

KIC 008649198

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})
008649198-01	OBS	No	0.766288	131.670437	1.7	5.920	11.4	4.6	4.59	8020	0.62	159789.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008649198-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

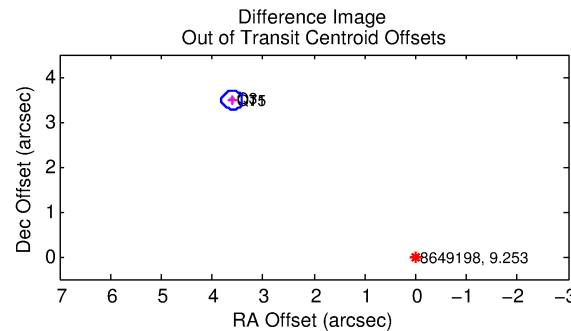
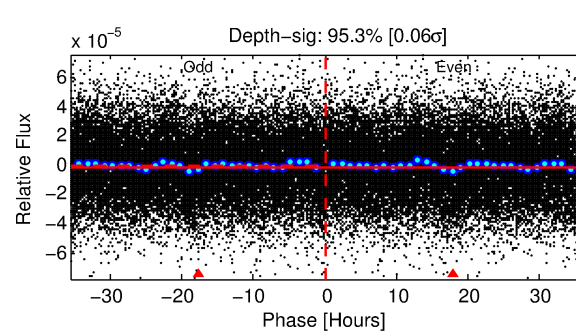
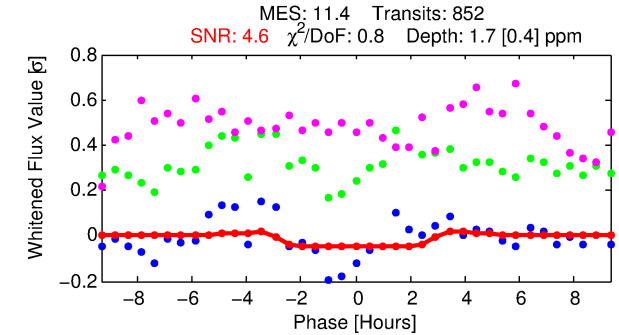
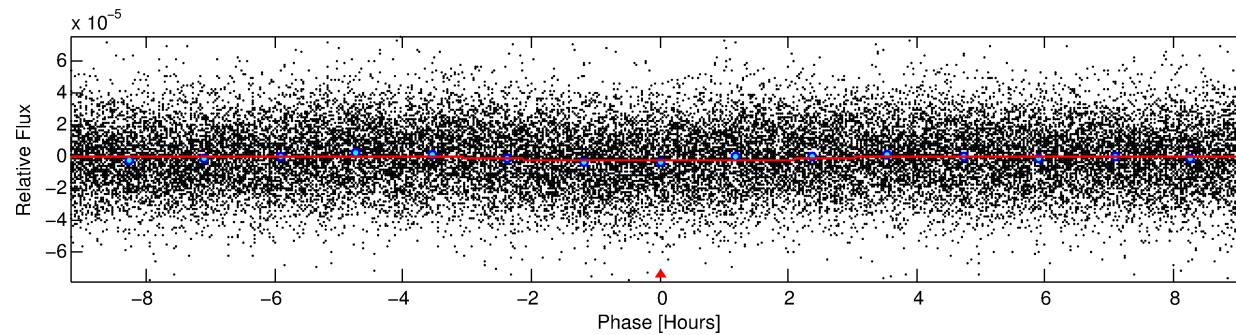
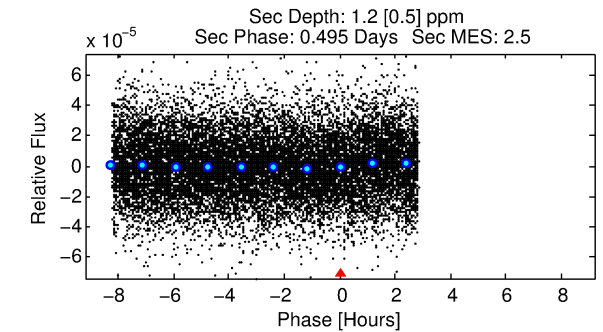
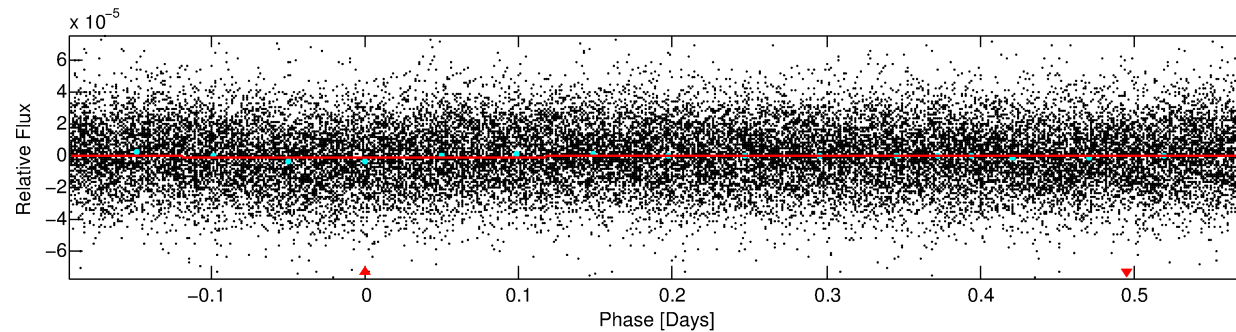
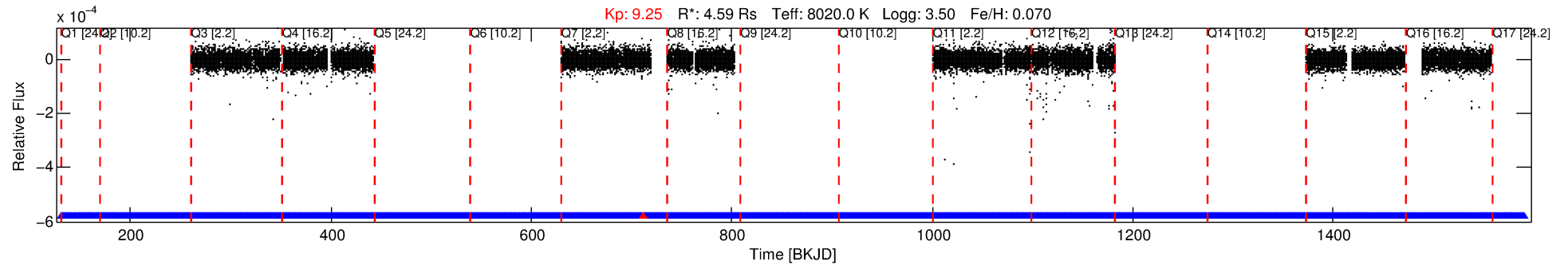
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008649198-01

No Significant Match Found

DV One-Page Summary

KIC: 8649198 Candidate: 1 of 1 Period: 0.766 d



DV Fit Results:

Period = 0.76629 [0.00002] d
Epoch = 131.6704 [0.0086] BKJD
 R_p/R^* = 0.0012 [0.0008]
 a/R^* = 1.15 [1.03]
 b = 0.41 [7.40]
 S_{eff} = 159789.33 [164092.90]
 T_{eq} = 5098 [1309] K
 R_p = 0.62 [0.53] R_{e}
 a = 0.0221 [0.0133] AU
 A_g = 0.84 [1.44] [-0.11 σ]
 T_{eff} = 7546 [2621] K [0.84 σ]

