

KIC 008651389

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})
008651389-01	OBS	1754.01	15.135850	146.585806	266.0	2.281	22.0	24.8	1.57	6050	3.03	179.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008651389-01	OBS	PC	0.99	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.

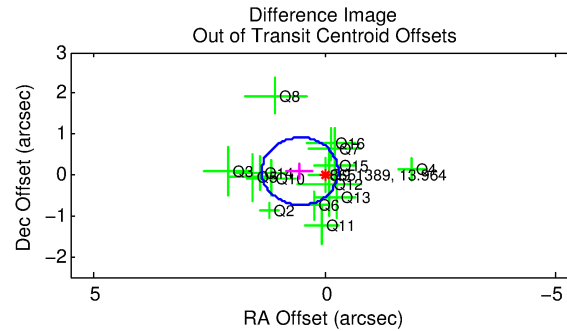
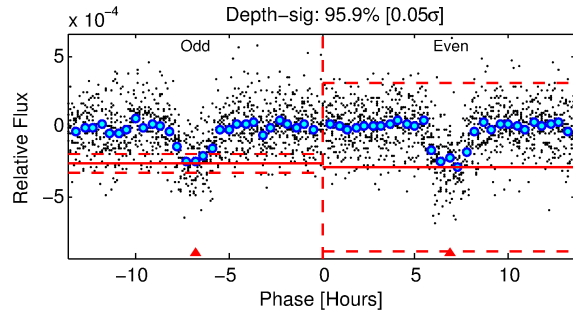
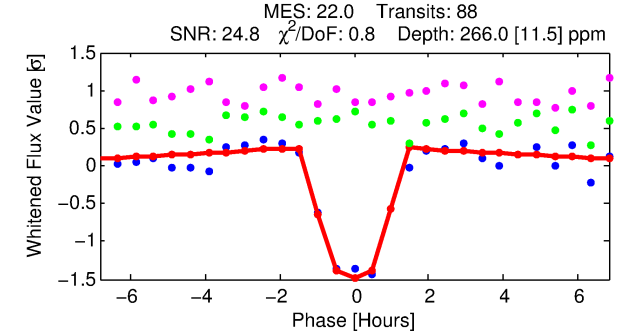
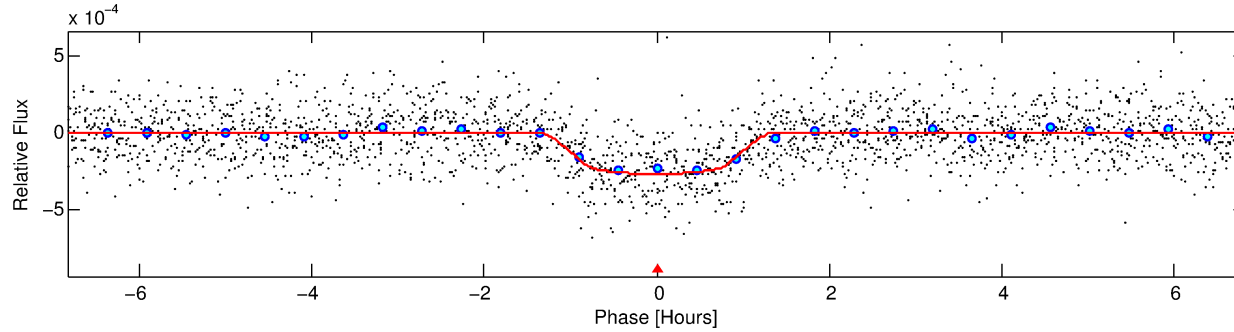
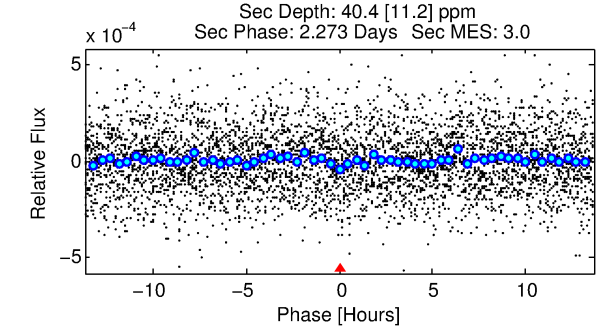
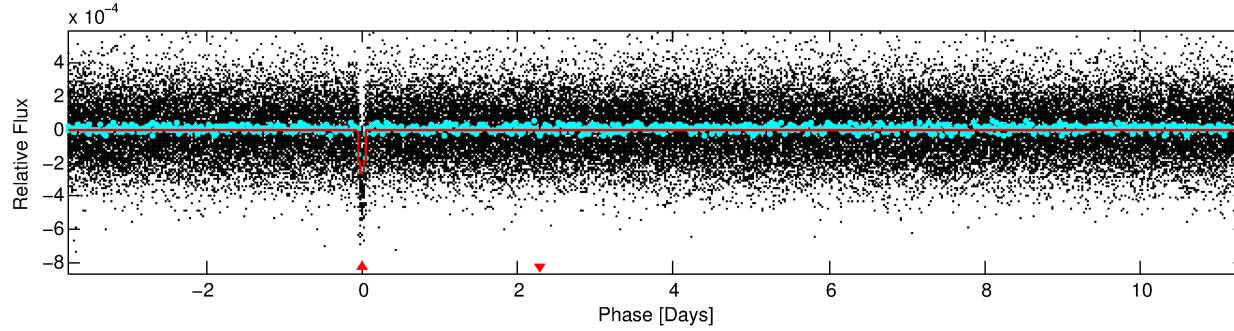
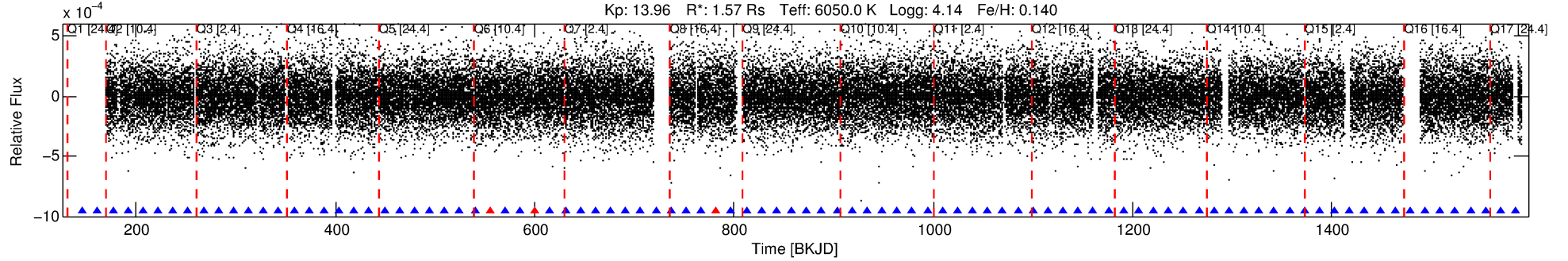
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008651389-01

No Significant Match Found

DV One-Page Summary

KIC: 8651389 Candidate: 1 of 1 Period: 15.136 d
KOI: K01754.01 Corr: 0.976



DV Fit Results:

Period = 15.13585 [0.00004] d
Epoch = 146.5858 [0.0021] BKJD
Rp/R* = 0.0177 [0.0039]
a/R* = 24.21 [26.45]
b = 0.90 [0.24]
Seff = 179.56 [82.49]
Teq = 933 [107] K
Rp = 3.03 [1.11] Re
a = 0.1285 [0.0353] AU
Ag = 40.00 [27.06] [1.44σ]
Teffp = 3629 [492] K [5.36σ]

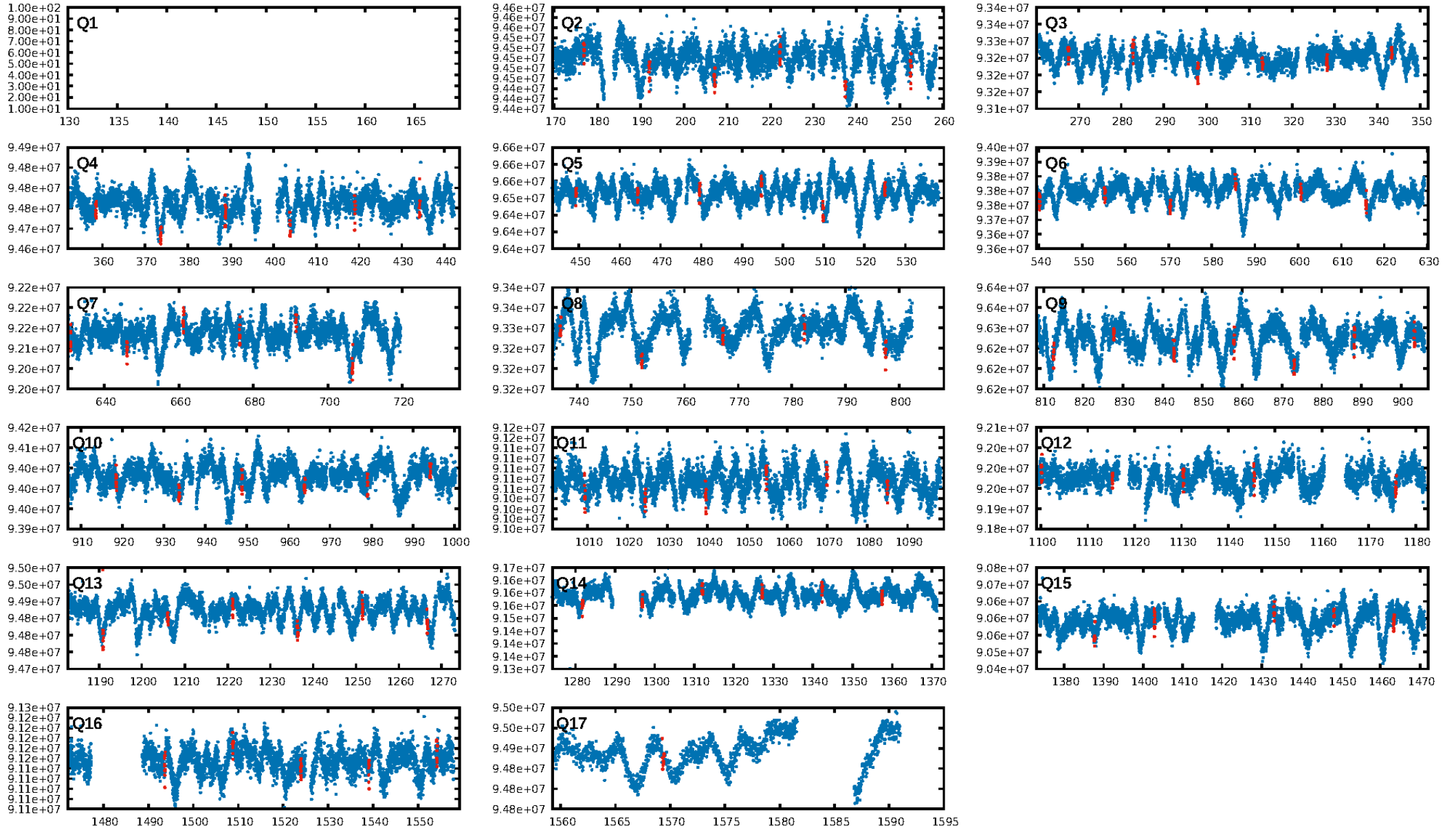
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.18e-105
RollingBand-fgt: 0.97 [84/87]
GhostDiagnostic-chr: 2.025
Centroid-sig: 40.6%
Centroid-so: 0.864 arcsec [1.59σ]
OotOffset-rm: 0.541 arcsec [1.97σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-rm: 0.509 arcsec [1.86σ]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [16/16]

