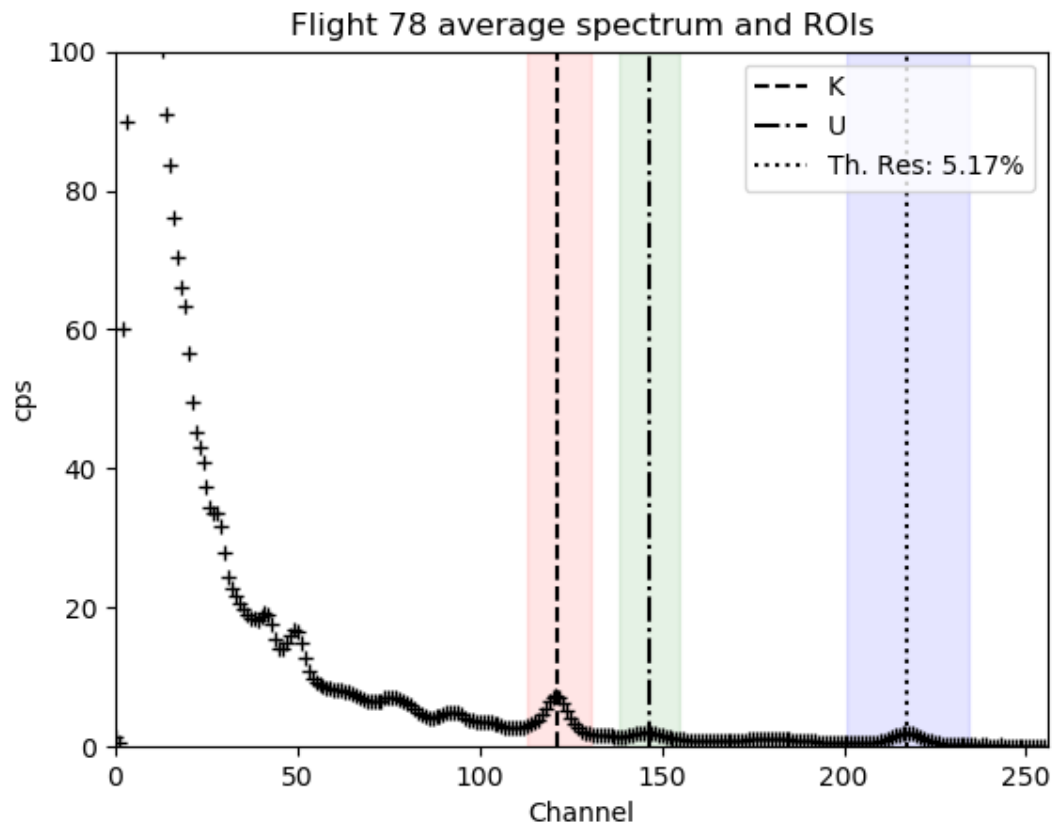


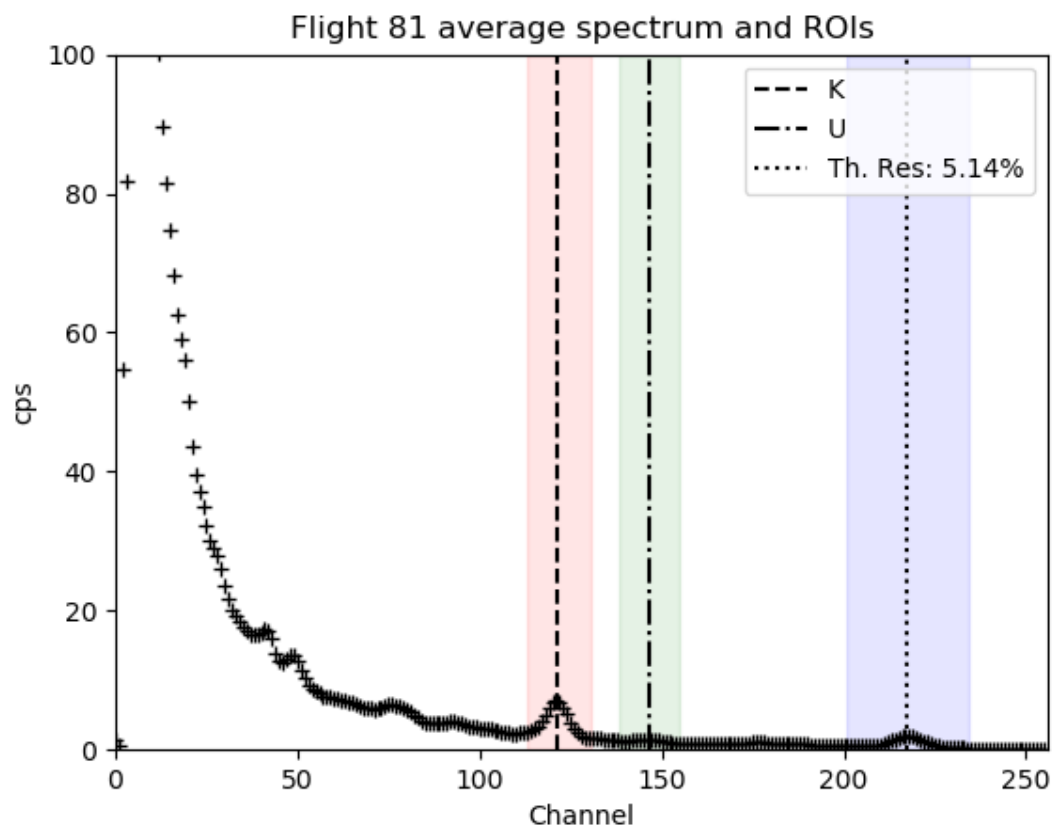
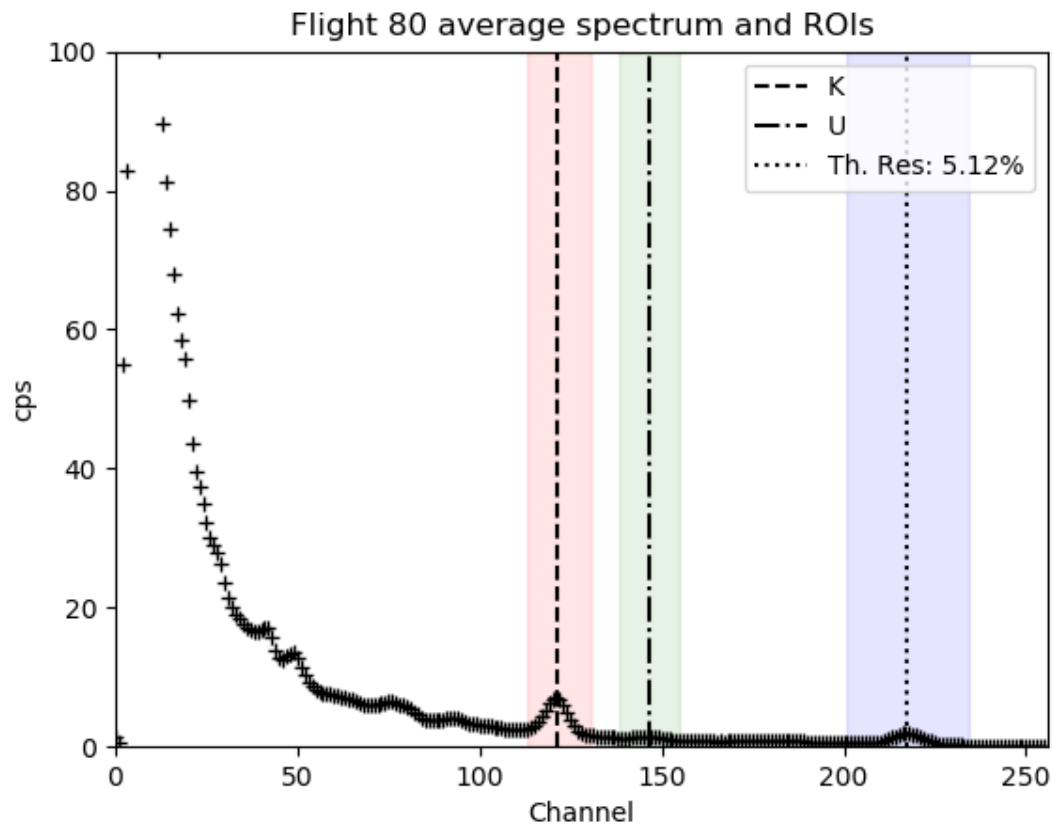


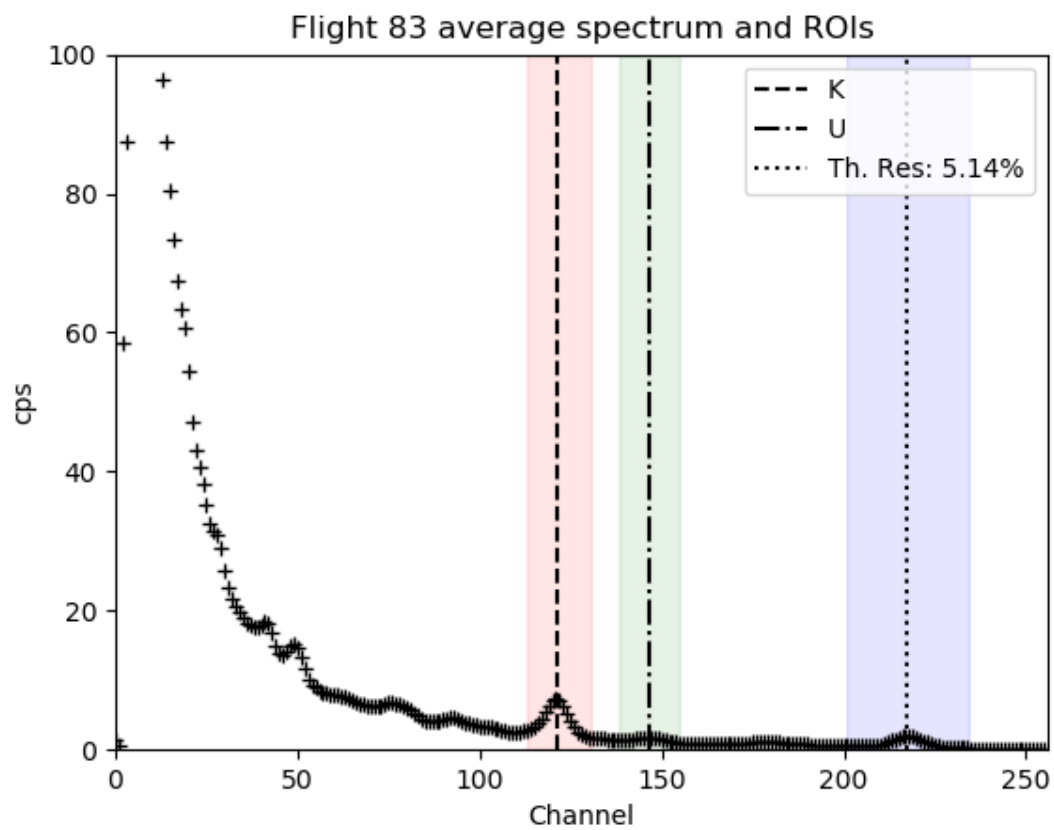
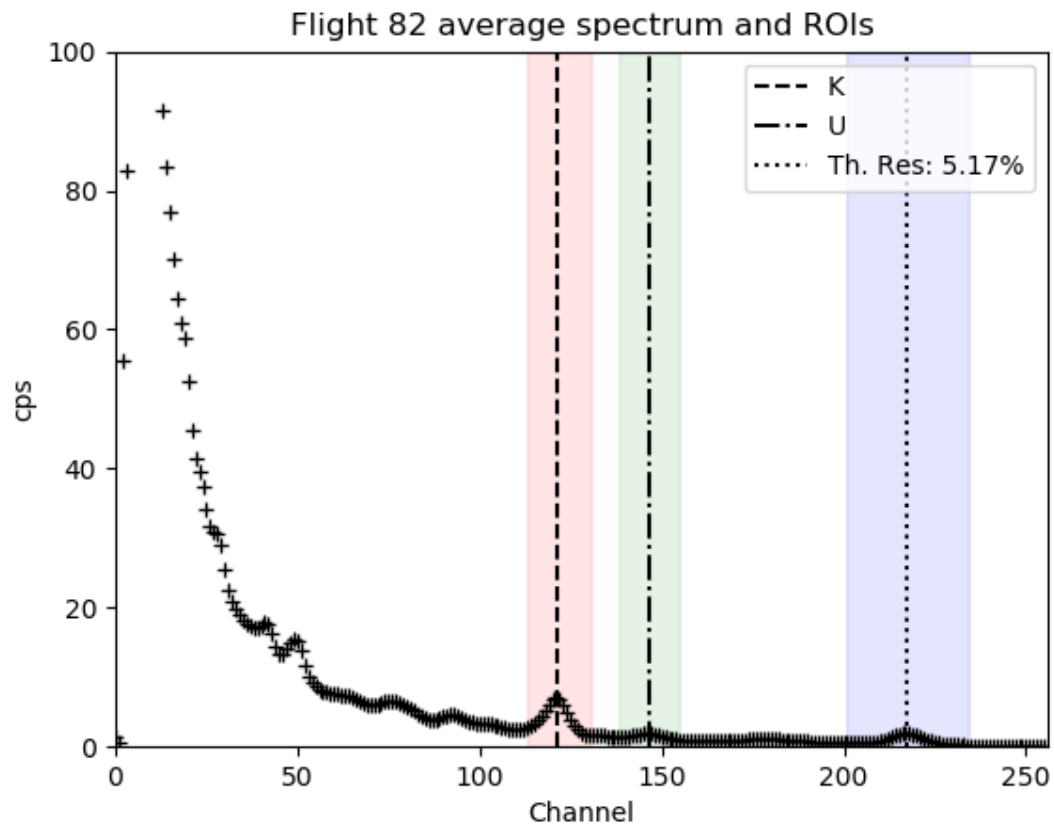


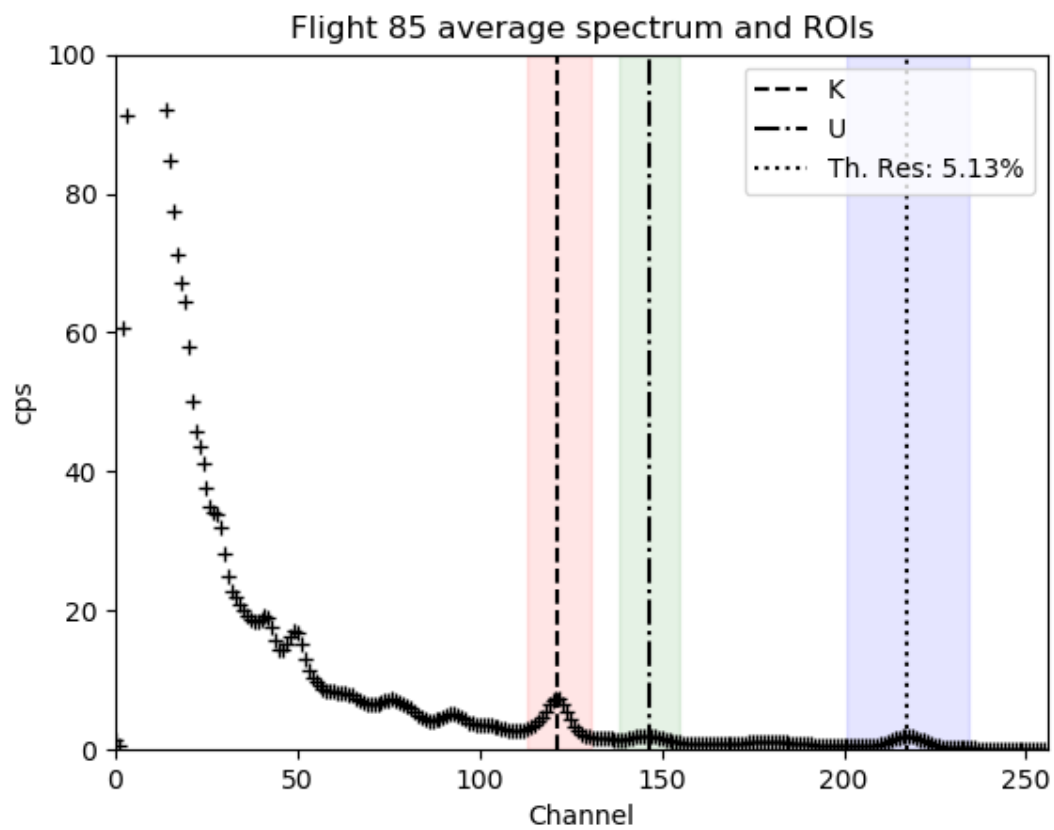
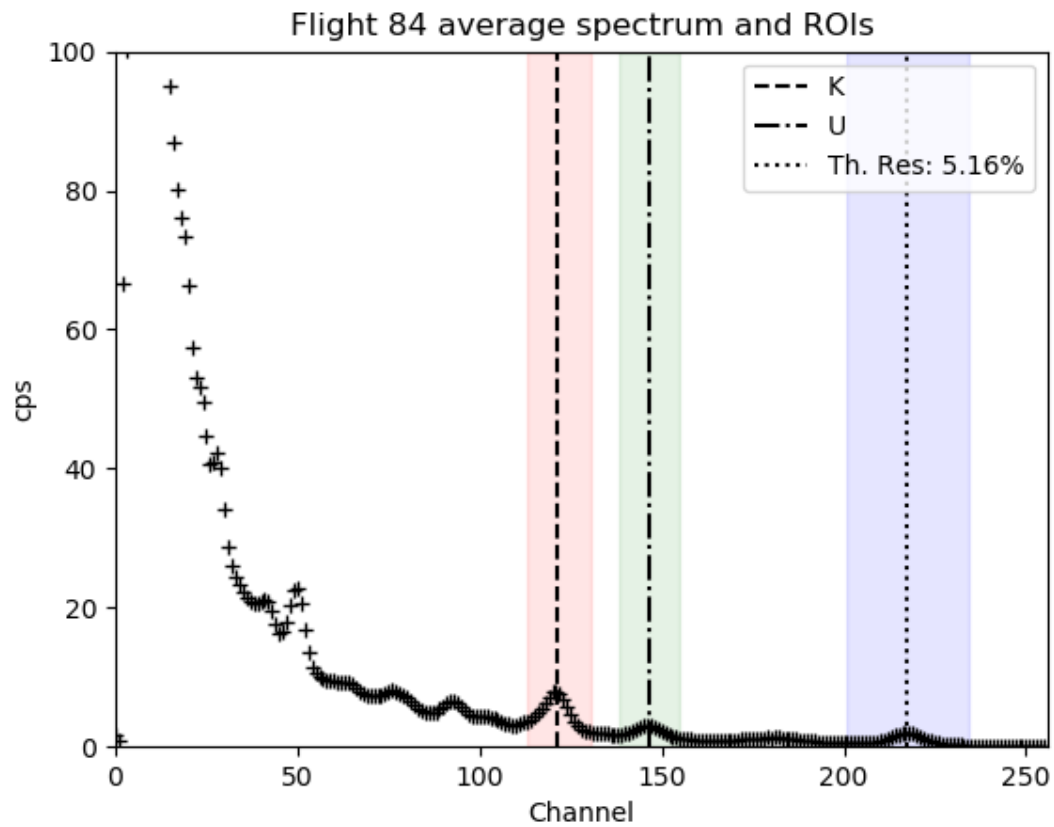


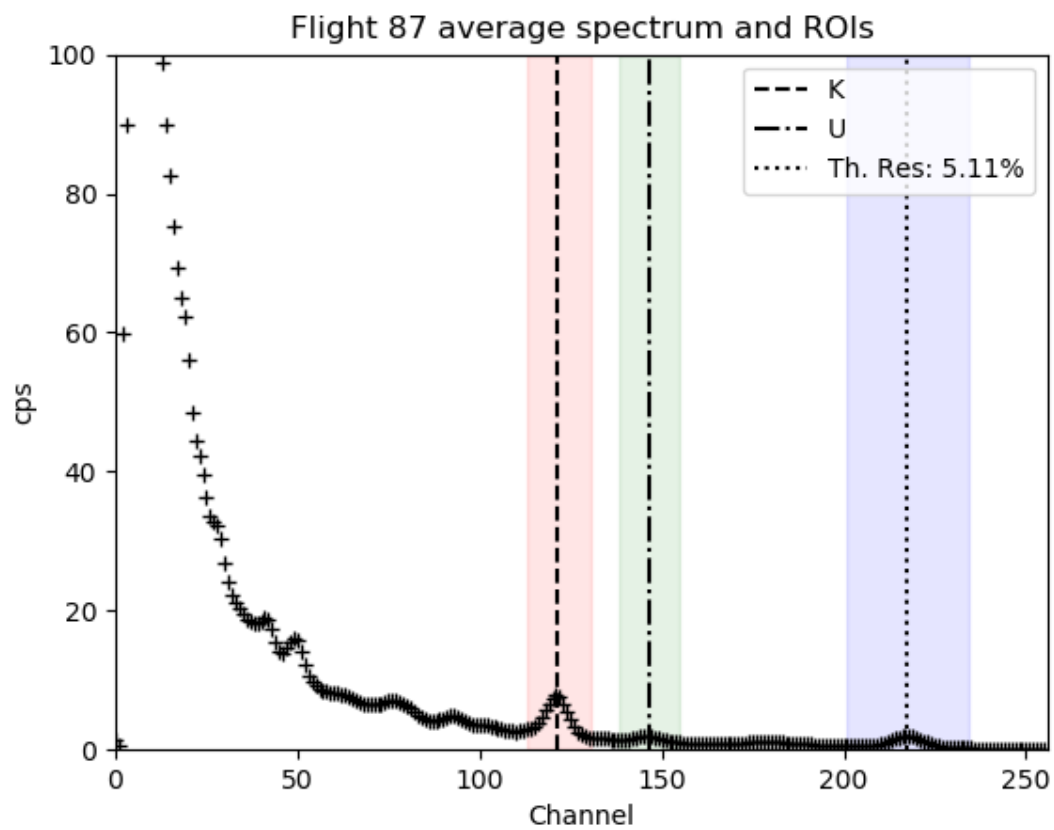
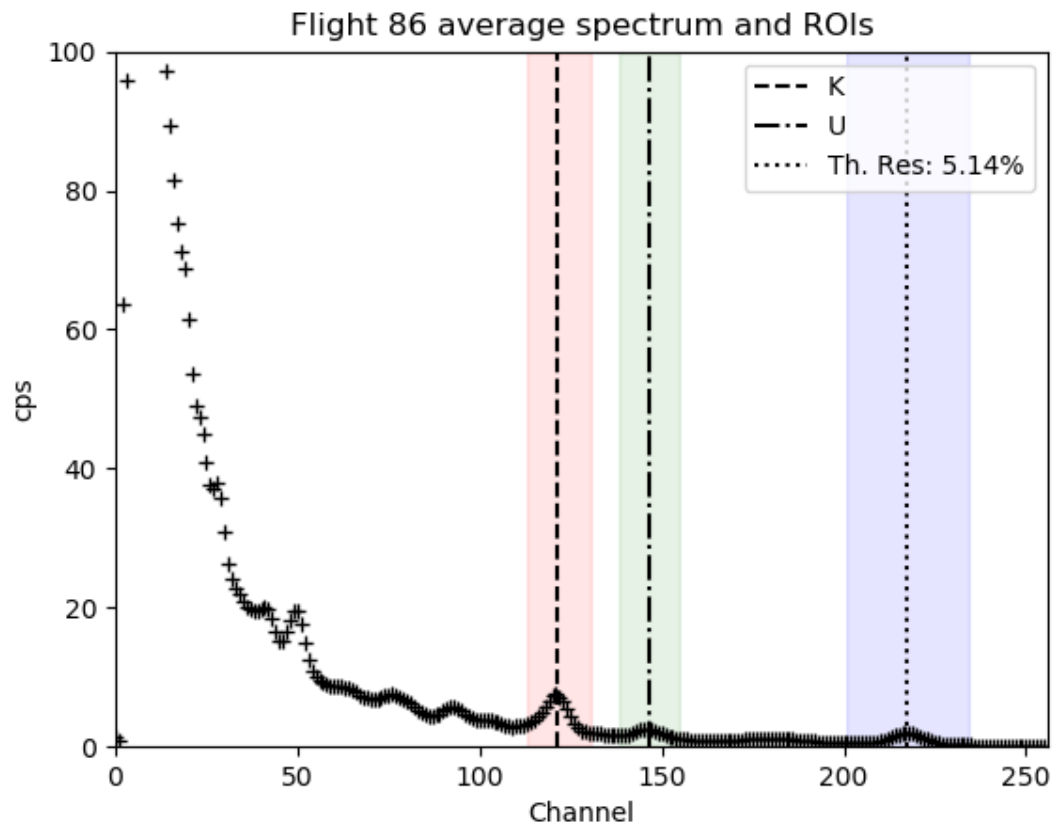


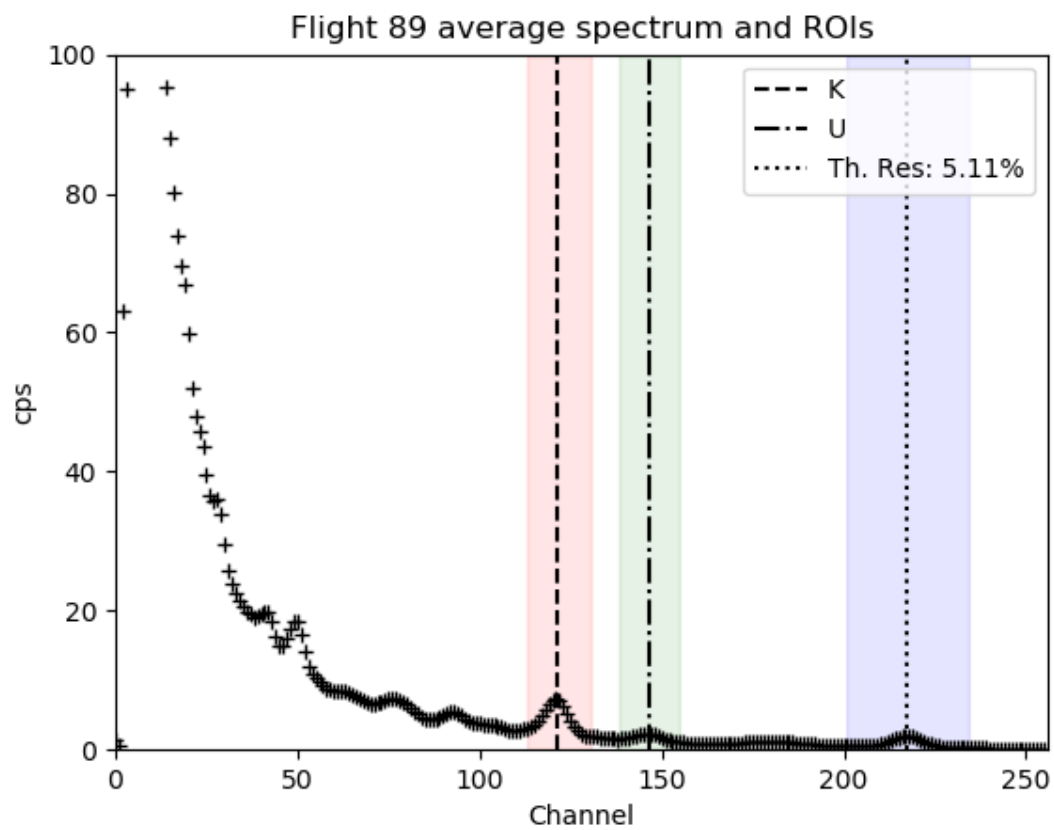
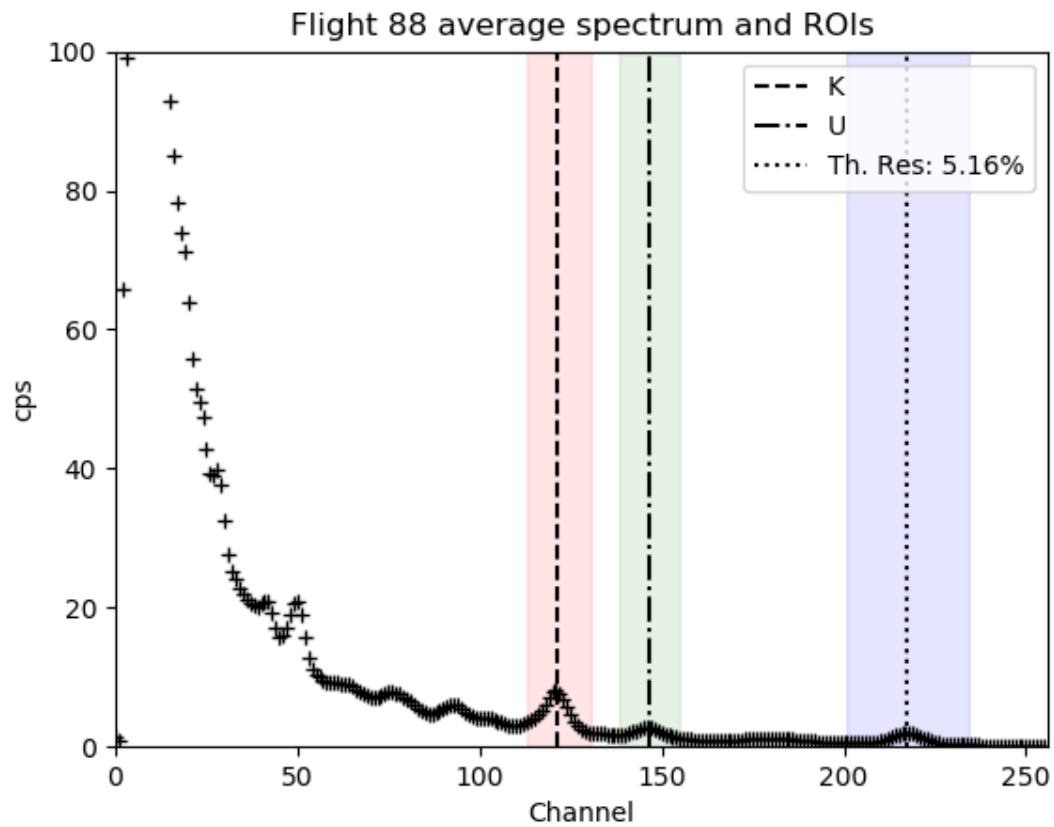


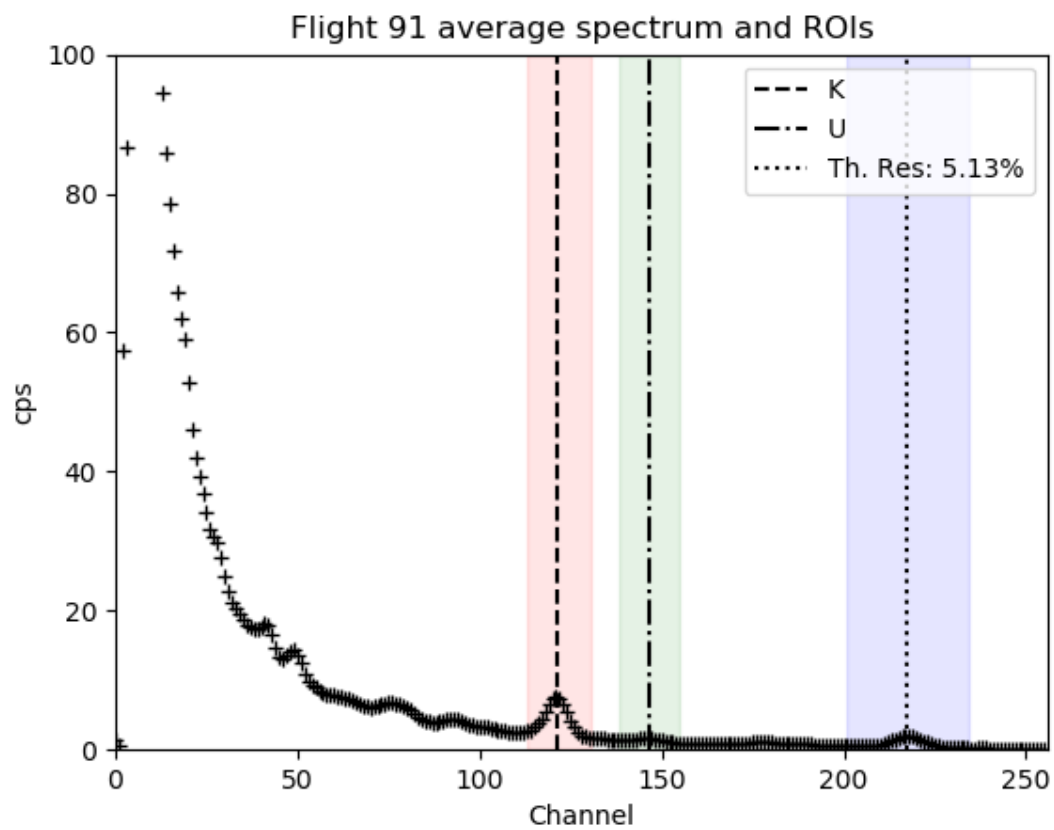
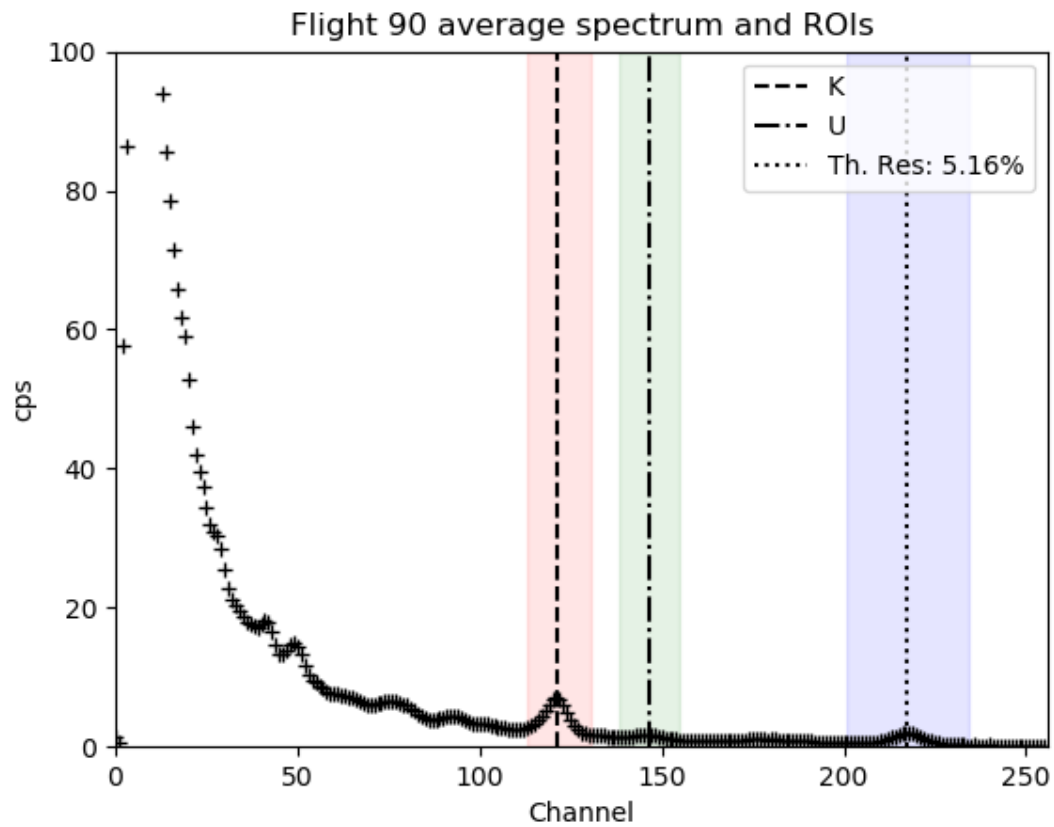


