

KIC 007685906

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})
007685906-01	OBS	No	339.852538	369.409783	135.8	18.331	7.5	7.2	0.93	6144	1.20	1.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007685906-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

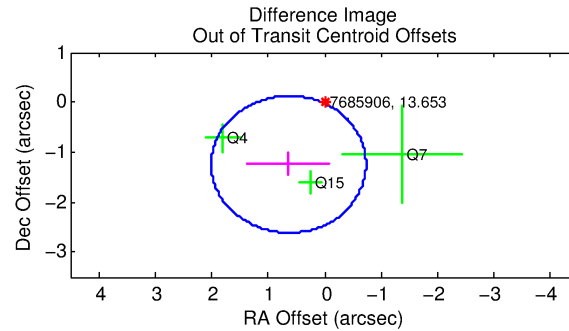
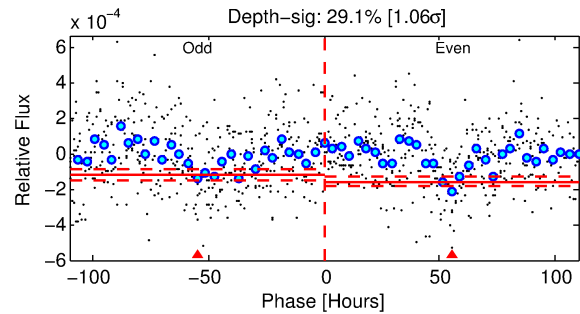
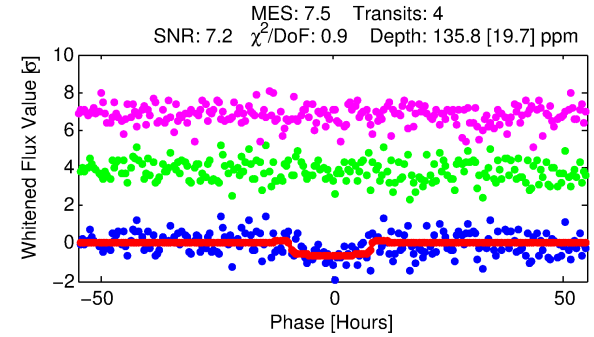
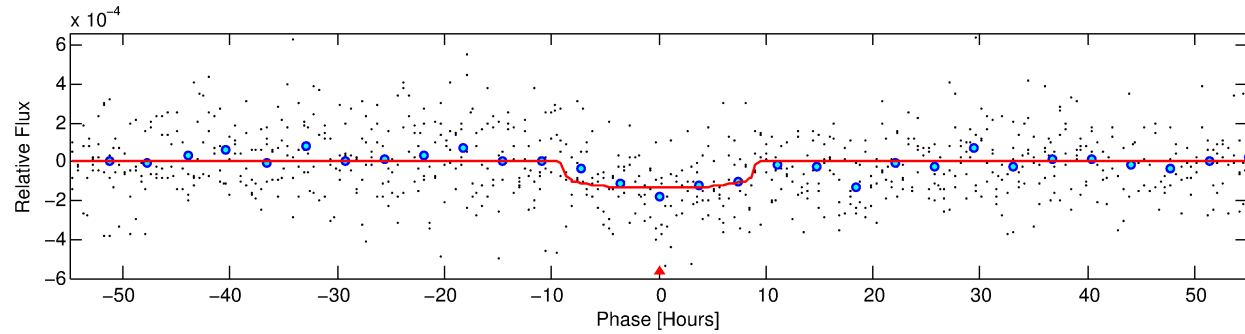
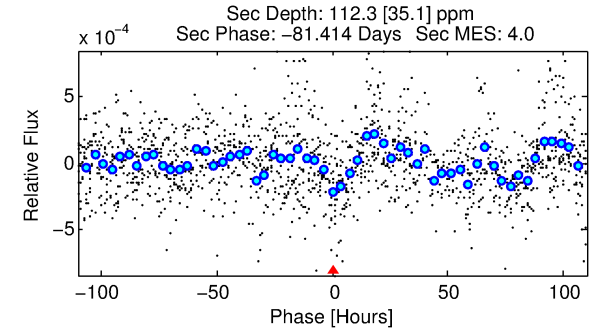
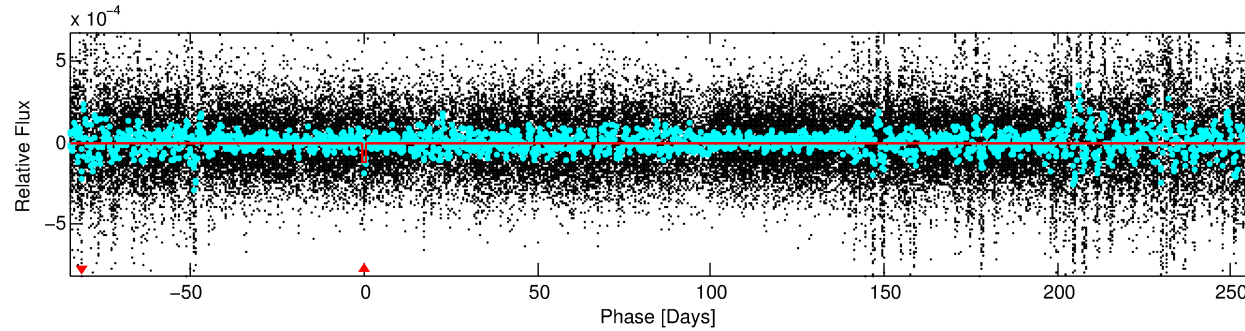
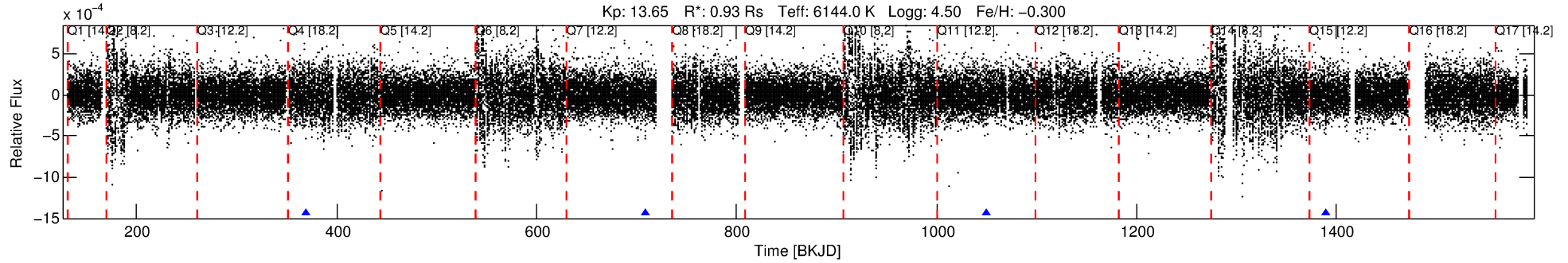
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007685906-01

