

KIC 007887124

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})
007887124-01	OBS	No	32.496230	149.001452	77.6	62.531	9.4	18.4	1.42	6620	1.73	82.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007887124-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

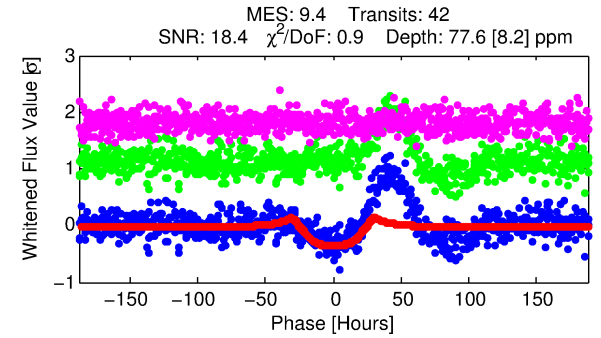
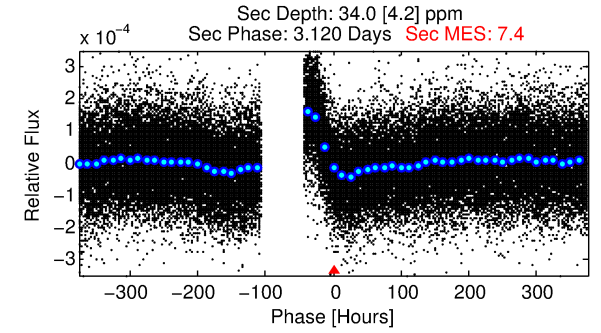
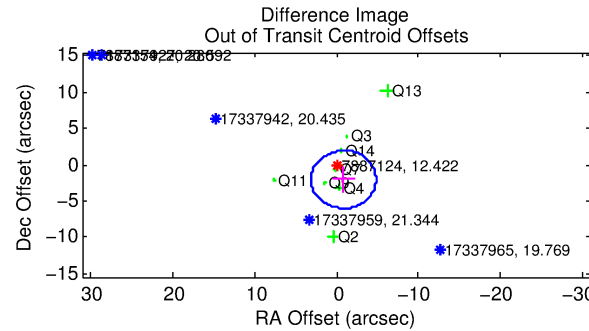
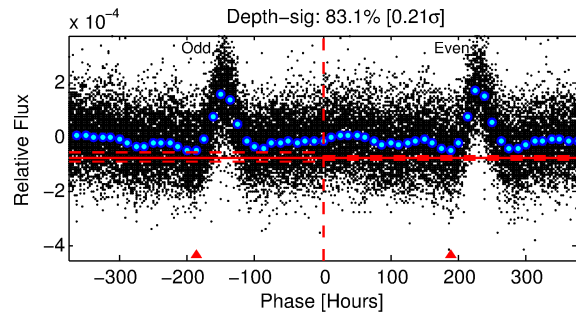
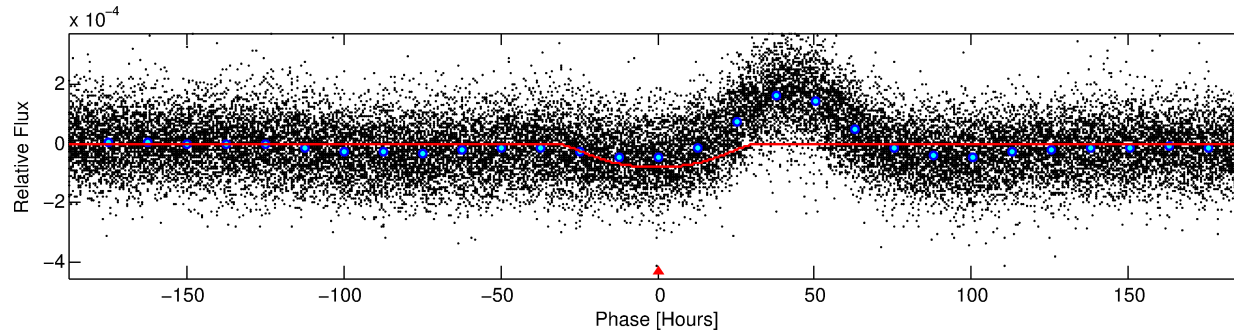
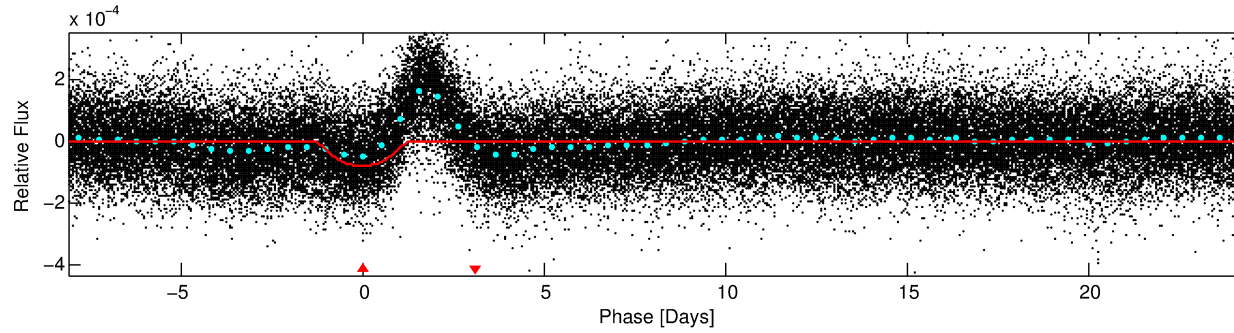
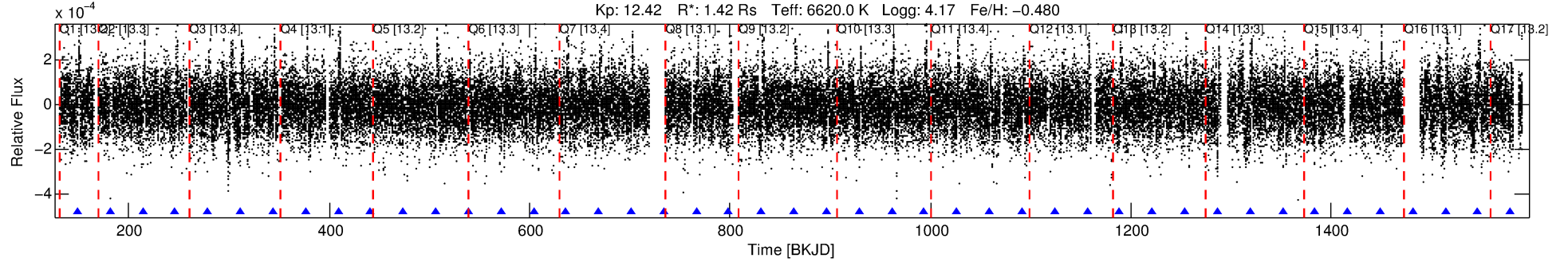
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007887124-01

No Significant Match Found

DV One-Page Summary

KIC: 7887124 Candidate: 1 of 1 Period: 32.496 d



DV Fit Results:

Period = 32.49623 [0.00251] d
Epoch = 149.0015 [0.0618] BKJD
Rp/R* = 0.0112 [0.0008]
a/R* = 1.30 [0.04]
b = 0.99 [0.00]
Seff = 82.77 [33.84]
Teq = 769 [79] K
Rp = 1.73 [0.47] Re
a = 0.2046 [0.0505] AU
Ag = 261.23 [113.71] [2.29 σ]
Teff = 4781 [270] K [14.28 σ]

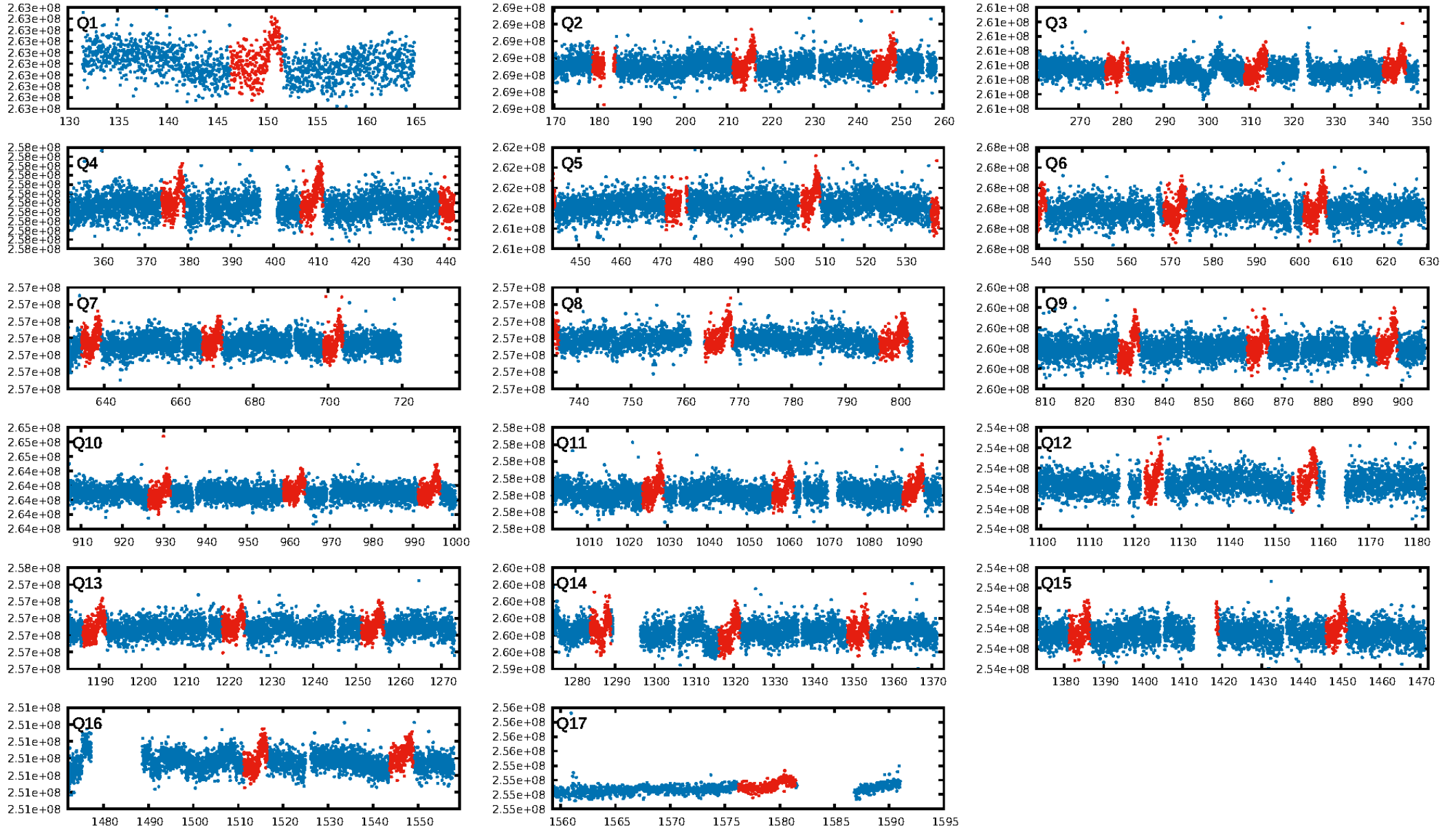
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.16e-21
RollingBand-fgt: 1.00 [40/40]
GhostDiagnostic-chr: -148.3
Centroid-sig: 73.1%
Centroid-so: 0.435 arcsec [0.76 σ]
OotOffset-rm: 2.207 arcsec [1.66 σ]
KicOffset-rm: 2.336 arcsec [1.59 σ]
OotOffset-st: 2/3/1/2 [8]
KicOffset-st: 2/3/1/2 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 1.00 [10/10]