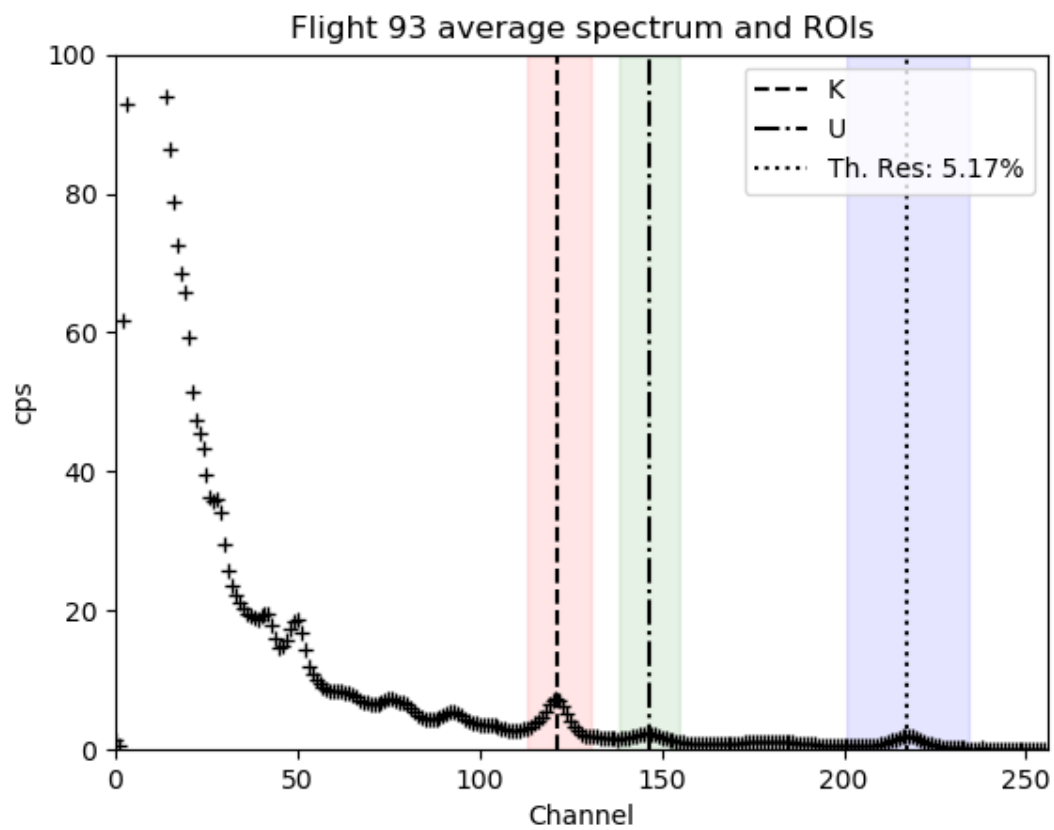
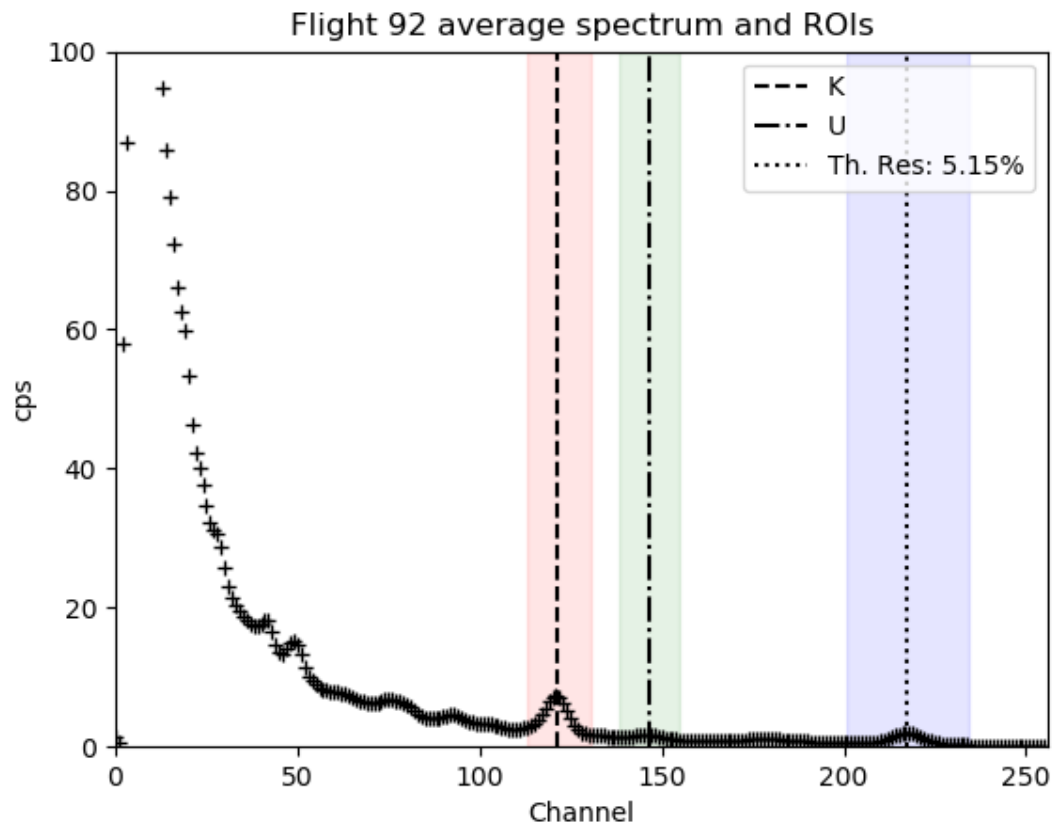


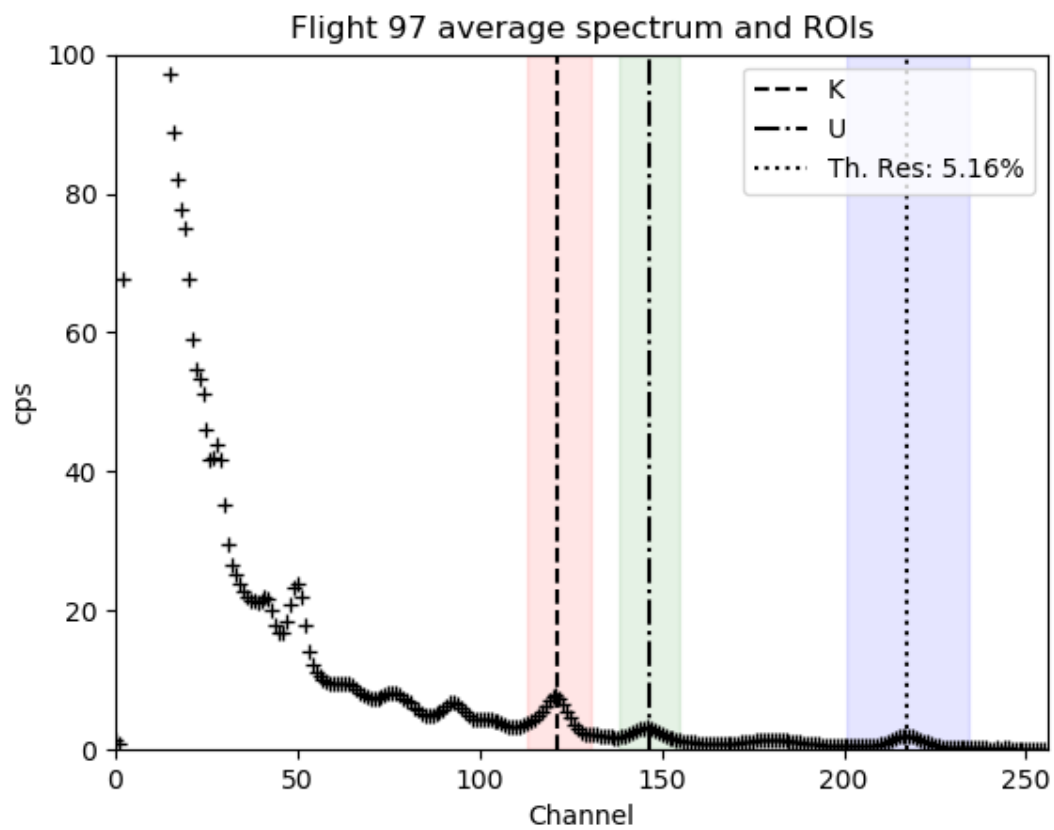
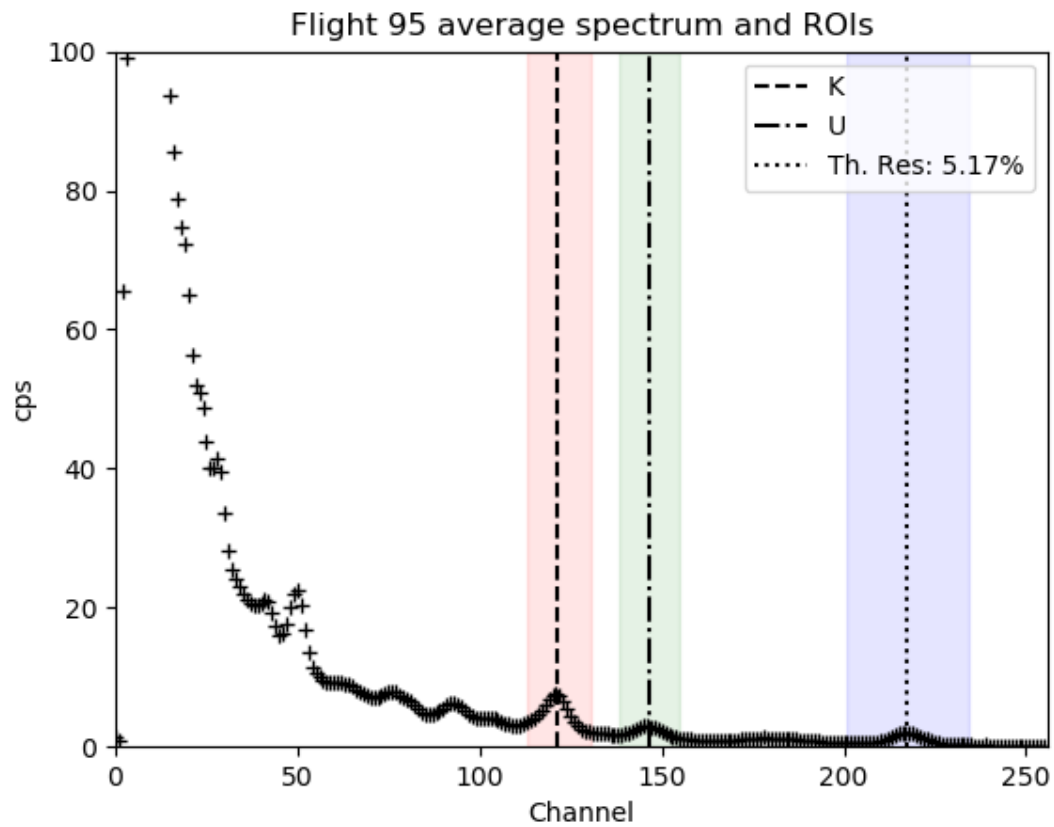


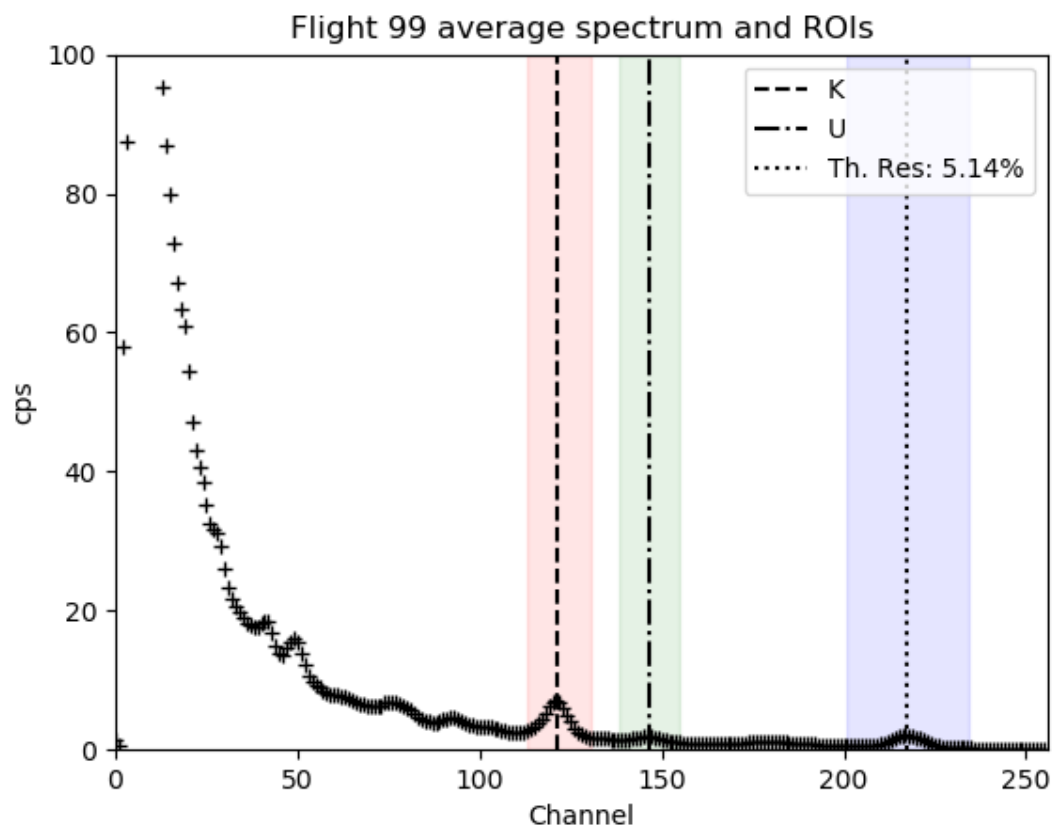
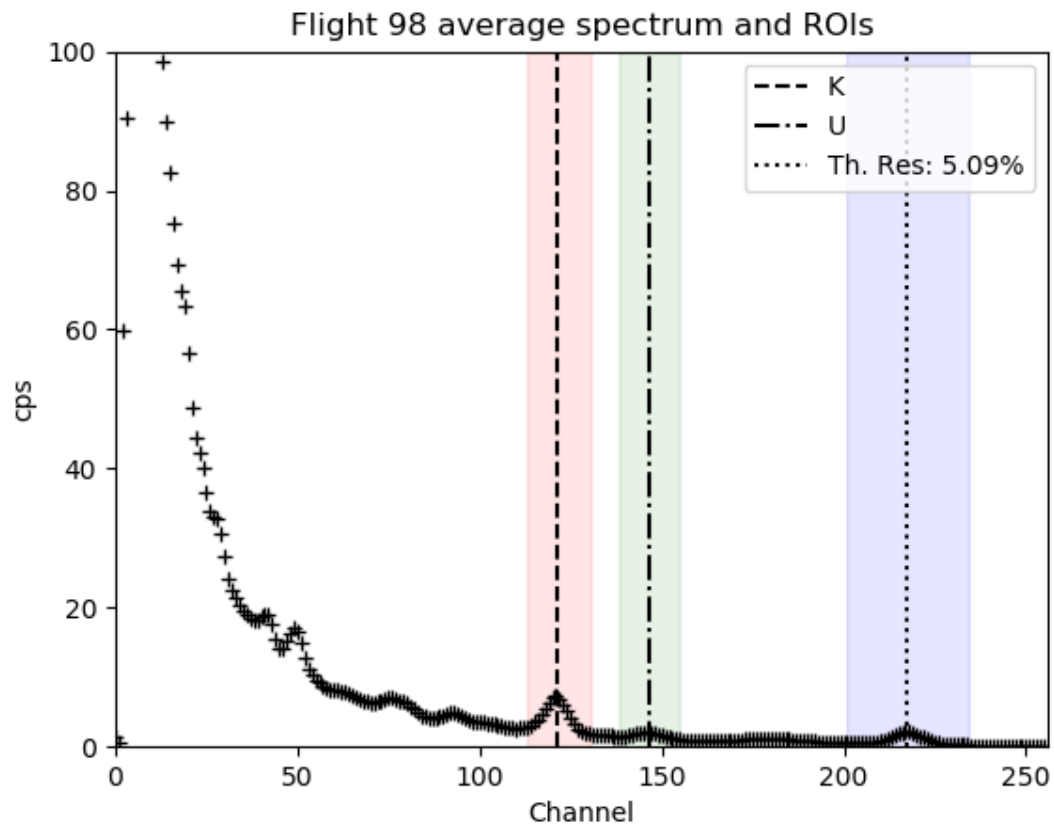


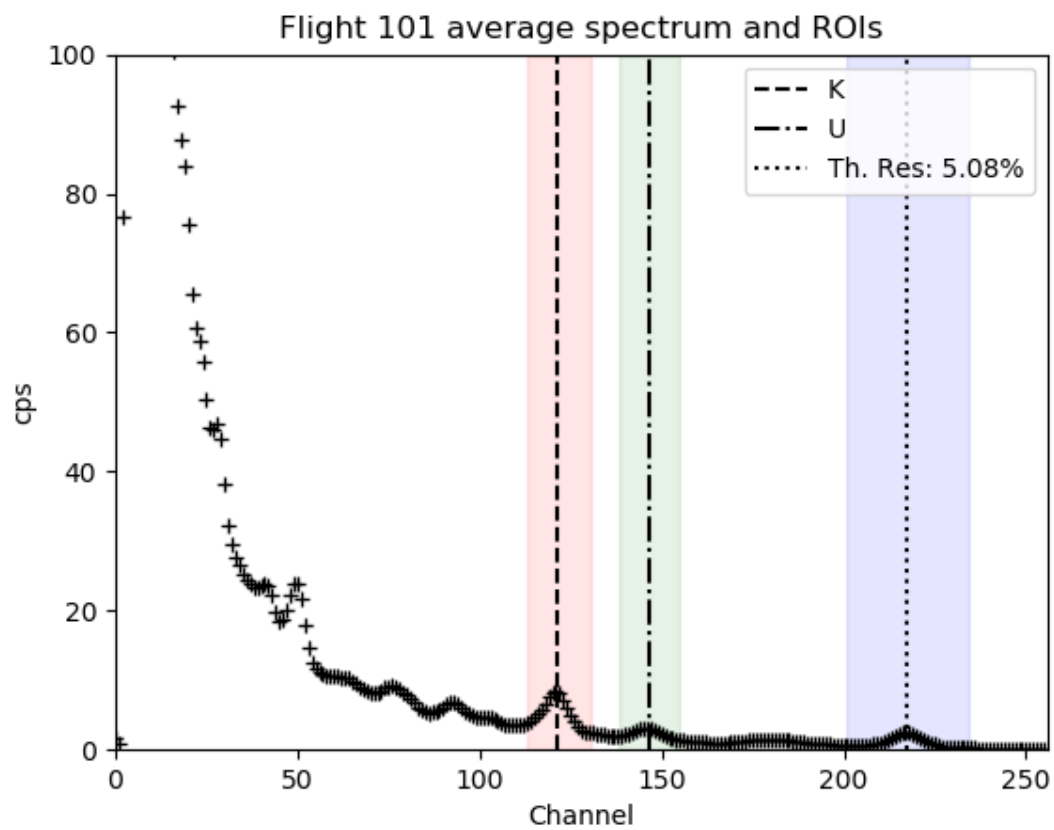
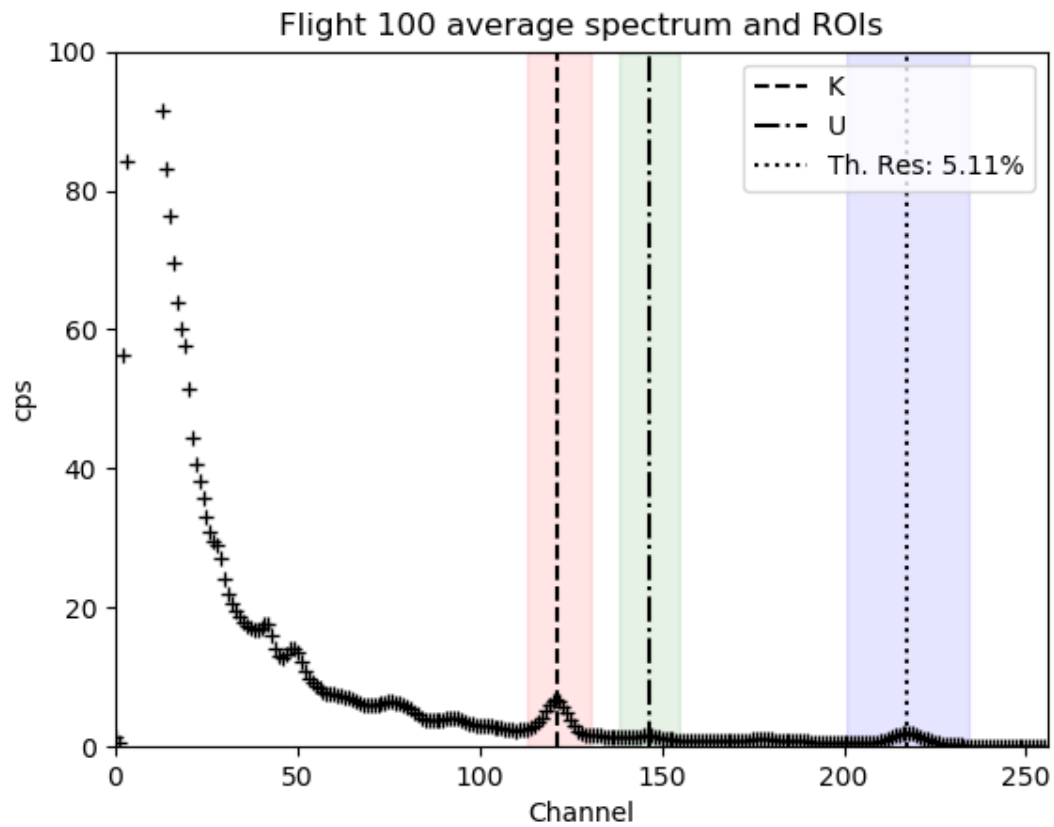


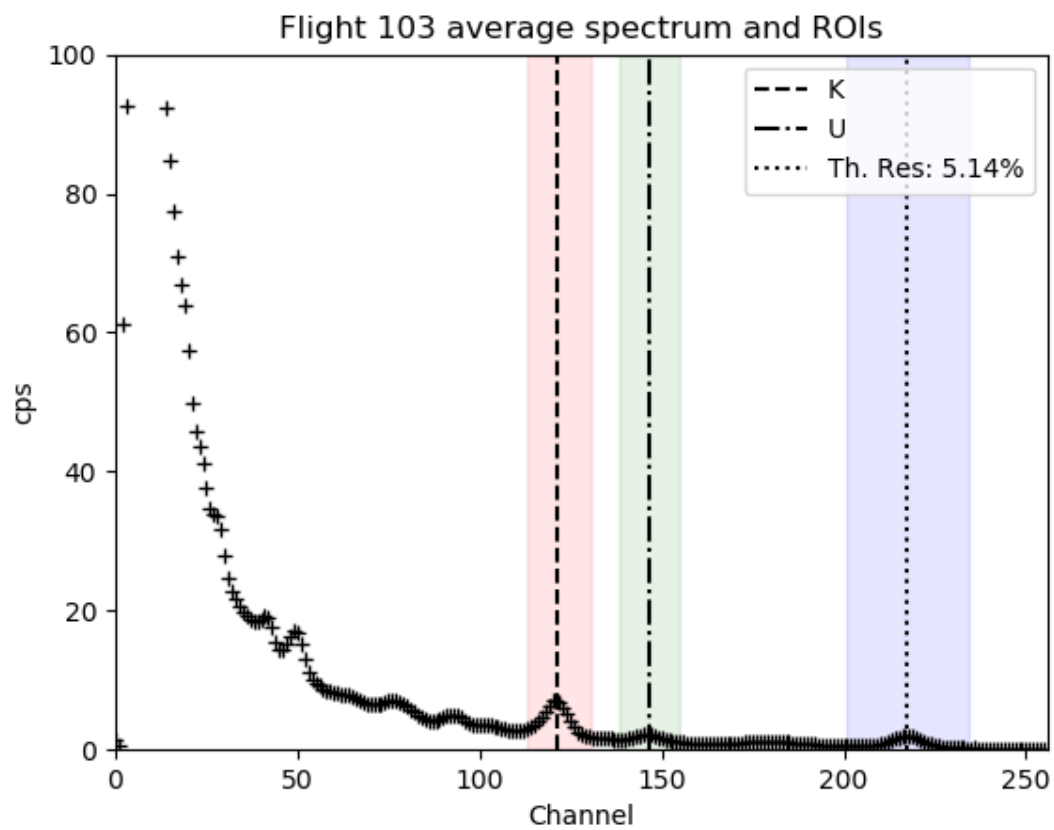
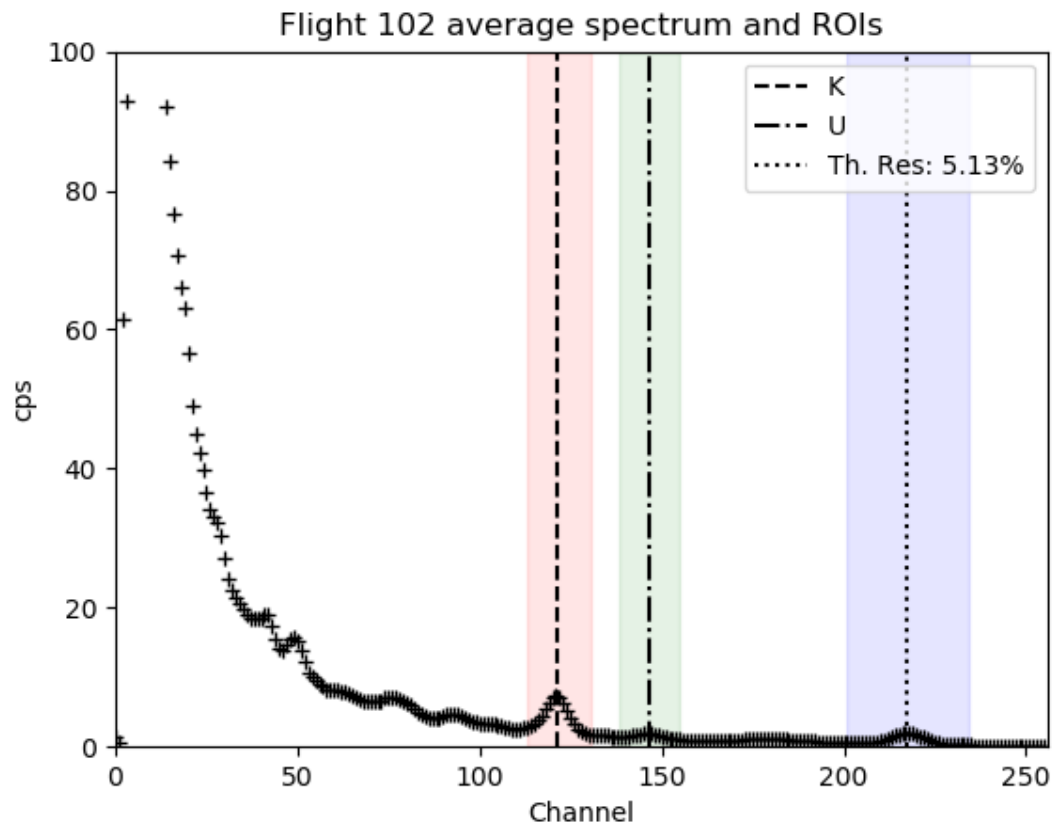


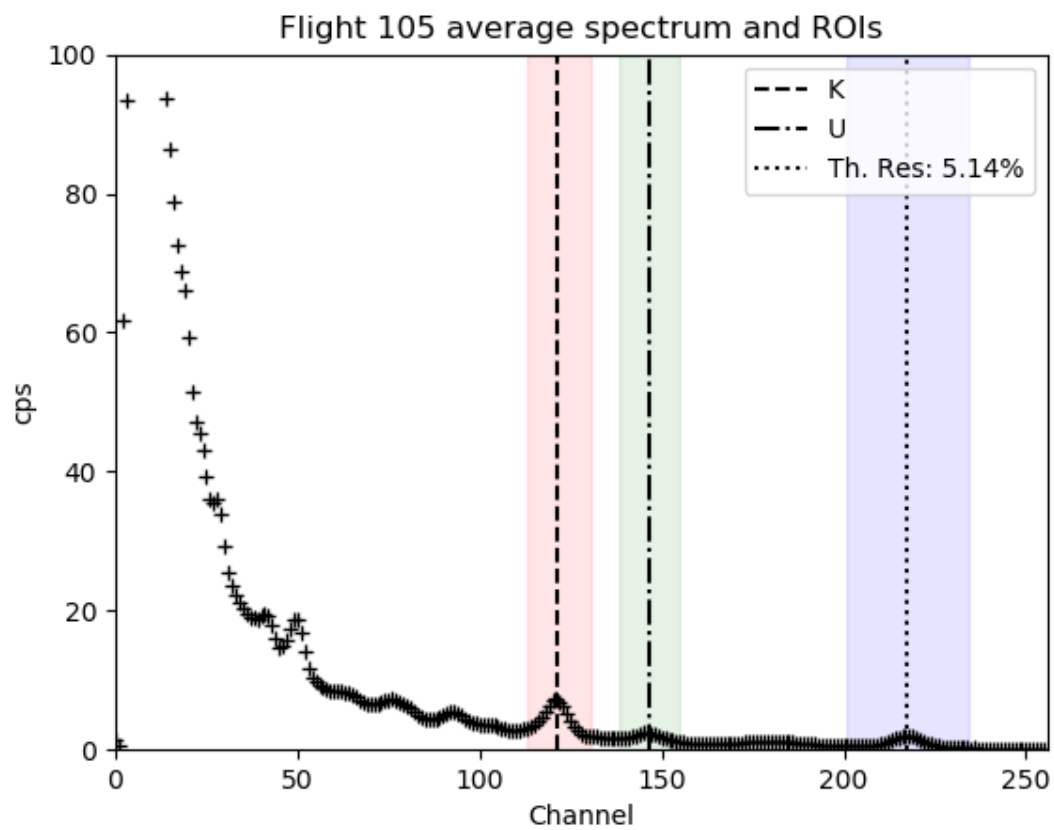
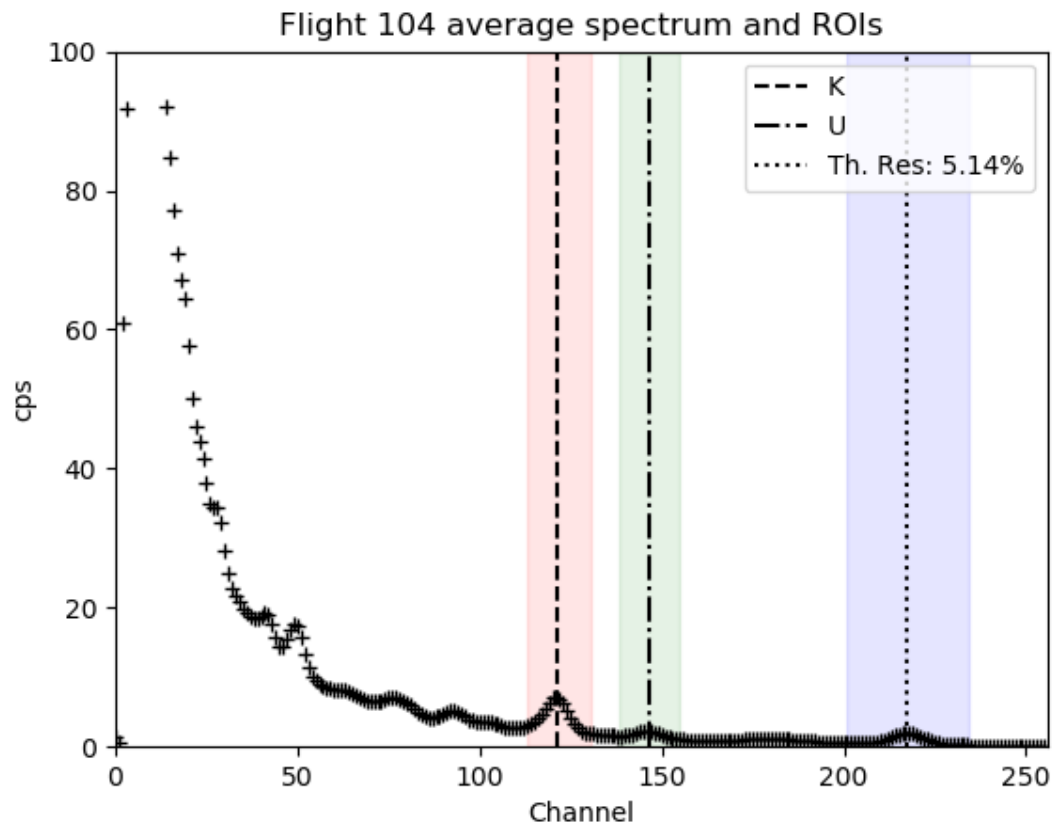


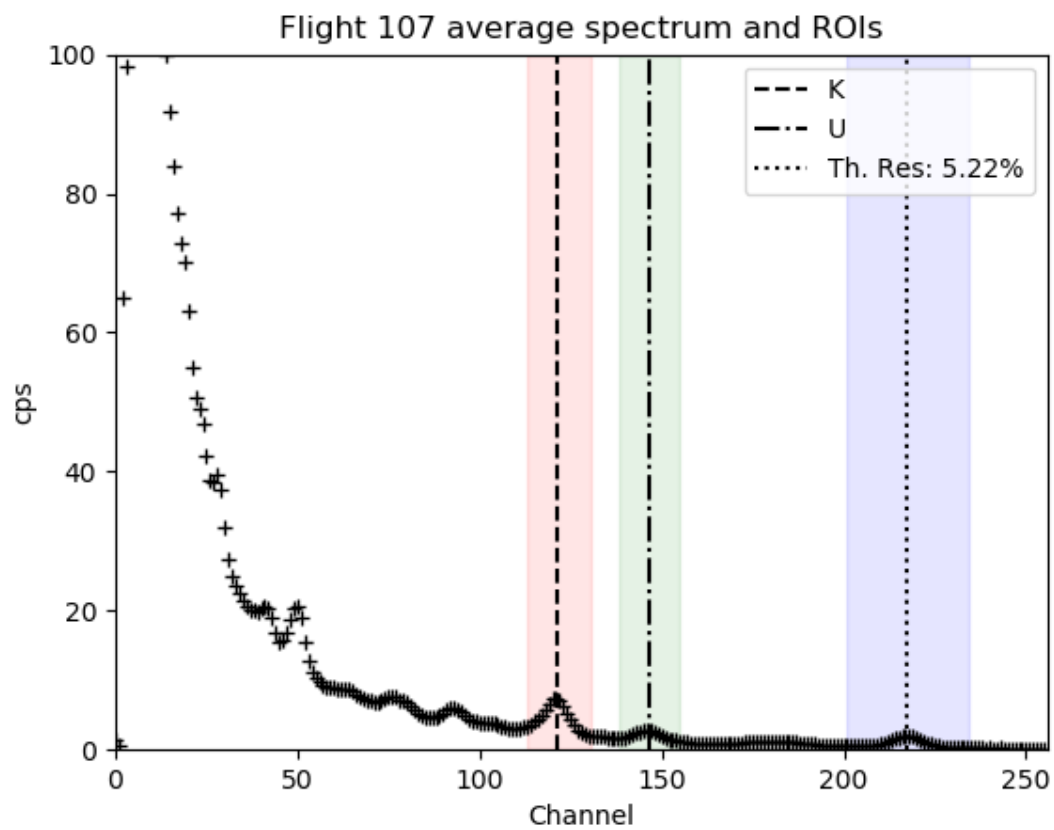
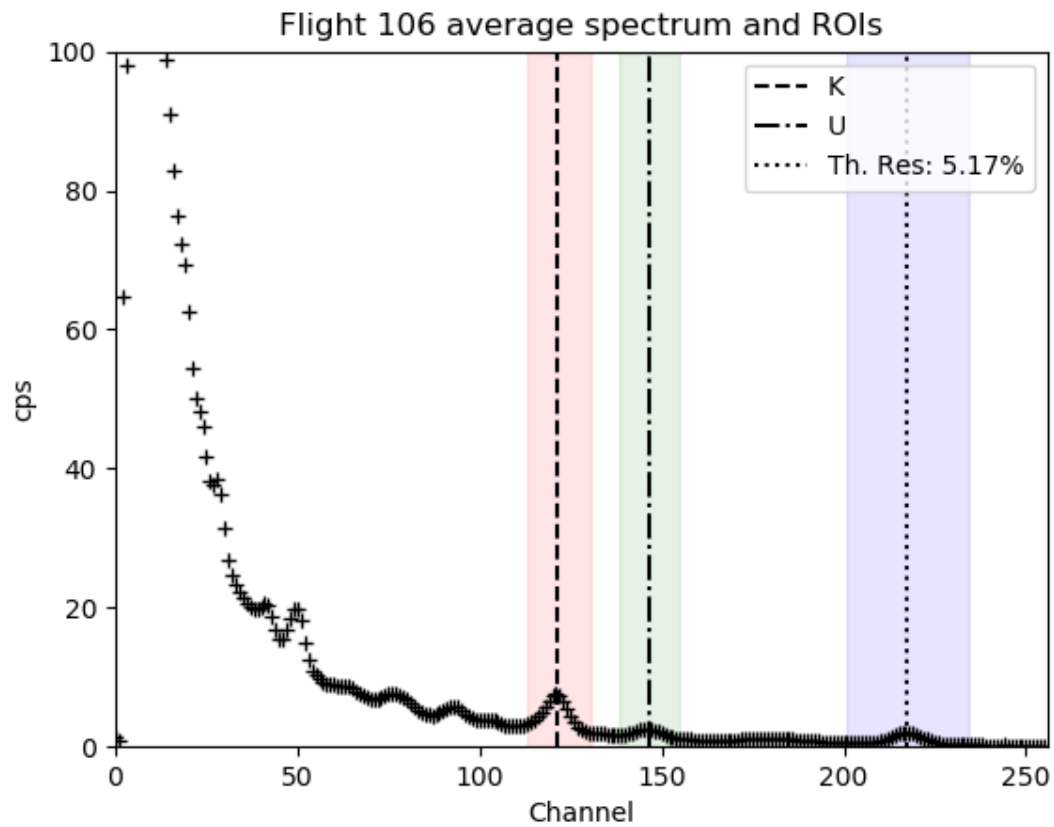