No Significant Match Found

DV One-Page Summary

KIC: 7685906 Candidate: 1 of 1 Period: 339.853 d



DV Fit Results:

Period = 339.85254 [0.01683] d
Epoch = 369.4098 [0.0324] BKJD
Rp/R* = 0.0118 [0.0029]
a/R* = 87.44 [105.00]
b = 0.80 [0.54]
Seff = 1.22 [0.50]
Teq = 268 [28] K
Rp = 1.20 [0.47] Re
a = 0.9538 [0.2510] AU
Ag = 38878.85 [27091.62] [1.44σ]
Teffp = 5820 [862] K [6.44σ]

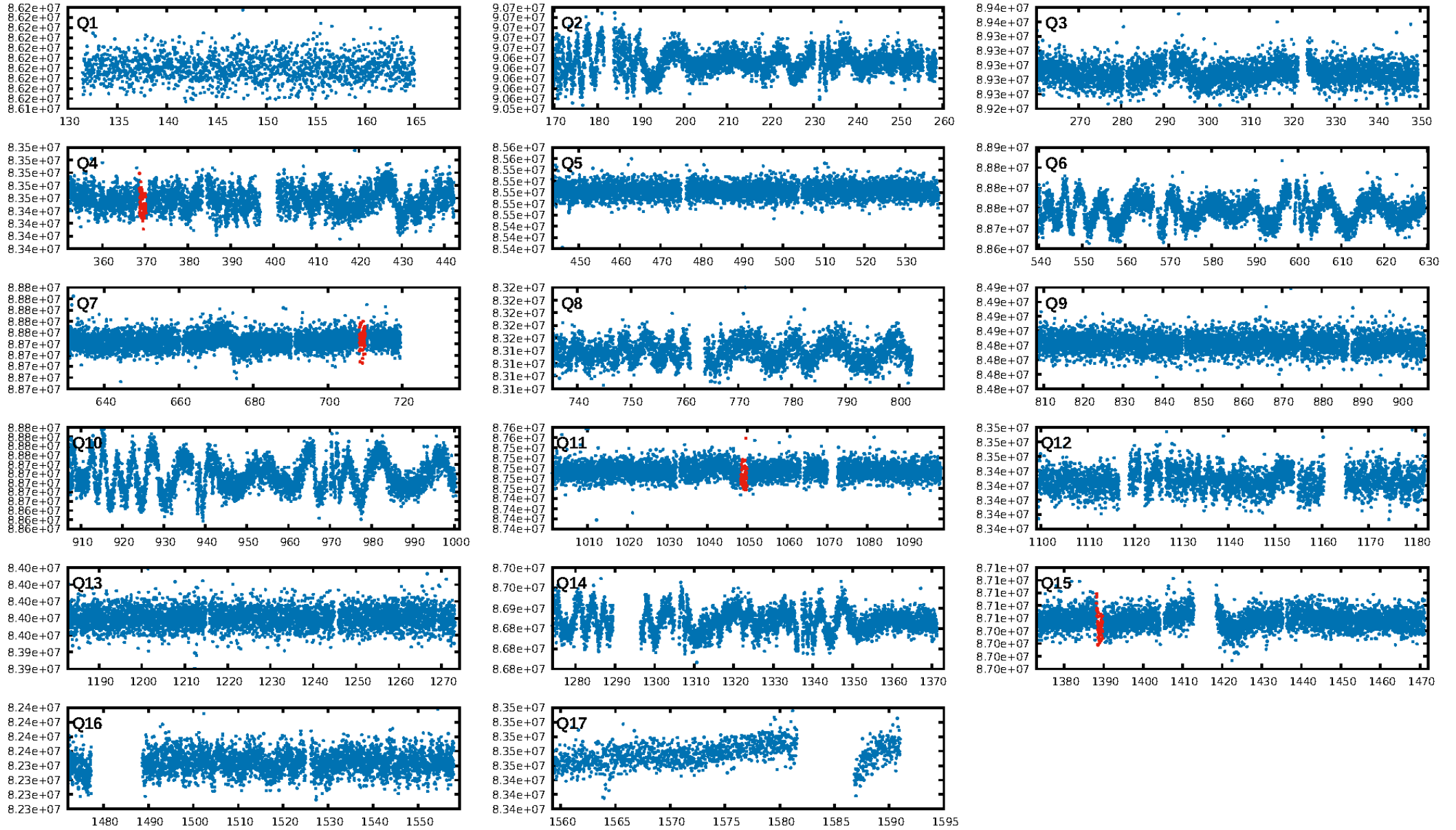
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.33e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.317
Centroid-sig: 2.0%
Centroid-so: 3.662 arcsec [1.92σ]
OotOffset-rm: 1.399 arcsec [3.06σ]
KicOffset-rm: 1.499 arcsec [3.50σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [4/4]

