

KIC 007585481

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})
007585481-01	OBS	0890.01	8.098884	136.129754	6905.7	4.204	436.9	431.0	1.08	6214	8.95	223.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007585481-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

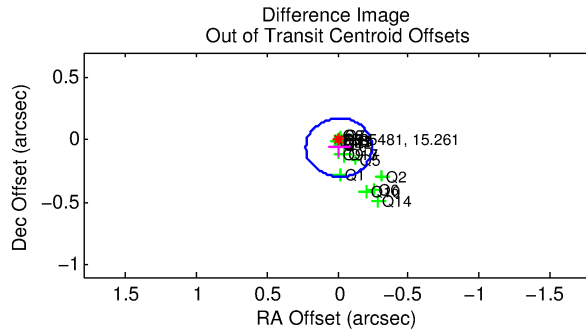
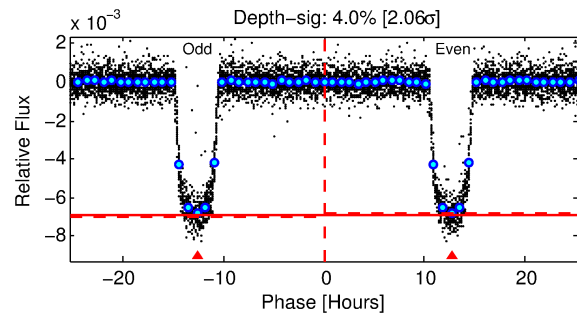
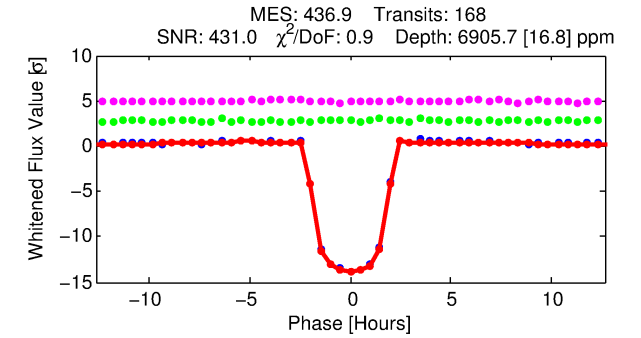
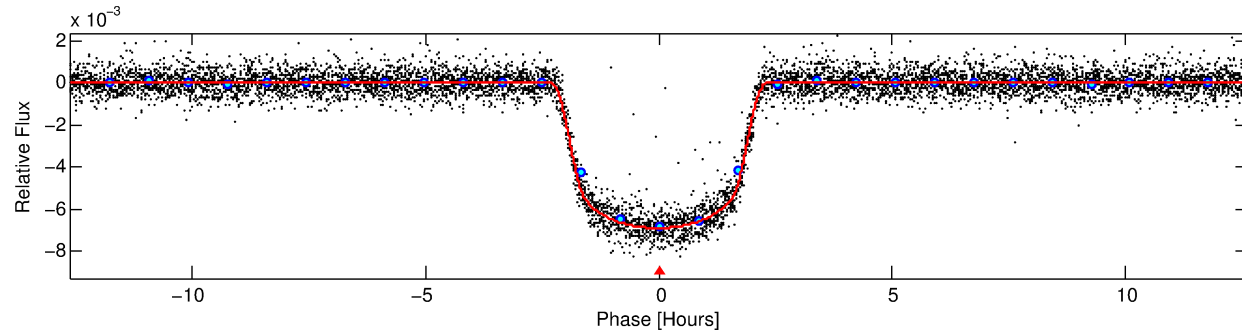
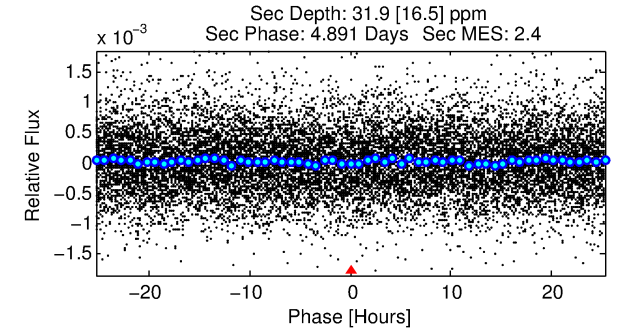
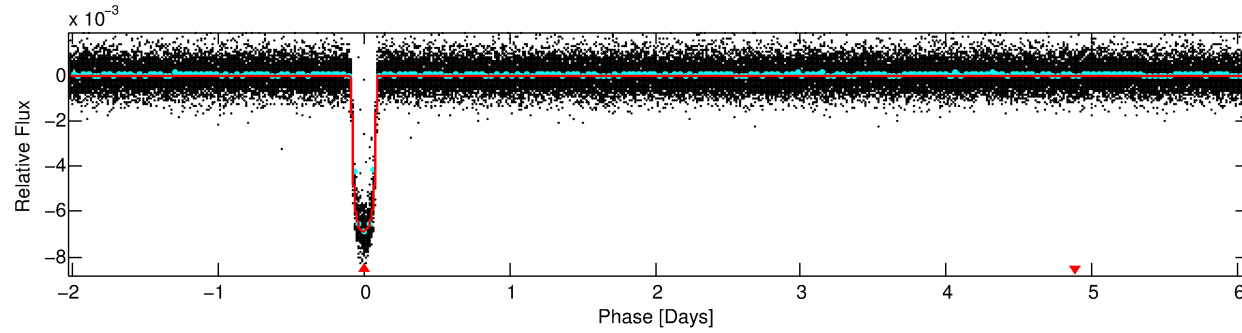
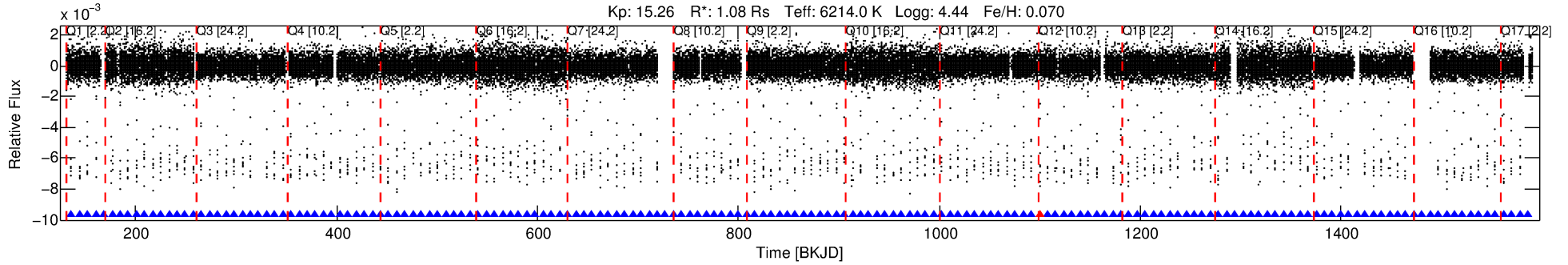
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007585481-01

No Significant Match Found

DV One-Page Summary

KIC: 7585481 Candidate: 1 of 1 Period: 8.099 d
KOI: K00890.01 Corr: 0.999



DV Fit Results:

Period = 8.09888 [0.00000] d
Epoch = 136.1298 [0.0002] BKJD
Rp/R* = 0.0762 [0.0010]
a/R* = 15.73 [0.96]
b = 0.13 [0.46]
Seff = 223.71 [94.19]
Teff = 986 [104] K
Rp = 8.95 [2.94] Re
a = 0.0831 [0.0228] AU
Ag = 1.52 [0.99] [0.52 σ]
Teffp = 1692 [227] K [2.83 σ]

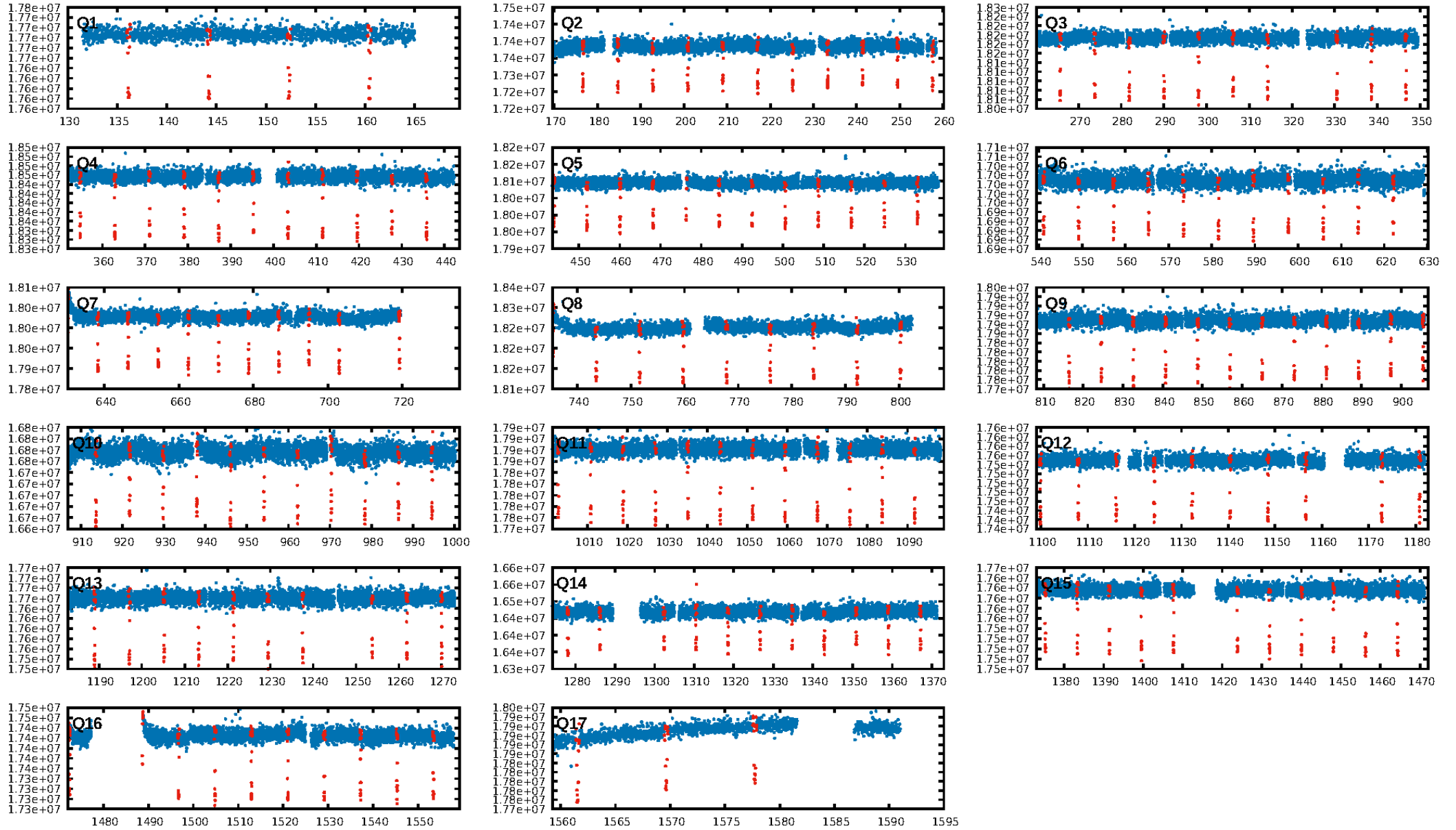
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [160/161]
GhostDiagnostic-chr: 4.392
Centroid-sig: 0.0%
Centroid-so: 0.441 arcsec [13.77 σ]
OotOffset-rm: 0.064 arcsec [0.82 σ]
KicOffset-rm: 0.175 arcsec [2.46 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