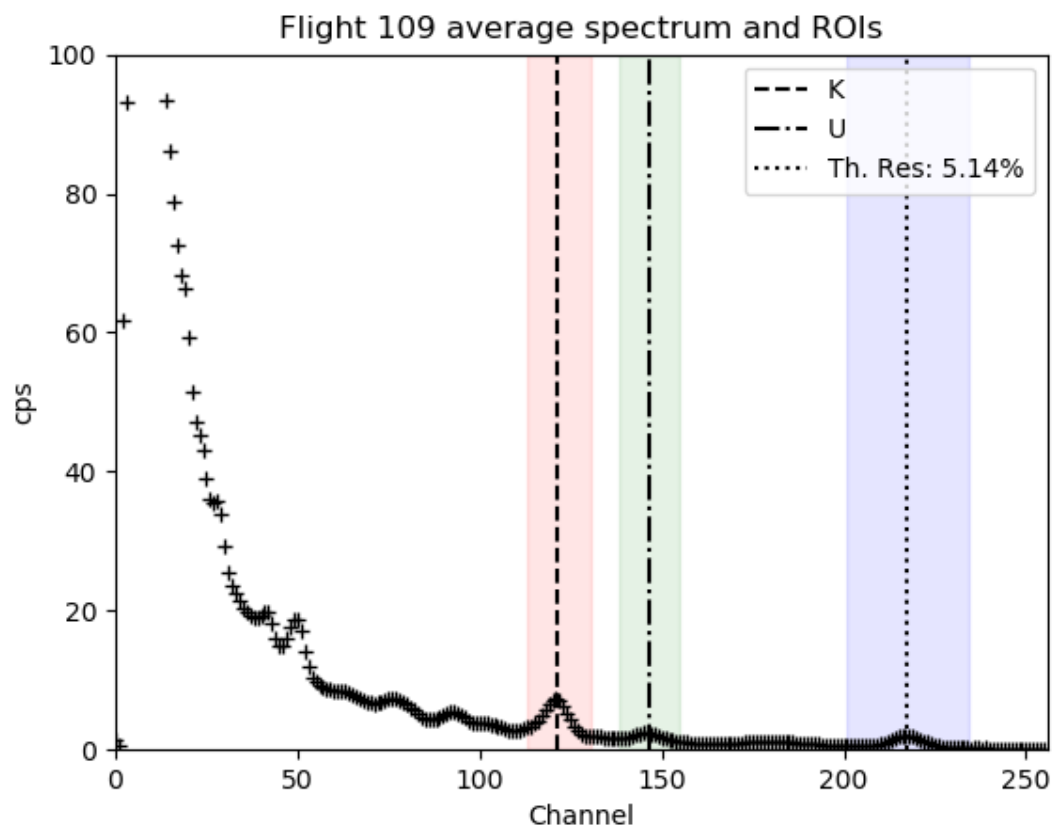
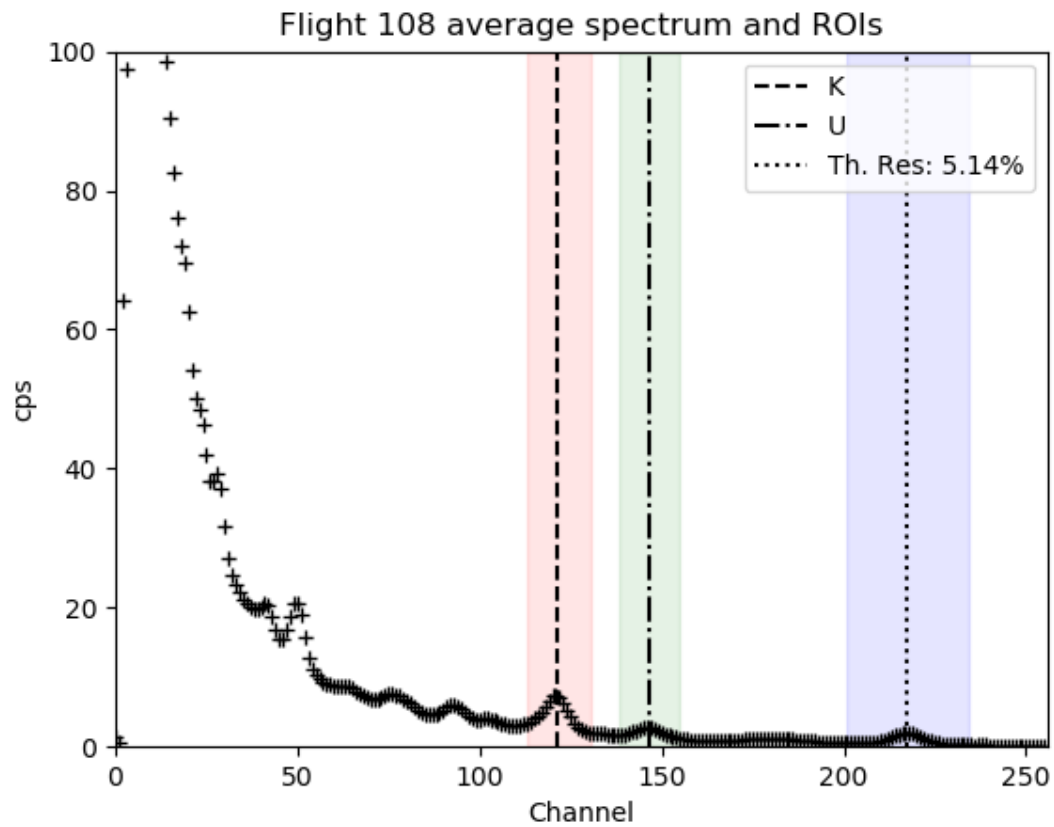


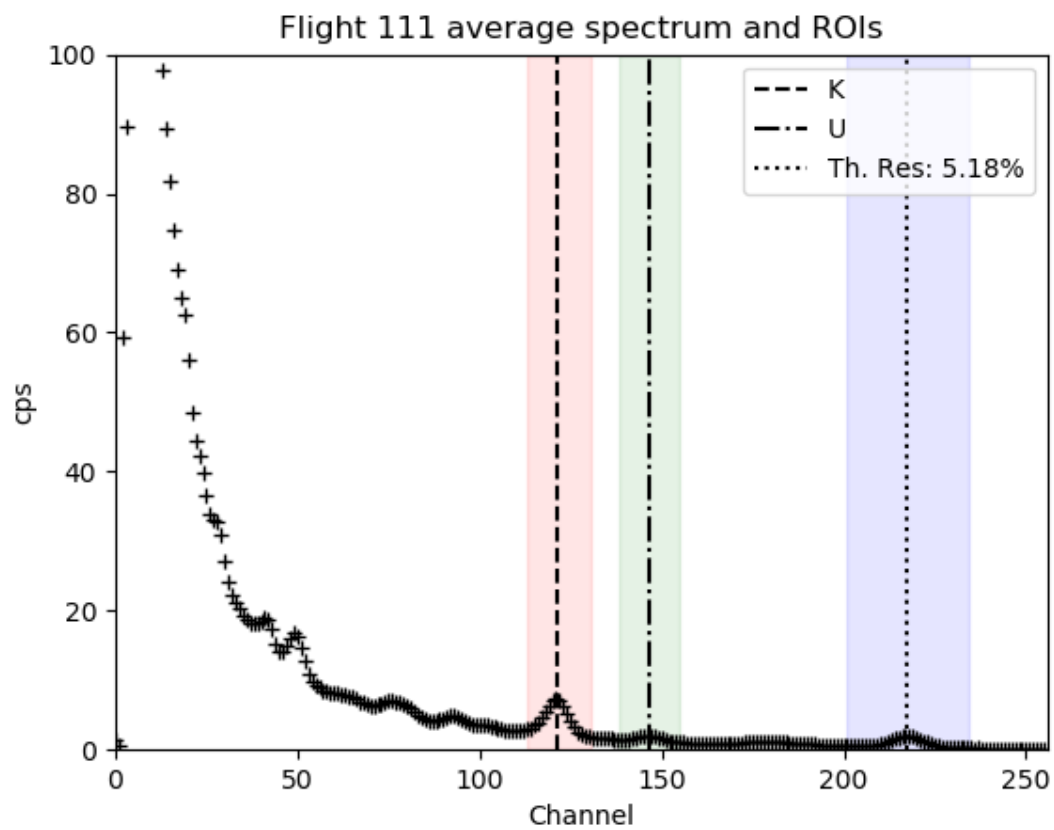
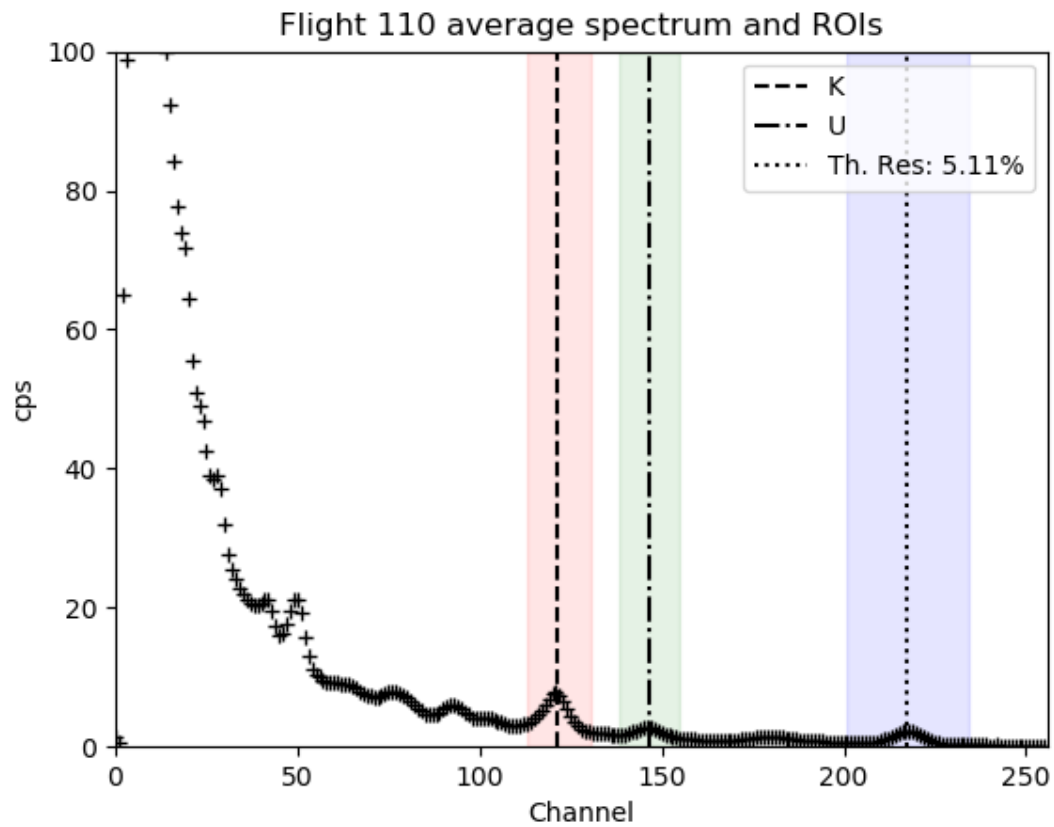


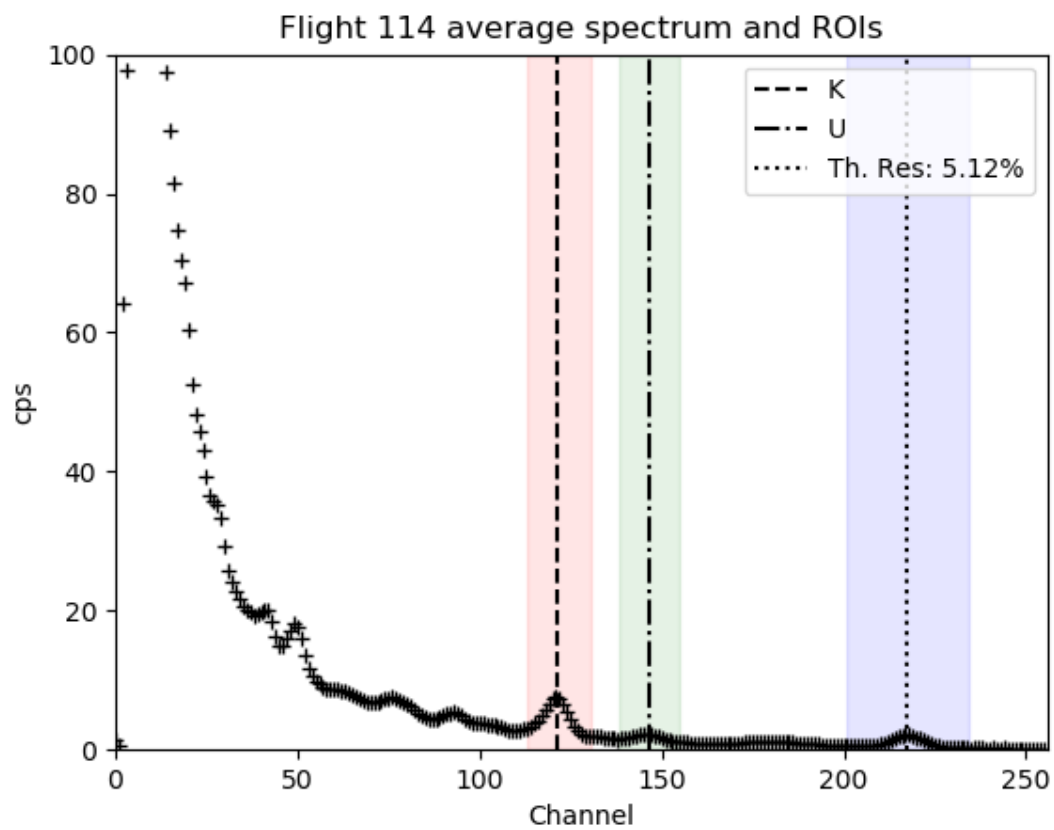
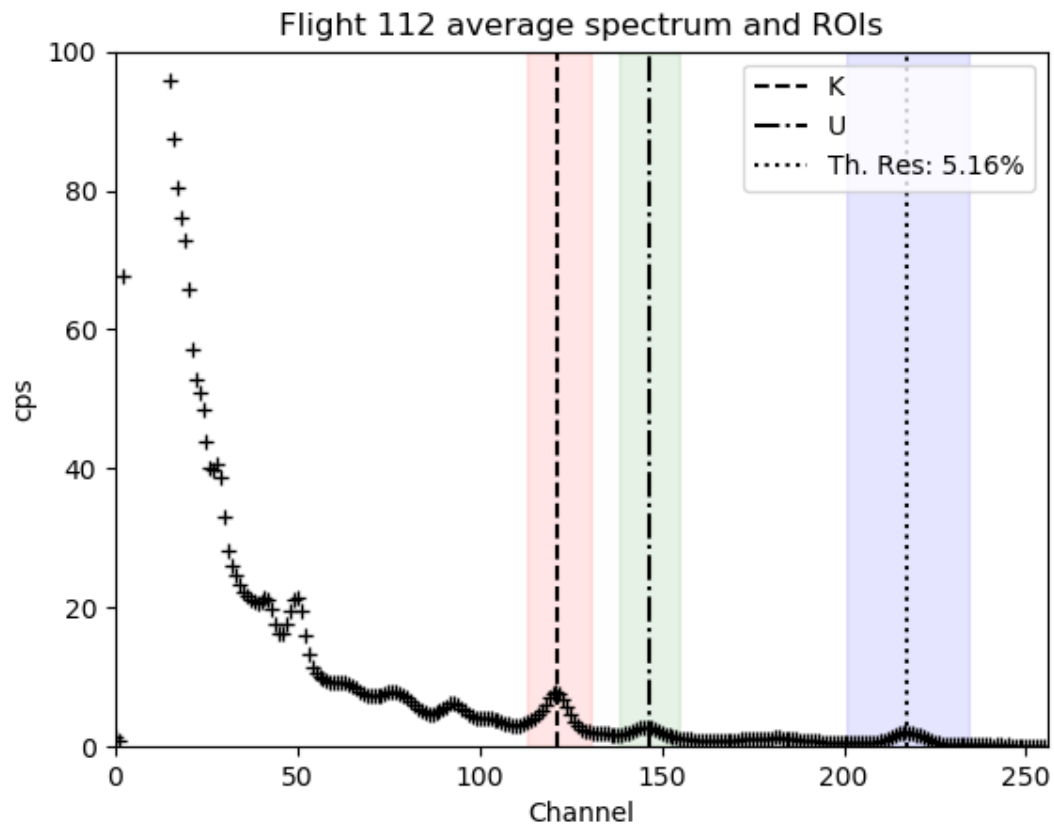


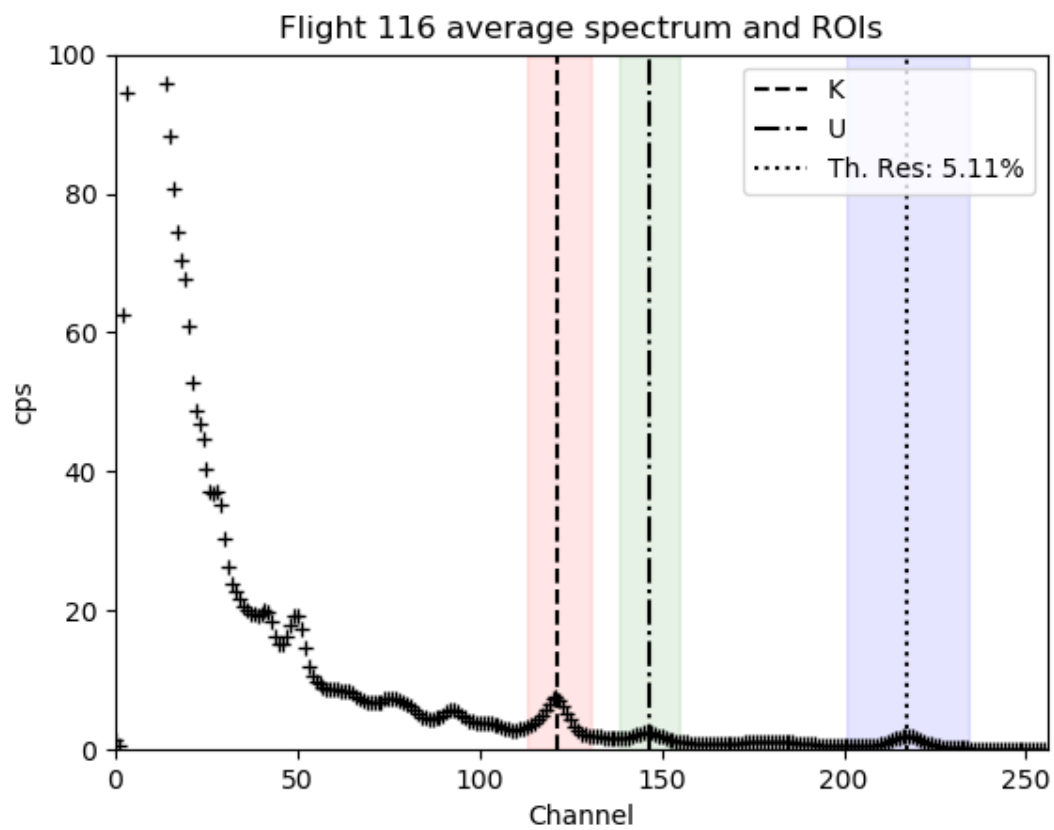
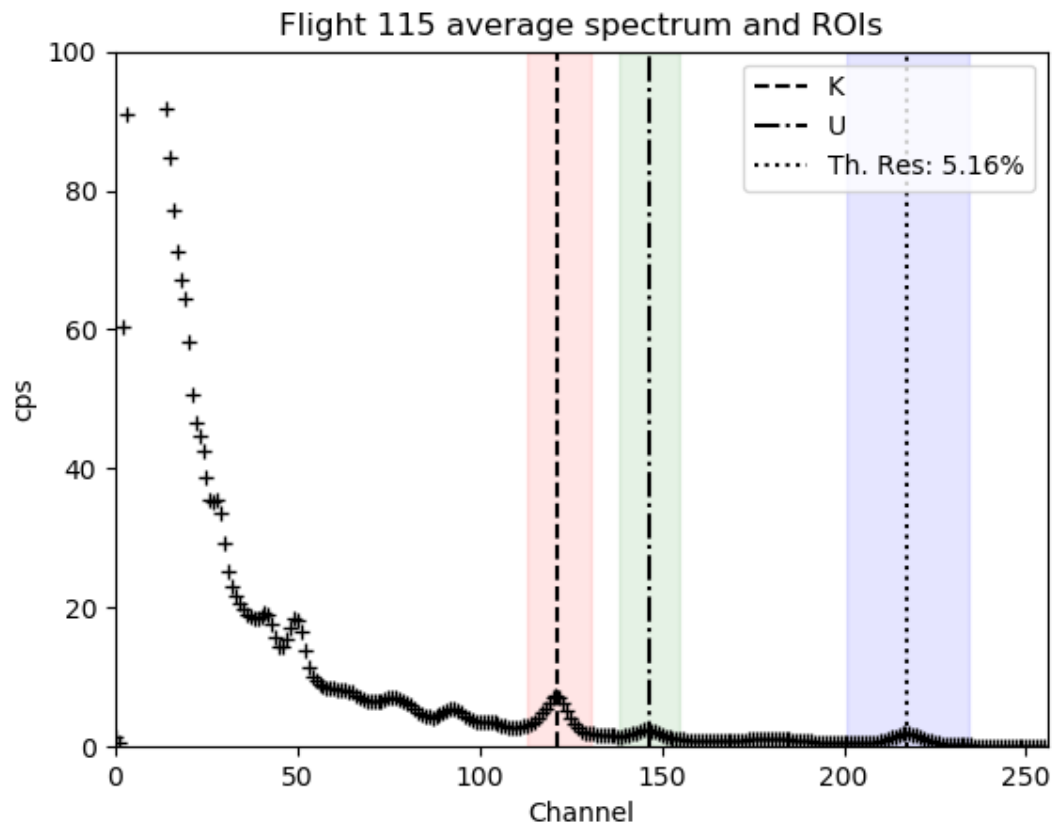


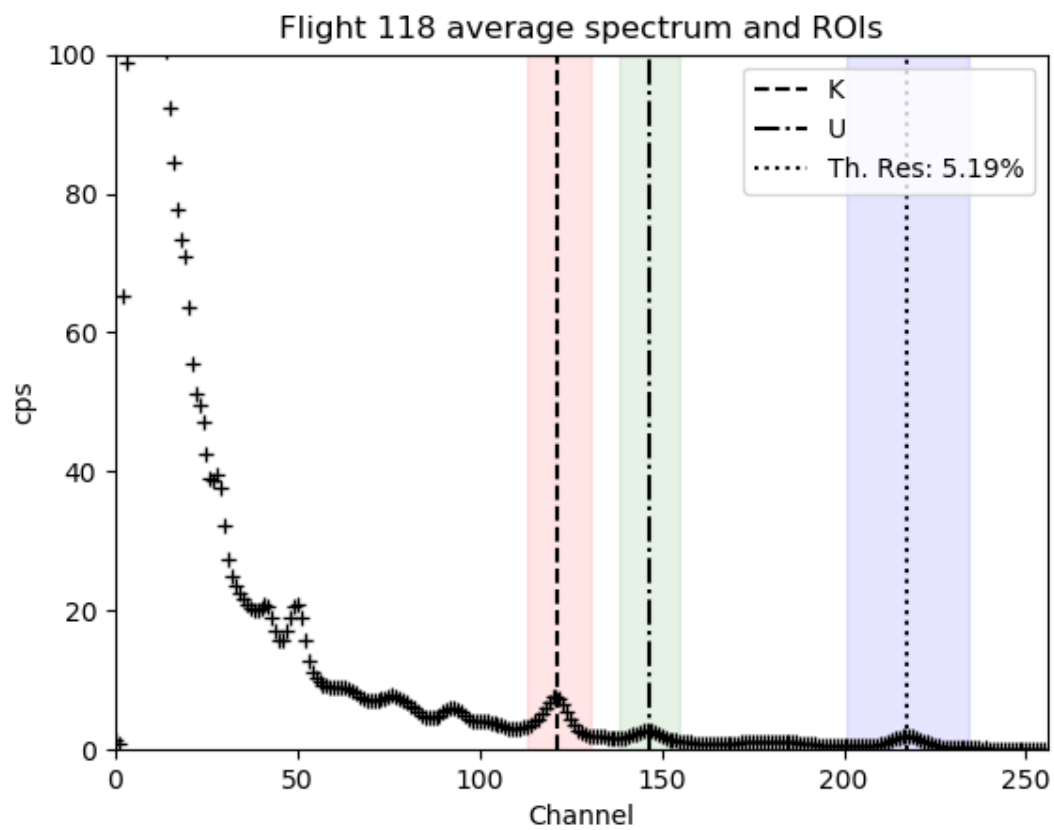
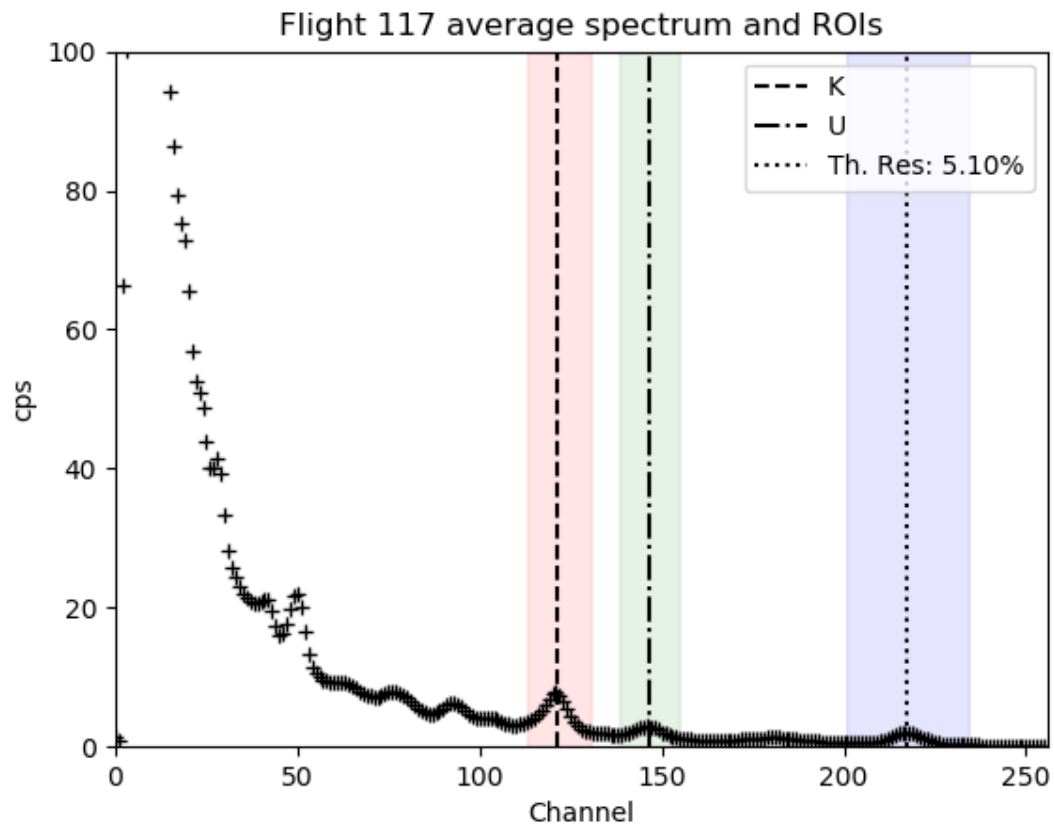


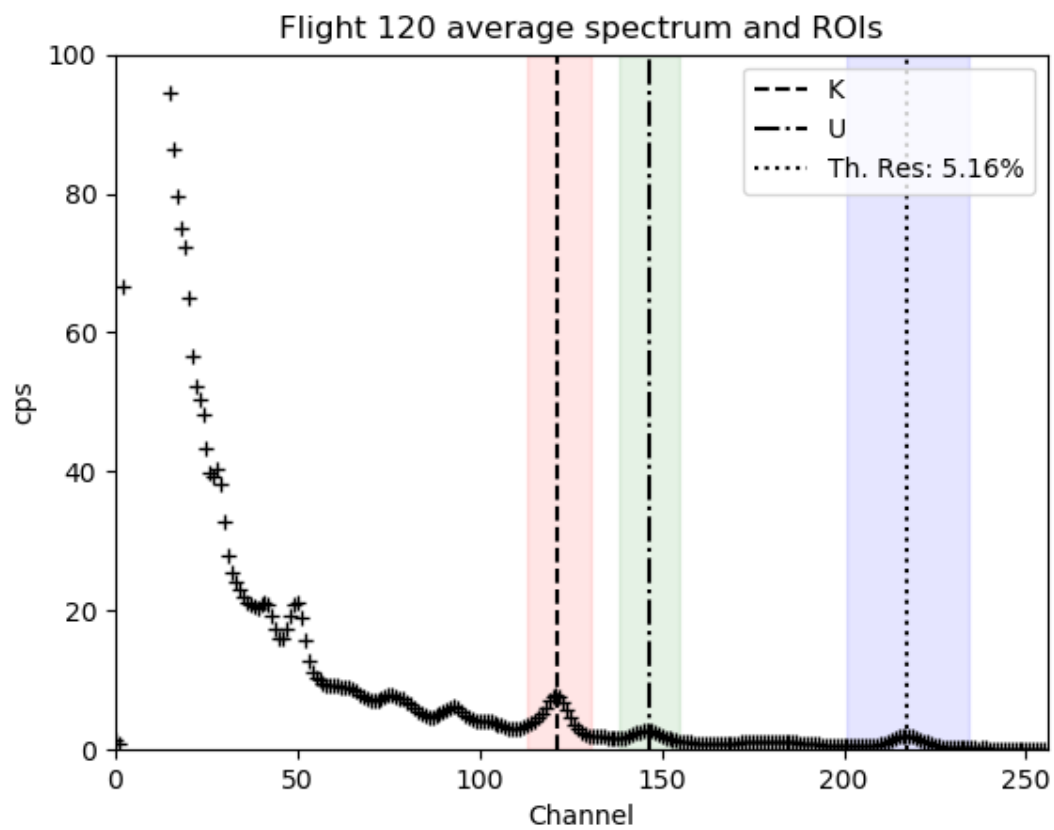
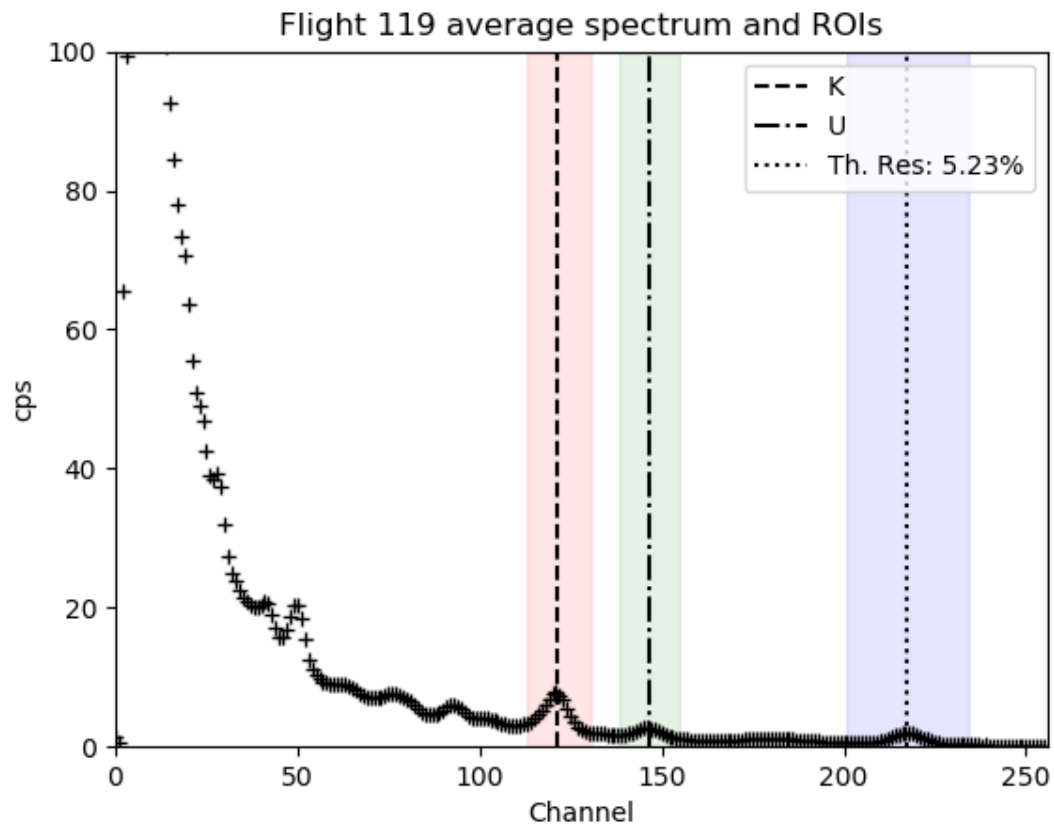


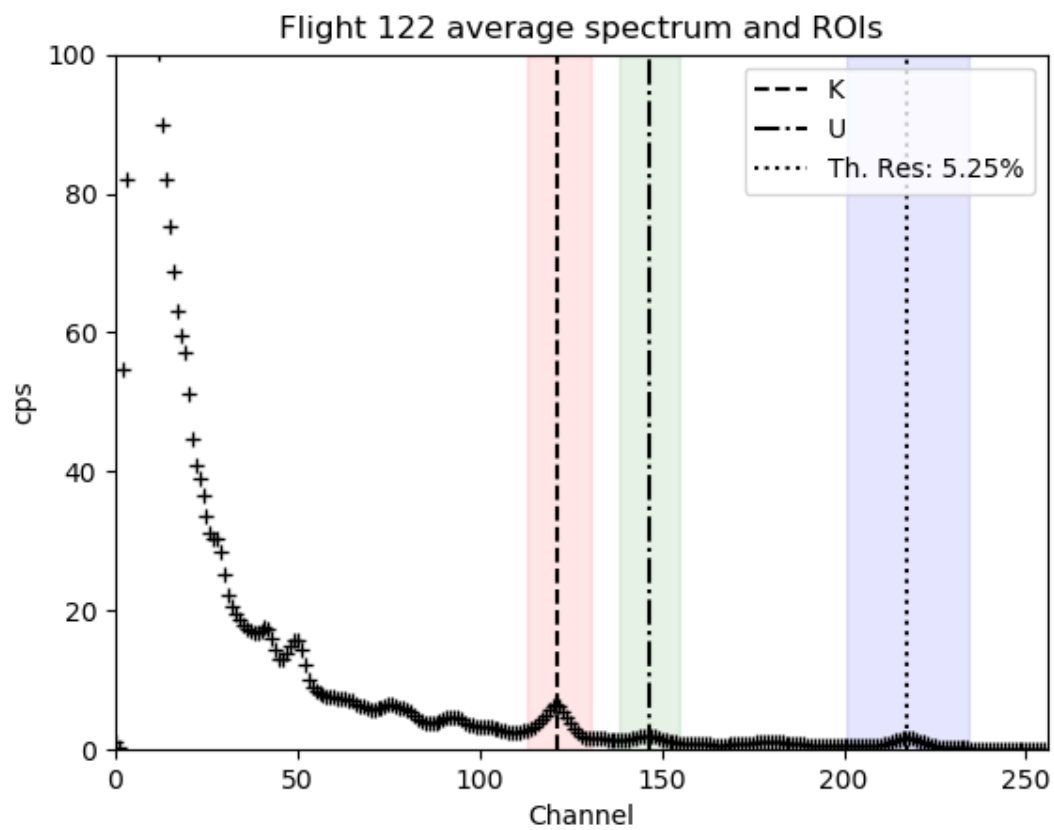
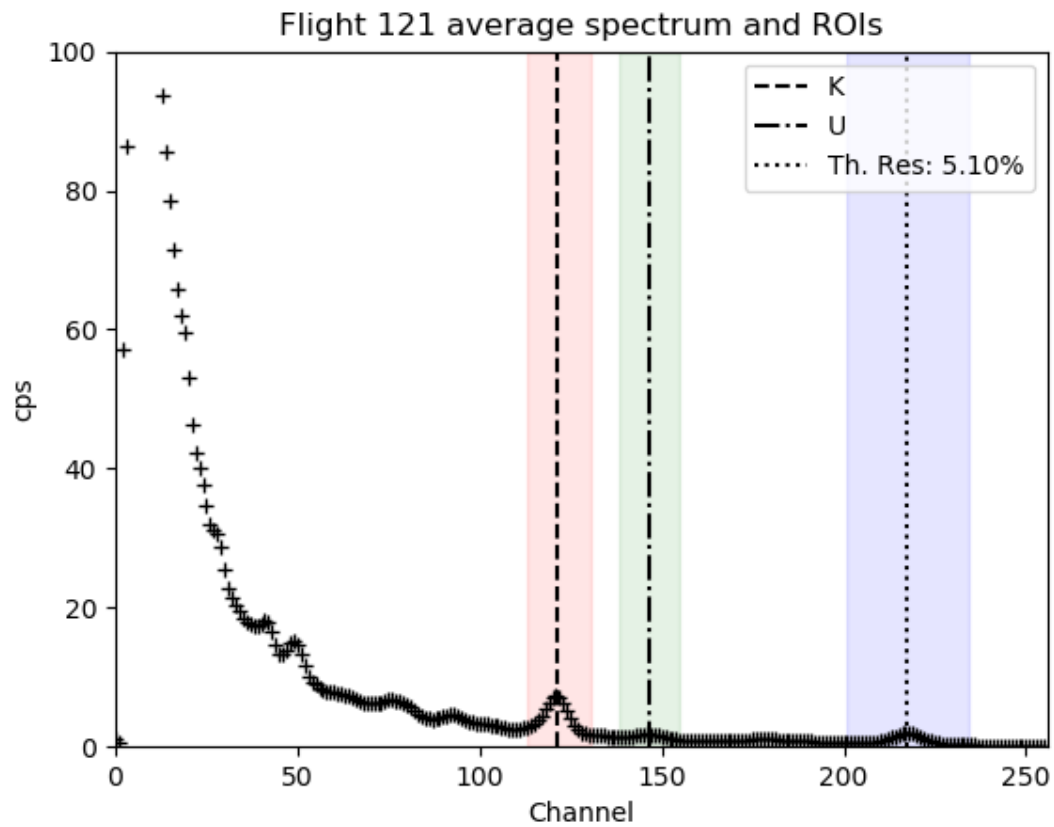