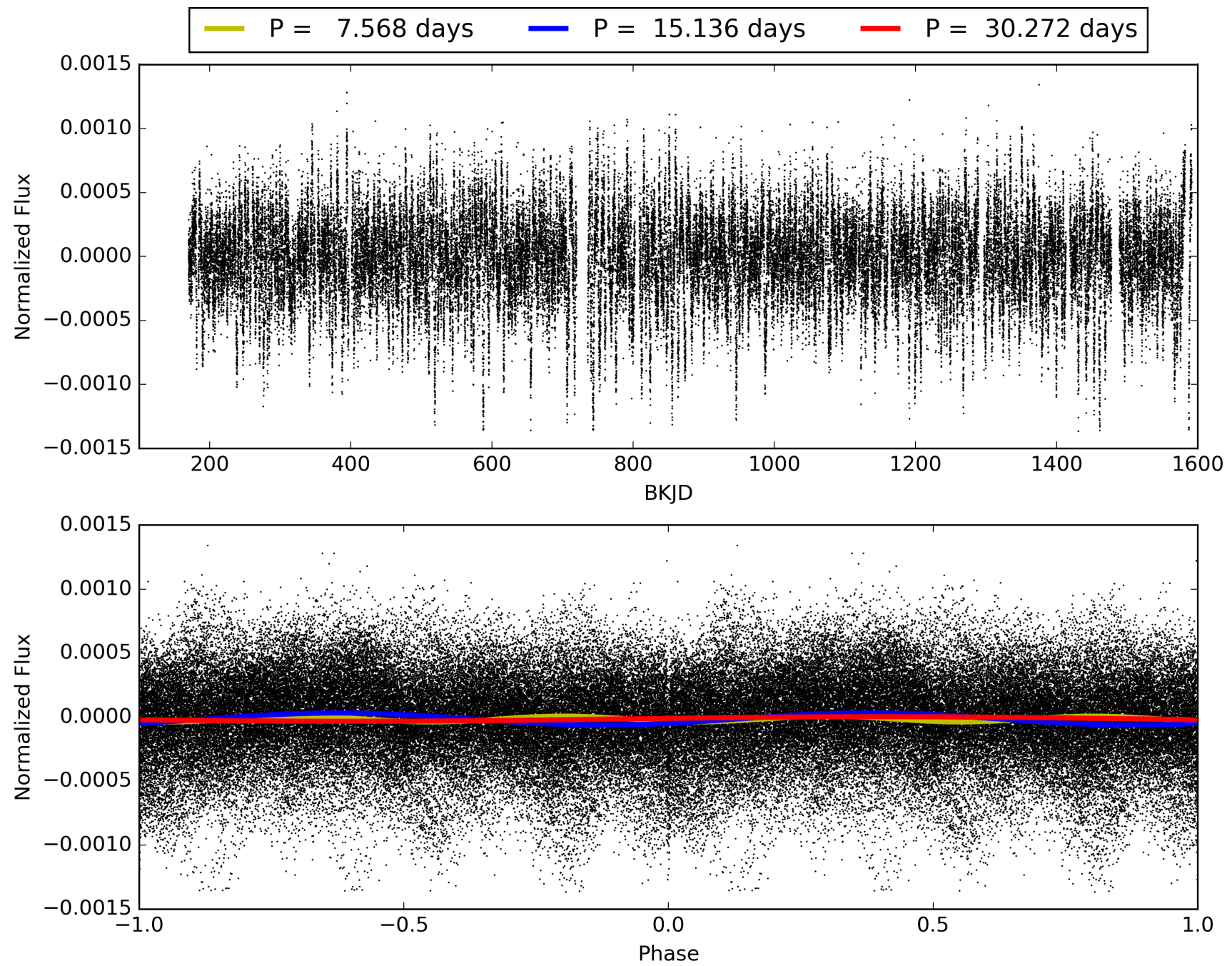
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:07:01 Z

