

KIC 006307063

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})
006307063-01	OBS	2702.01	75.377961	167.115255	405.4	7.220	21.5	17.4	1.08	5876	4.09	10.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006307063-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—MOD_SEC_ALT—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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.

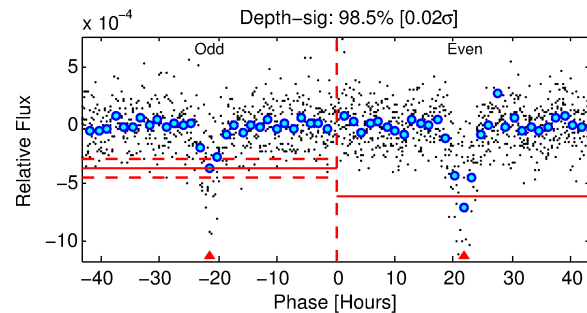
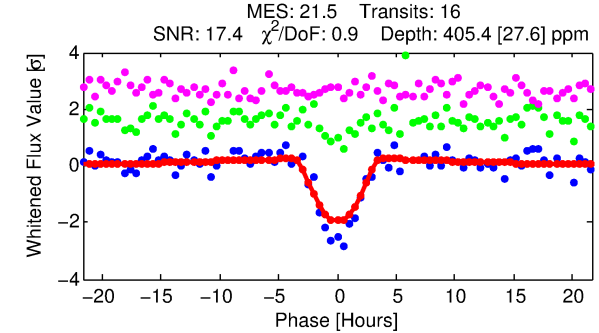
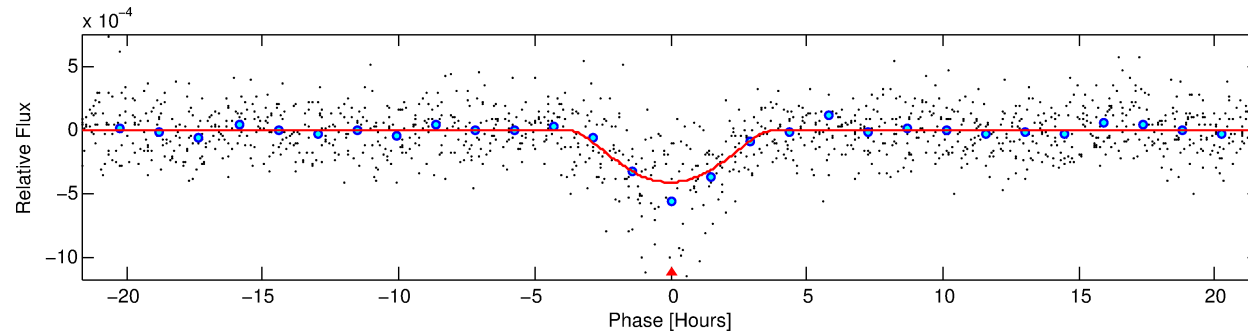
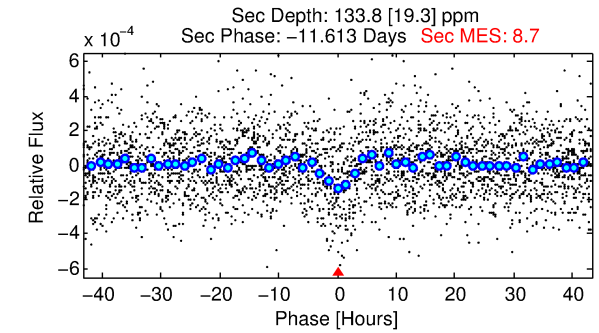
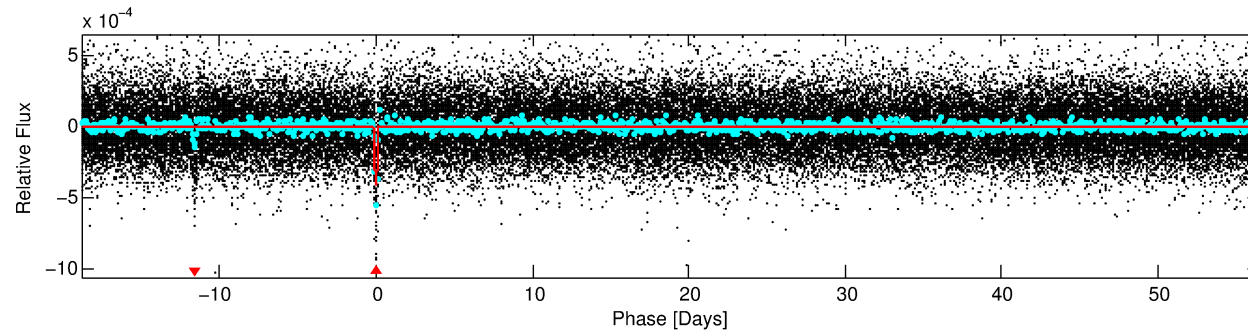
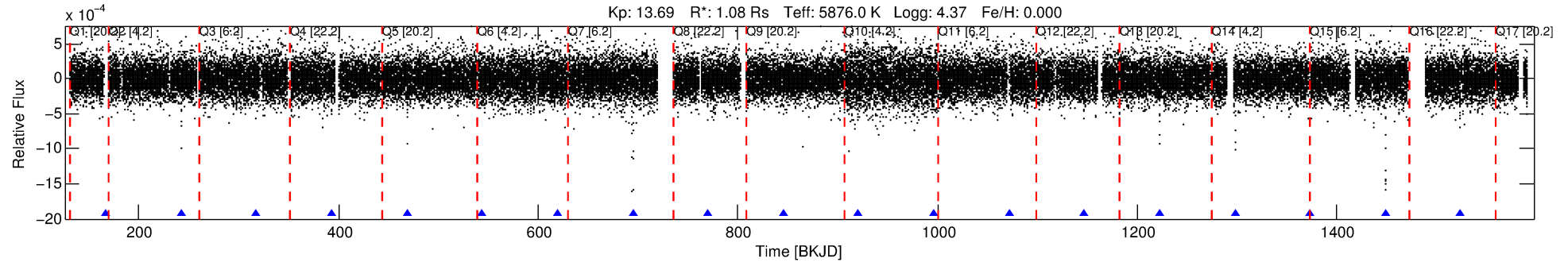
Ephemeris Match Information For 006307063-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006307063-01	6307063	3153.01	6307062	1:1	14.6	3	2	14.86	13.69	1361.80	Direct-PRF	0	0.24	0.13

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6307063 Candidate: 1 of 1 Period: 75.378 d
KOI: K02702.01 Corr: 0.973



DV Fit Results:

Period = 75.37796 [0.00083] d
Epoch = 167.1153 [0.0088] BKJD
Rp/R* = 0.0348 [0.0562]
a/R* = 22.19 [9.88]
b = 1.00 [0.09]
Seff = 10.15 [2.24]
Teq = 455 [25] K
Rp = 4.09 [6.64] Re
a = 0.3494 [0.0475] AU
Ag = 538.31 [1745.92] [0.31σ]
Teffp = 3389 [2744] K [1.07σ]

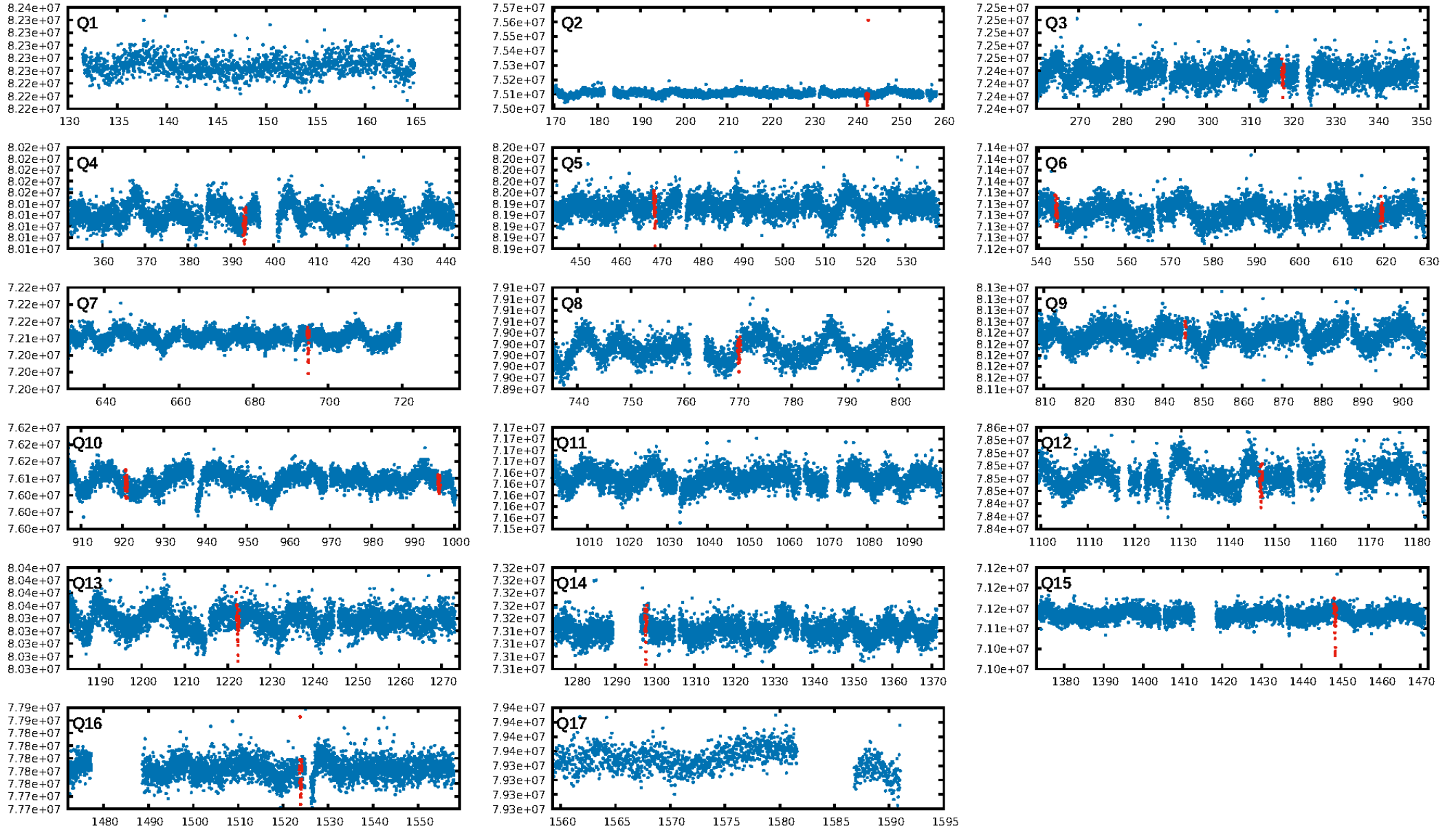
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 3.63e-72
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: -0.8095
Centroid-sig: 0.0%
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [13/13]