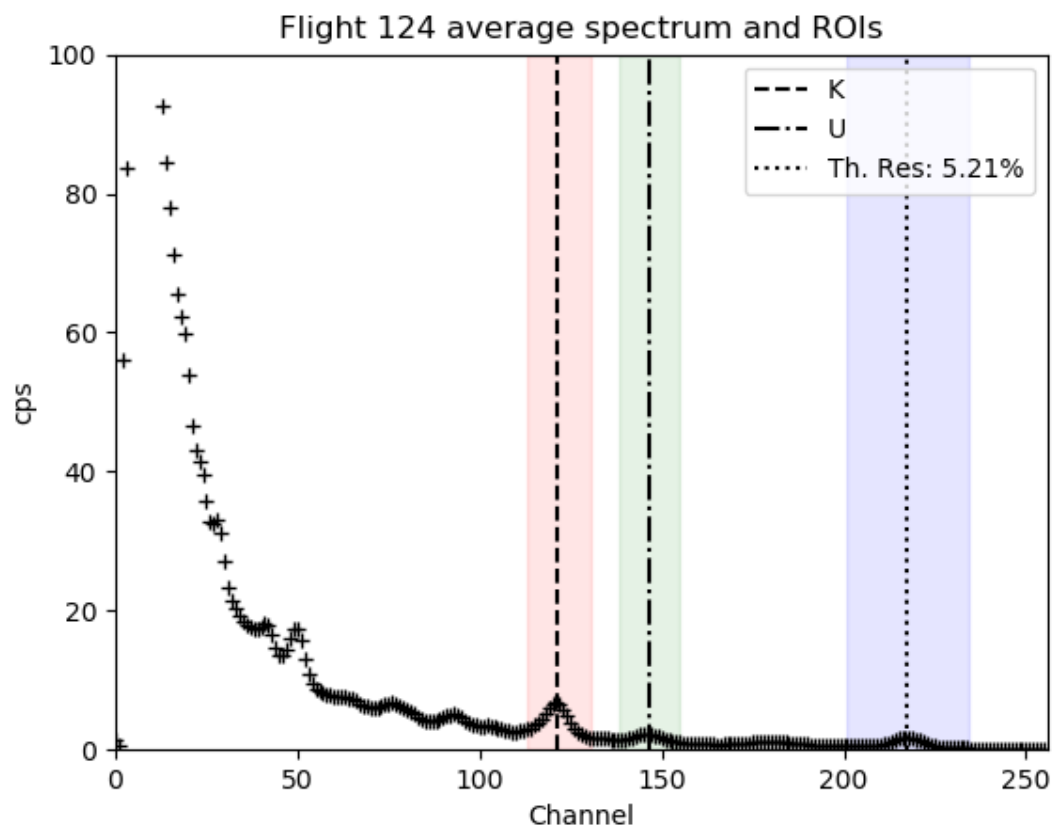
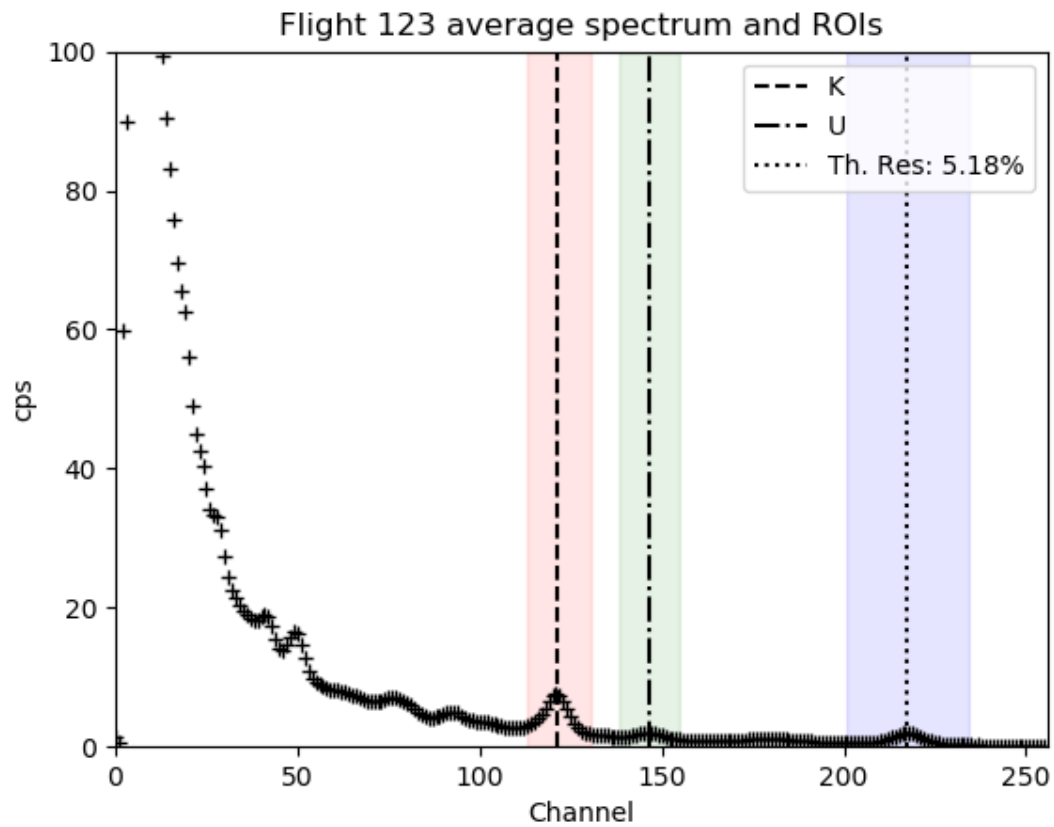


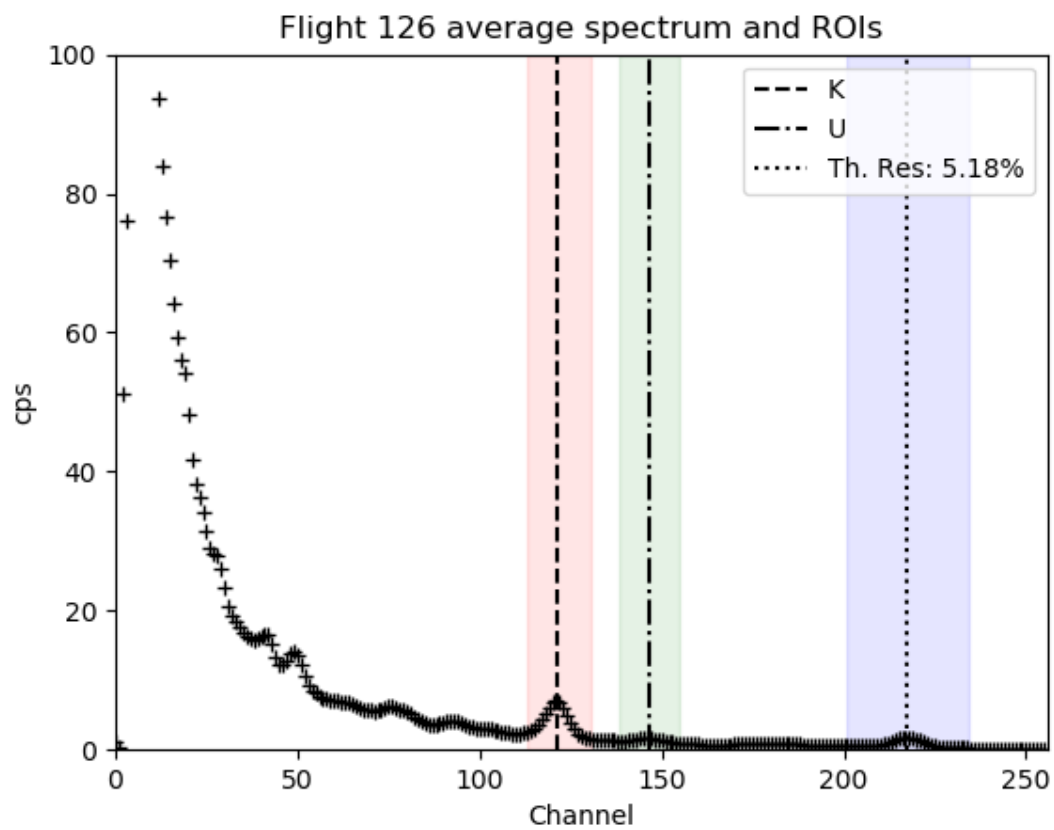
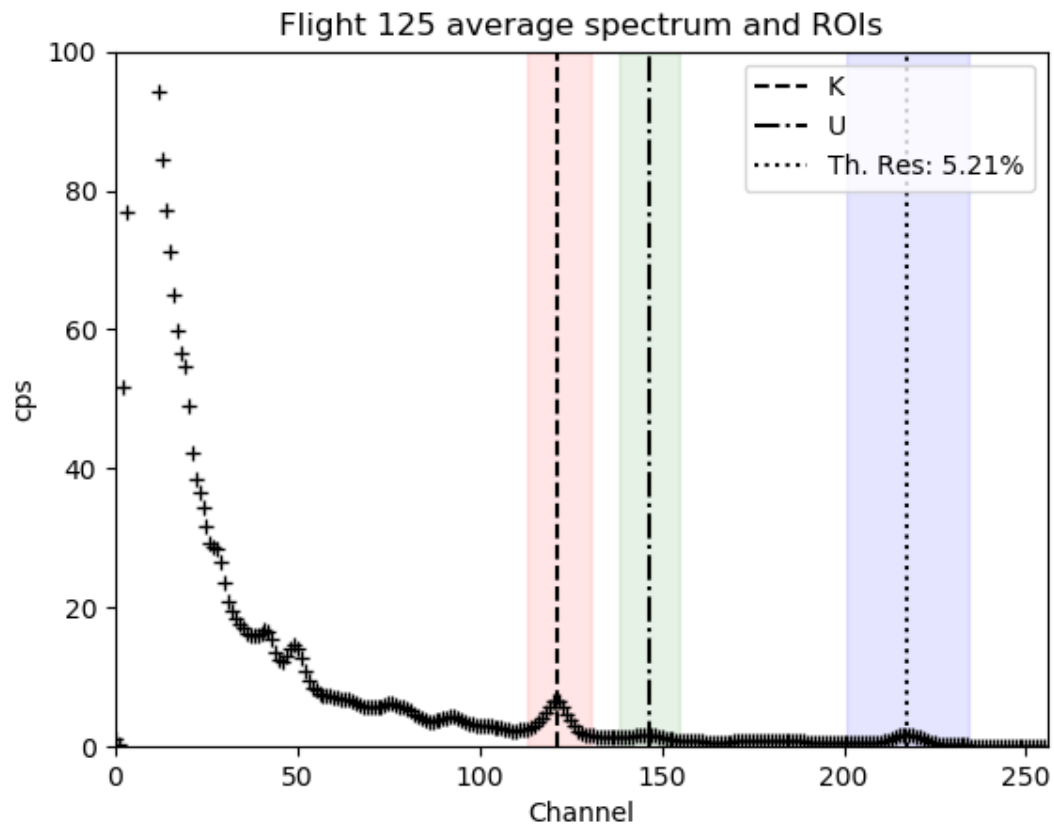


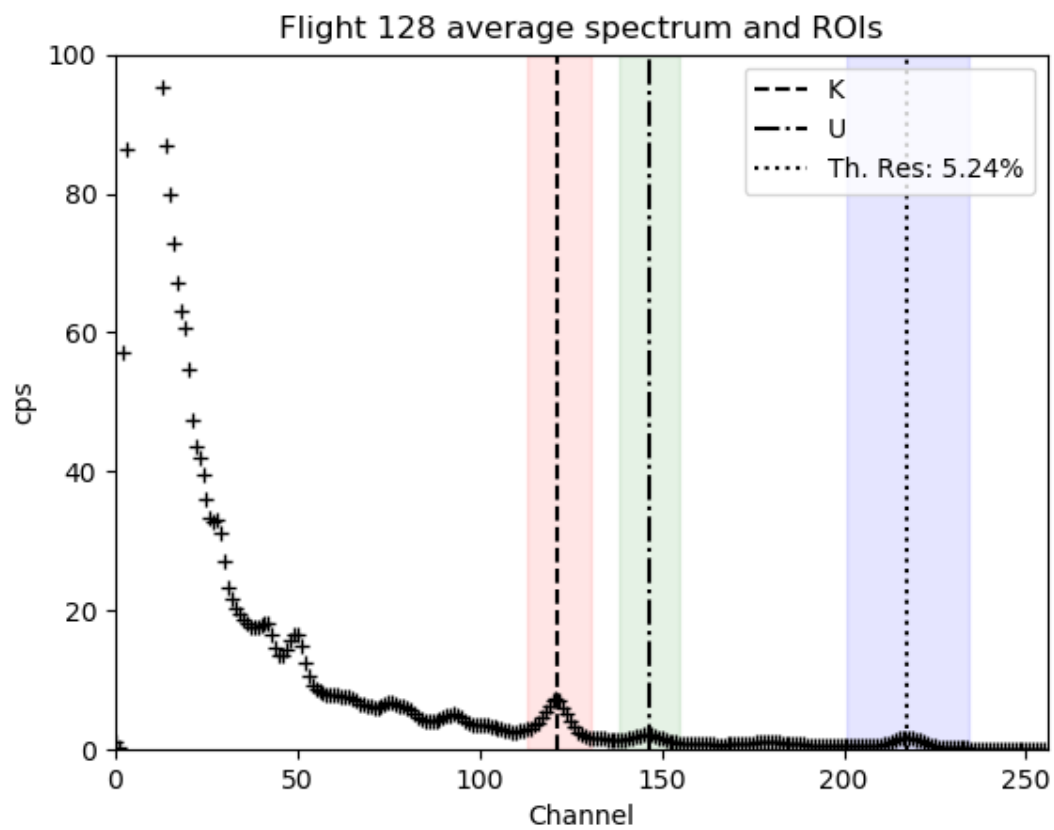
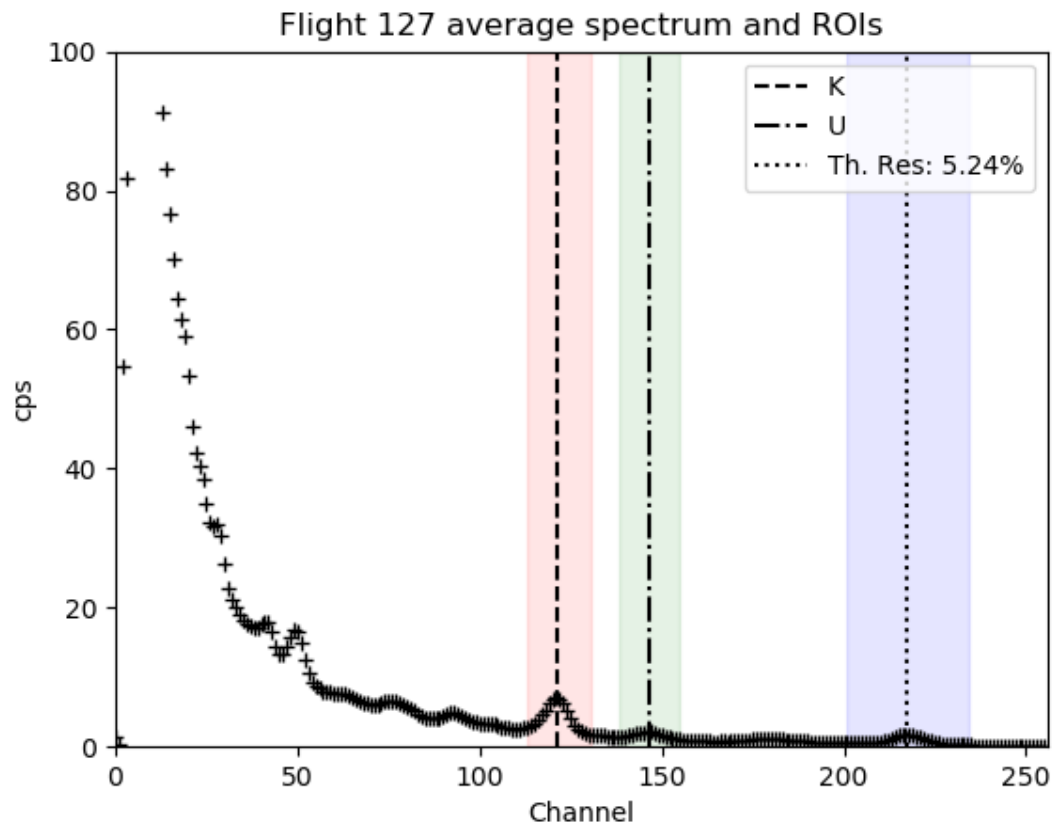


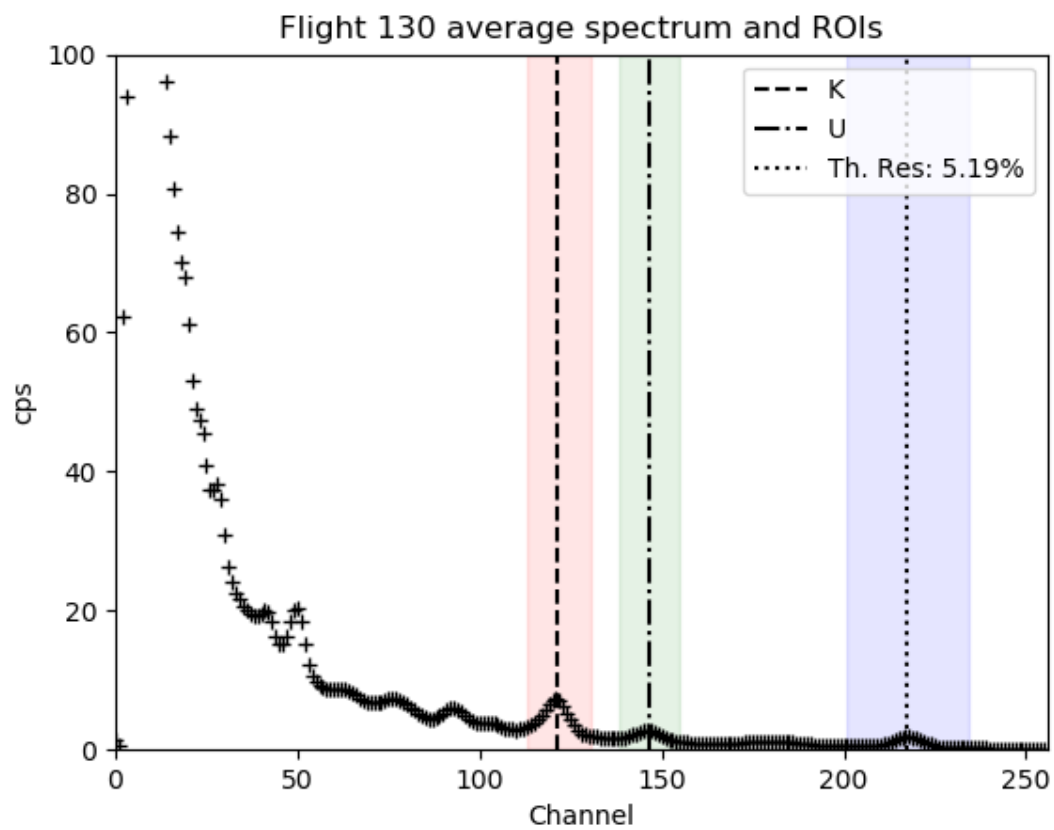
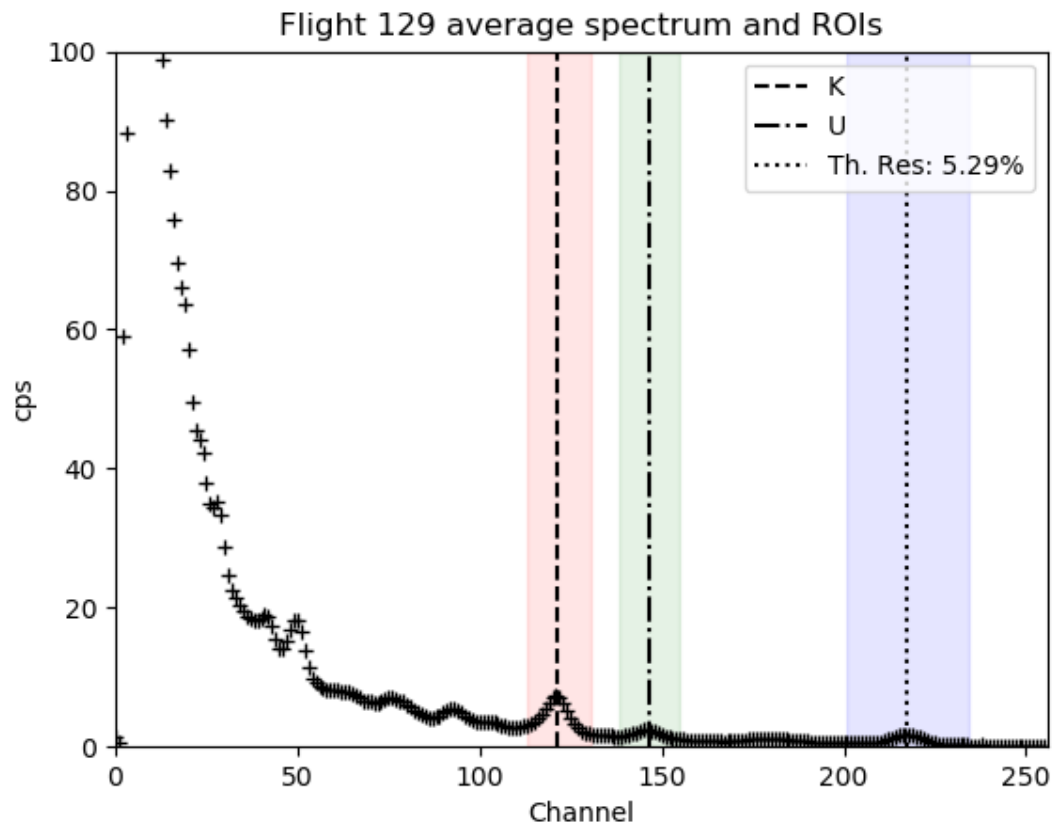


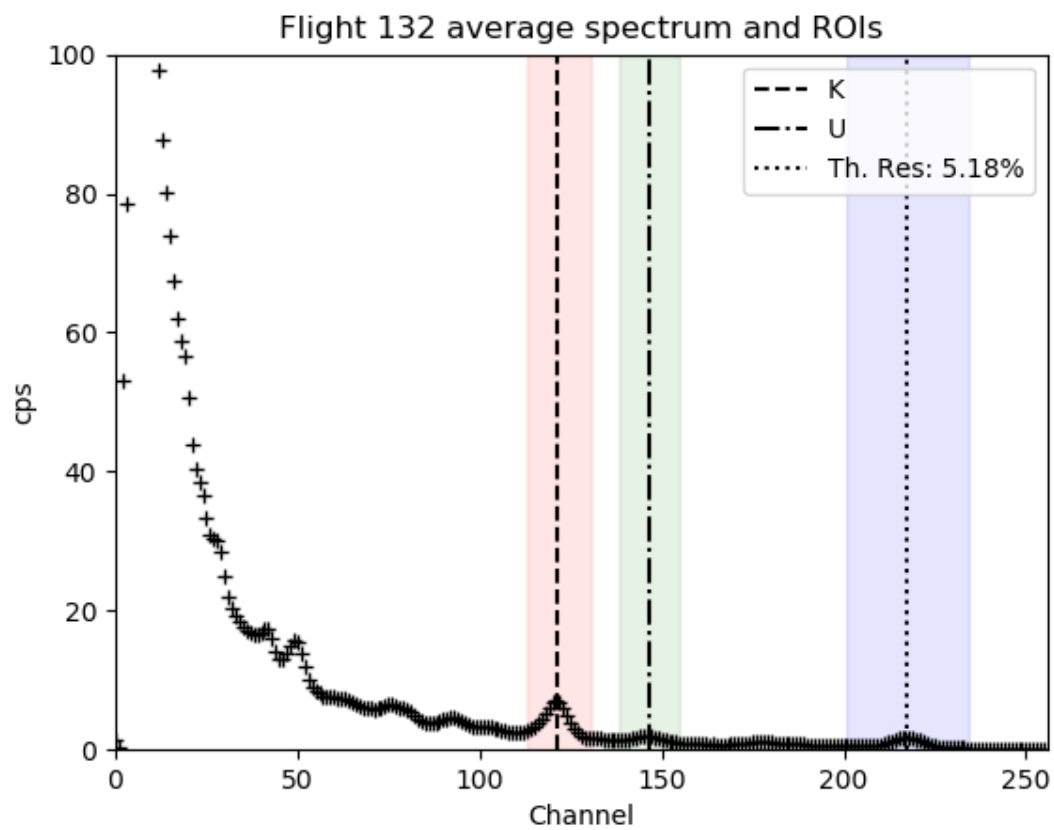
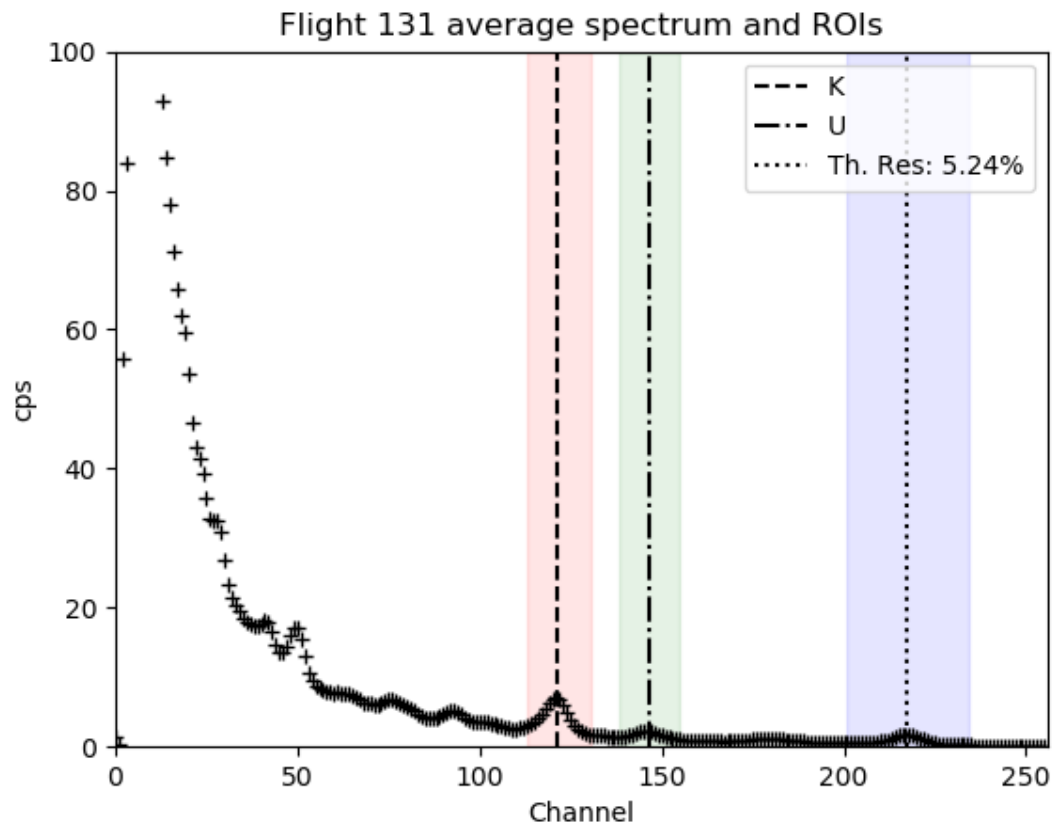


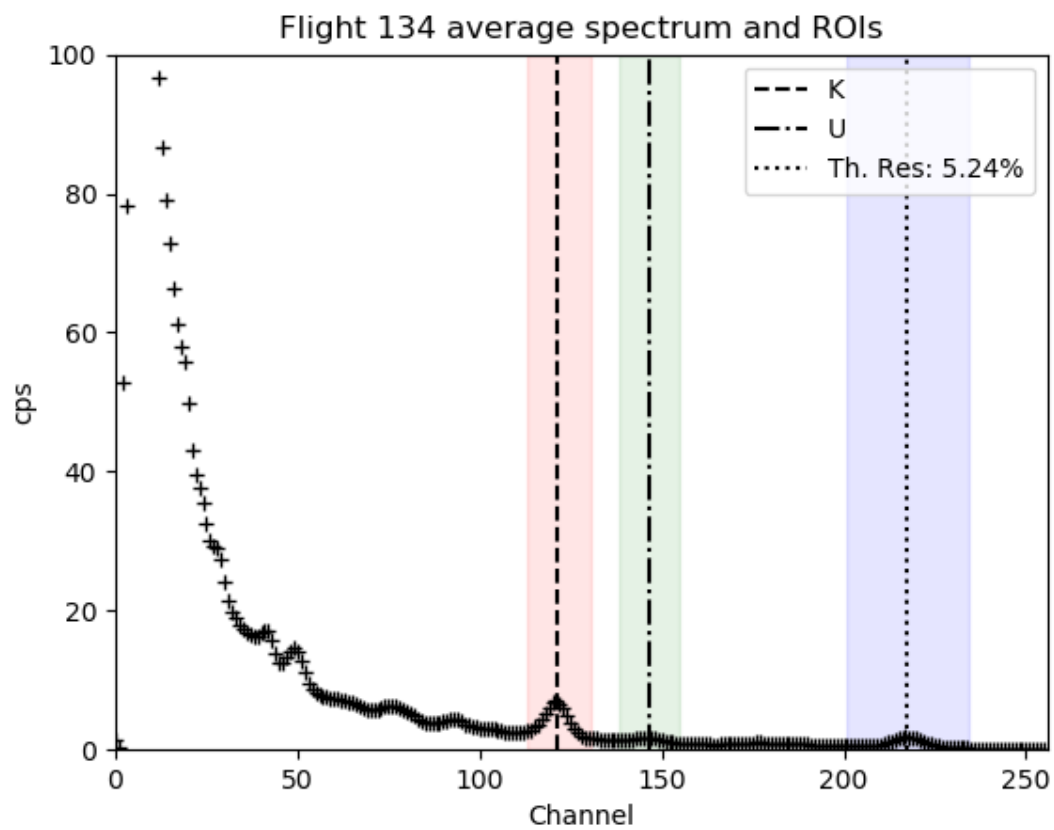
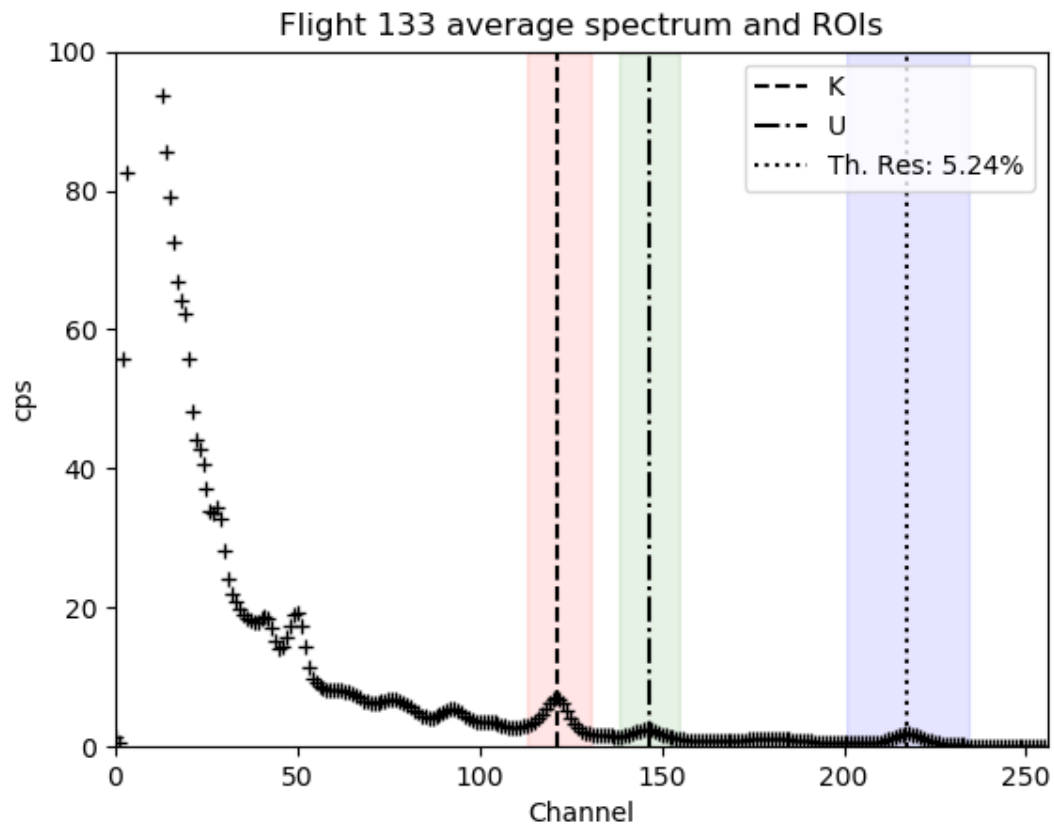


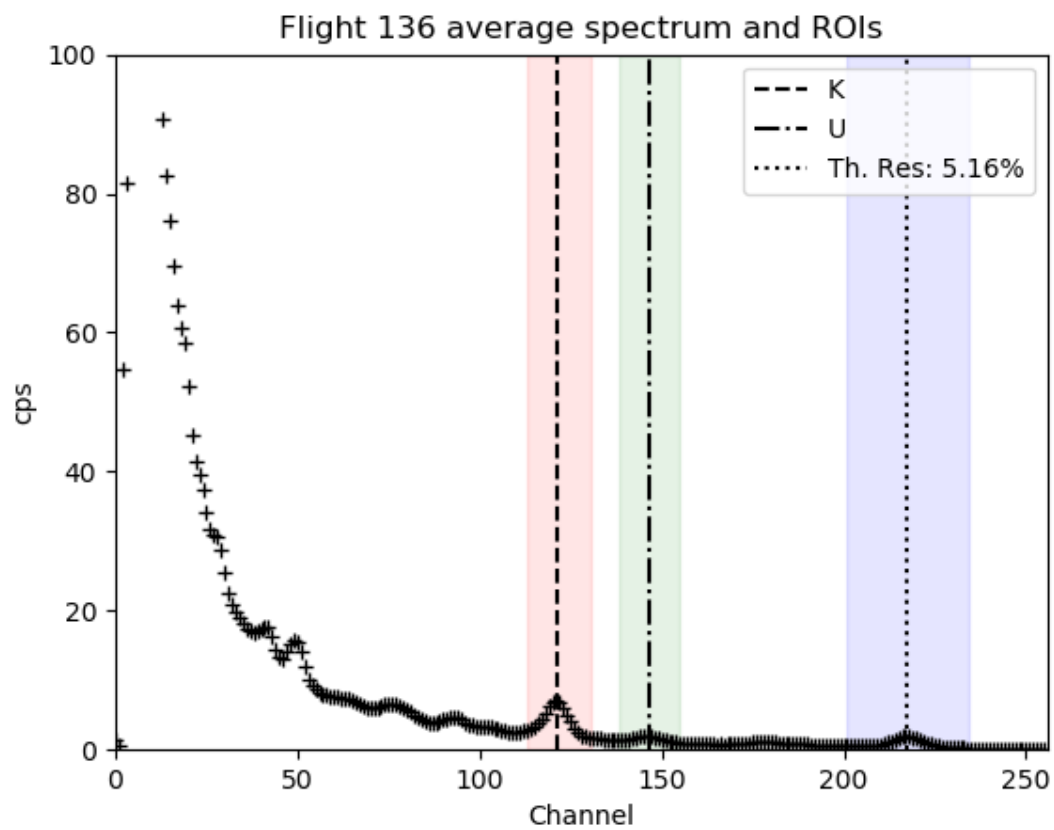
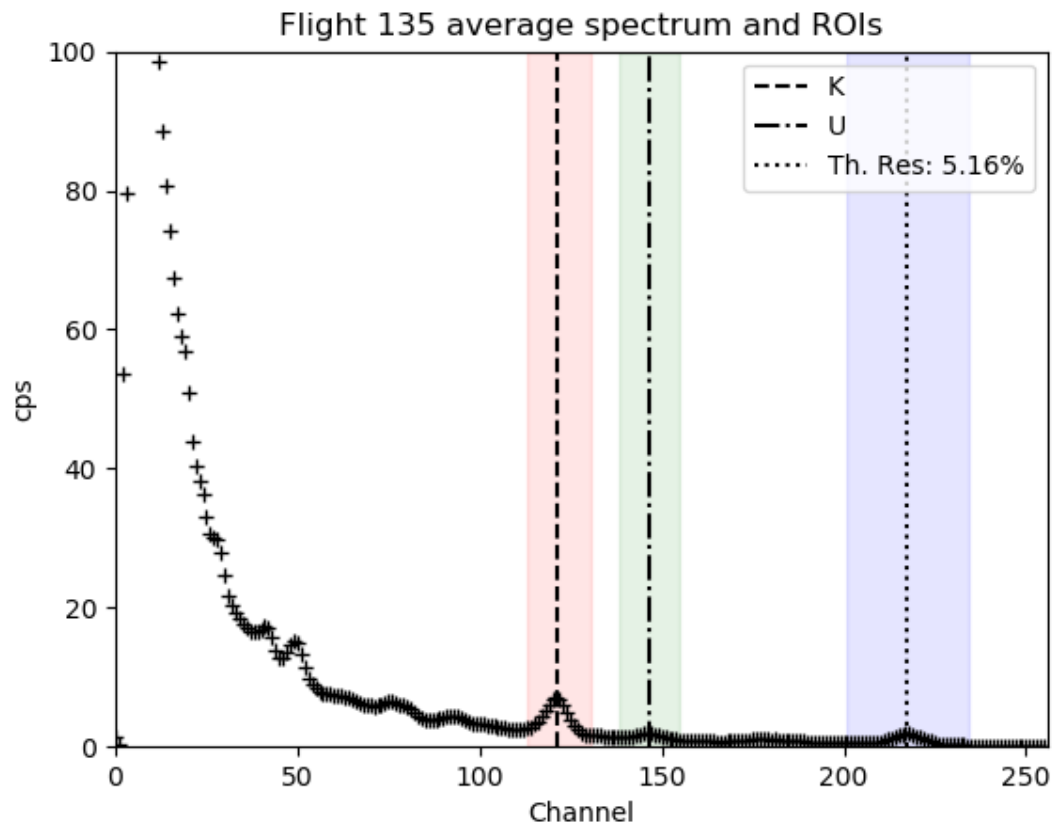