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

TCE 008651389-01, PDC Light Curves

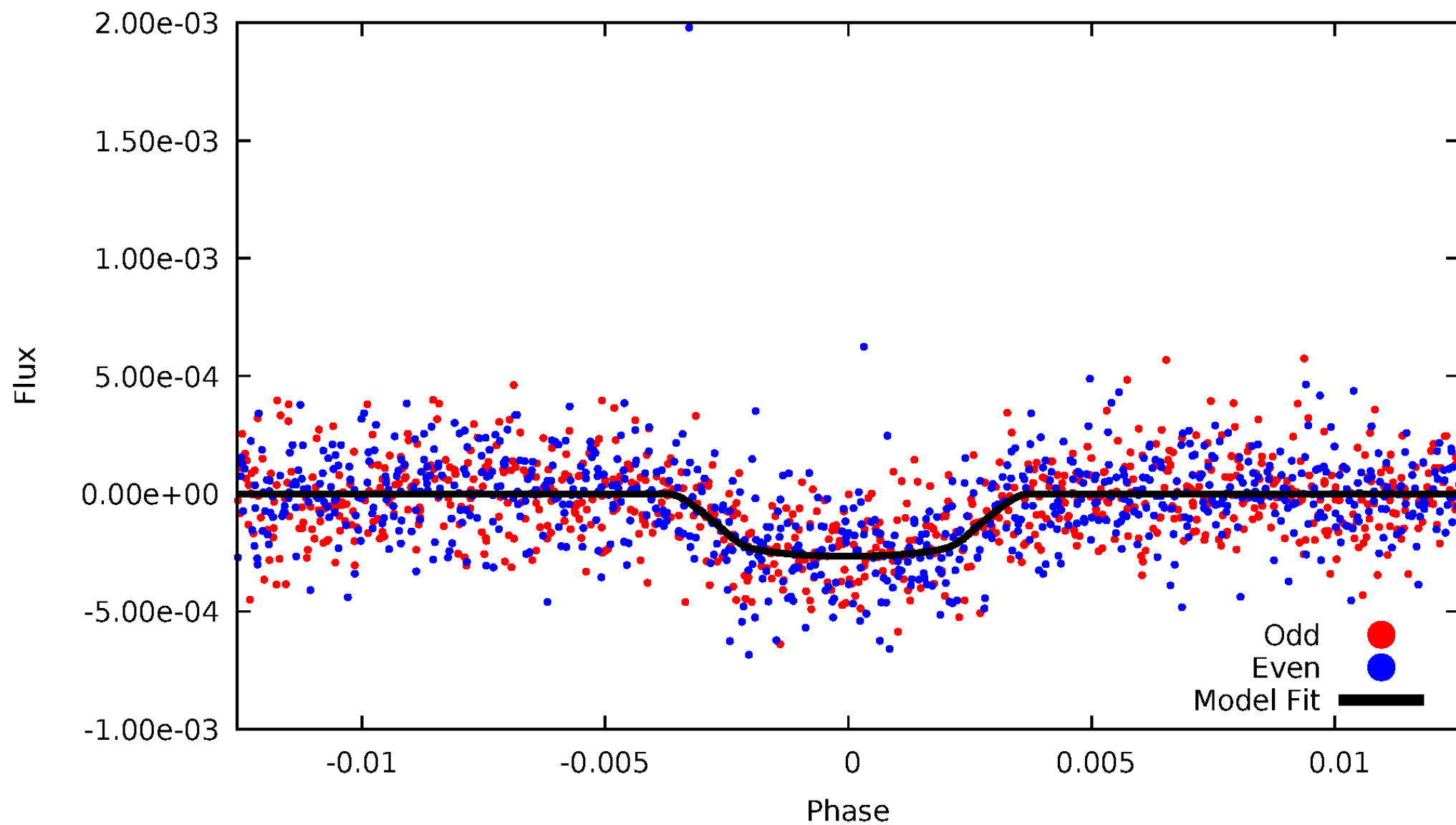


TCE 008651389-01



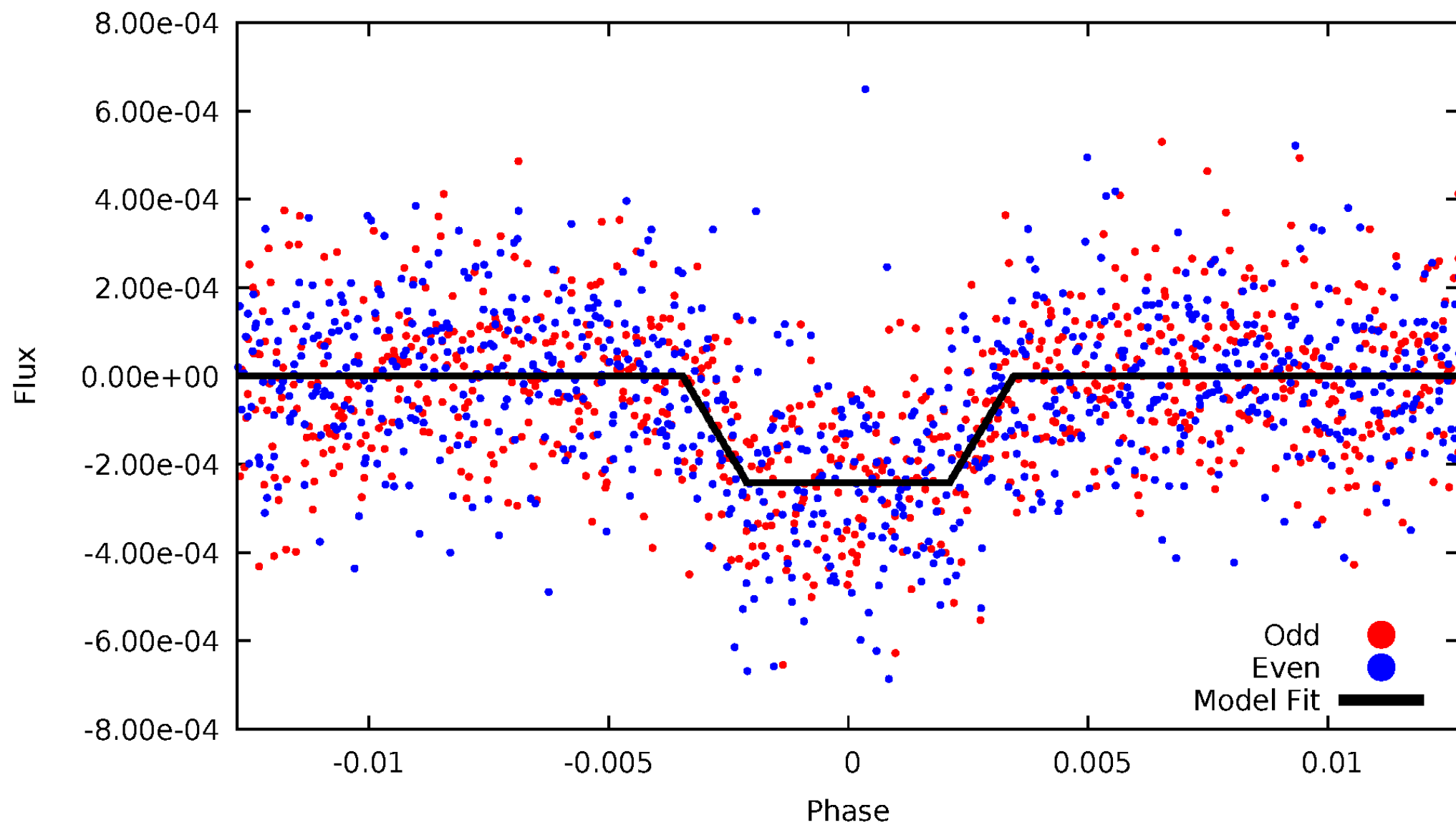
DV Odd/Even

TCE 008651389-01



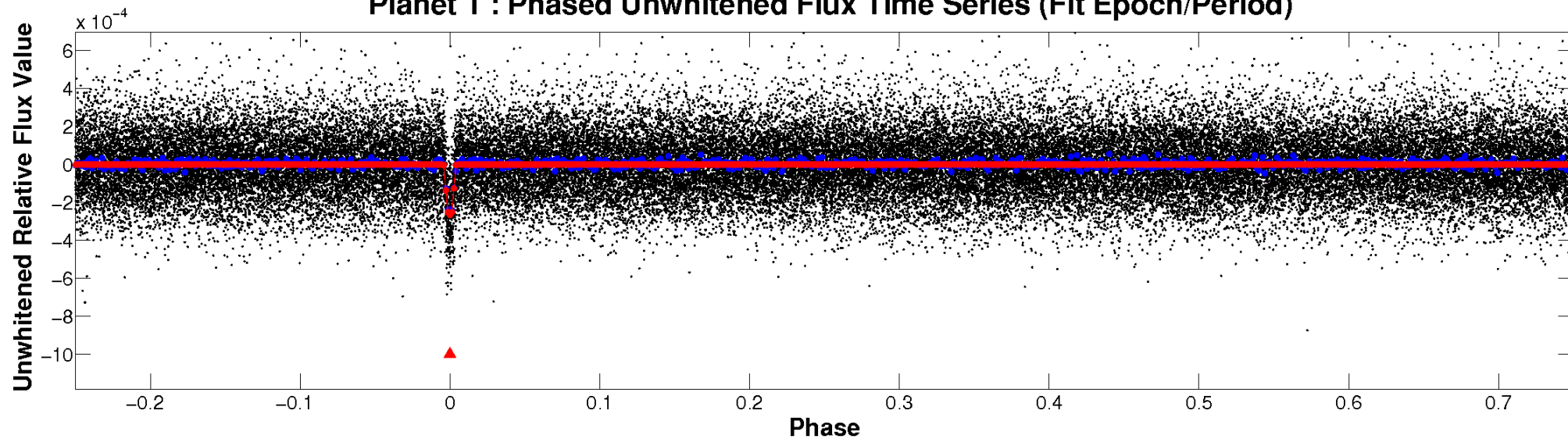
ALT Odd/Even

TCE 008651389-01

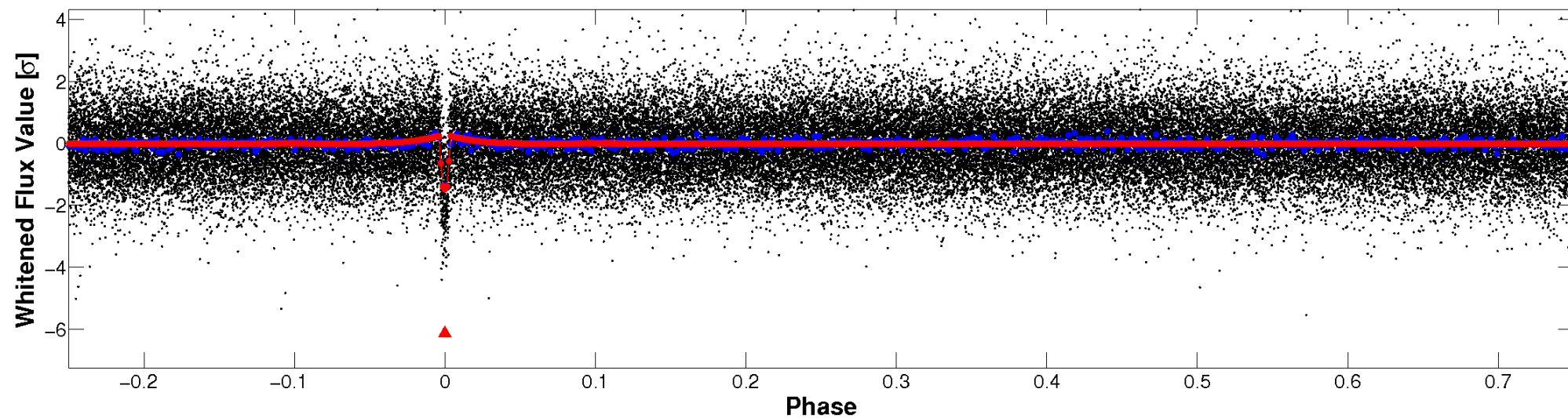


Non-Whitened Vs. Whitened Light Curve

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

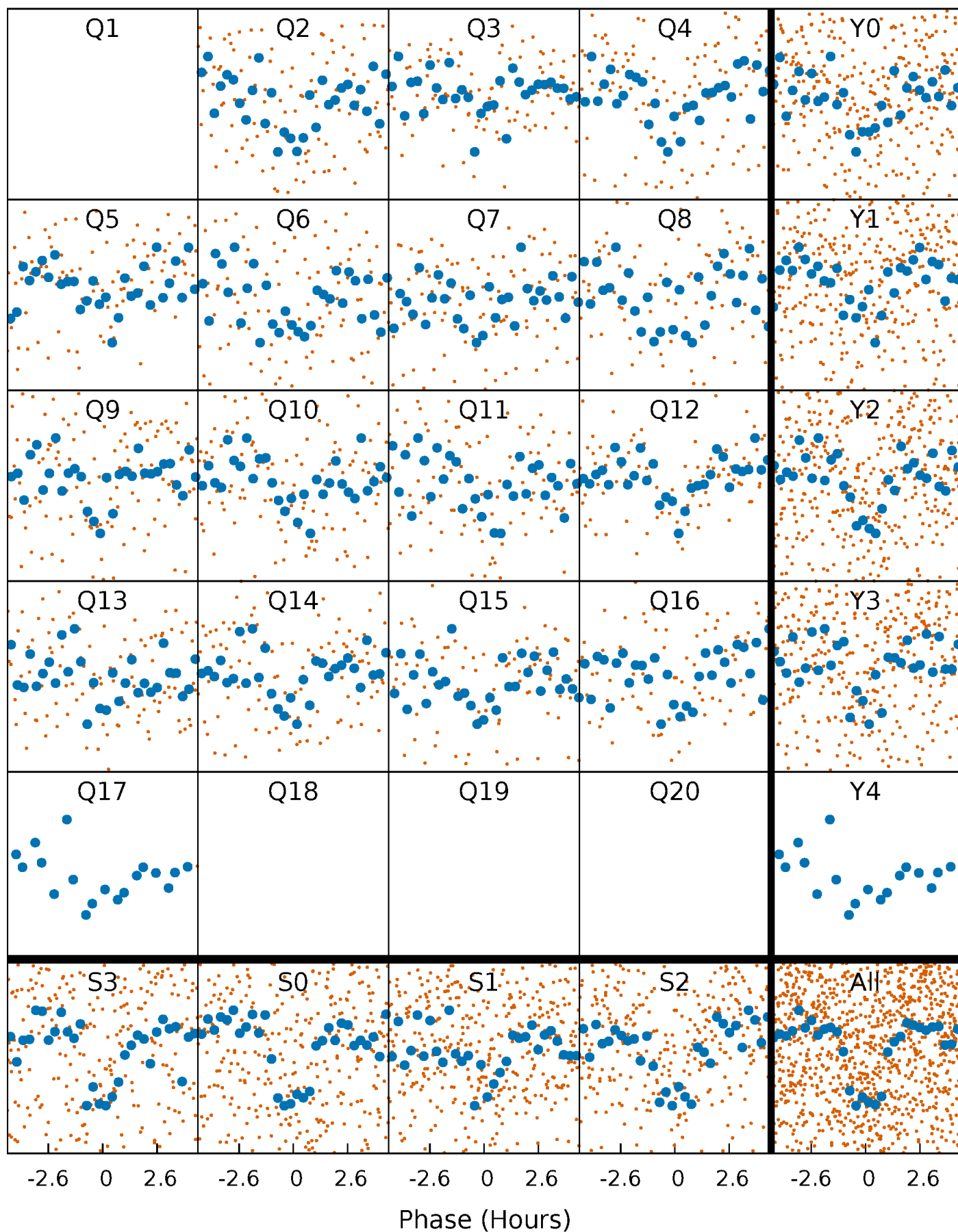


