

KIC 007605527

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})
007605527-01	OBS	No	0.735135	131.592052	154.9	4.445	7.3	7.9	2.79	8040	4.08	70044.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007605527-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

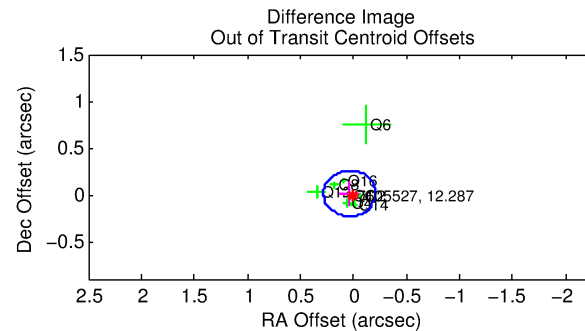
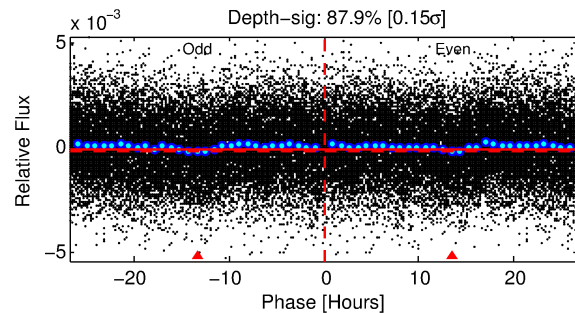
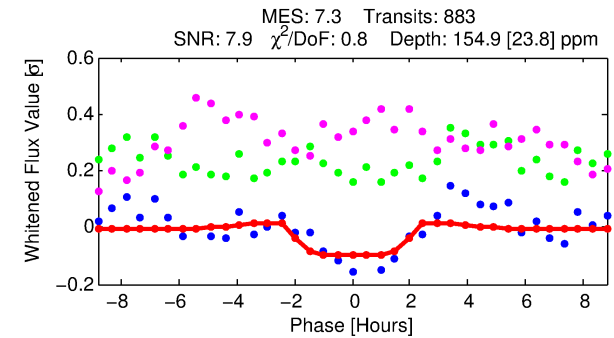
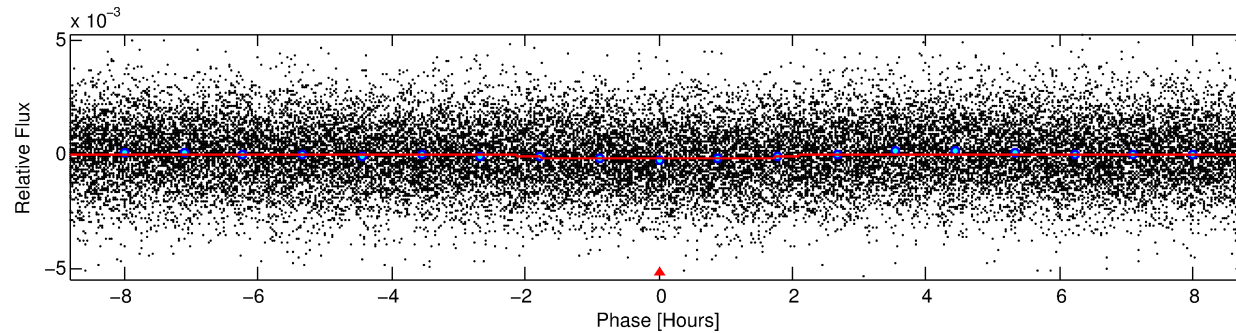
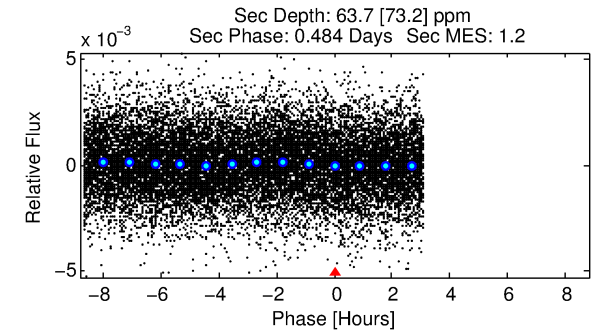
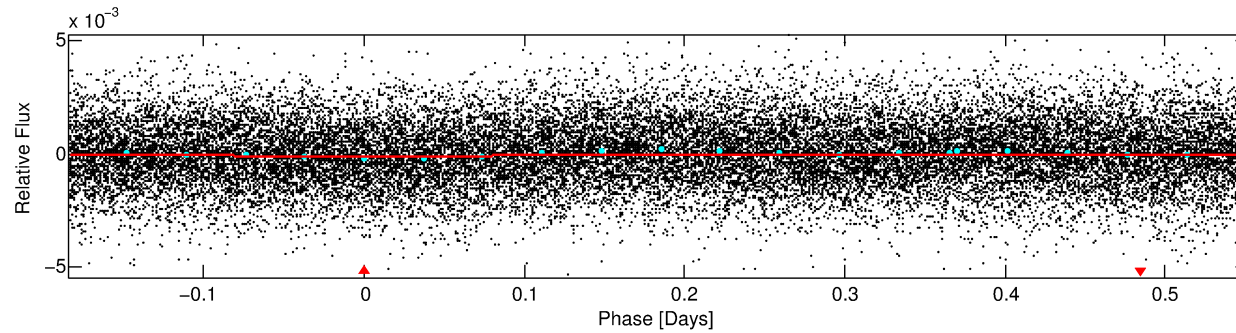
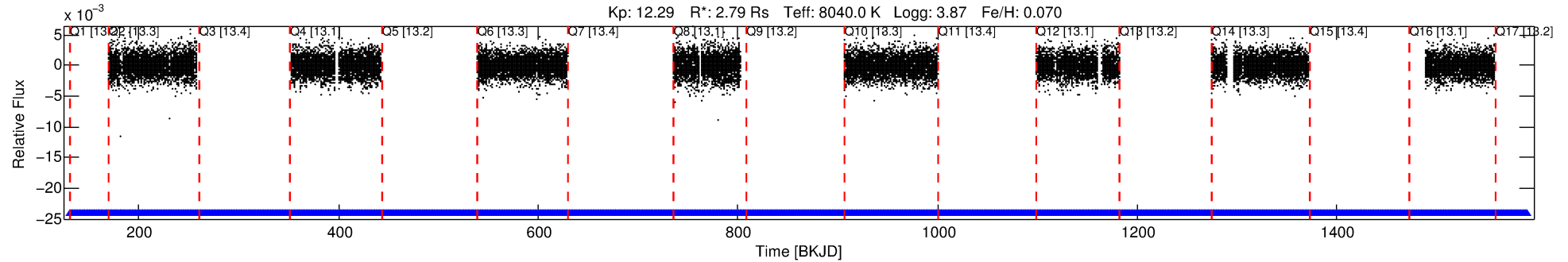
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007605527-01

No Significant Match Found

DV One-Page Summary

KIC: 7605527 Candidate: 1 of 1 Period: 0.735 d



DV Fit Results:

Period = 0.73513 [0.00001] d
Epoch = 131.5921 [0.0057] BKJD
Rp/R* = 0.0134 [0.0043]
a/R* = 1.10 [0.38]
b = 0.91 [0.37]
Seff = 70044.32 [37542.07]
Teq = 4148 [556] K
Rp = 4.08 [2.04] Re
a = 0.0204 [0.0069] AU
Ag = 0.88 [1.24] [-0.10σ]
Teffp = 6209 [2060] K [0.97σ]