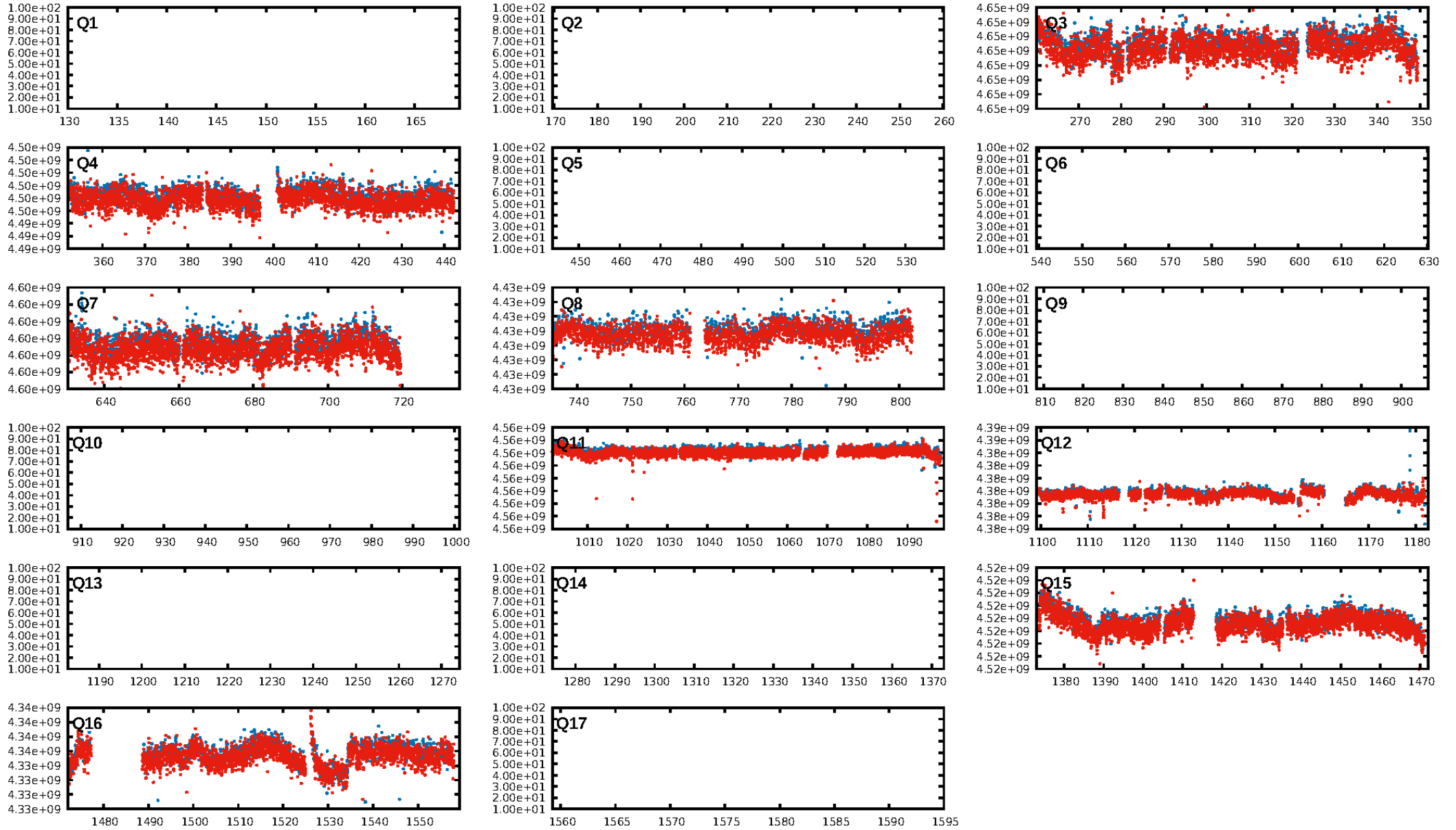
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 2.64e-04
RollingBand-fgt: 1.00 [851/852]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 5.010 arcsec [73.69 σ]
KicOffset-rm: 6.123 arcsec [79.57 σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [8/8]

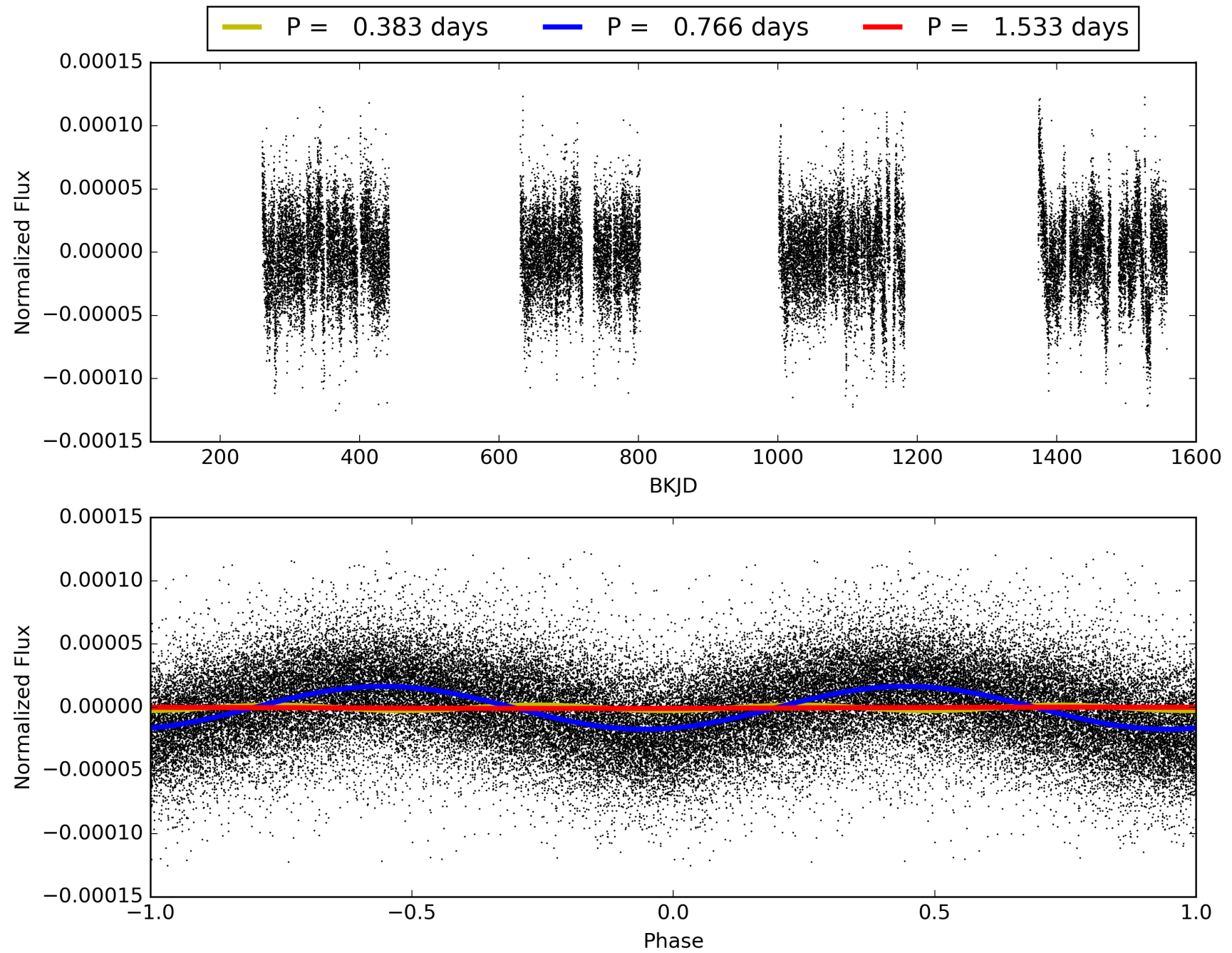
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:24:59 Z