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



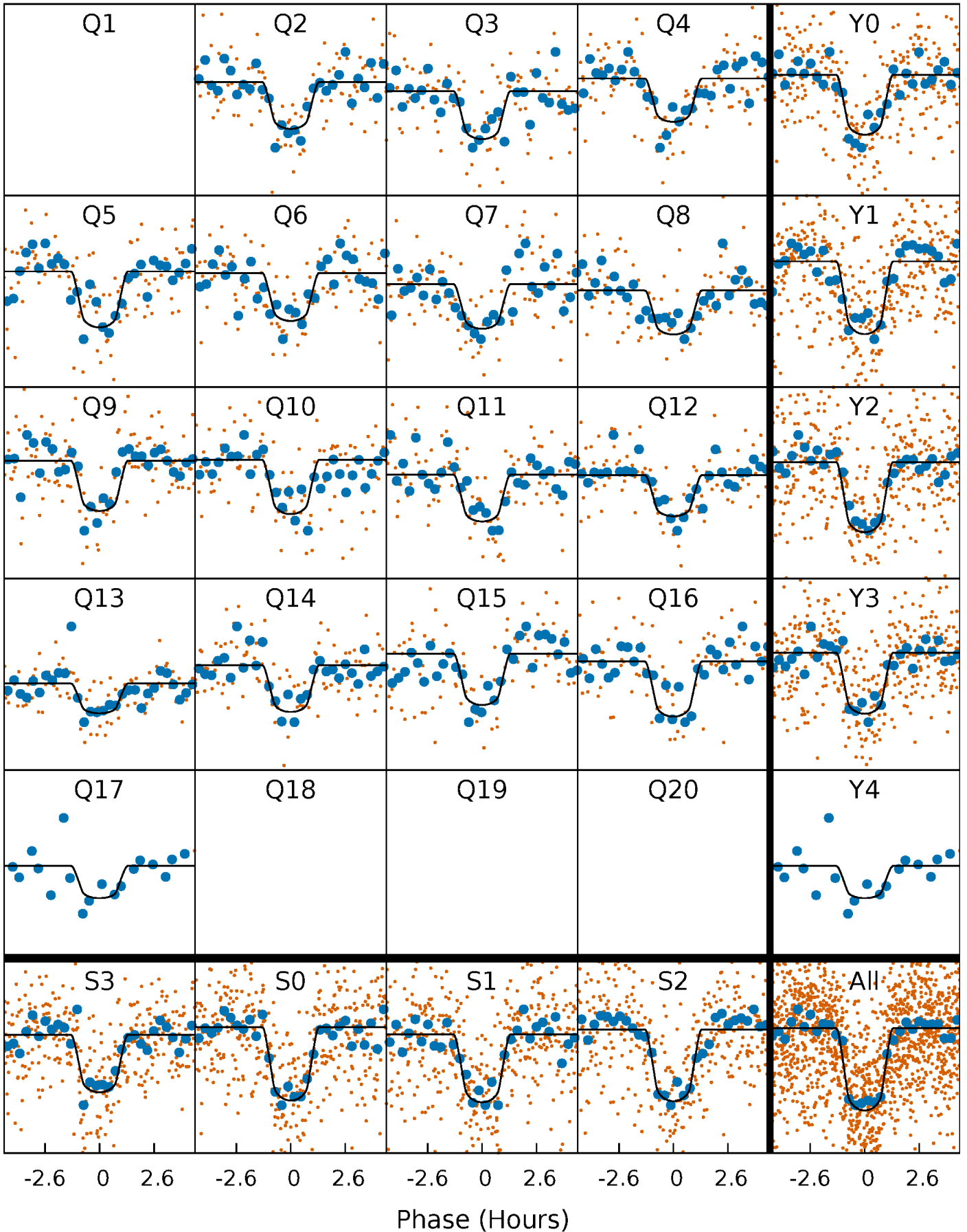
PDC Quarter-Phased Transit Curves

TCE 008651389-01 P= 15.135850 Days $T_0=146.585806$ (BKJD)



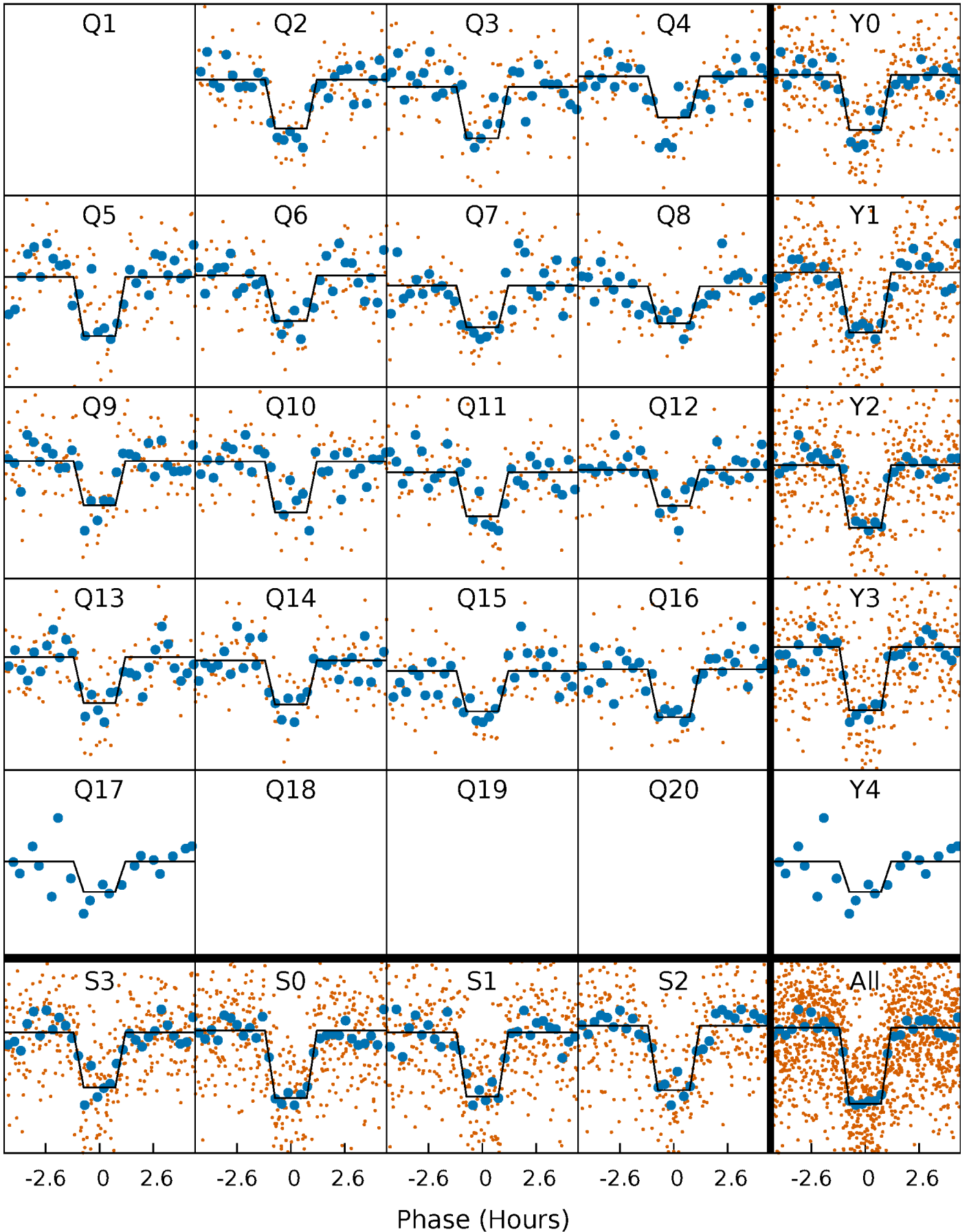
DV Quarter-Phased Transit Curves

TCE 008651389-01 P= 15.135850 Days $T_0=146.585806$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

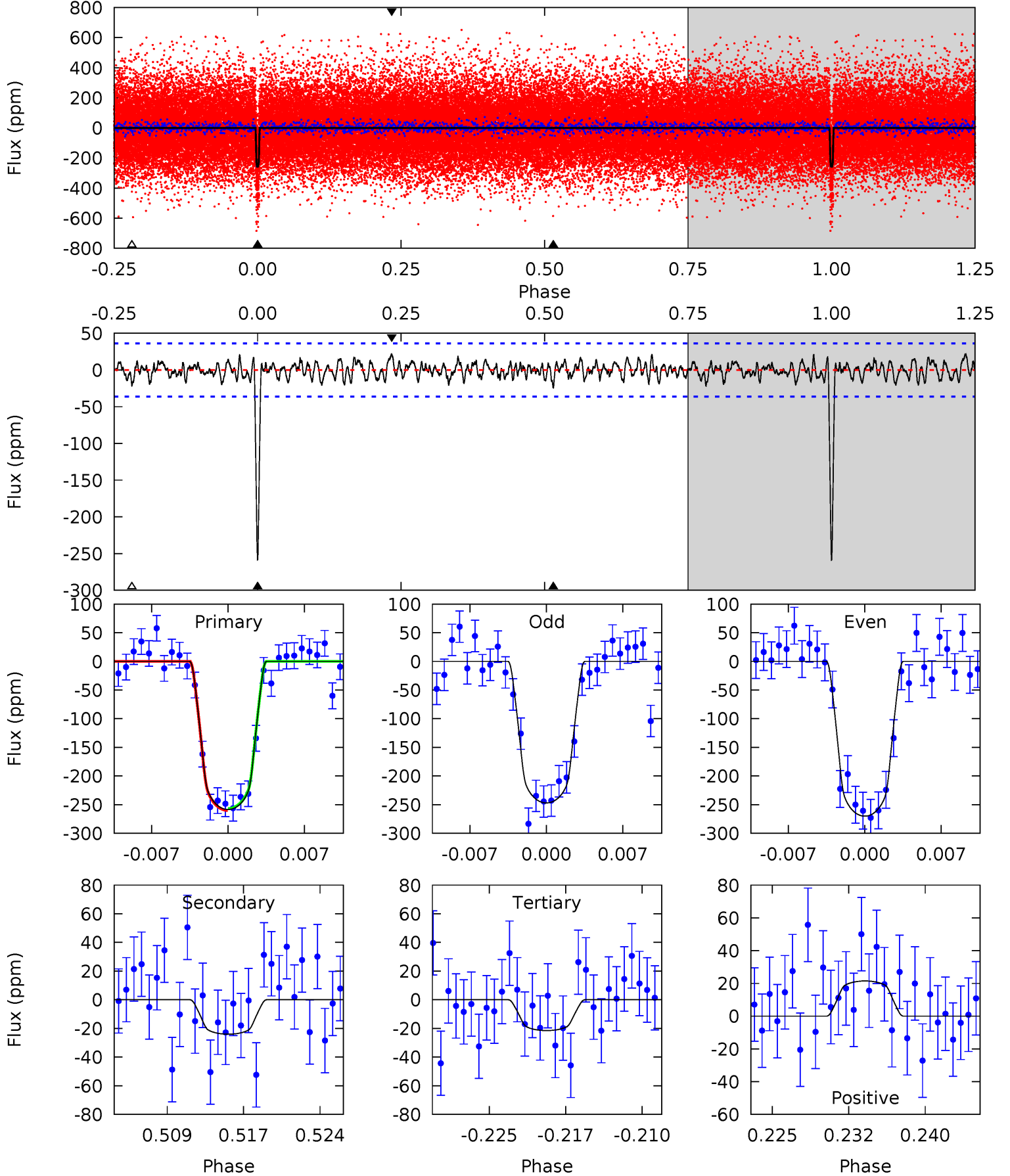
TCE 008651389-01 P= 15.135873 Days $T_0=146.584838$ (BKJD)