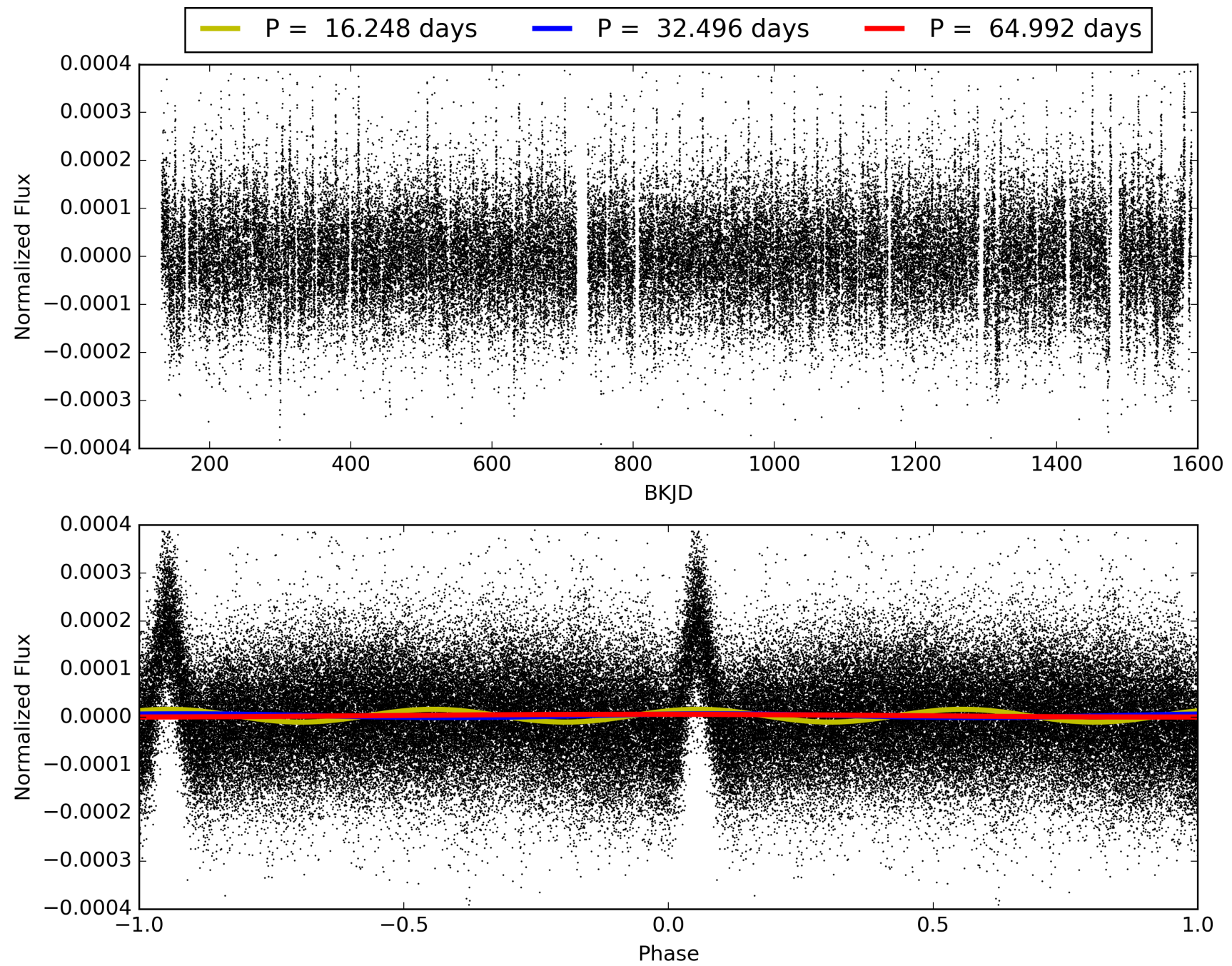
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:26:31 Z