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

TCE 008649198-01, PDC Light Curves

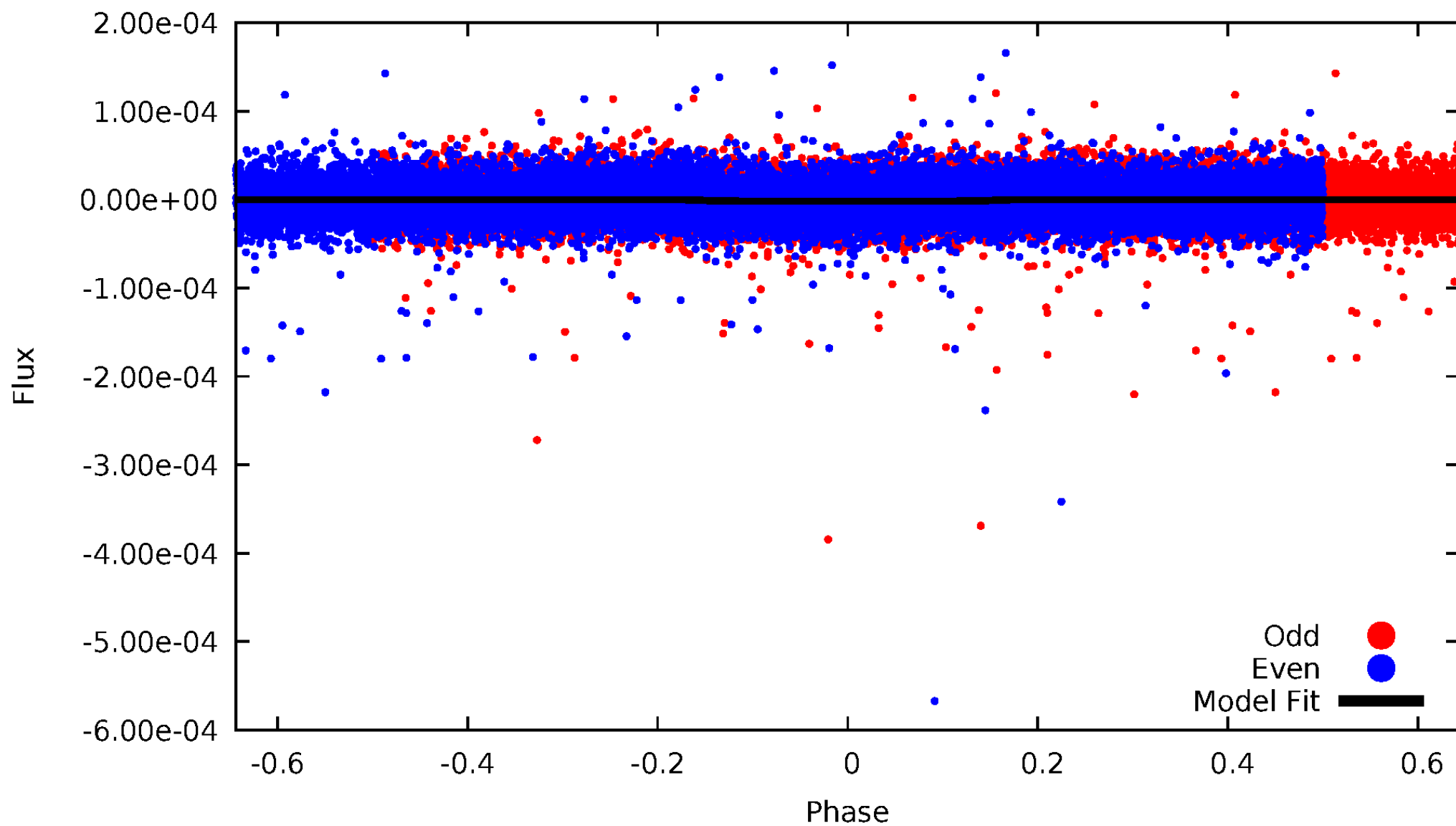


TCE 008649198-01



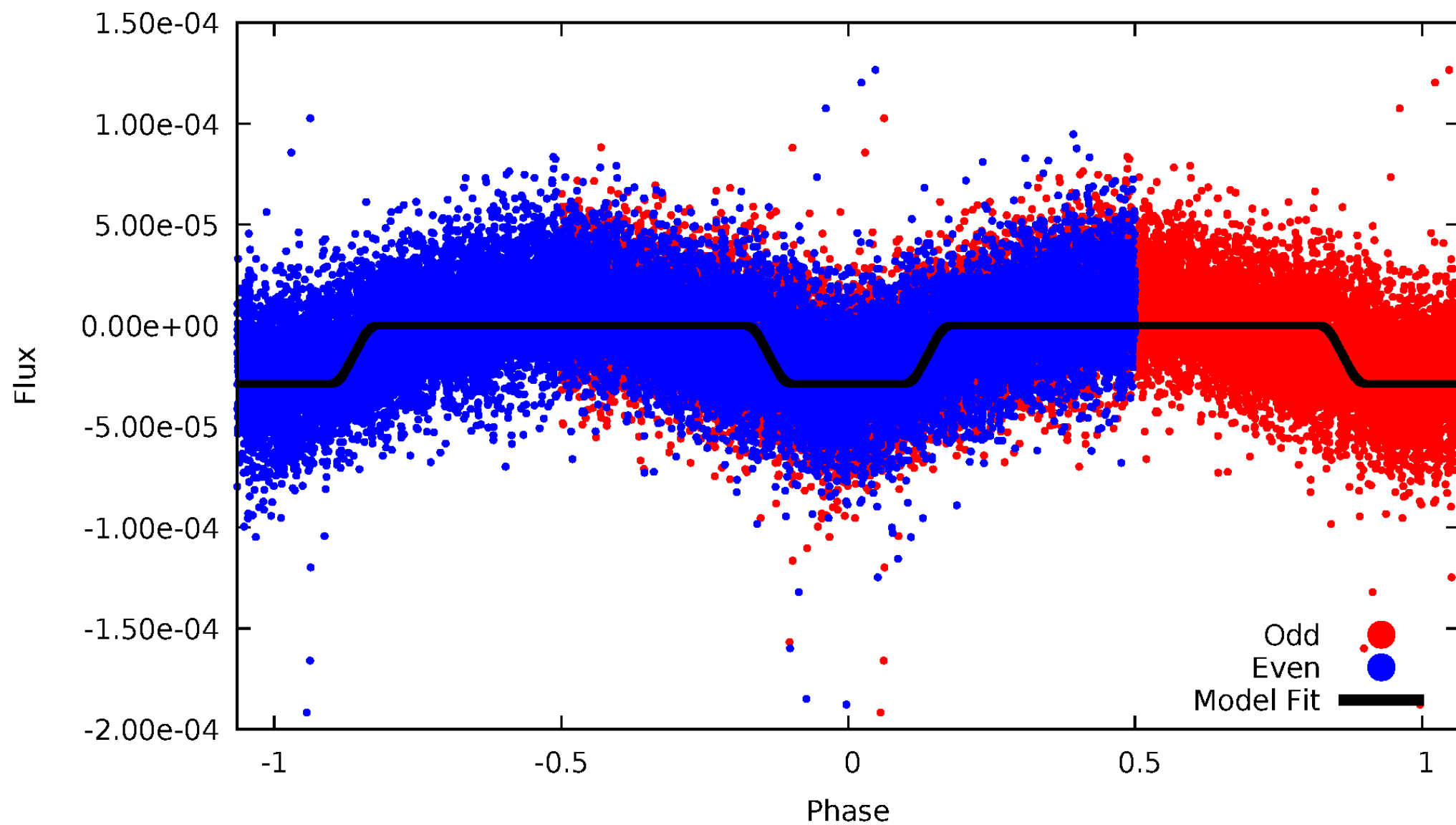
DV Odd/Even

TCE 008649198-01

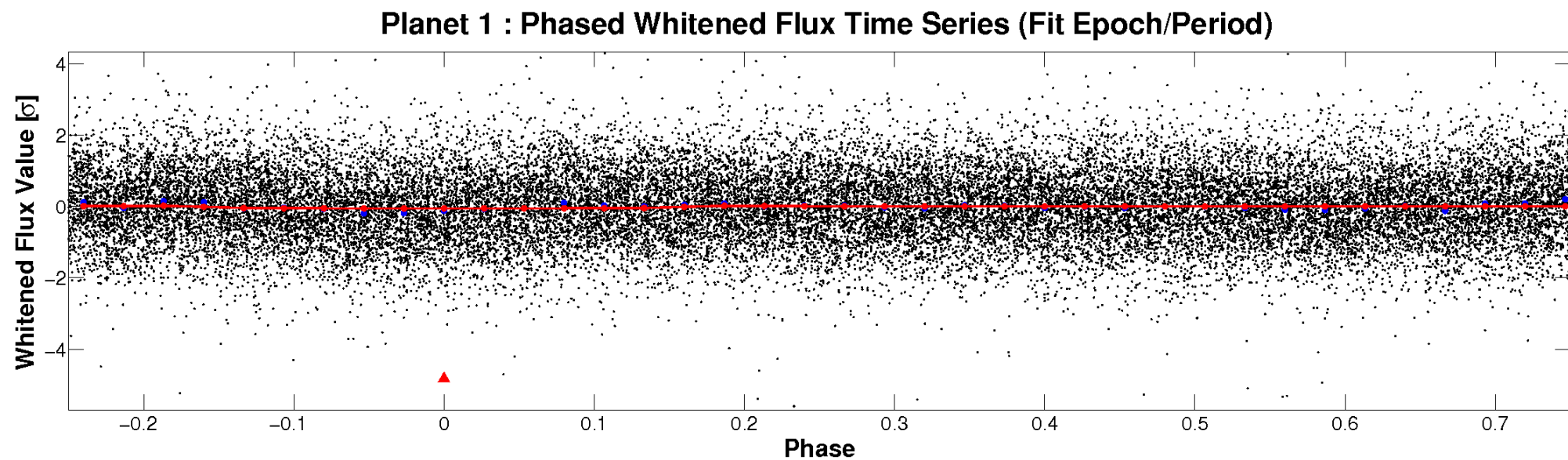
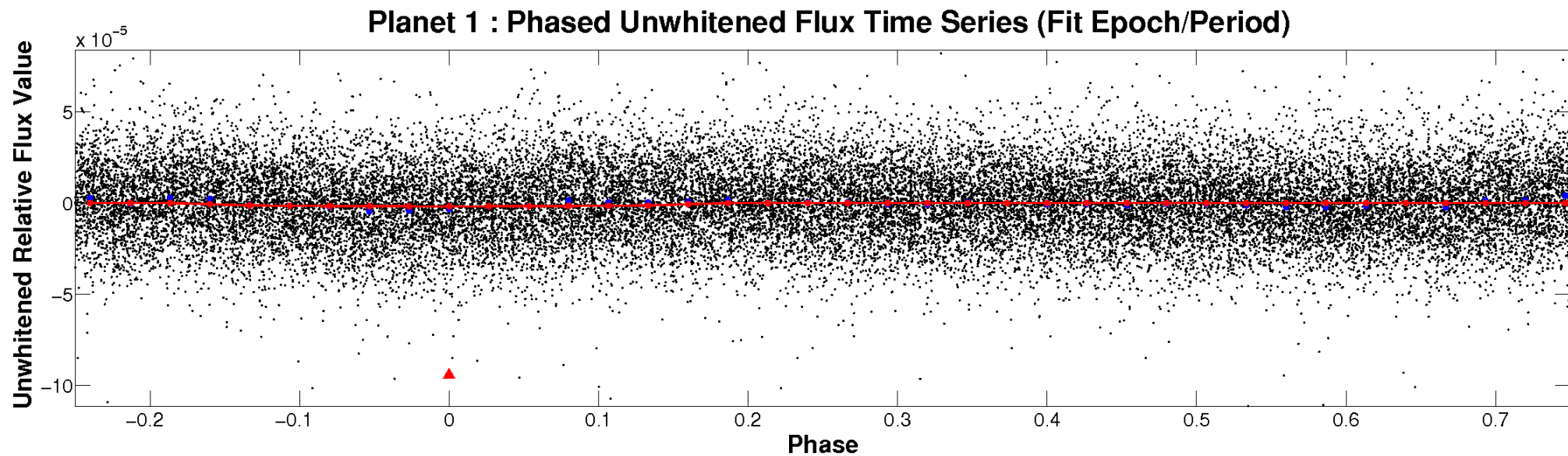