DV Model-Shift Uniqueness Test

008651389-01, $P = 15.135850$ Days, $E = 146.585806$ Days

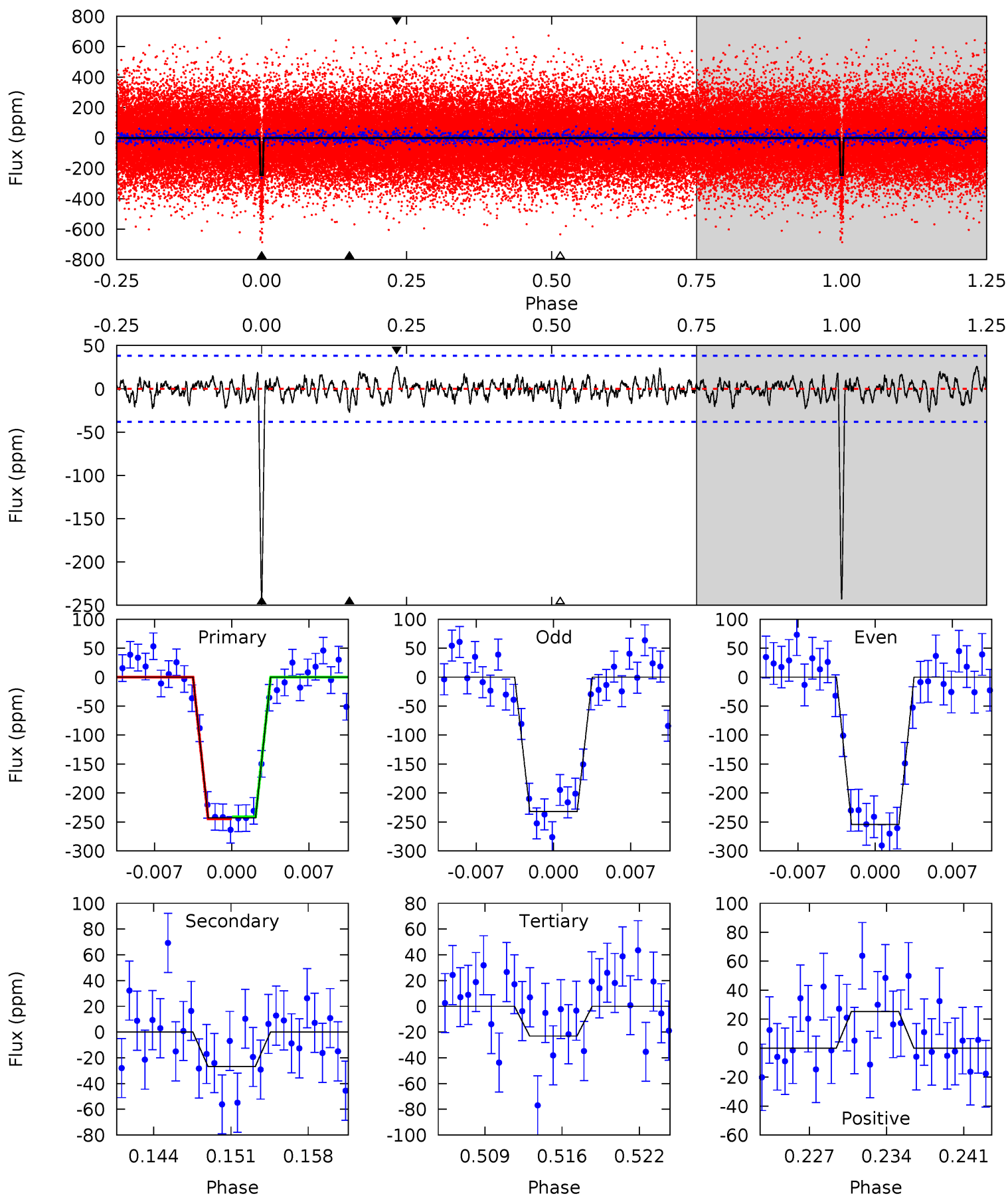
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.3	3.37	3.02	3.01	5.08	2.67	1.14	33.3	33.3	0.36	0.36	1.62	0.98	0.08	0.23



Alt Model-Shift Uniqueness Test

008651389-01, $P = 15.135873$ Days, $E = 146.584838$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.5	3.57	3.09	3.39	5.10	2.70	1.09	29.4	29.1	0.48	0.19	1.50	1.00	0.09	0.25



Stellar Parameters For KIC 008651389

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6050^{+190}_{-232}	$4.137^{+0.252}_{-0.168}$	$0.140^{+0.200}_{-0.300}$	$1.572^{+0.459}_{-0.459}$	$1.240^{+0.170}_{-0.227}$	$0.449^{+0.702}_{-0.212}$
	+3%/-4%	+6%/-4%	+143%/-214%	+29%/-29%	+14%/-18%	+156%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008651389-01 / KOI 1754.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 7	$2.90^{+0.90}_{-0.76}$	1287^{+105}_{-112}	3606^{+370}_{-303}	25^{+23}_{-12}
Alt.	-27 ± 7	$2.61^{+0.82}_{-0.73}$	1291^{+106}_{-114}	3801^{+493}_{-330}	34^{+38}_{-16}

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

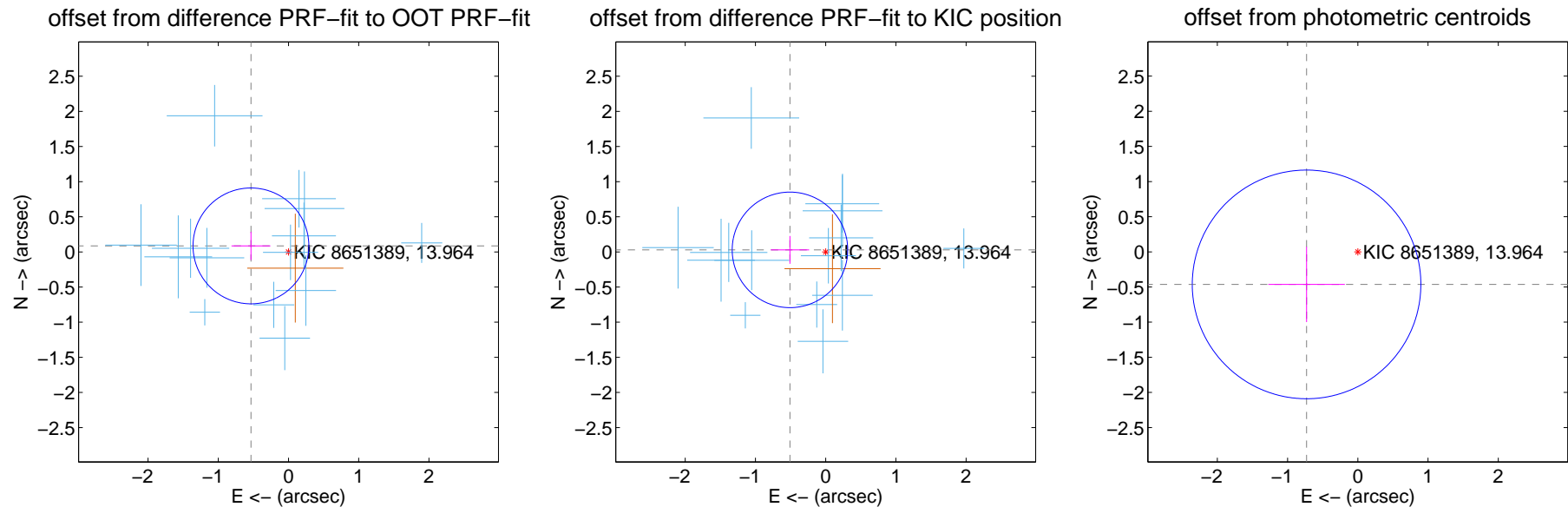
DV Centroid Data

Supplemental centroid analysis for 008651389-01. Kepler magnitude: 13.96. Transit SNR 24.80

There are 14 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.541 ± 0.275	1.97	0.535 ± 0.276	0.086 ± 0.199
PRF-fit source offset from KIC position	0.509 ± 0.274	1.86	0.508 ± 0.273	0.029 ± 0.198
photometric centroid source offset	0.86 ± 0.54	1.59	0.73 ± 0.54	-0.46 ± 0.54



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.

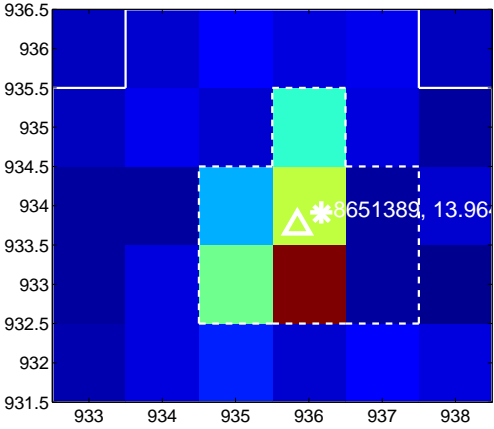
Q1 no difference image



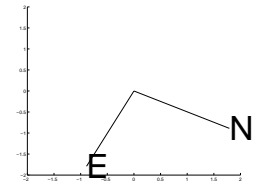
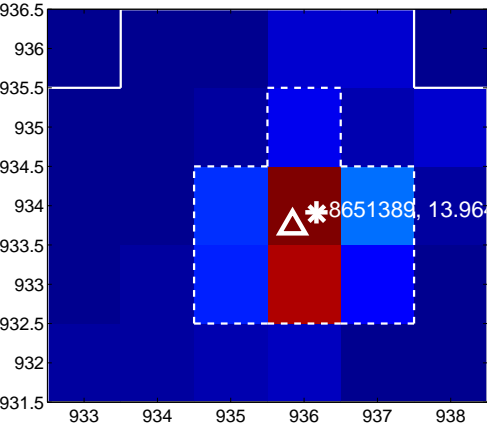
Q1 no OOT image



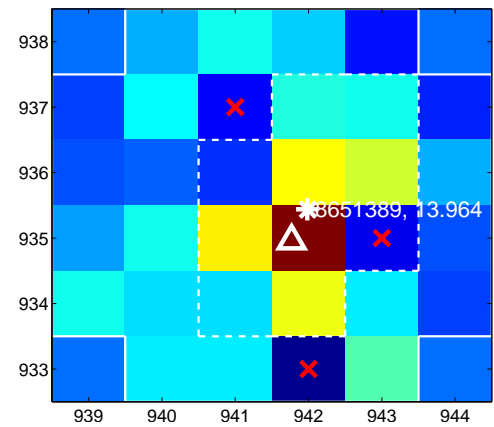
Q2 difference image



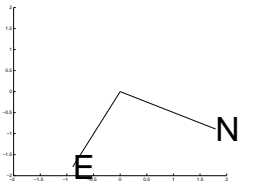
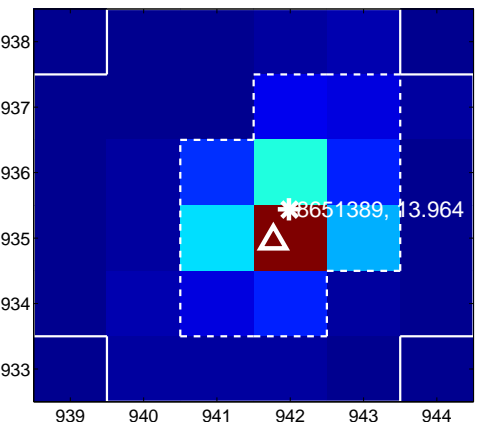
Q2 OOT image