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

TCE 007887124-01, PDC Light Curves

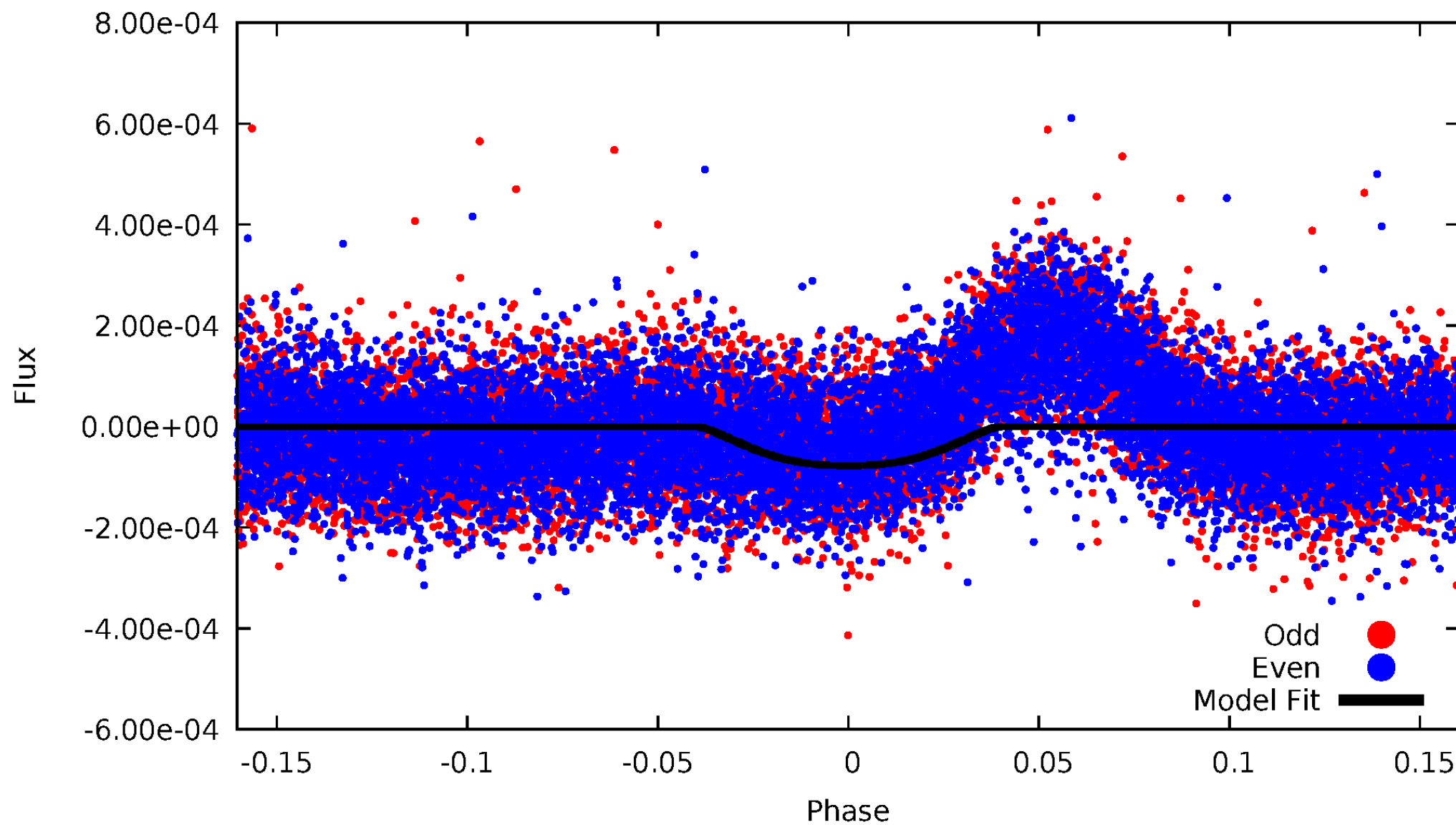


TCE 007887124-01



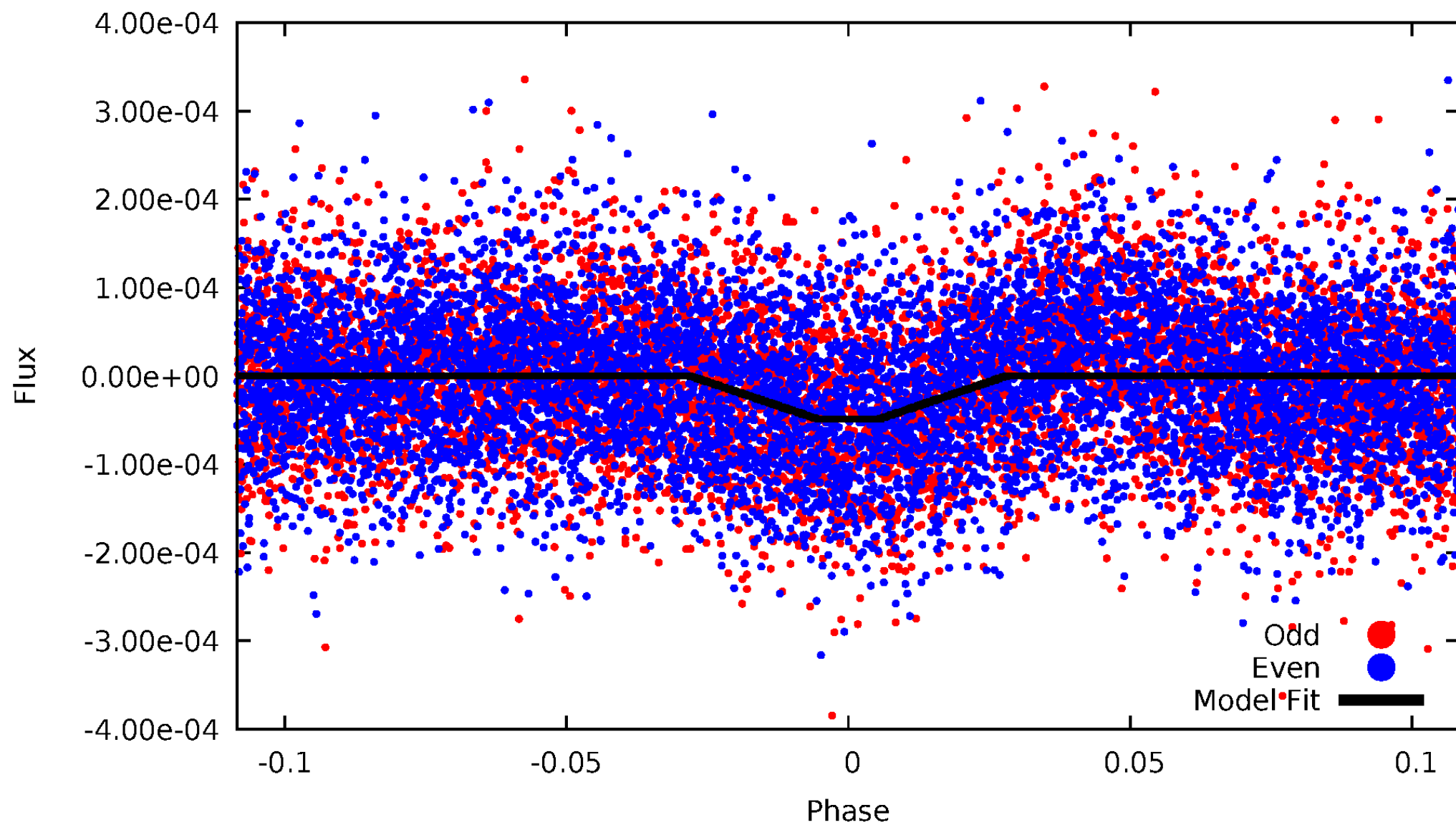
DV Odd/Even

TCE 007887124-01



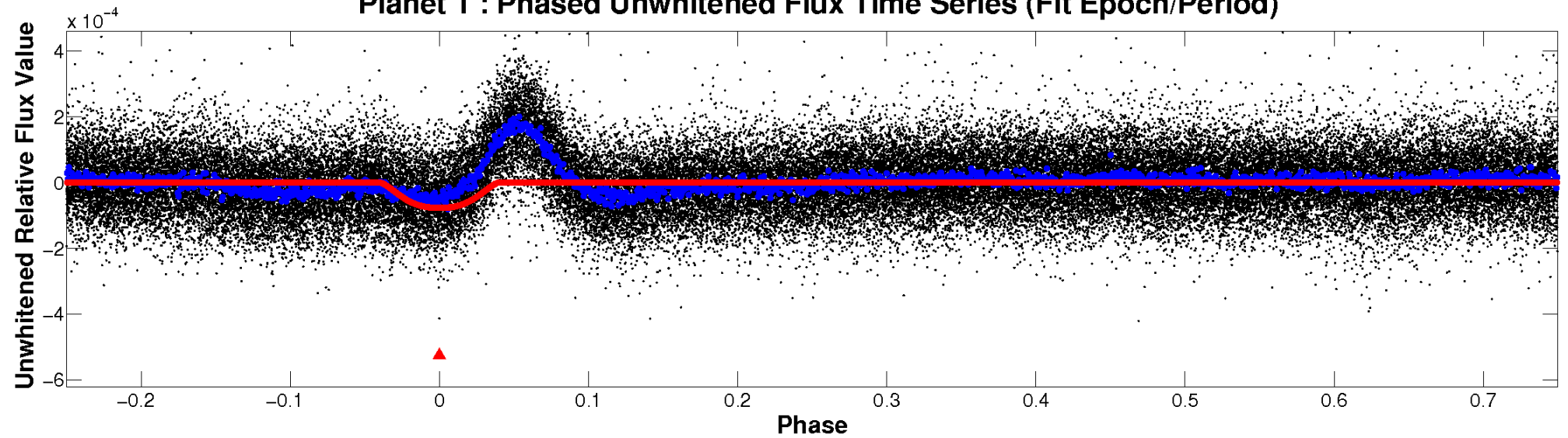
ALT Odd/Even

TCE 007887124-01

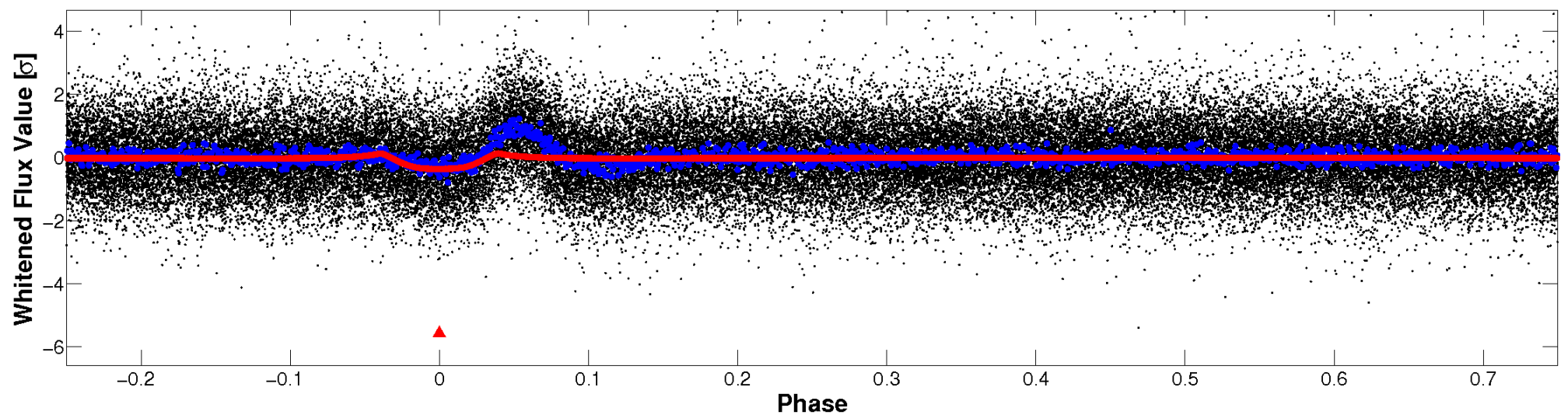


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