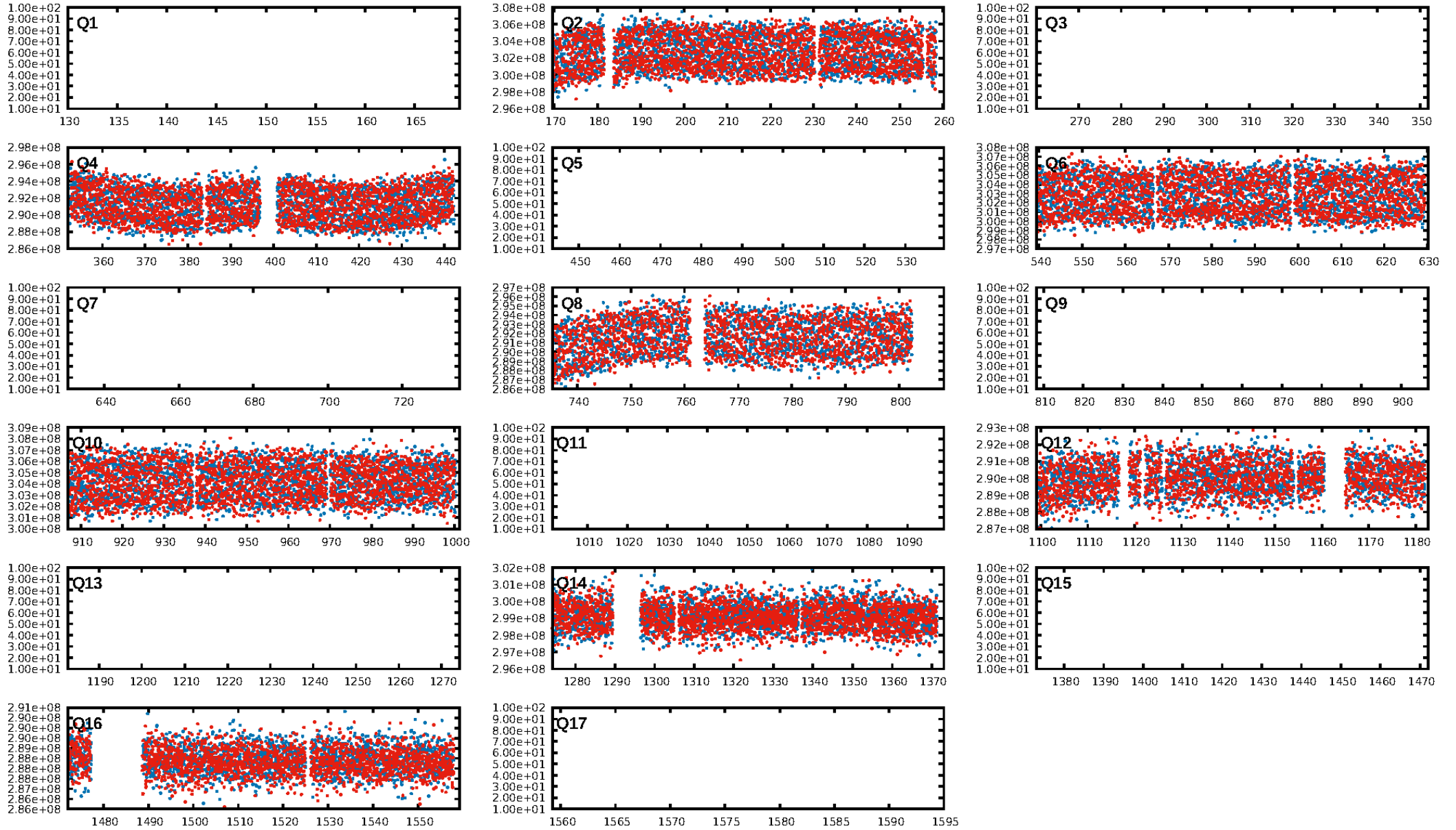
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.97e-10
RollingBand-fgt: 1.00 [883/883]
GhostDiagnostic-chr: 2.254
Centroid-sig: 18.9%
Centroid-so: 0.132 arcsec [1.47σ]
OotOffset-rm: 0.038 arcsec [0.46σ]
OotOffset-st: 4/0/4/0 [8]
KicOffset-rm: 0.086 arcsec [0.63σ]
KicOffset-st: 4/0/4/0 [8]
DiffImageQuality-fgm: 0.75 [6/8]
DiffImageOverlap-fno: 1.00 [8/8]

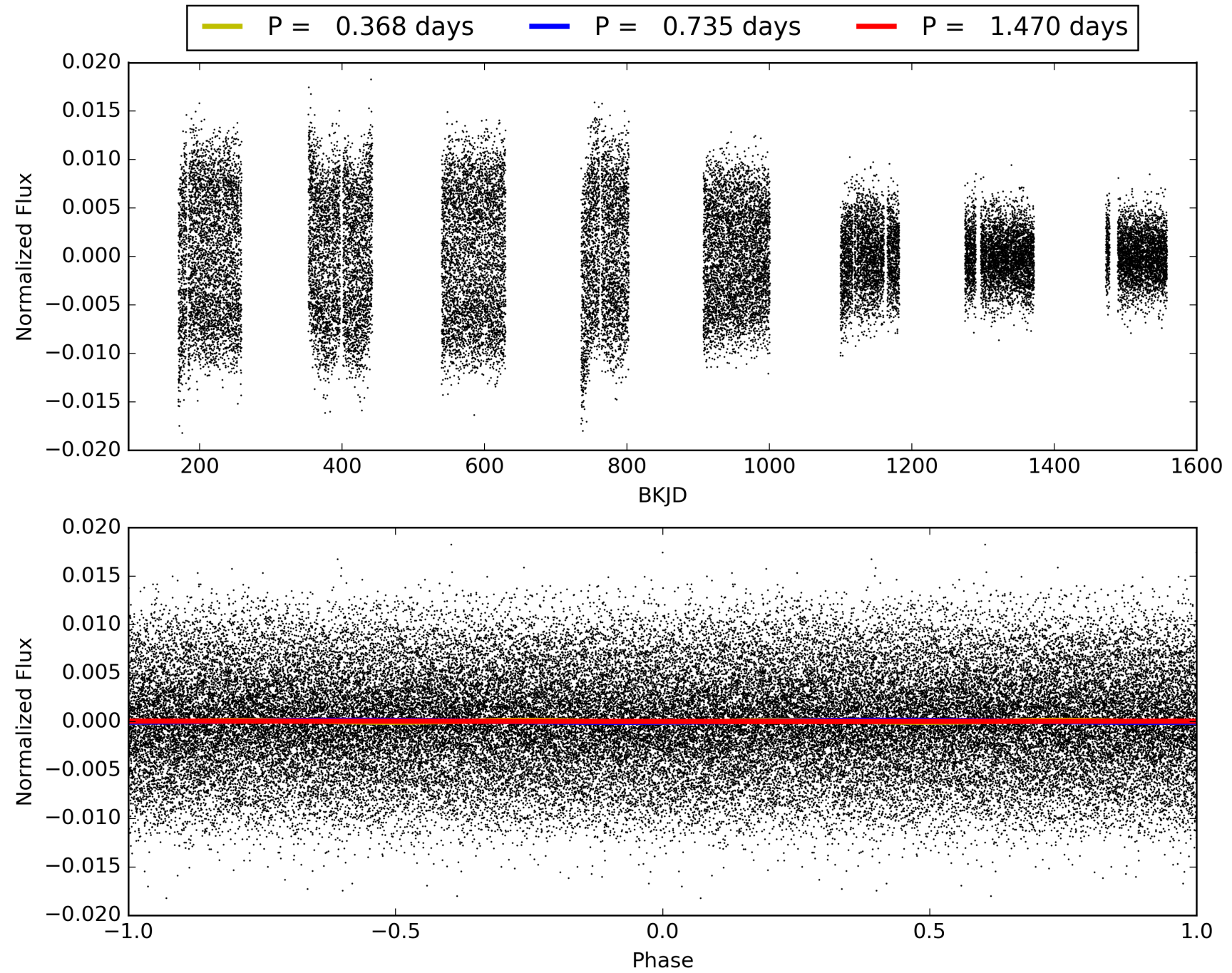
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:58:02 Z