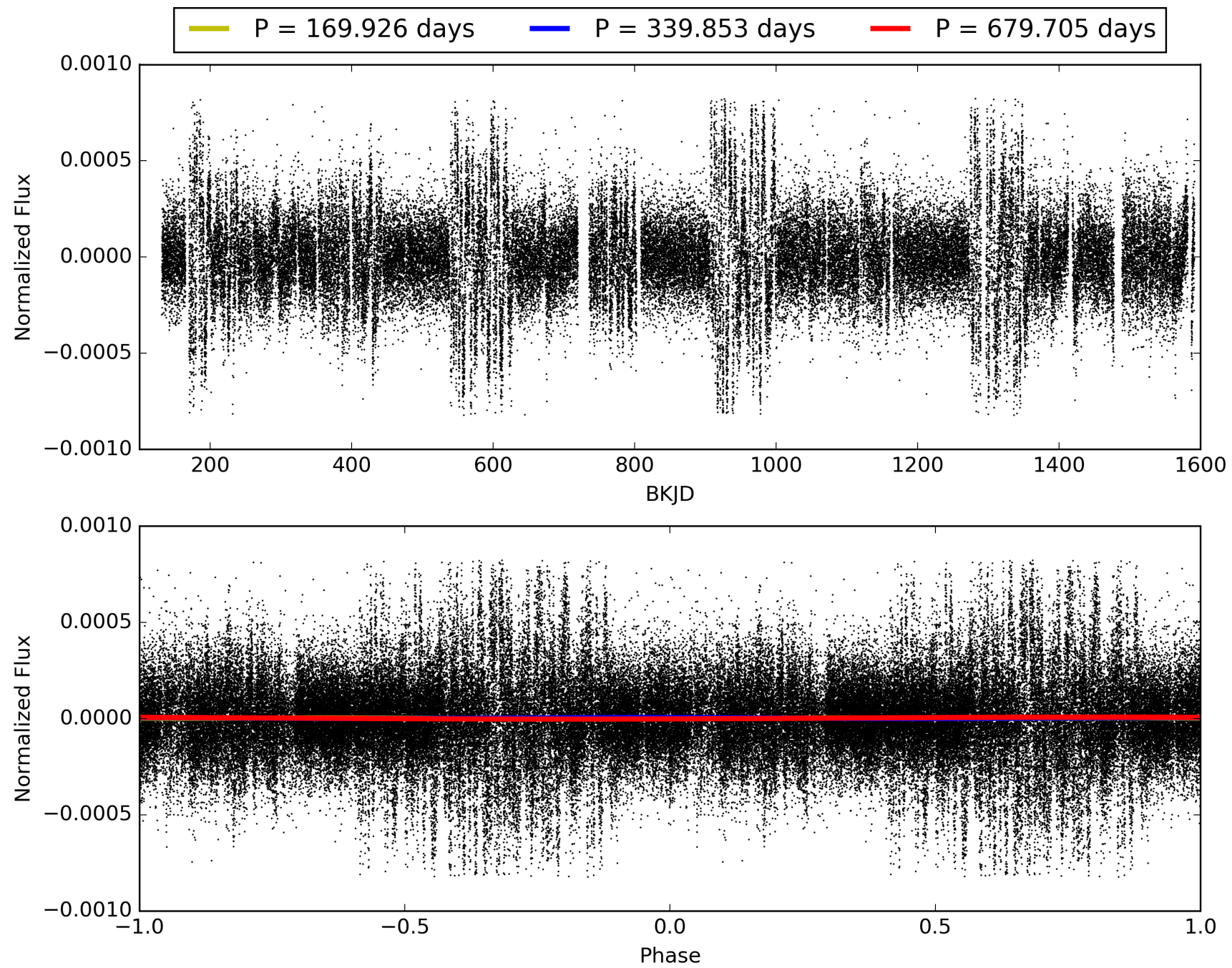
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:02:17 Z