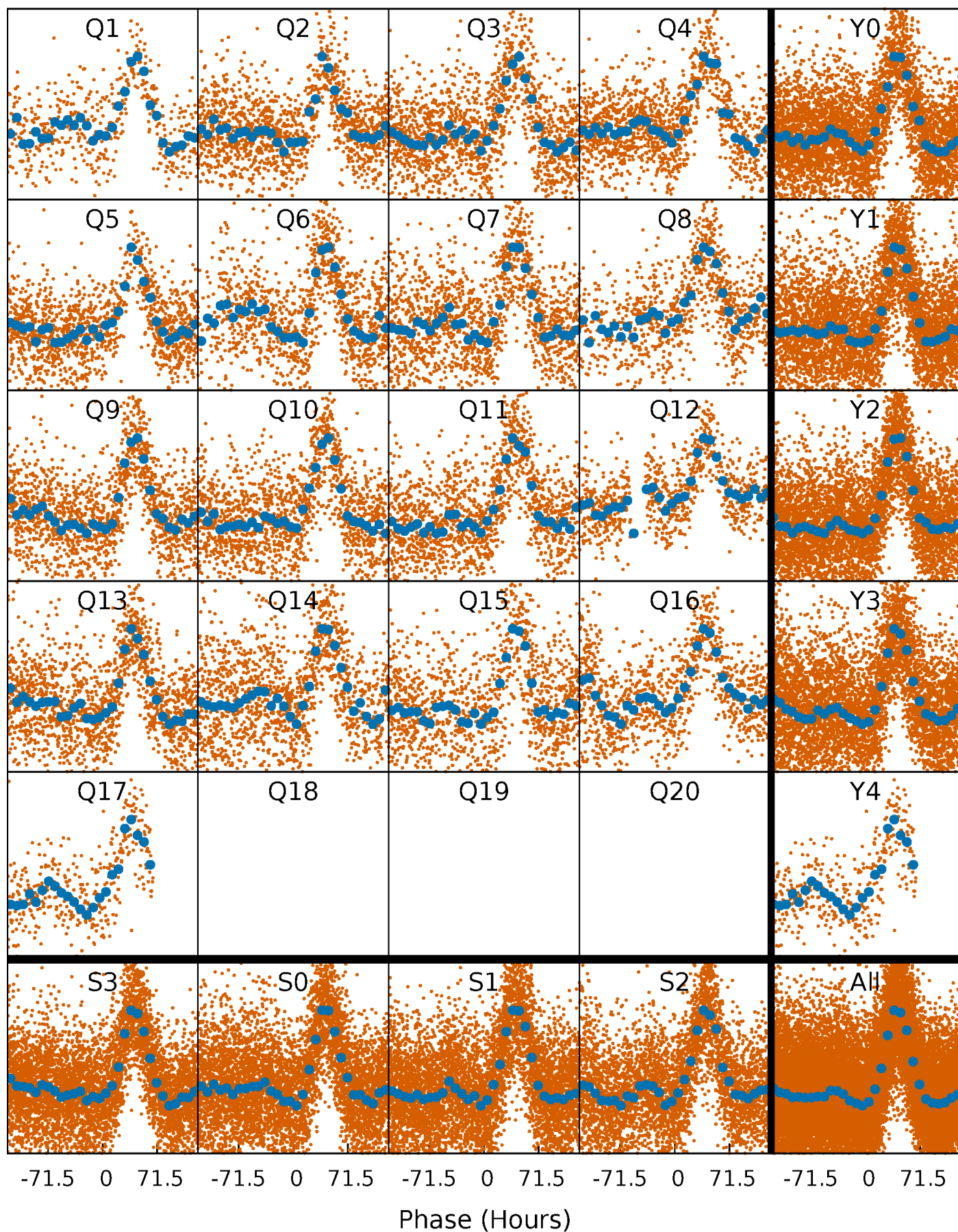


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



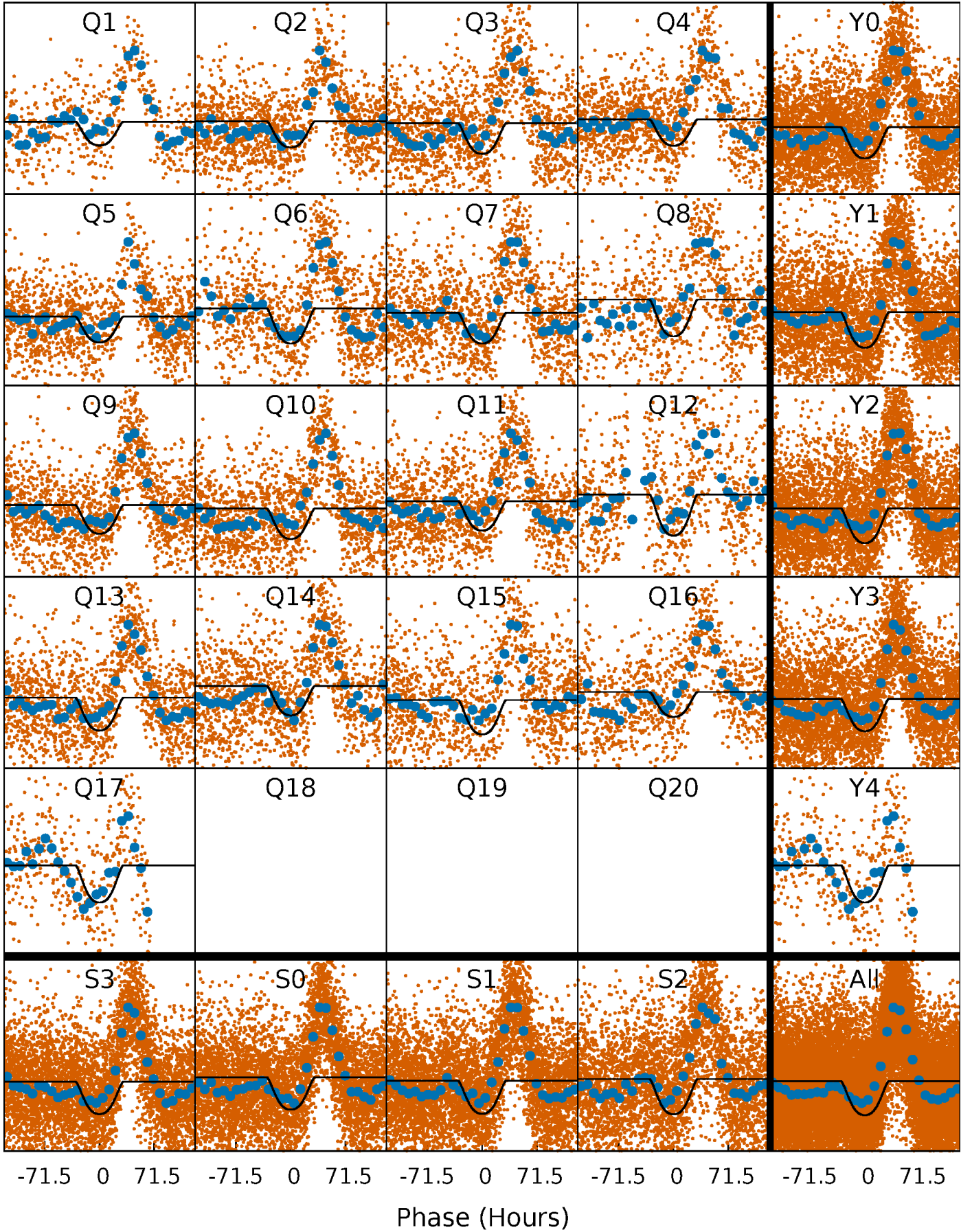
PDC Quarter-Phased Transit Curves

TCE 007887124-01 P= 32.496230 Days $T_0=149.001452$ (BKJD)



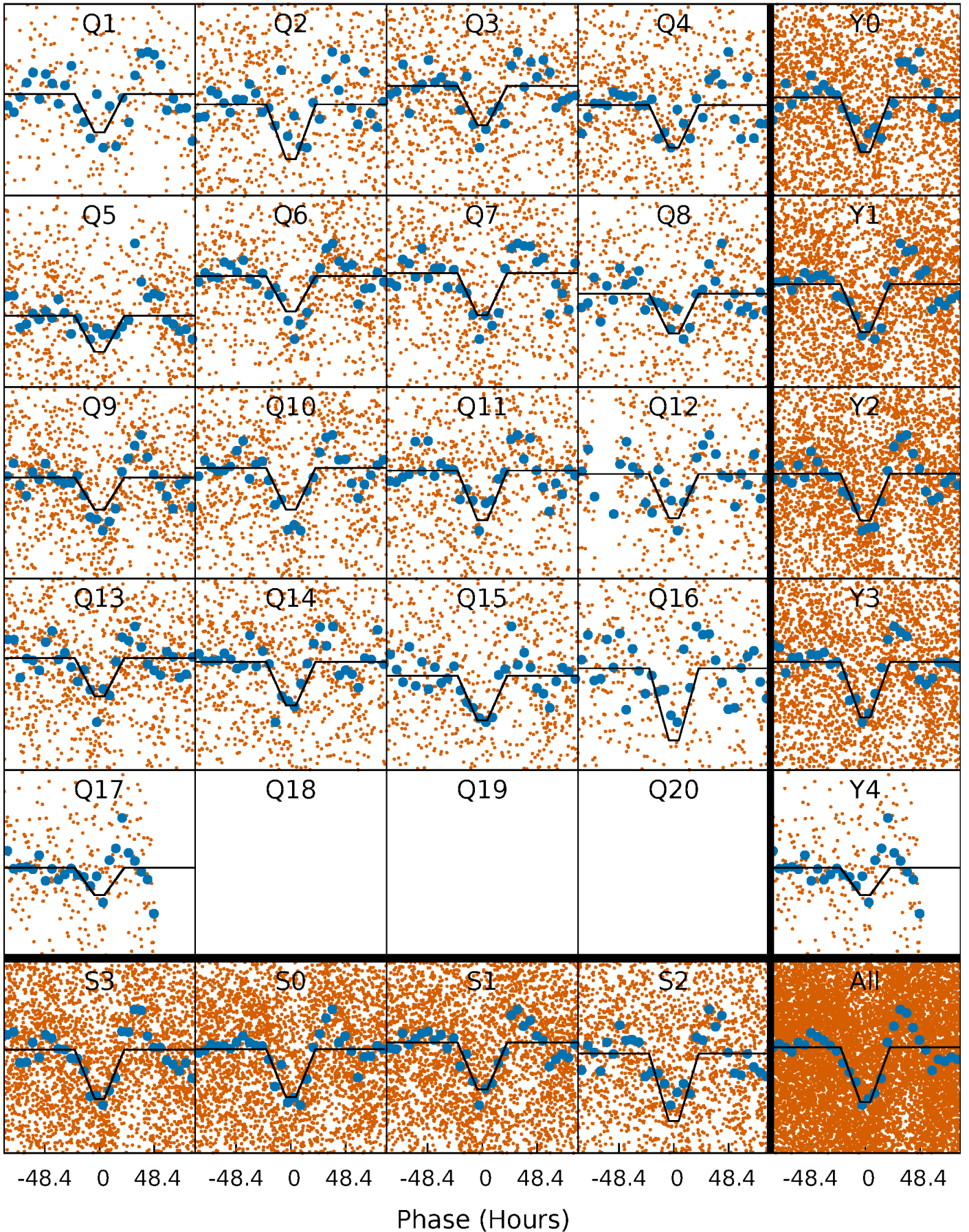
DV Quarter-Phased Transit Curves

TCE 007887124-01 P= 32.496230 Days $T_0=149.001452$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