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

TCE 007605527-01, PDC Light Curves

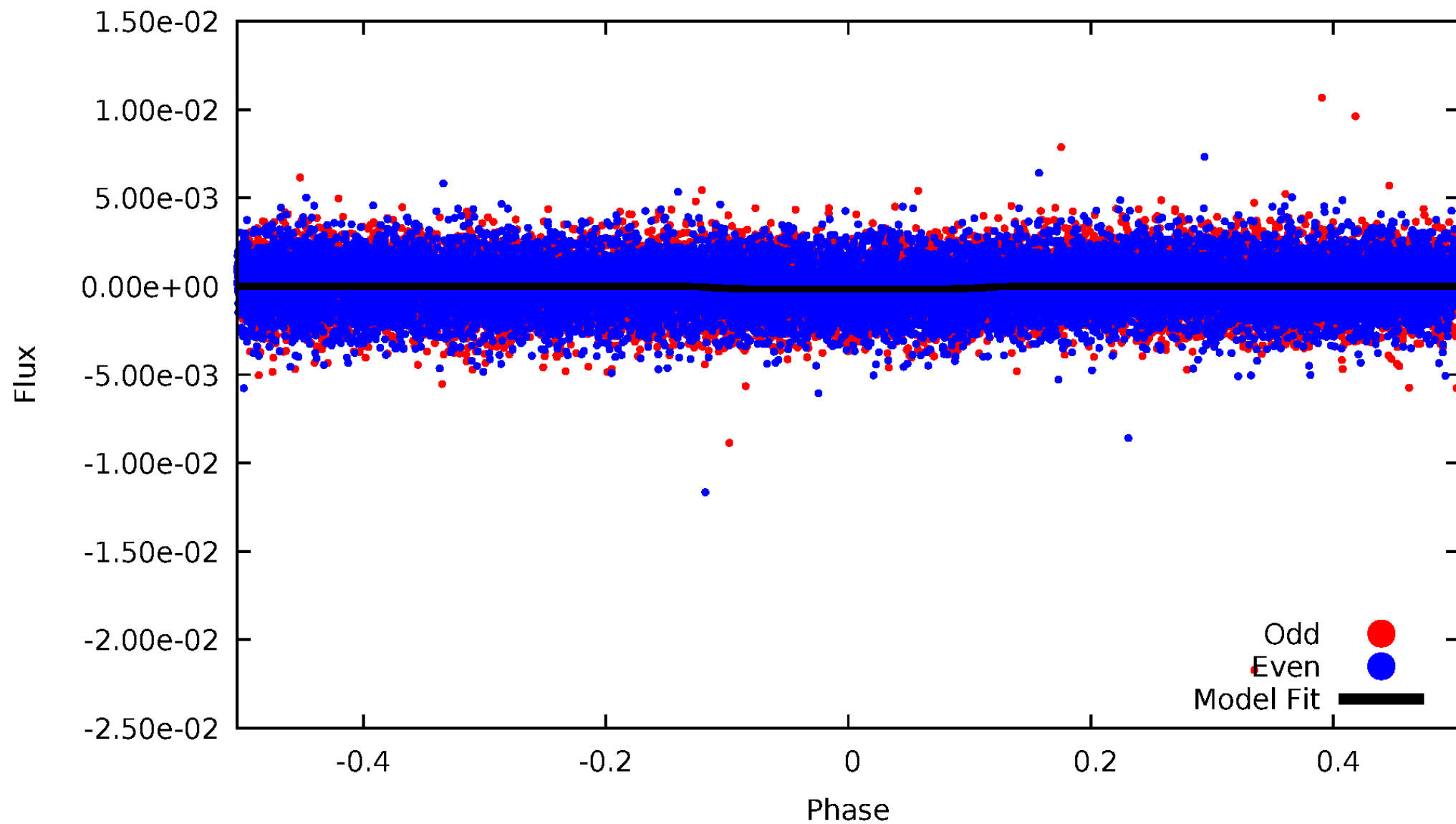


TCE 007605527-01



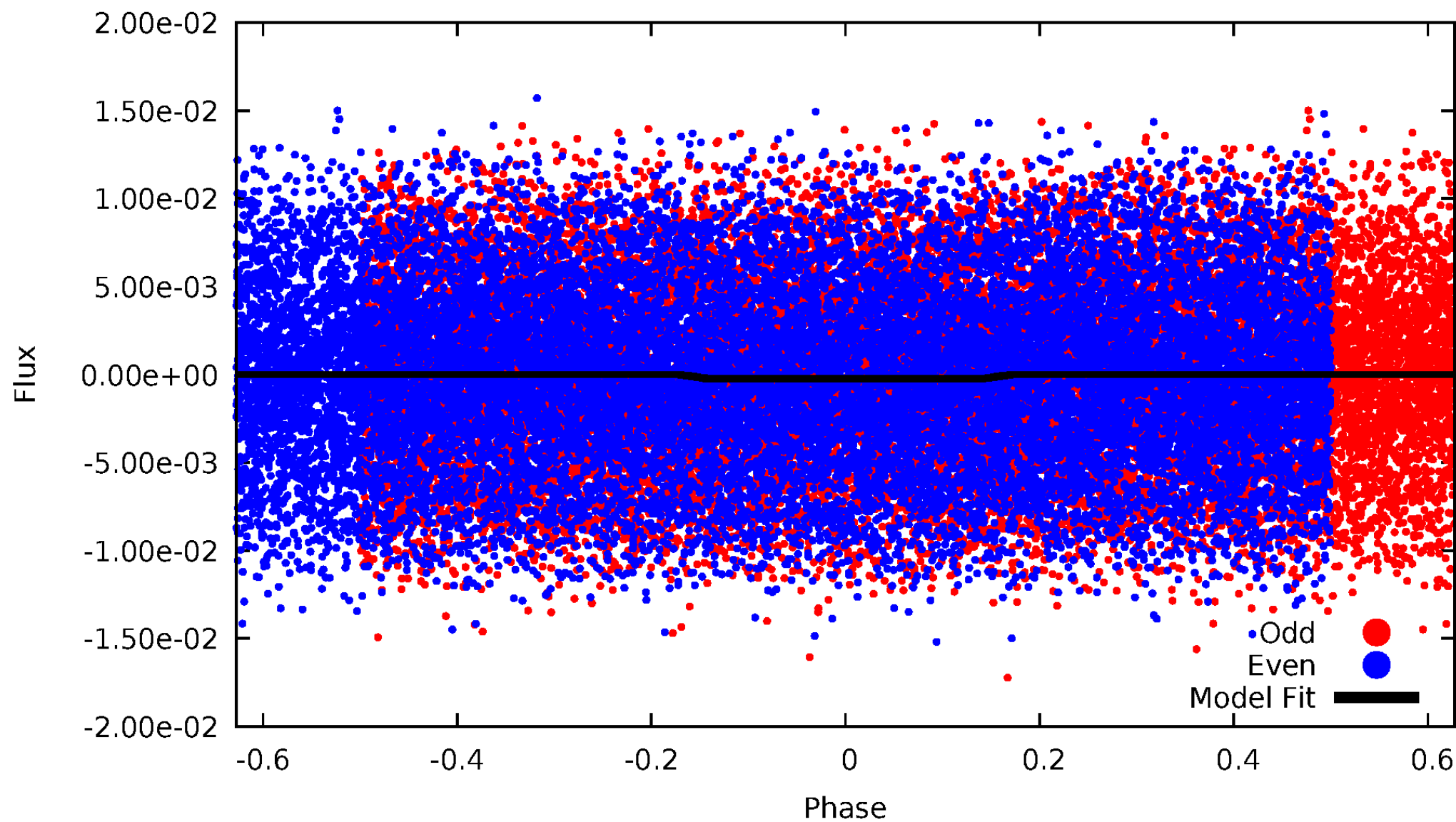
DV Odd/Even

TCE 007605527-01

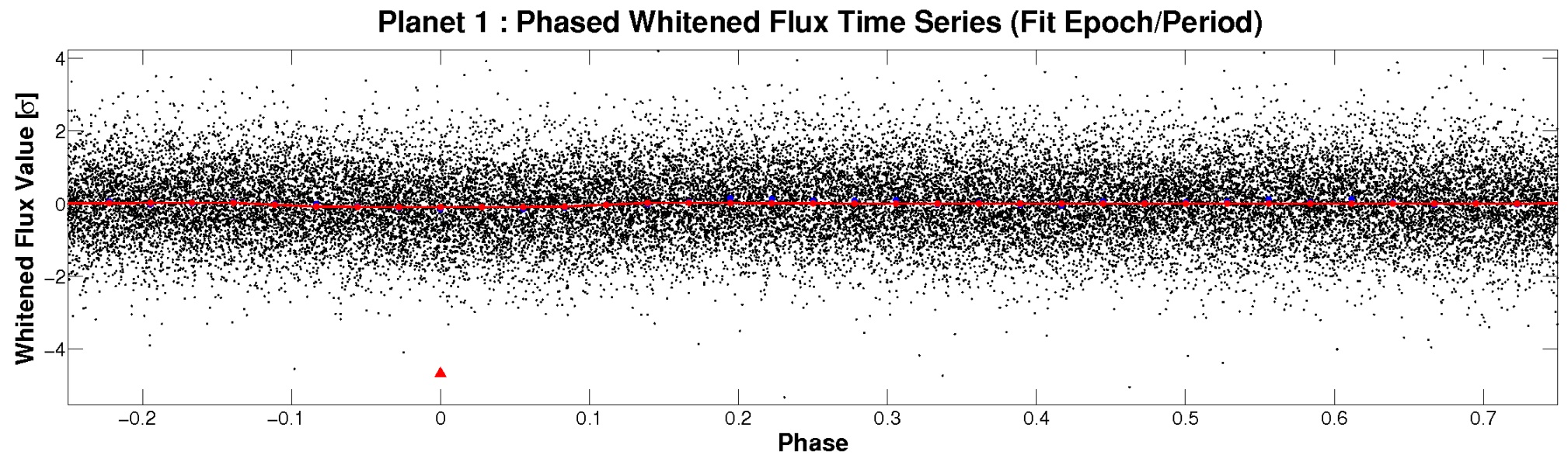
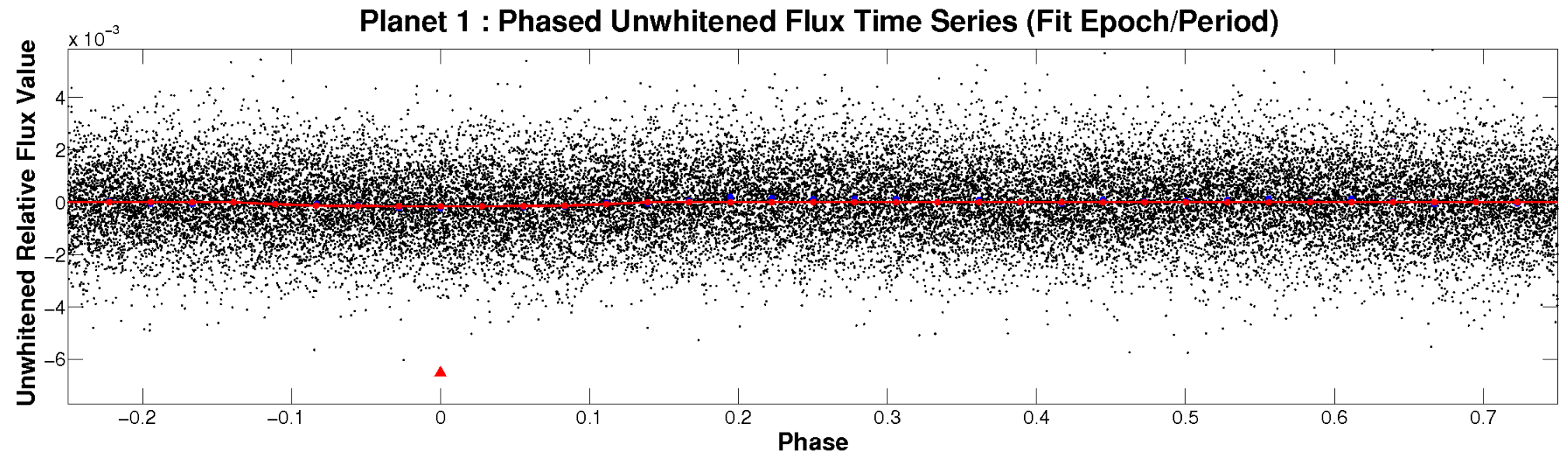