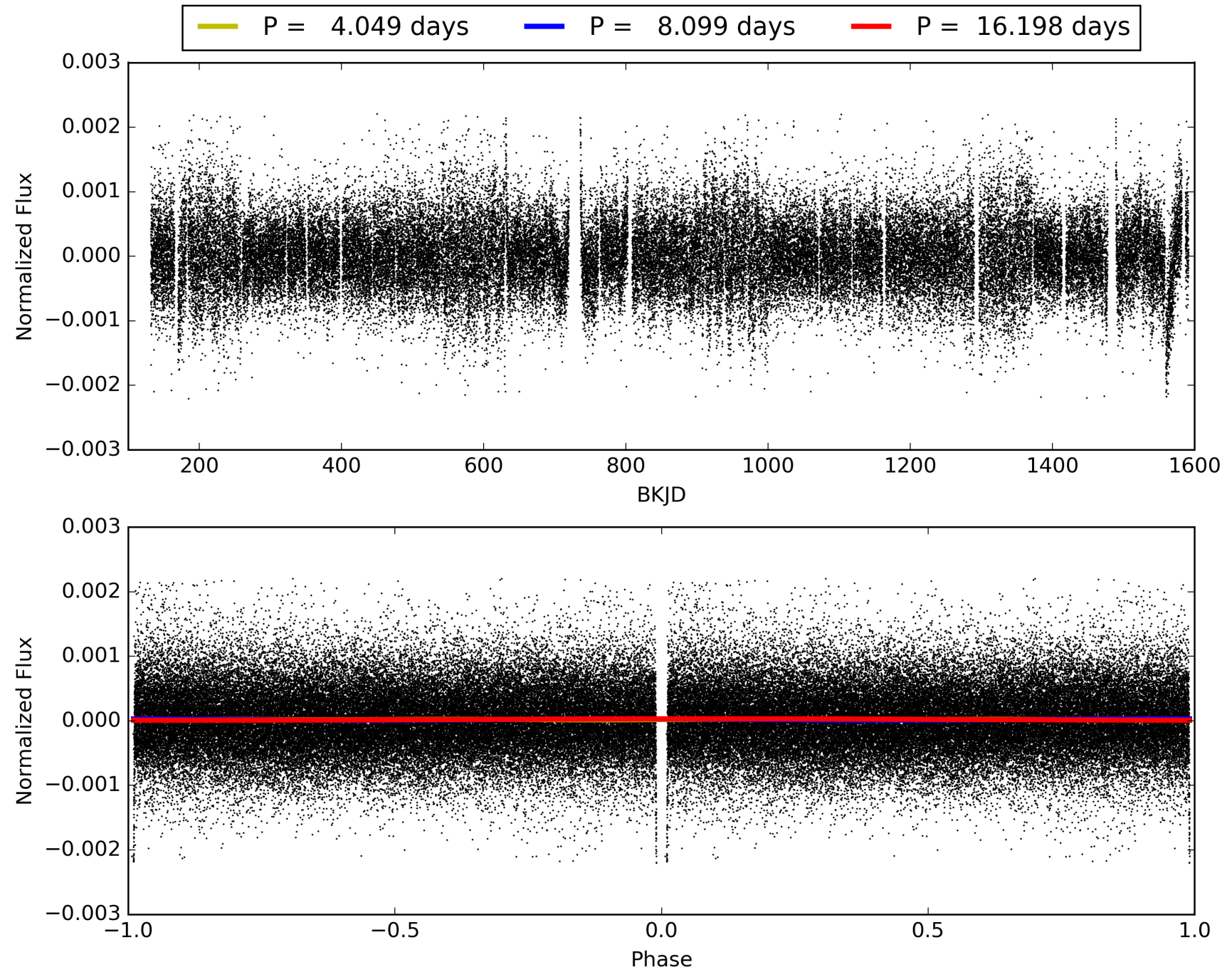
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:47:05 Z

