

KIC 011554141

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011554141-01	OBS	No	379.098690	364.368743	57.7	11.985	24.6	2.4	2.31	5445	1.89	3.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011554141-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

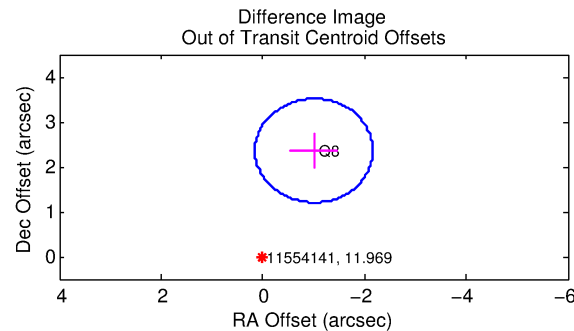
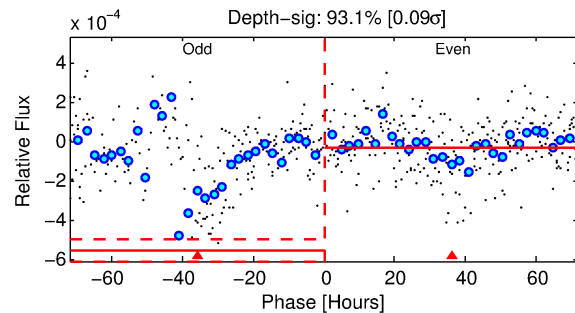
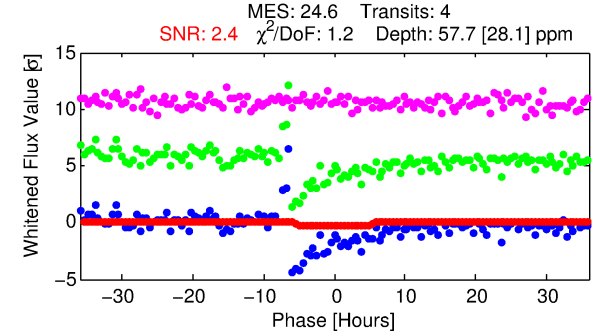
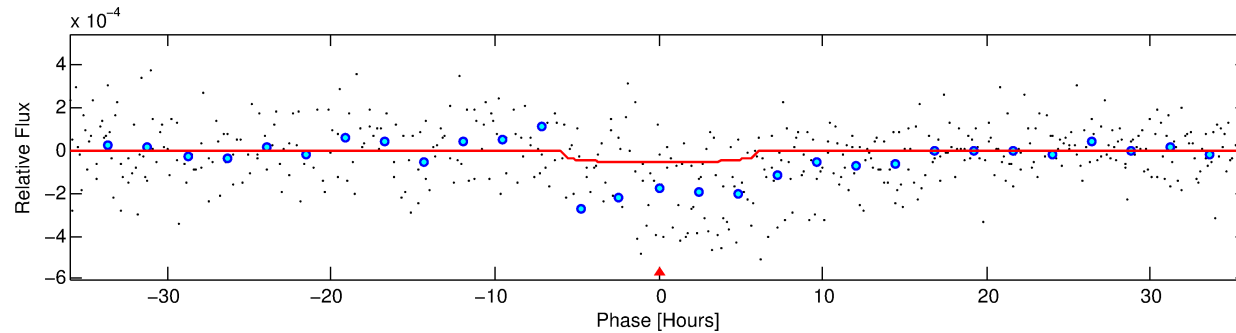
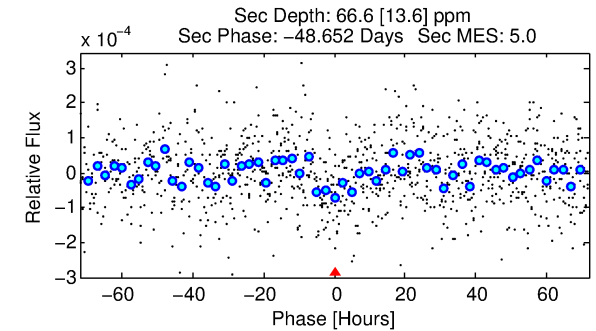
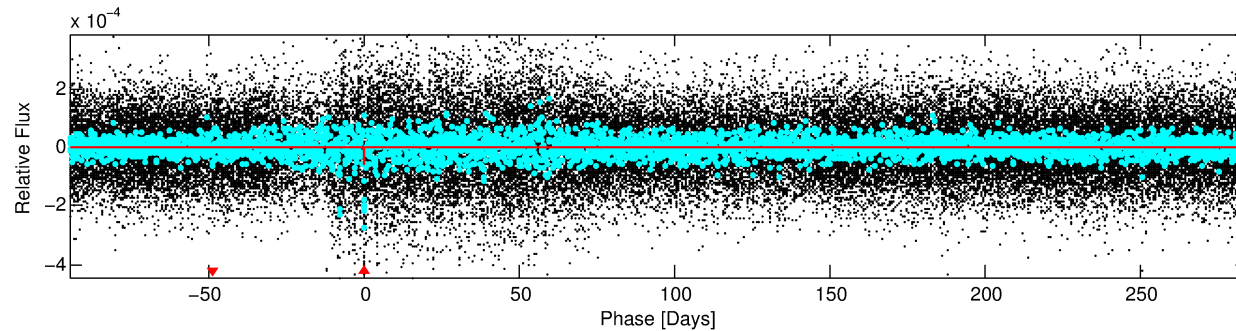
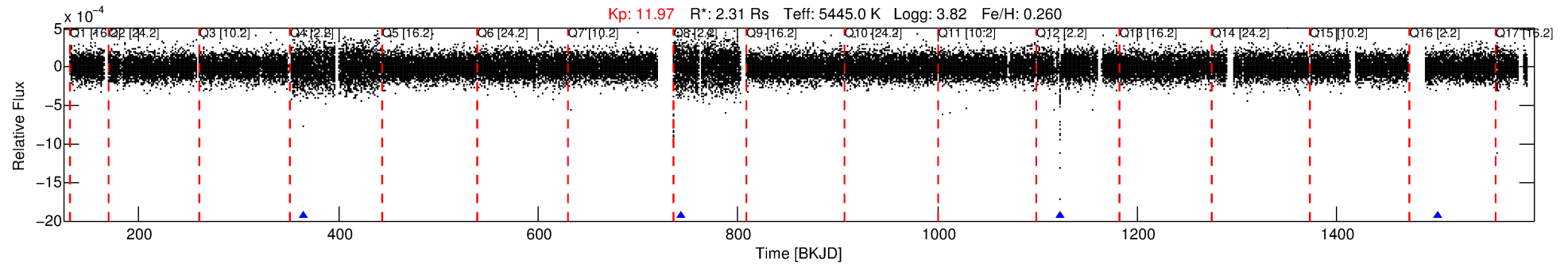
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011554141-01

No Significant Match Found

DV One-Page Summary

KIC: 11554141 Candidate: 1 of 1 Period: 379.099 d



DV Fit Results:

Period = 379.09869 [0.02758] d
Epoch = 364.3687 [0.0624] BKJD
Rp/R* = 0.0075 [0.0189]
a/R* = 168.77 [1699.23]
b = 0.73 [6.60]
Seff = 3.39 [1.89]
Teq = 346 [48] K
Rp = 1.89 [4.82] Re
a = 1.1154 [0.3859] AU
Ag = 12711.15 [64409.36] [0.20σ]
Teffp = 5680 [7156] K [0.75σ]