ALT Odd/Even

TCE 007605527-01

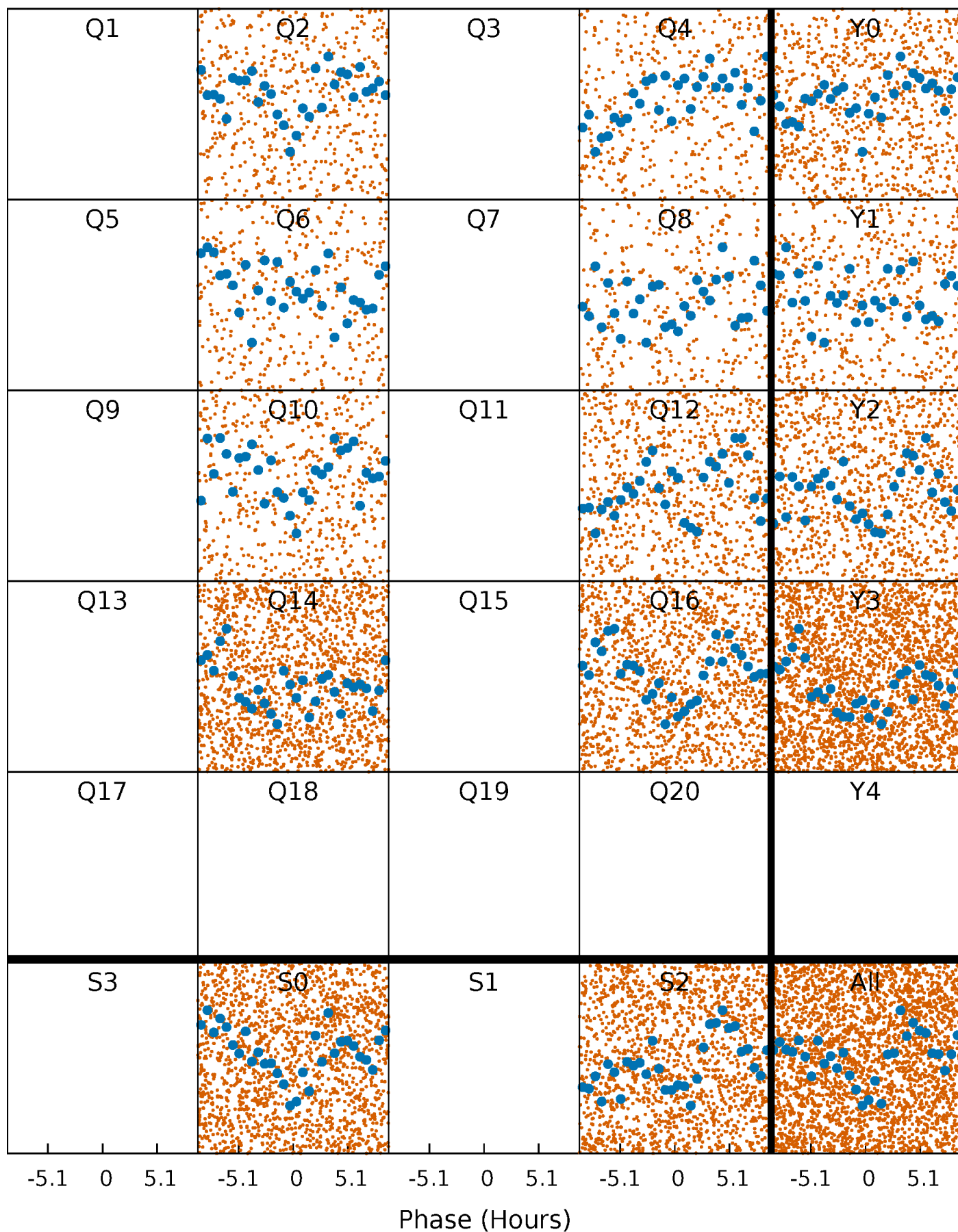


Non-Whitened Vs. Whitened Light Curve



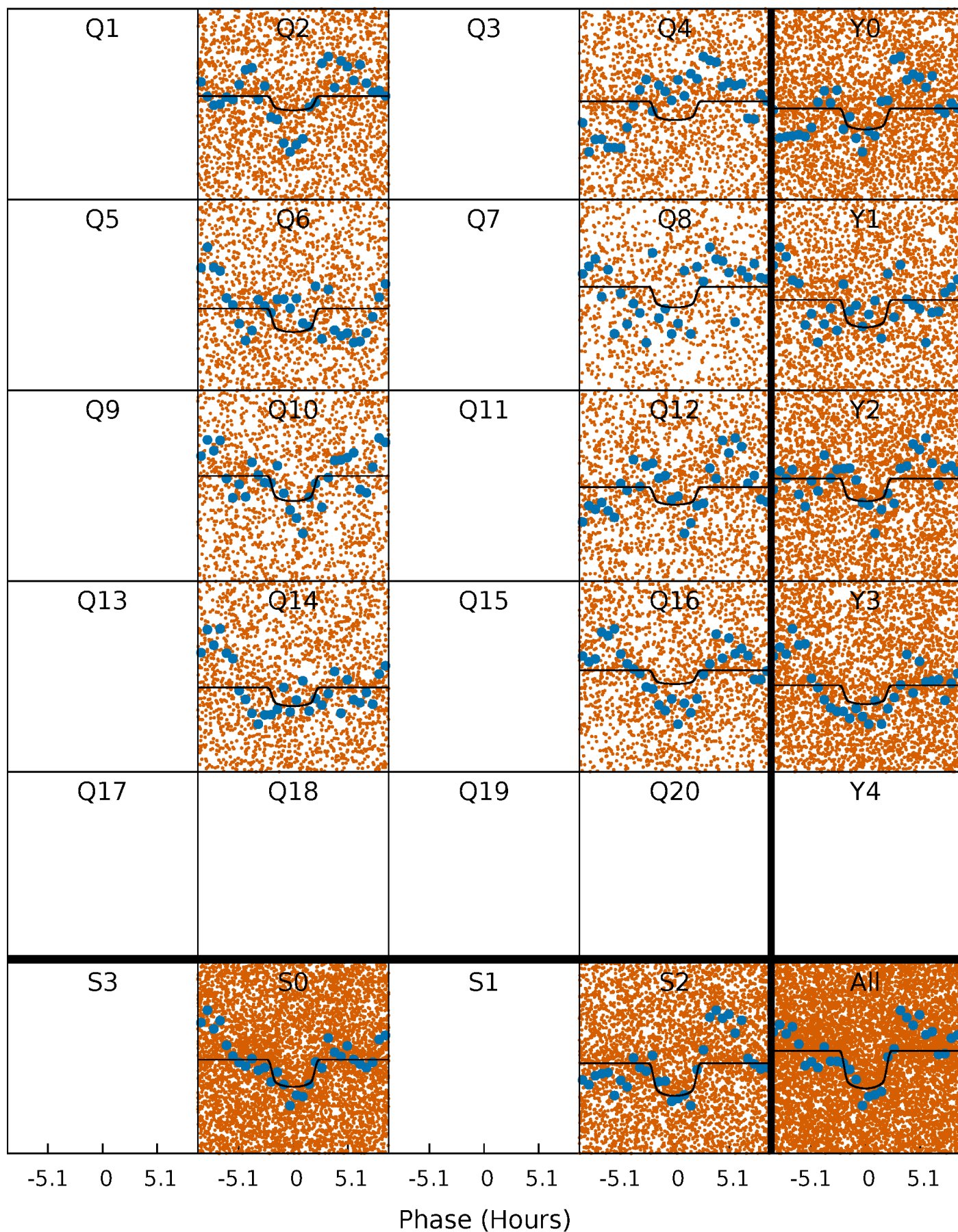
PDC Quarter-Phased Transit Curves

TCE 007605527-01 P= 0.735135 Days $T_0=131.592052$ (BKJD)