ALT Odd/Even

TCE 008649198-01

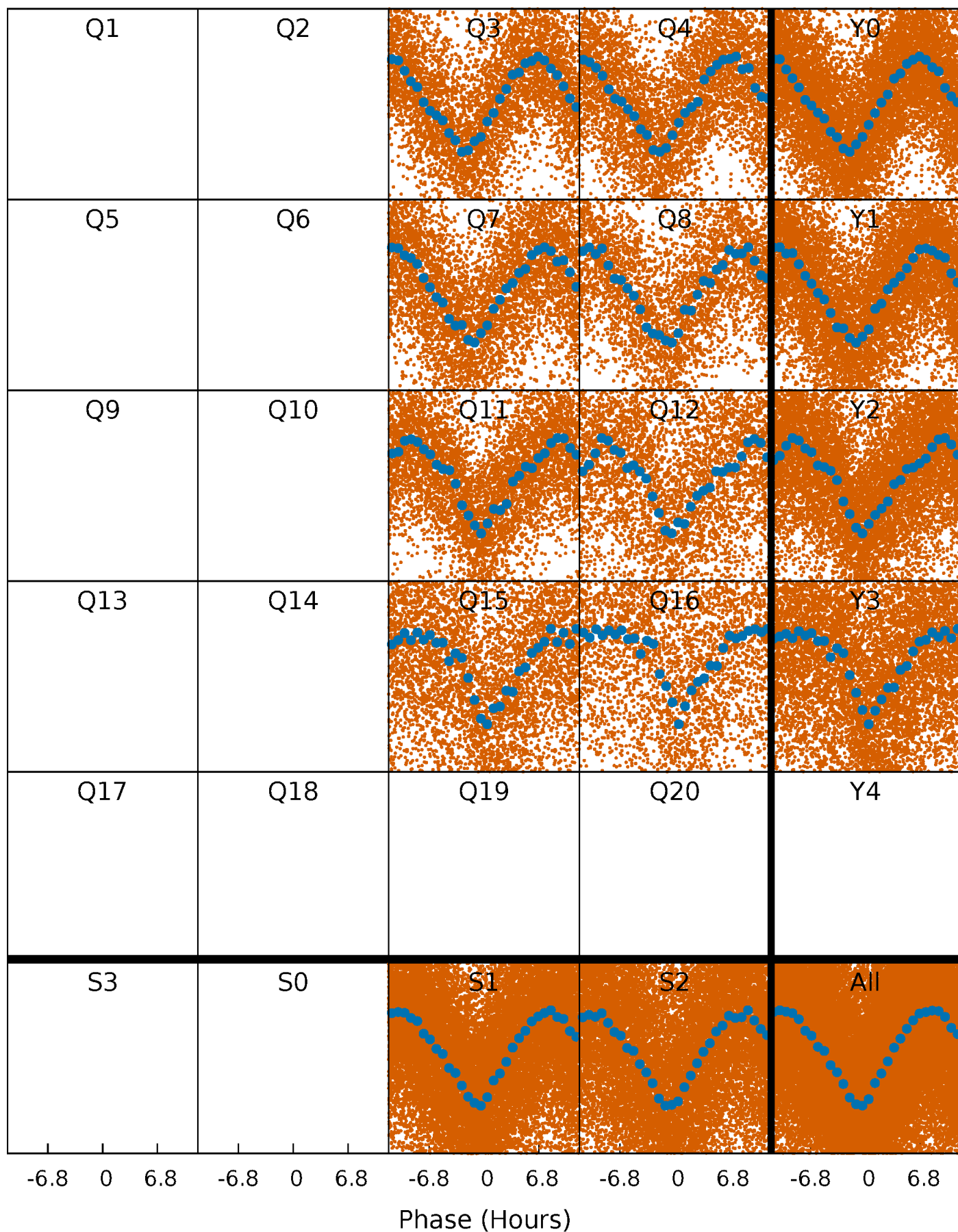


Non-Whitened Vs. Whitened Light Curve



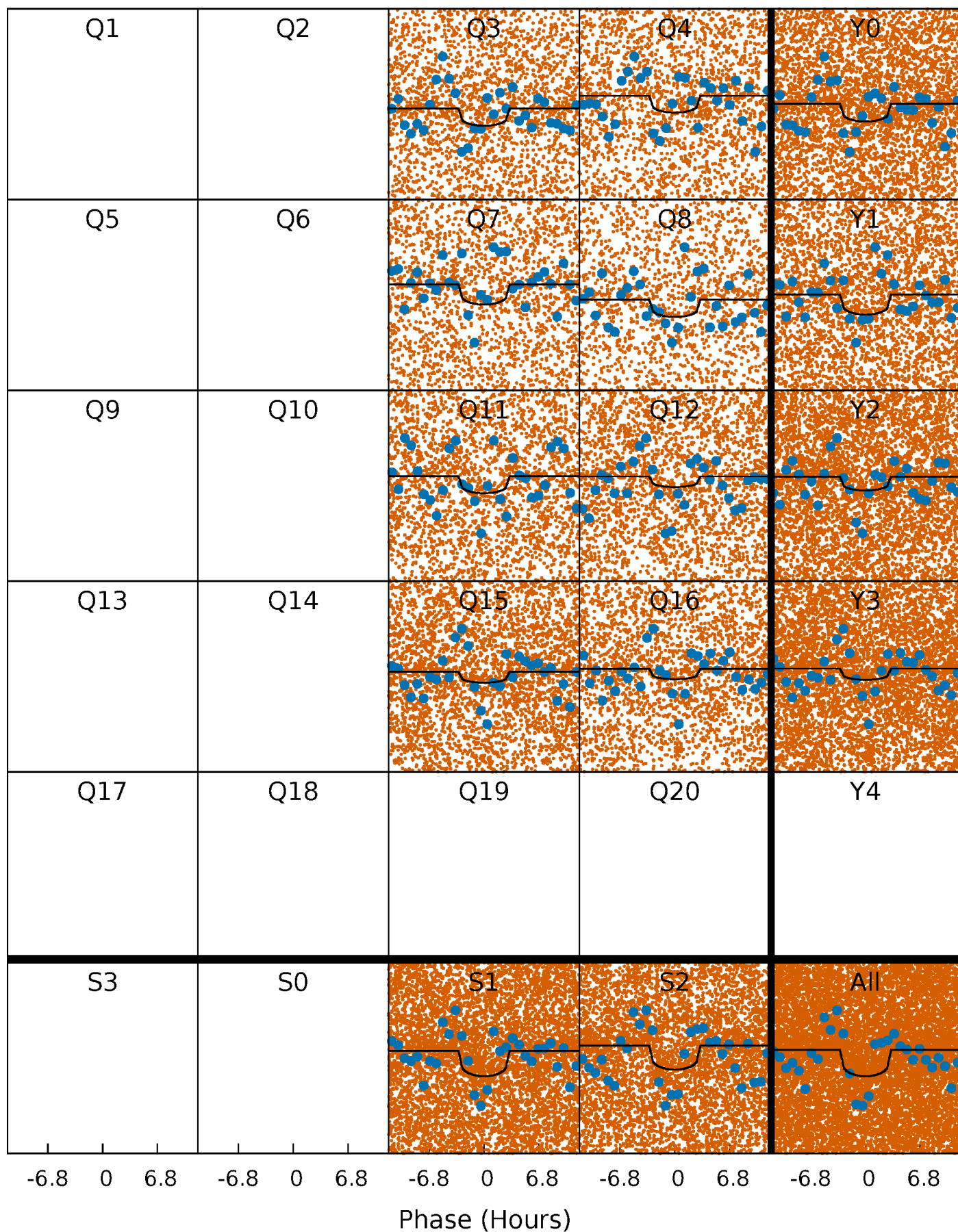
PDC Quarter-Phased Transit Curves

TCE 008649198-01 P= 0.766288 Days $T_0=131.670437$ (BKJD)