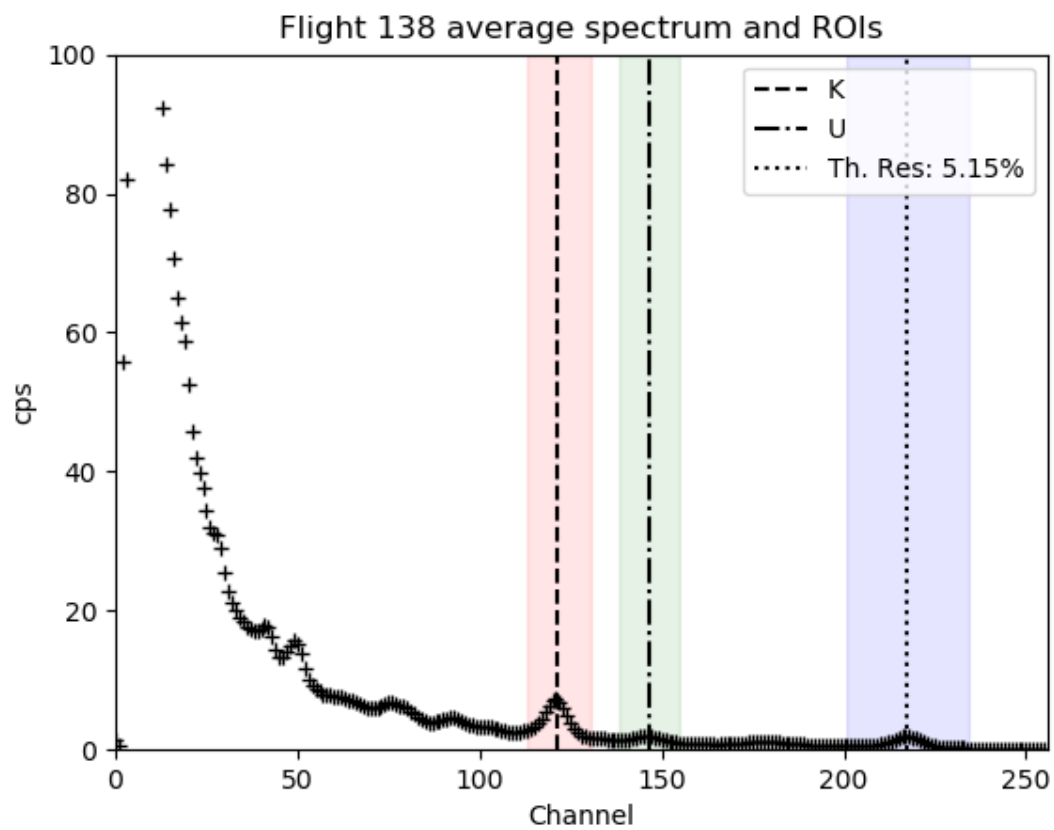
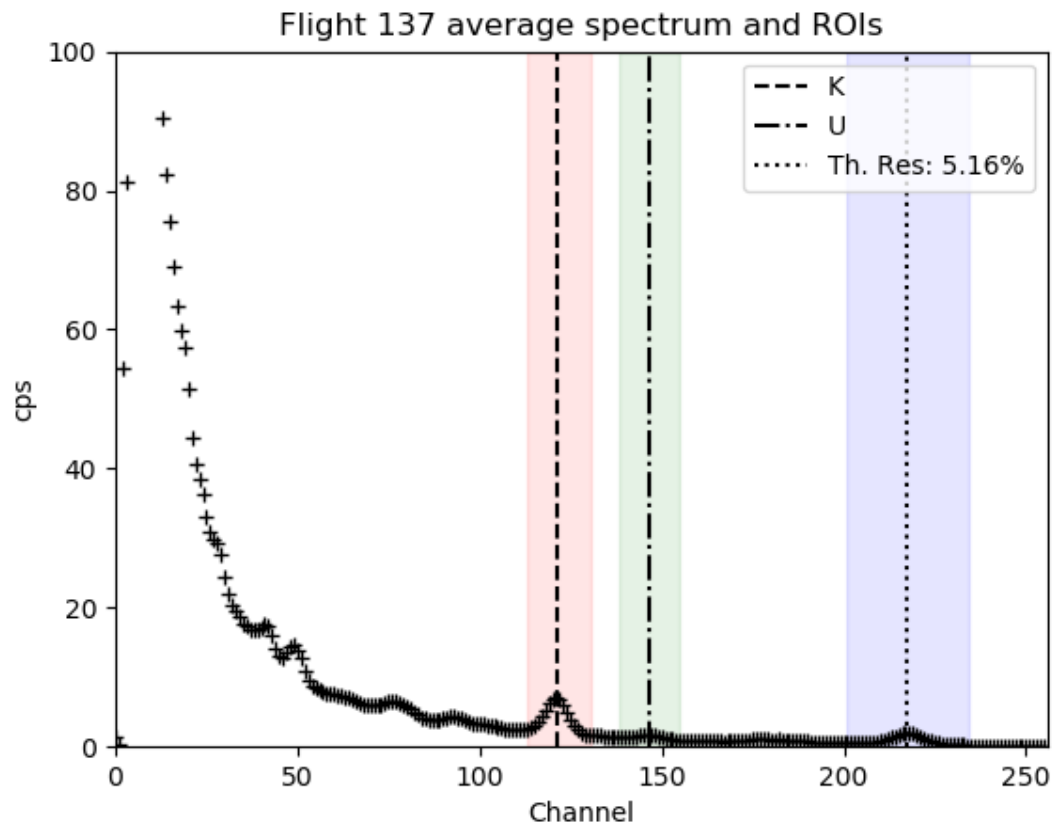


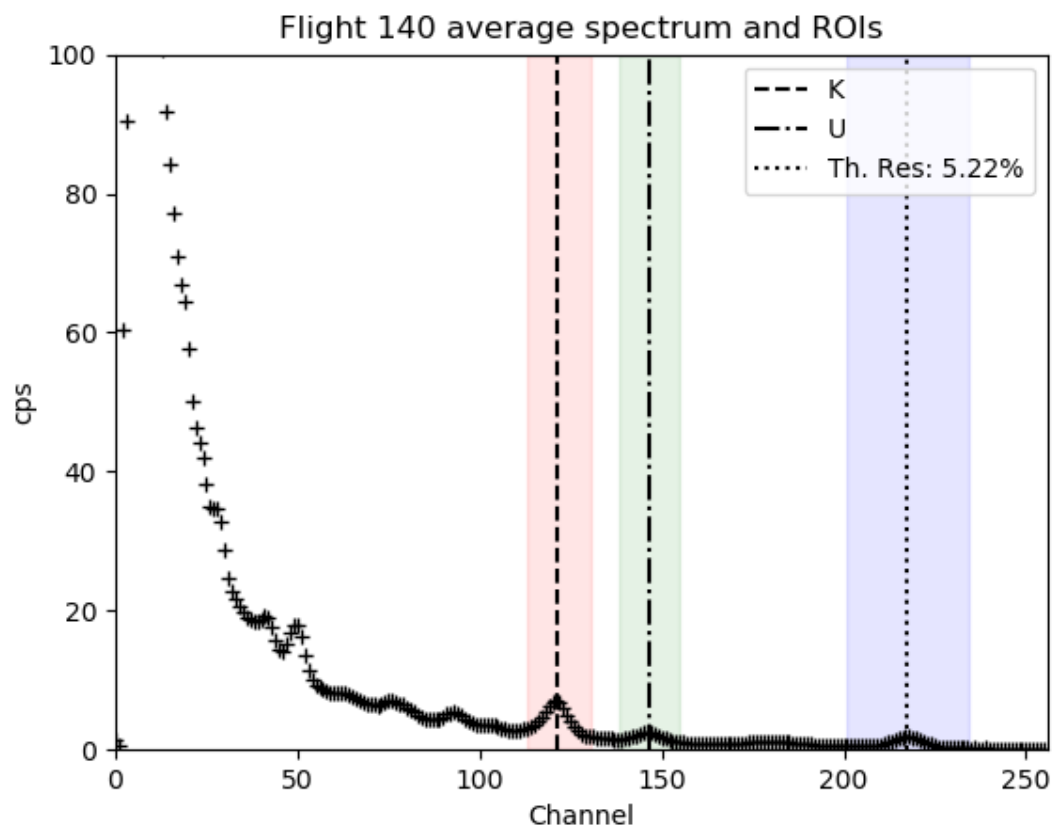
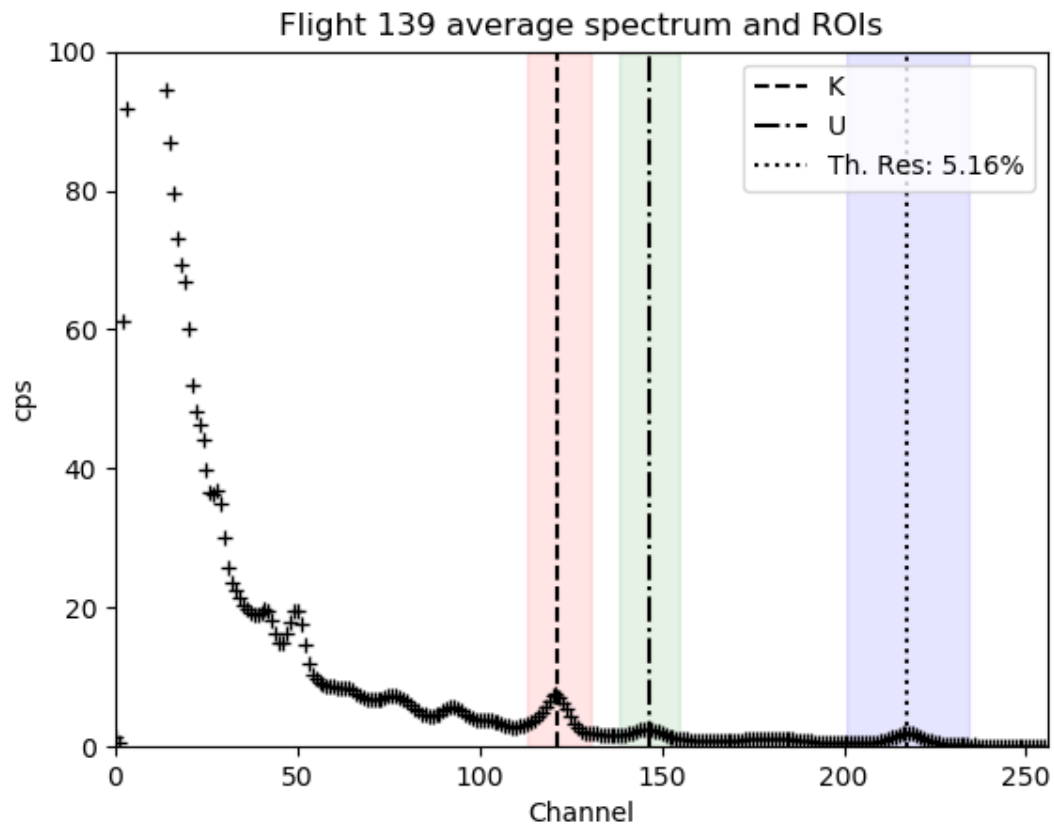


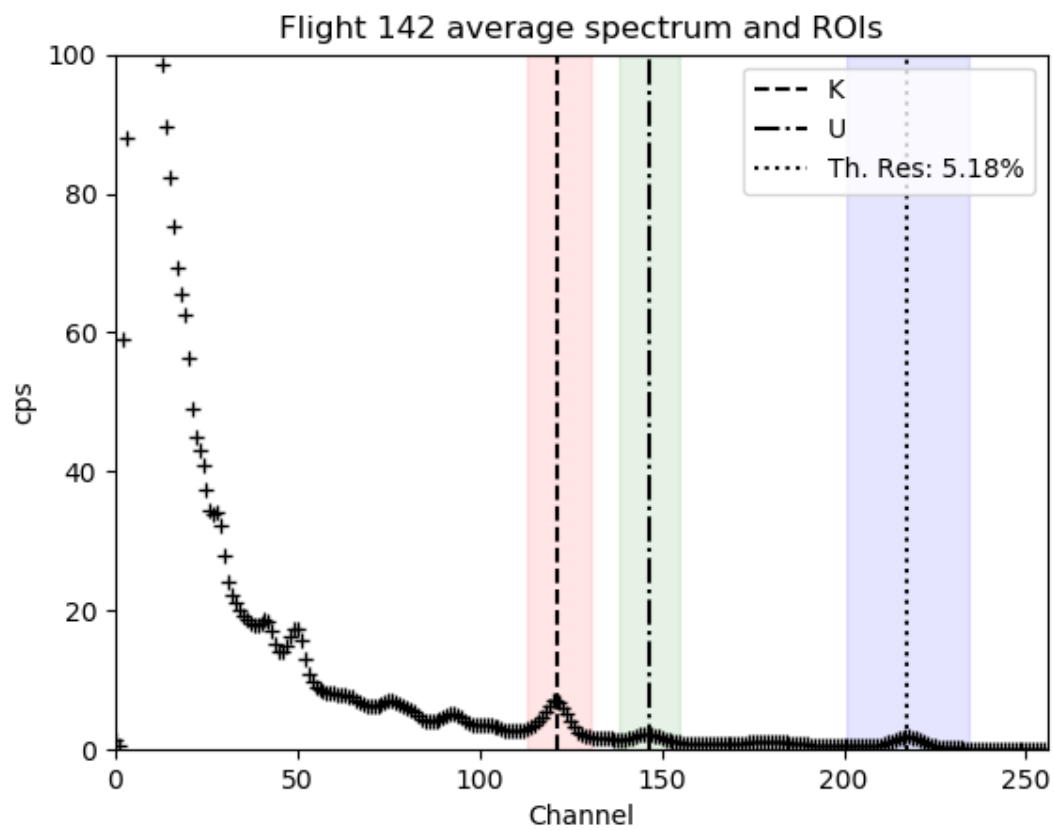
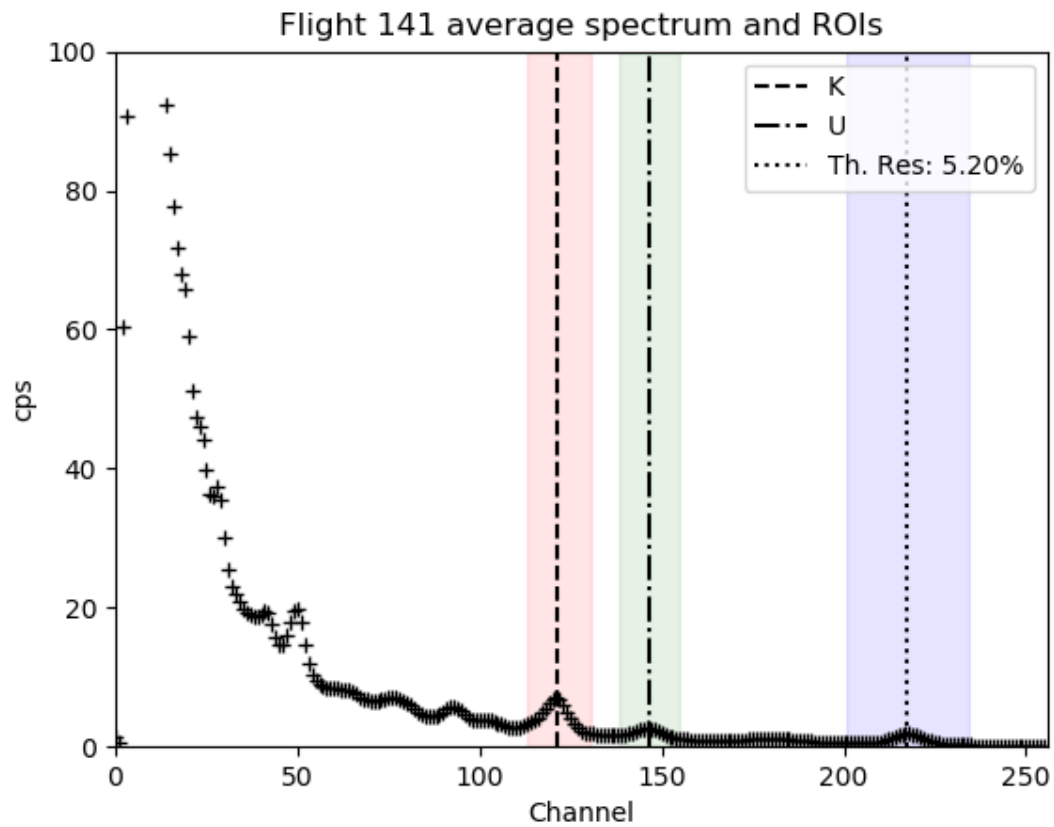


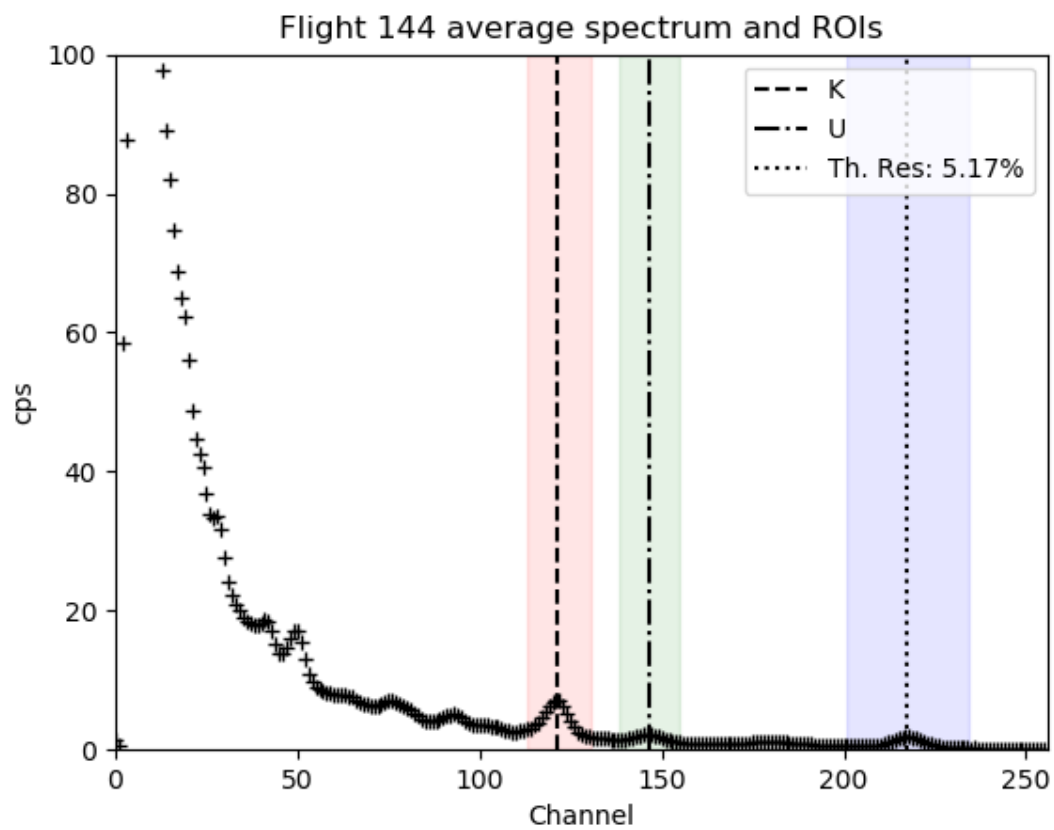
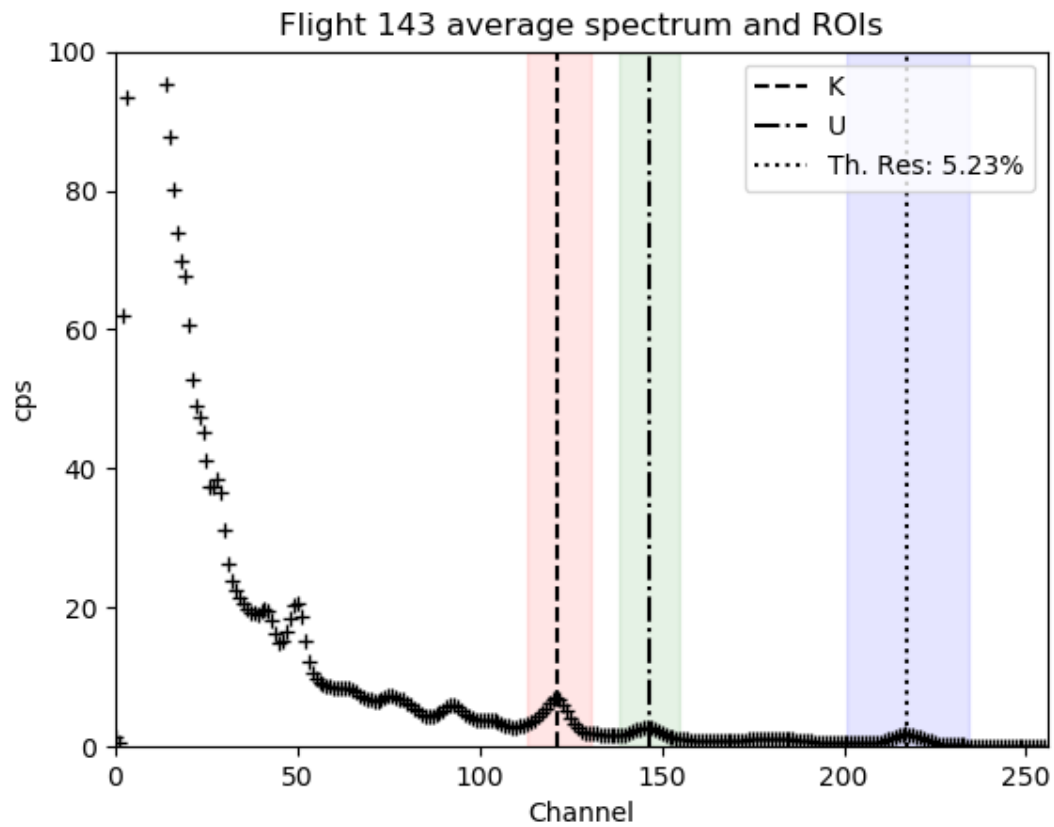


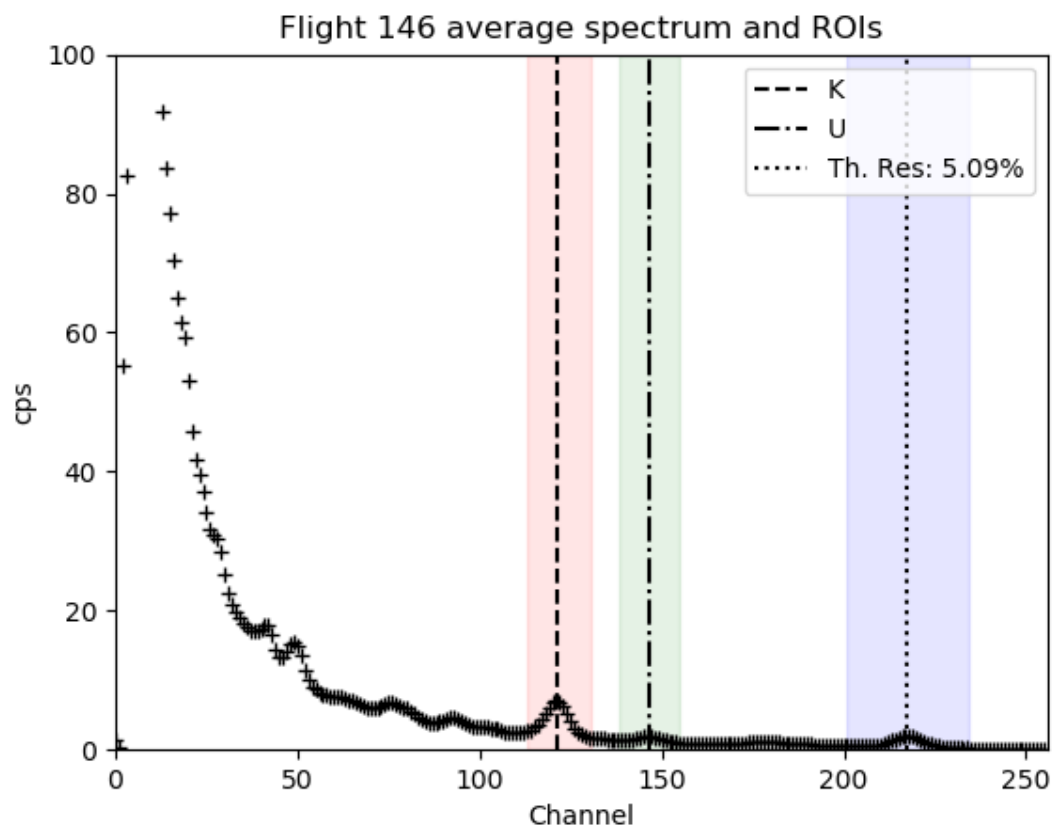
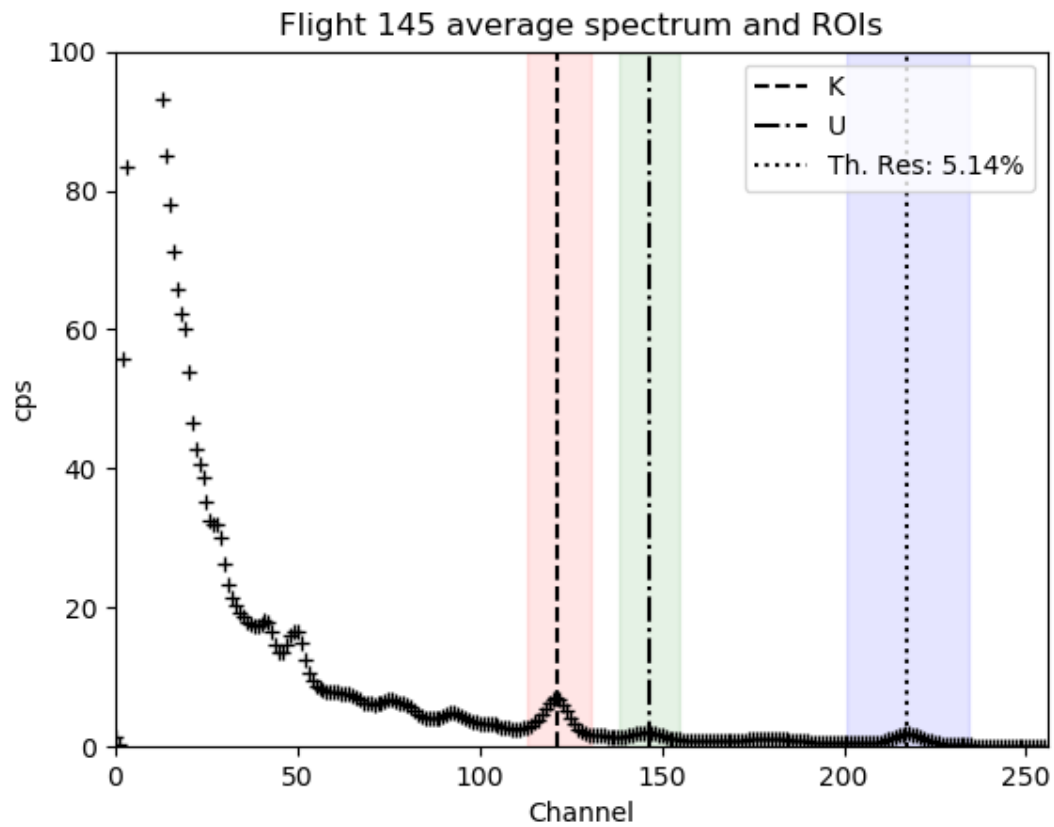


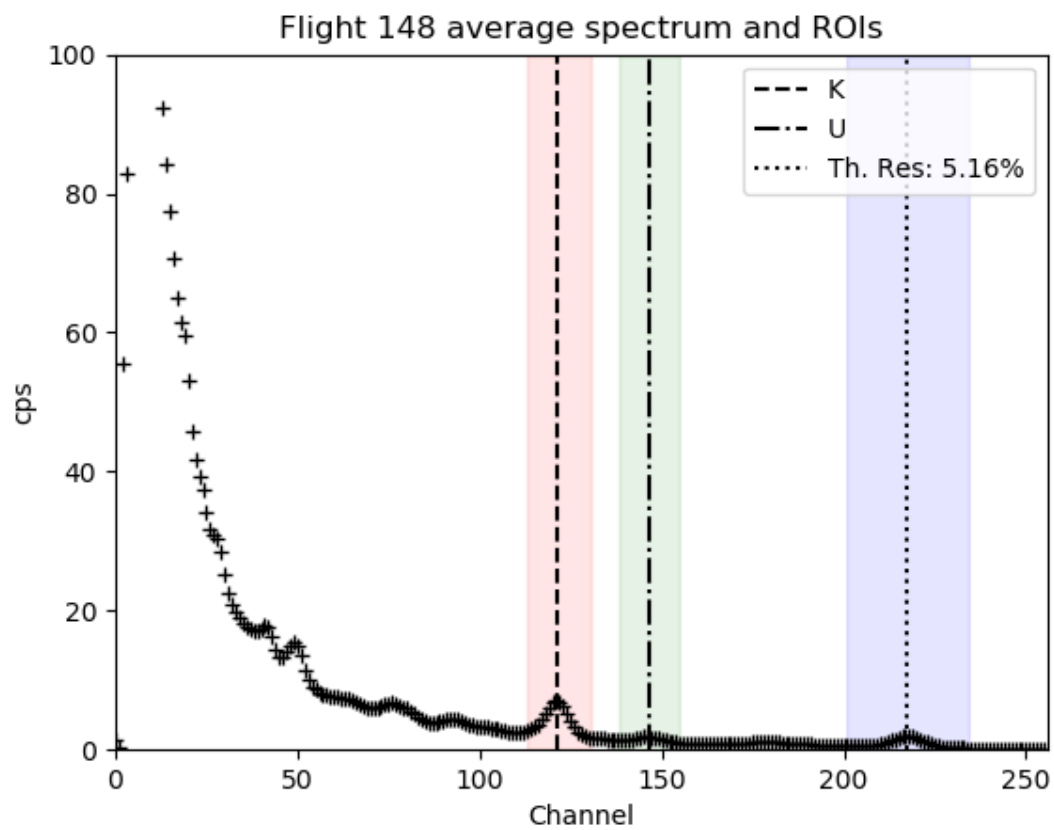
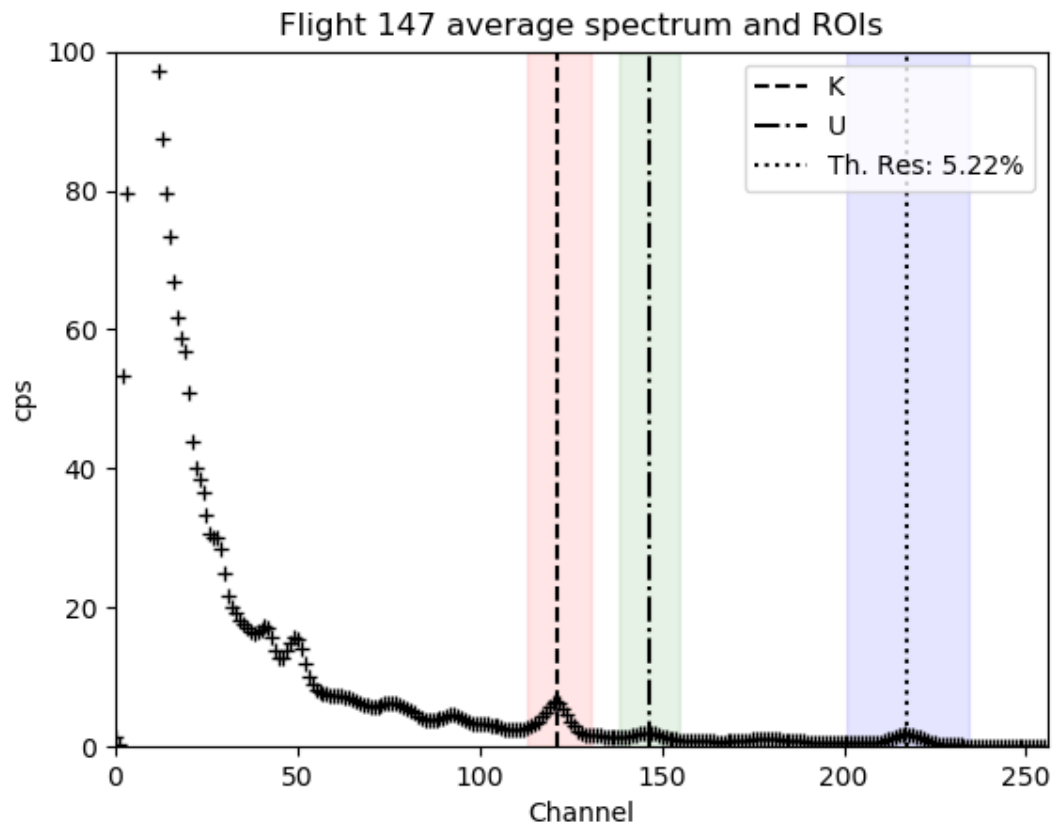


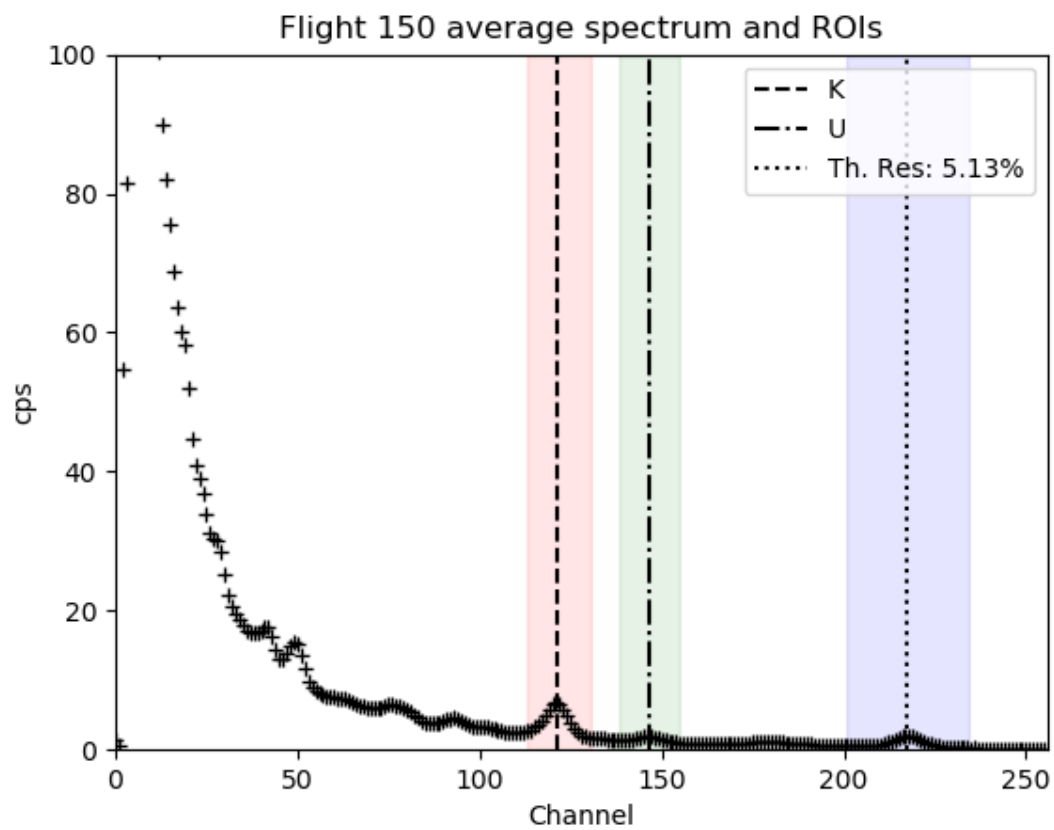
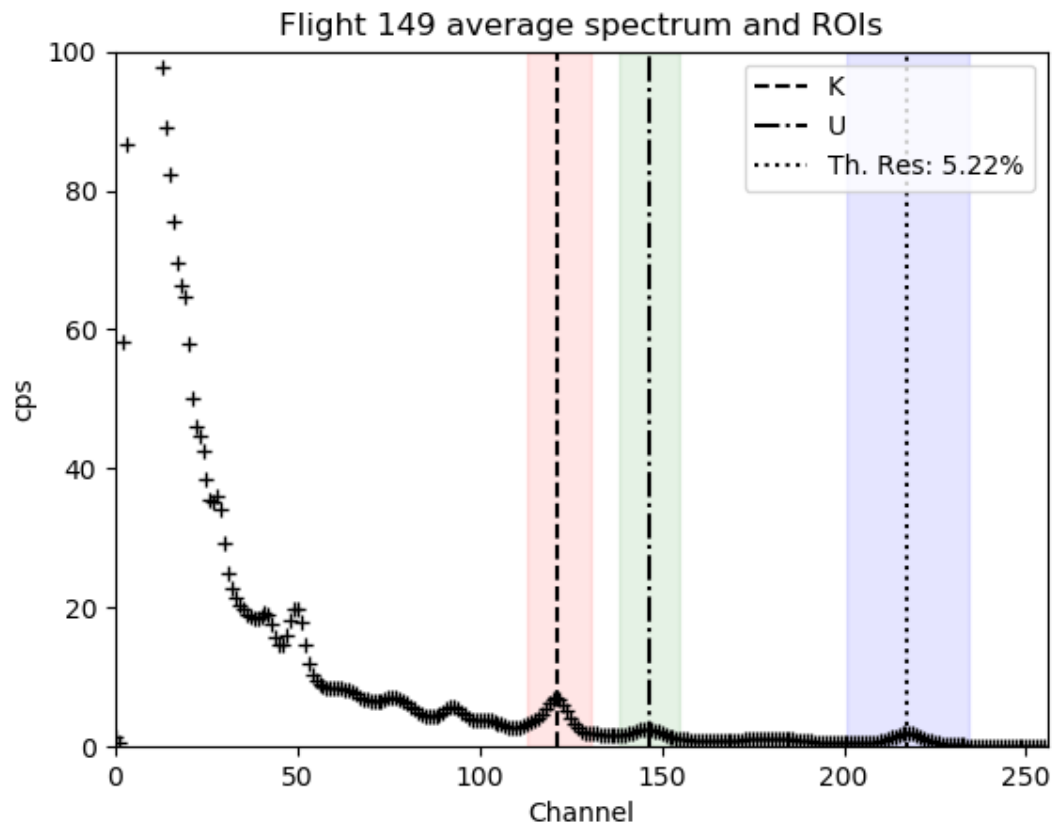