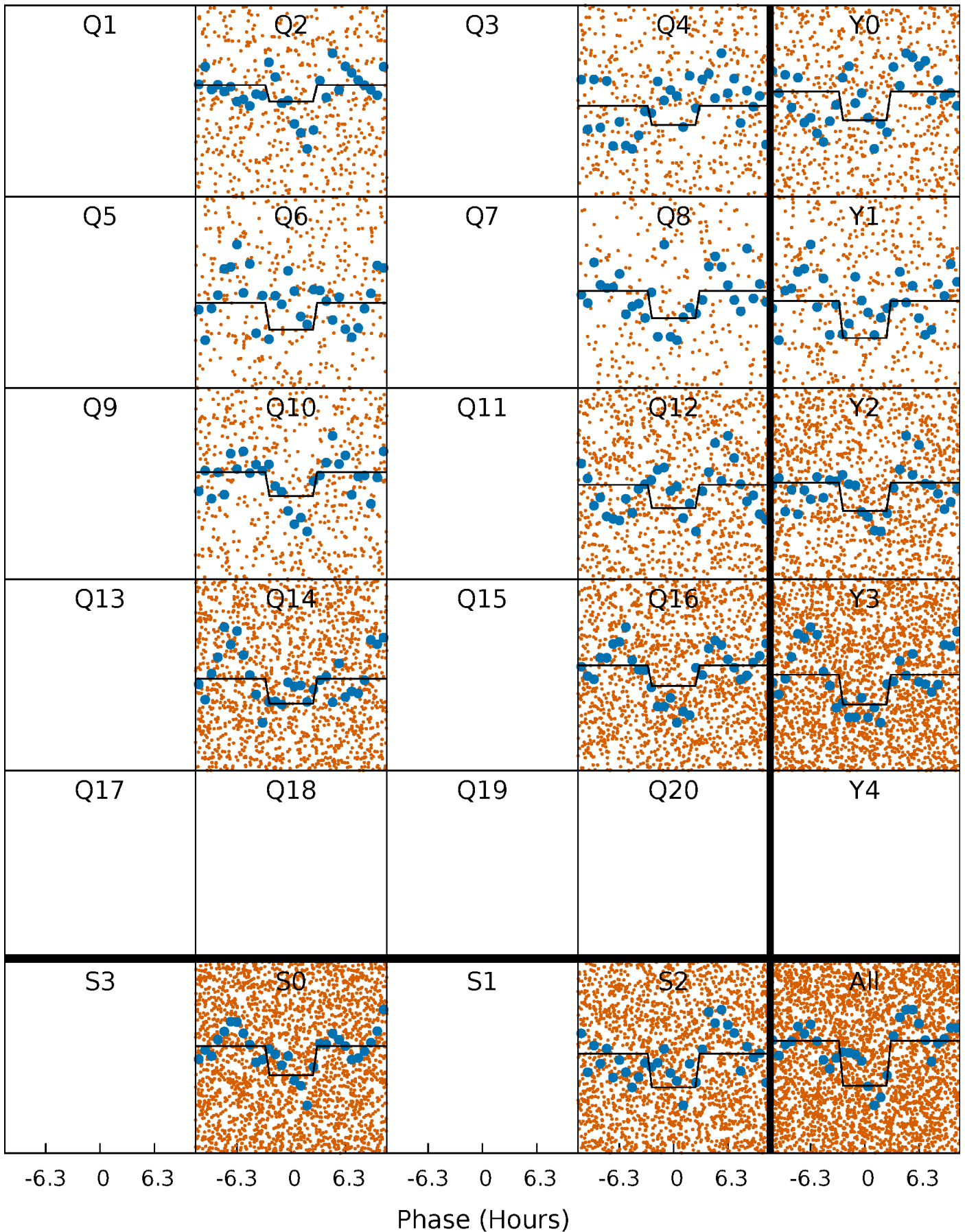
DV Quarter-Phased Transit Curves

TCE 007605527-01 P= 0.735135 Days $T_0=131.592052$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

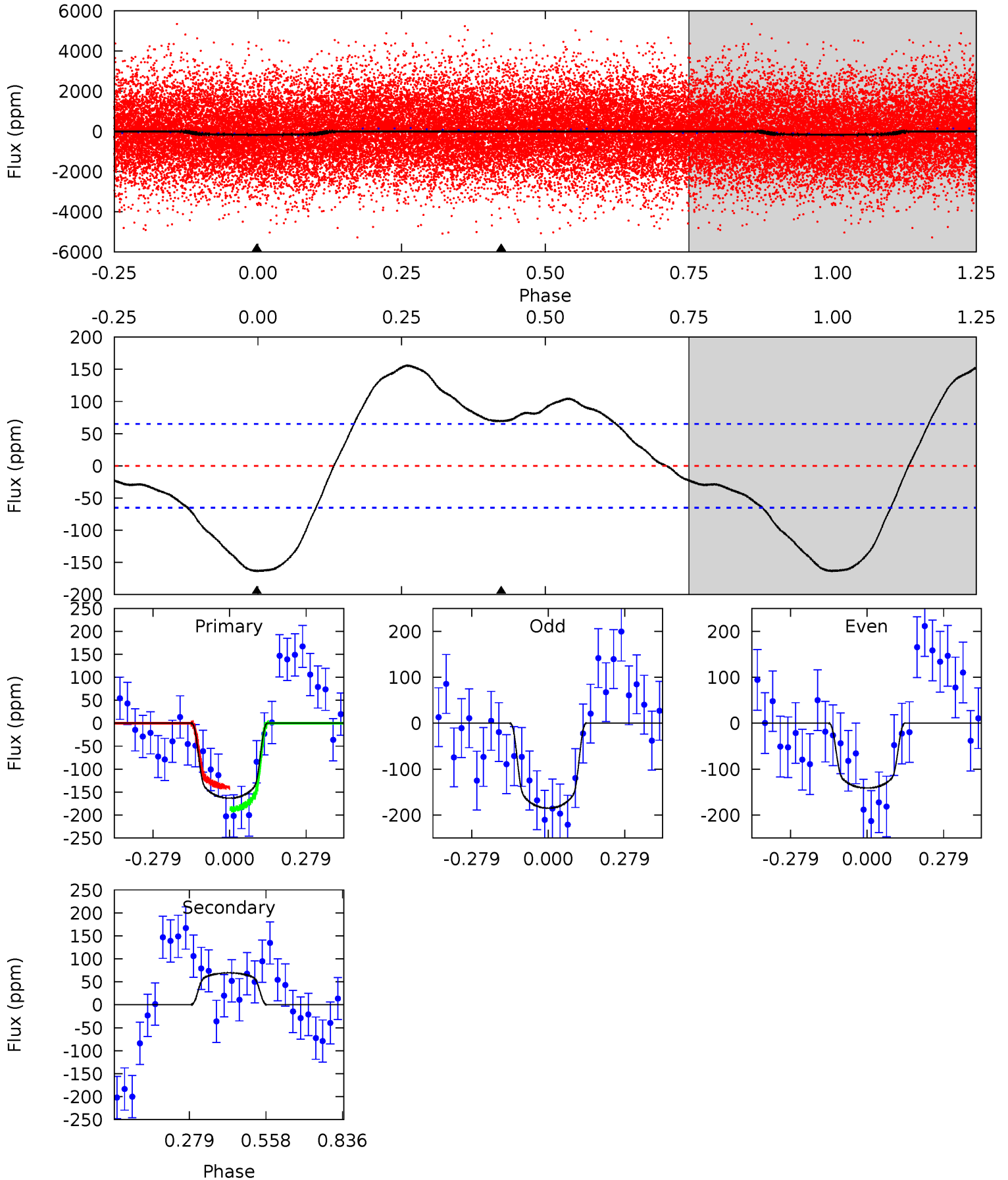
TCE 007605527-01 P= 0.735171 Days $T_0=131.519040$ (BKJD)