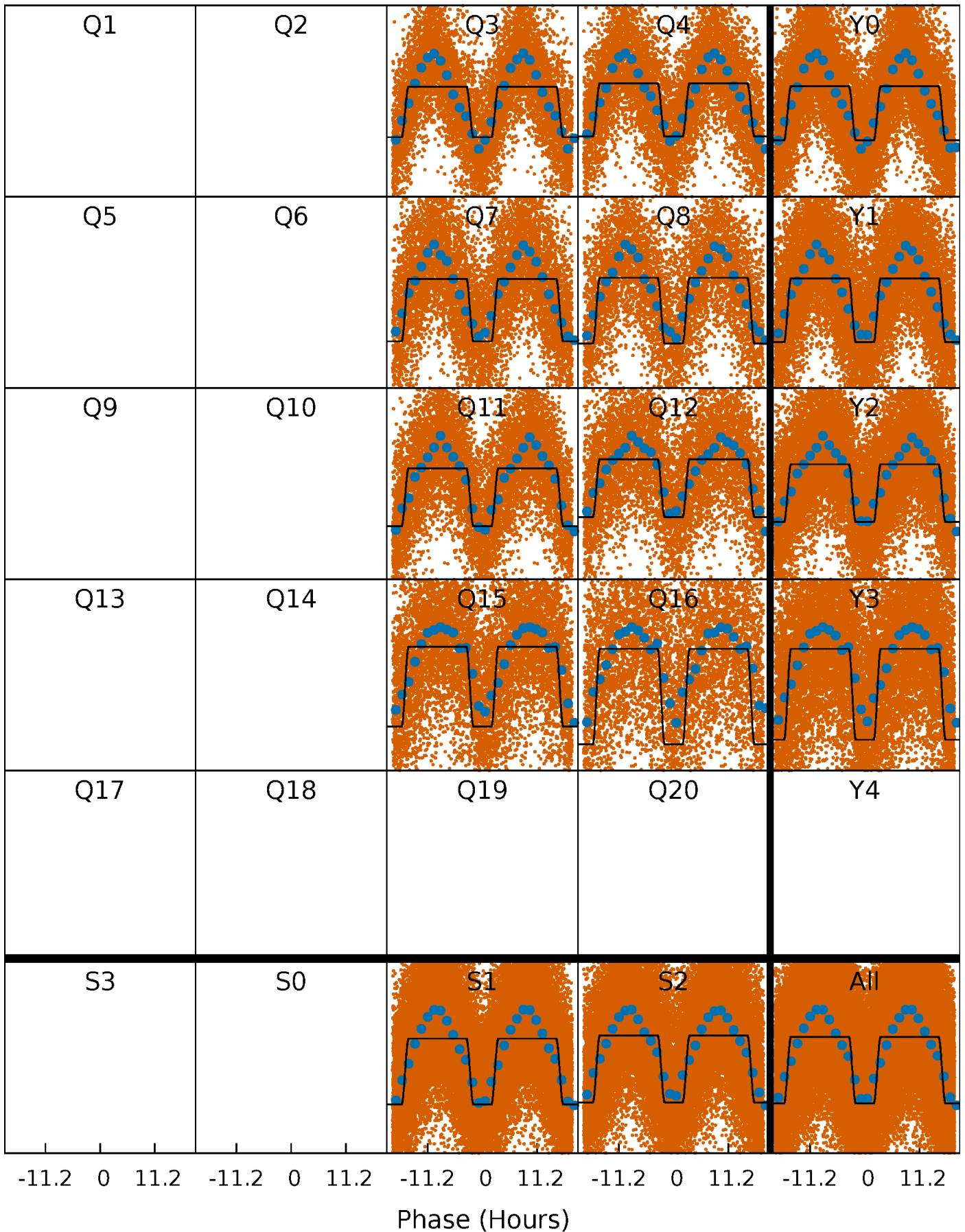
DV Quarter-Phased Transit Curves

TCE 008649198-01 P= 0.766288 Days $T_0=131.670437$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

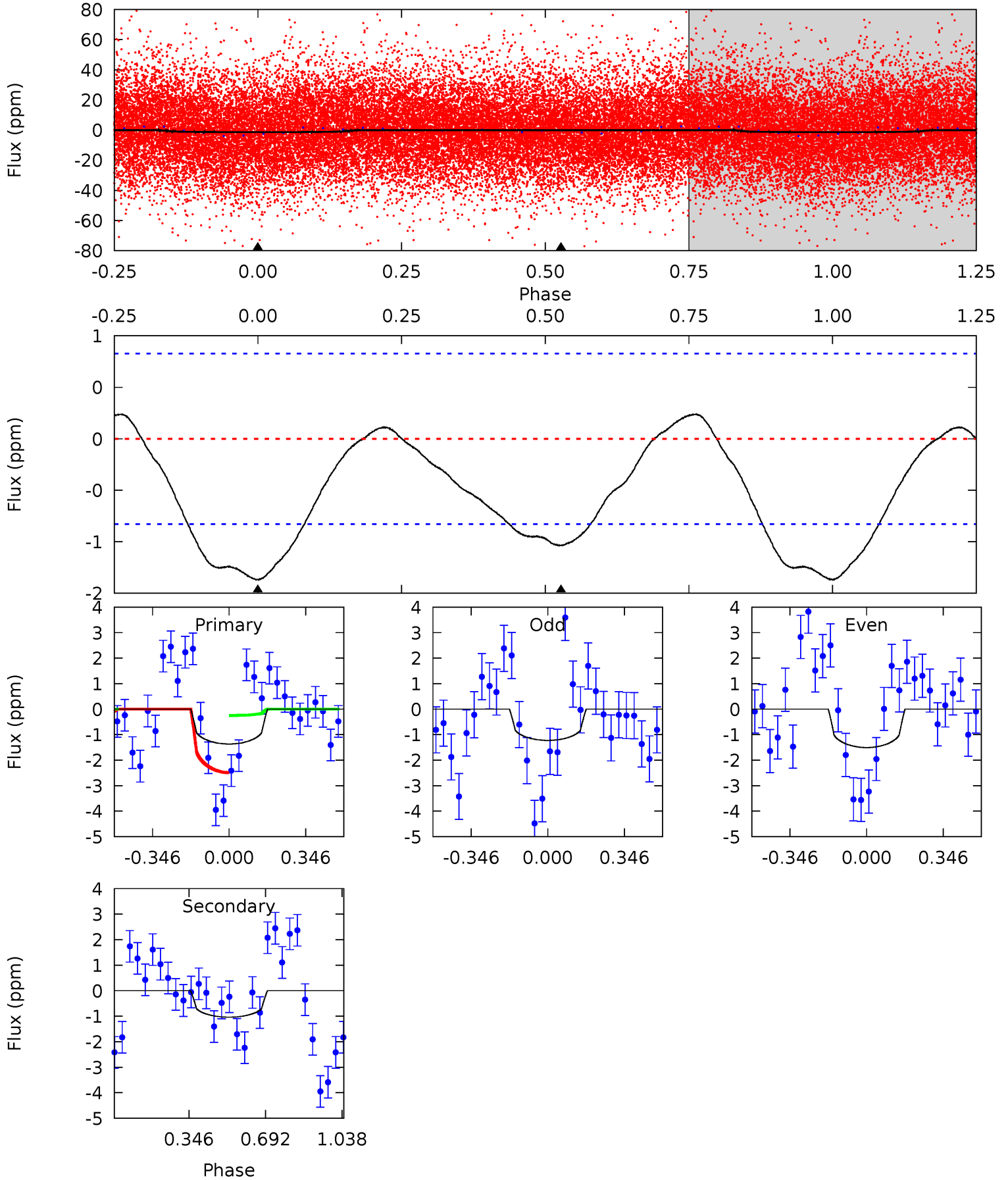
TCE 008649198-01 P= 0.766343 Days $T_0=131.584006$ (BKJD)



DV Model-Shift Uniqueness Test

008649198-01, P = 0.766288 Days, E = 131.670437 Days

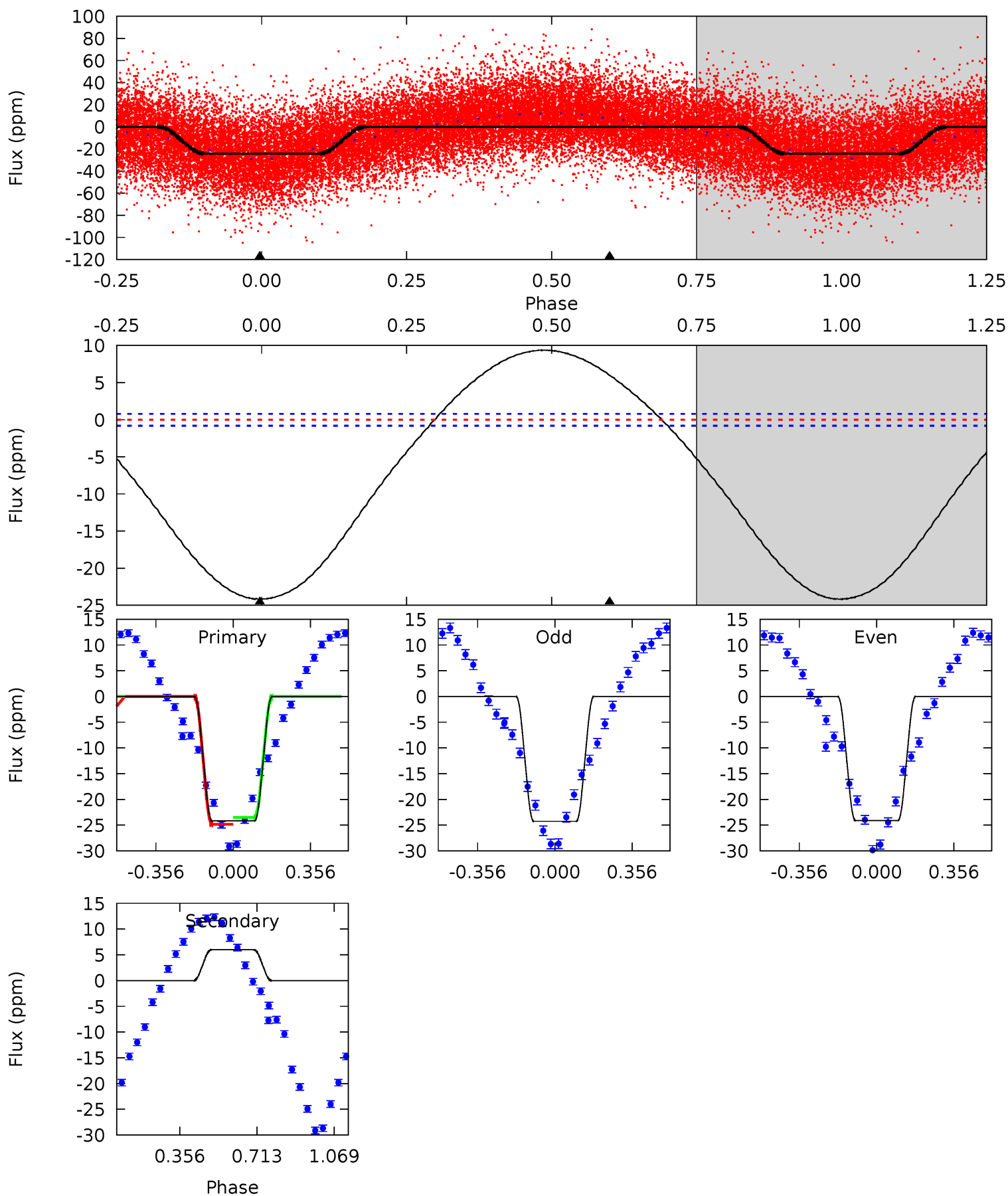
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.10	5.39	0	0	4.30	0.94	0.79	7.10	7.10	5.39	5.39	0.73	1.04	0.15	5.86