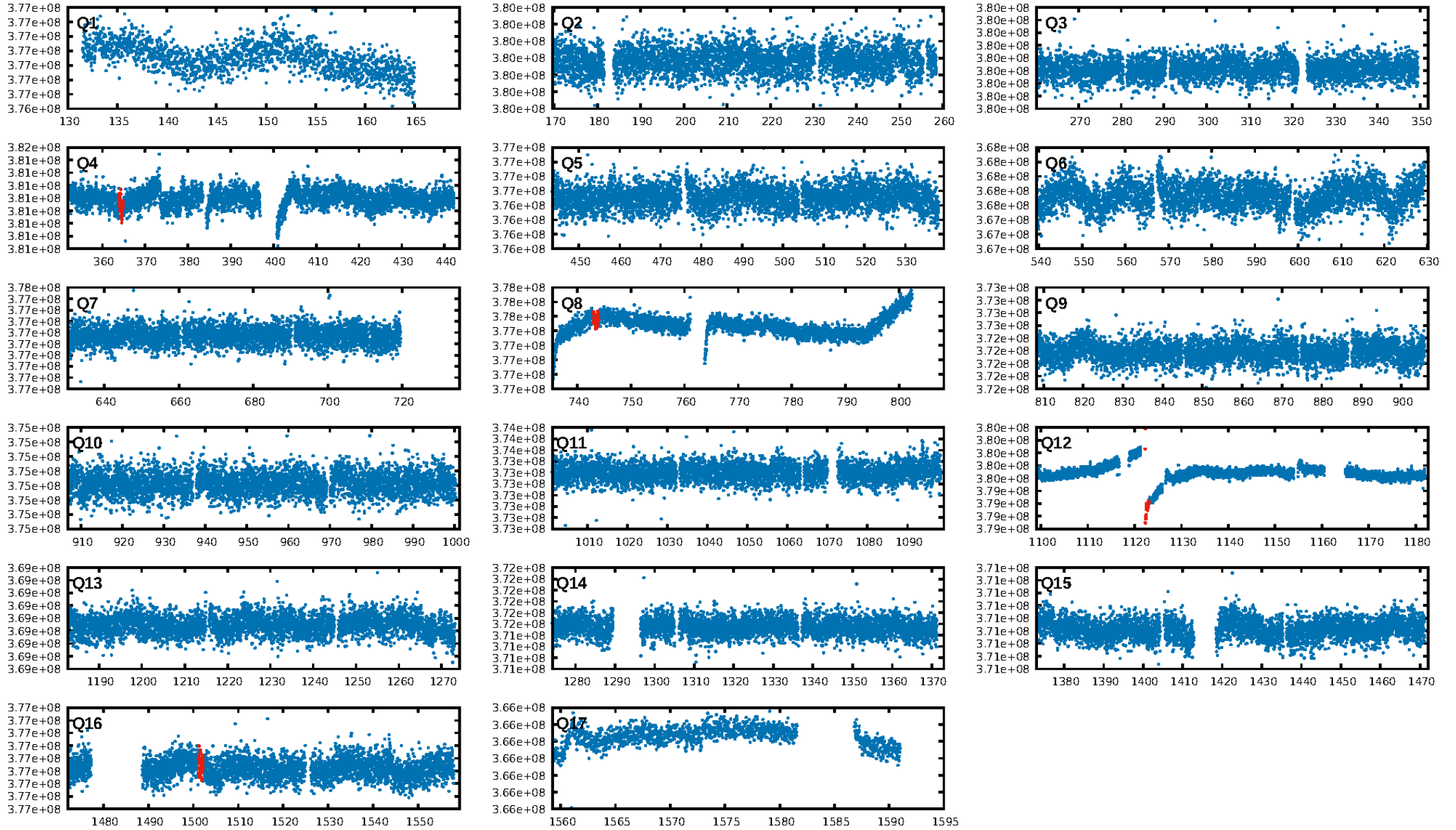
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 4.12e-116
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.2778
Centroid-sig: 40.0%
Centroid-so: 1.664 arcsec [0.78σ]
OotOffset-rm: 2.562 arcsec [6.65σ]
KicOffset-rm: 2.523 arcsec [6.58σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

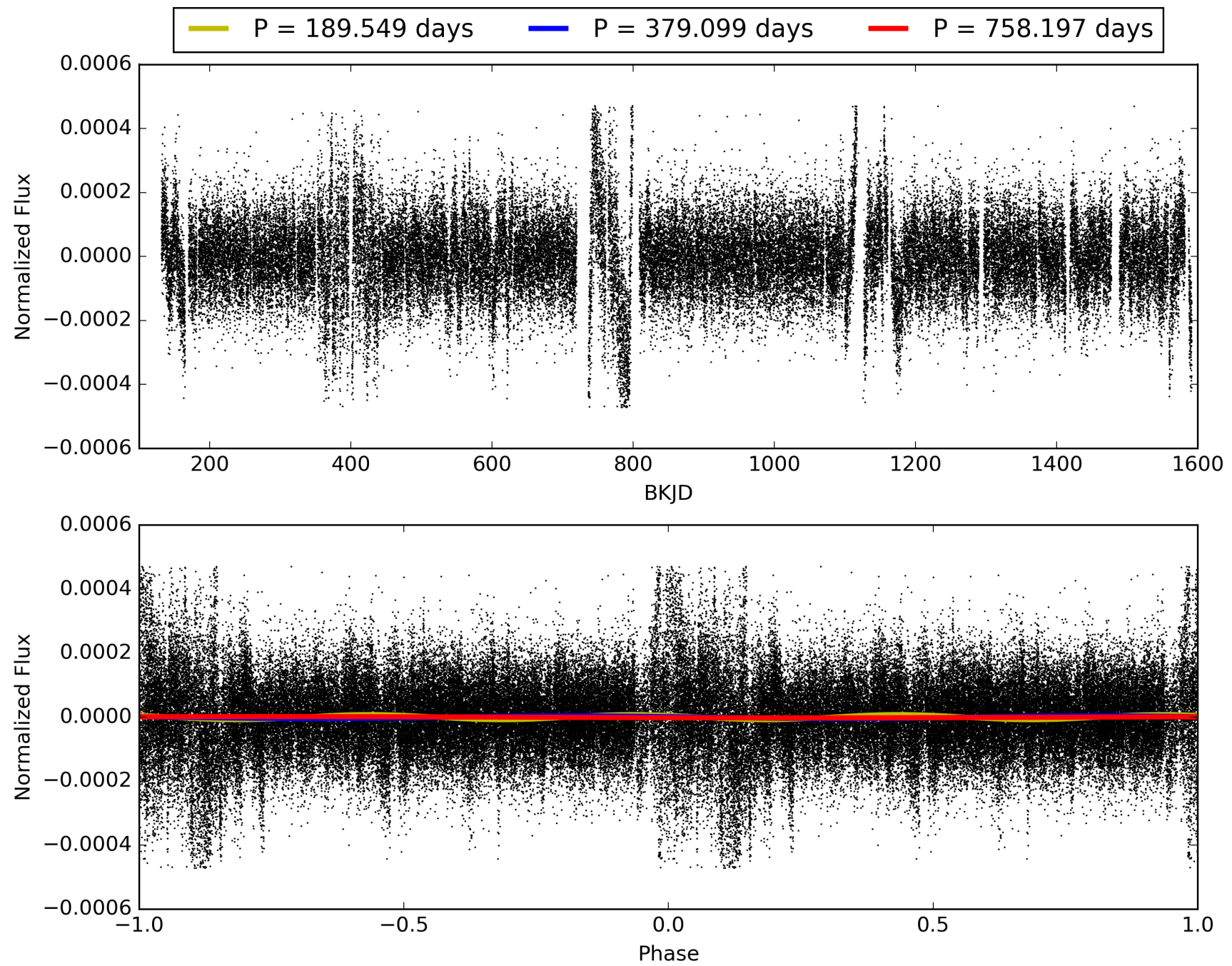
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:48:39 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011554141-01, PDC Light Curves