DV Model-Shift Uniqueness Test

007605527-01, P = 0.735135 Days, E = 131.592052 Days

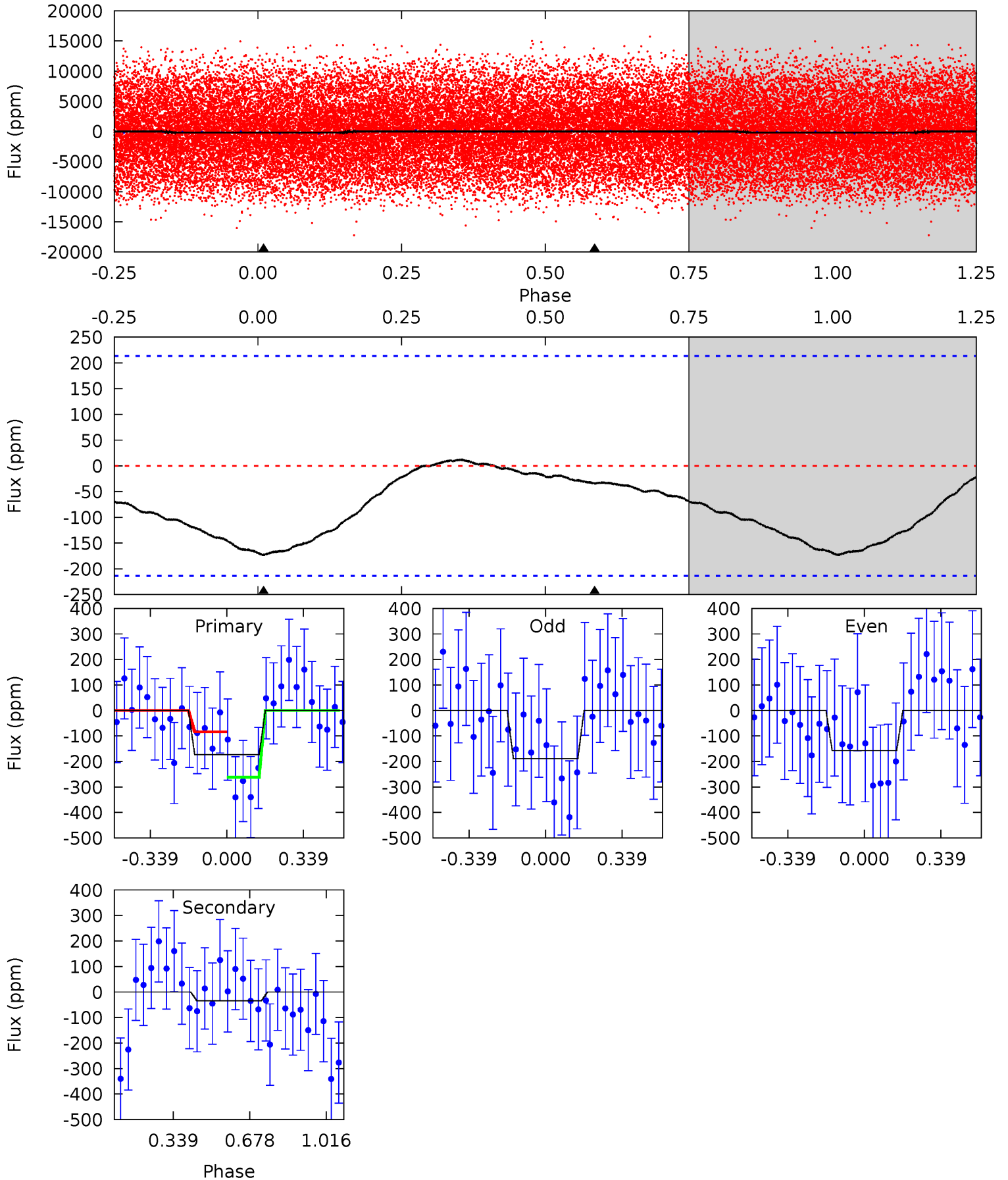
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	-4.64	0	0	4.34	1.08	1.18	10.9	10.9	-4.64	-4.64	1.46	0.93	0.49	1.65



Alt Model-Shift Uniqueness Test

007605527-01, P = 0.735171 Days, E = 131.519040 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.49	0.70	0	0	4.30	0.96	0.20	3.49	3.49	0.70	0.70	0.31	1.27	0.07	1.80



Stellar Parameters For KIC 007605527

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8040^{+223}_{-335}	$3.868^{+0.287}_{-0.123}$	$0.070^{+0.250}_{-0.450}$	$2.792^{+0.535}_{-1.071}$	$2.096^{+0.292}_{-0.543}$	$0.136^{+0.313}_{-0.045}$
	+3%/-4%	+7%/-3%	+357%/-643%	+19%/-38%	+14%/-26%	+231%/-33%
Source	KIC0	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 007605527-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	69 ± 15	$3.86^{+1.41}_{-1.36}$	5679^{+396}_{-485}	-6556^{+722}_{-1327}	$-1.036^{+0.506}_{-1.406}$
Alt.	-35 ± 50	$4.43^{+1.45}_{-1.53}$	5709^{+378}_{-542}	3663^{+2288}_{-8918}	$0.383^{+0.816}_{-0.597}$

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 $A_{\text{obs}} \gg 1.0$

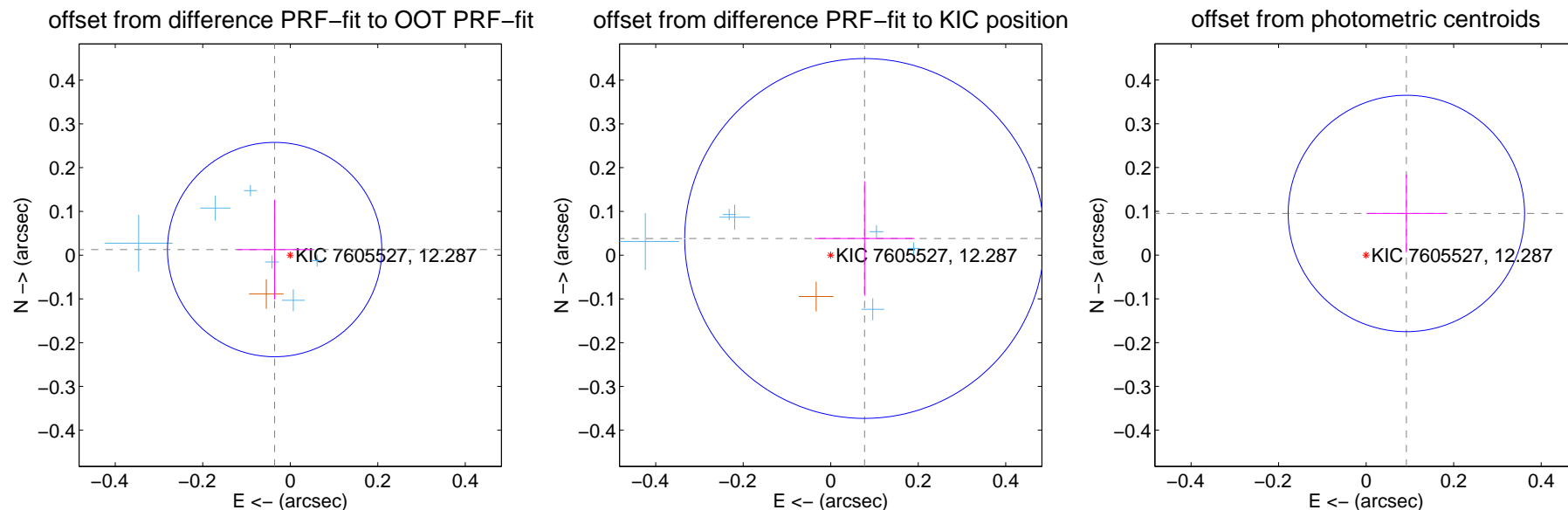
DV Centroid Data

Supplemental centroid analysis for 007605527-01. Kepler magnitude: 12.29. Transit SNR 7.90