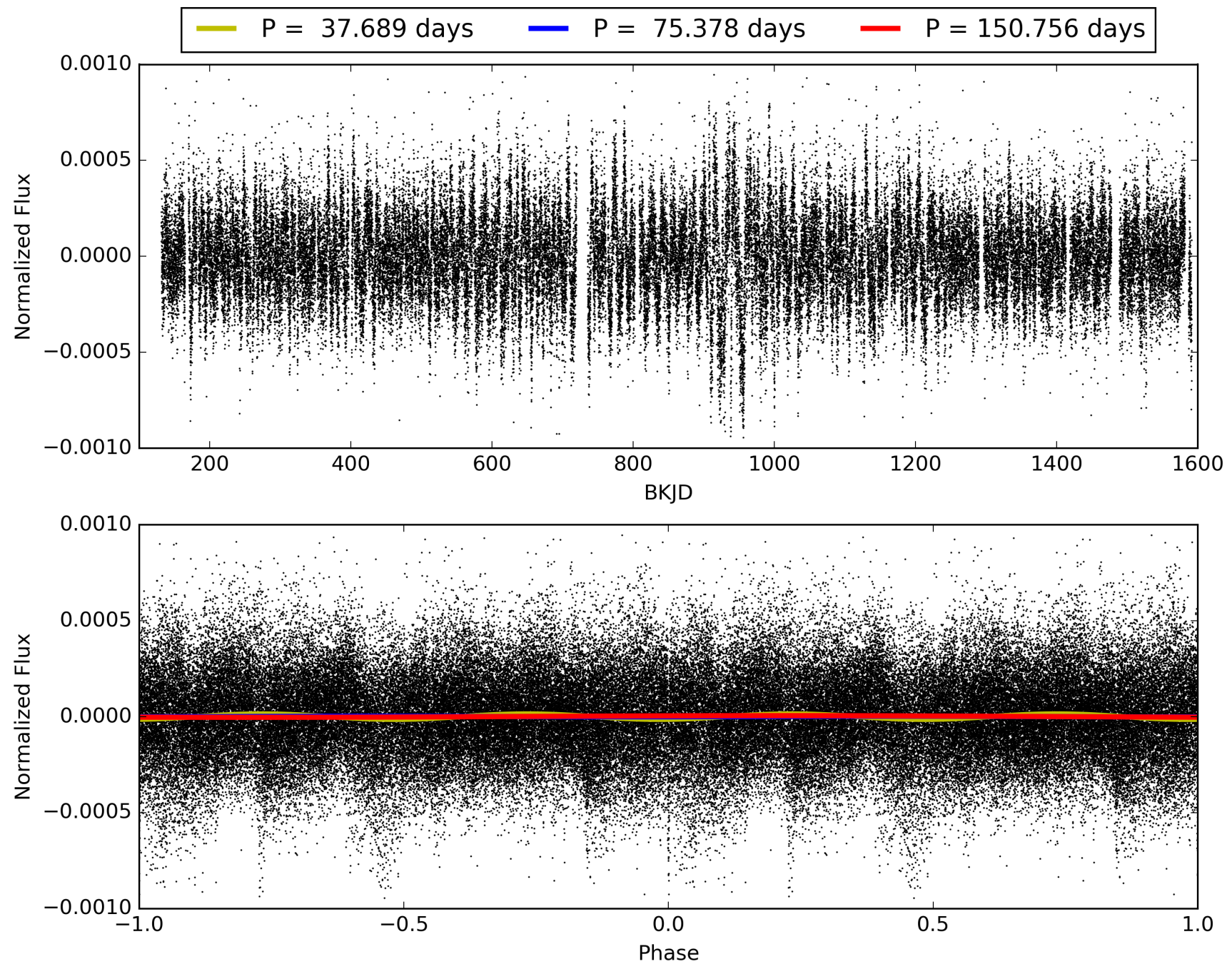
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:35:14 Z