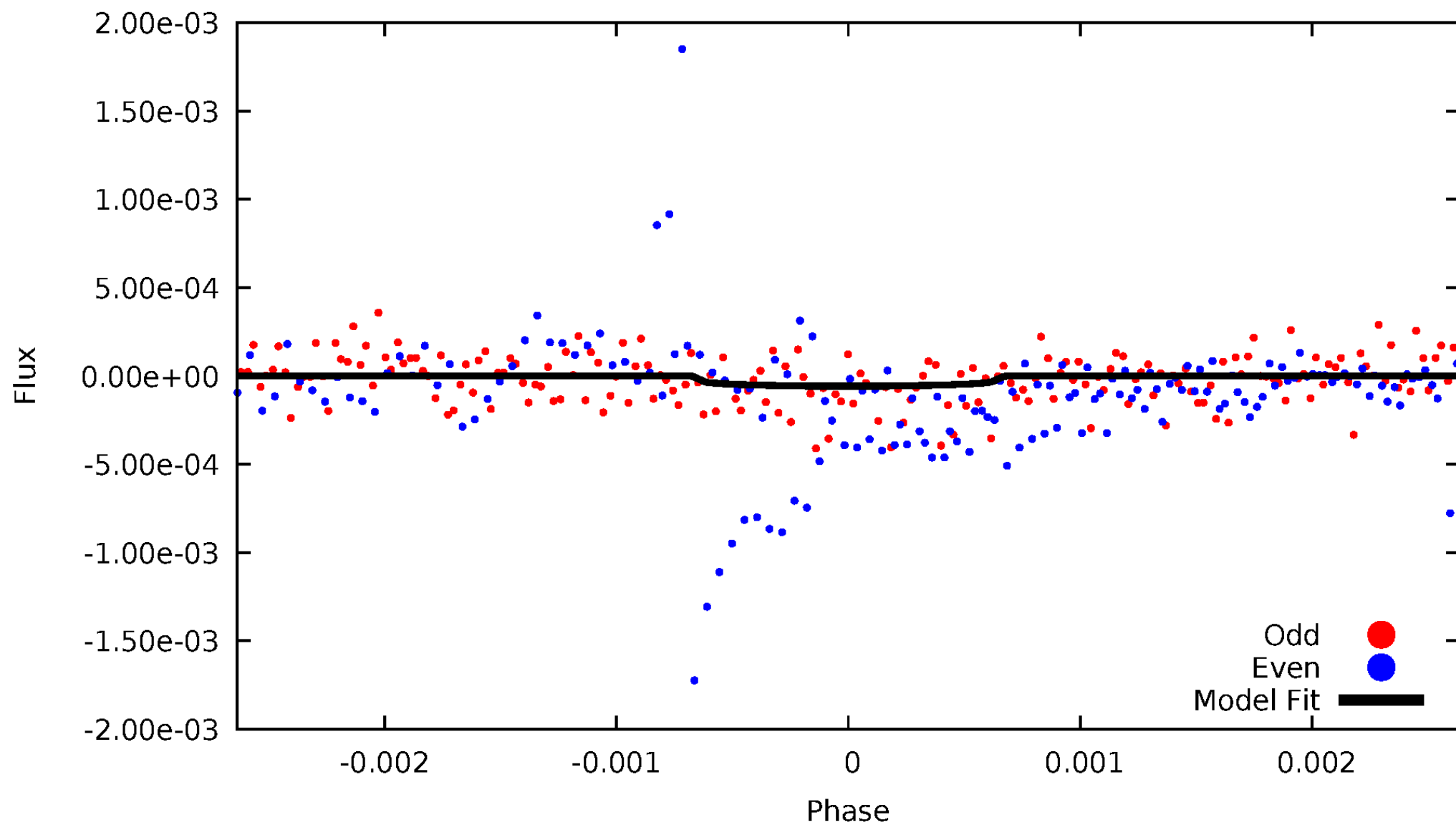


TCE 011554141-01



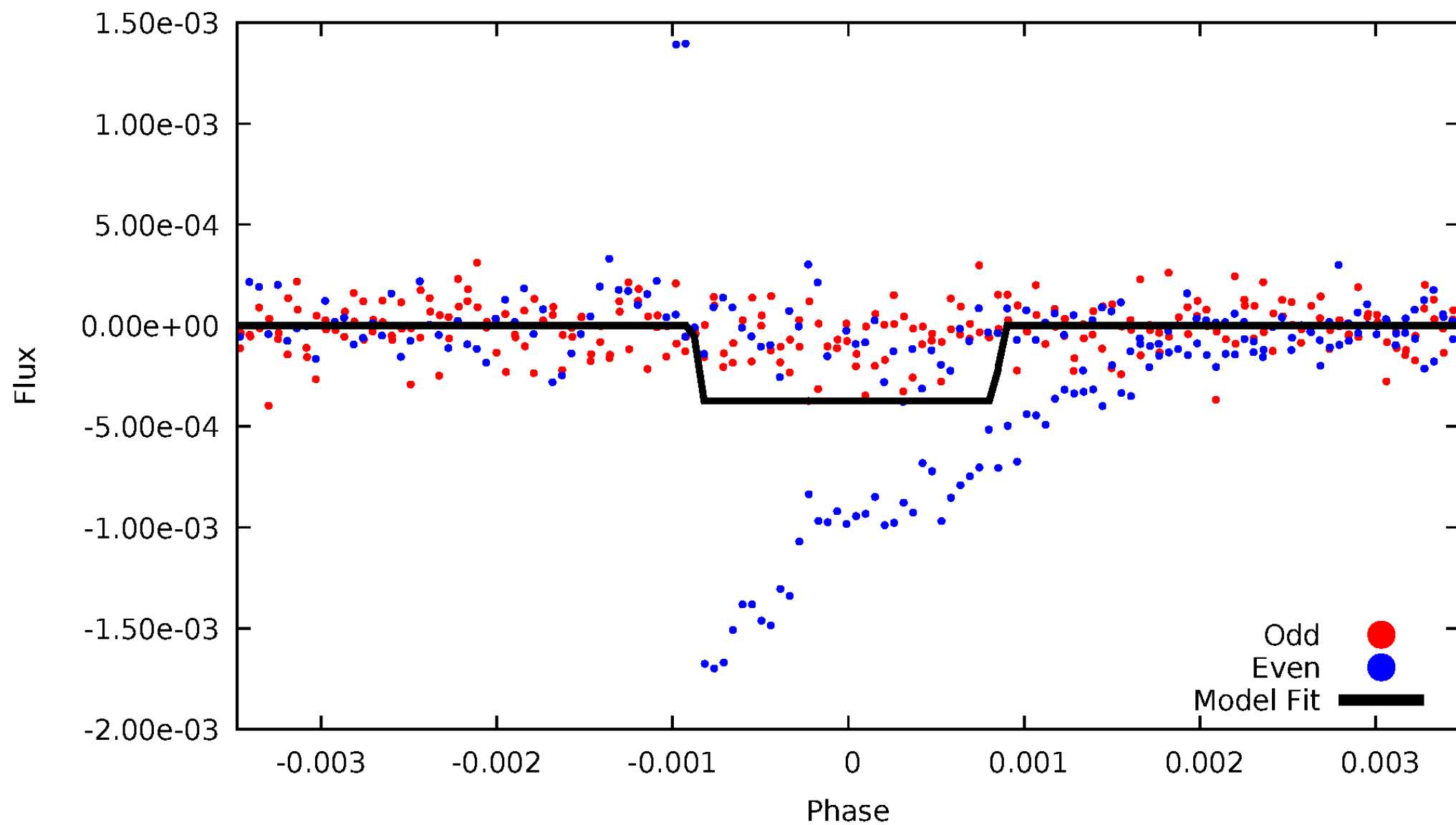
DV Odd/Even

TCE 011554141-01

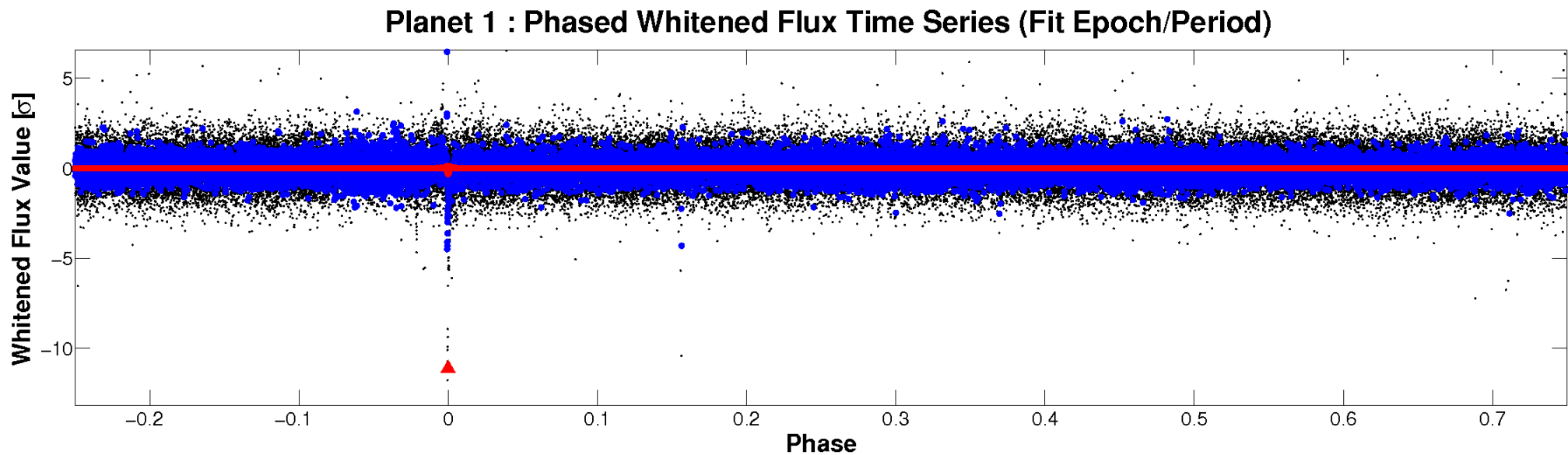
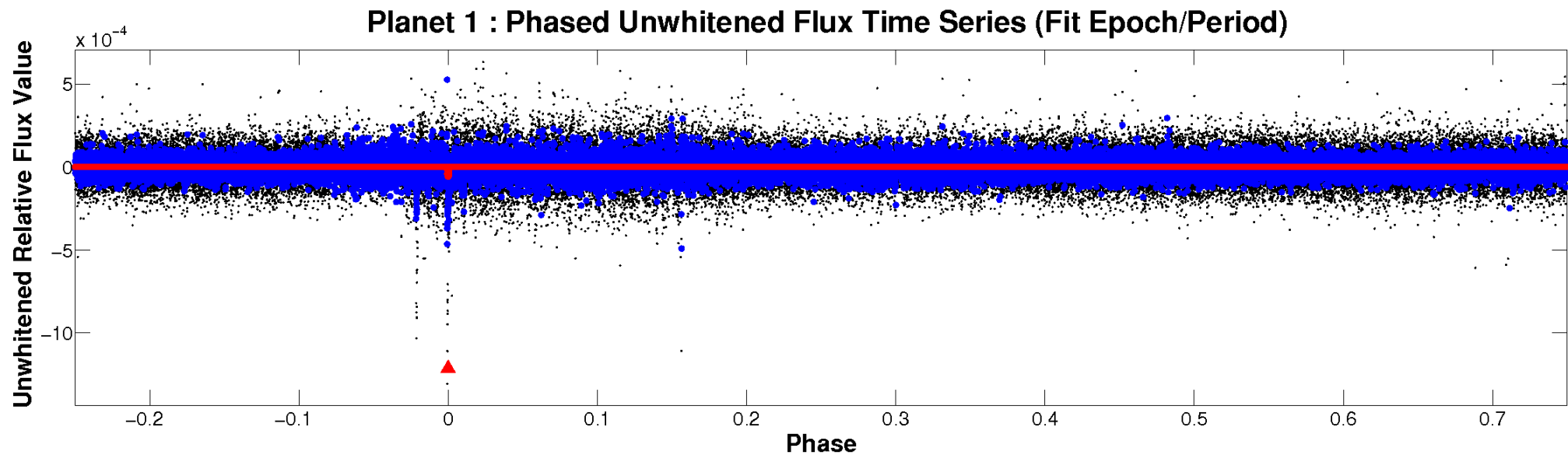