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

TCE 007585481-01, PDC Light Curves

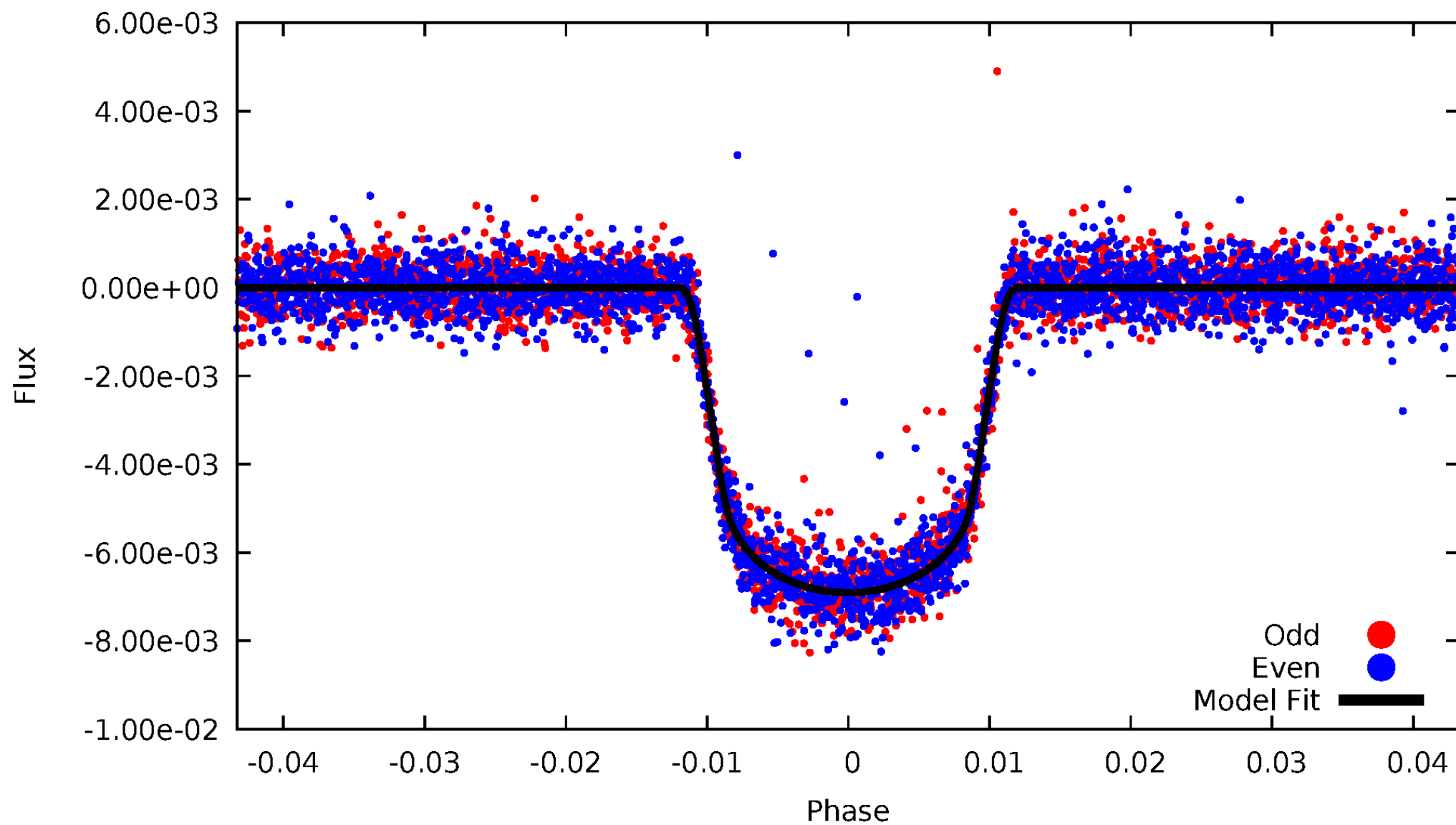


TCE 007585481-01



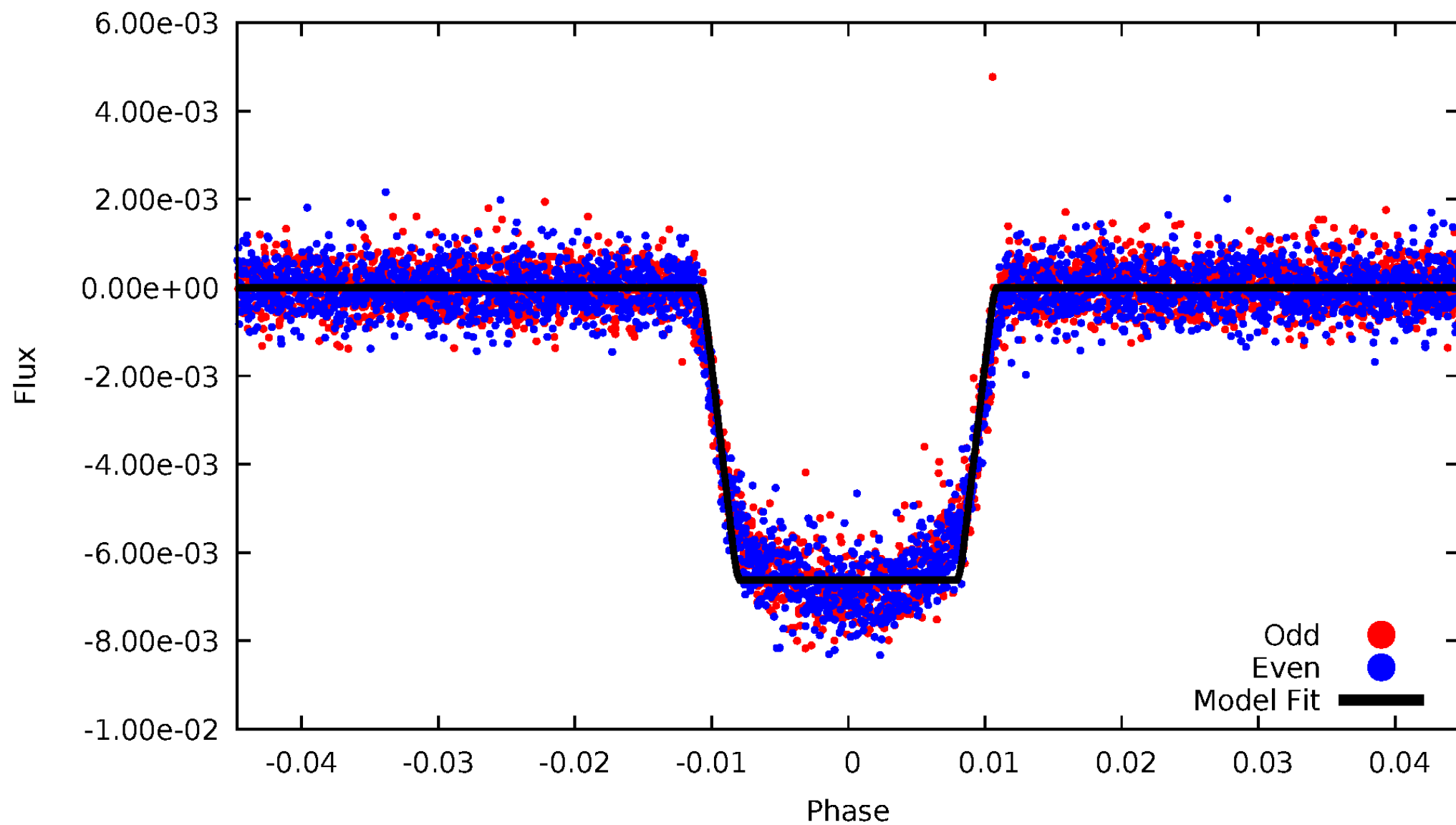
DV Odd/Even

TCE 007585481-01

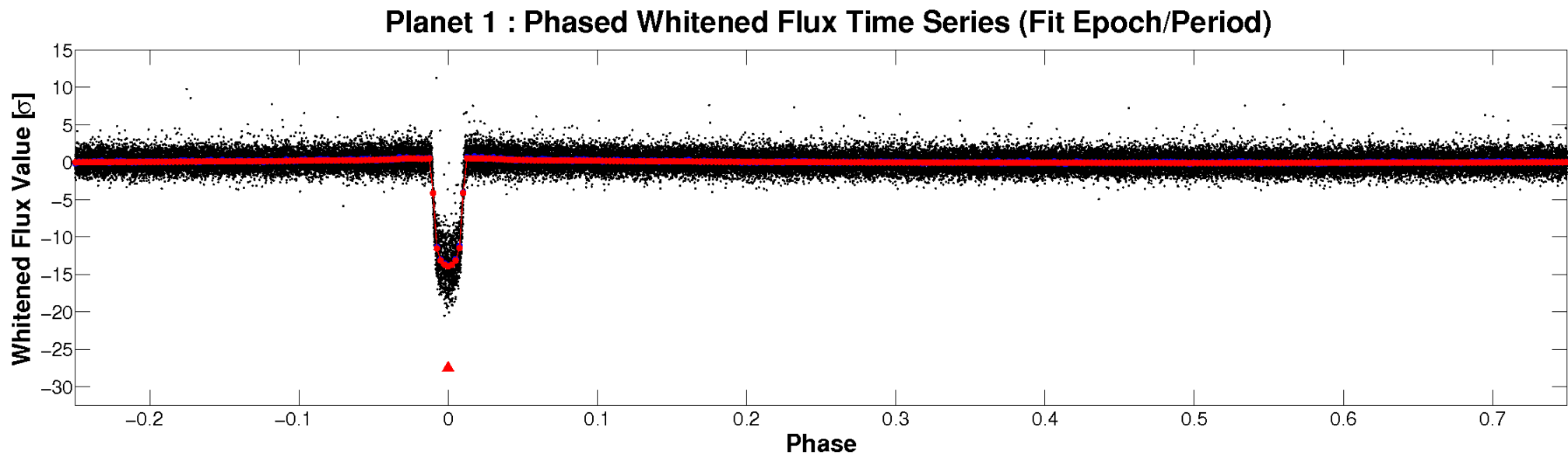
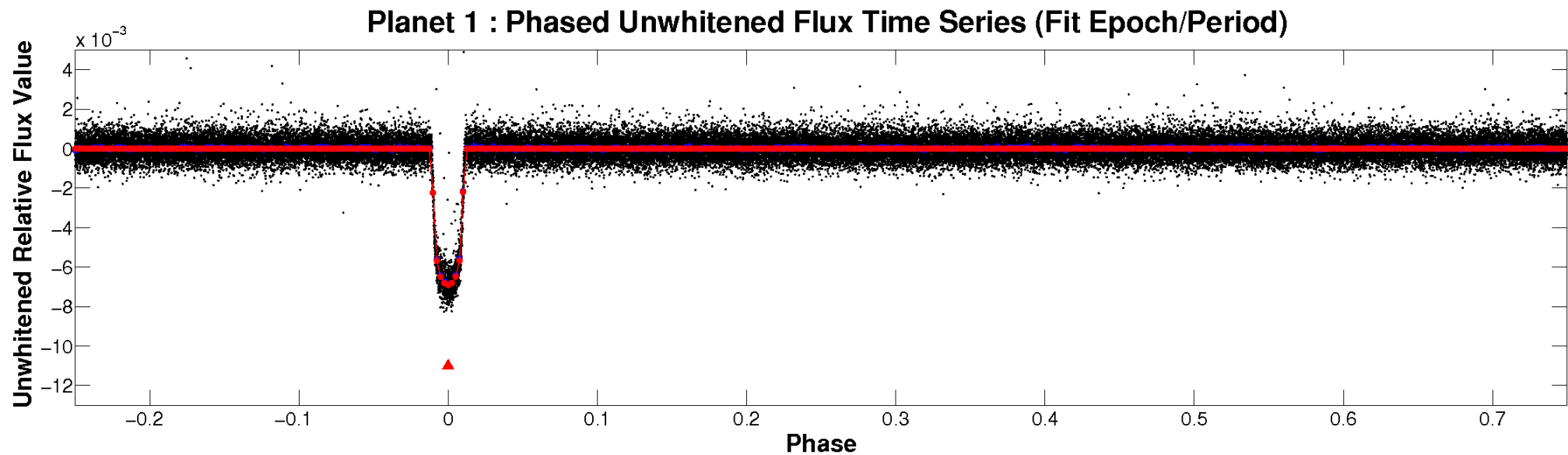