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

TCE 006307063-01, PDC Light Curves

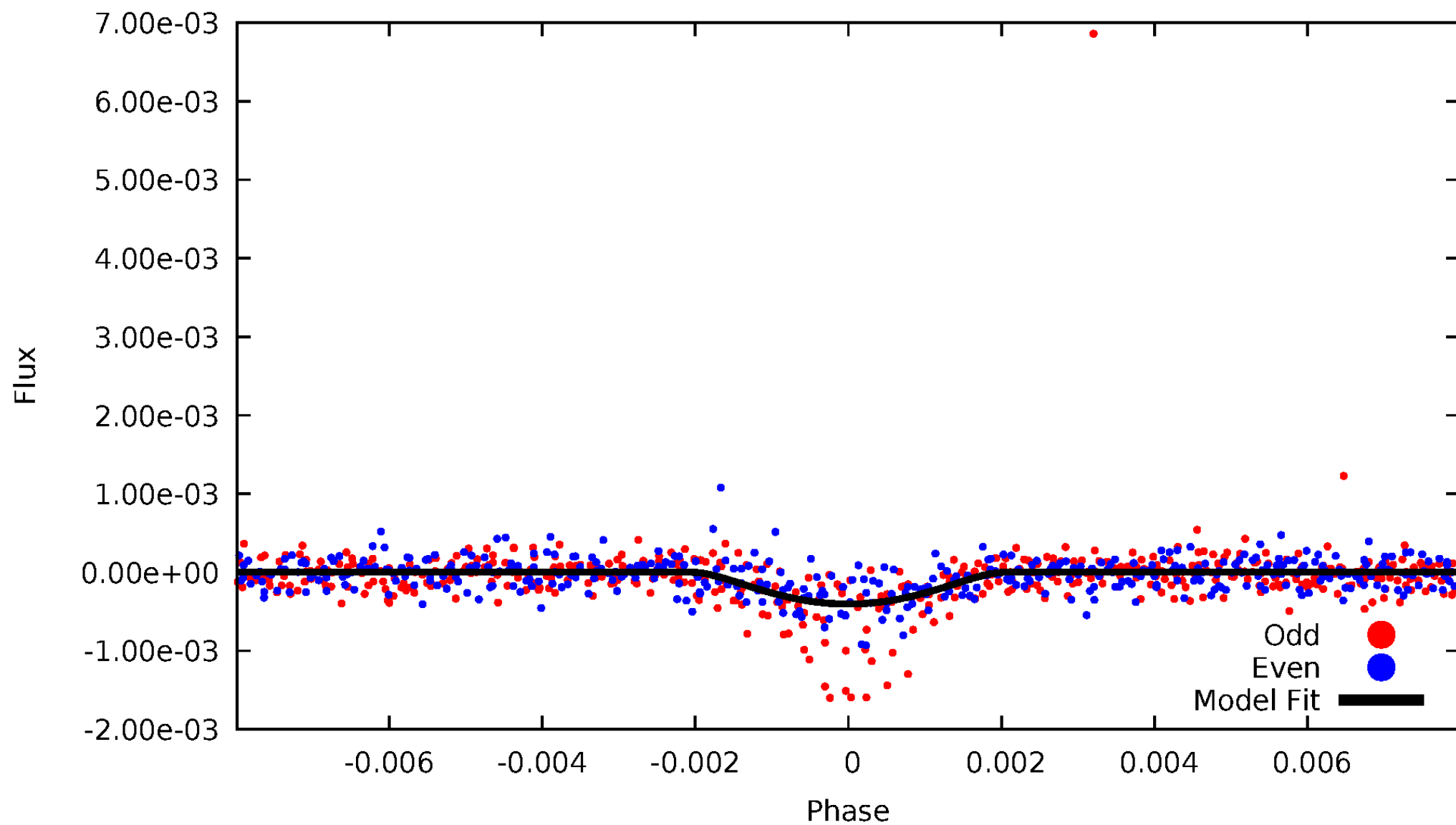


TCE 006307063-01



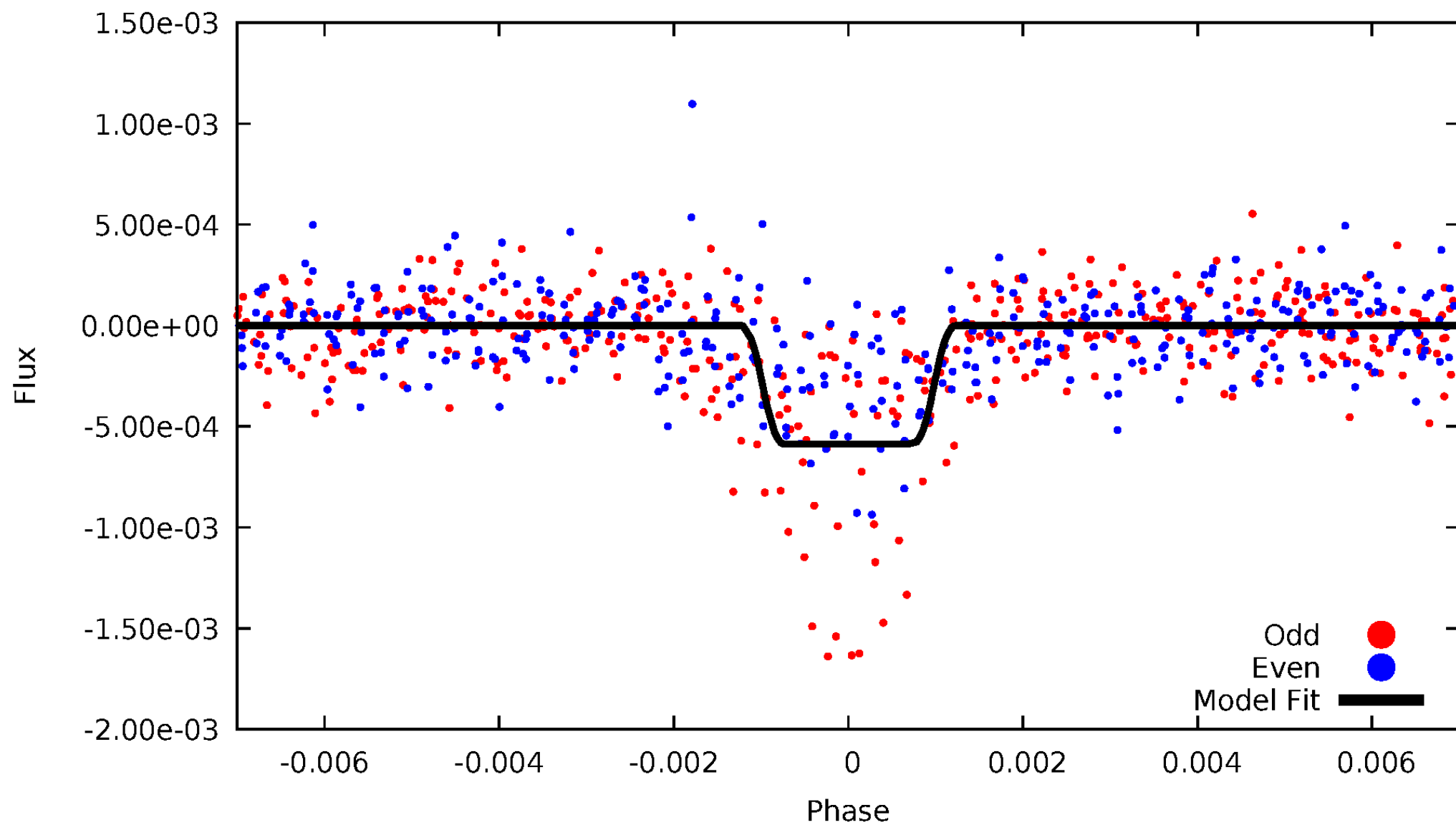
DV Odd/Even

TCE 006307063-01



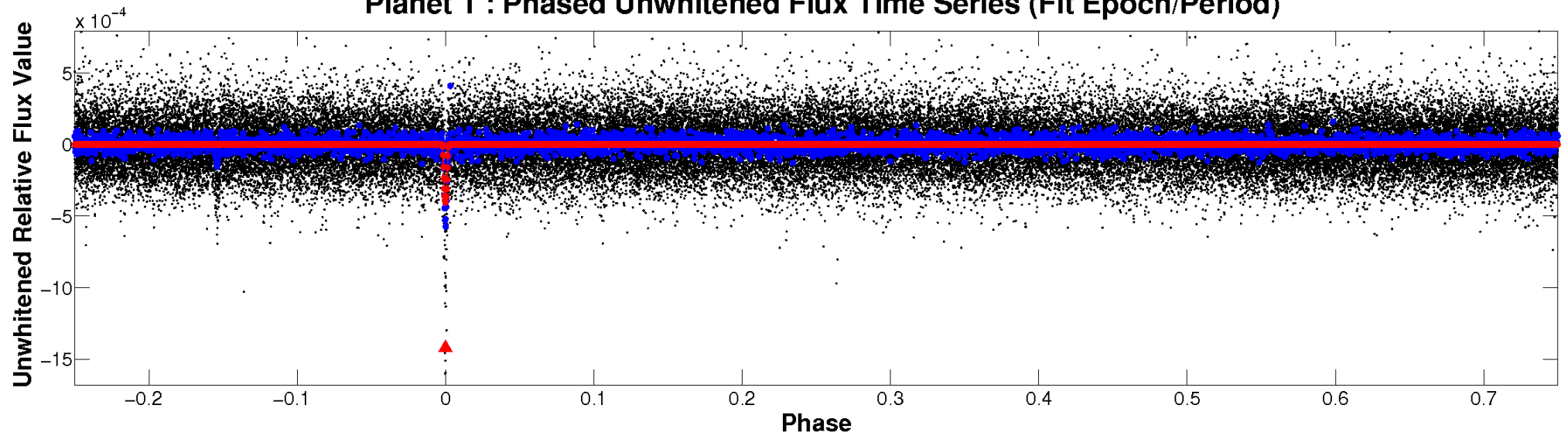
ALT Odd/Even

TCE 006307063-01

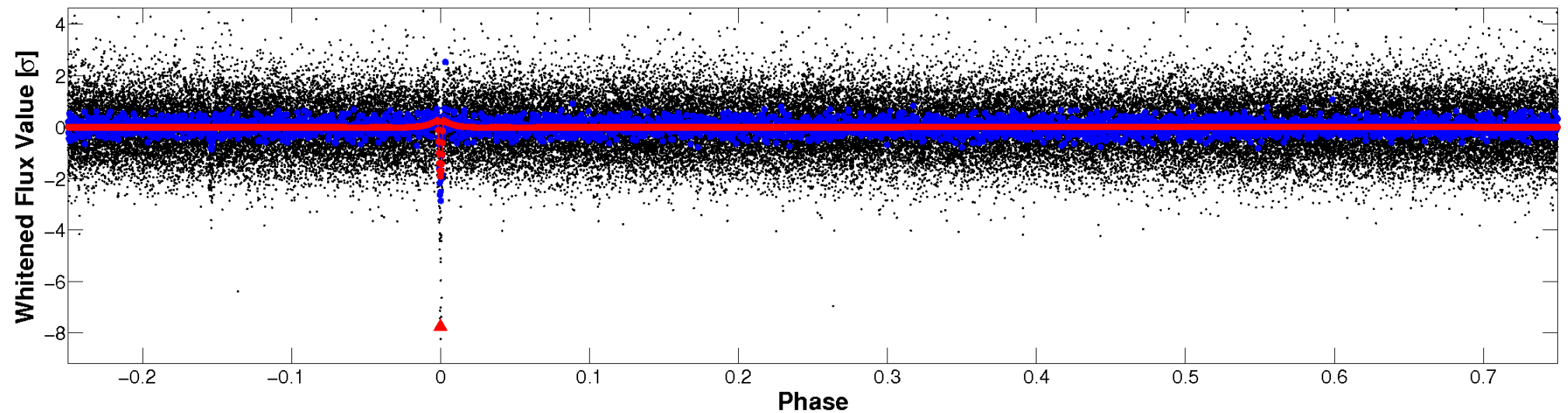


Non-Whitened Vs. Whitened Light Curve

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