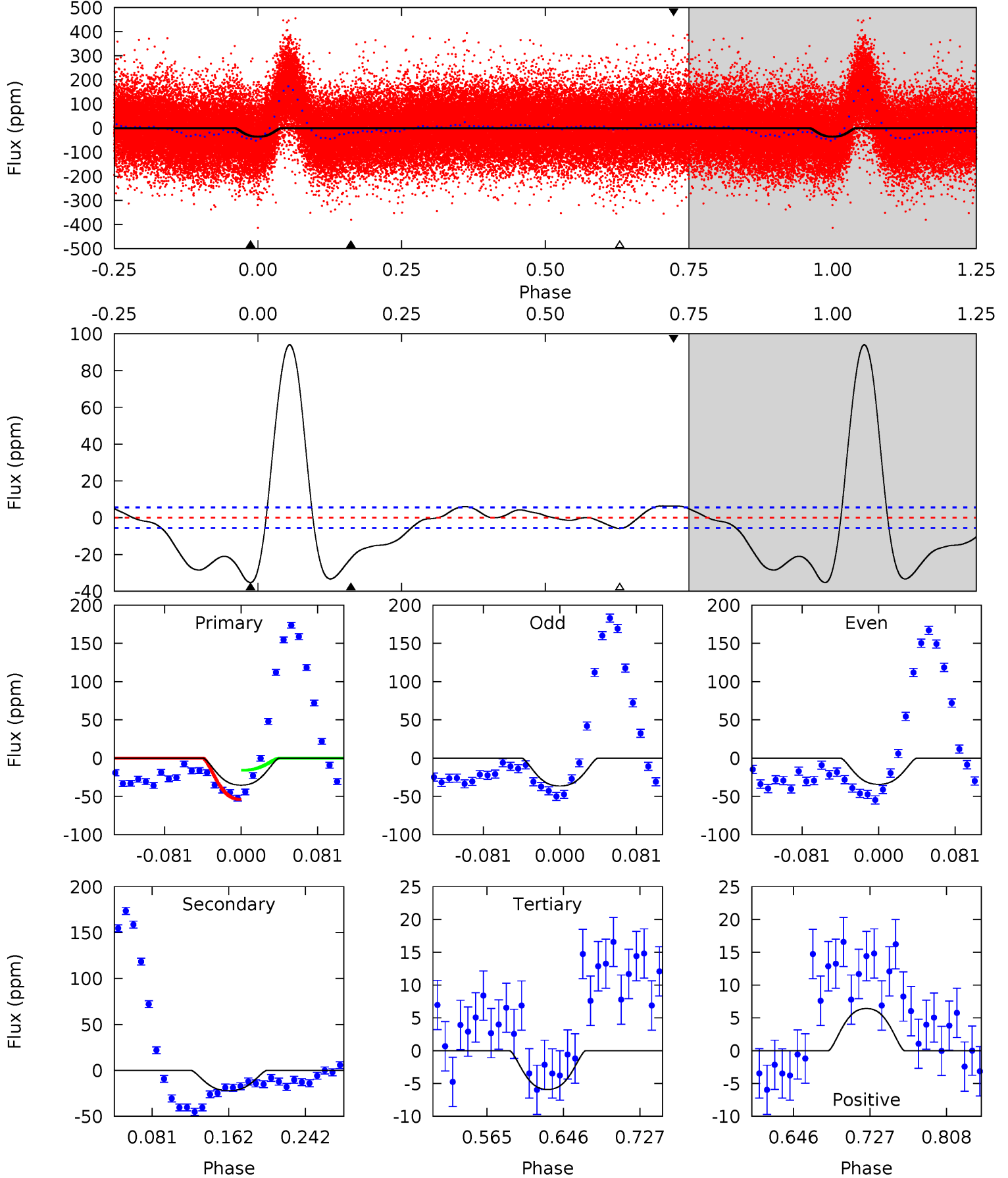
TCE 007887124-01 P= 32.510482 Days $T_0=149.077092$ (BKJD)



DV Model-Shift Uniqueness Test

007887124-01, P = 32.496230 Days, E = 116.505222 Days

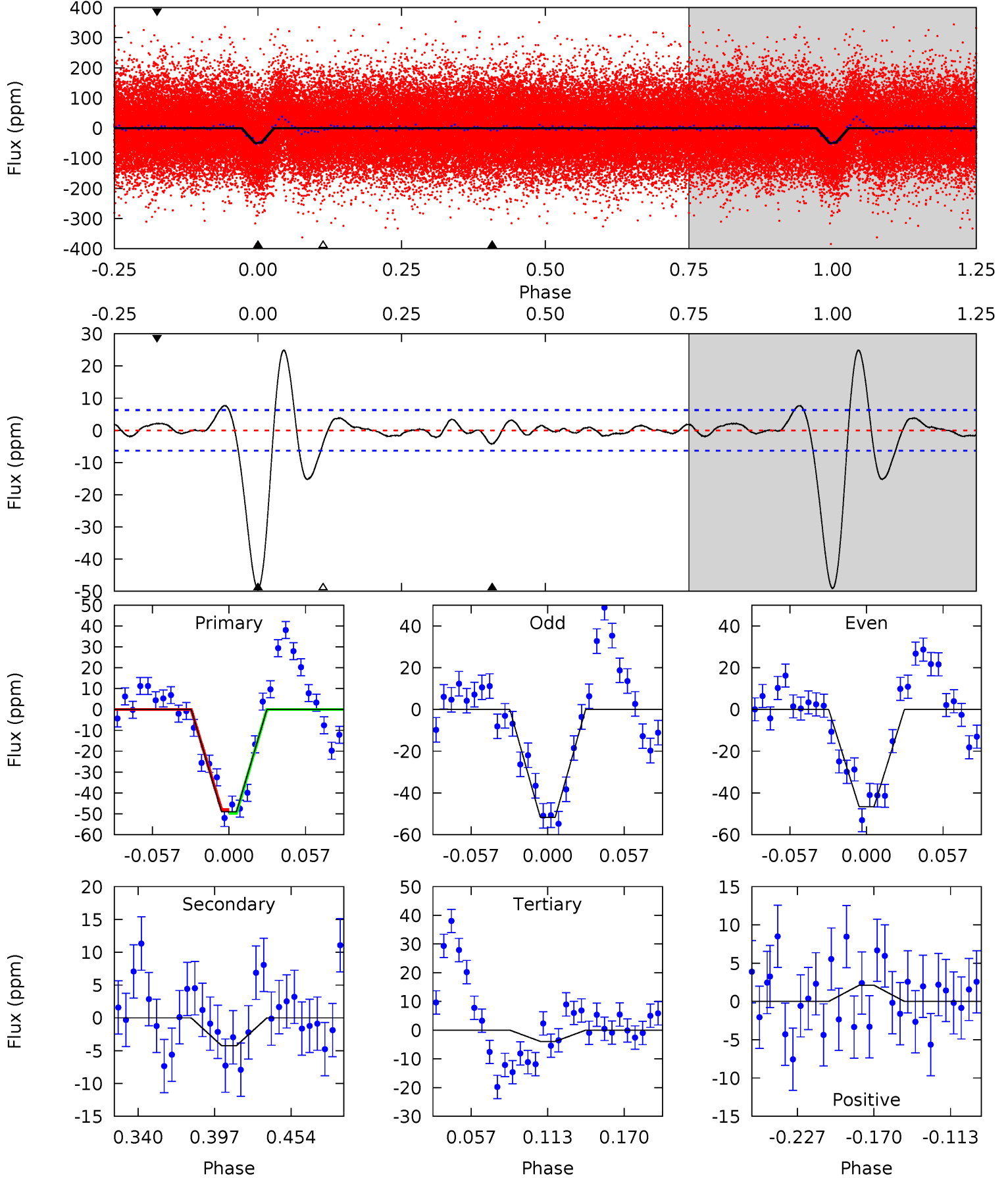
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.9	18.2	4.84	5.26	4.61	1.75	9.92	24.1	23.6	13.3	12.9	0.90	0.96	0.73	15.7



Alt Model-Shift Uniqueness Test

007887124-01, P = 32.510482 Days, E = 116.566610 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.4	3.14	2.91	1.57	4.68	1.91	2.51	33.5	34.8	0.22	1.57	1.88	0.98	0.34	0.64



Stellar Parameters For KIC 007887124

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6620^{+165}_{-198}	$4.168^{+0.228}_{-0.171}$	$-0.480^{+0.250}_{-0.300}$	$1.419^{+0.371}_{-0.371}$	$1.082^{+0.163}_{-0.134}$	$0.533^{+0.637}_{-0.256}$
	+2%/-3%	+5%/-4%	+52%/-62%	+26%/-26%	+15%/-12%	+120%/-48%
Source	PHO1	KIC0	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 007887124-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-22 ± 1	$1.73^{+0.29}_{-0.29}$	1069^{+79}_{-83}	4468^{+157}_{-153}	172^{+70}_{-45}
Alt.	-4 ± 1	$1.07^{+0.23}_{-0.19}$	1074^{+82}_{-82}	3931^{+279}_{-290}	84^{+55}_{-34}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