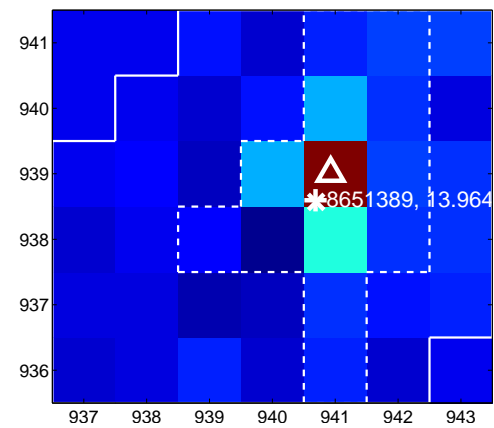
Q3 difference image



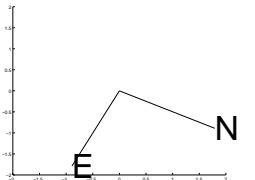
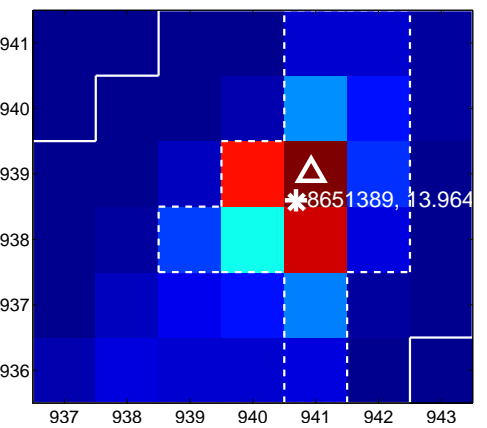
Q3 OOT image



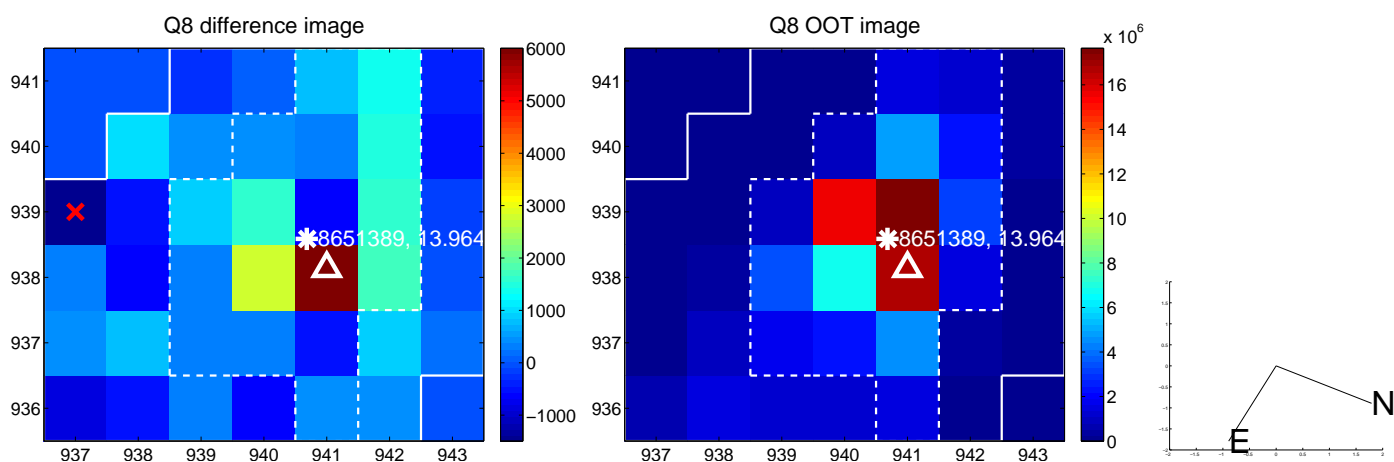
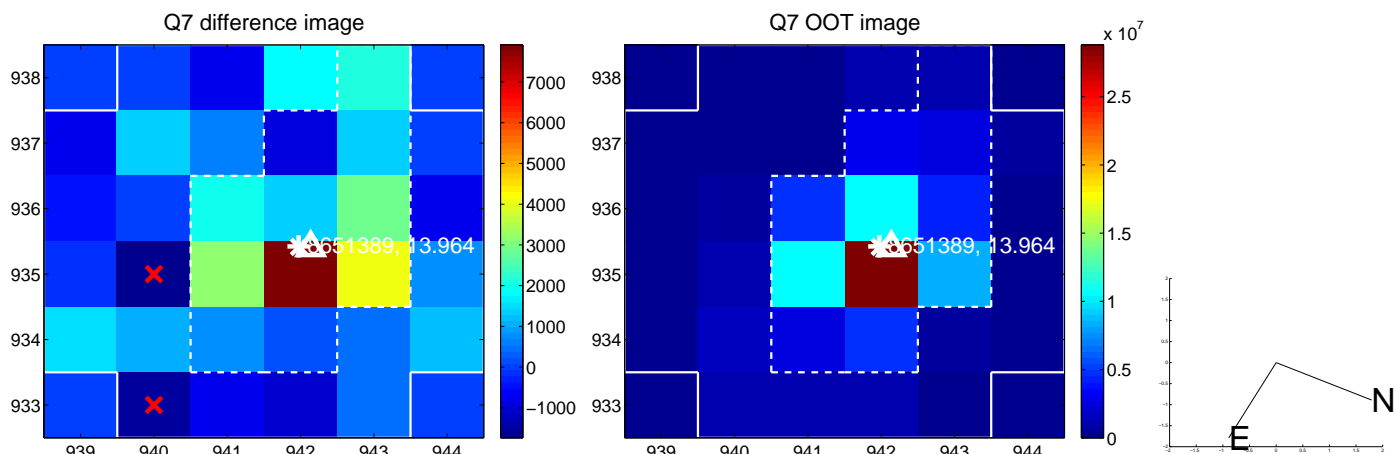
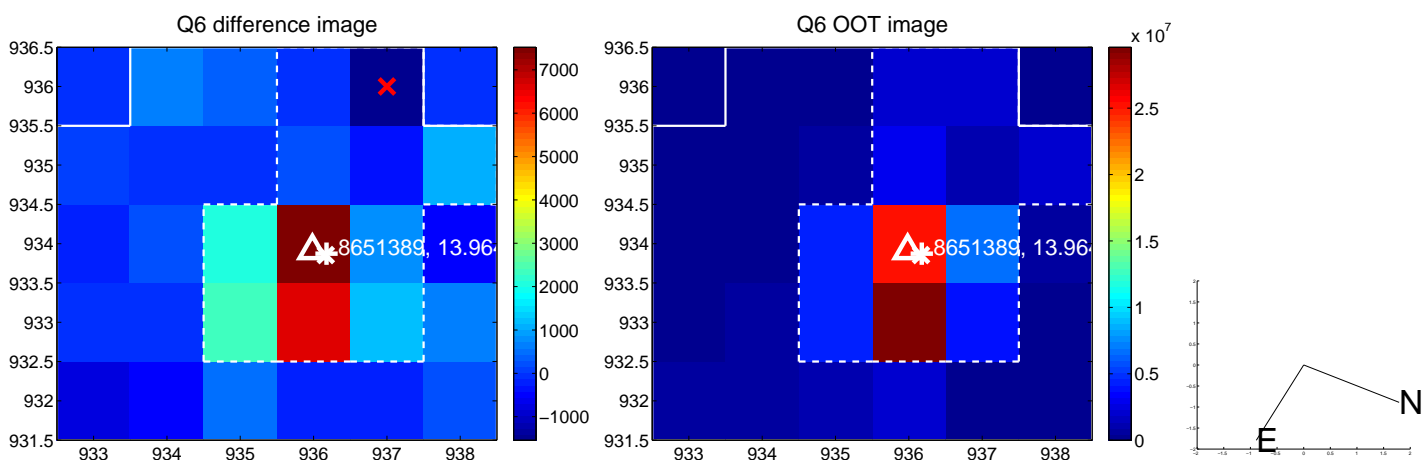
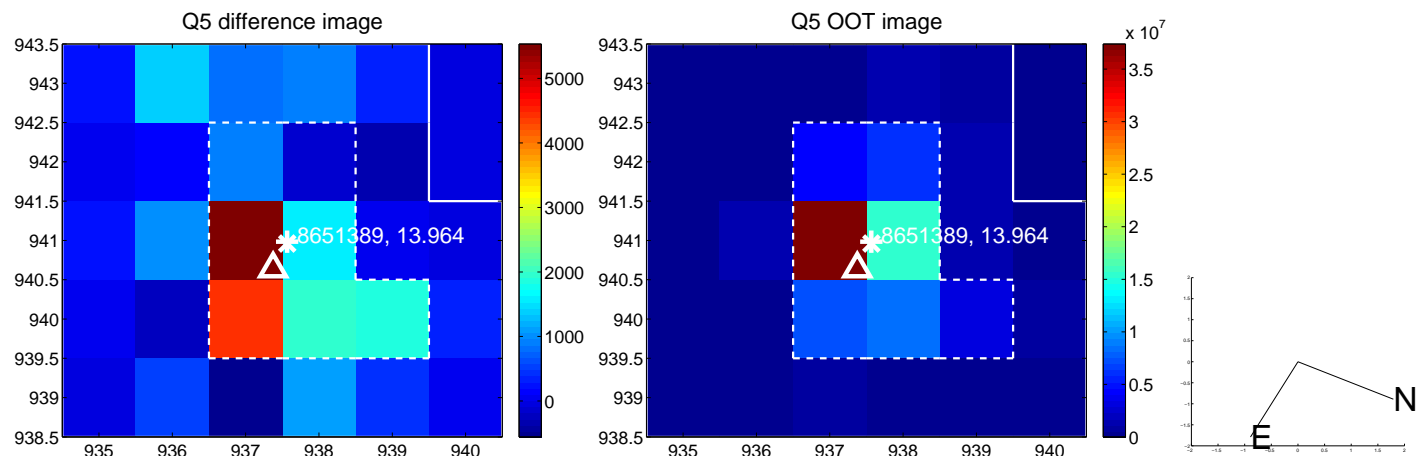
Q4 difference image