Alt Model-Shift Uniqueness Test

008649198-01, $P = 0.766343$ Days, $E = 131.584006$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
129.9	-32.1	0	0	4.29	0.92	13.6	129.9	129.9	-32.1	-32.1	0.42	0.99	0.28	3.45



Stellar Parameters For KIC 008649198

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8020^{+221}_{-360}	$3.504^{+0.610}_{-0.031}$	$0.070^{+0.250}_{-0.400}$	$4.589^{+0.309}_{-2.626}$	$2.451^{+0.264}_{-0.844}$	$0.036^{+0.305}_{-0.004}$
	+3%/-4%	+17%/-1%	+357%/-571%	+7%/-57%	+11%/-34%	+855%/-11%
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 008649198-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1 ± 0	$0.54^{+0.41}_{-0.30}$	6734^{+483}_{-1056}	6153^{+4434}_{-2841}	$0.963^{+3.833}_{-0.639}$
Alt.	6 ± 0	$2.40^{+0.62}_{-0.77}$	6782^{+441}_{-1031}	-6337^{+451}_{-418}	$-0.281^{+0.098}_{-0.258}$

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 $A_{obs} \gg 1.0$

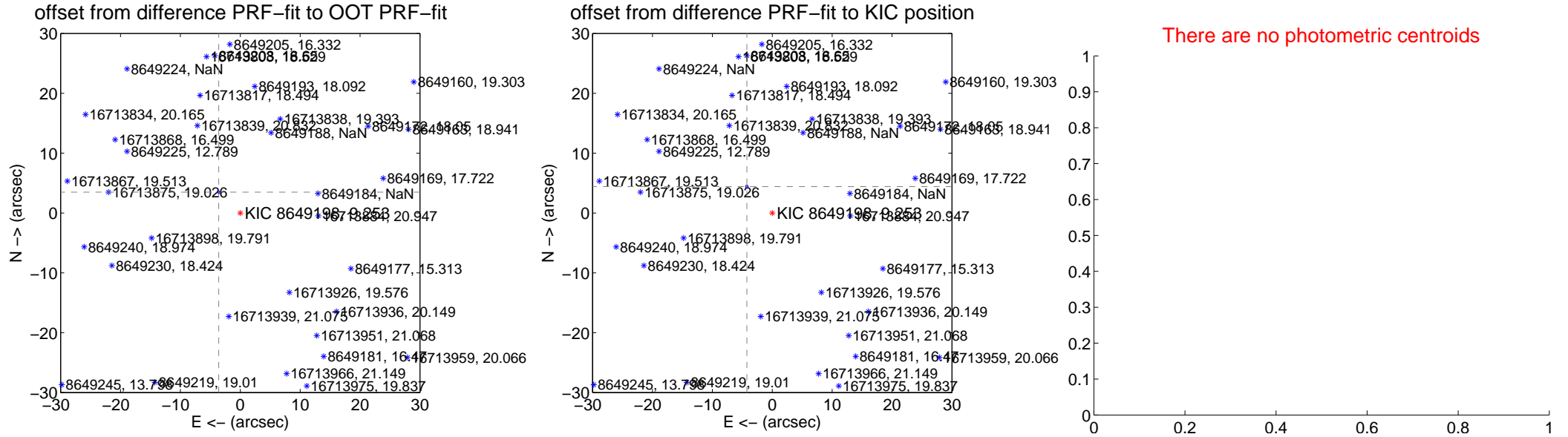
DV Centroid Data

Supplemental centroid analysis for 008649198-01. **Kepler magnitude: 9.25.** Transit SNR 4.59

There are 0 quarters with good PRF difference image offsets

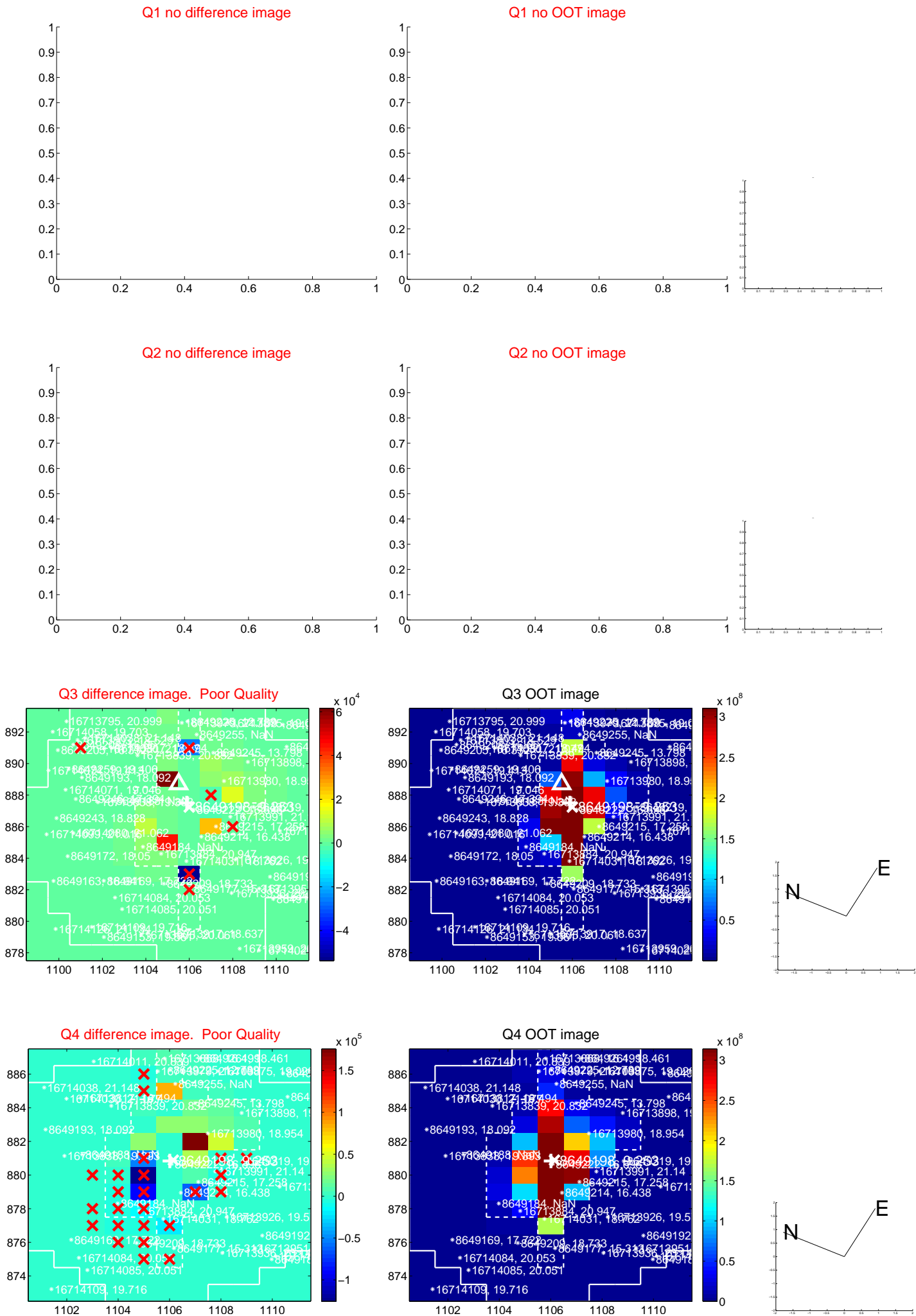
The direct PRF centroid is offset from the target star catalog position by about 1.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.010 \pm 0.068	73.69	3.601 \pm 0.068	3.484 \pm 0.068
PRF-fit source offset from KIC position	6.123 \pm 0.077	79.57	4.242 \pm 0.077	4.415 \pm 0.077
photometric centroid source offset	—	—	—	—