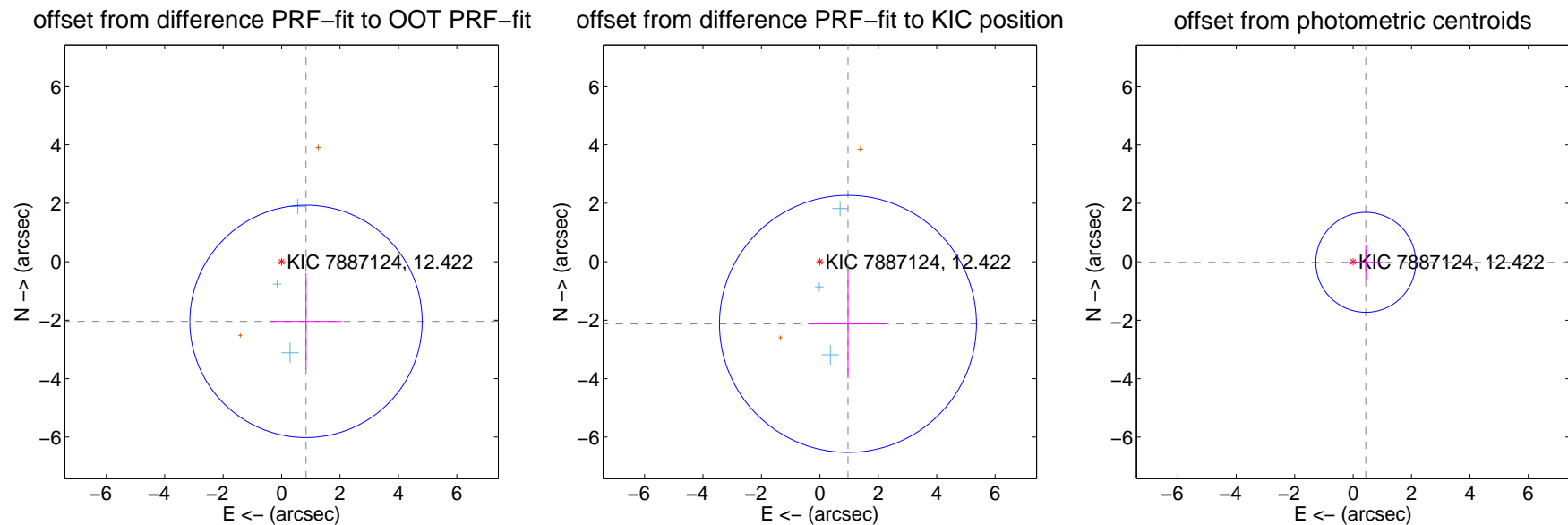
DV Centroid Data

Supplemental centroid analysis for 007887124-01. Kepler magnitude: 12.42. Transit SNR 18.35

There are 3 quarters with good PRF difference image offsets

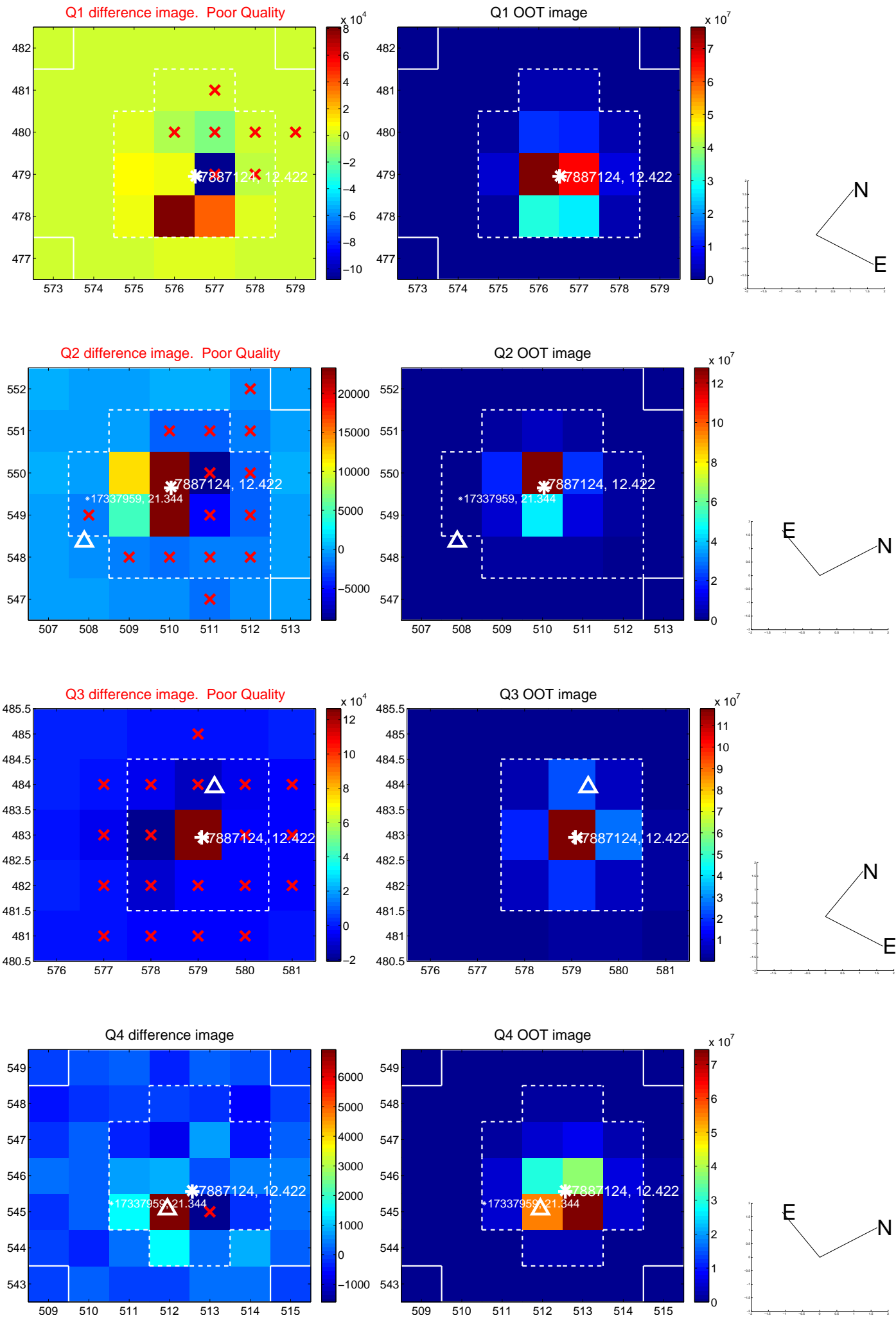
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.207 ± 1.326	1.66	-0.837 ± 1.225	-2.042 ± 1.647
PRF-fit source offset from KIC position	2.336 ± 1.466	1.59	-0.963 ± 1.293	-2.129 ± 1.865
photometric centroid source offset	0.43 ± 0.57	0.76	-0.43 ± 0.57	-0.02 ± 0.60