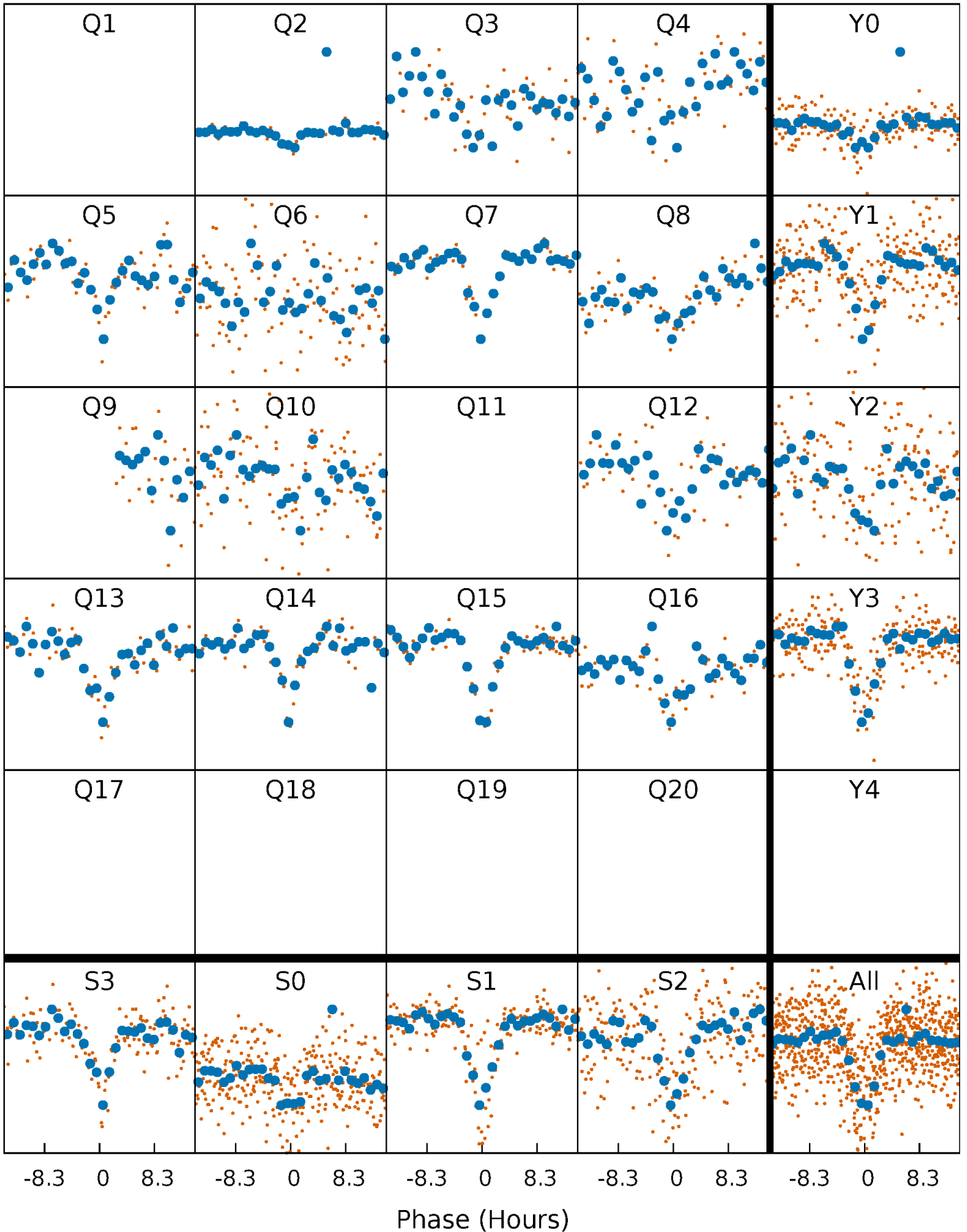


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



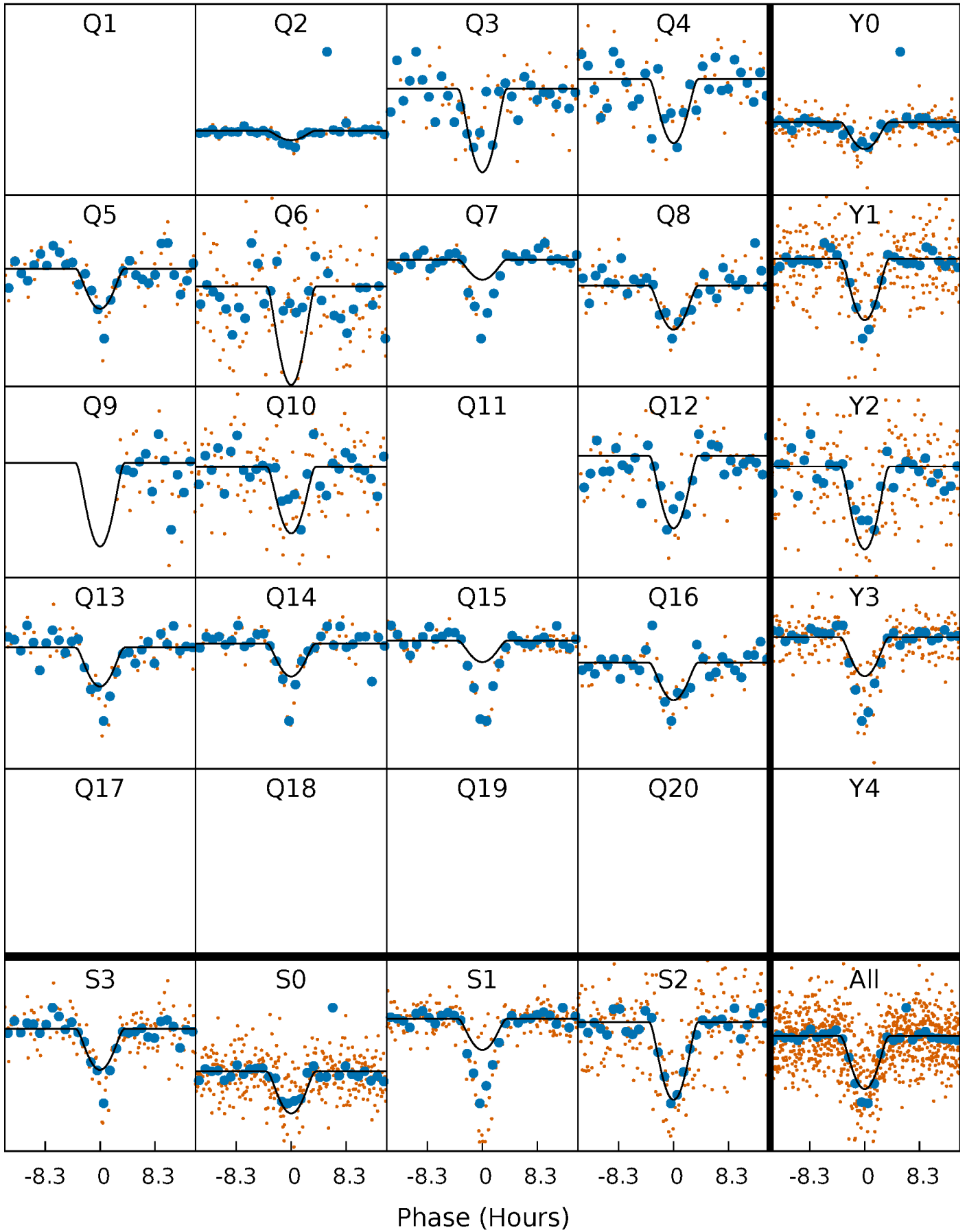
PDC Quarter-Phased Transit Curves

TCE 006307063-01 P= 75.377961 Days $T_0=167.115255$ (BKJD)



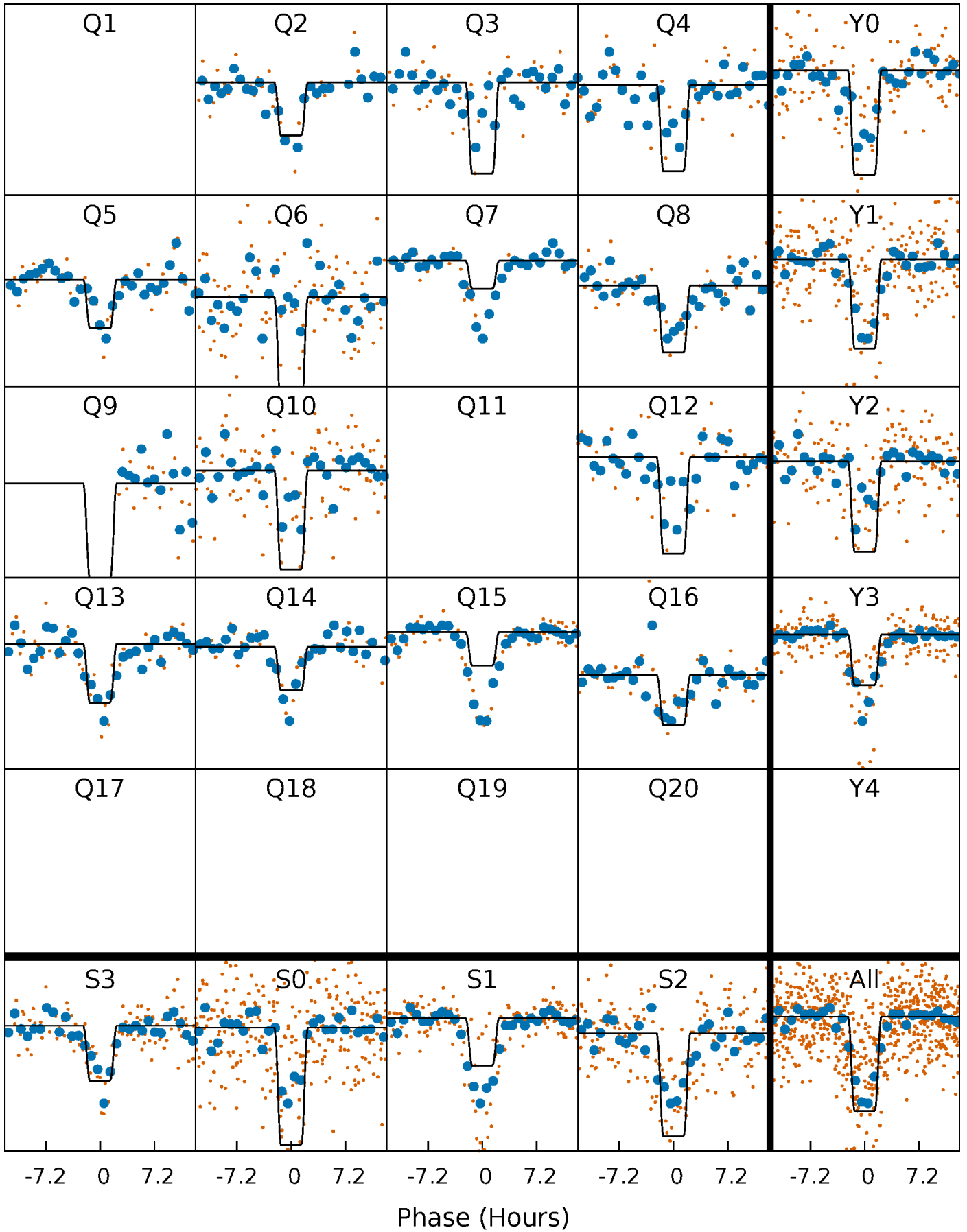
DV Quarter-Phased Transit Curves

TCE 006307063-01 P= 75.377961 Days $T_0=167.115255$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