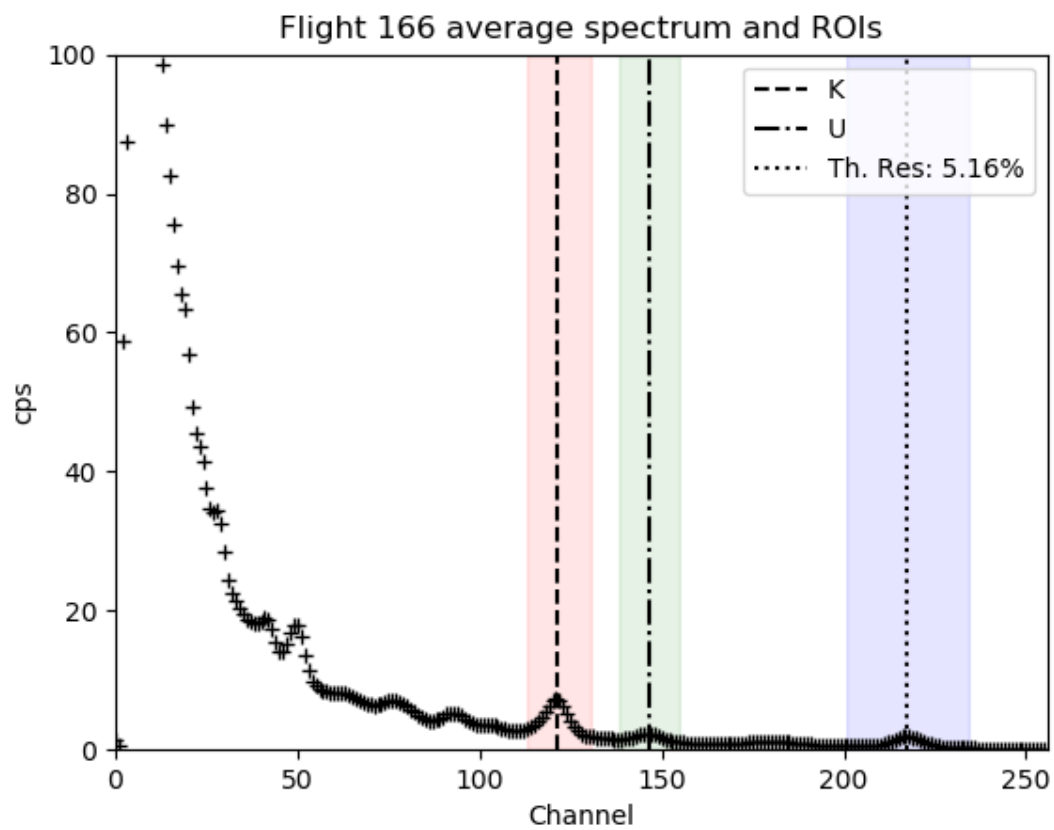
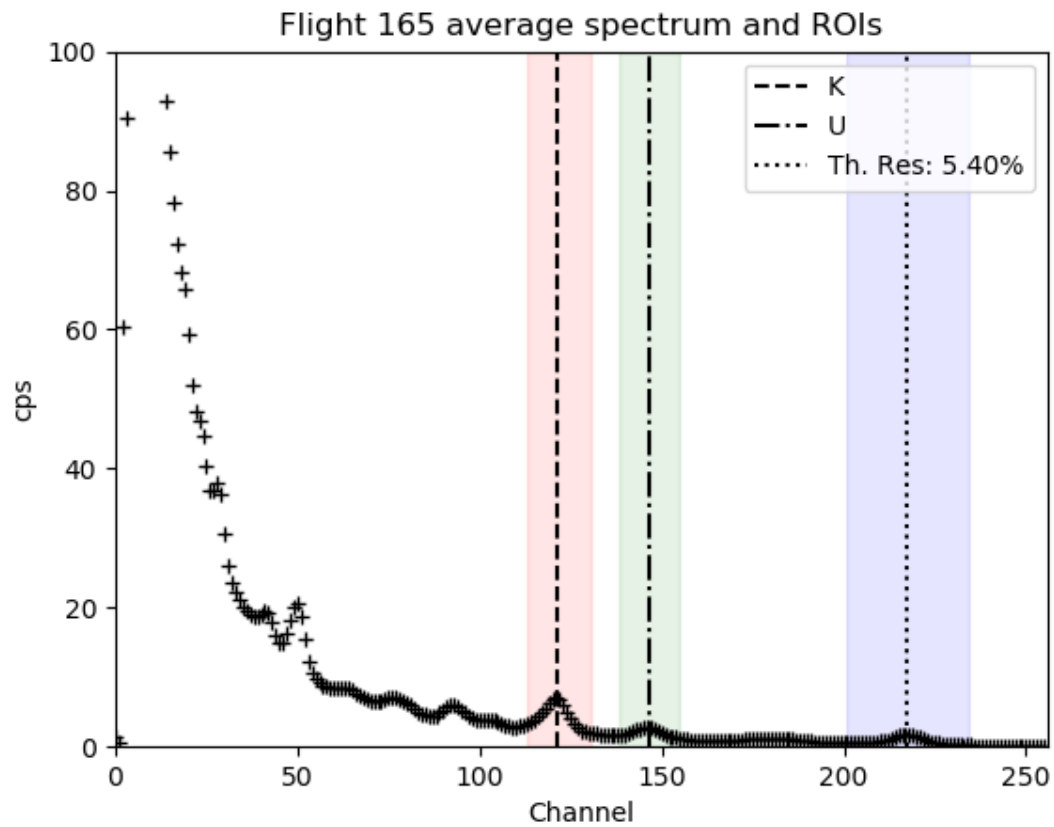


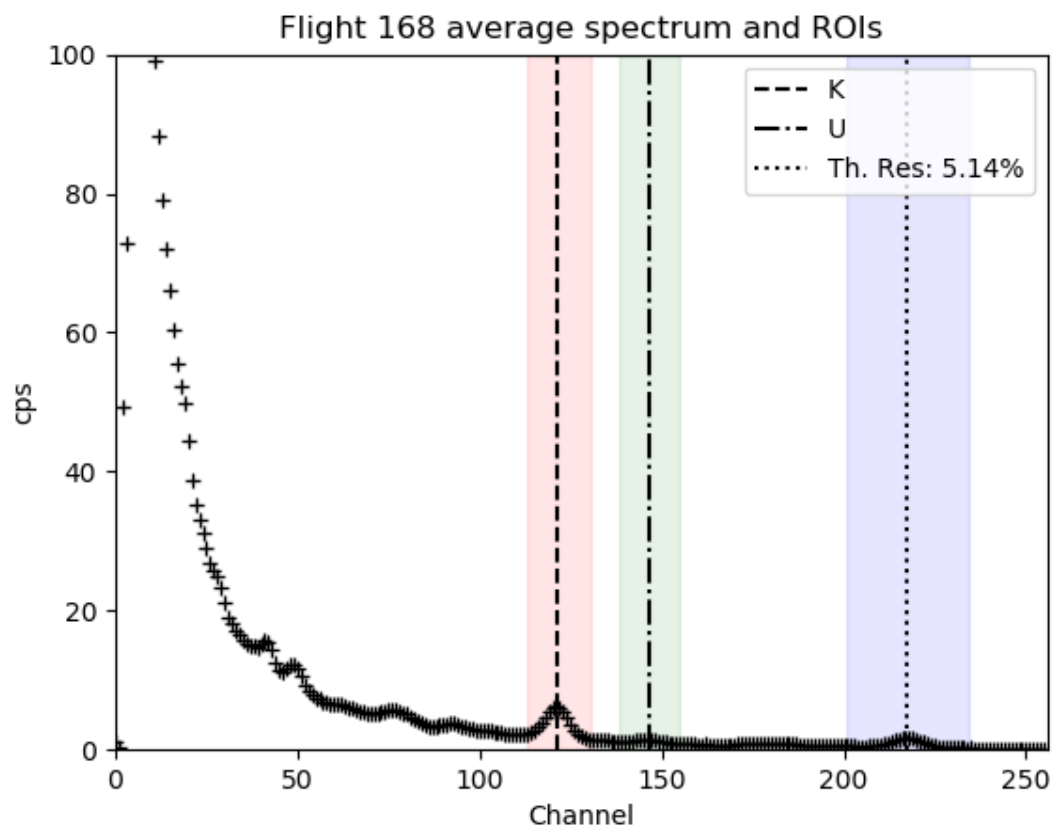
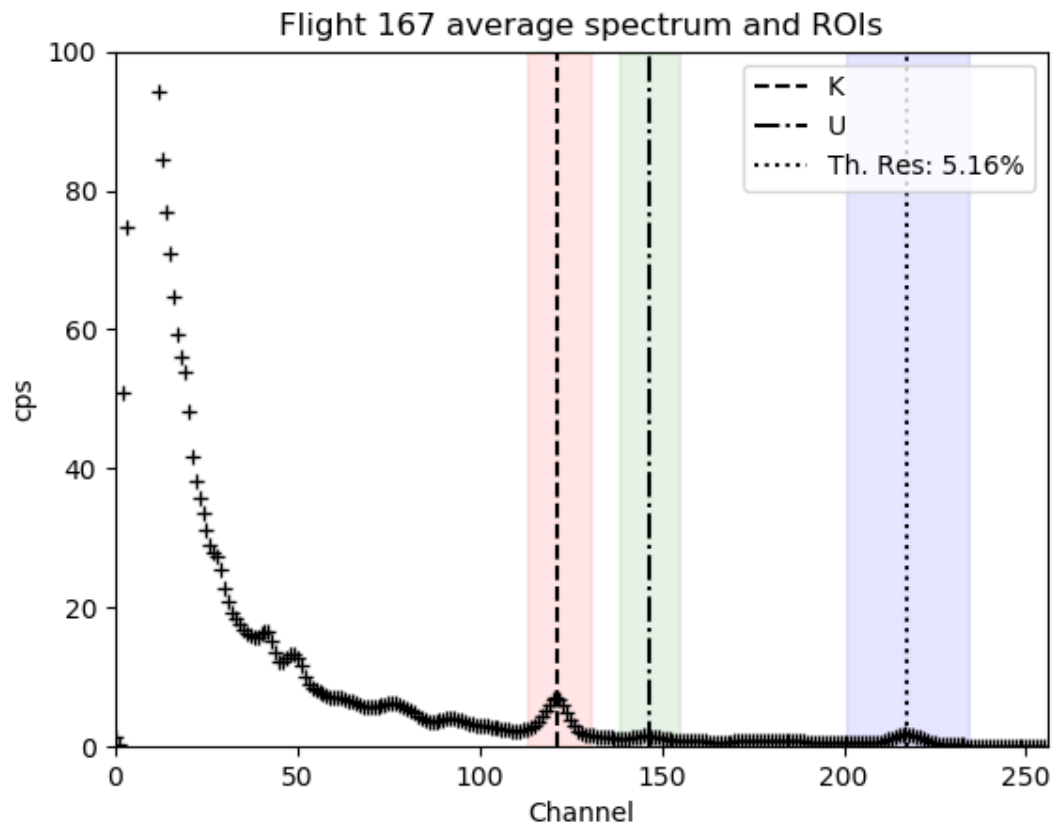


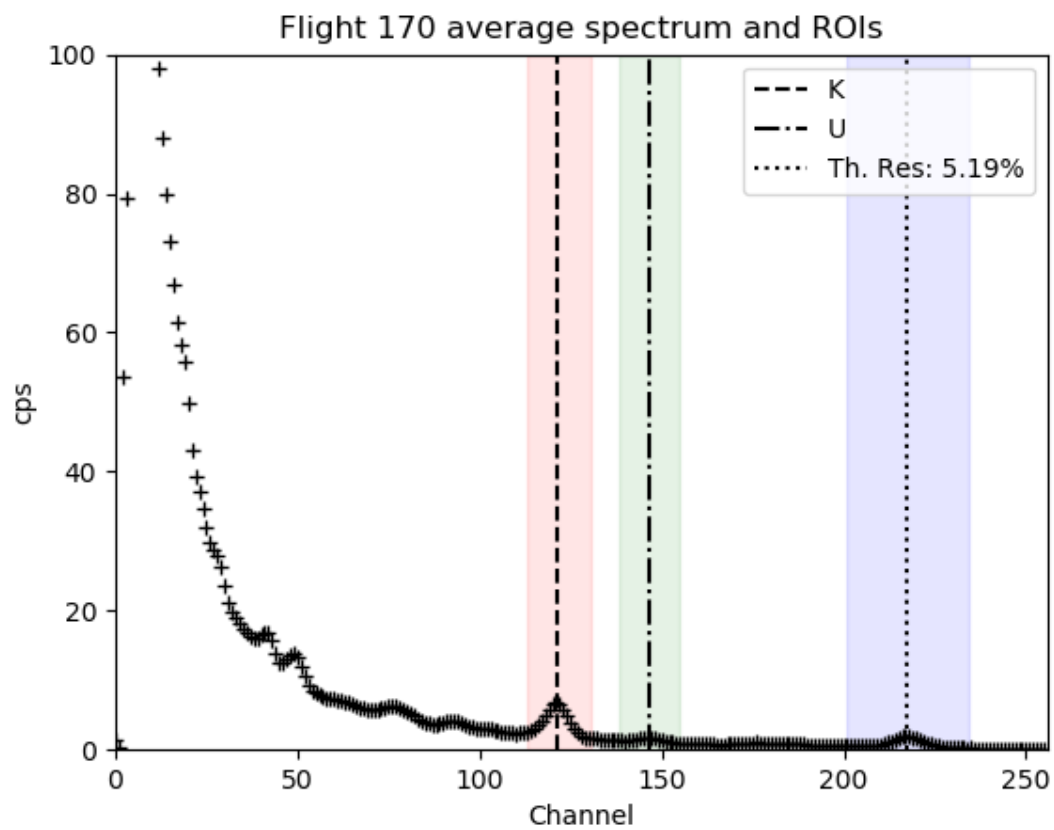
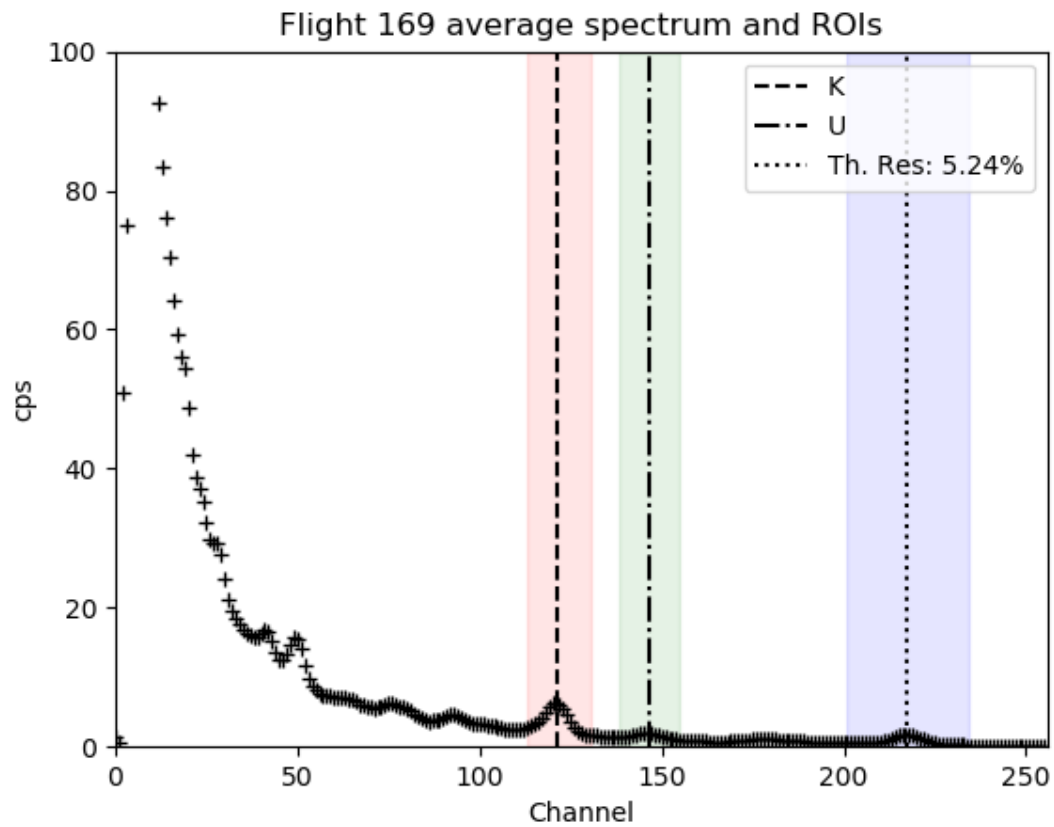


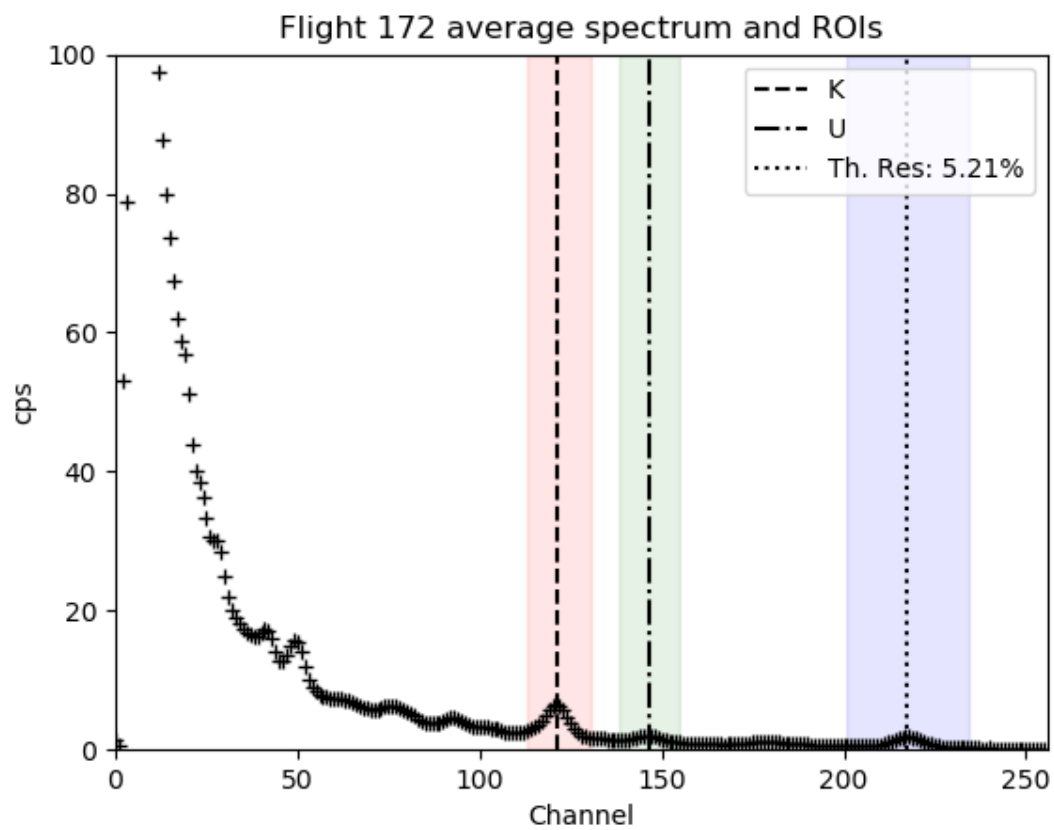
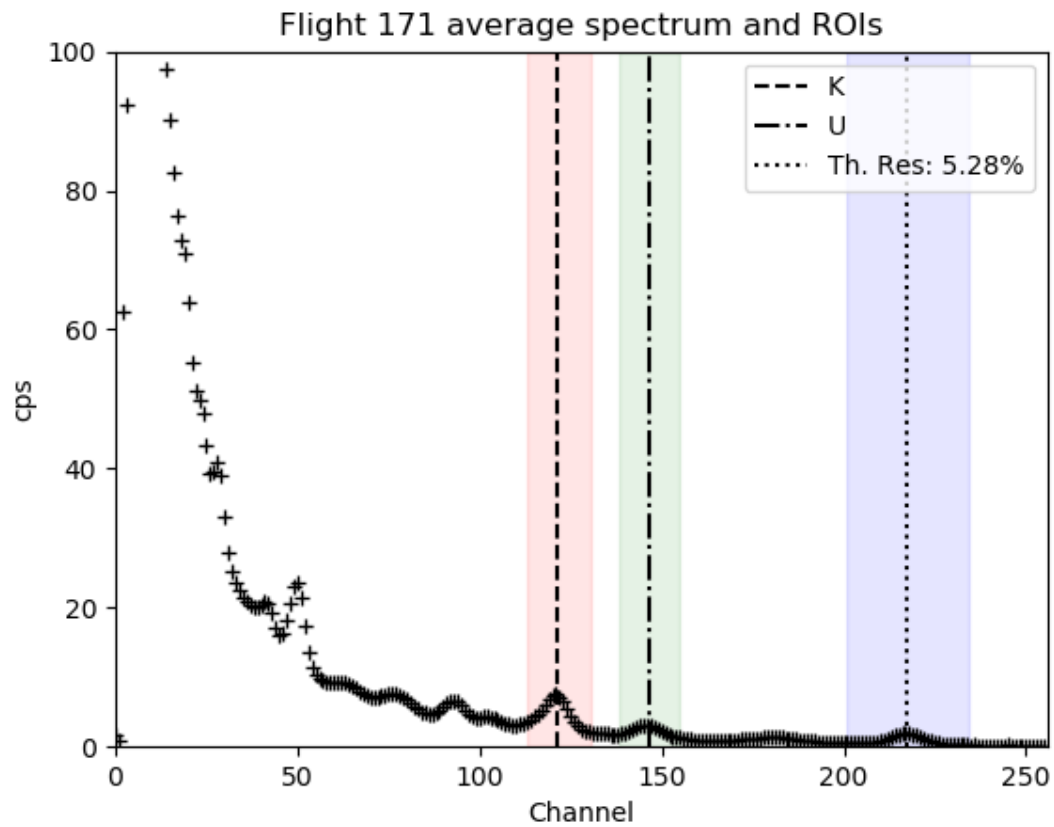


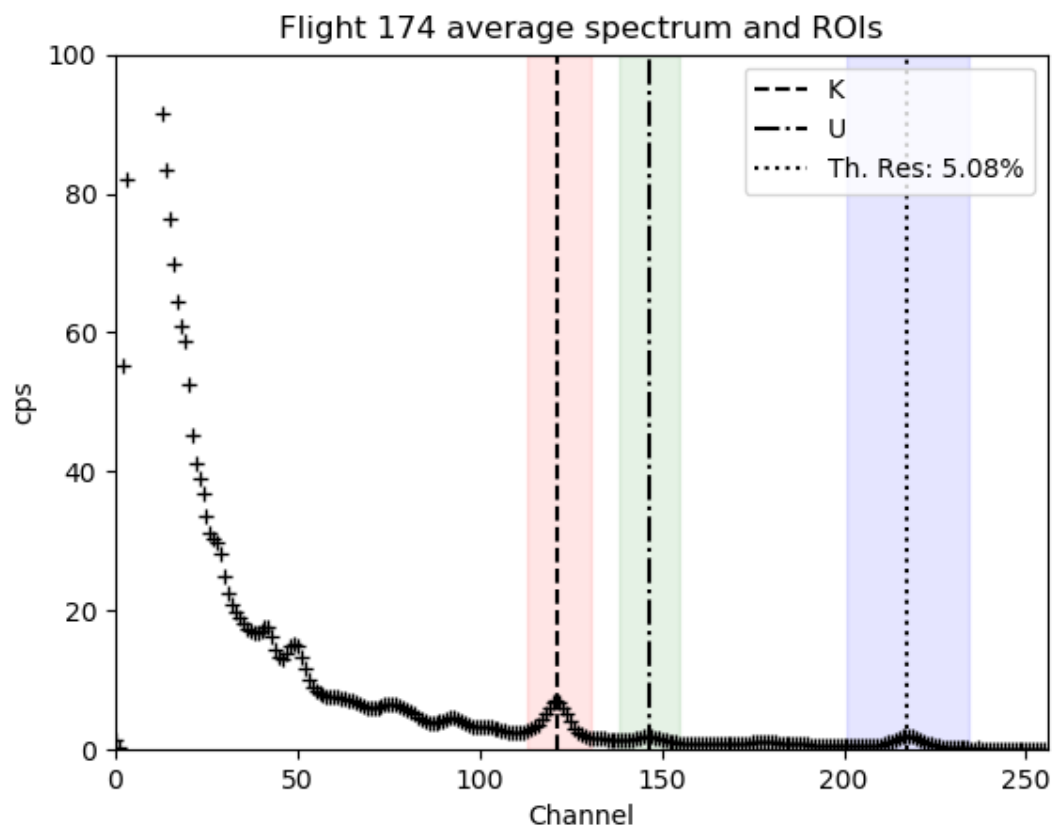
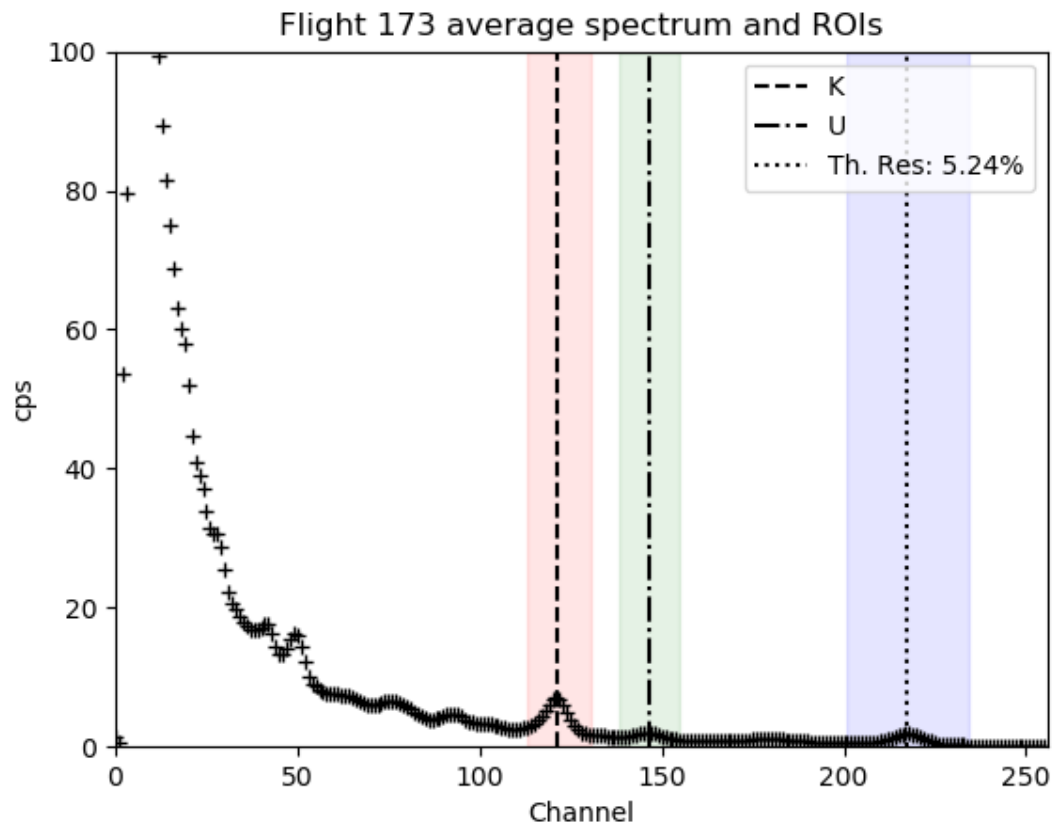


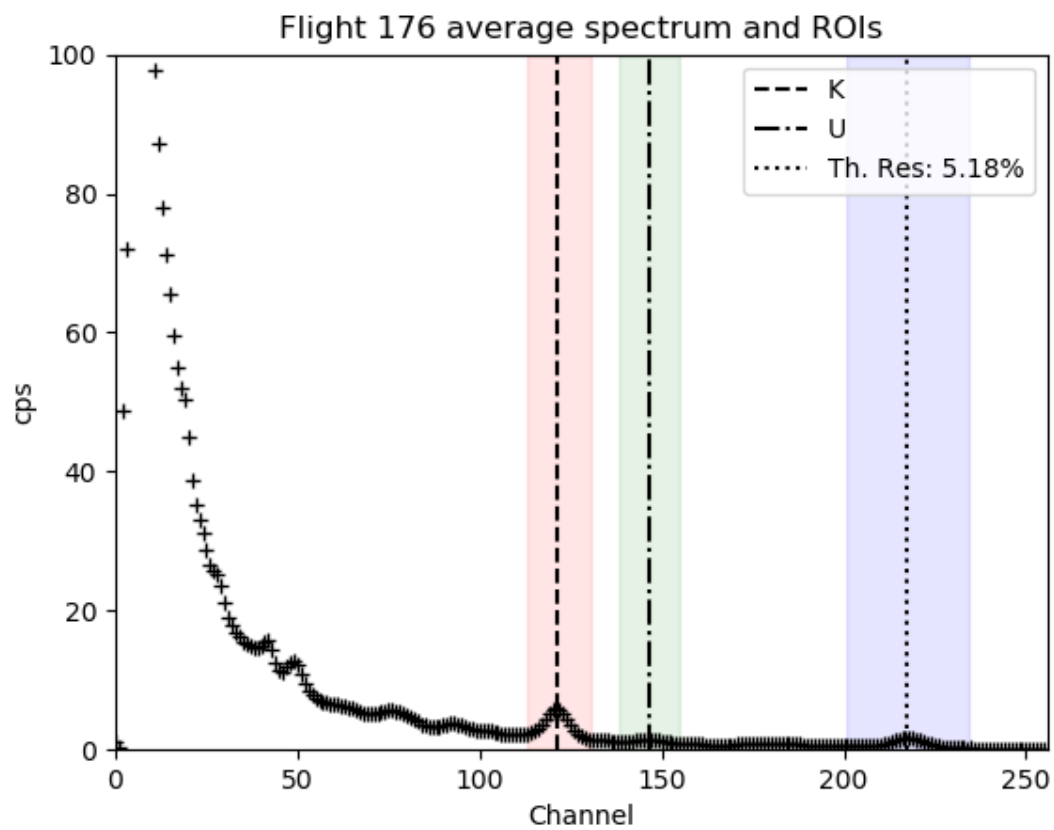
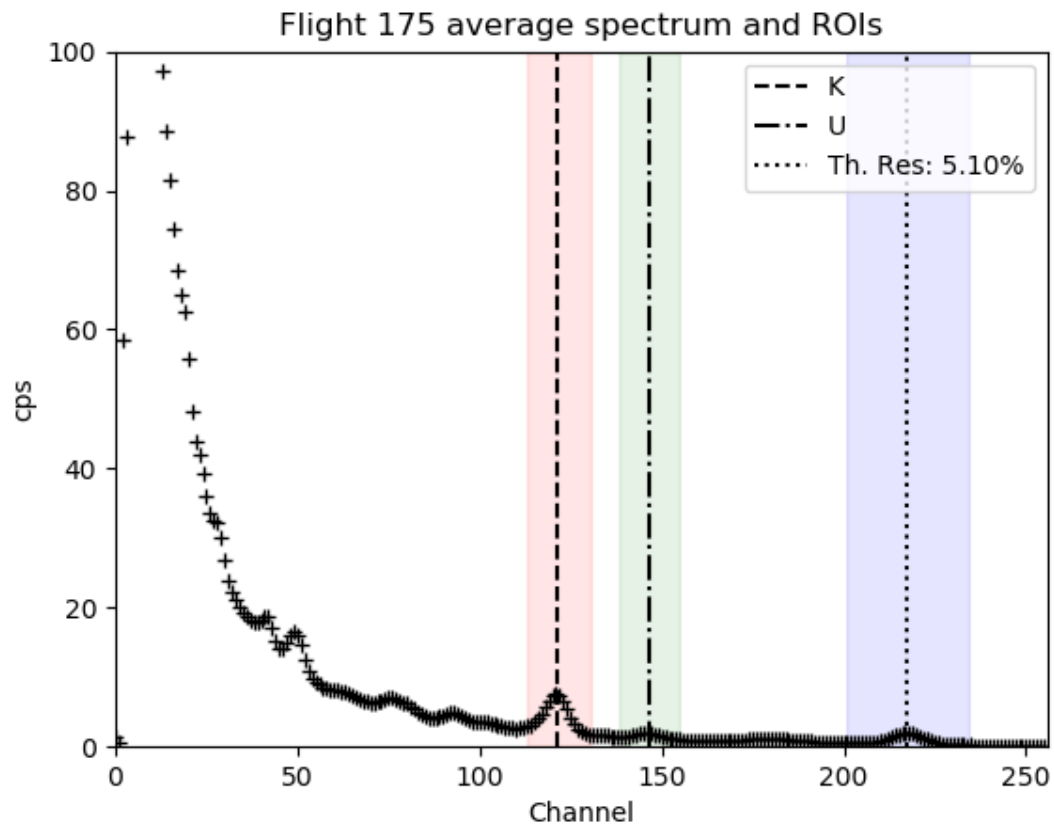


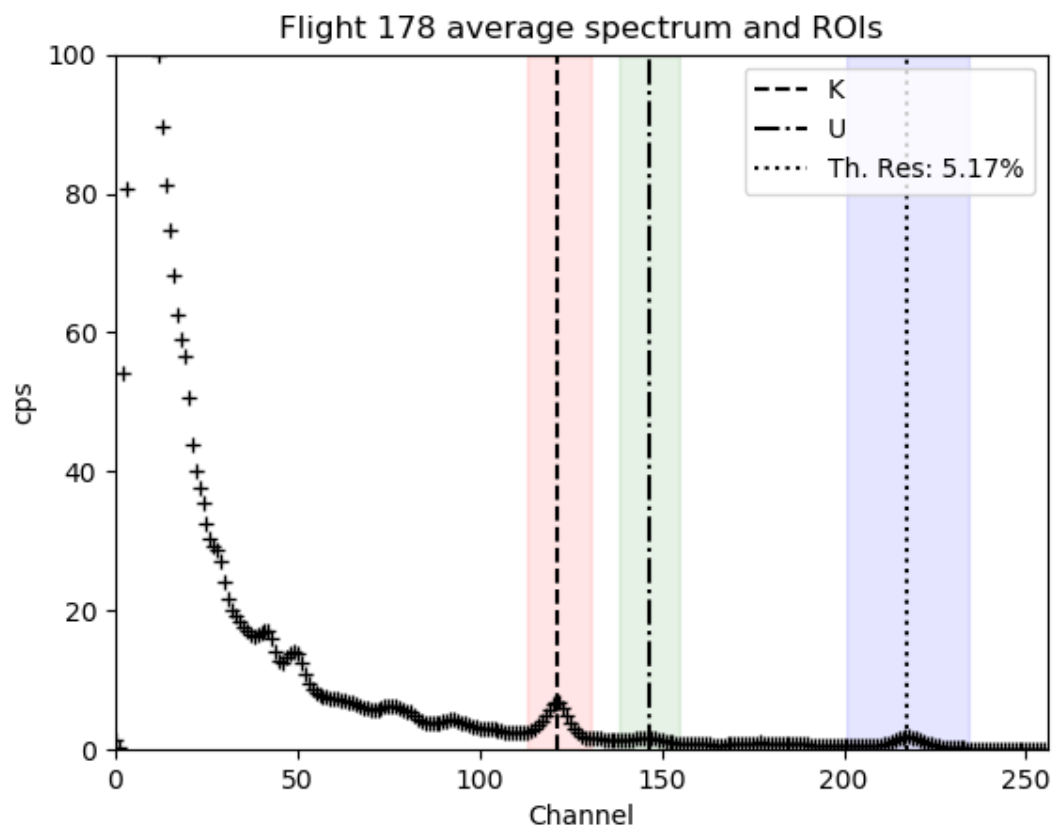
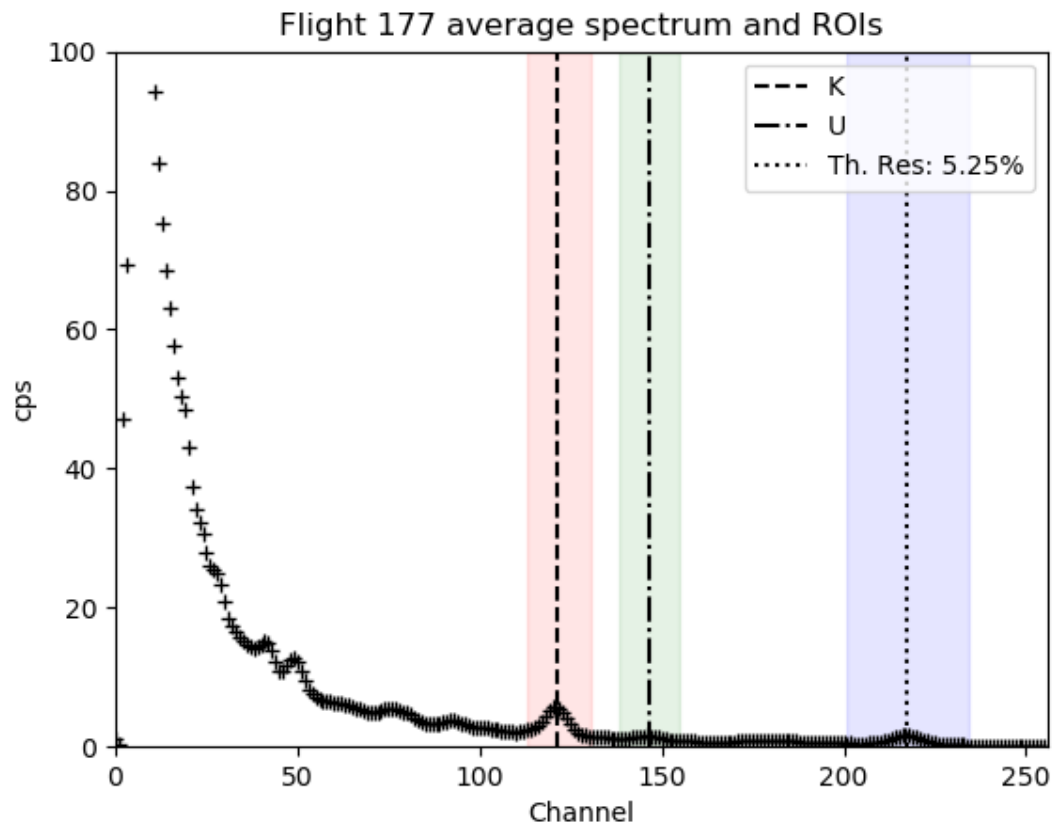