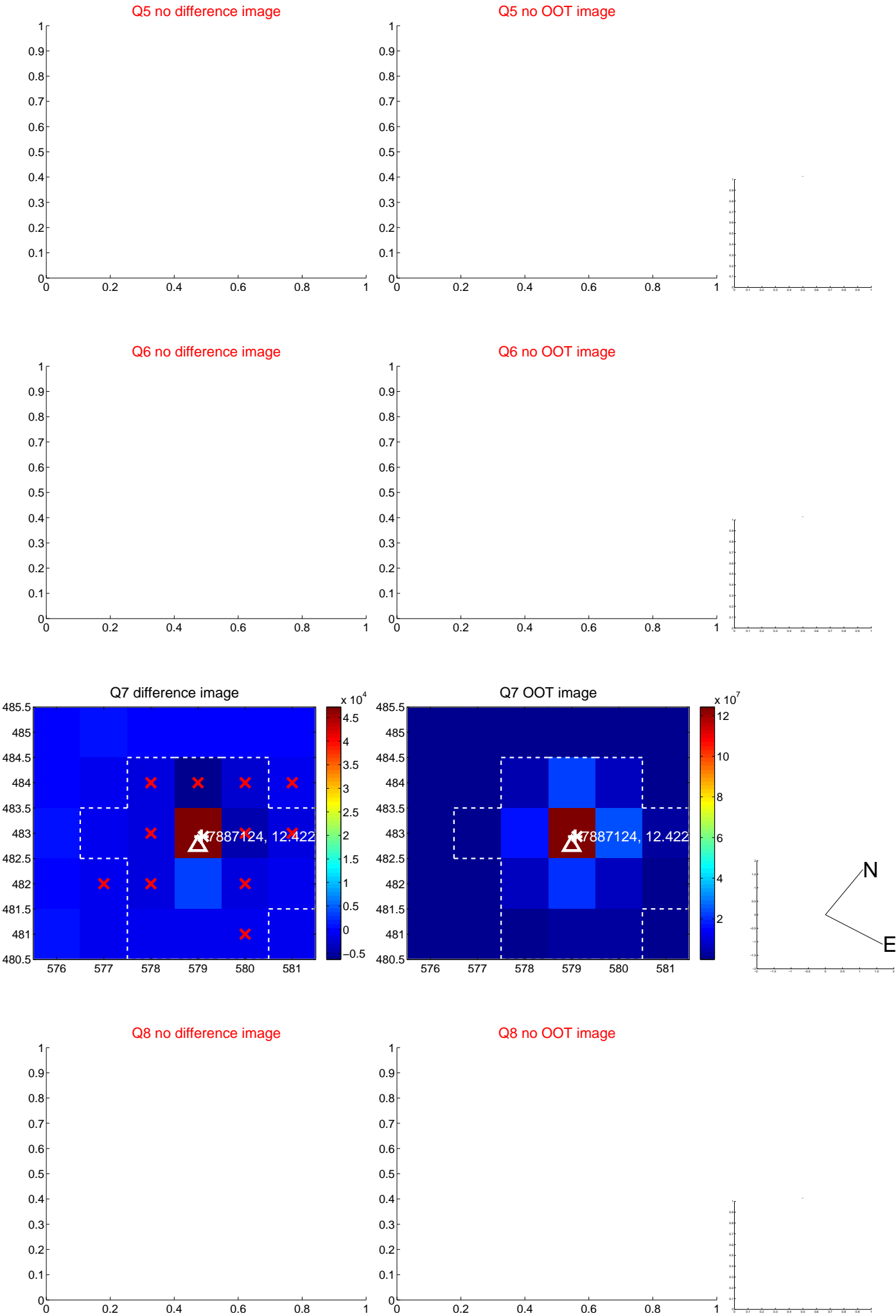


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

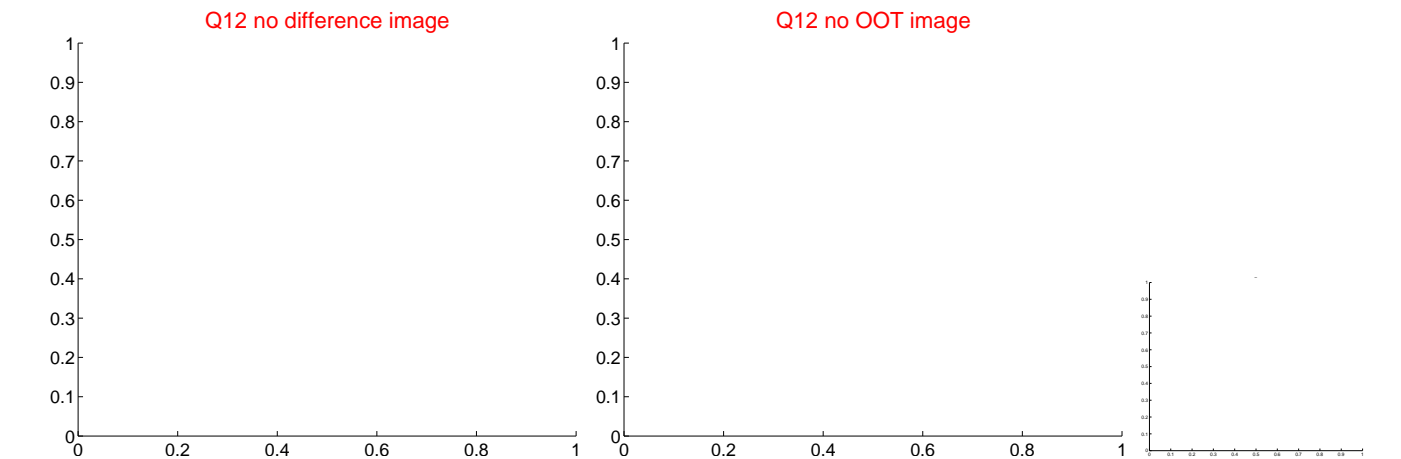
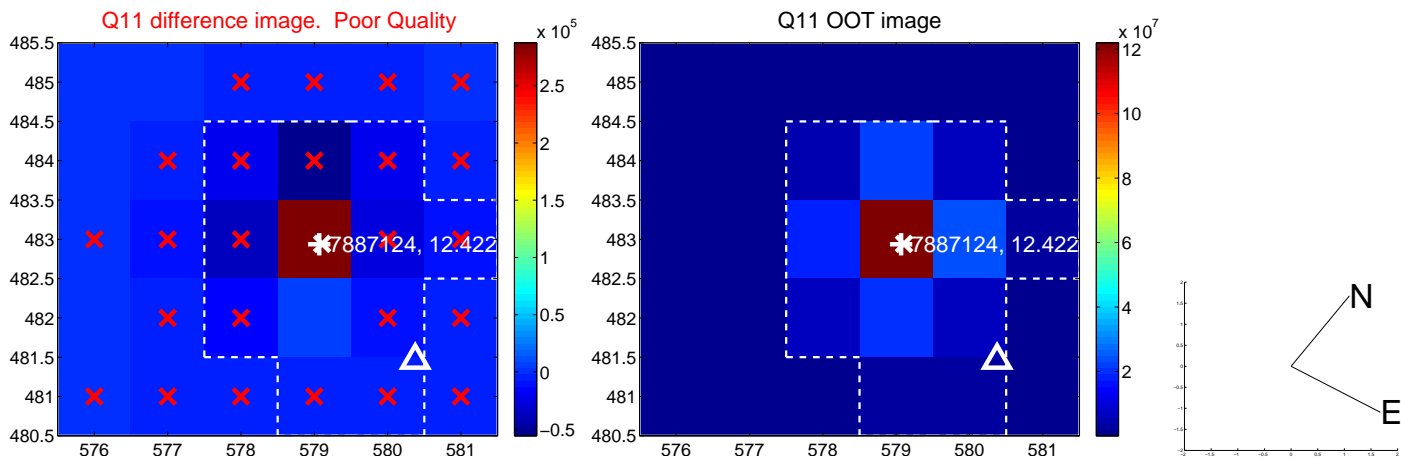
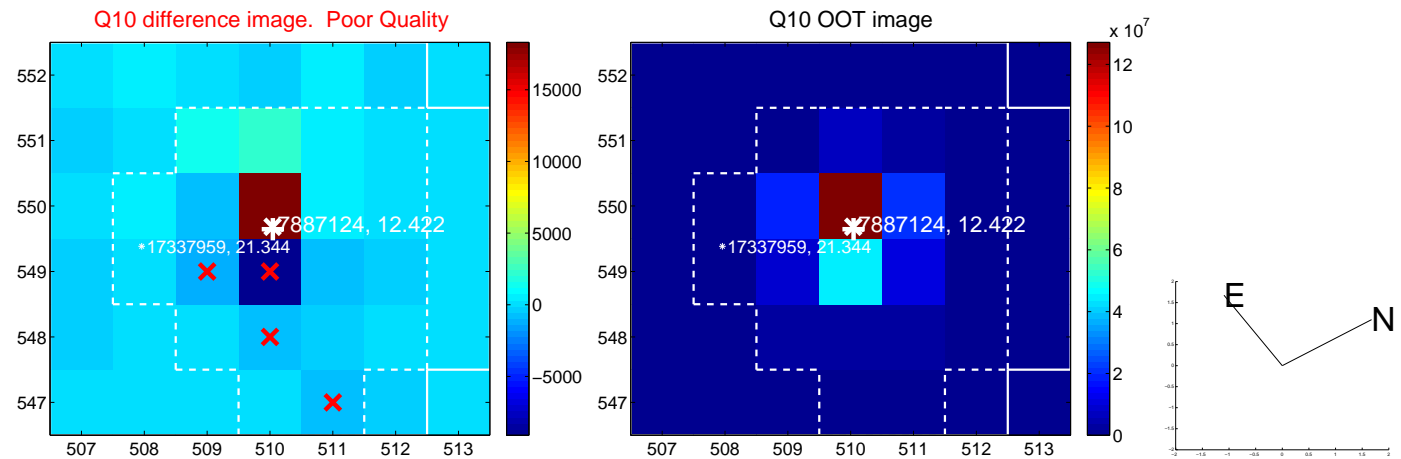
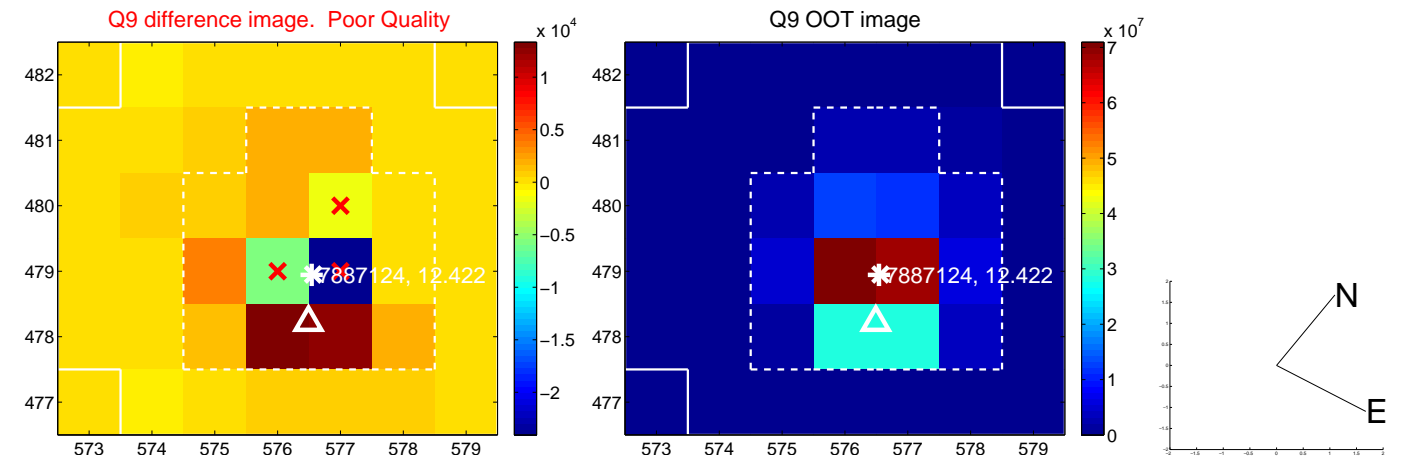
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