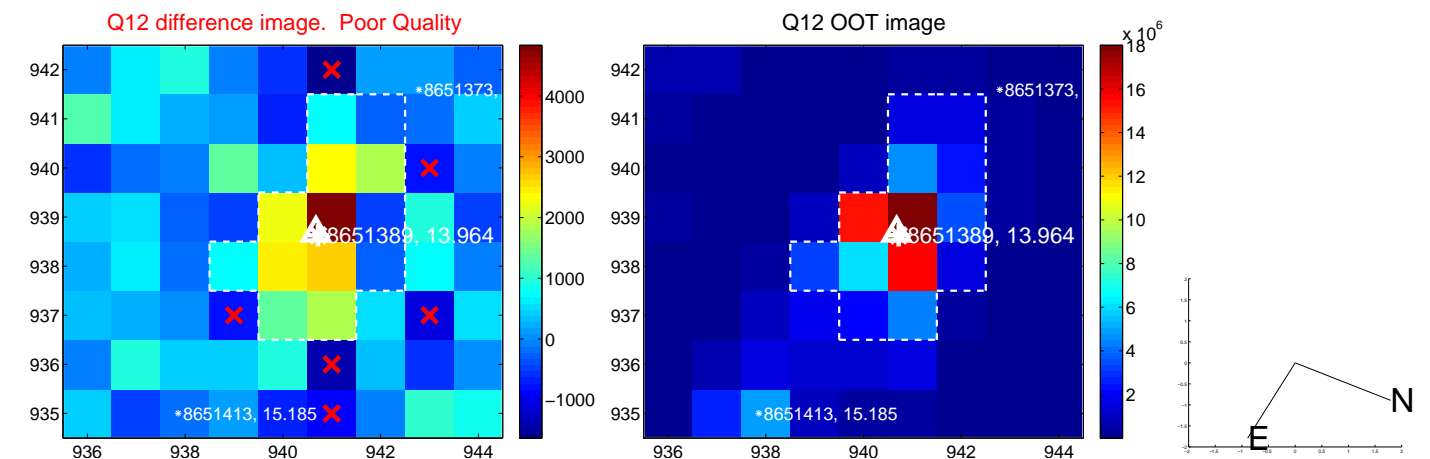
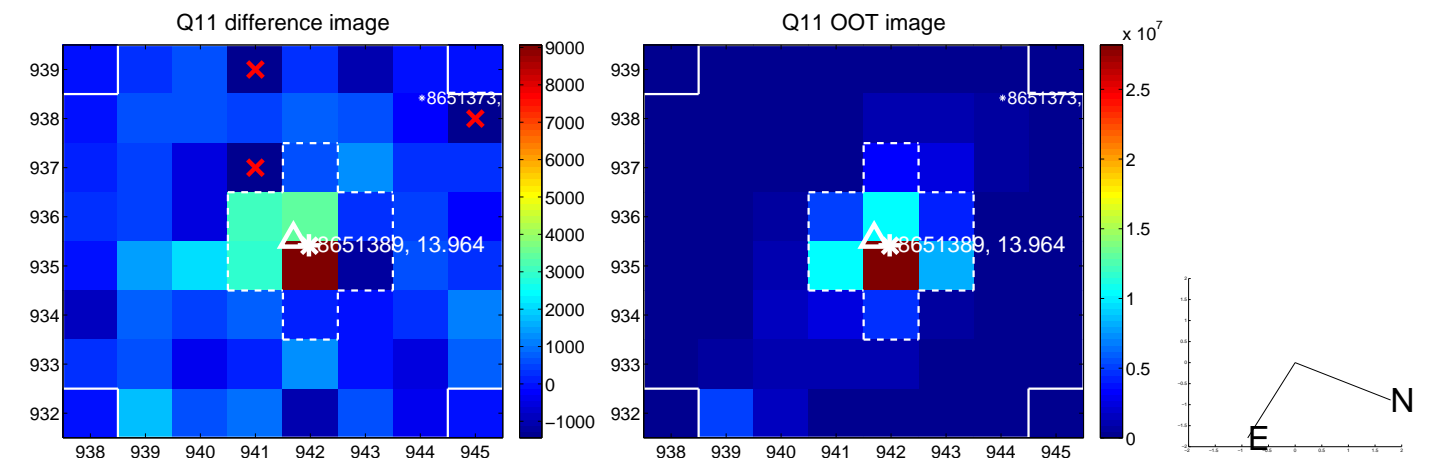
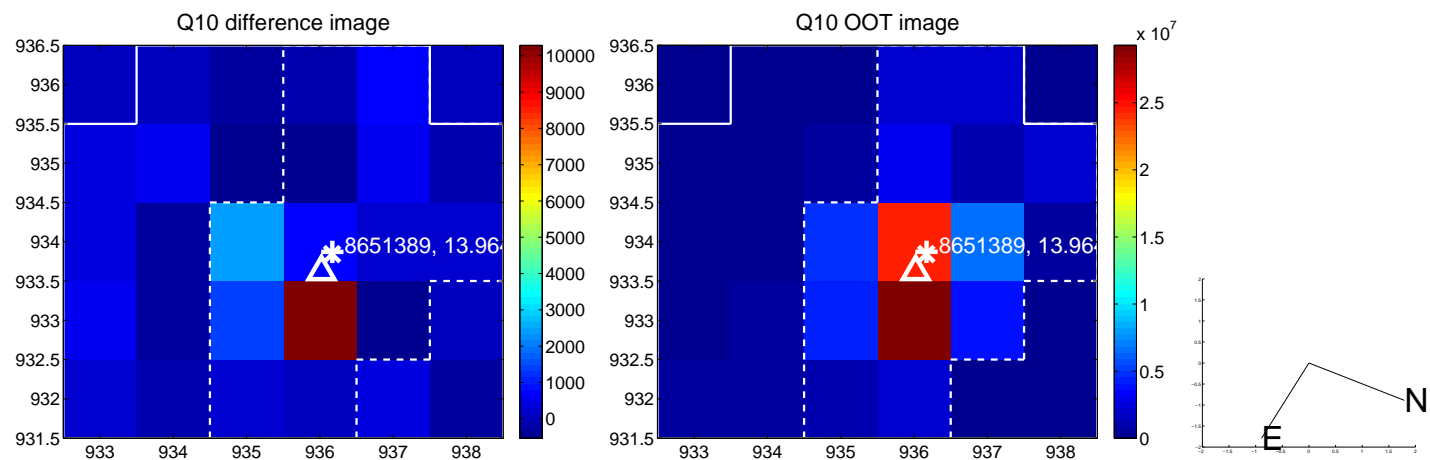
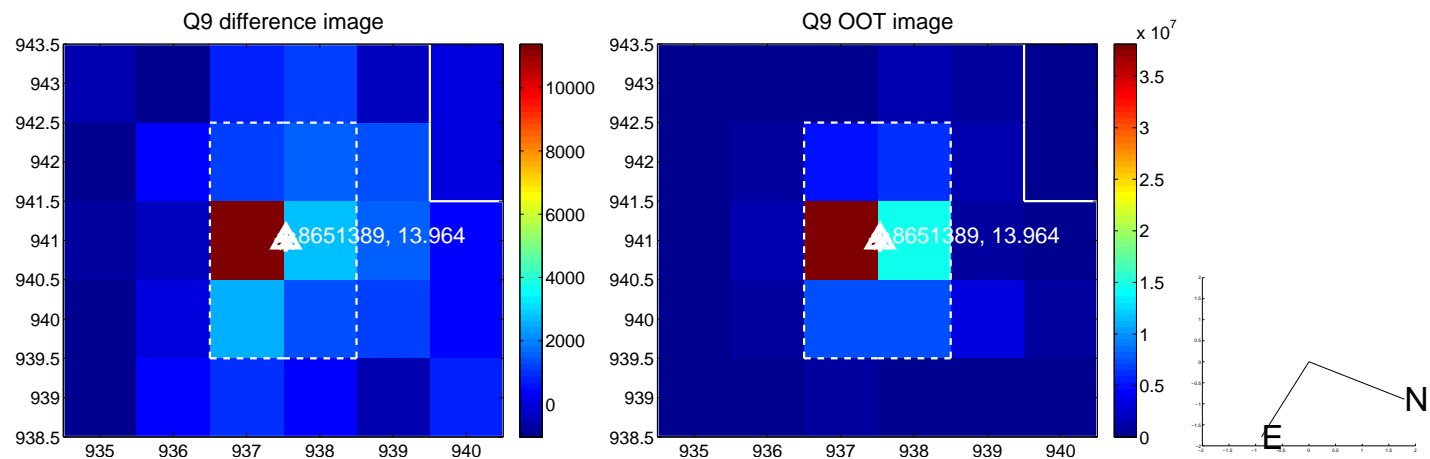
Q4 OOT image