ALT Odd/Even

TCE 011554141-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 011554141-01 P=379.098689 Days $T_0=364.368743$ (BKJD)



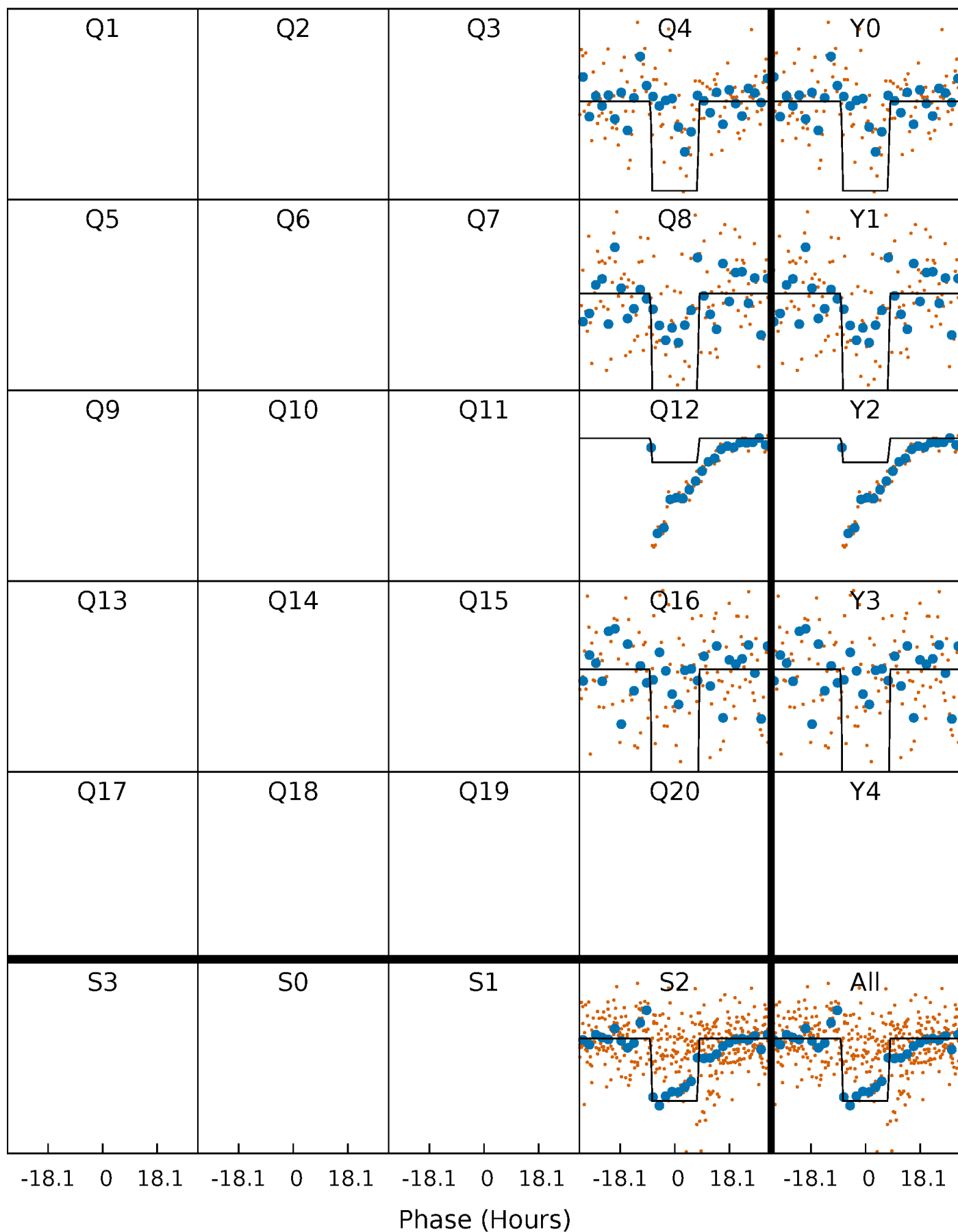
DV Quarter-Phased Transit Curves

TCE 011554141-01 P=379.098689 Days $T_0=364.368743$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

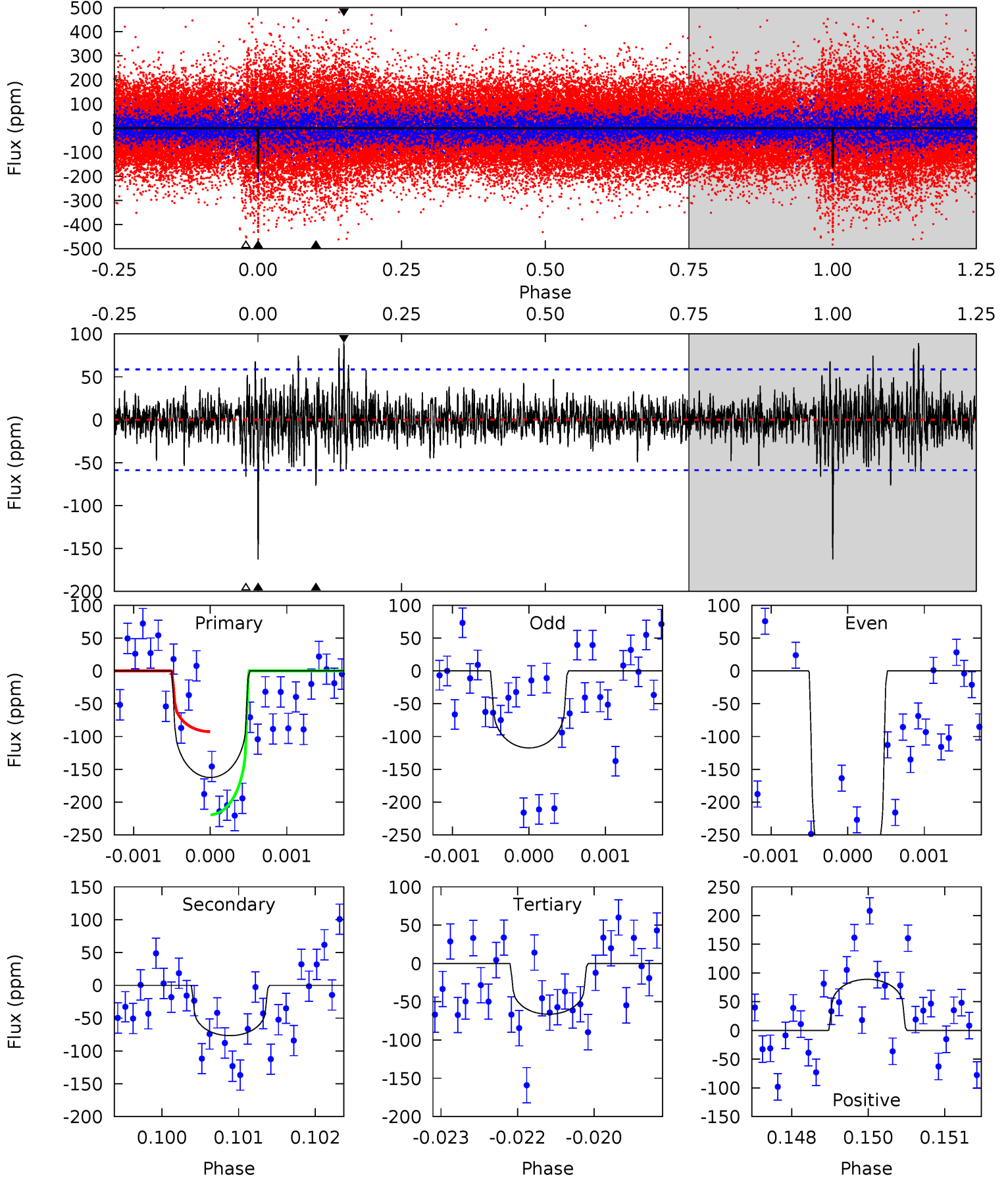
TCE 011554141-01 P=379.124272 Days $T_0=364.376105$ (BKJD)