There are 6 quarters with good PRF difference image offsets

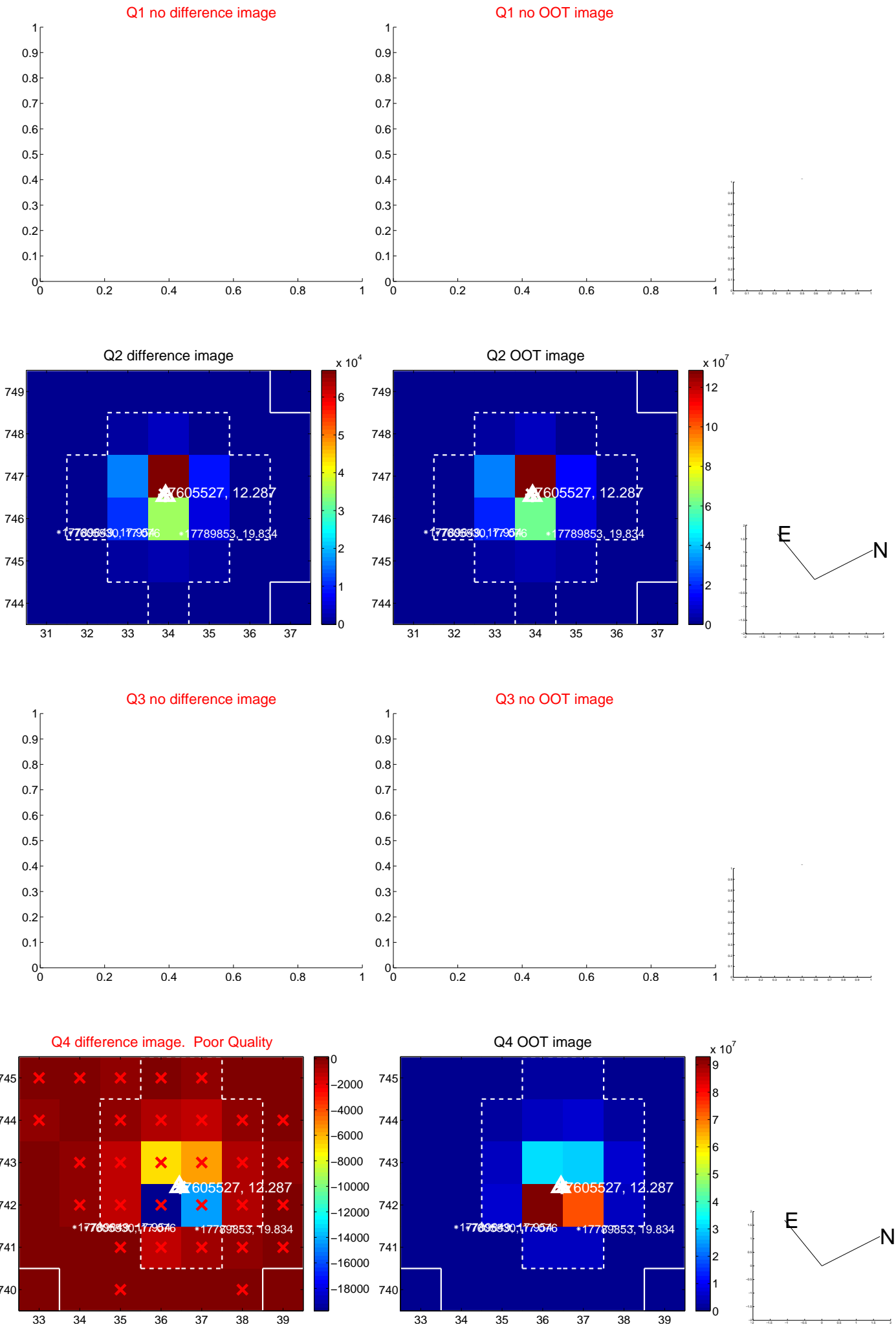
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.038 ± 0.082	0.46	0.036 ± 0.086	0.013 ± 0.114
PRF-fit source offset from KIC position	0.086 ± 0.137	0.63	-0.077 ± 0.114	0.038 ± 0.131
photometric centroid source offset	0.13 ± 0.09	1.47	-0.09 ± 0.09	0.10 ± 0.09



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.

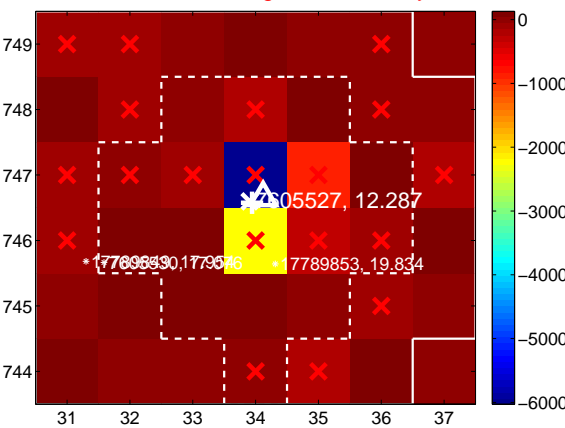
Q5 no difference image



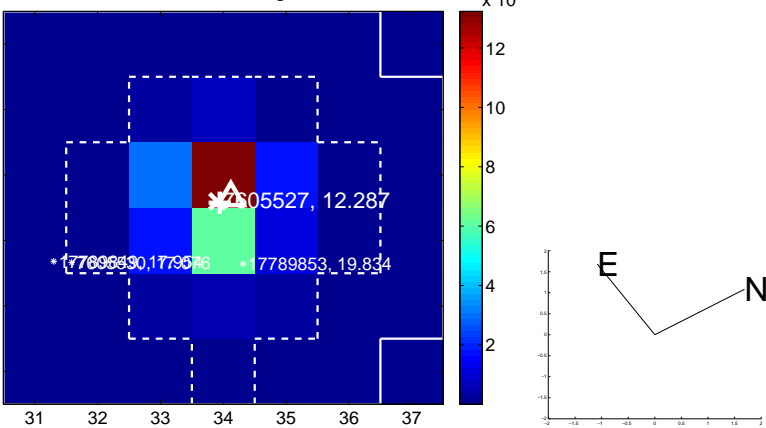
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