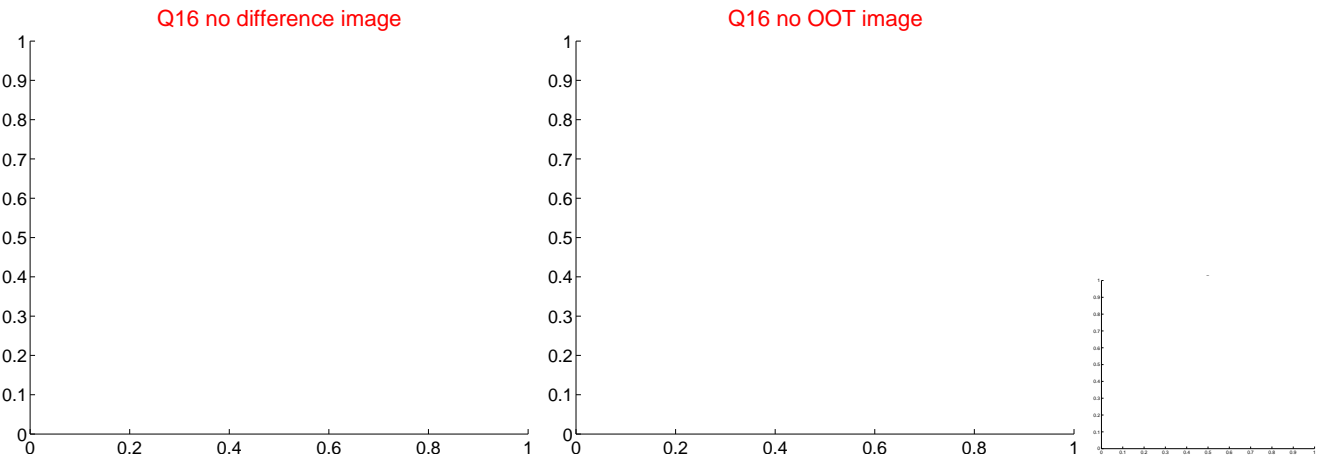
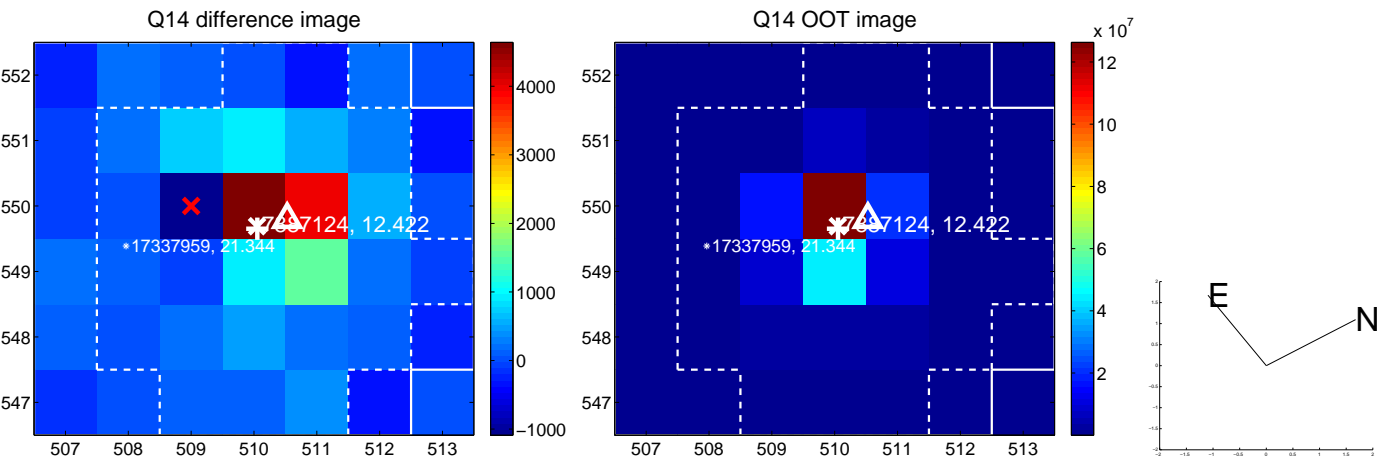
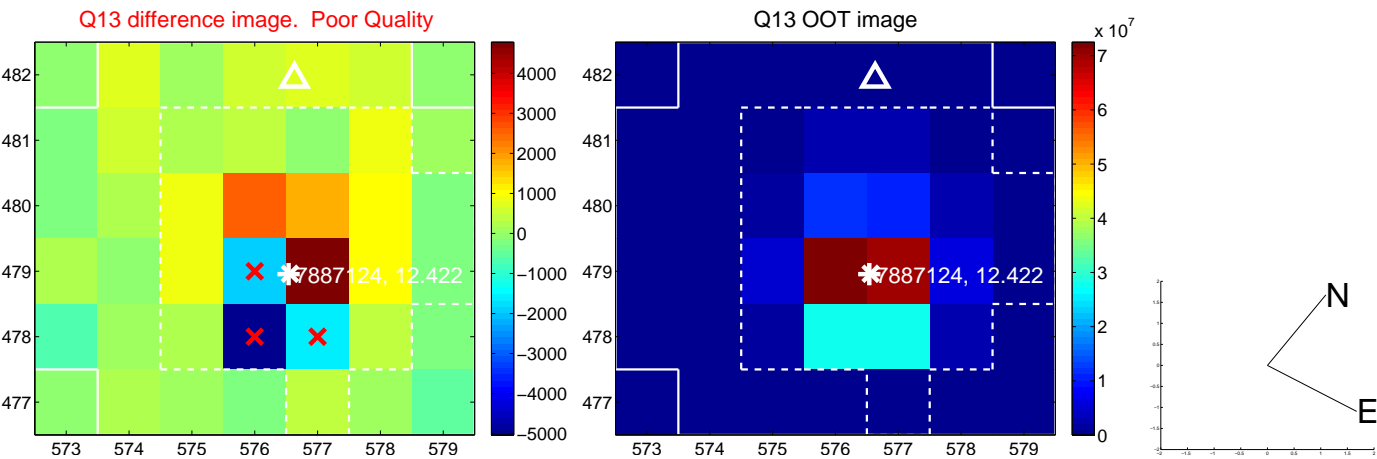
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



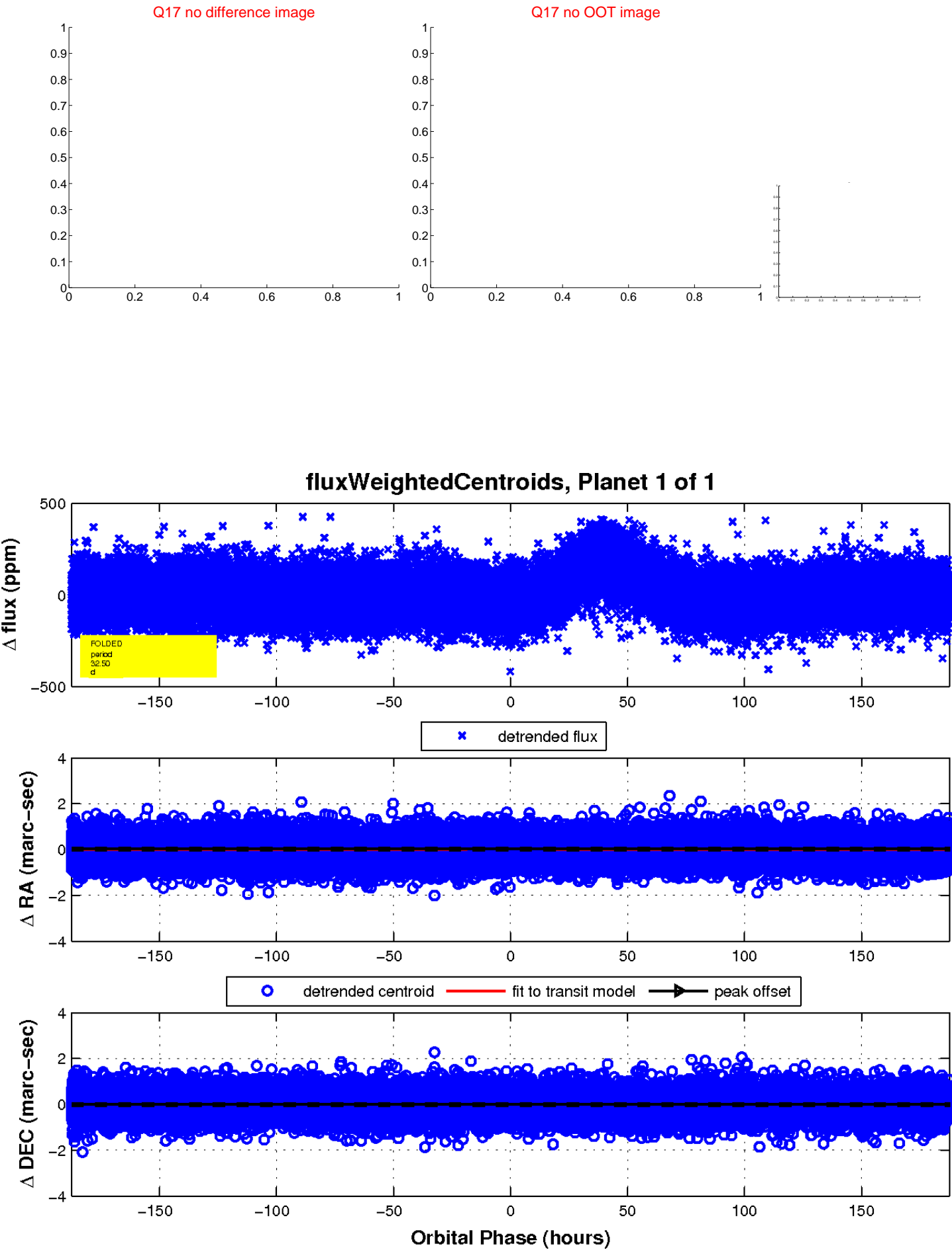
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UKIRT Image

Declination