DV Model-Shift Uniqueness Test

011554141-01, P = 379.098689 Days, E = 364.368743 Days

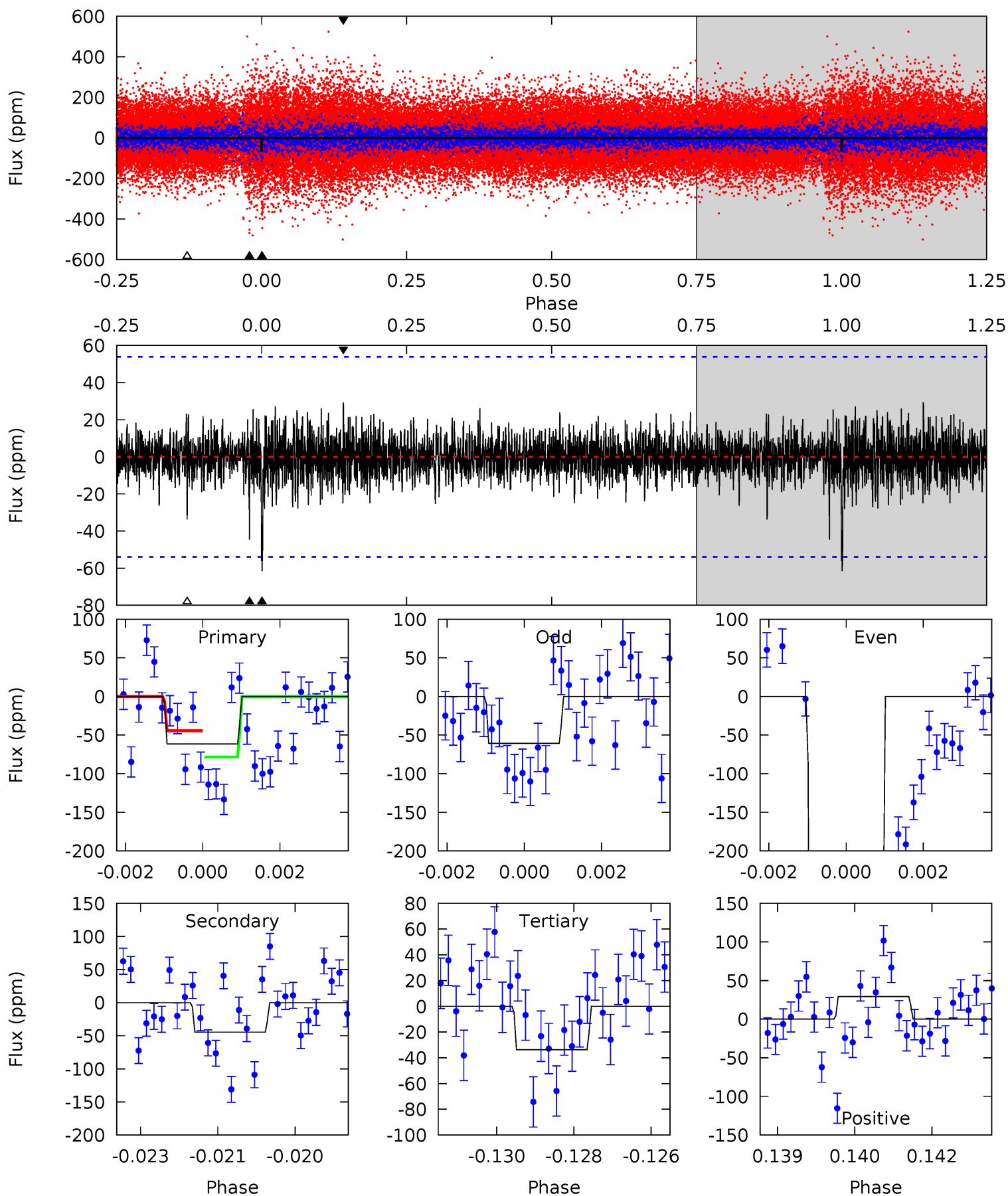
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	7.04	6.09	8.18	5.40	3.21	1.50	8.83	6.75	0.95	-1.13	11.8	1.56	0.35	5.80



Alt Model-Shift Uniqueness Test

011554141-01, P = 379.124272 Days, E = 364.376105 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.11	4.42	3.35	2.92	5.35	3.13	0.78	2.75	3.19	1.06	1.50	28.8	3.69	0.32	1.69



Stellar Parameters For KIC 011554141

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5445^{+180}_{-147}	$3.819^{+0.315}_{-0.105}$	$0.260^{+0.200}_{-0.250}$	$2.314^{+0.462}_{-0.859}$	$1.286^{+0.124}_{-0.309}$	$0.146^{+0.345}_{-0.049}$
	+3%/-3%	+8%/-3%	+77%/-96%	+20%/-37%	+10%/-24%	+236%/-33%
Source	PHO1	FLK73	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011554141-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-77 ± 11	$3.88^{+3.66}_{-2.73}$	474^{+32}_{-47}	4156^{+3111}_{-753}	3394^{+37481}_{-2452}
Alt.	-45 ± 10	$5.35^{+3.94}_{-3.38}$	474^{+29}_{-42}	3434^{+1410}_{-516}	1067^{+6247}_{-737}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

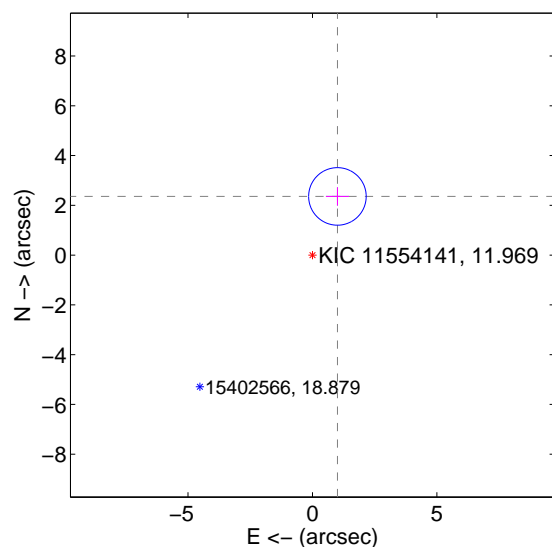
Supplemental centroid analysis for 011554141-01. **Kepler magnitude: 11.97.** Transit SNR 2.40

There are 1 quarters with good PRF difference image offsets

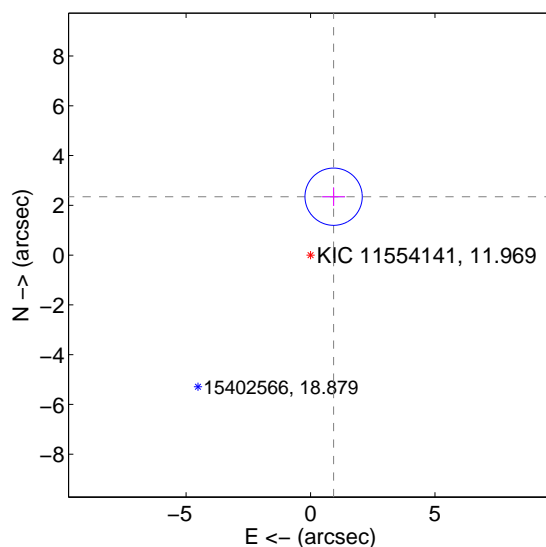
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.562 \pm 0.385	6.65	-1.003 \pm 0.461	2.357 \pm 0.370
PRF-fit source offset from KIC position	2.523 \pm 0.384	6.58	-0.927 \pm 0.461	2.346 \pm 0.370
photometric centroid source offset	1.66 \pm 2.15	0.78	1.21 \pm 1.87	1.15 \pm 2.41

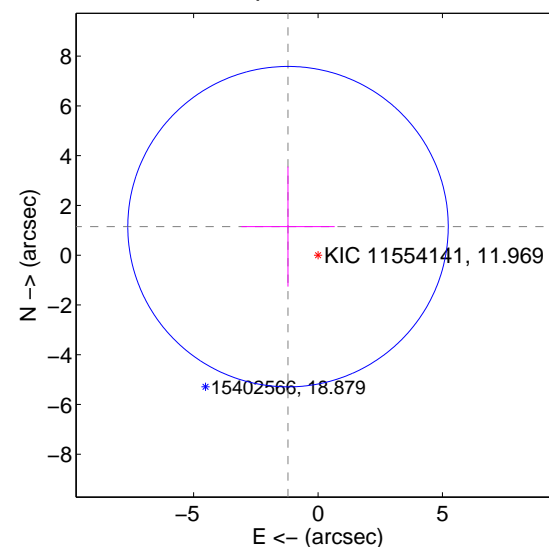
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