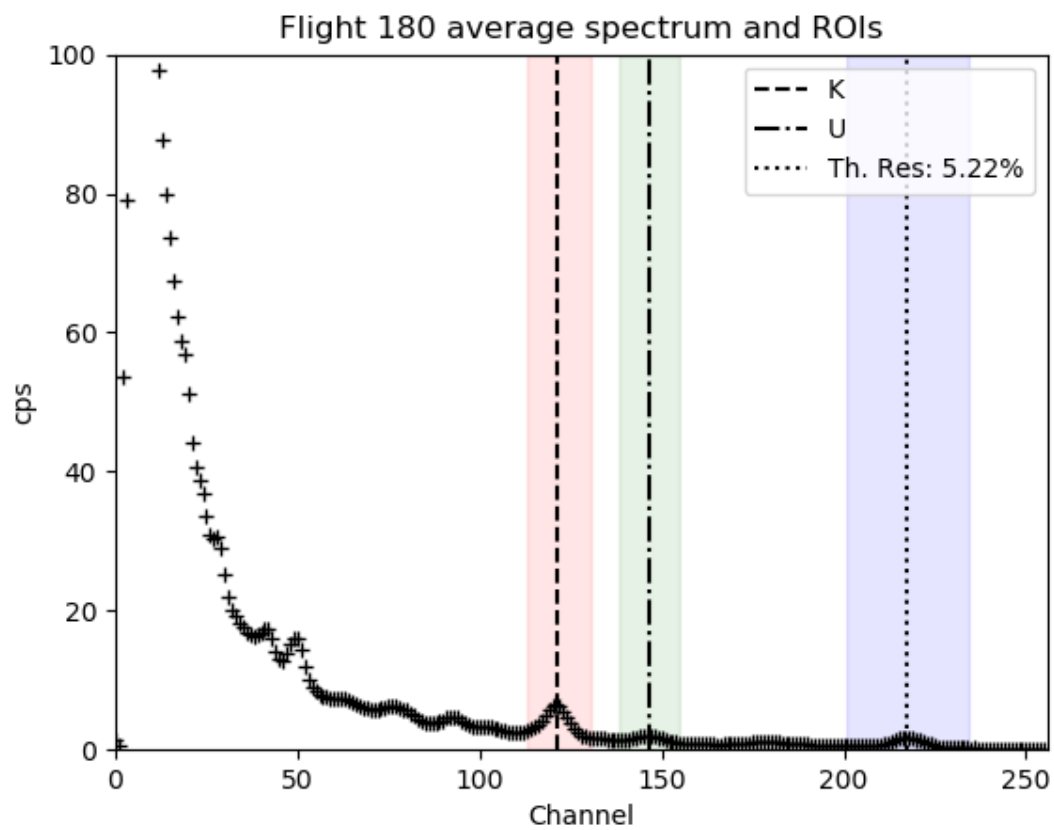
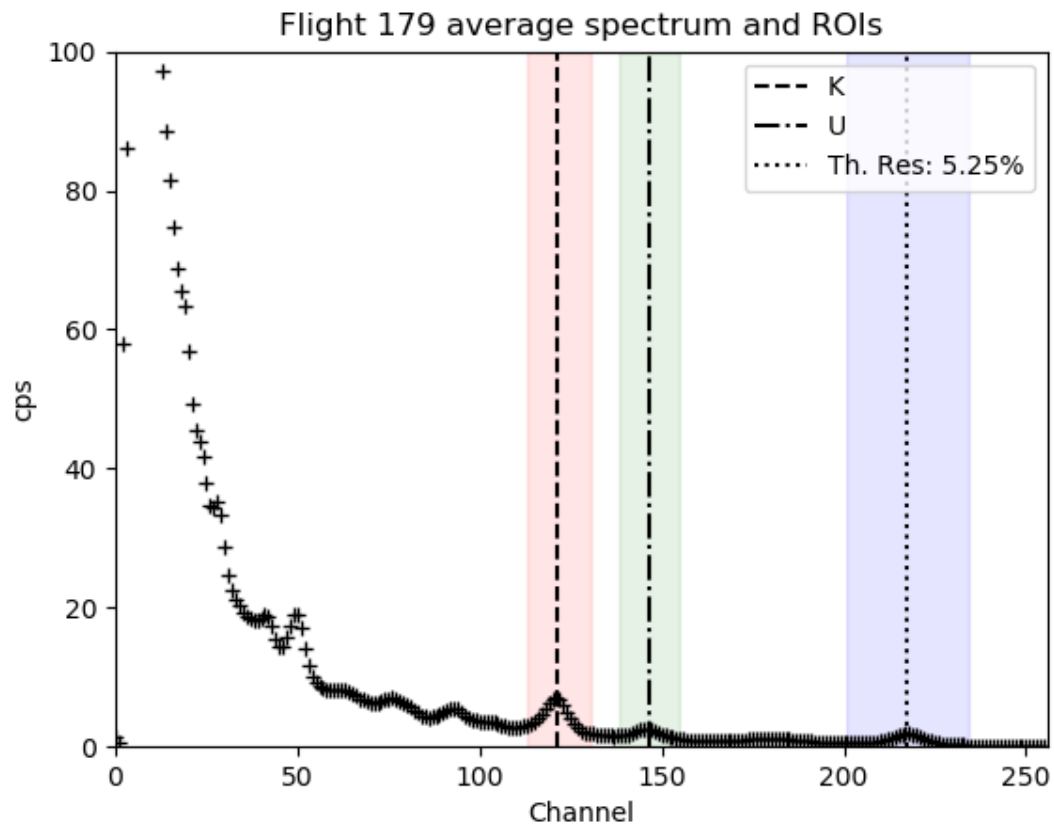


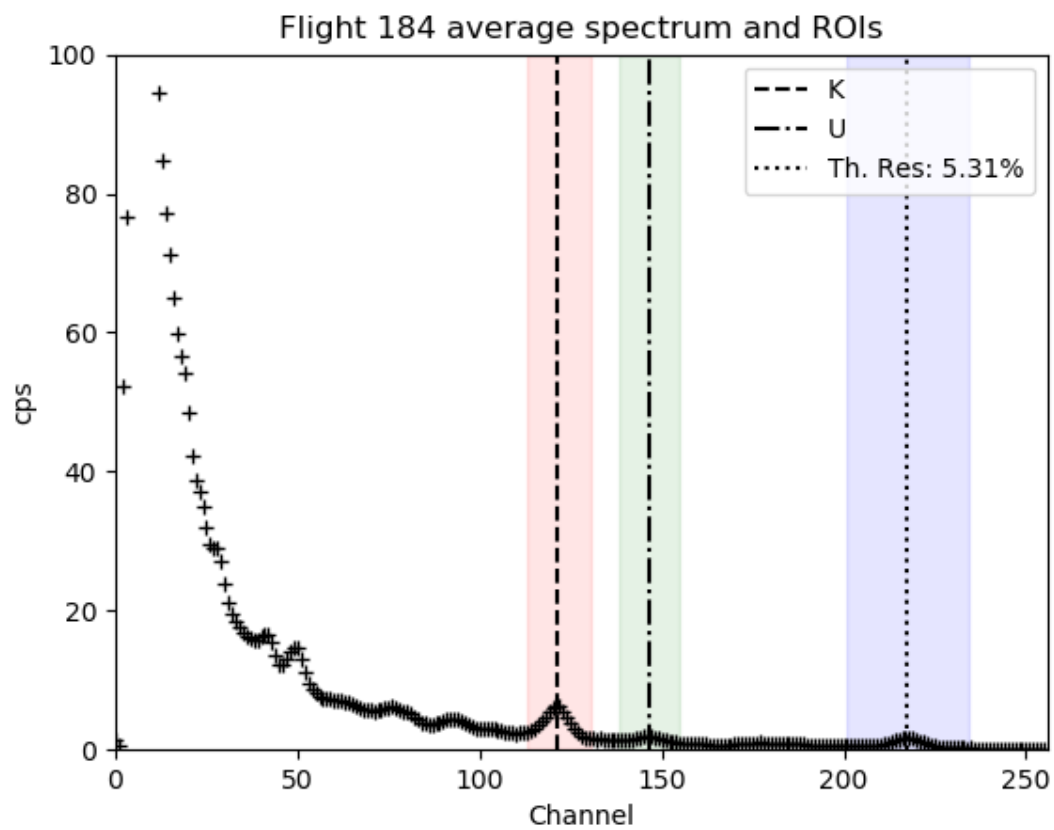
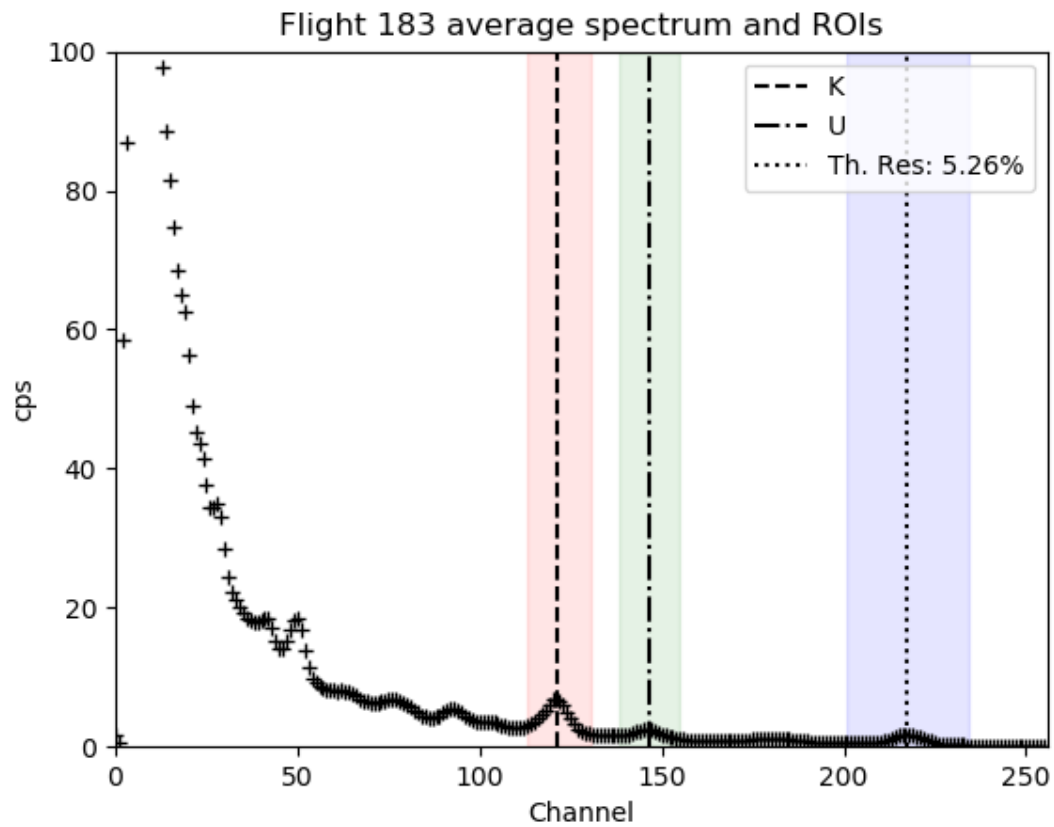


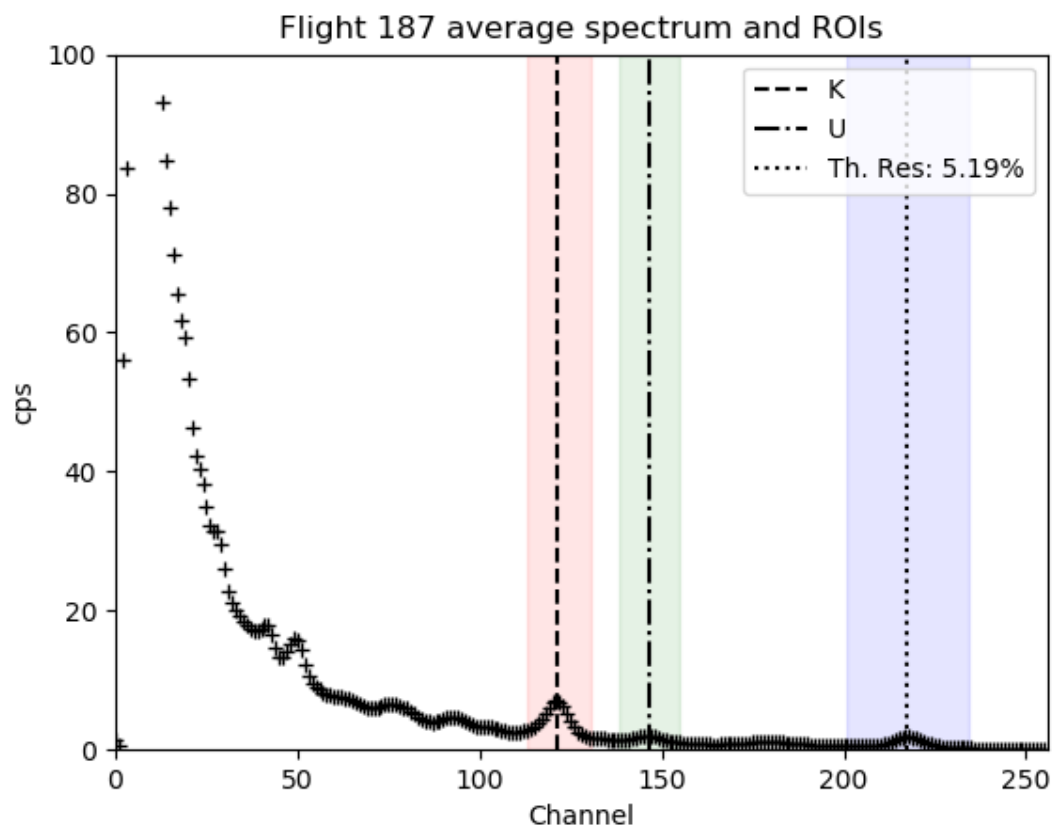
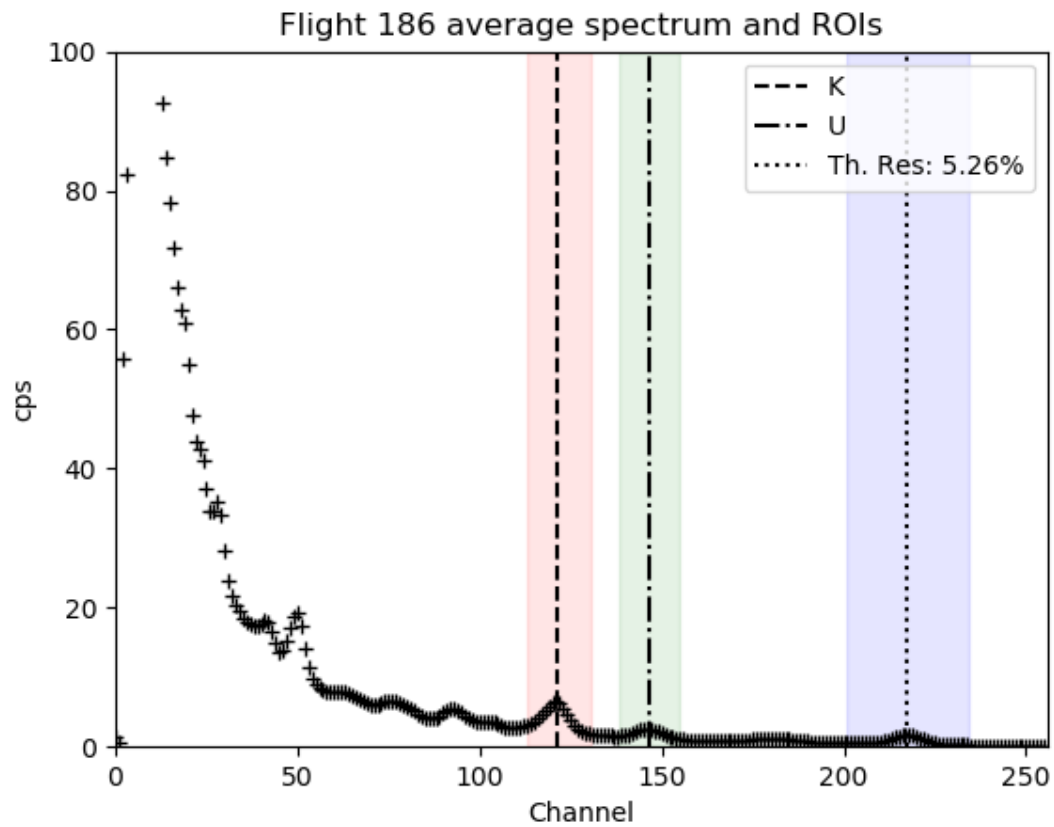


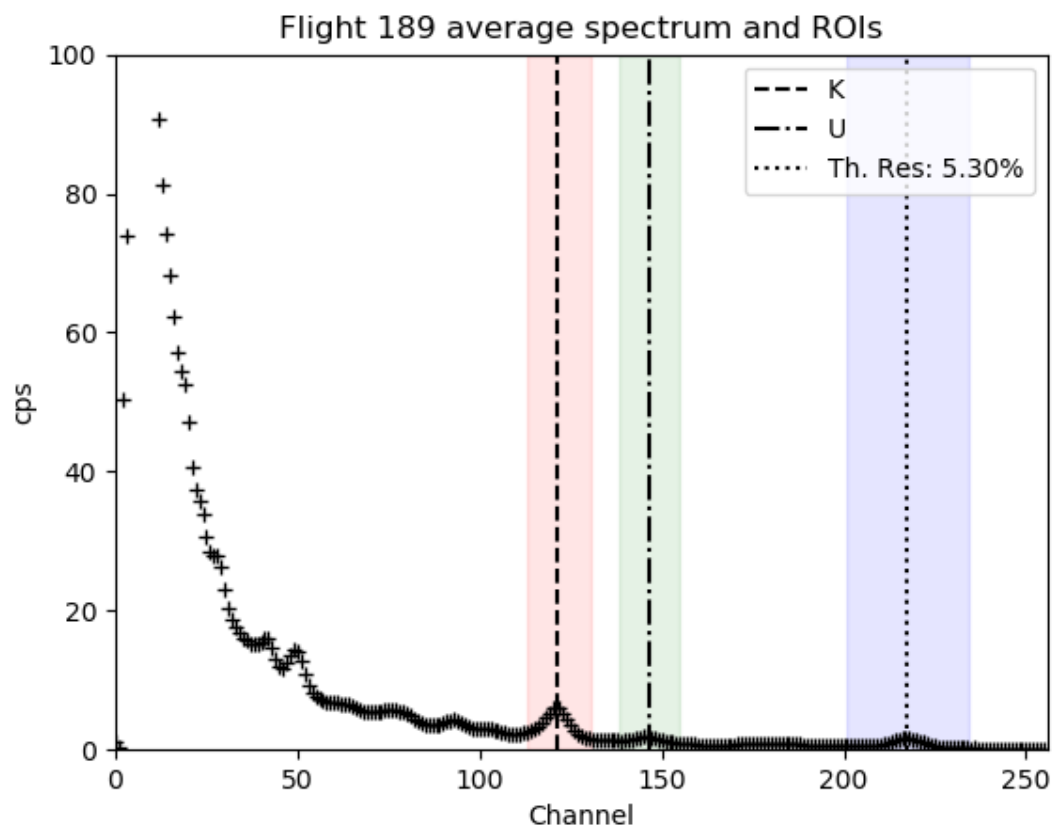
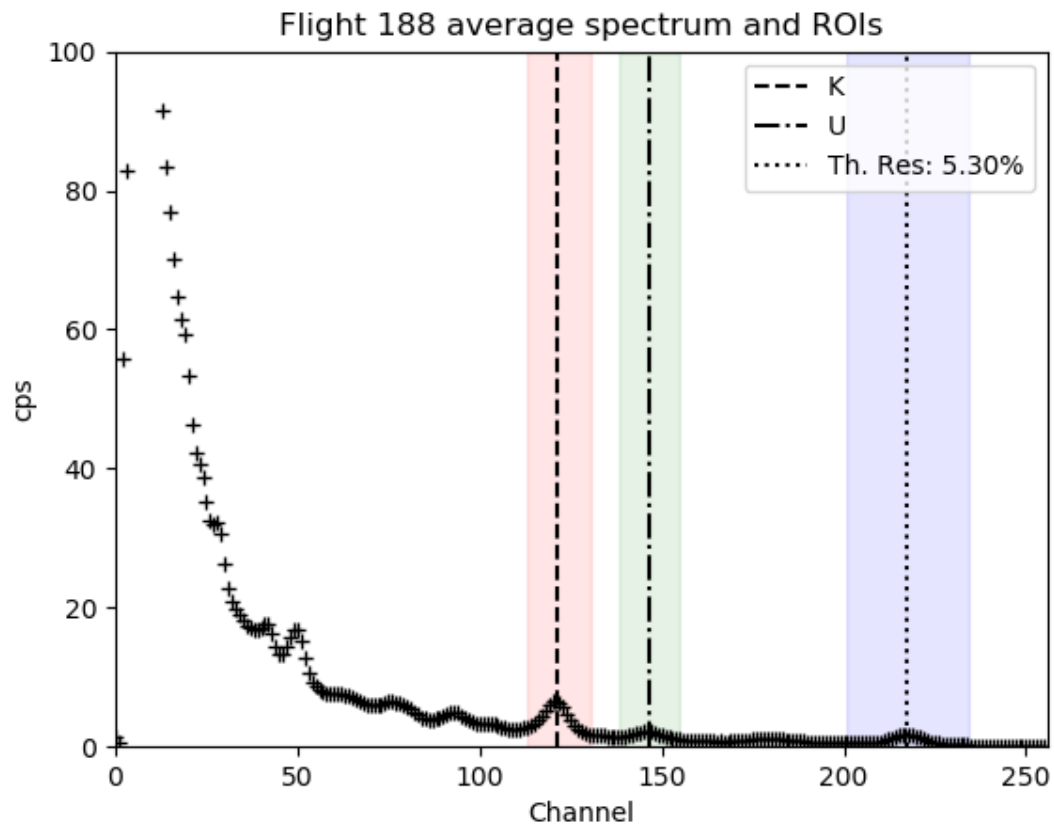


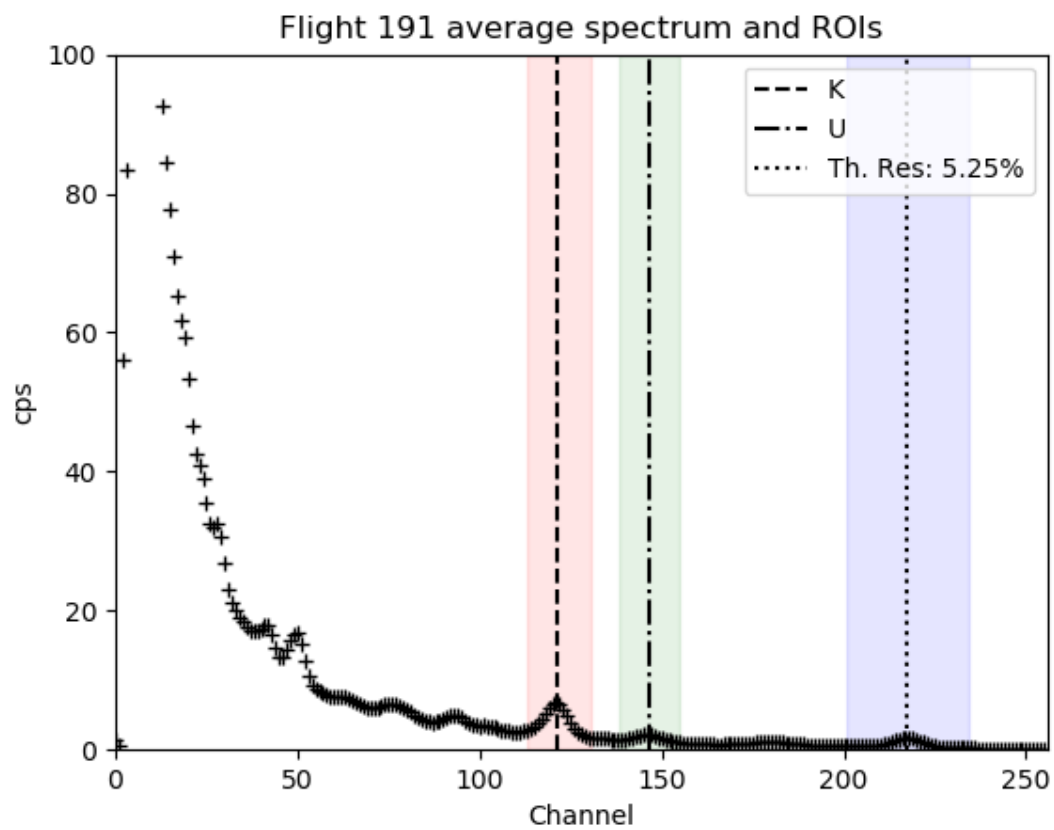
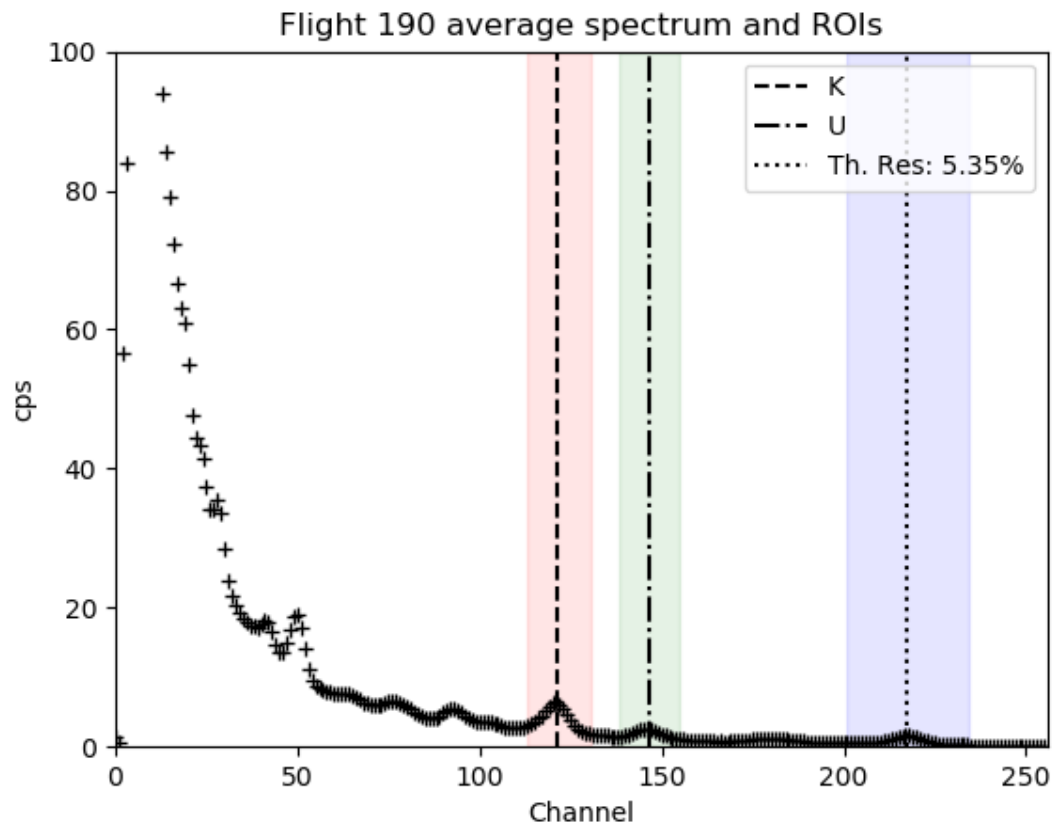


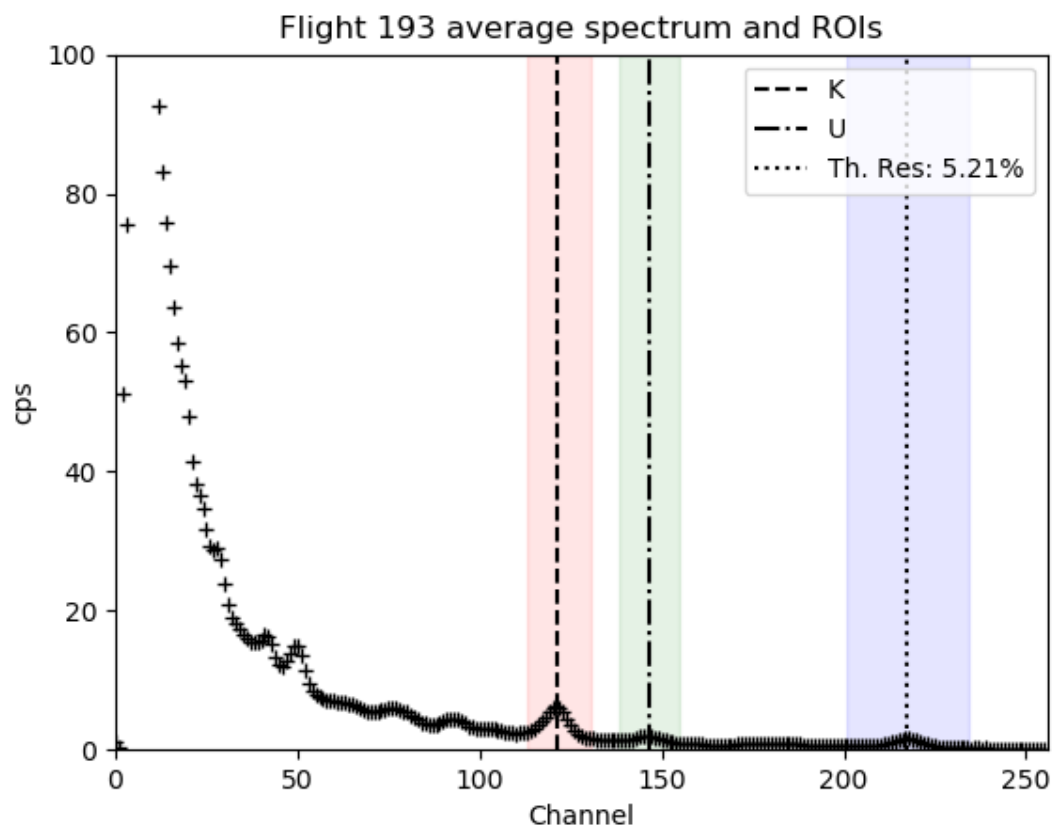
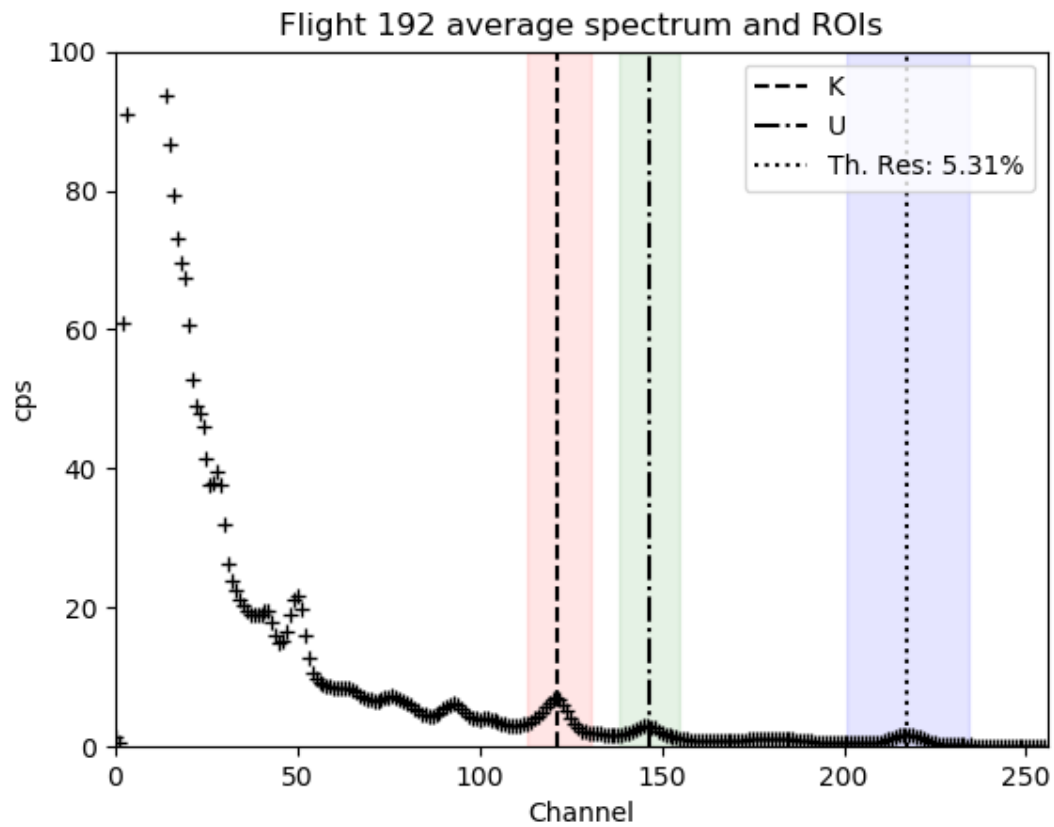


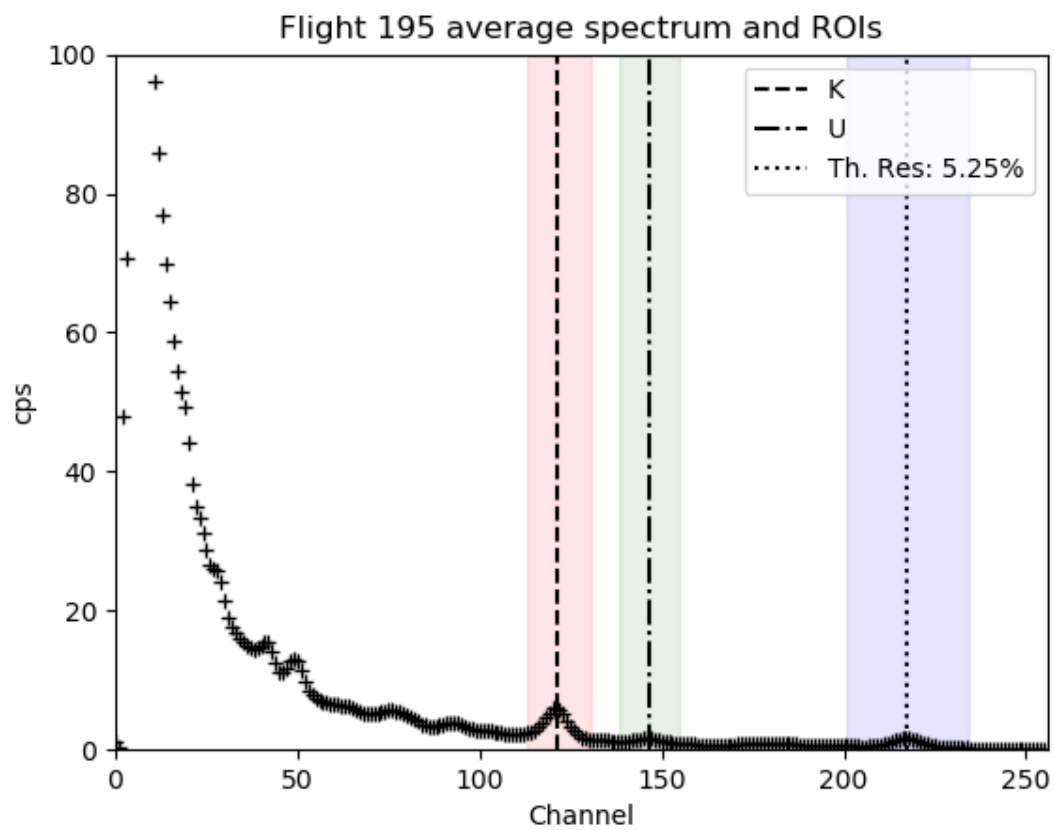
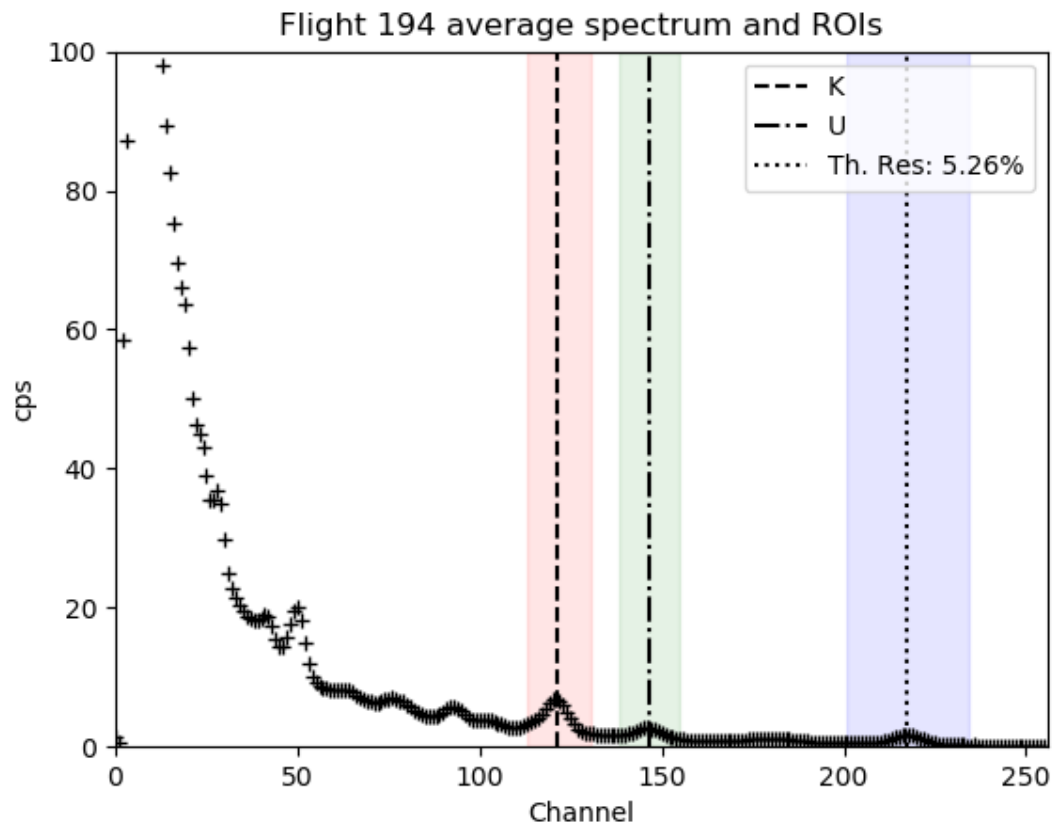