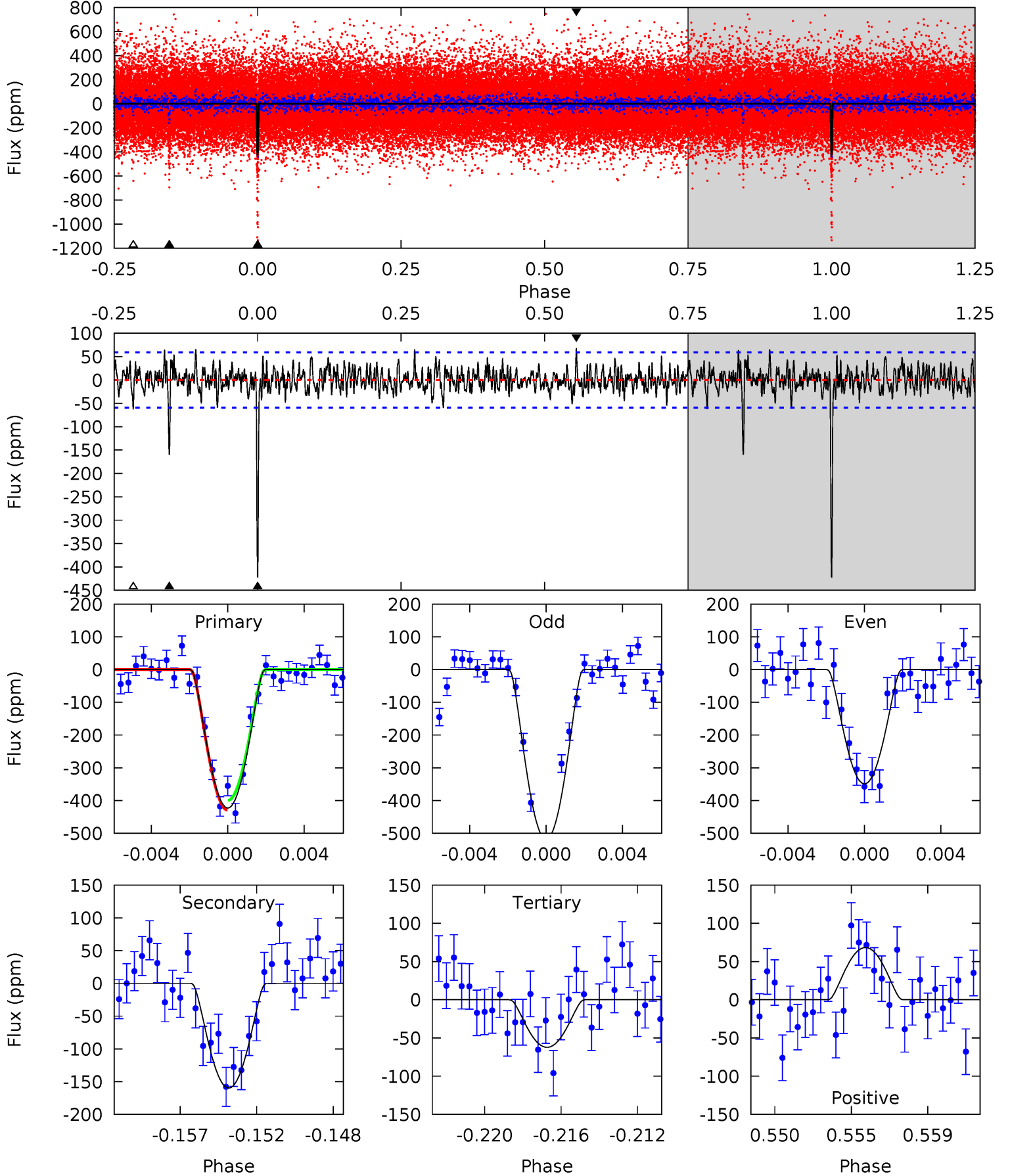
TCE 006307063-01 P= 75.378825 Days $T_0=167.108821$ (BKJD)



DV Model-Shift Uniqueness Test

006307063-01, P = 75.377961 Days, E = 91.737294 Days

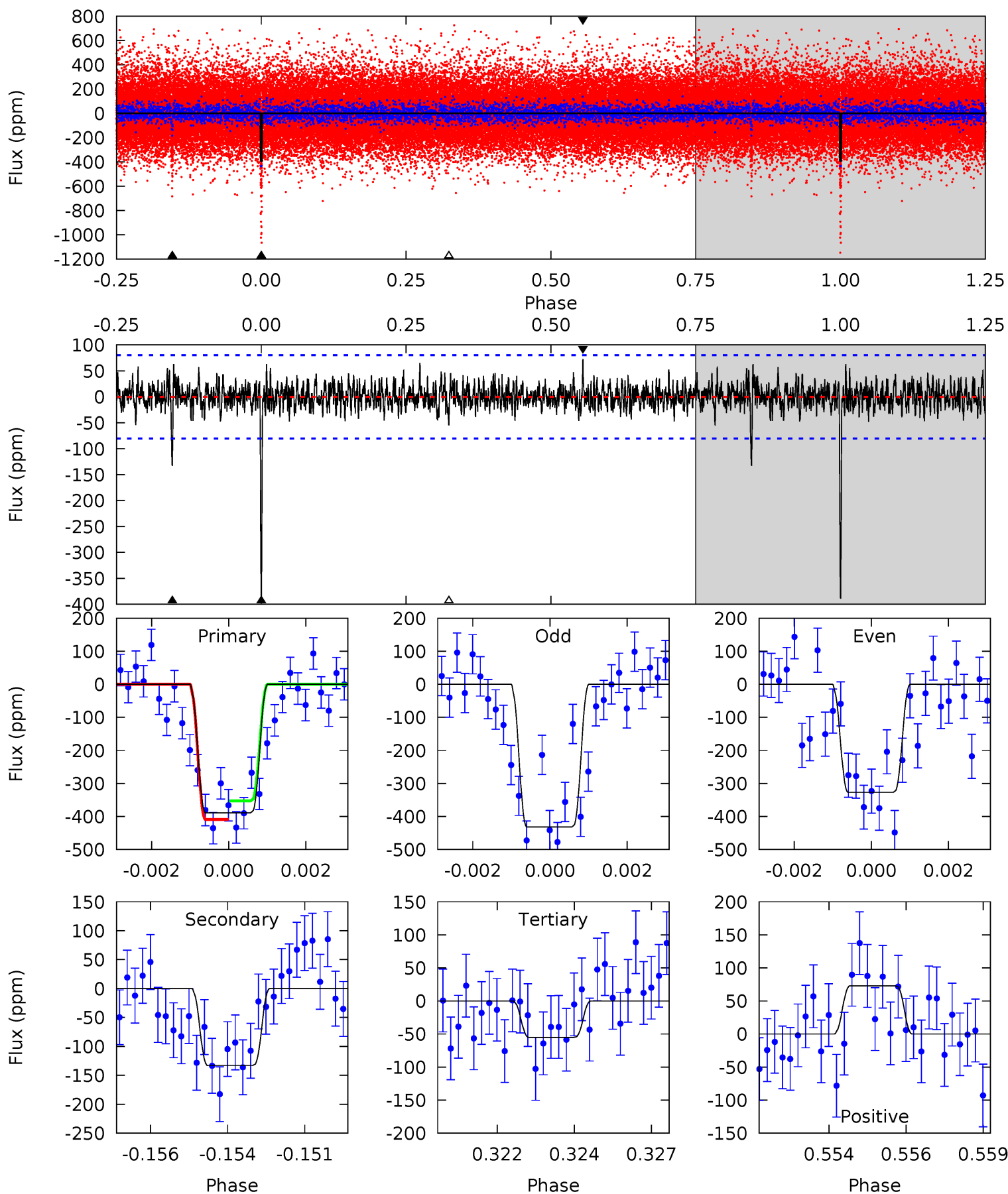
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.1	14.0	5.45	5.99	5.19	2.86	1.68	31.6	31.1	8.55	8.02	7.46	1.24	0.14	1.29



Alt Model-Shift Uniqueness Test

006307063-01, P = 75.378825 Days, E = 91.729996 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.6	8.76	3.63	4.81	5.29	3.03	1.18	22.0	20.8	5.13	3.95	3.46	1.20	0.16	1.83



Stellar Parameters For KIC 006307063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5876^{+105}_{-117}	$4.374^{+0.095}_{-0.116}$	$0.000^{+0.150}_{-0.150}$	$1.077^{+0.166}_{-0.125}$	$1.001^{+0.074}_{-0.067}$	$1.128^{+0.439}_{-0.372}$
	+2%/-2%	+2%/-3%	+inf%/-inf%	+15%/-12%	+7%/-7%	+39%/-33%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 006307063-01 / KOI 2702.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-160 ± 11	$6.01^{+5.73}_{-4.18}$	636^{+27}_{-24}	3443^{+1917}_{-626}	298^{+2996}_{-221}
Alt.	-133 ± 15	$5.96^{+5.26}_{-4.09}$	637^{+27}_{-26}	3354^{+1767}_{-559}	251^{+2367}_{-181}

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 $A_{obs} \gg 1.0$

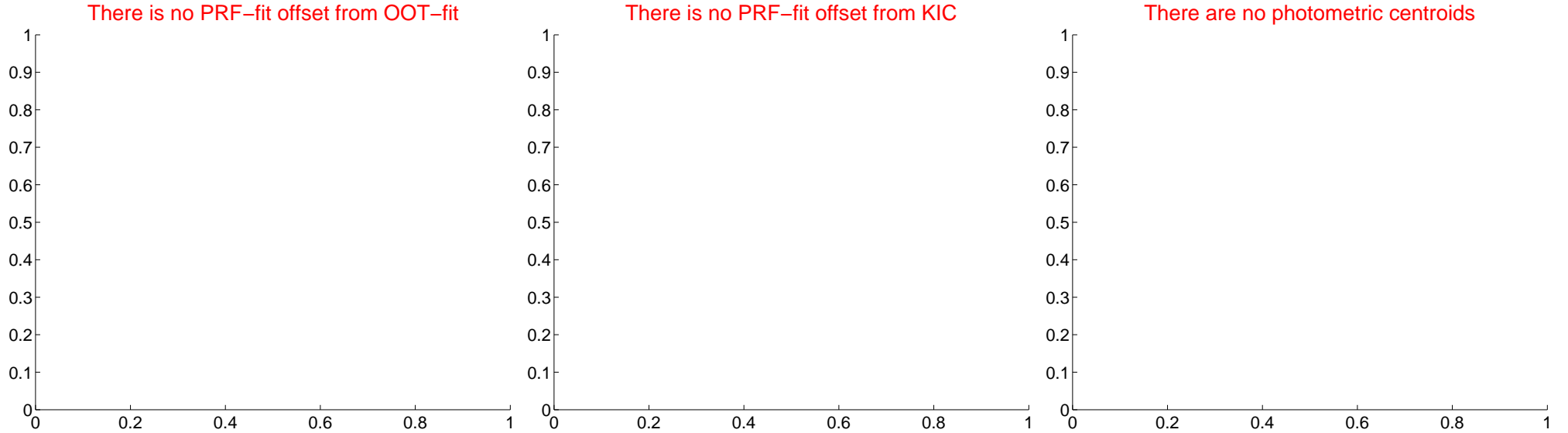
DV Centroid Data

Supplemental centroid analysis for 006307063-01. Kepler magnitude: 13.69. Transit SNR 17.37