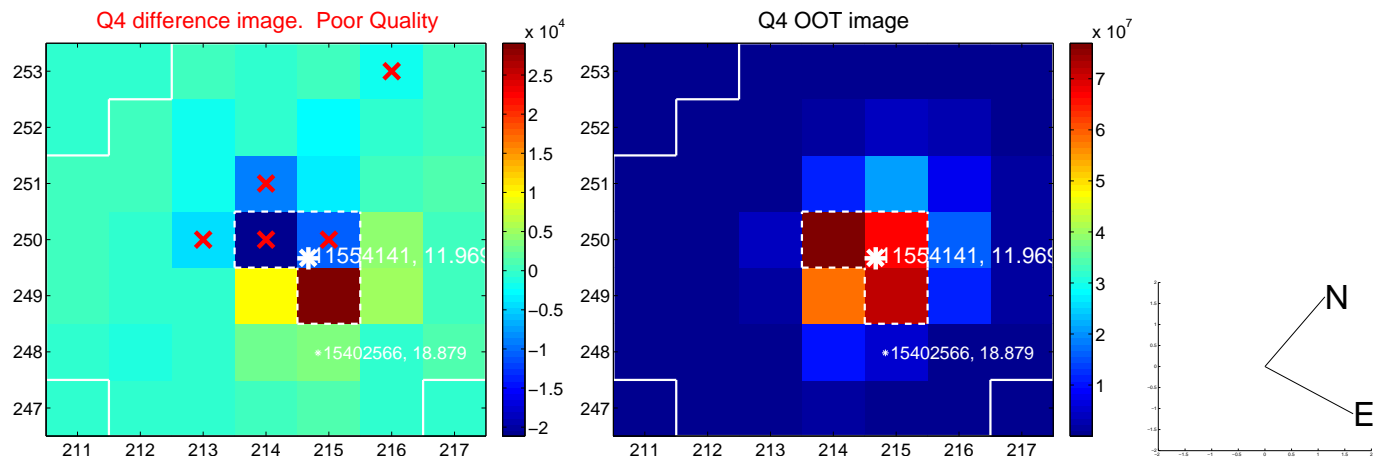
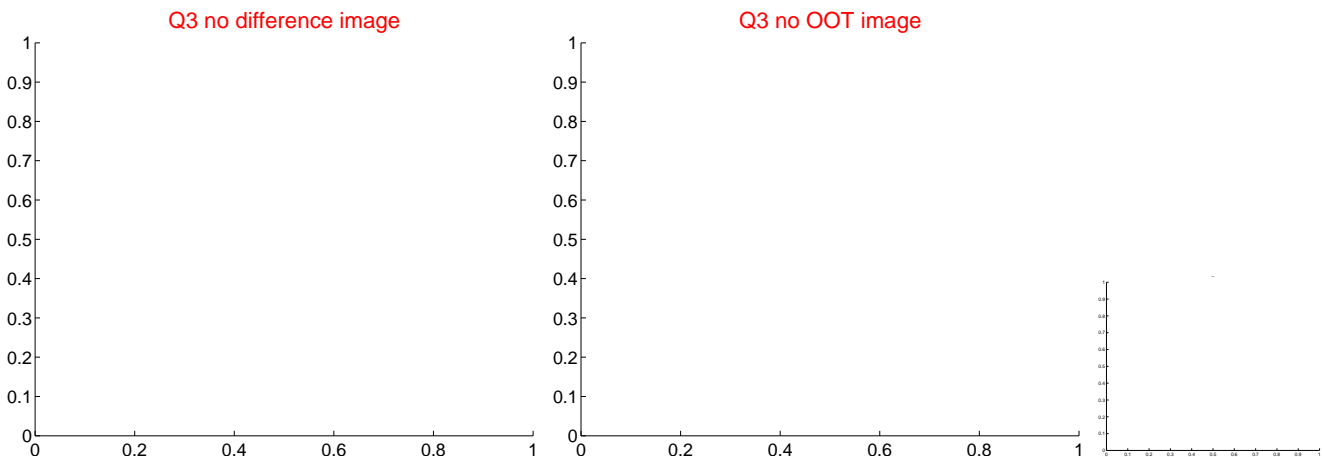
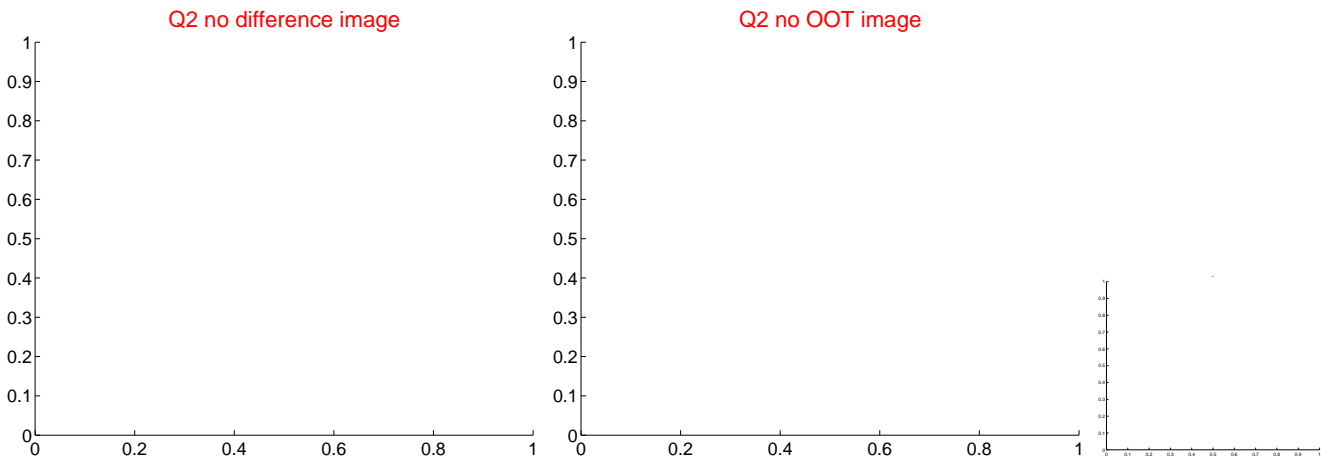
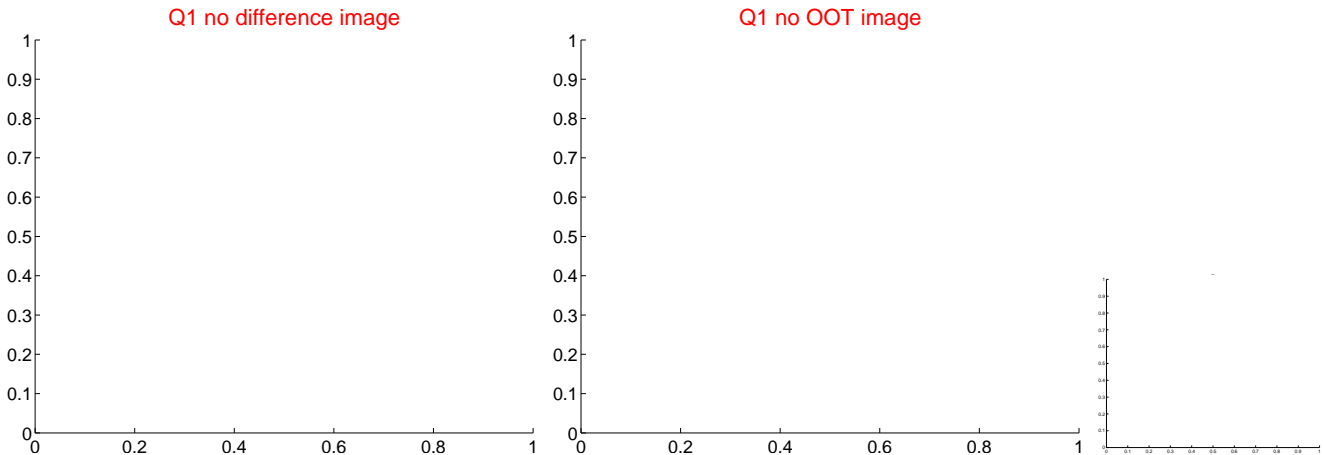