ALT Odd/Even

TCE 007585481-01

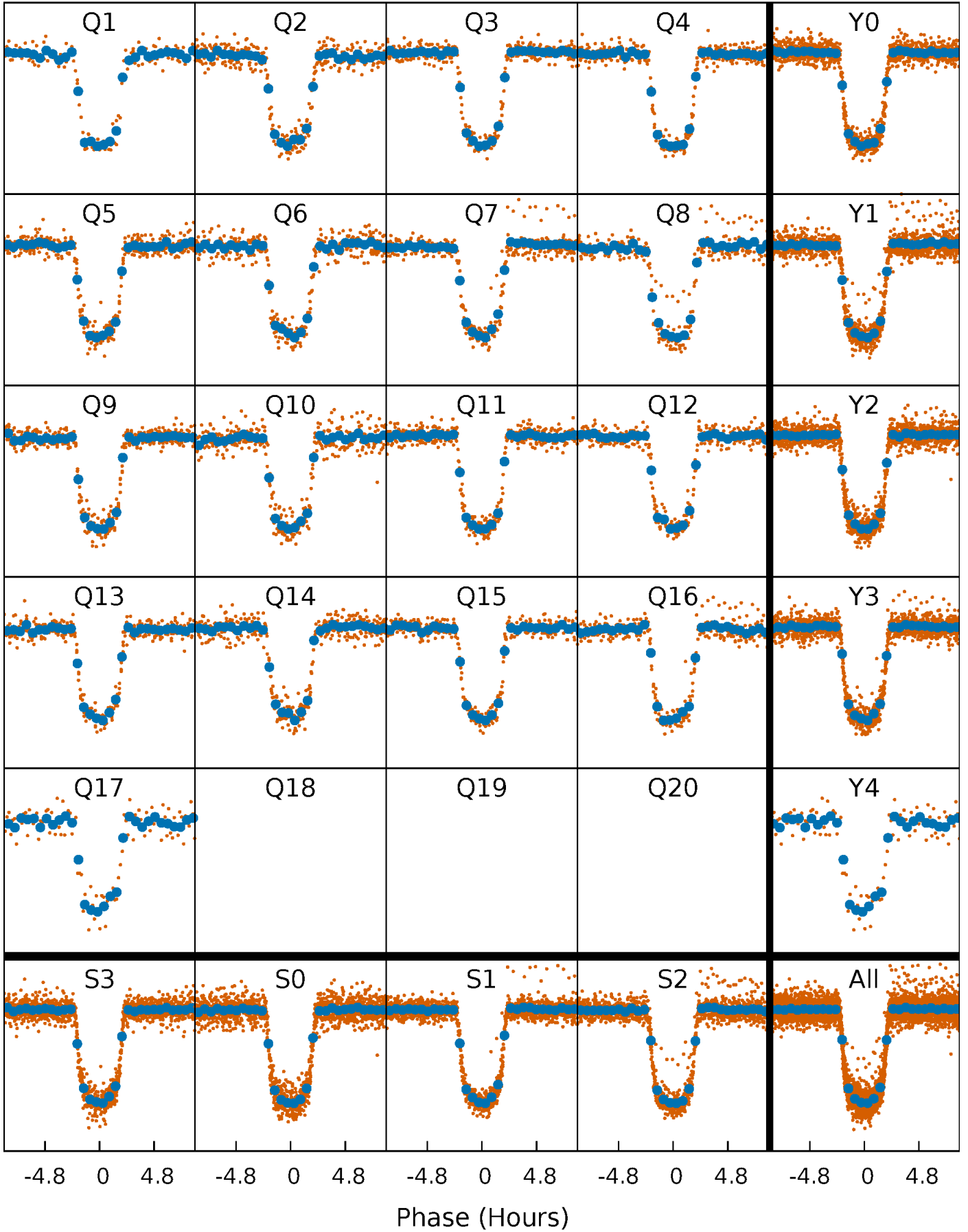


Non-Whitened Vs. Whitened Light Curve



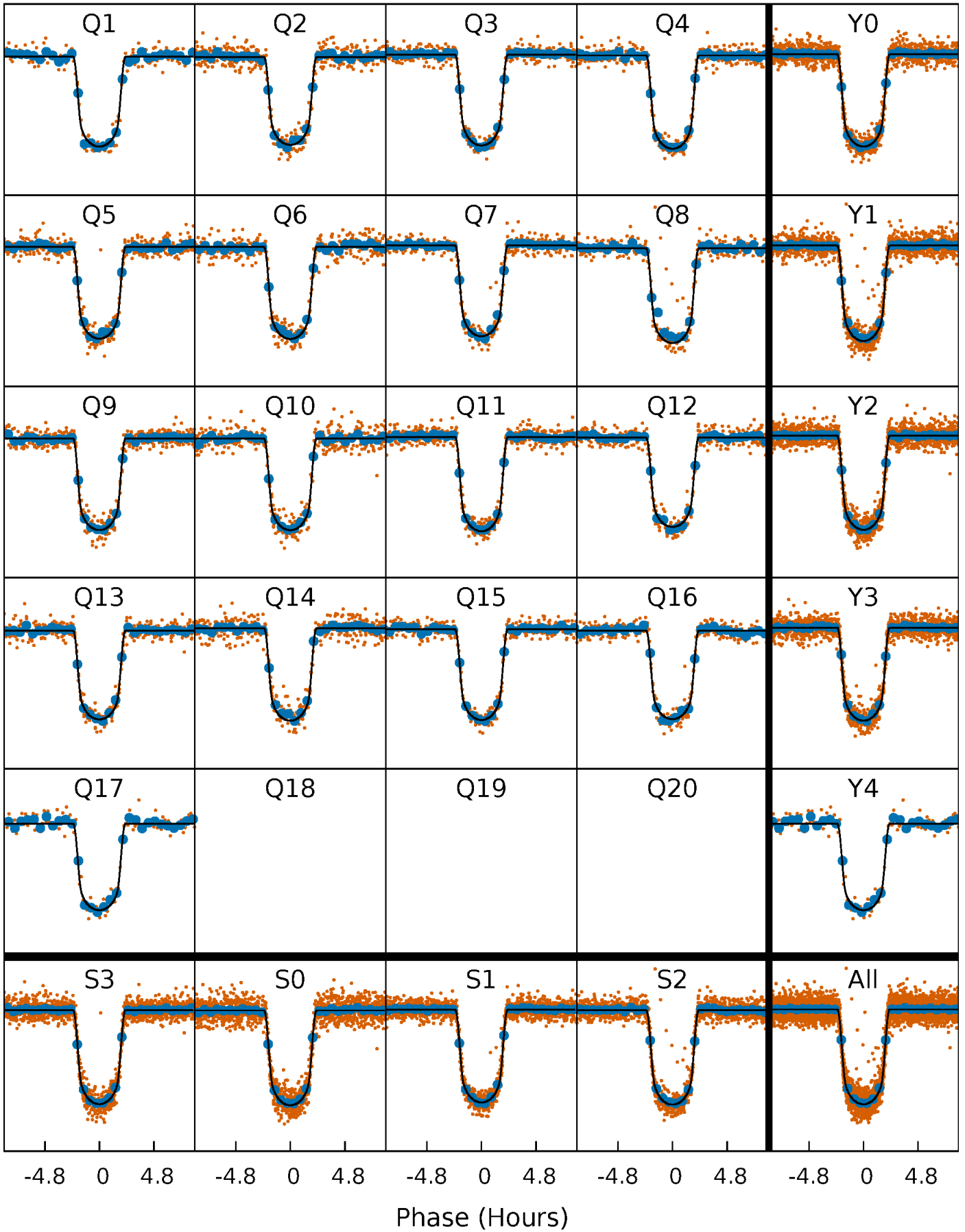
PDC Quarter-Phased Transit Curves

TCE 007585481-01 P= 8.098884 Days $T_0=136.129754$ (BKJD)



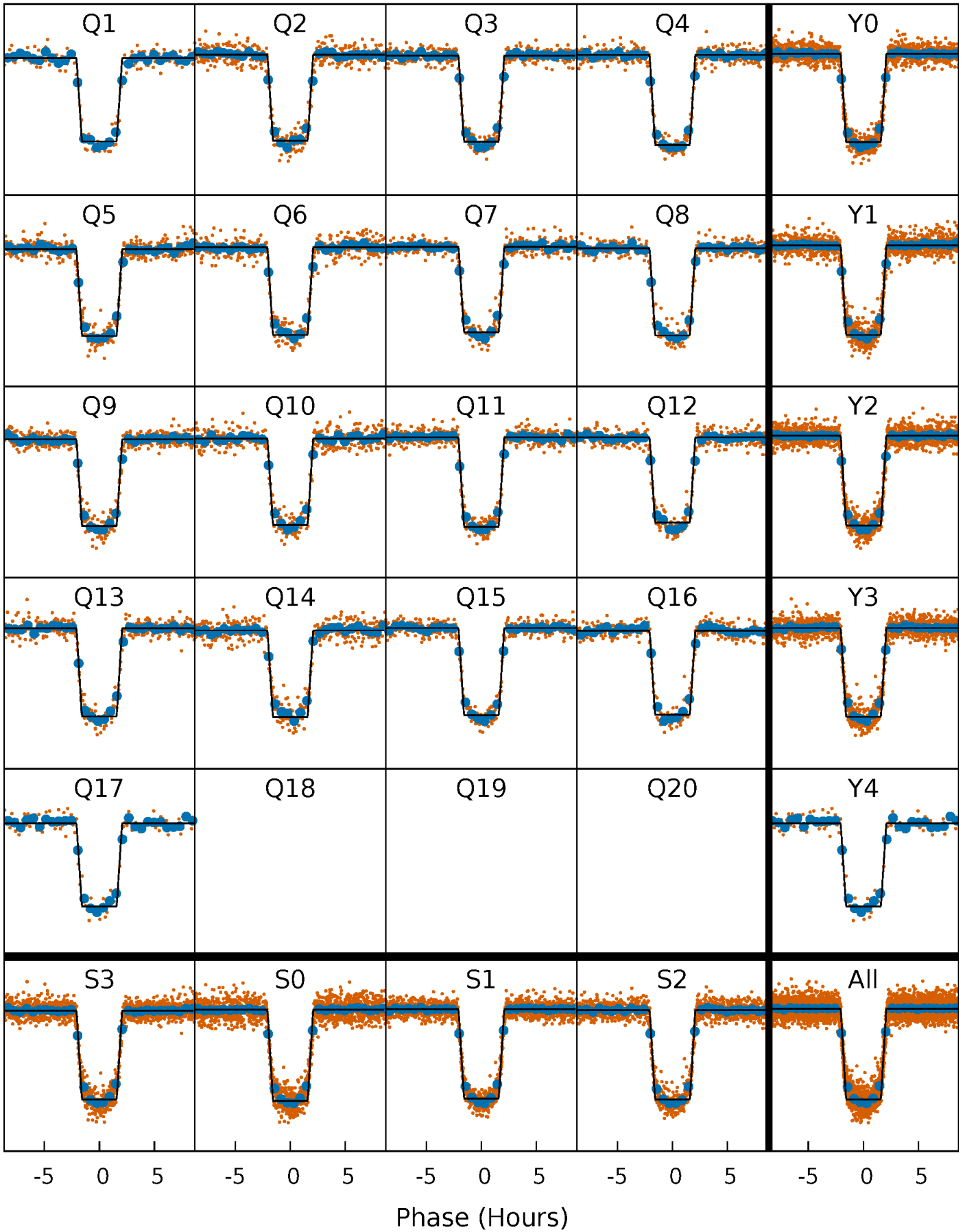
DV Quarter-Phased Transit Curves

TCE 007585481-01 P= 8.098884 Days $T_0=136.129754$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

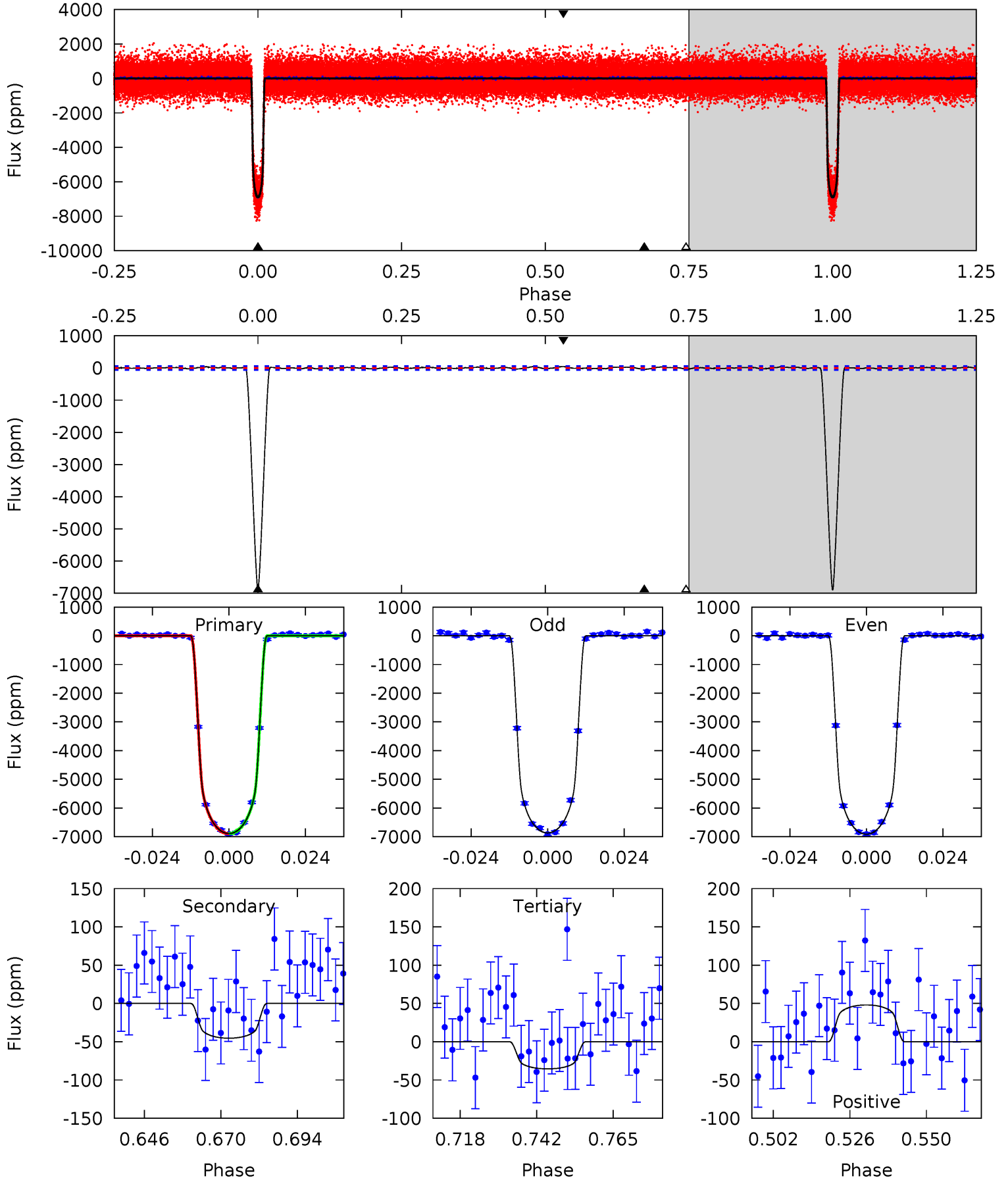
TCE 007585481-01 P= 8.098883 Days $T_0=136.129759$ (BKJD)