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

TCE 007685906-01, PDC Light Curves

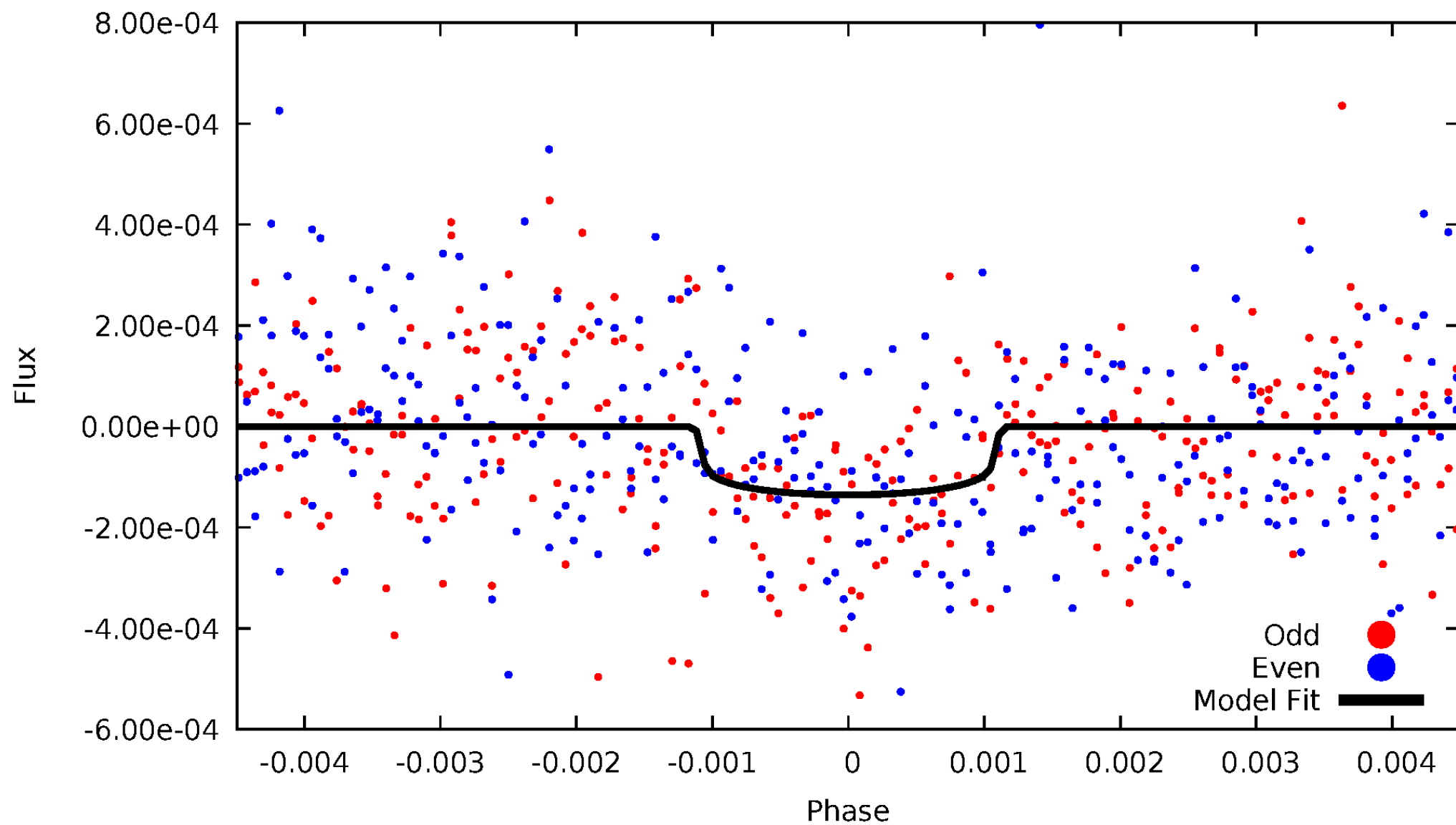


TCE 007685906-01



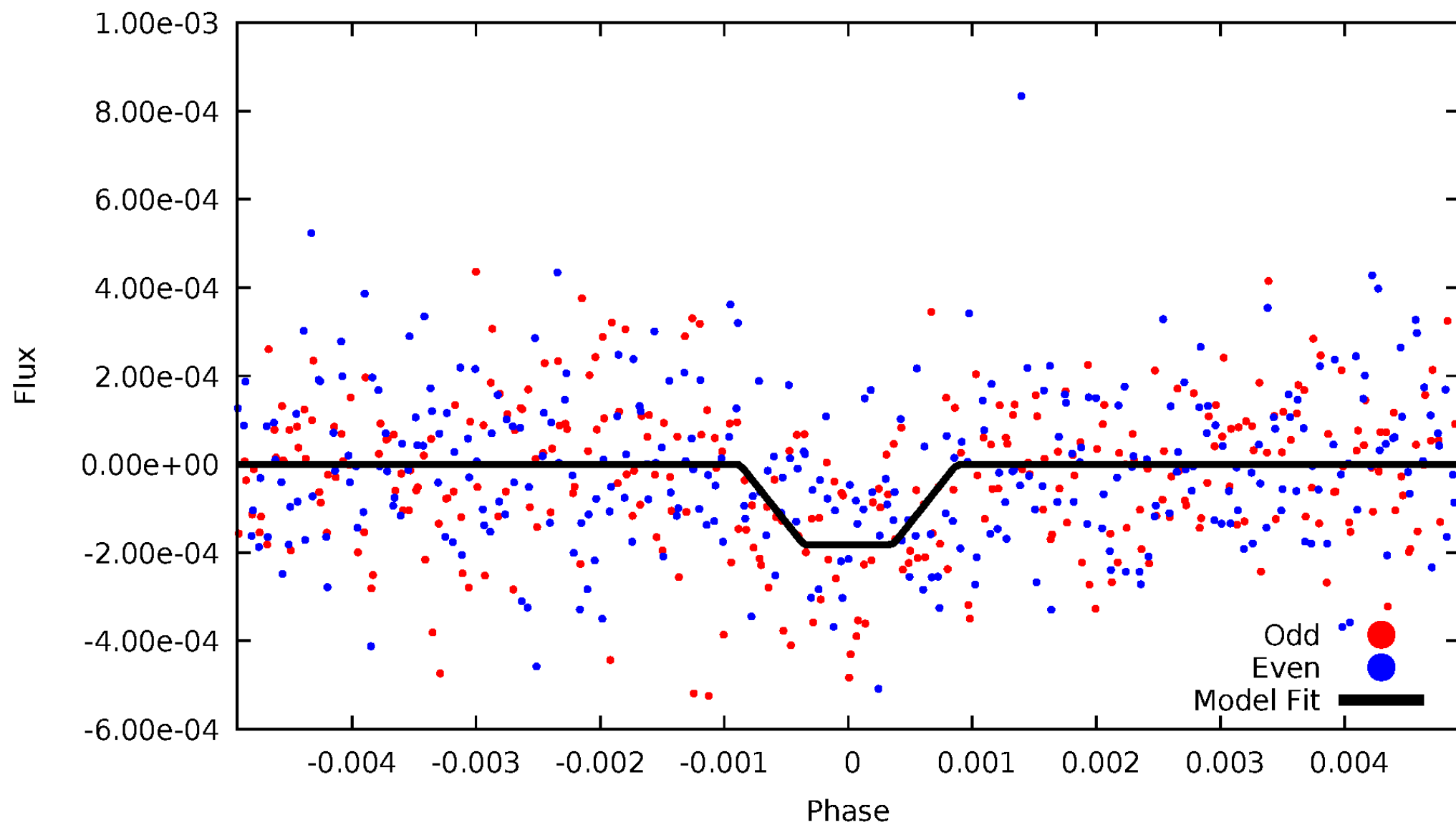
DV Odd/Even