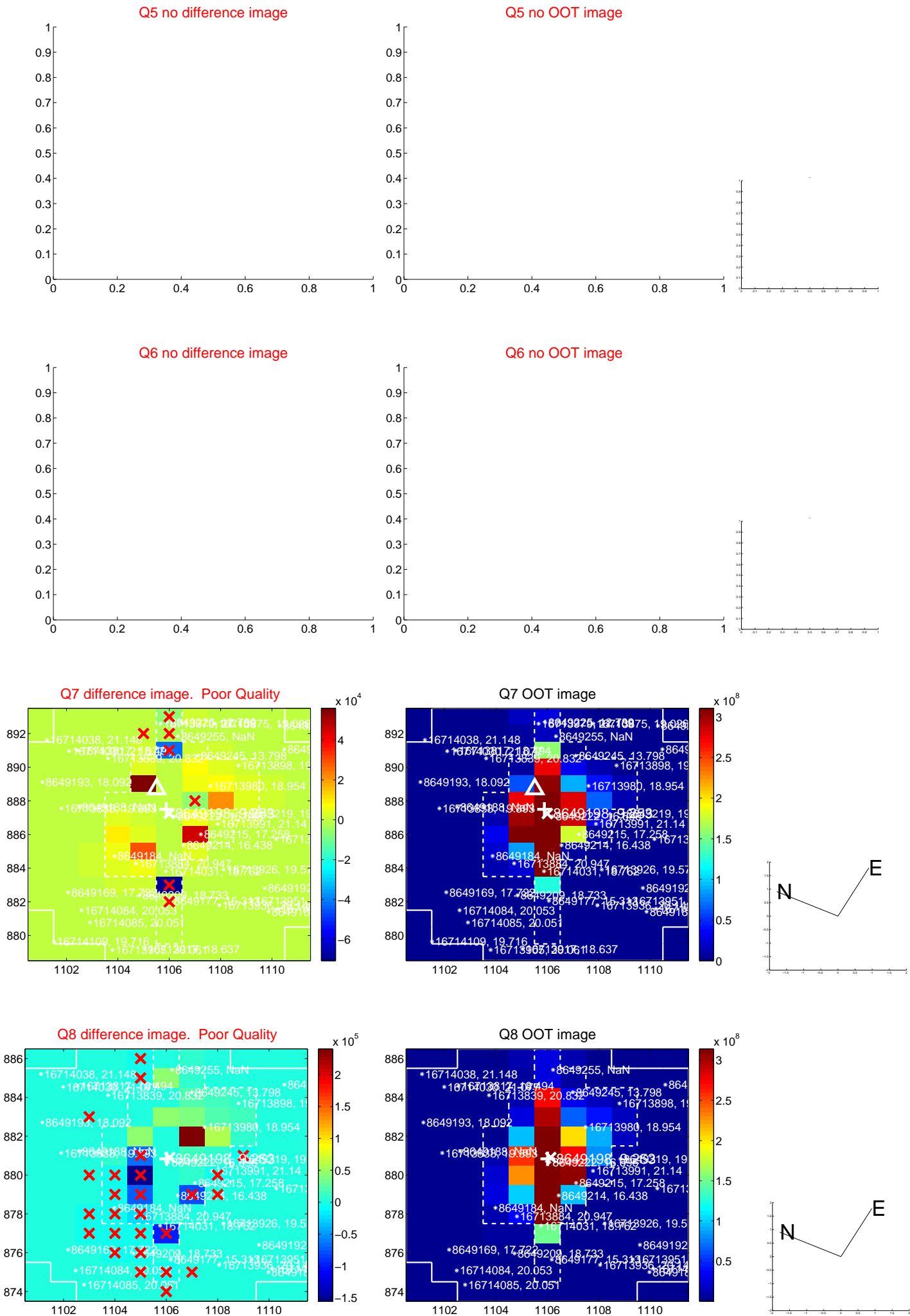


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

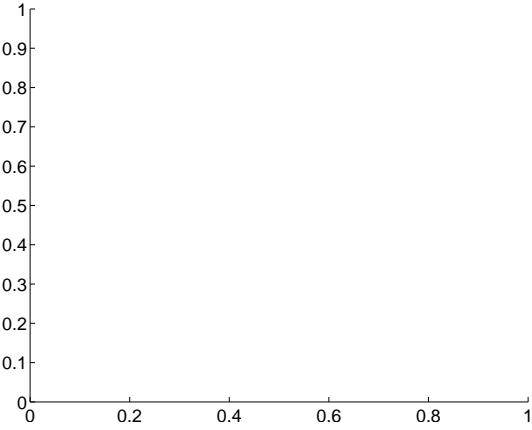


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

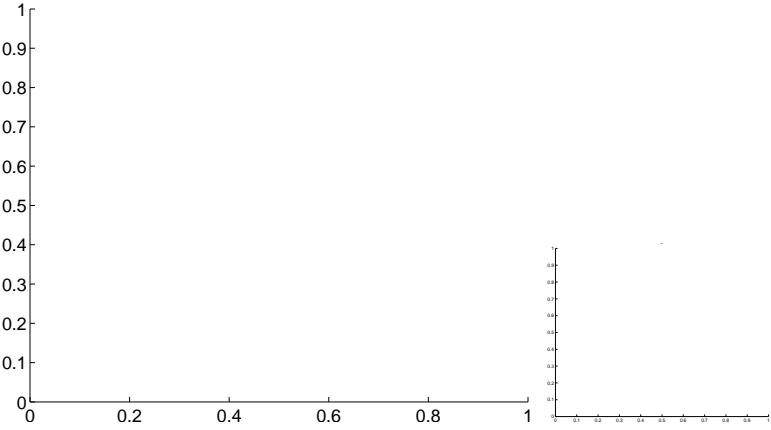


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

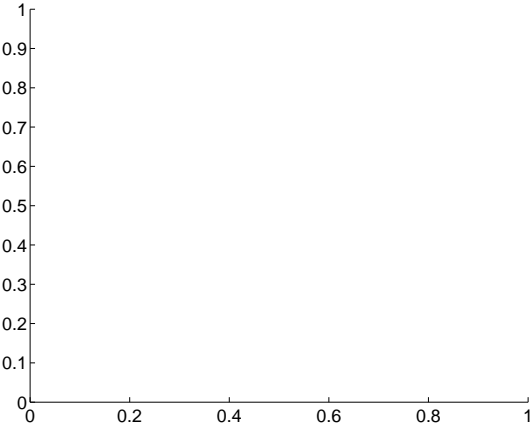
Q9 no difference image



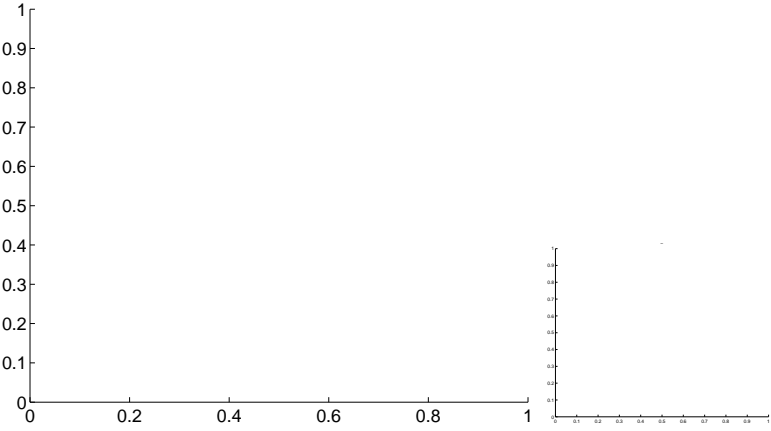
Q9 no OOT image



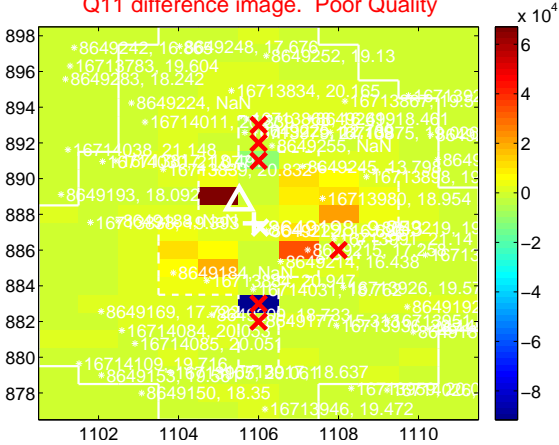
Q10 no difference image



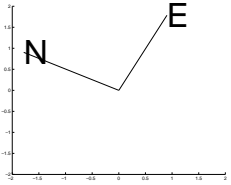
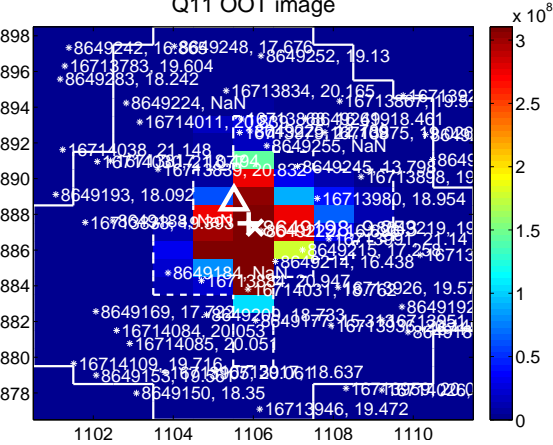
Q10 no OOT image