There are 0 quarters with good PRF difference image offsets

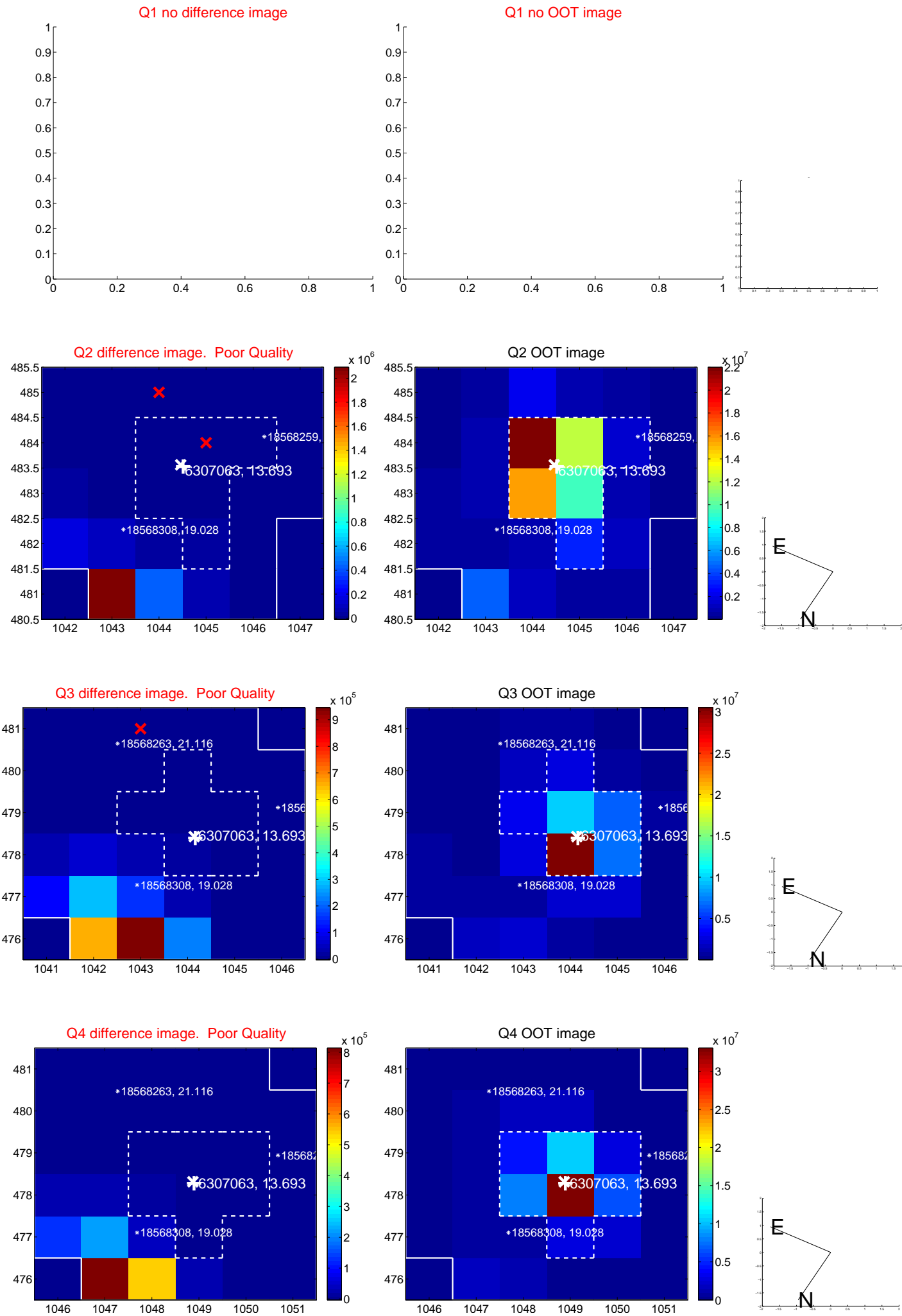
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—

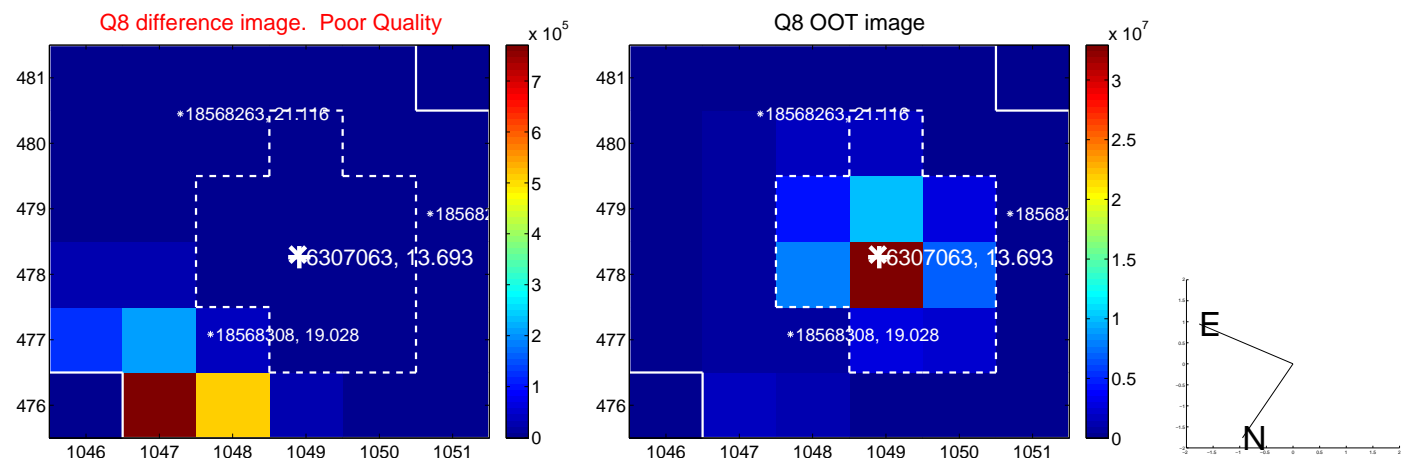
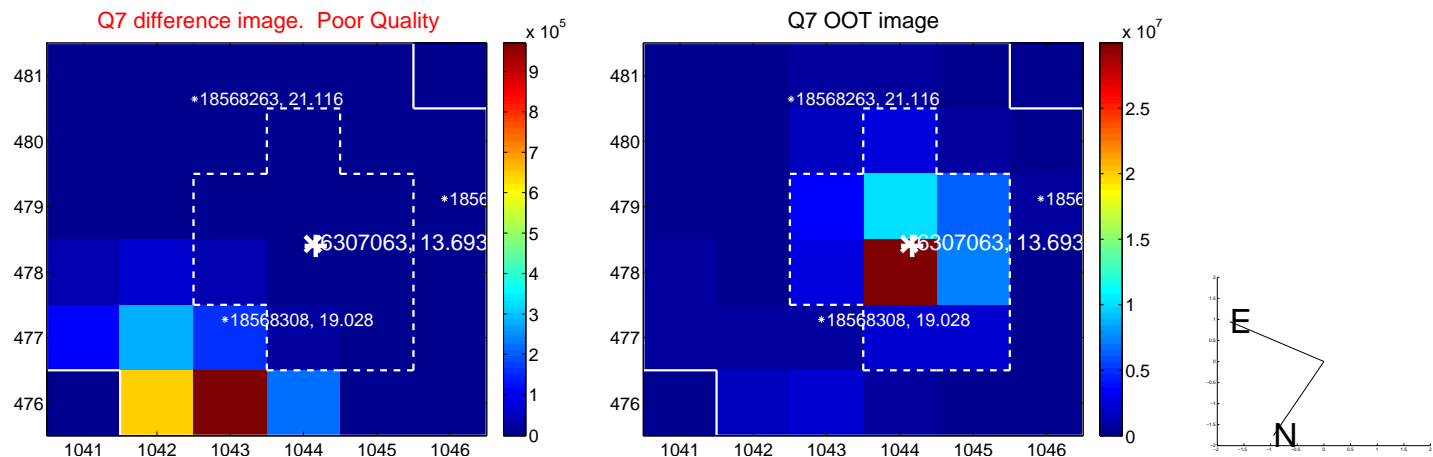
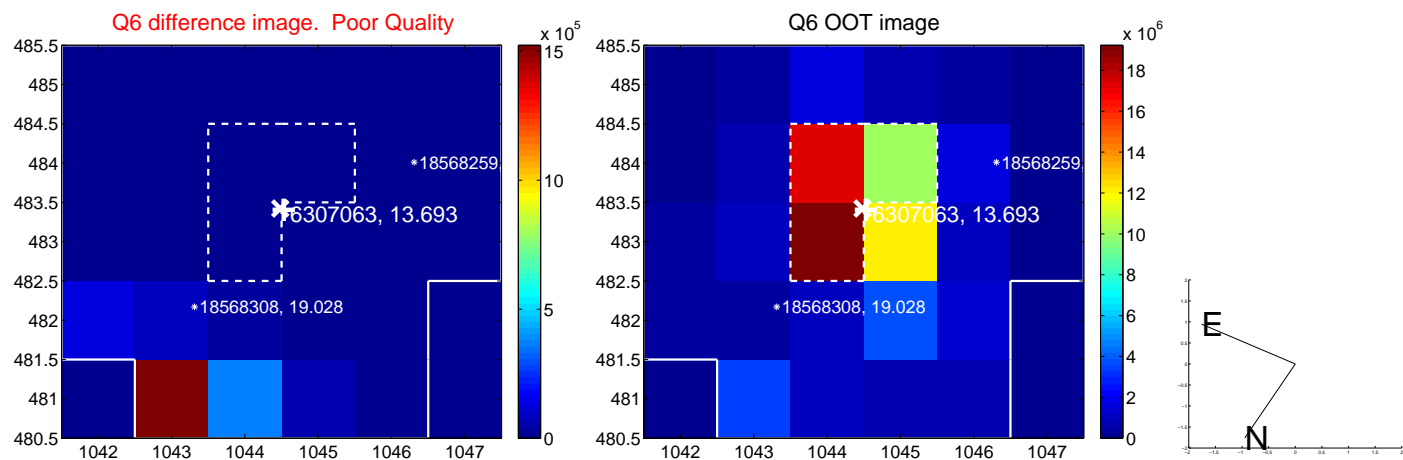
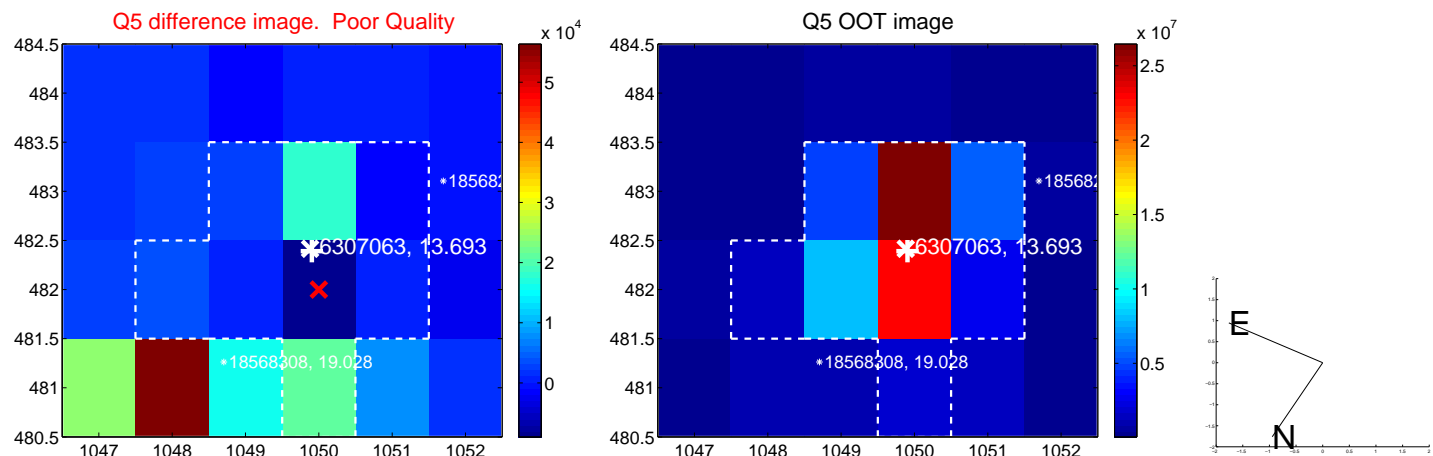