DV Model-Shift Uniqueness Test

007585481-01, P = 8.098884 Days, E = 128.030870 Days

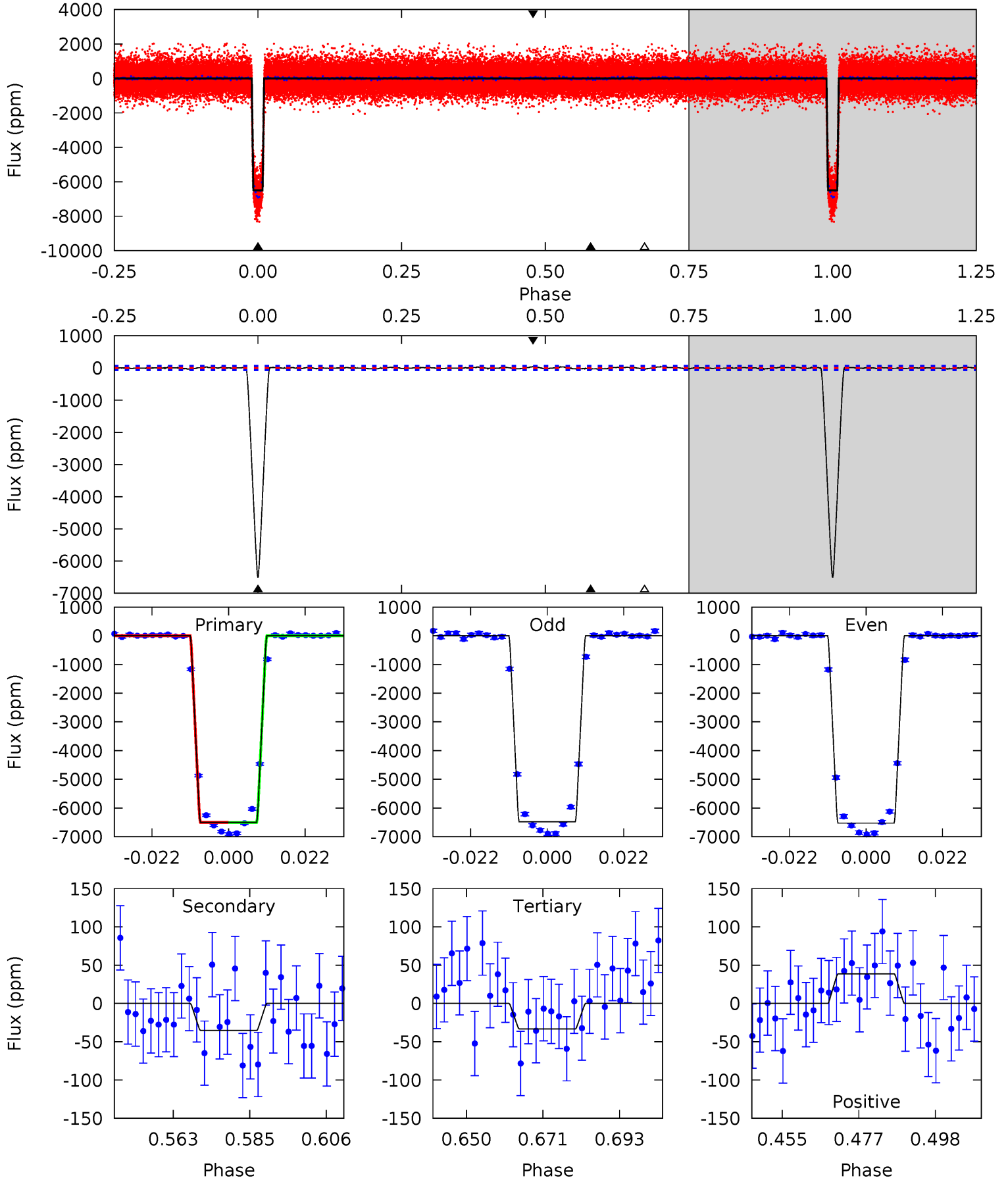
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
550.2	3.63	2.83	3.84	4.86	2.26	1.27	547.4	546.4	0.80	-0.21	1.81	0.99	0.01	0.24



Alt Model-Shift Uniqueness Test

007585481-01, P = 8.098883 Days, E = 128.030876 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
496.0	2.70	2.53	2.95	4.88	2.30	1.12	493.5	493.1	0.16	-0.25	1.76	1.00	0.01	0.08



Stellar Parameters For KIC 007585481

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6214^{+174}_{-217}	$4.442^{+0.054}_{-0.216}$	$0.070^{+0.200}_{-0.350}$	$1.076^{+0.353}_{-0.118}$	$1.169^{+0.141}_{-0.173}$	$1.321^{+0.375}_{-0.693}$
	+3%/-3%	+1%/-5%	+286%/-500%	+33%/-11%	+12%/-15%	+28%/-52%
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 007585481-01 / KOI 0890.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-45 ± 13	$9.20^{+1.51}_{-0.75}$	1411^{+107}_{-67}	2588^{+105}_{-133}	$1.886^{+0.729}_{-0.638}$
Alt.	-35 ± 13	$9.78^{+1.77}_{-0.80}$	1406^{+111}_{-72}	2432^{+142}_{-179}	$1.266^{+0.643}_{-0.518}$

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

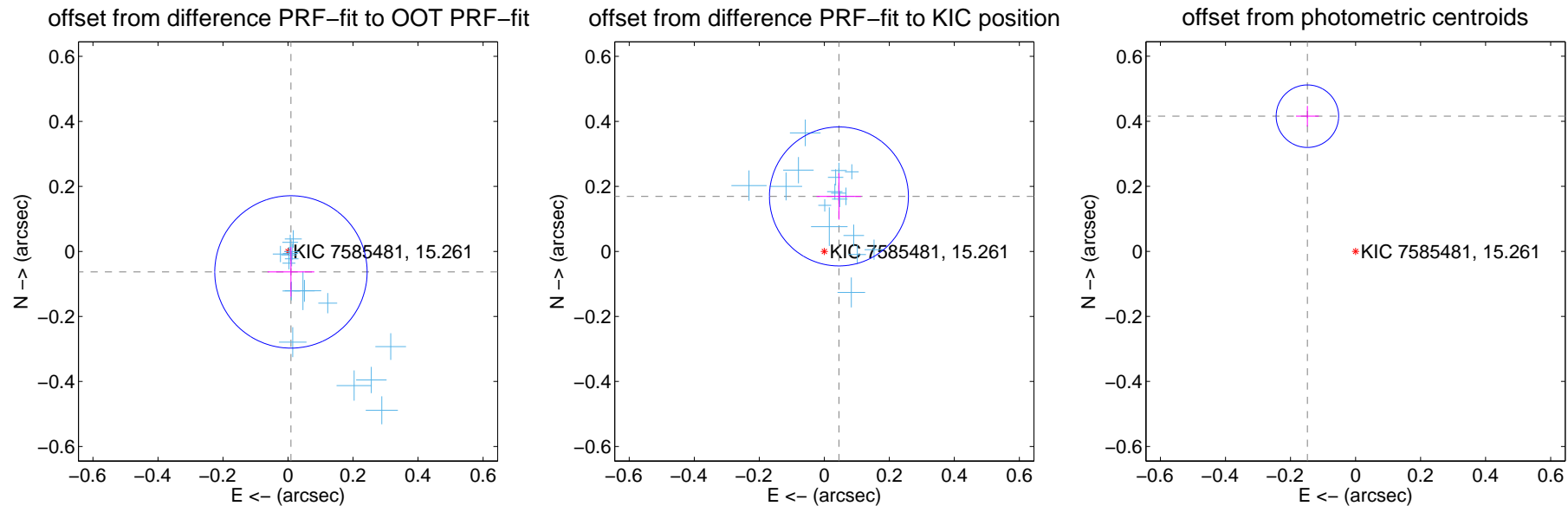
DV Centroid Data

Supplemental centroid analysis for 007585481-01. Kepler magnitude: 15.26. Transit SNR 430.96