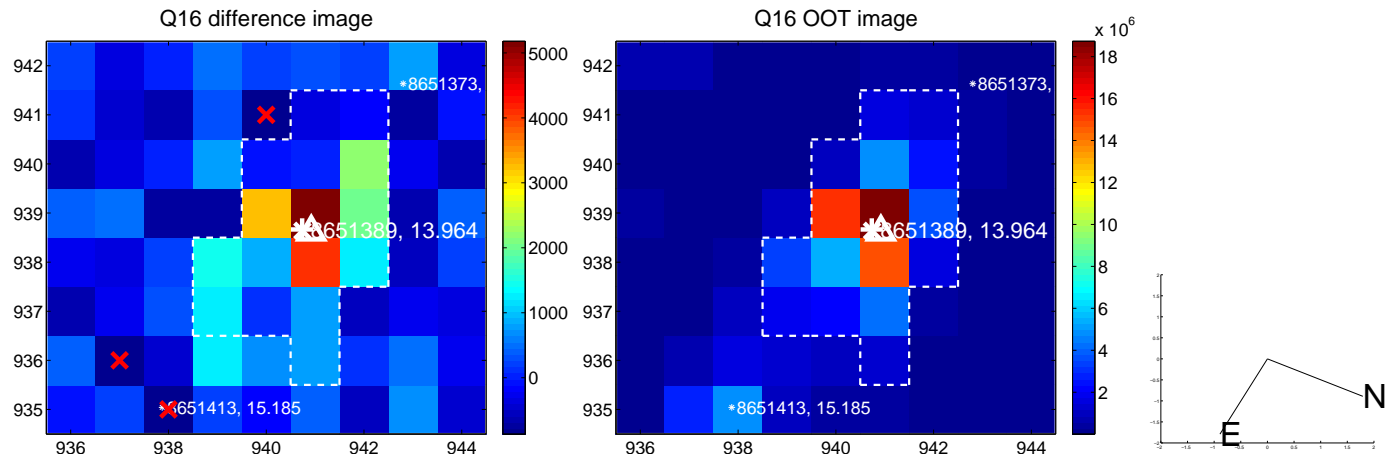
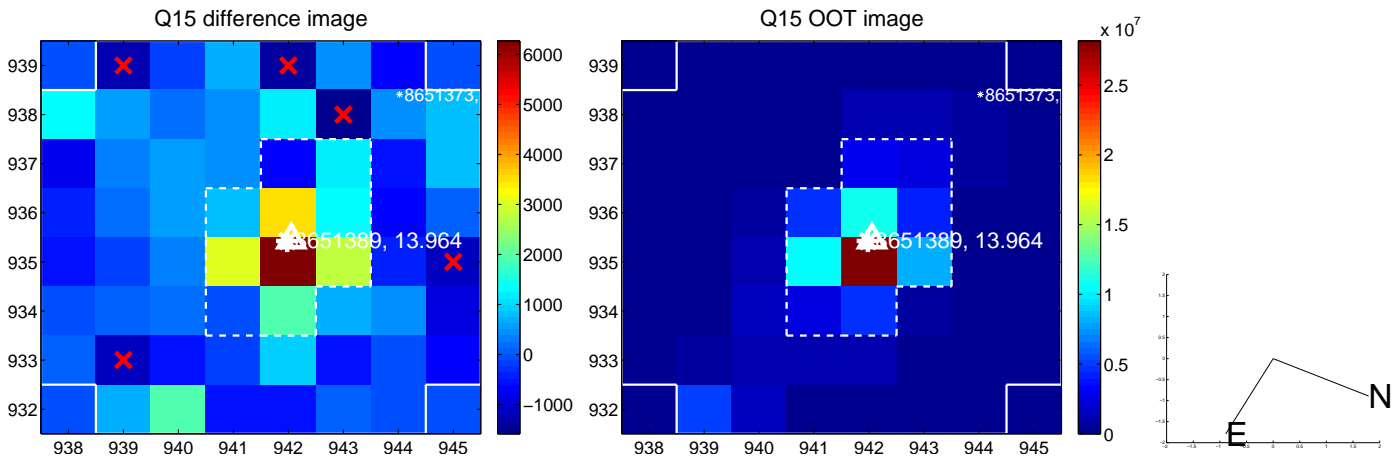
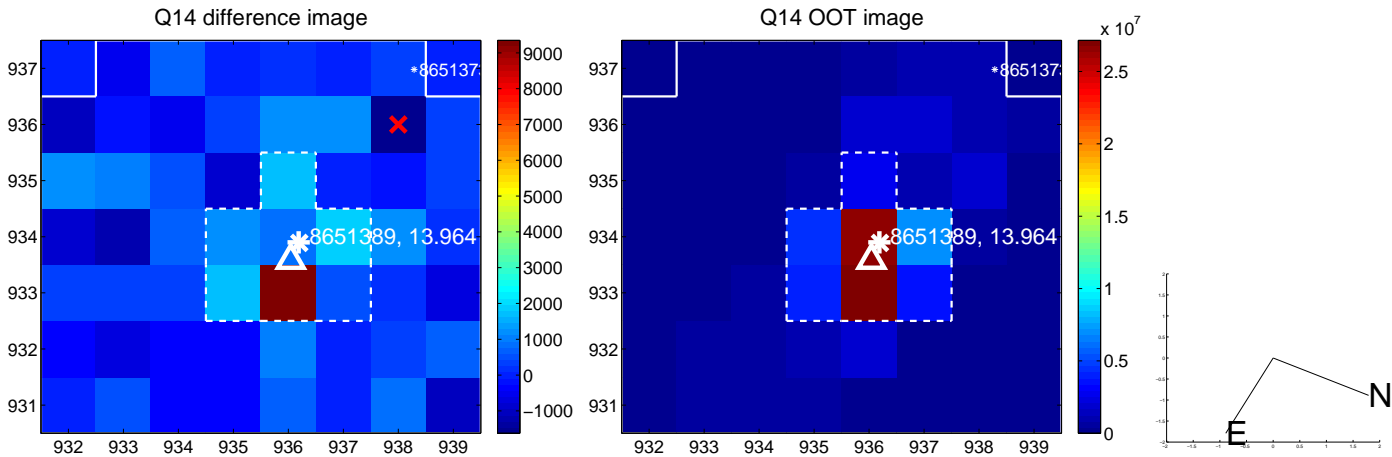
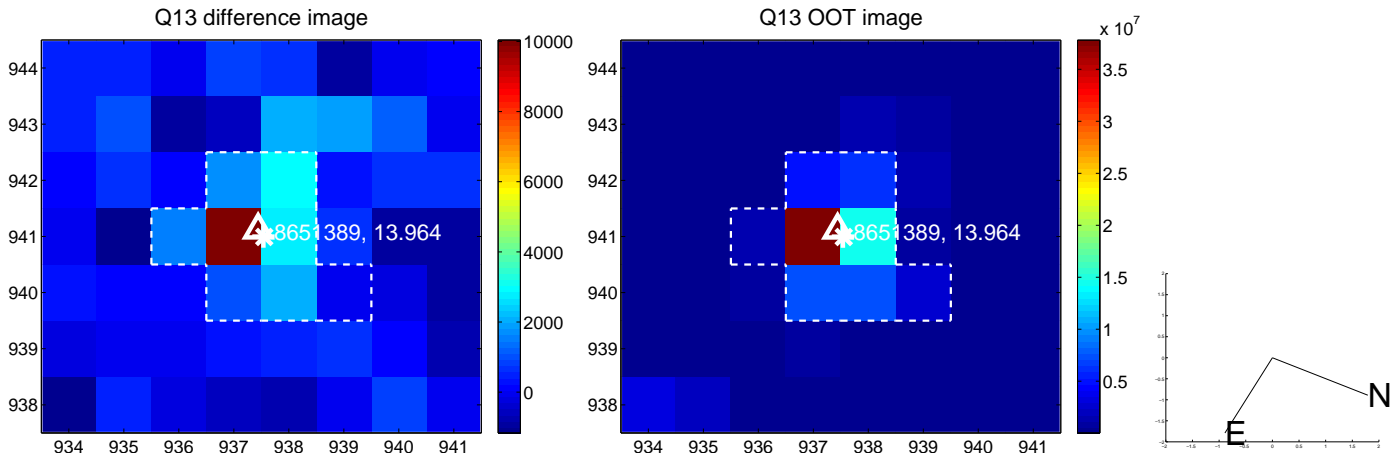
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



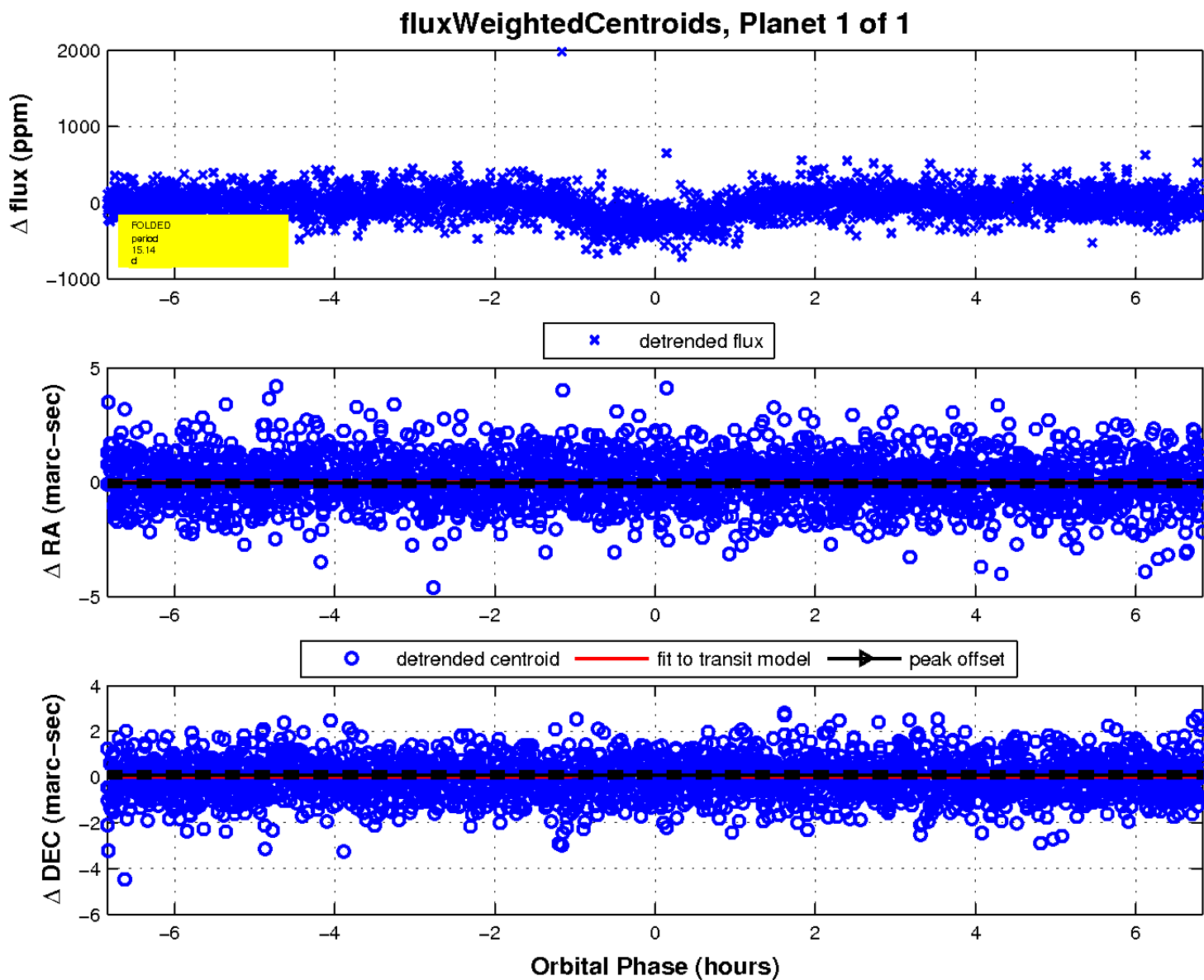
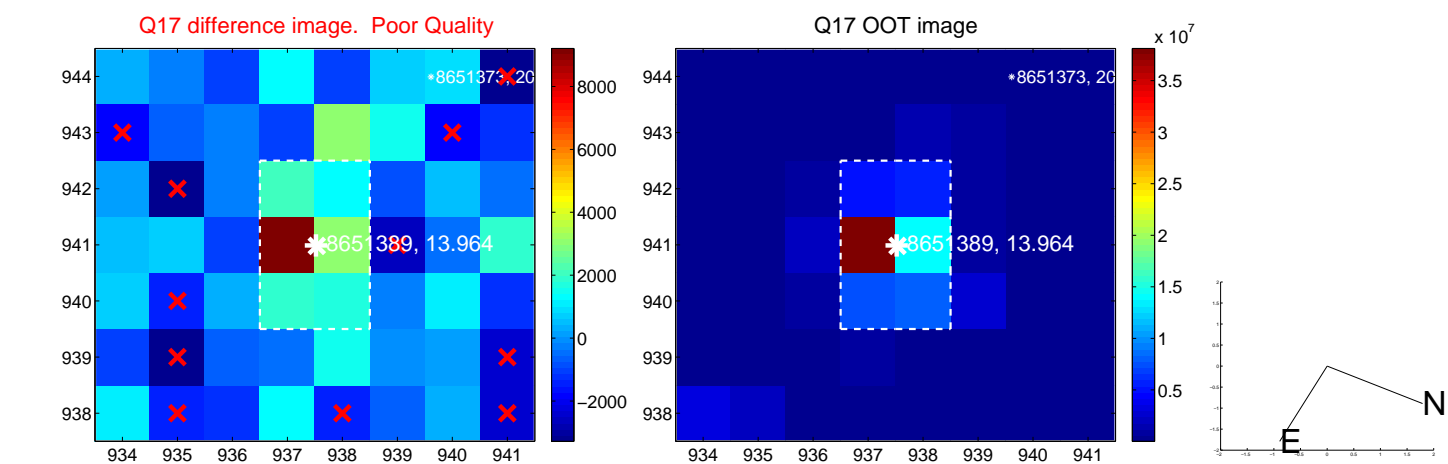
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