offset from photometric centroids

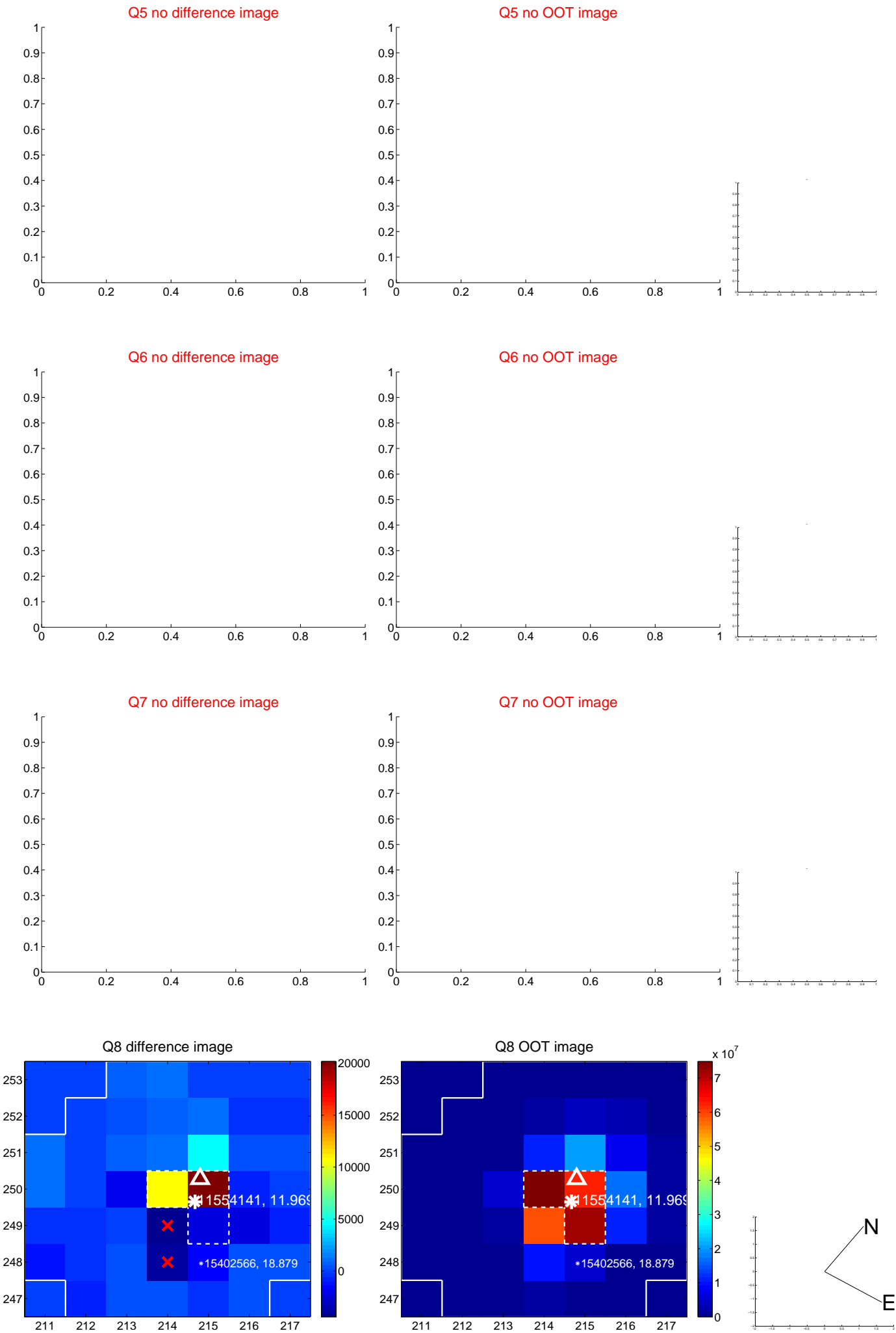


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

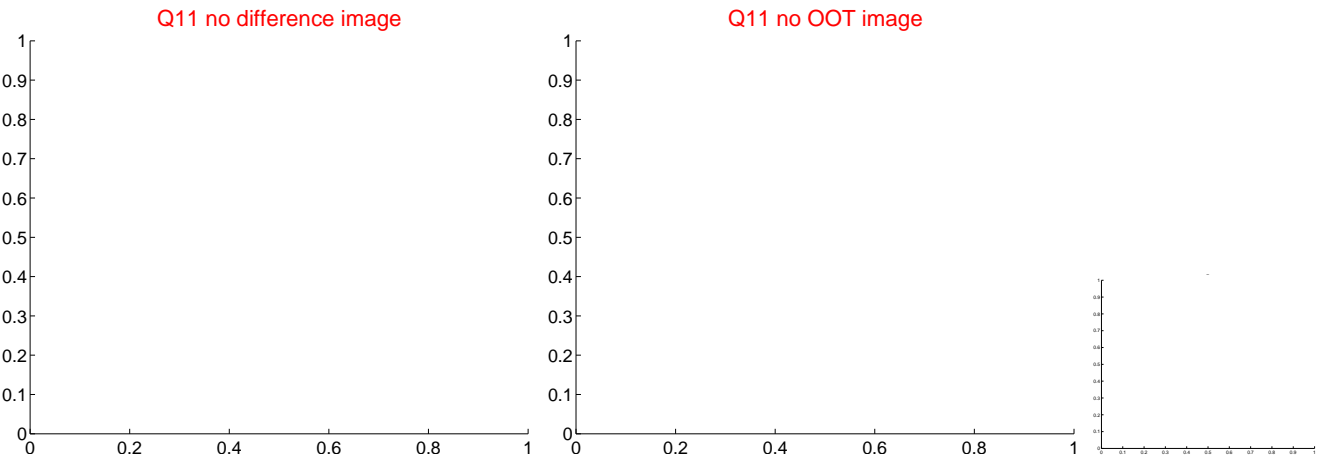
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