There are 17 quarters with good PRF difference image offsets

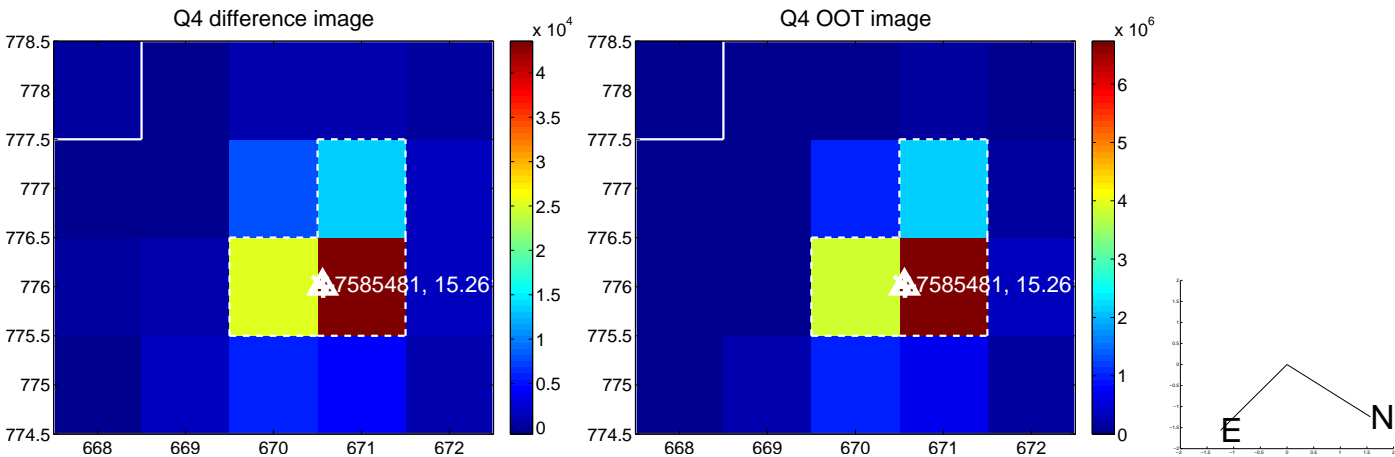
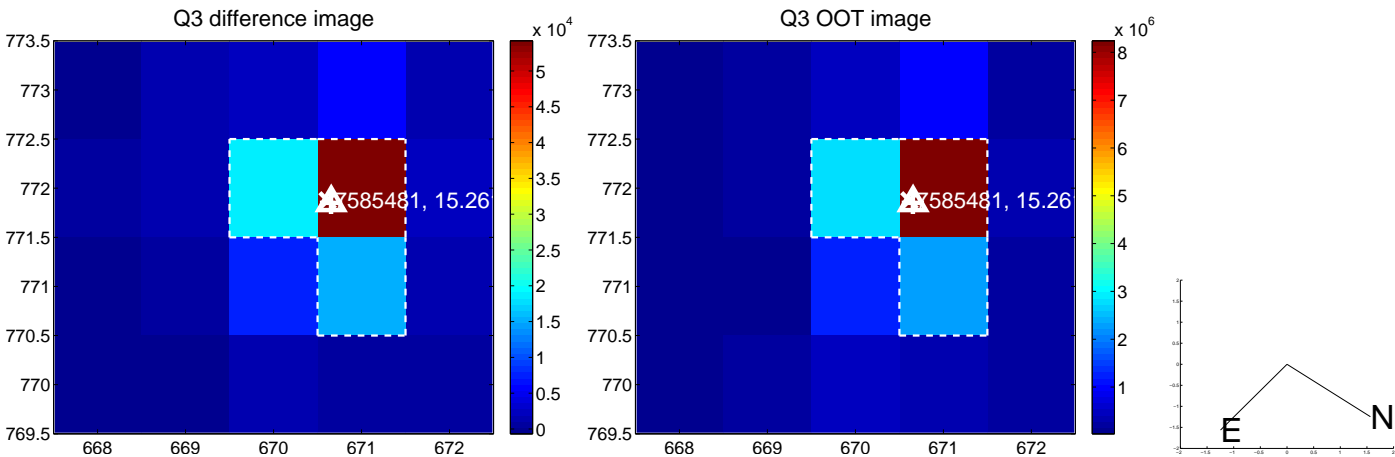
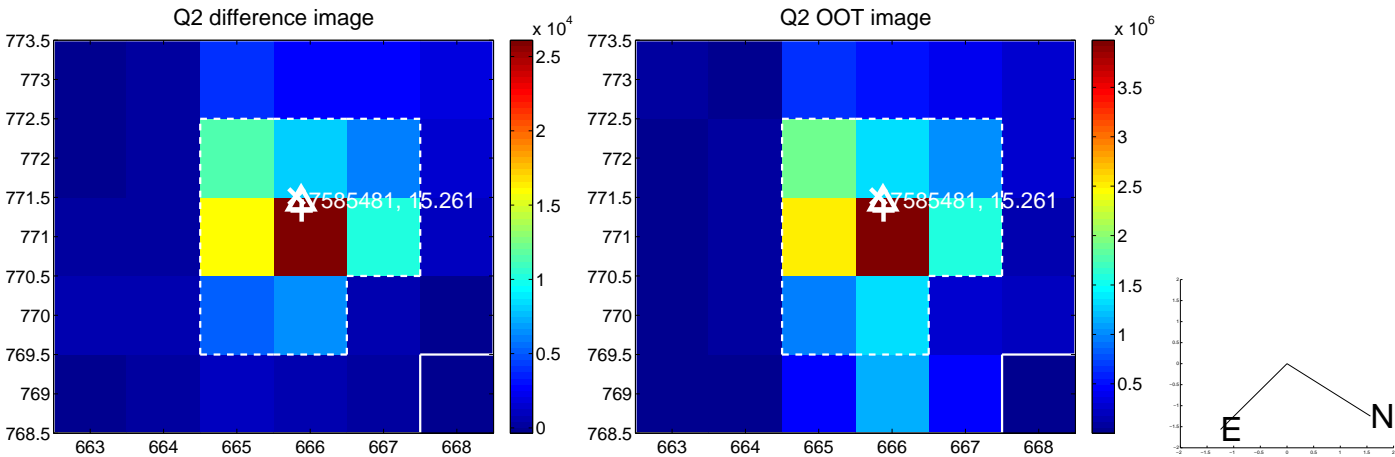
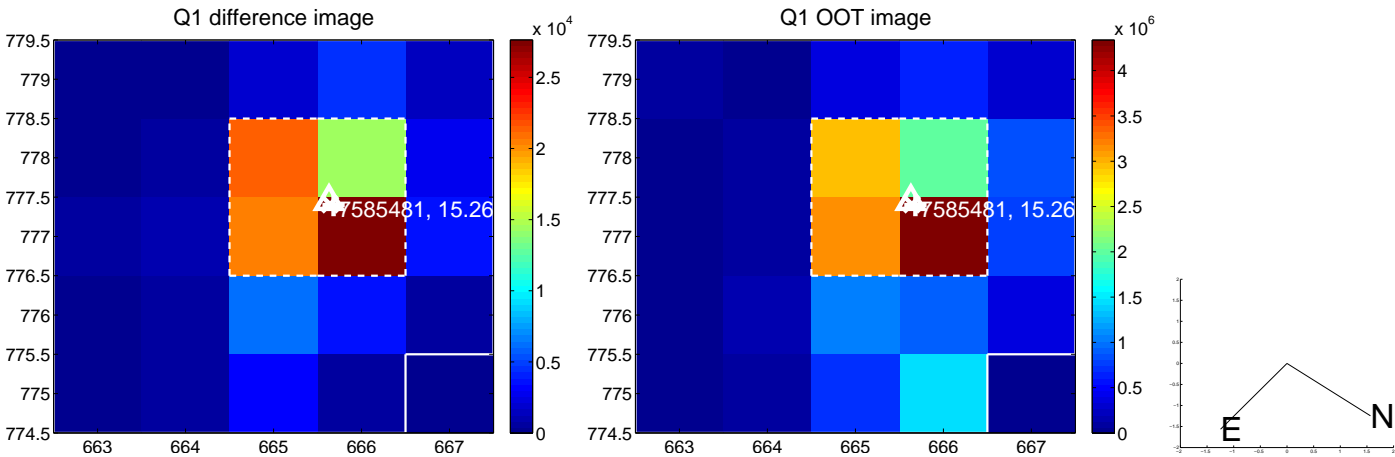
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.064 ± 0.078	0.82	-0.009 ± 0.072	-0.063 ± 0.077
PRF-fit source offset from KIC position	0.175 ± 0.071	2.46	-0.045 ± 0.069	0.169 ± 0.071
photometric centroid source offset	0.44 ± 0.03	13.77	0.15 ± 0.04	0.42 ± 0.03

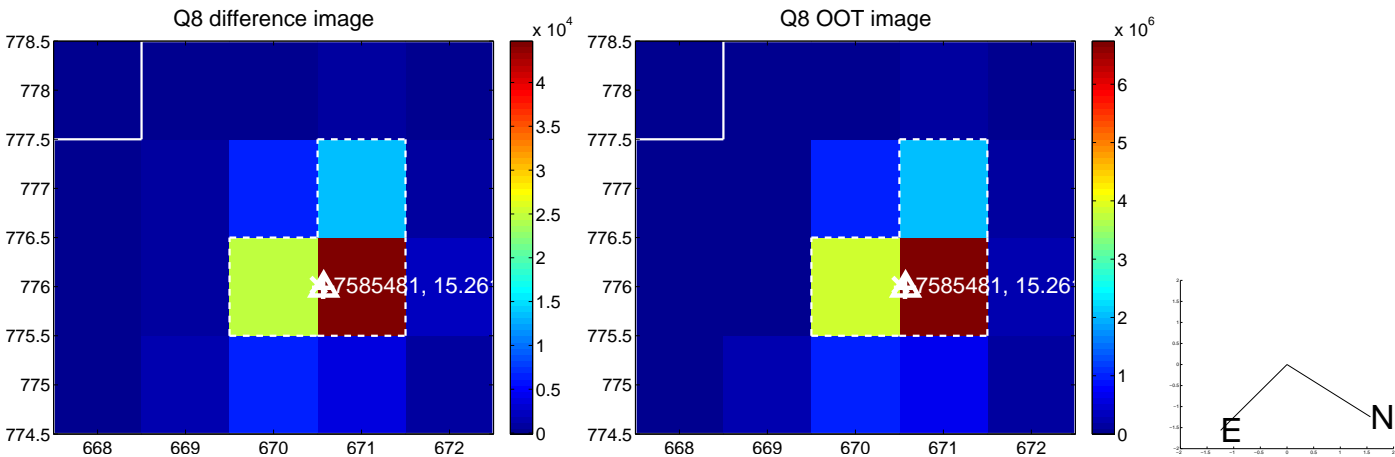
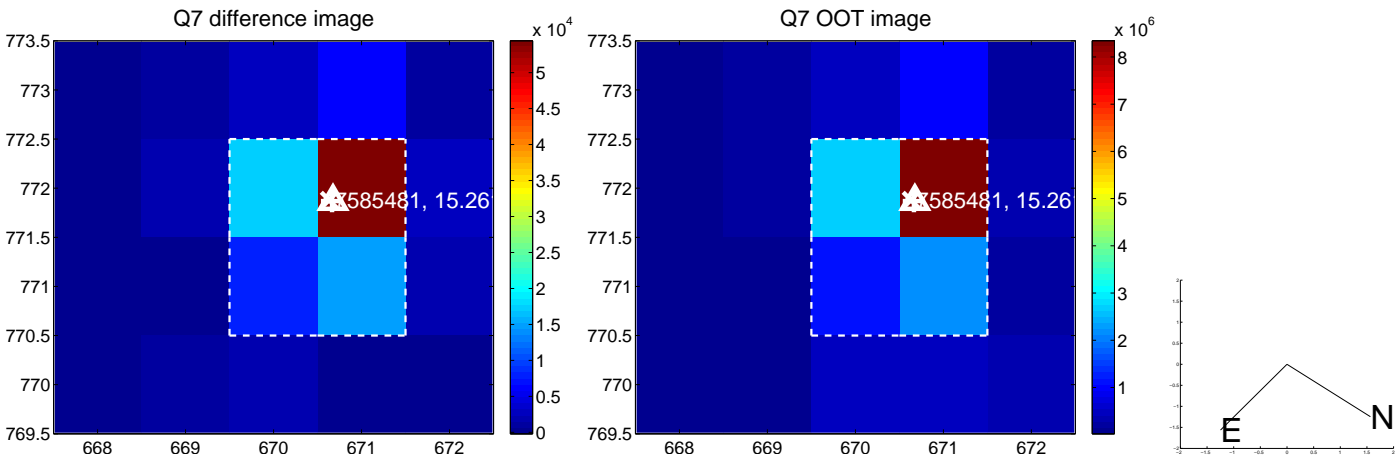
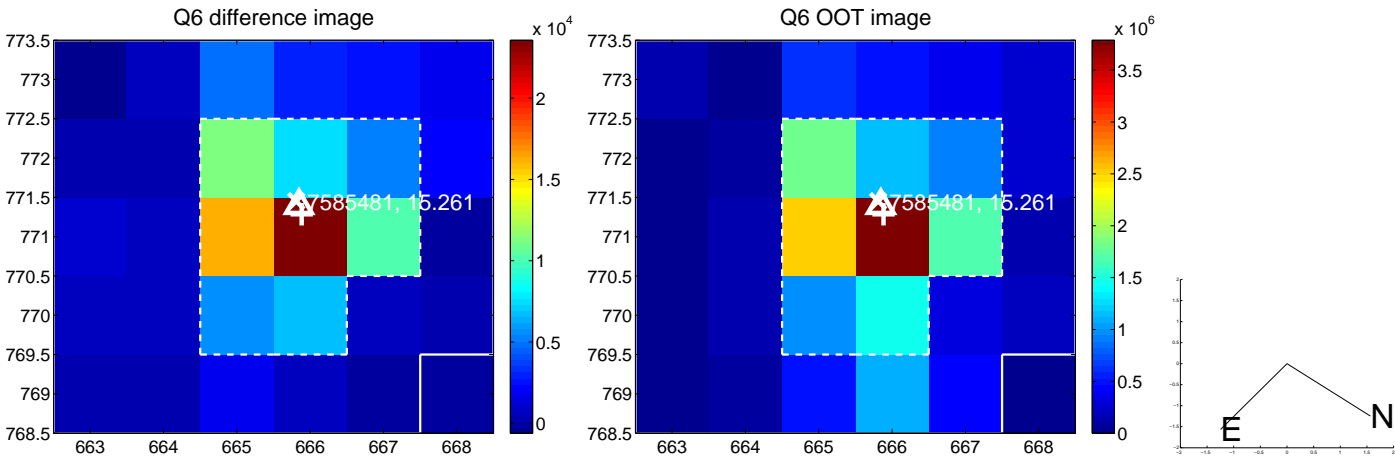
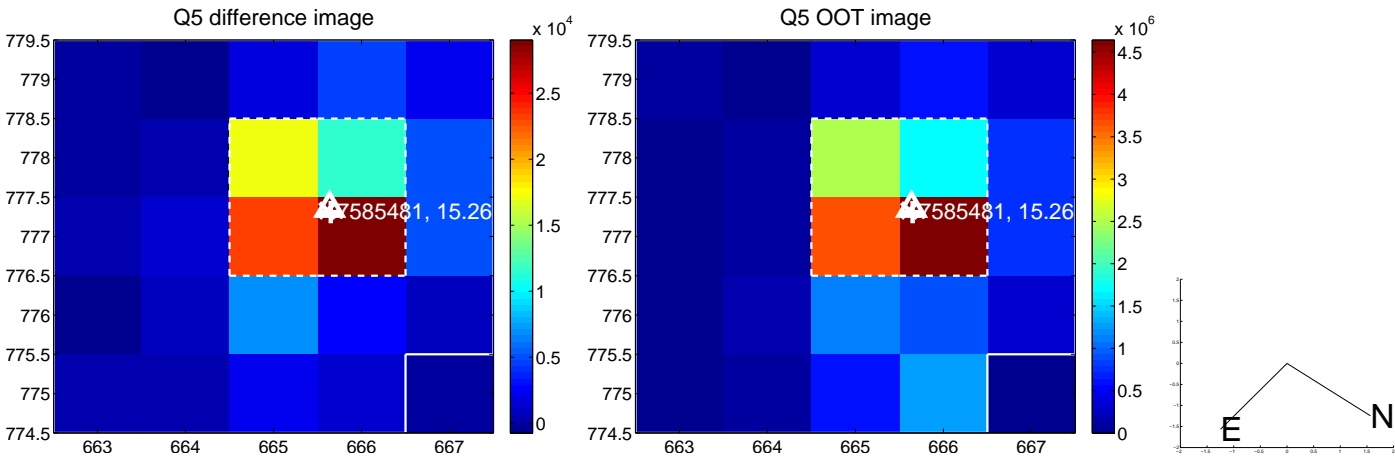