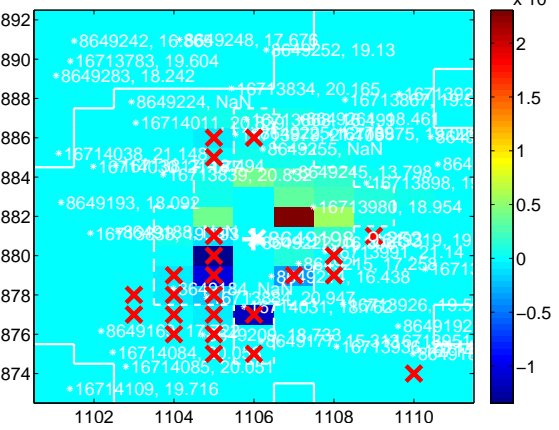
Q11 difference image. Poor Quality



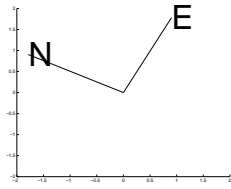
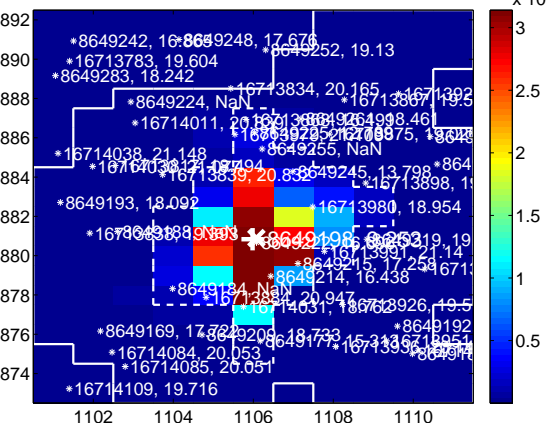
Q11 OOT image



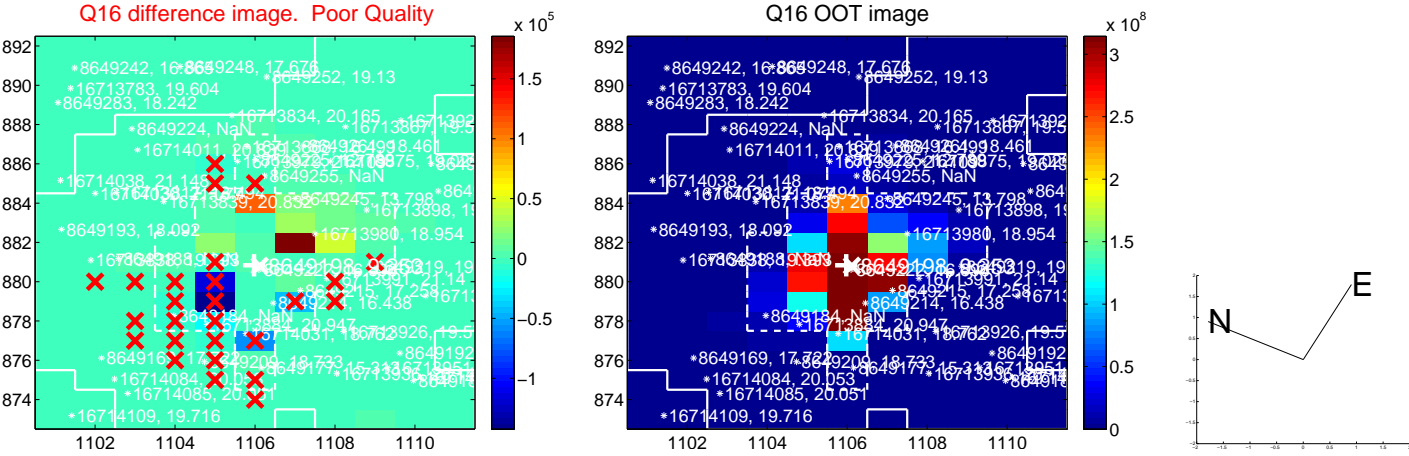
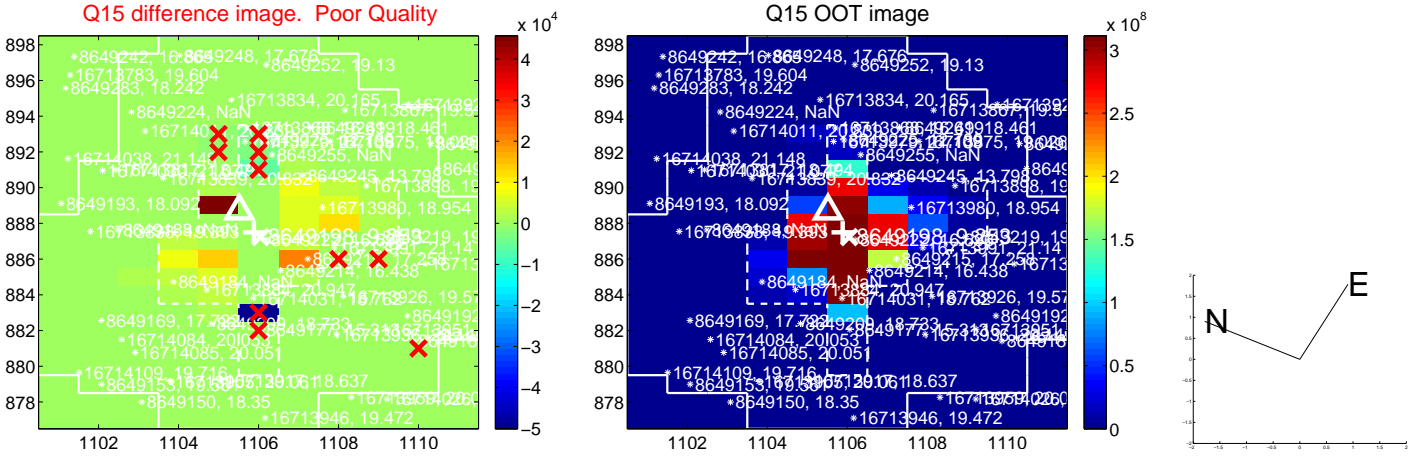
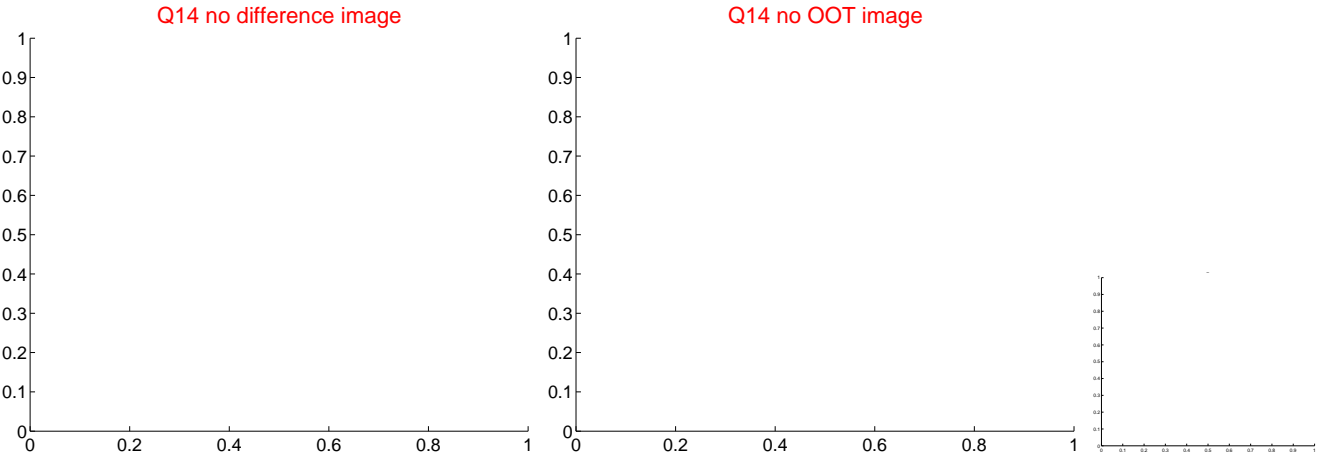
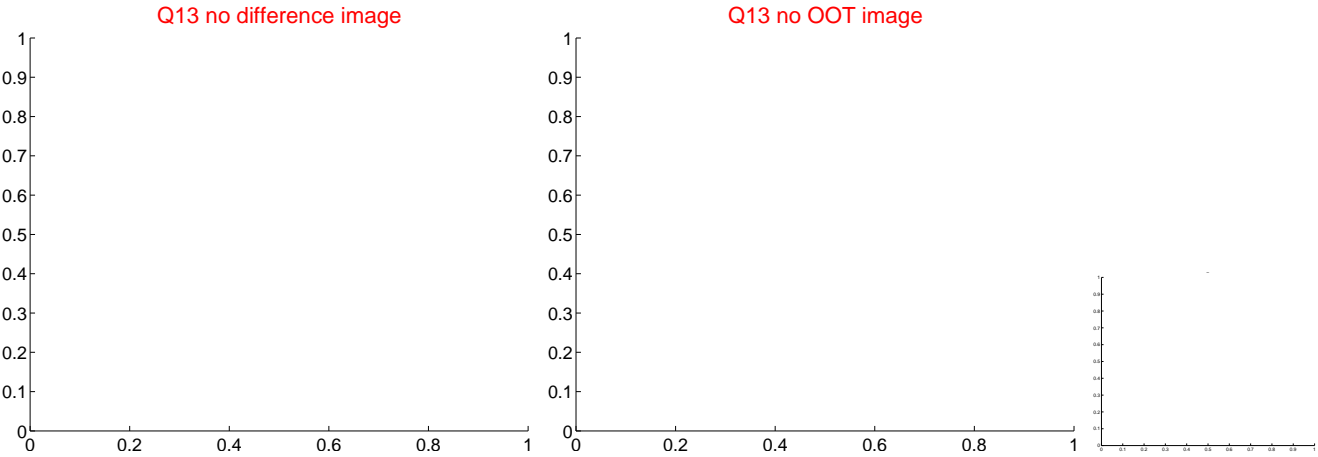
Q12 difference image. Poor Quality



Q12 OOT image



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.



folded centroid time series figure for this object.

UKIRT Image