TCE 007685906-01

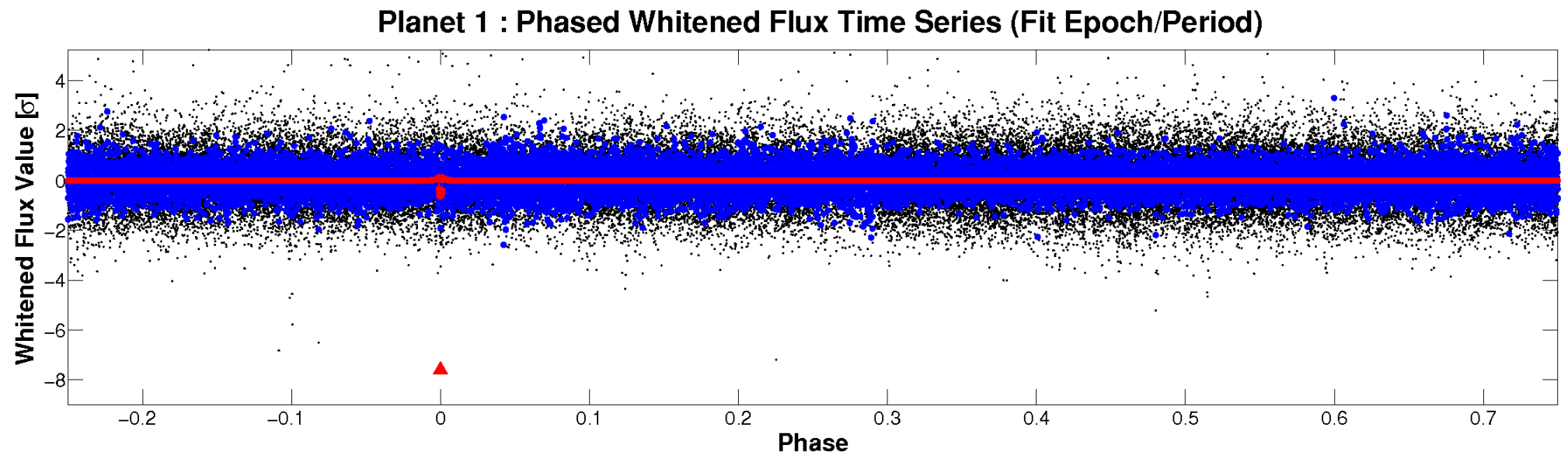
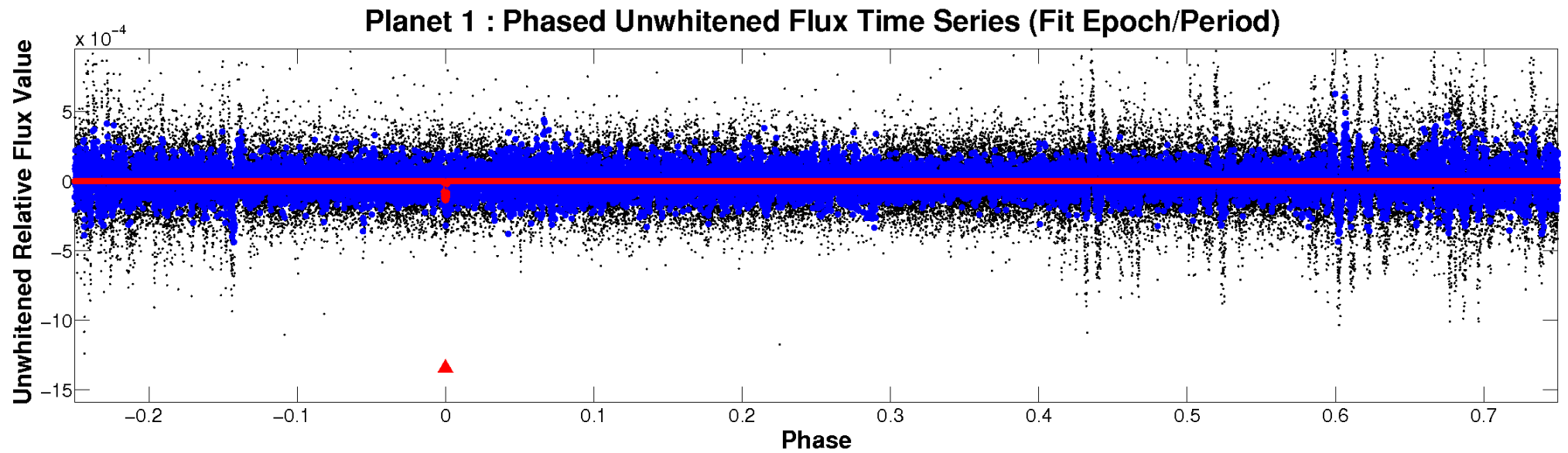