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

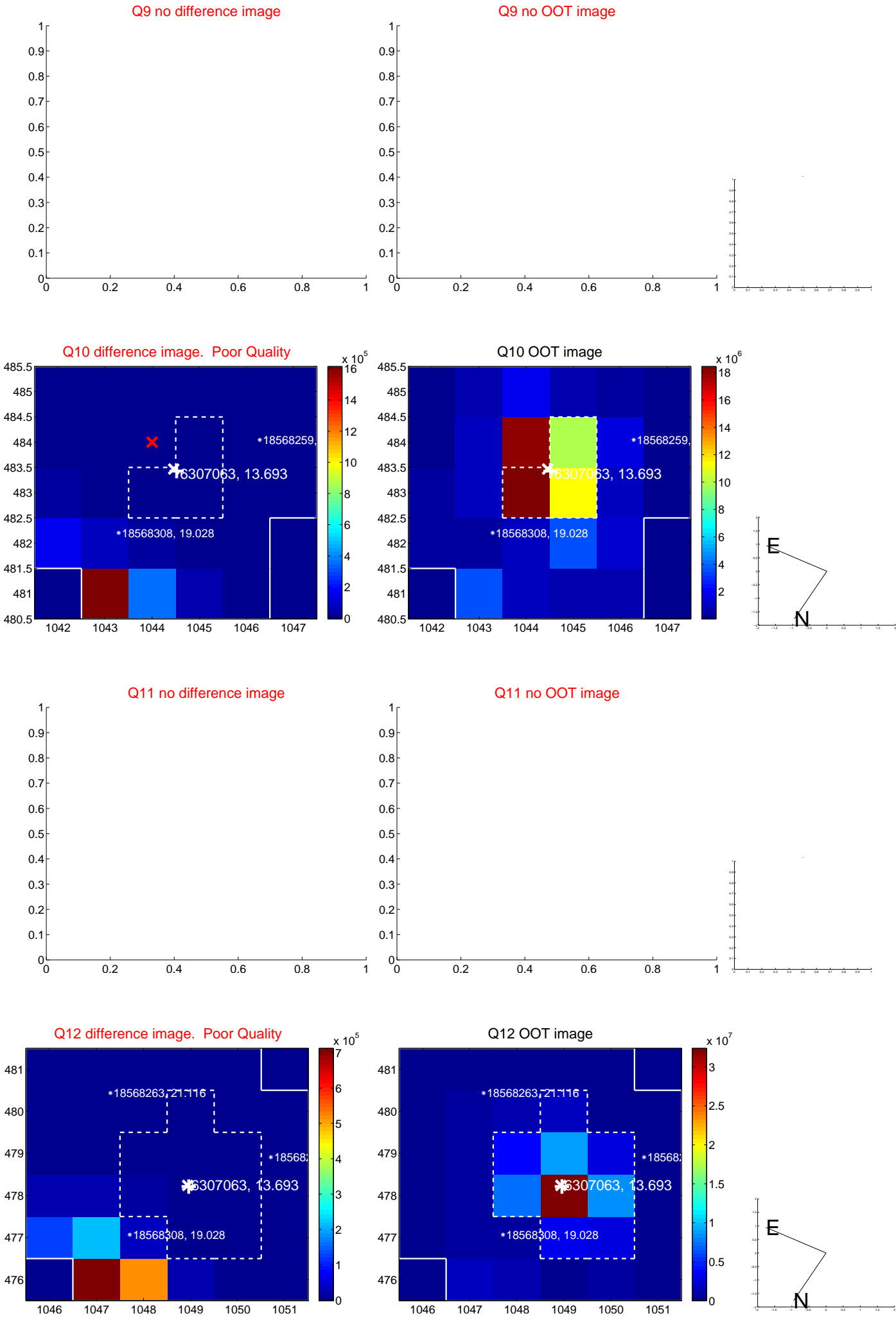
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