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

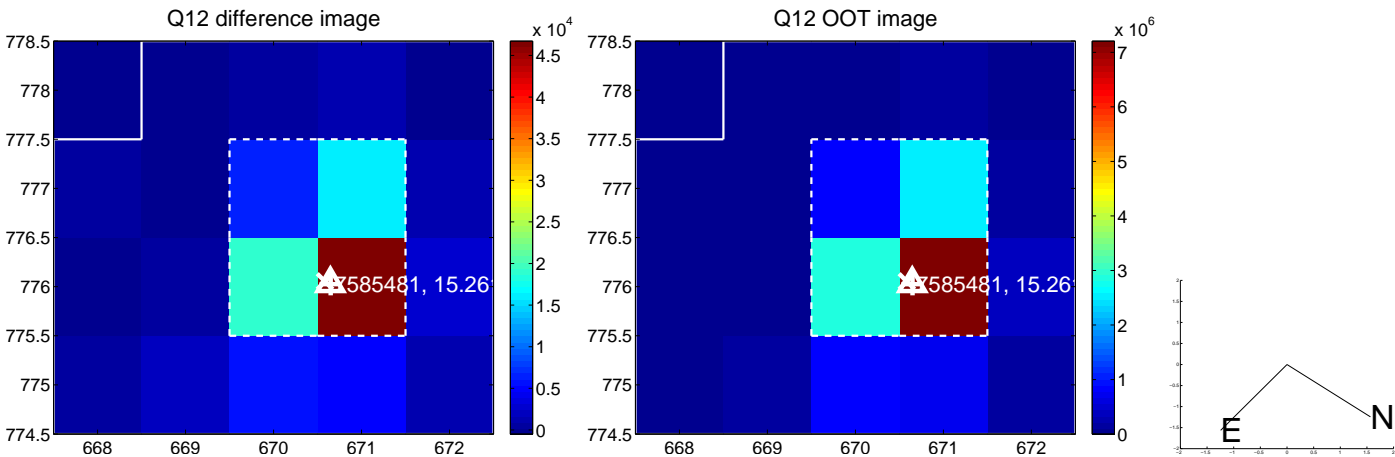
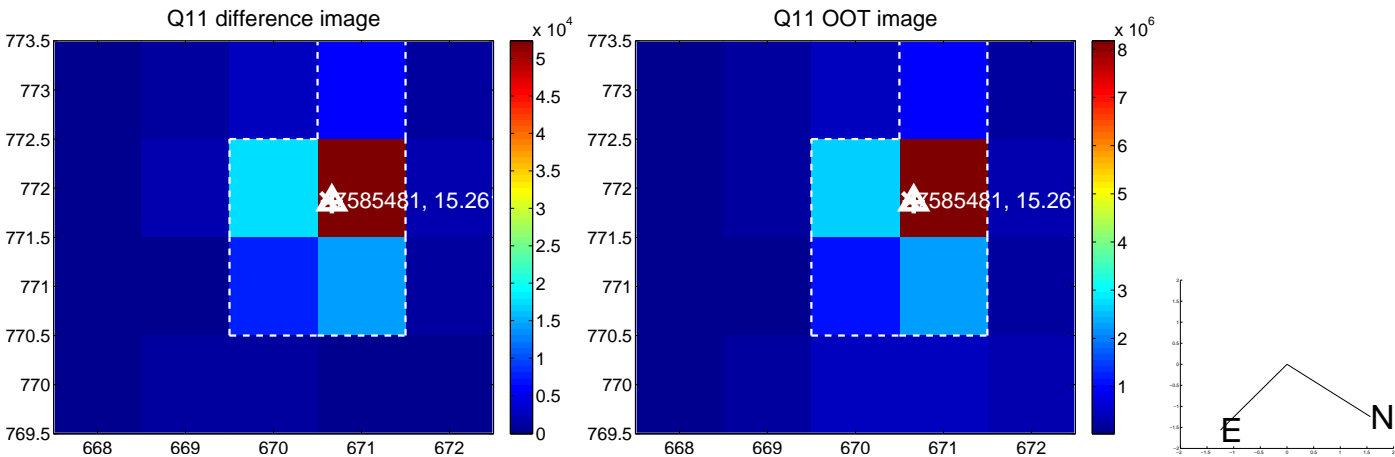
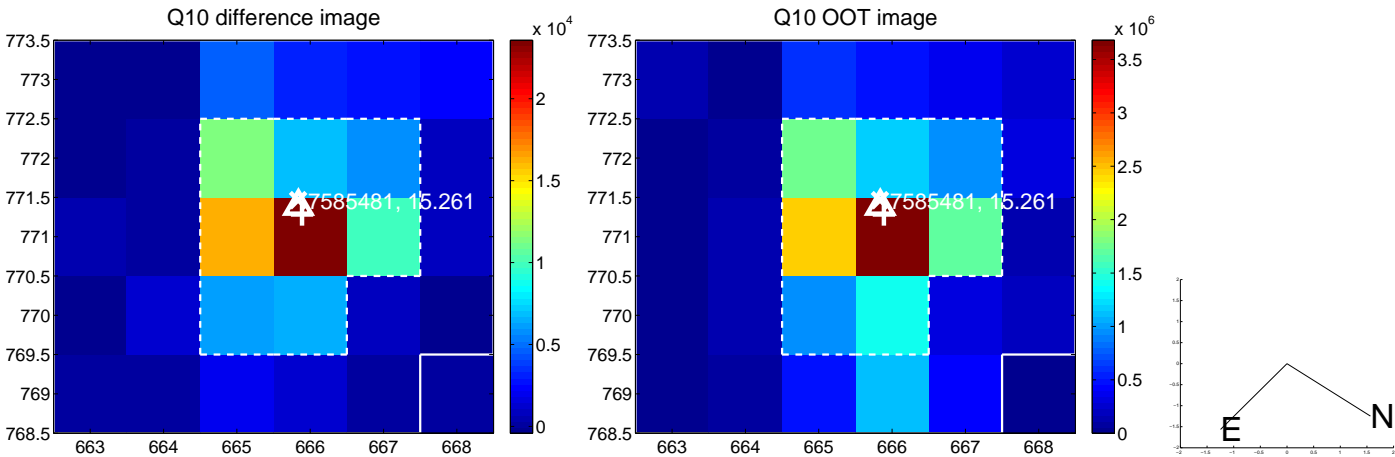
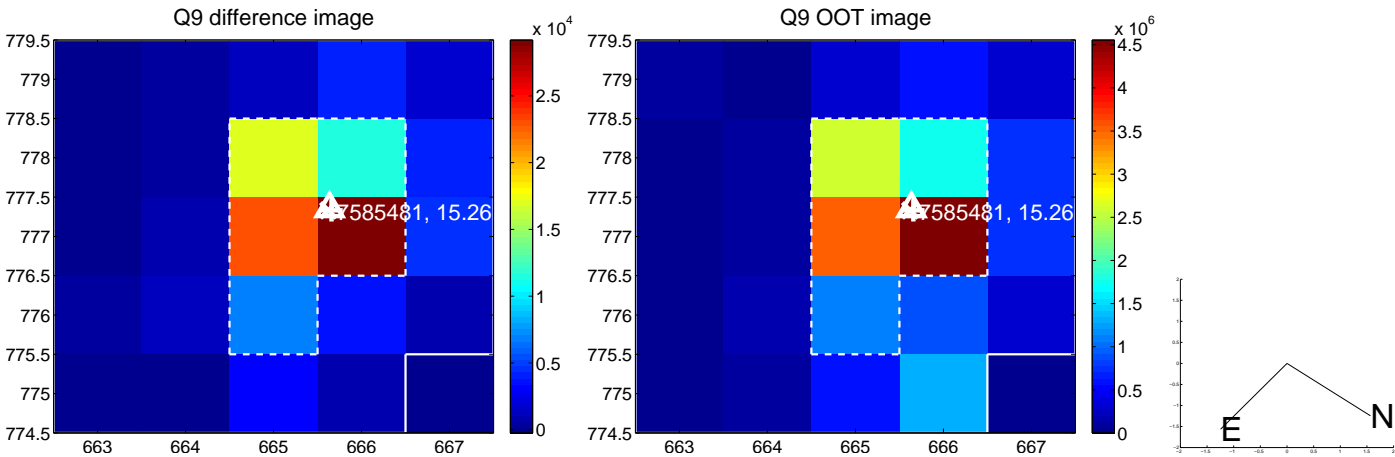
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