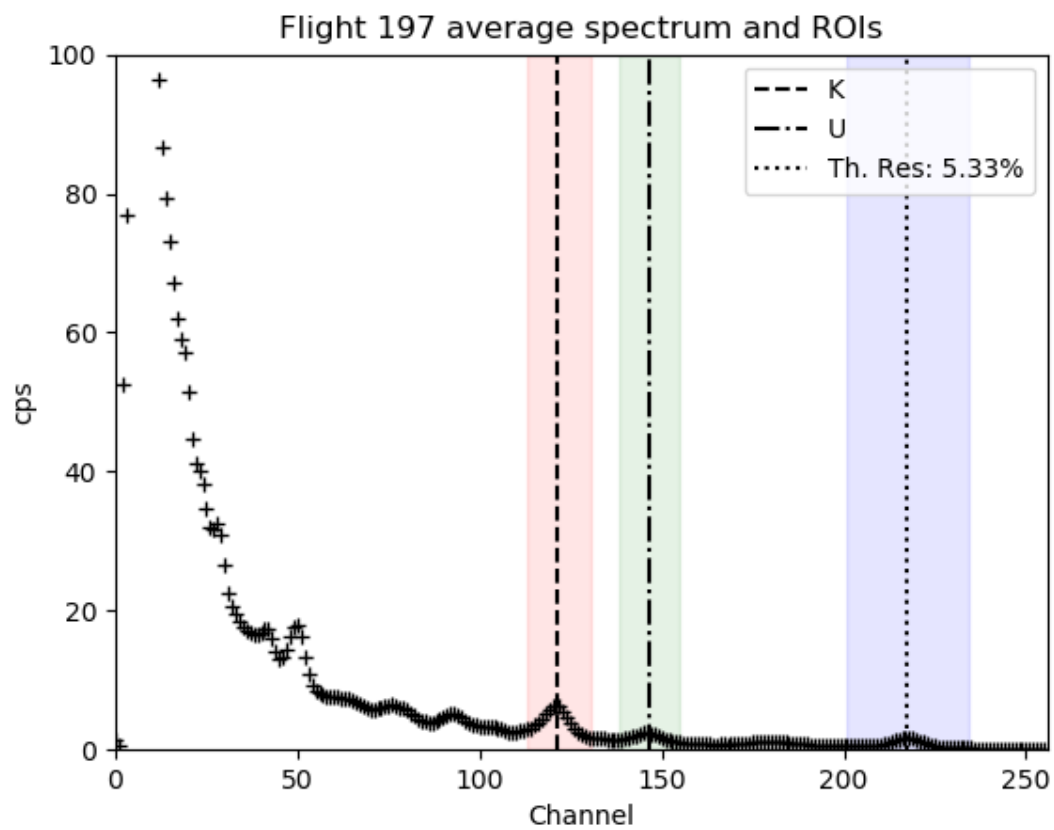
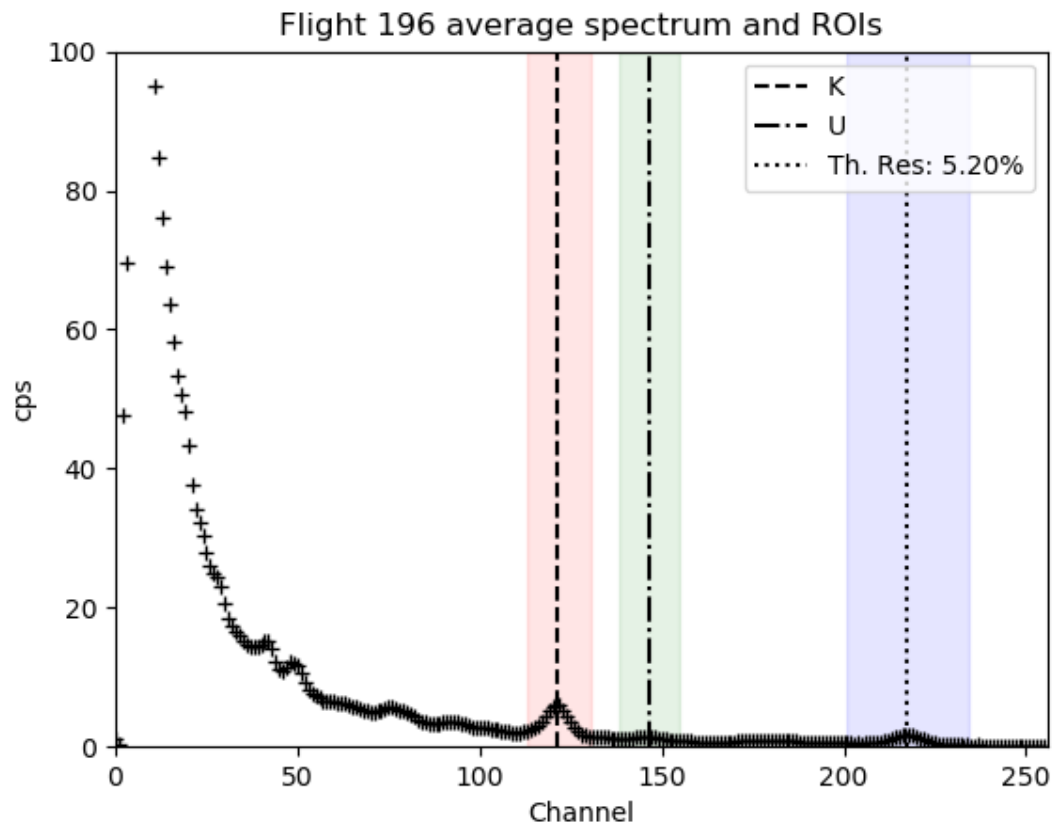


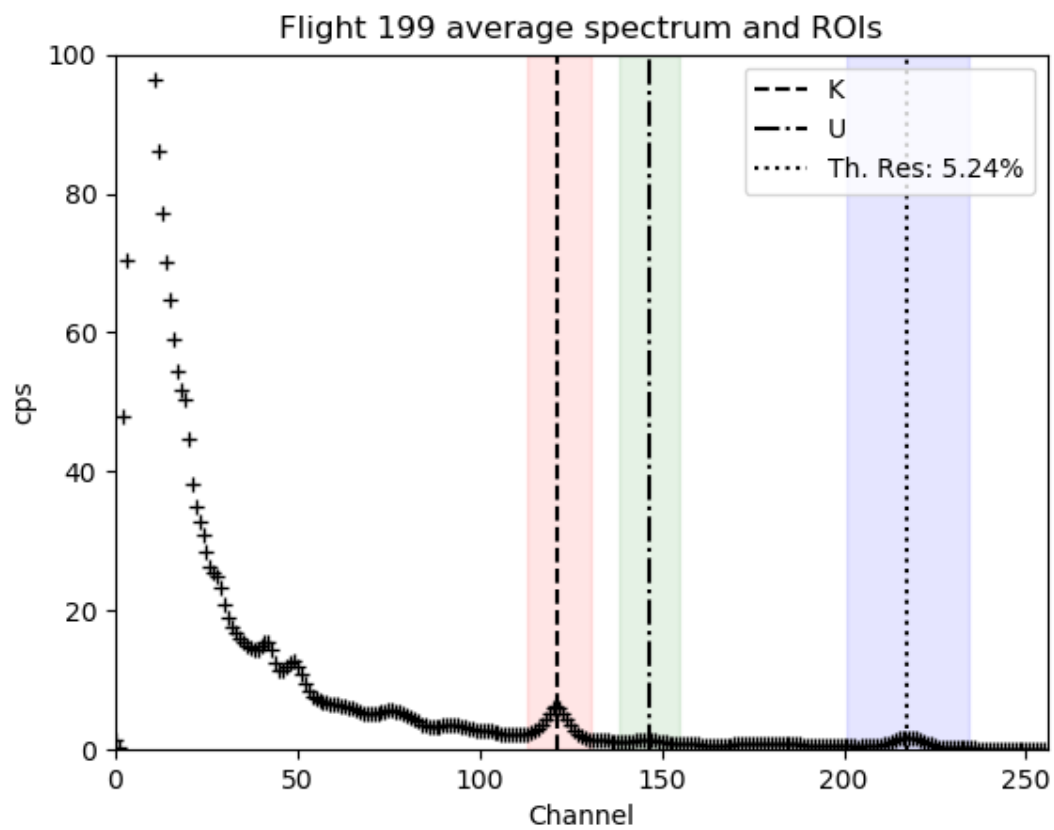
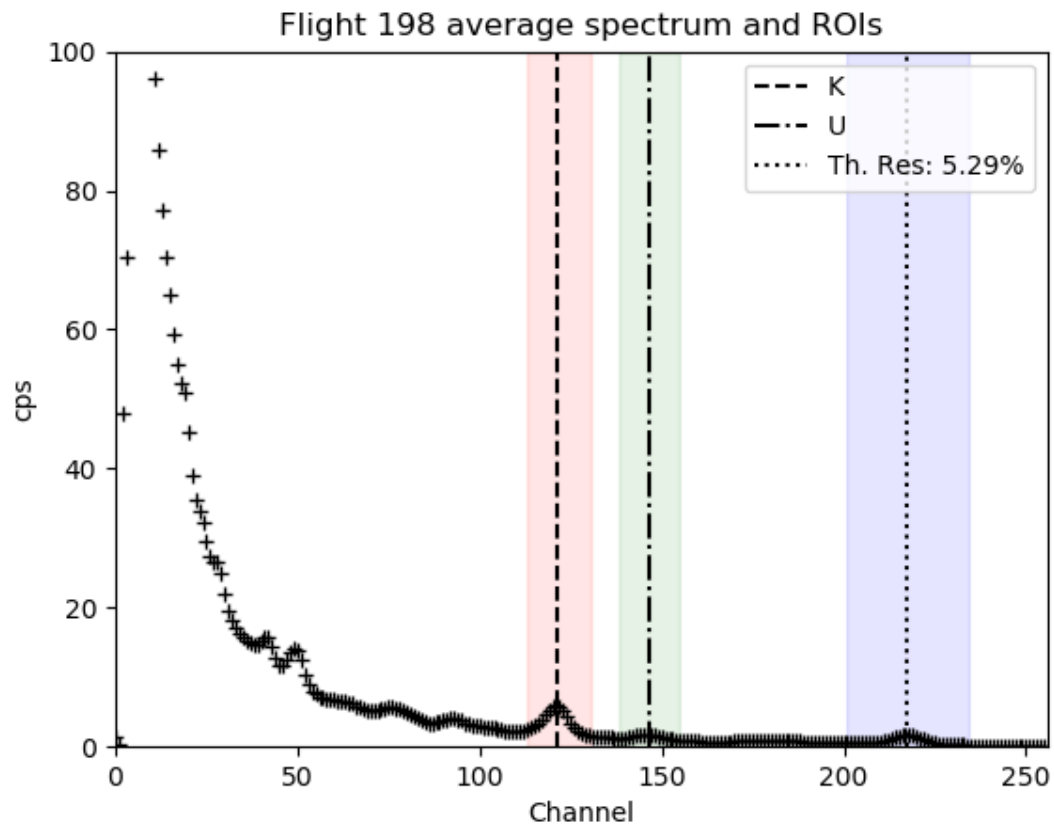


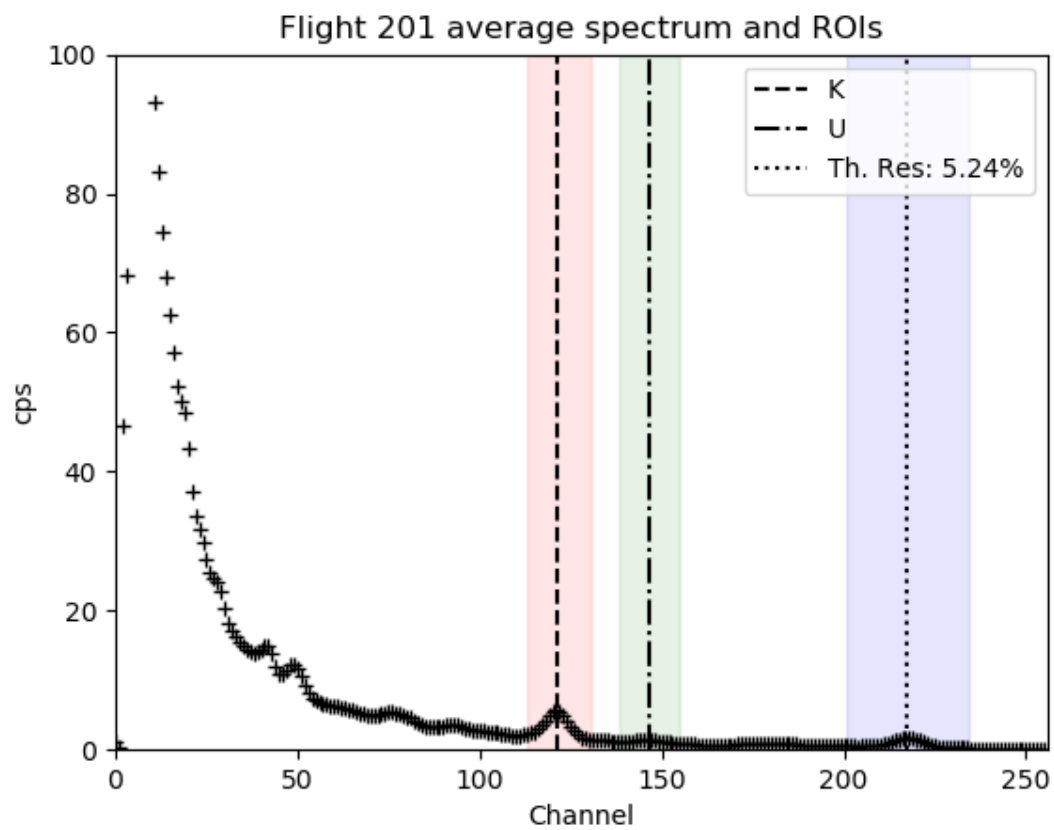
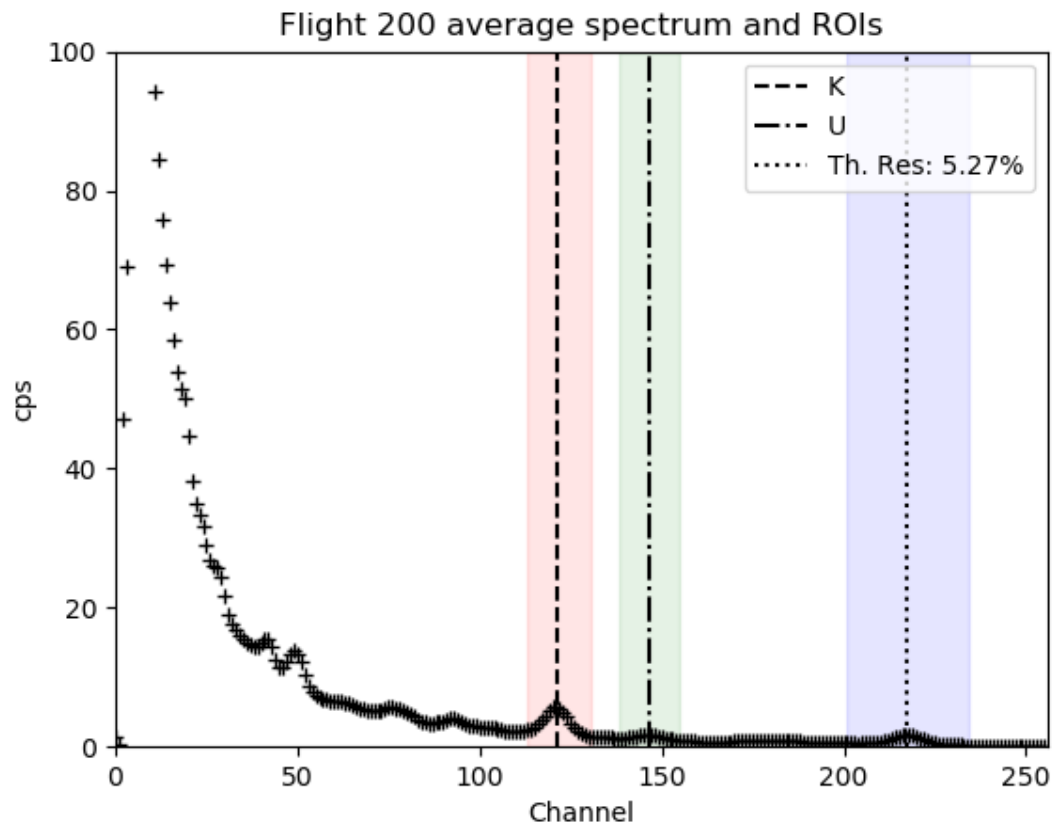


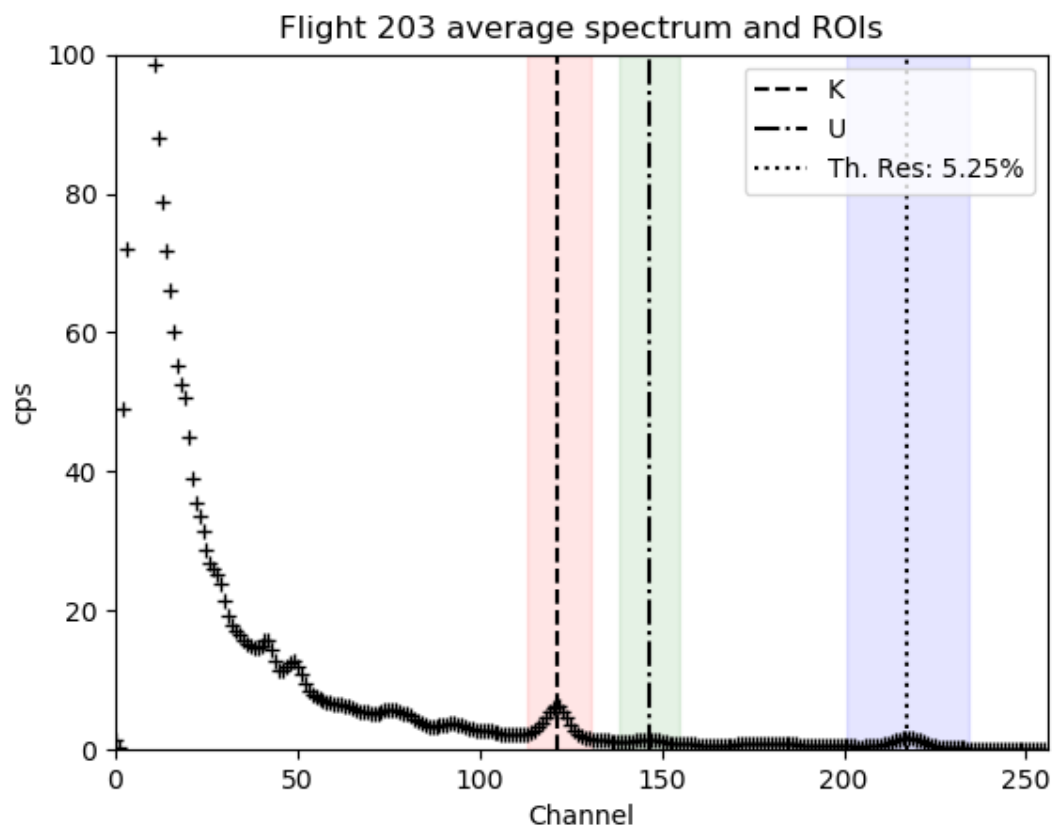
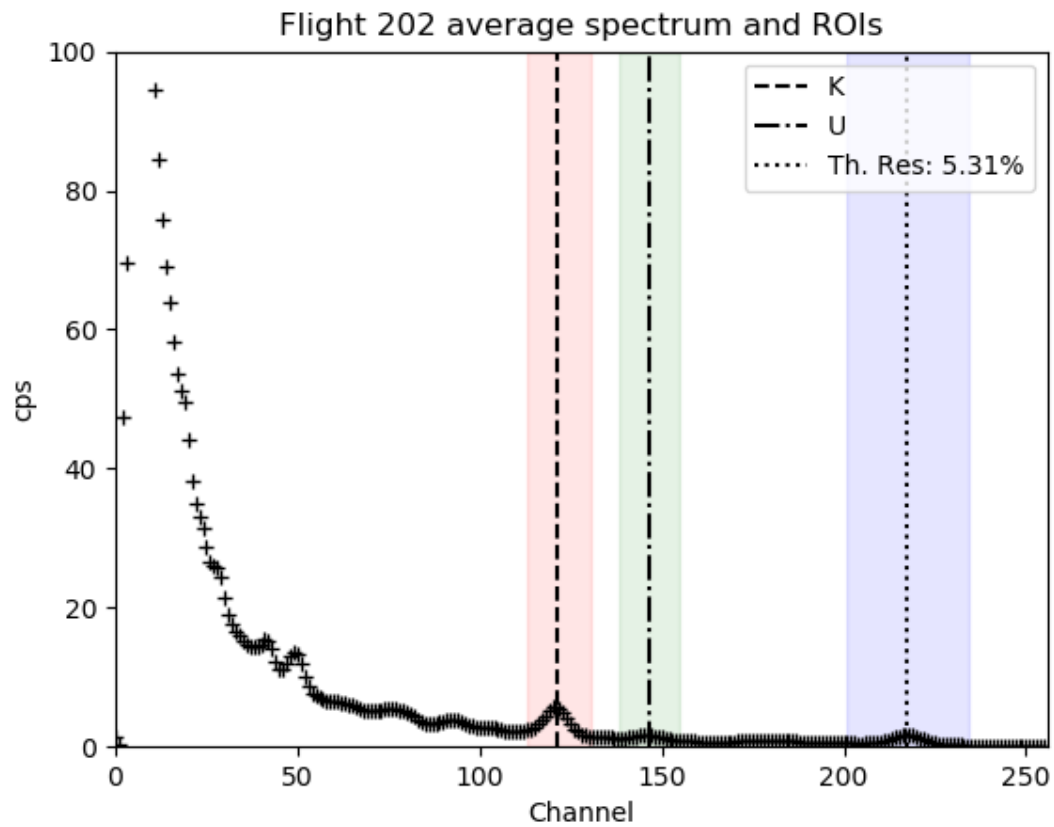


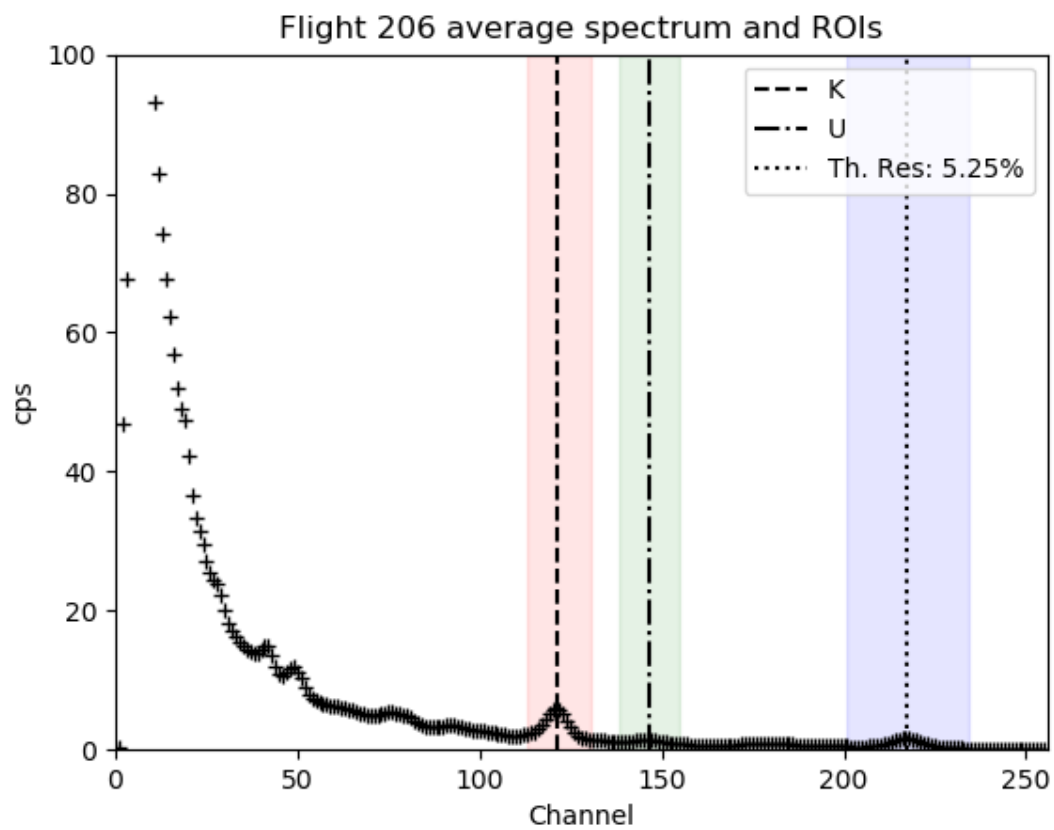
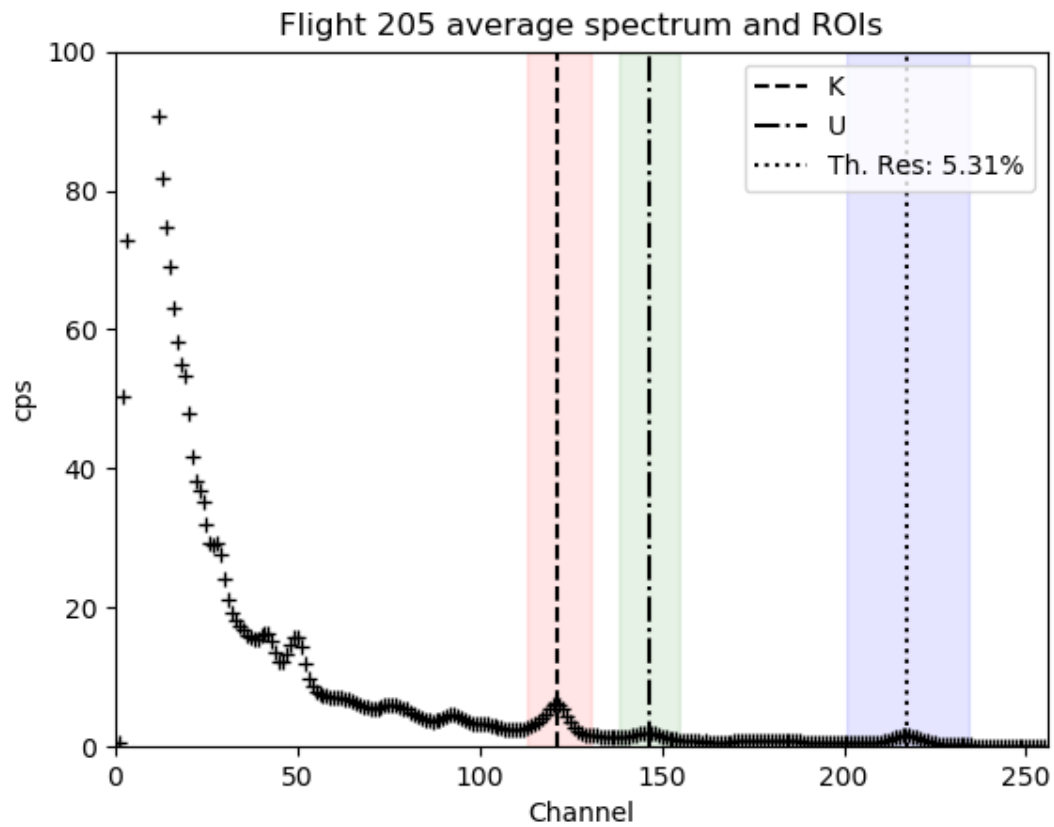


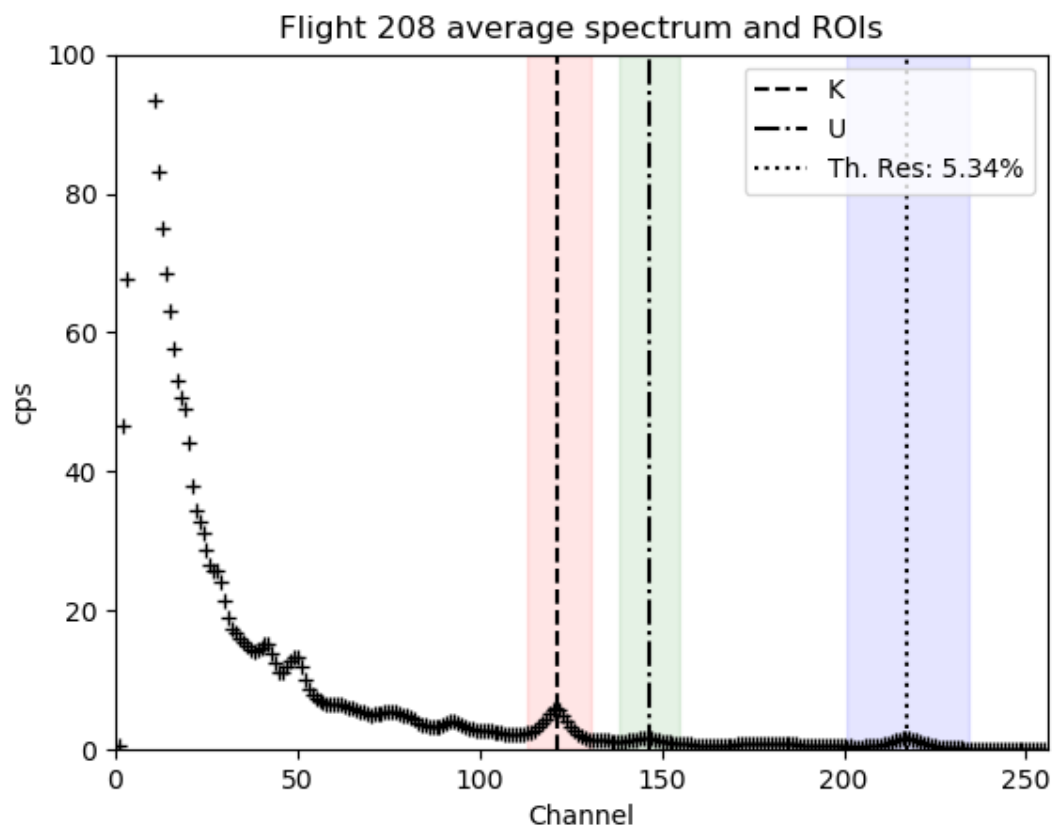
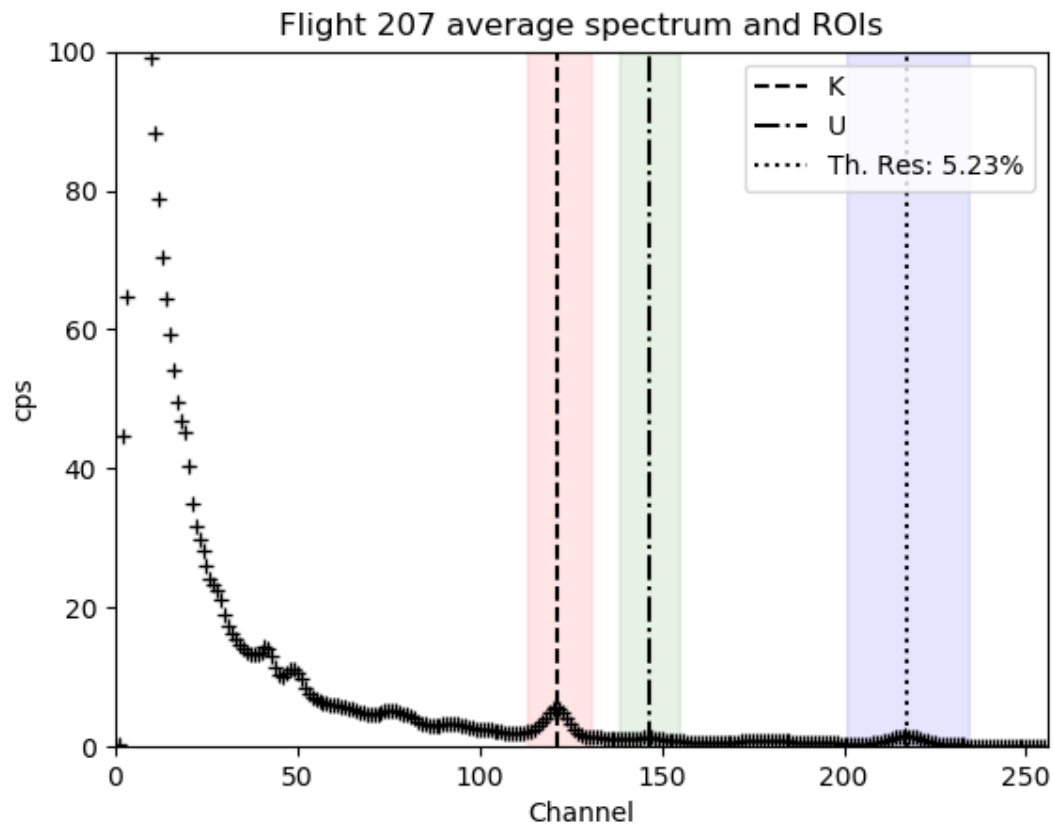


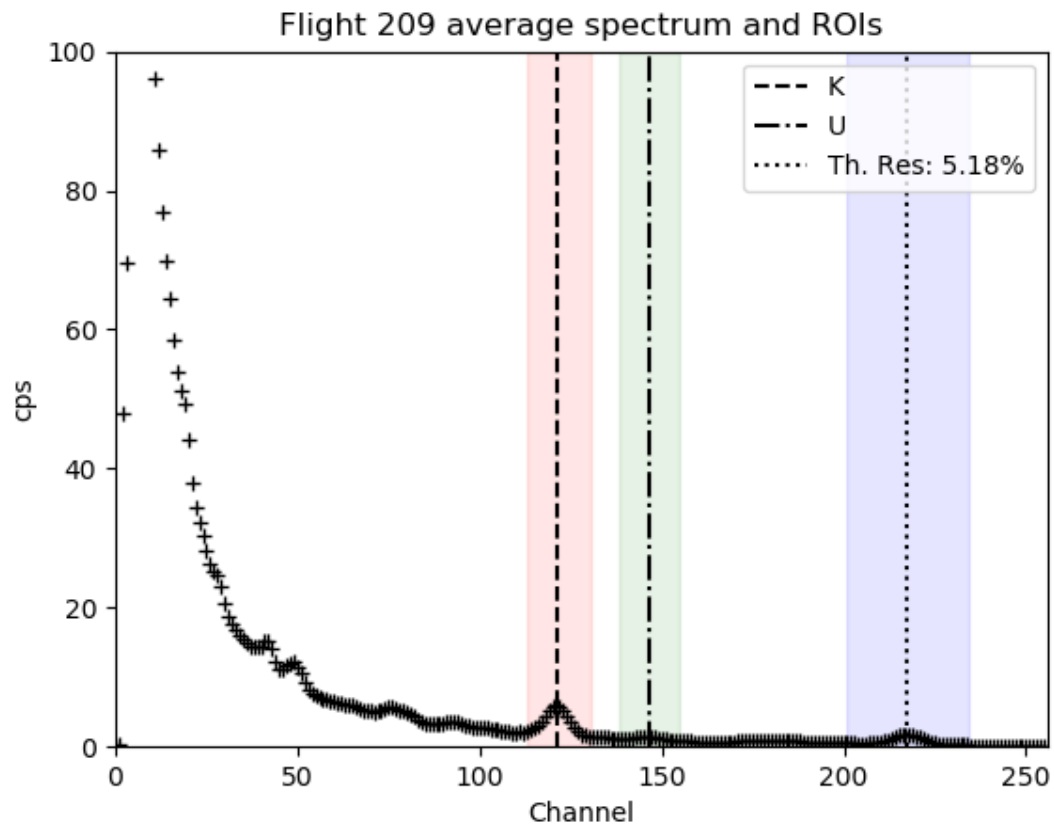


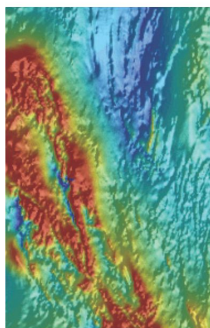
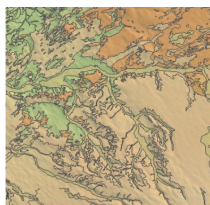












Department of State Development

Metadata: PACE Copper Gawler Craton
Airborne Survey, Region 1B, P1298,
Tallaringa South, 2018SA010

Date Printed: 17/10/2019



Government of South Australia
Department for Energy and Mining

Dataset

Title: PACE Copper Gawler Craton Airborne Survey, Region 1B, P1298, Tallaringa South, 2018SA010

Custodian: Department for Energy and Mining

Jurisdiction: SA

Description

Abstract:

The Gawler Craton Airborne Survey The survey will capture approximately 1,800,000 line kilometres of new geophysical data (magnetic, radiometric and digital elevation data) over an area of approximately 324,000 square kilometres. Magnetic data includes TMI, TMI reduced to pole and 1VD of RTP TMI; elevation data includes models derived from radar altimeter and laser altimeter subtracted from differential GPS heights; spectrometer data includes dose rate, uranium, thorium, potassium and ternary (RGB) radiometrics.

ANZLIC Search Terms:

GEOSCIENCES Geophysics BOUNDARIES Surveys

GEN Category: GAWLER PROVINCE

GEN Custodial Jurisdiction: South Australia

GEN Name: Barton Map Sheet, Tallaringa Map Sheet, Maurice Map Sheet, Ooldea Map Sheet, Gaw

Geographic Extent Polygon: -29.498, 133.511, -30.503, 130.989

North bounding latitude: -29.498

South bounding latitude: -30.503

East bounding longitude: 133.511

West bounding longitude: 130.989

Data Currency

Beginning Date: 01/02/2017

End Date: 18/10/2017

Dataset Status

Progress: Complete

Maintenance: As required

Version Number: 1

Access

Stored format: DIGITAL data are stored as located data (ascii), ERMapper grids, tif images.

Available format(s): DIGITAL

Access constraint(s): Data is released under Creative Commons CC-BY.

SARIG Layer(s): Gawler Craton Airborne Survey\Region 1B



Data Quality

Lineage: The data was originally collected by government, released as located data and processed into grid and image products.

Positional accuracy: Original data were located using GPS. GPS units are accurate to less than 10 metres.

Attribute accuracy: Not Known

Logical consistency: All data have been quality controlled by the Geological Survey of South Australia.

Completeness: This survey is complete

Contact Information

Contact organisation: Department for Energy and Mining

Contact position: Customer Service Centre

Contact mail address: GPO box 320 Adelaide SA 5001

Contact telephone: 08 8463 3000

Contact email: Resources.CustomerServices@sa.gov.au

Metadata Dates

Add date: 2019-10-17

Change date: 2019-10-17

Responsible Party

Responsible party: Director, Geological Survey of South Australia

Responsible party function: Custodian/Steward

Description

Dataset classification: Principal version

Spatial representation type: Matrix

Dimension: Other

Usage

Purpose: This set of data is designed as an aid to geological exploration.

Use: Used to supply industry, government and the general public with geophysical information, primarily used for mineral exploration.

Usage limitations: Grid data has been gridded at one fifth of line spacing and interpretations should not be made at scales less than this.

Dataset Associations

Dependant datasets: Airborne Magnetic Surveys of South Australia.

Origin

Dataset size: 16.7Gb

Projection: Geographical

Datum: GDA94

Dataset Management

Authorised by: Director, Geological Survey of South Australia

Attributes