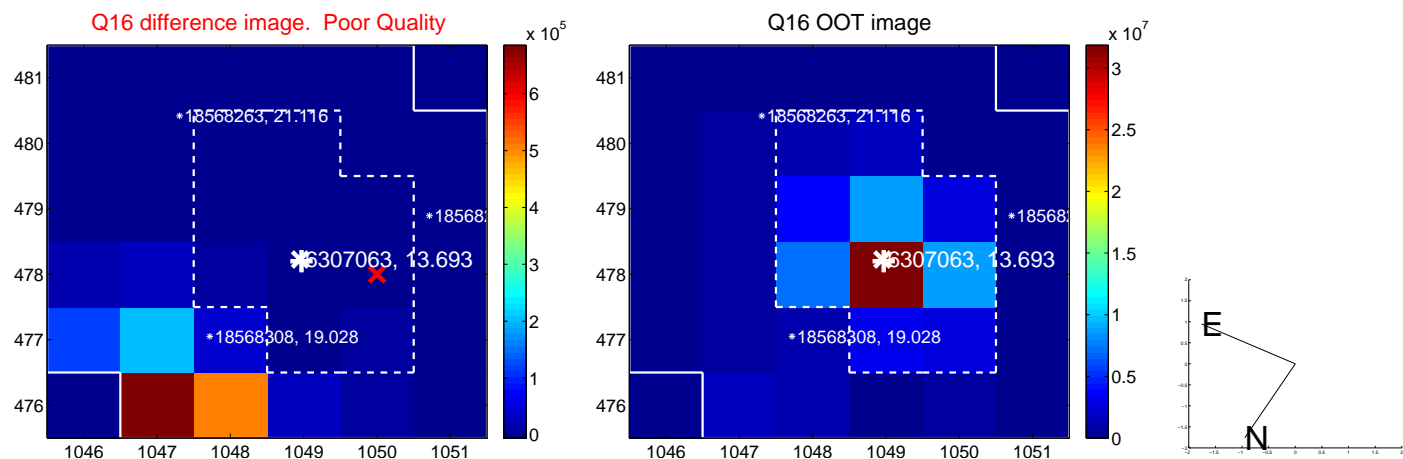
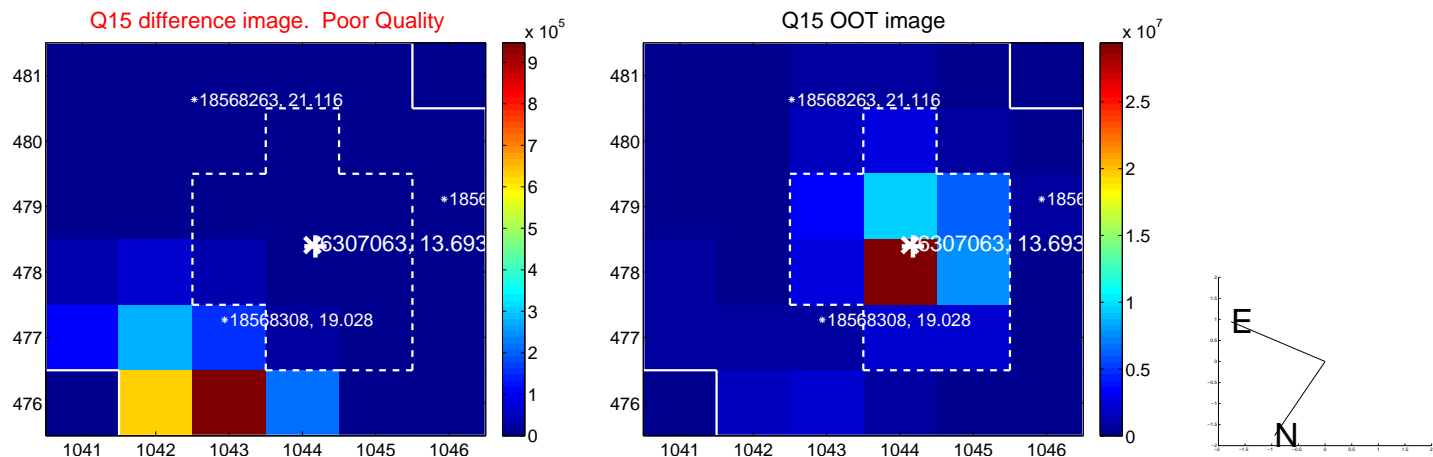
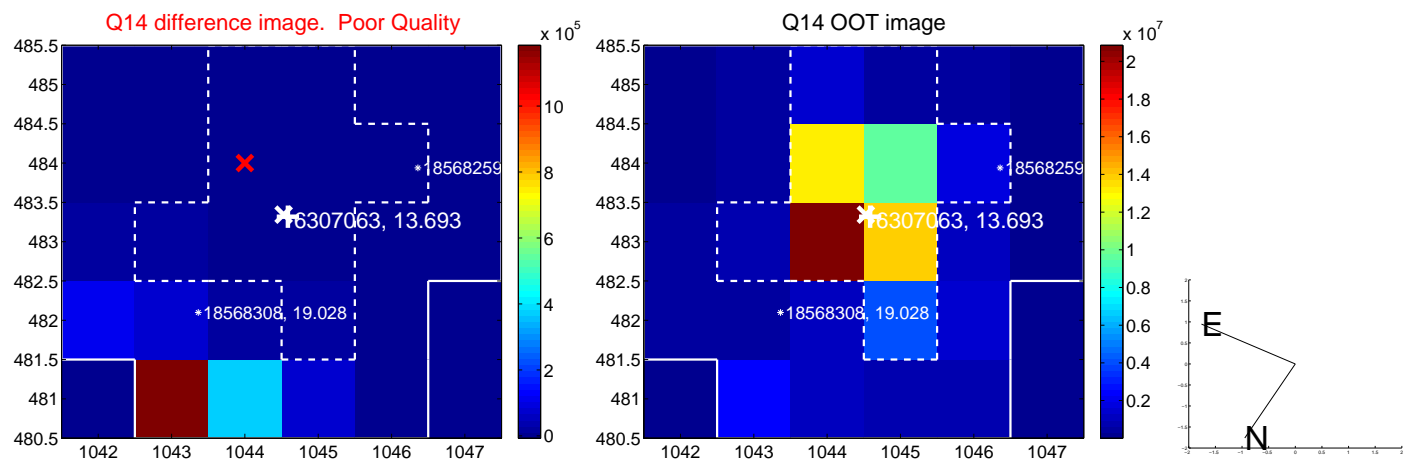
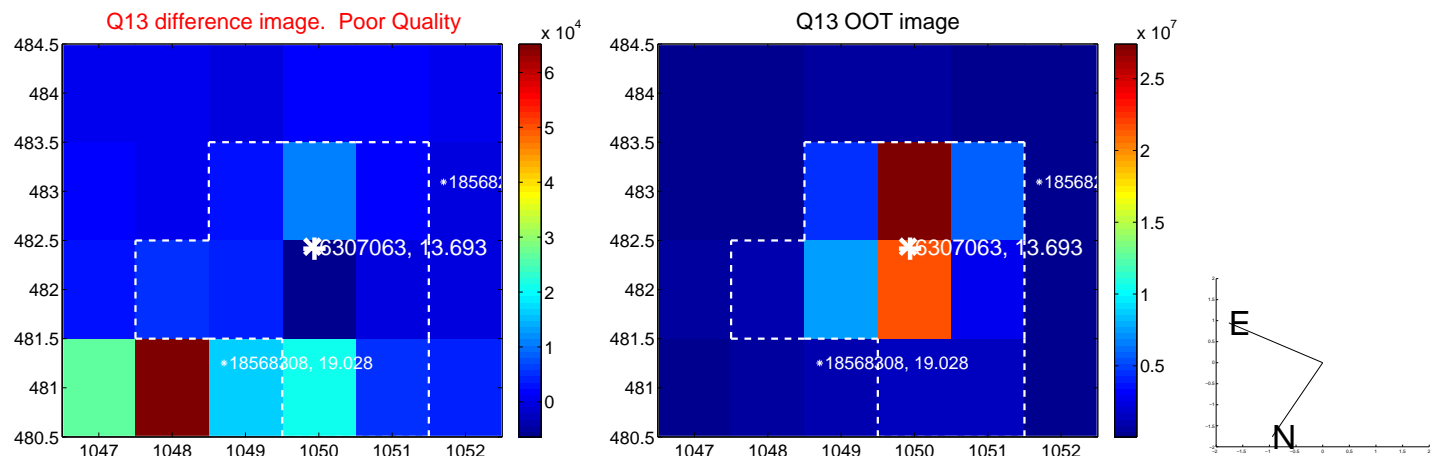
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



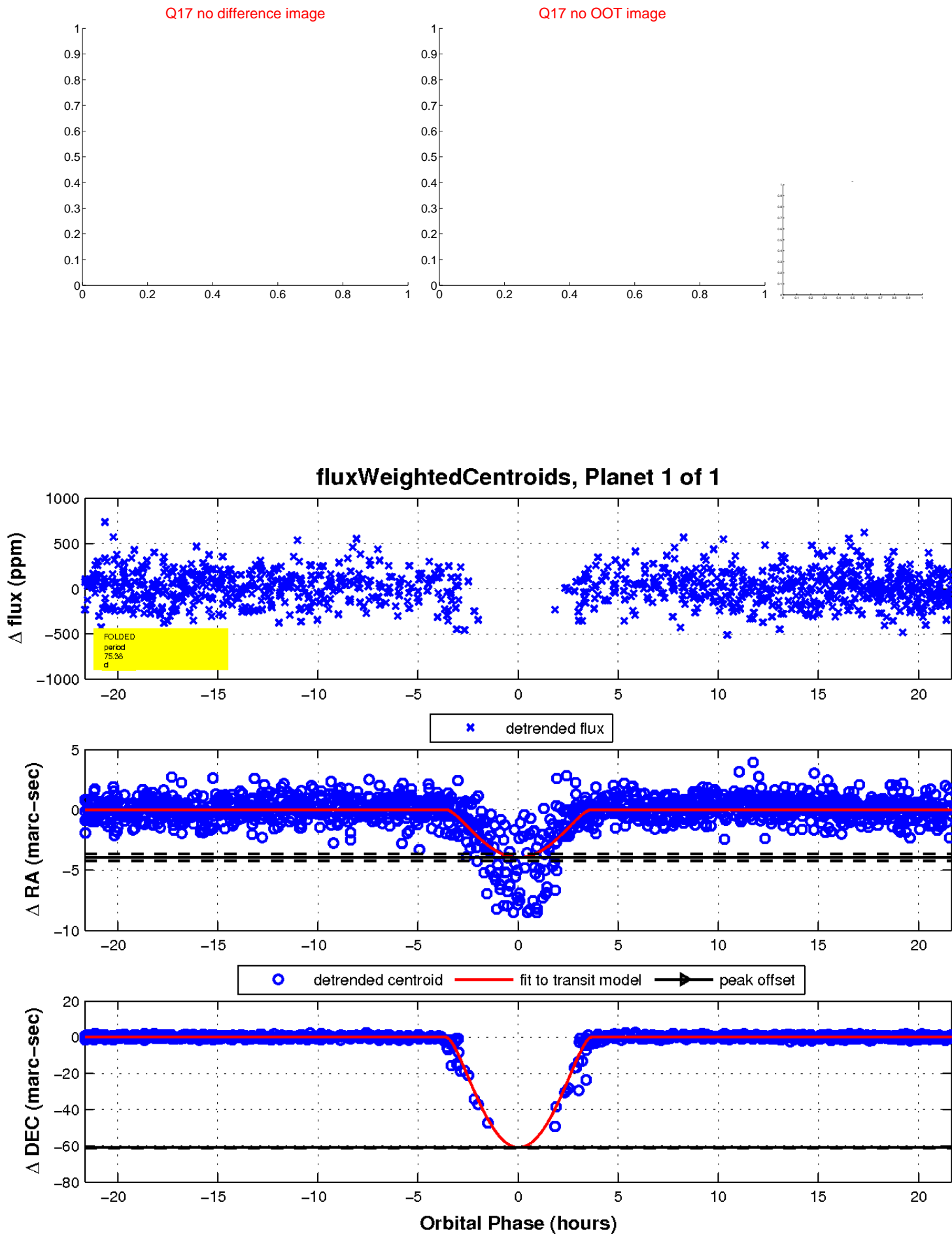
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