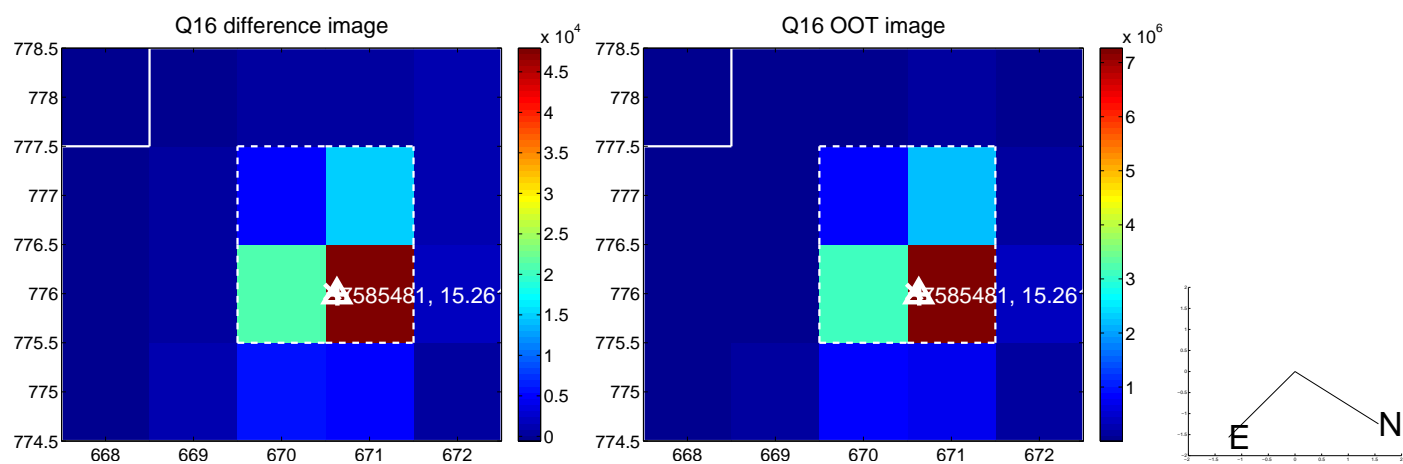
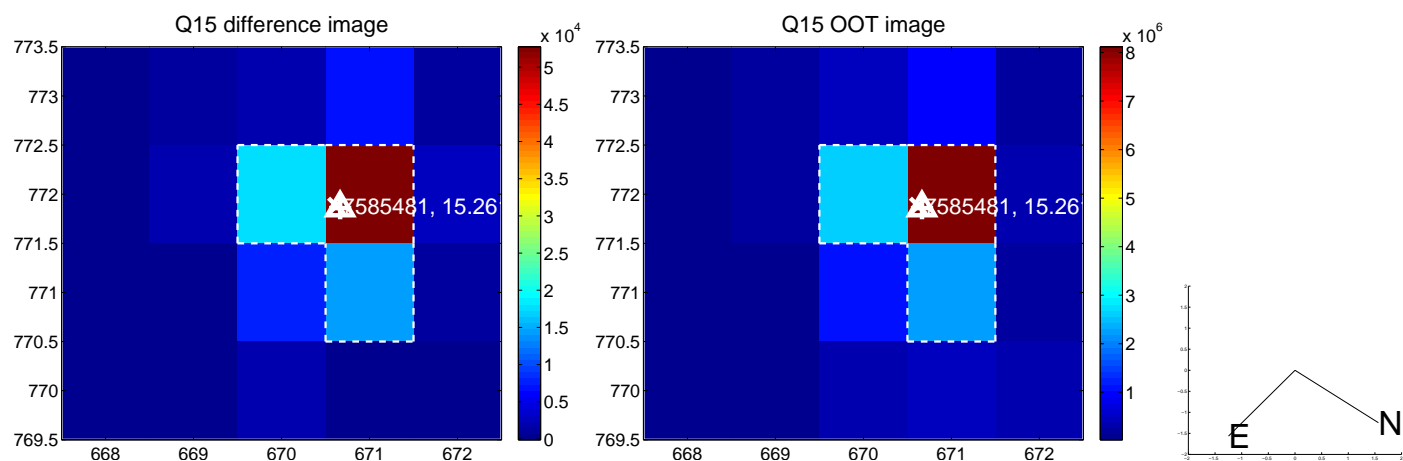
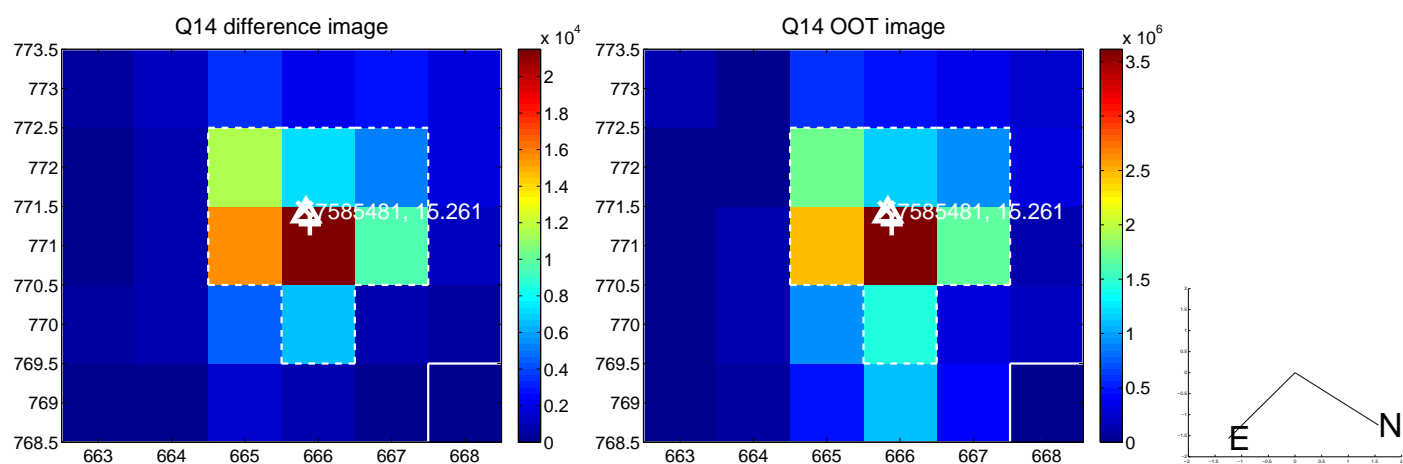
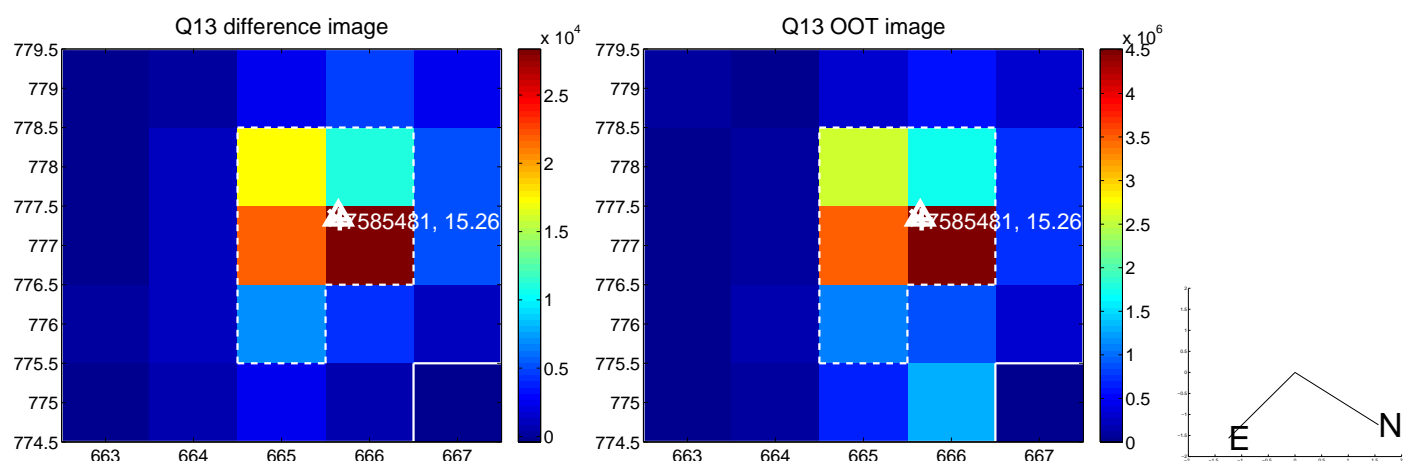
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



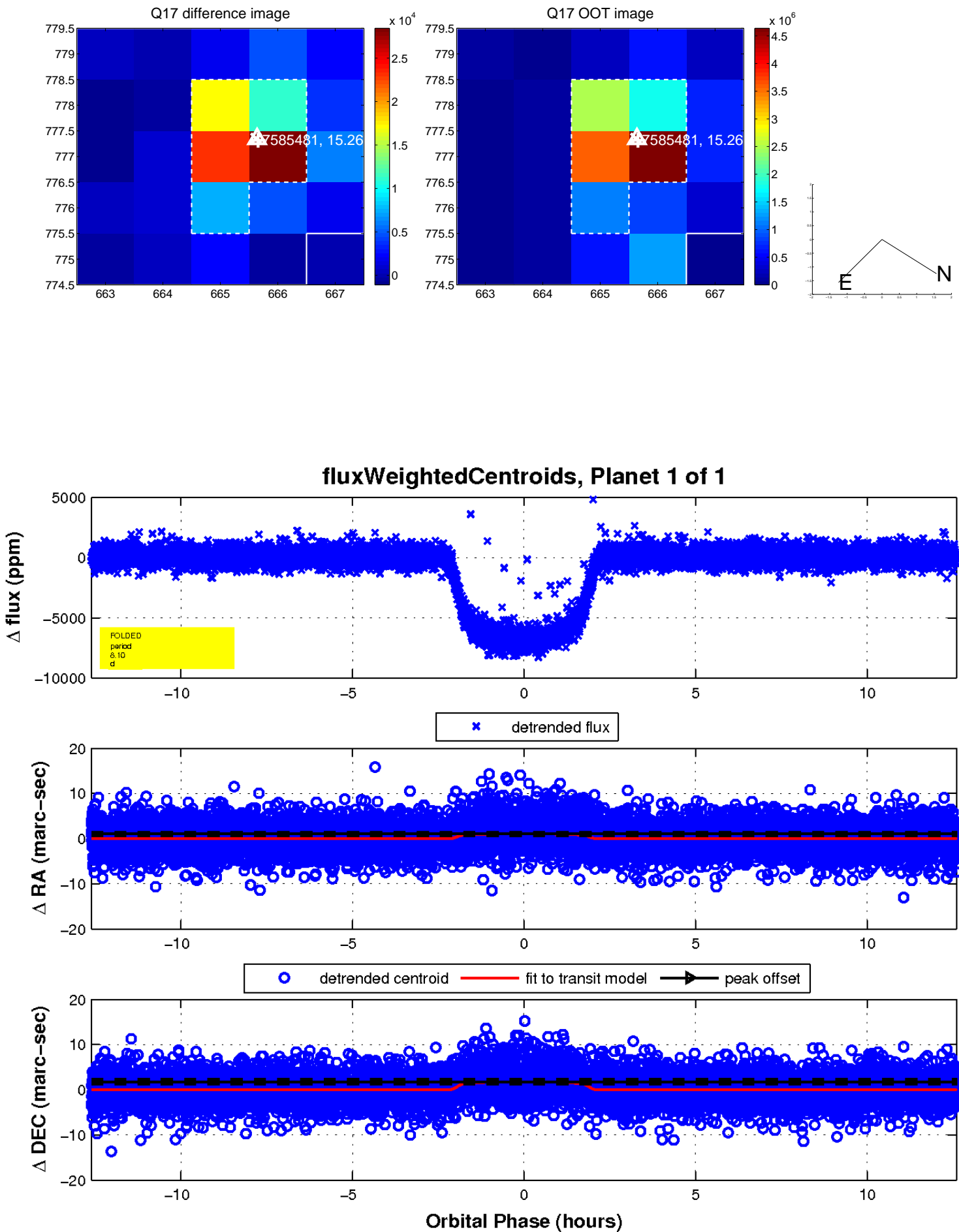
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