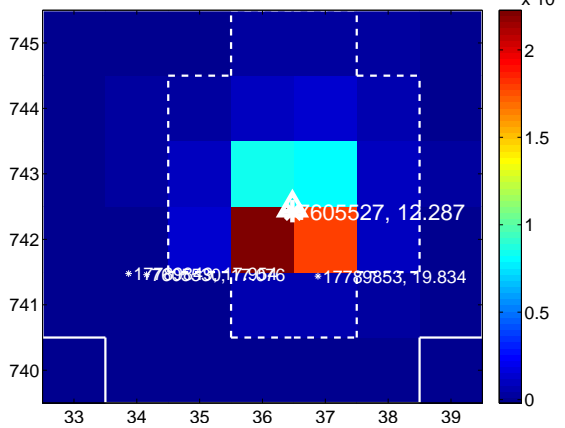
Q7 no difference image



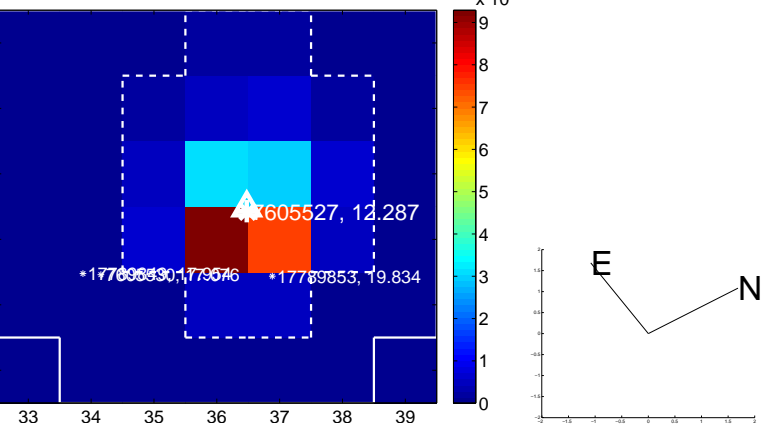
Q7 no OOT image



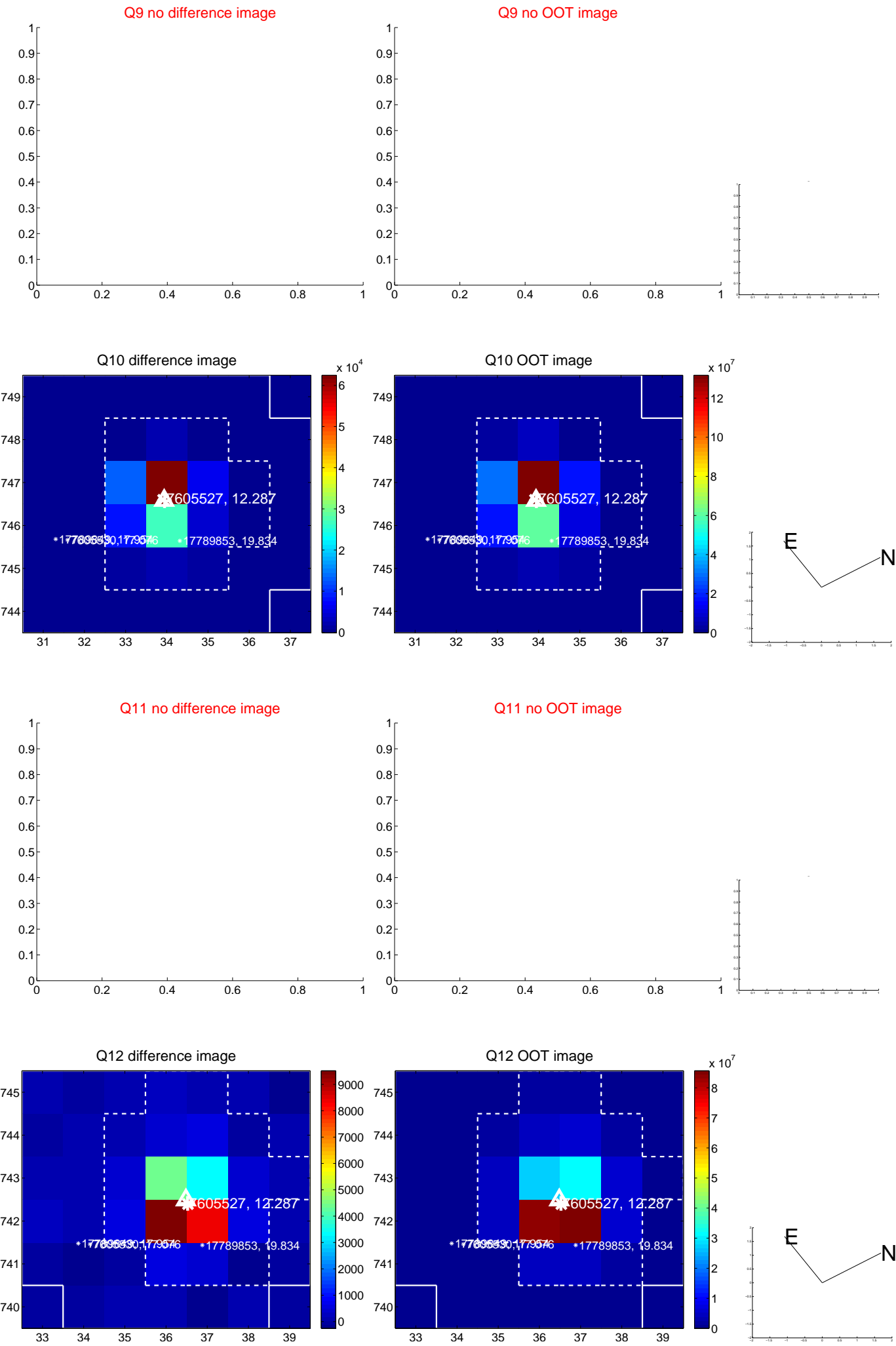
Q8 difference image



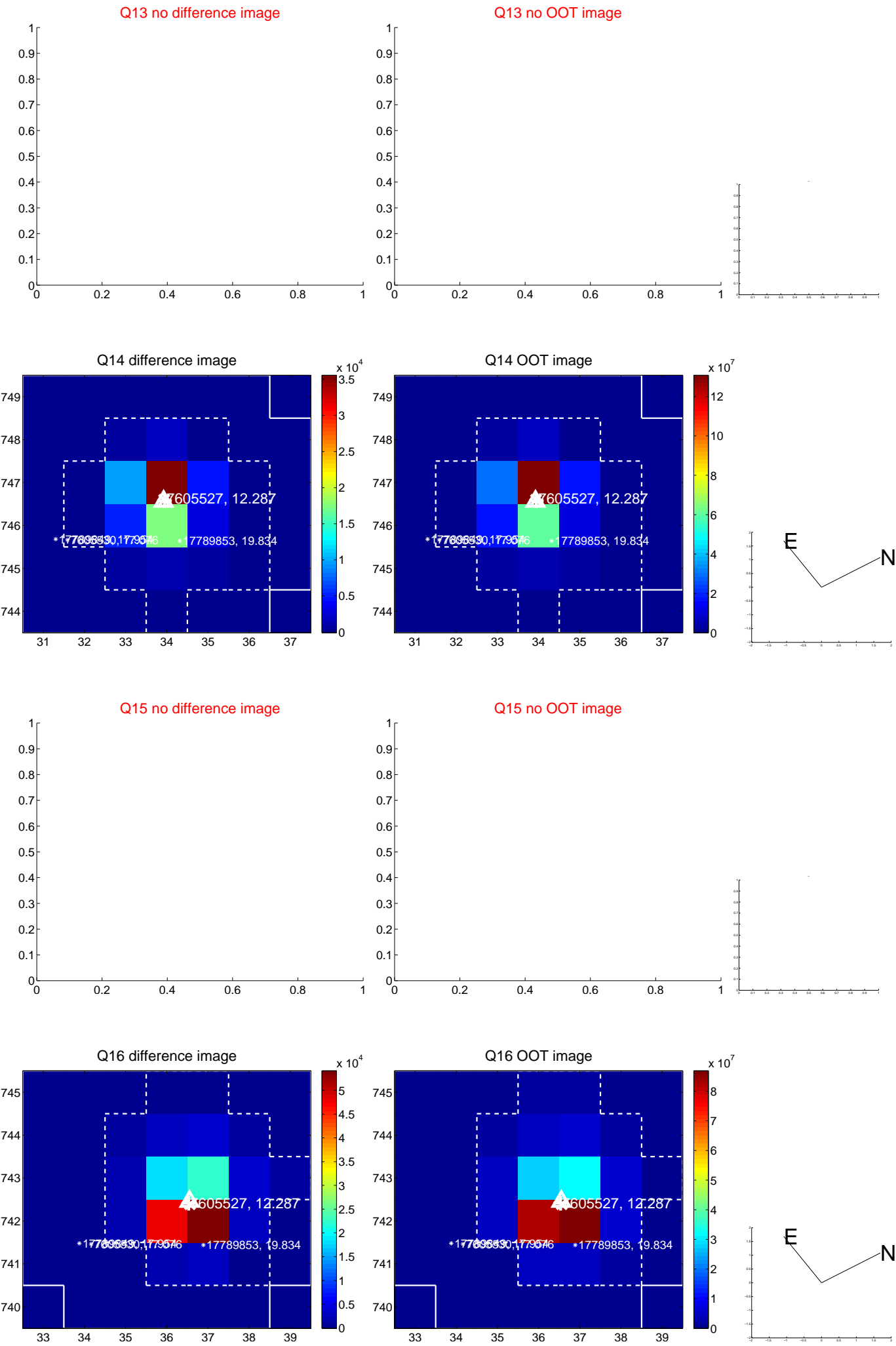
Q8 OOT image



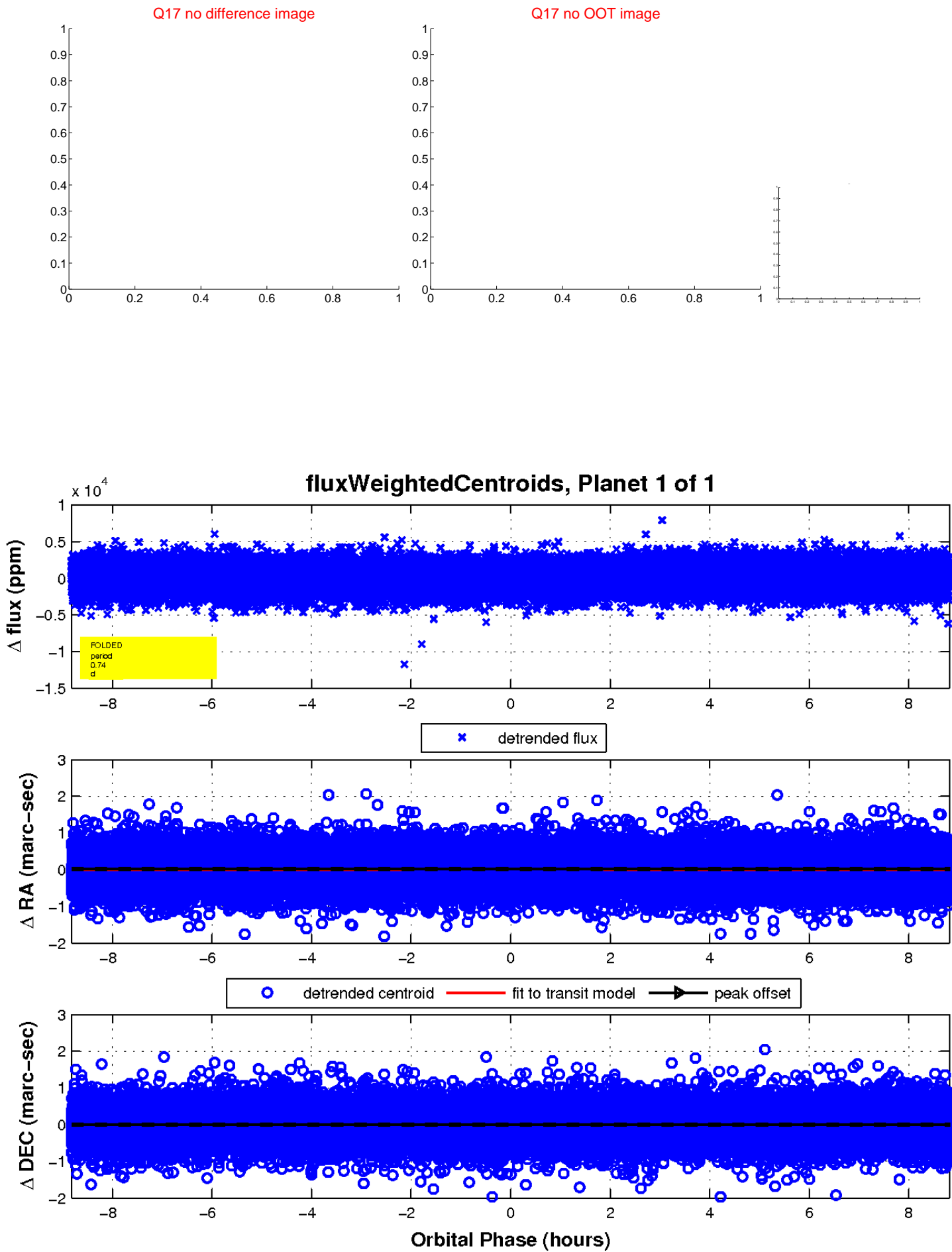
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