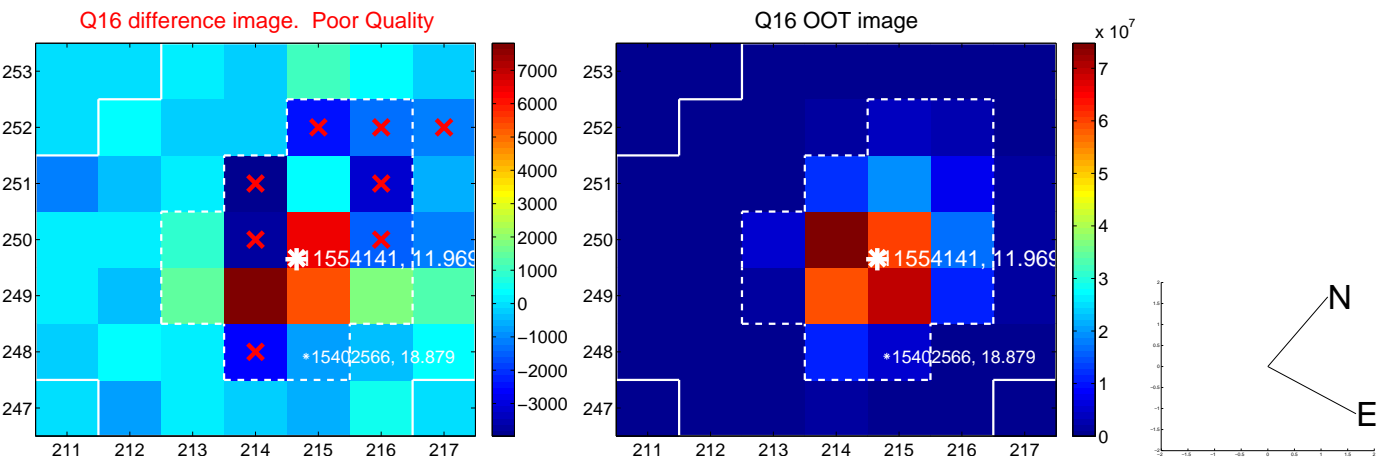
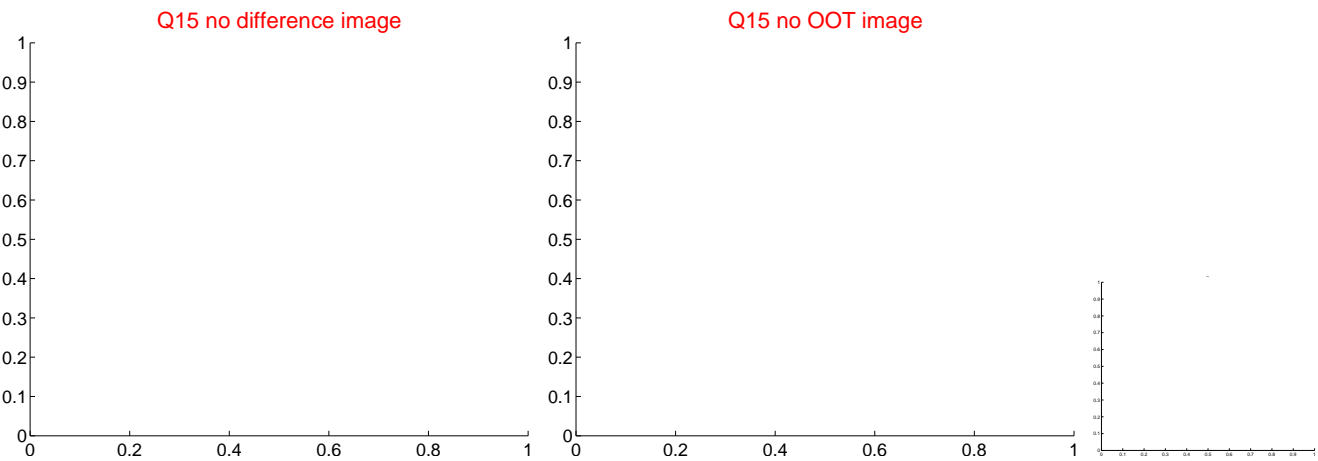
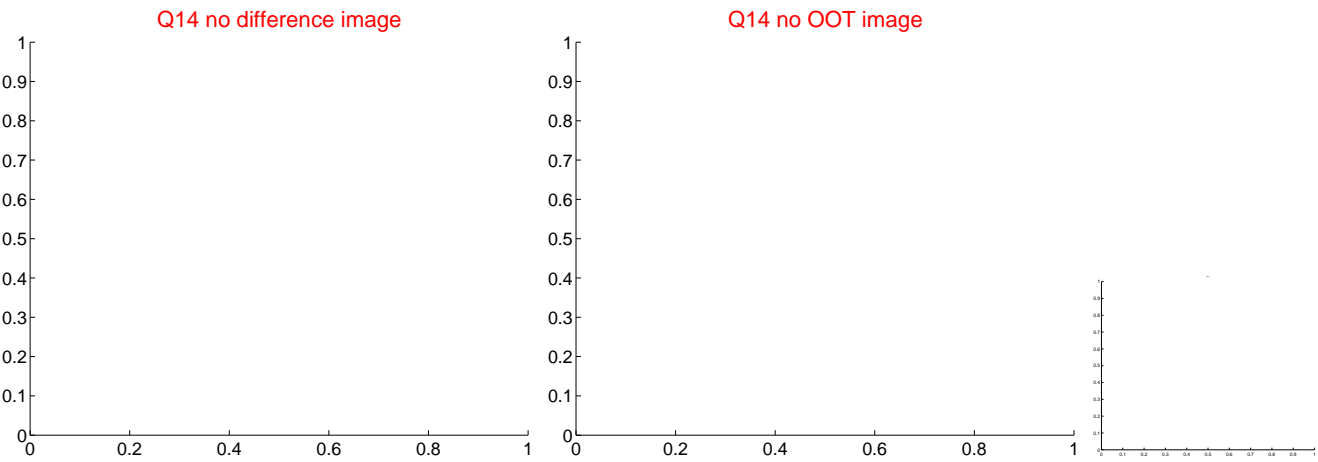
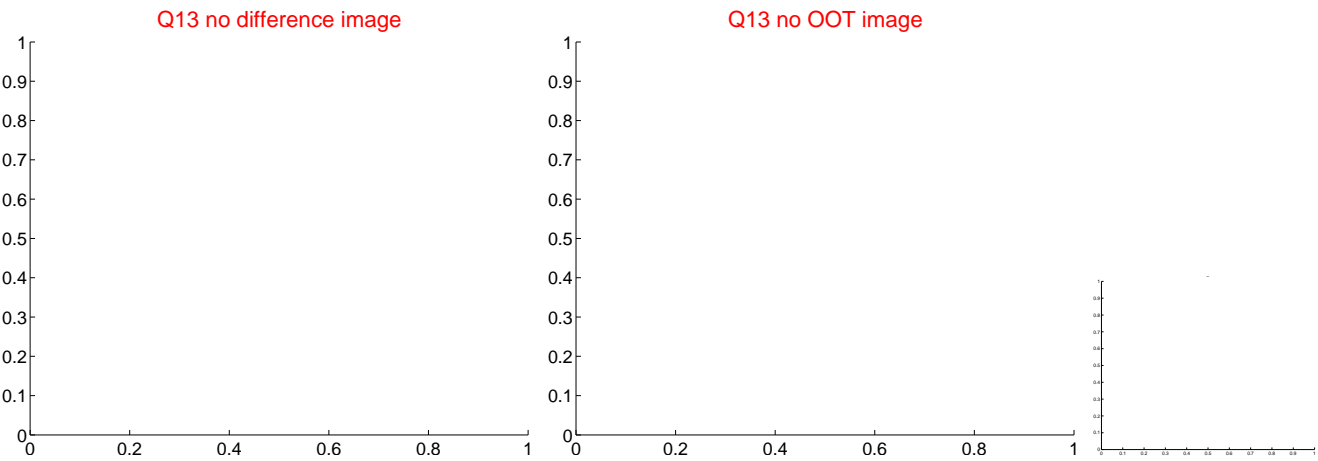
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



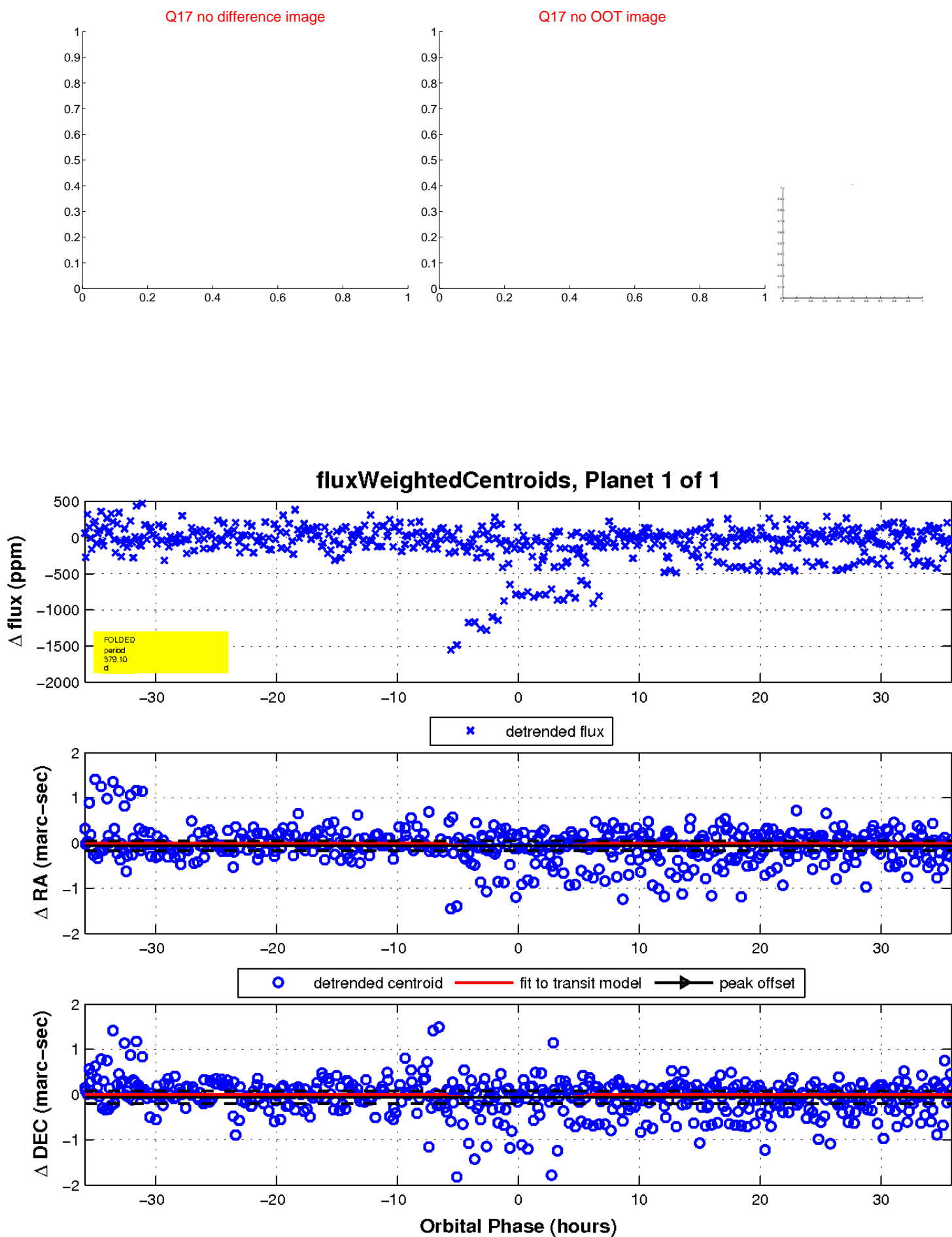
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UKIRT Image

Declination