ALT Odd/Even

TCE 007685906-01

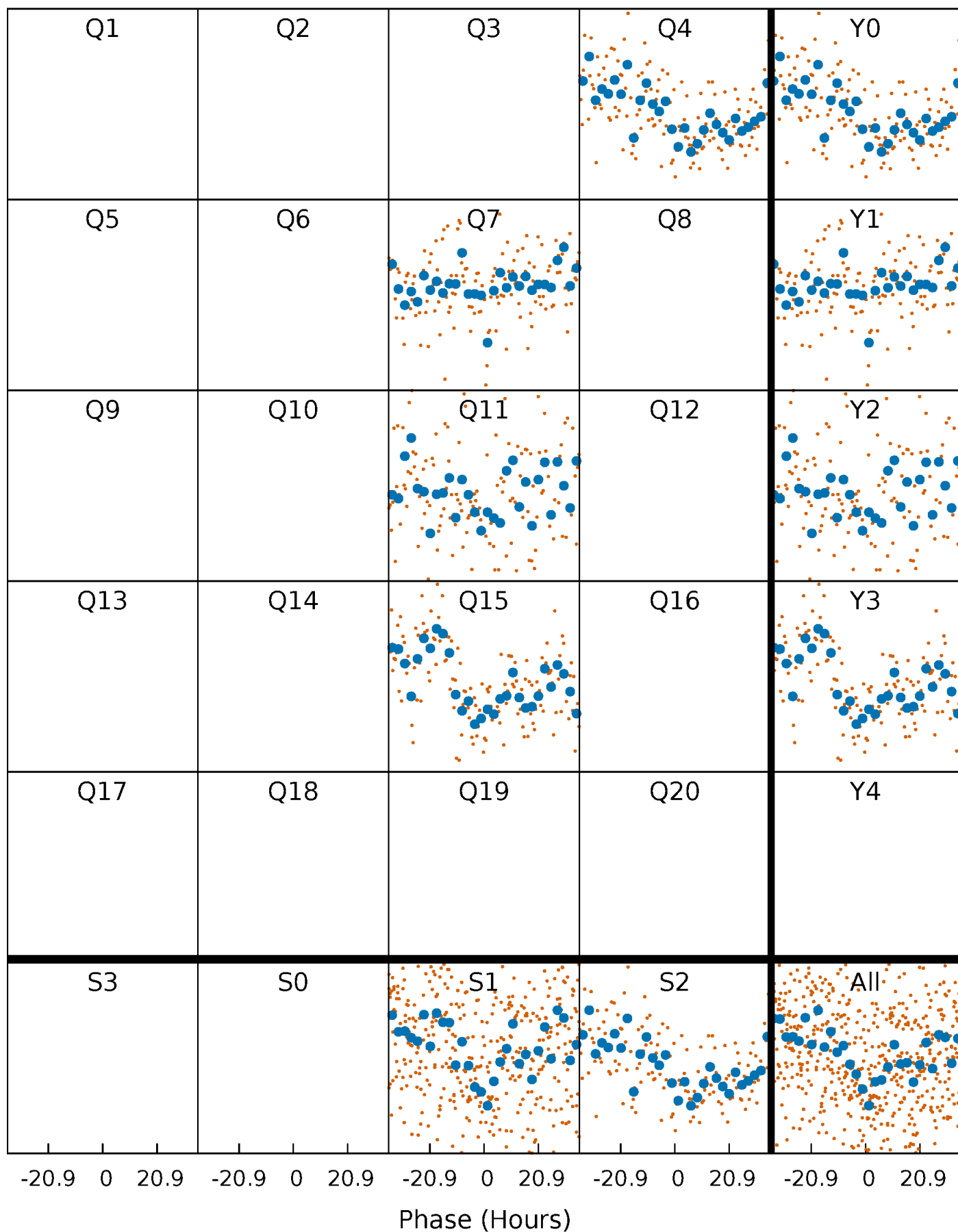


Non-Whitened Vs. Whitened Light Curve



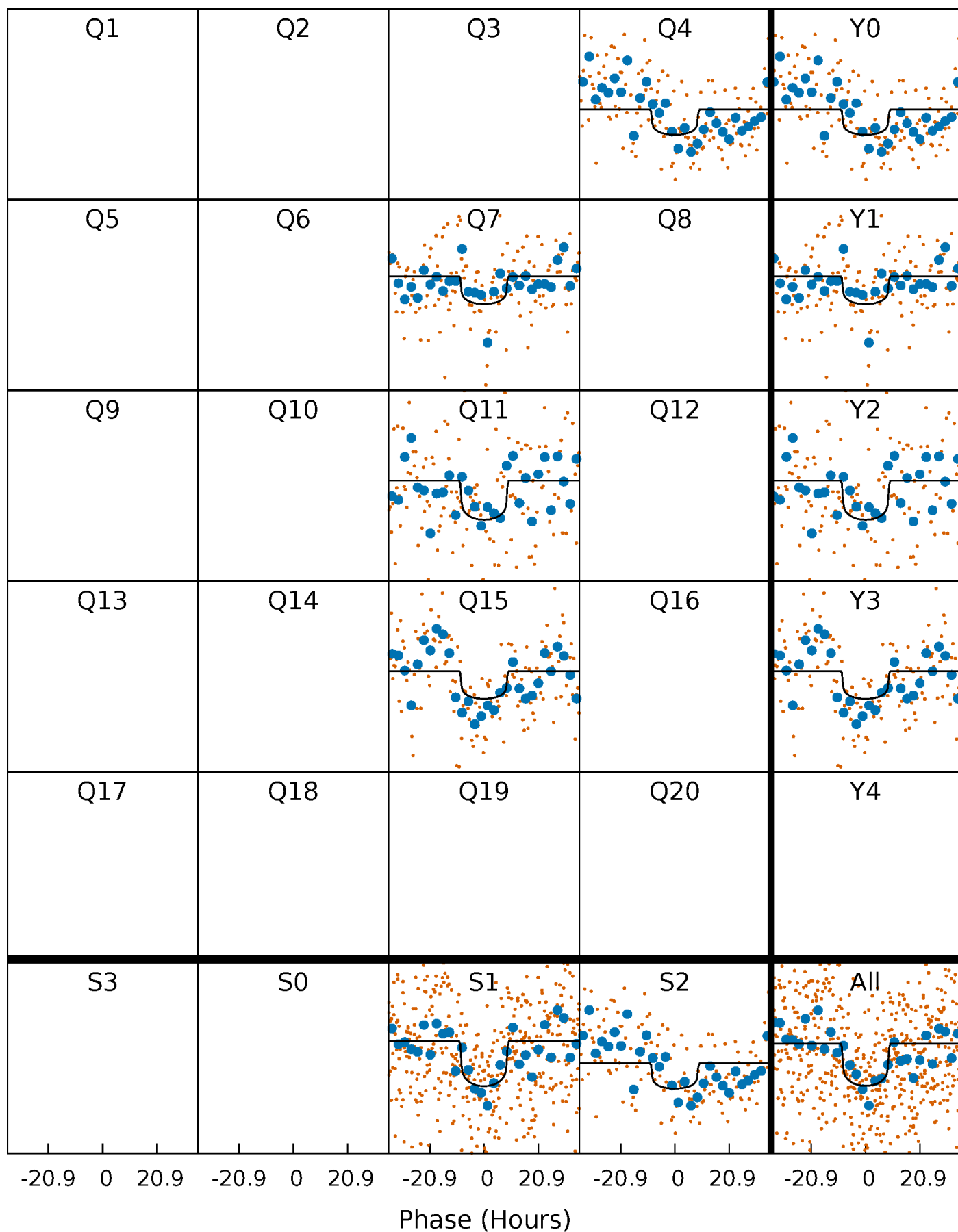
PDC Quarter-Phased Transit Curves

TCE 007685906-01 $P=339.852538$ Days $T_0=369.409783$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007685906-01 $P=339.852538$ Days $T_0=369.409783$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

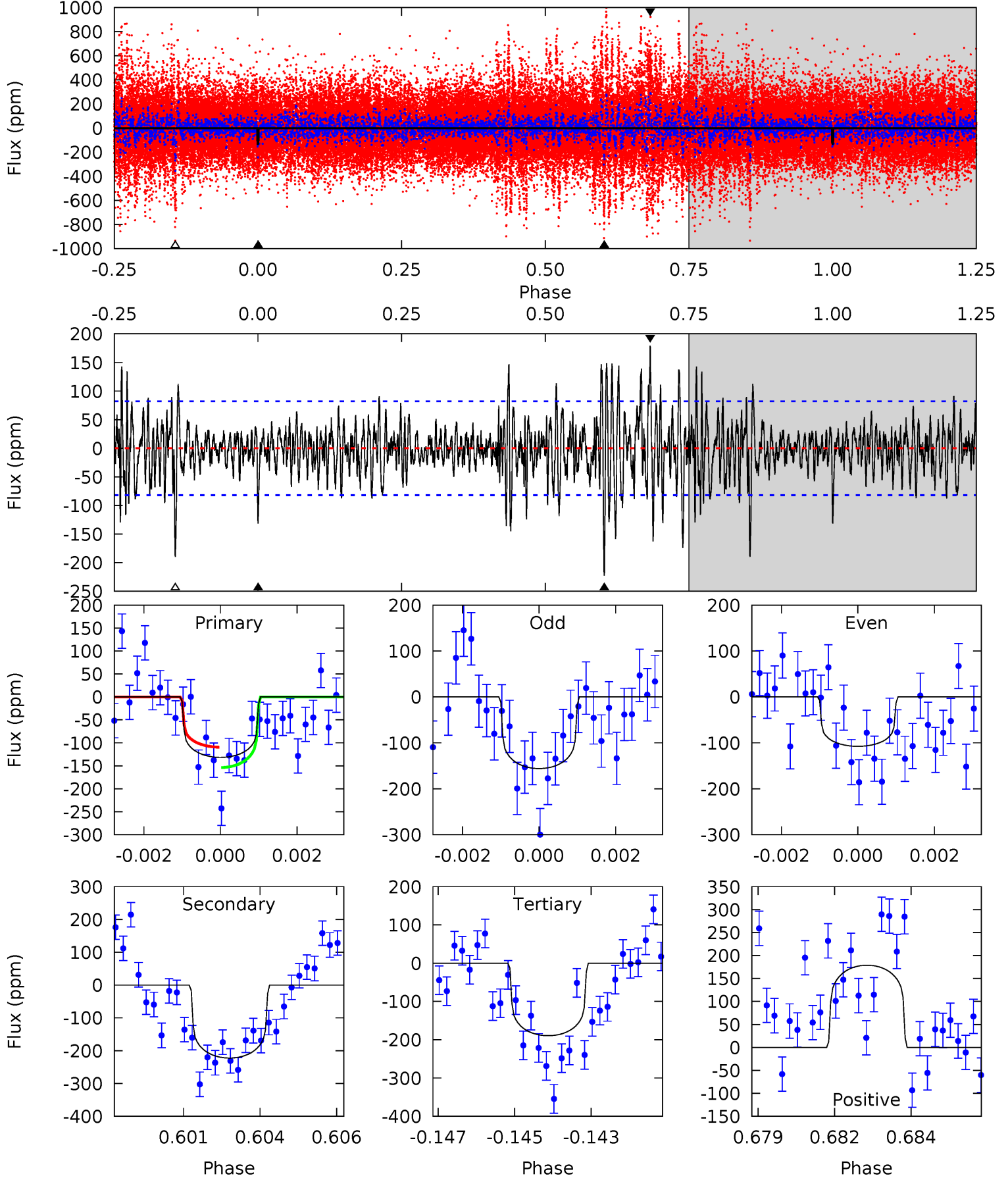
TCE 007685906-01 P=339.830536 Days $T_0=369.458382$ (BKJD)



DV Model-Shift Uniqueness Test

007685906-01, P = 339.852538 Days, E = 29.557245 Days

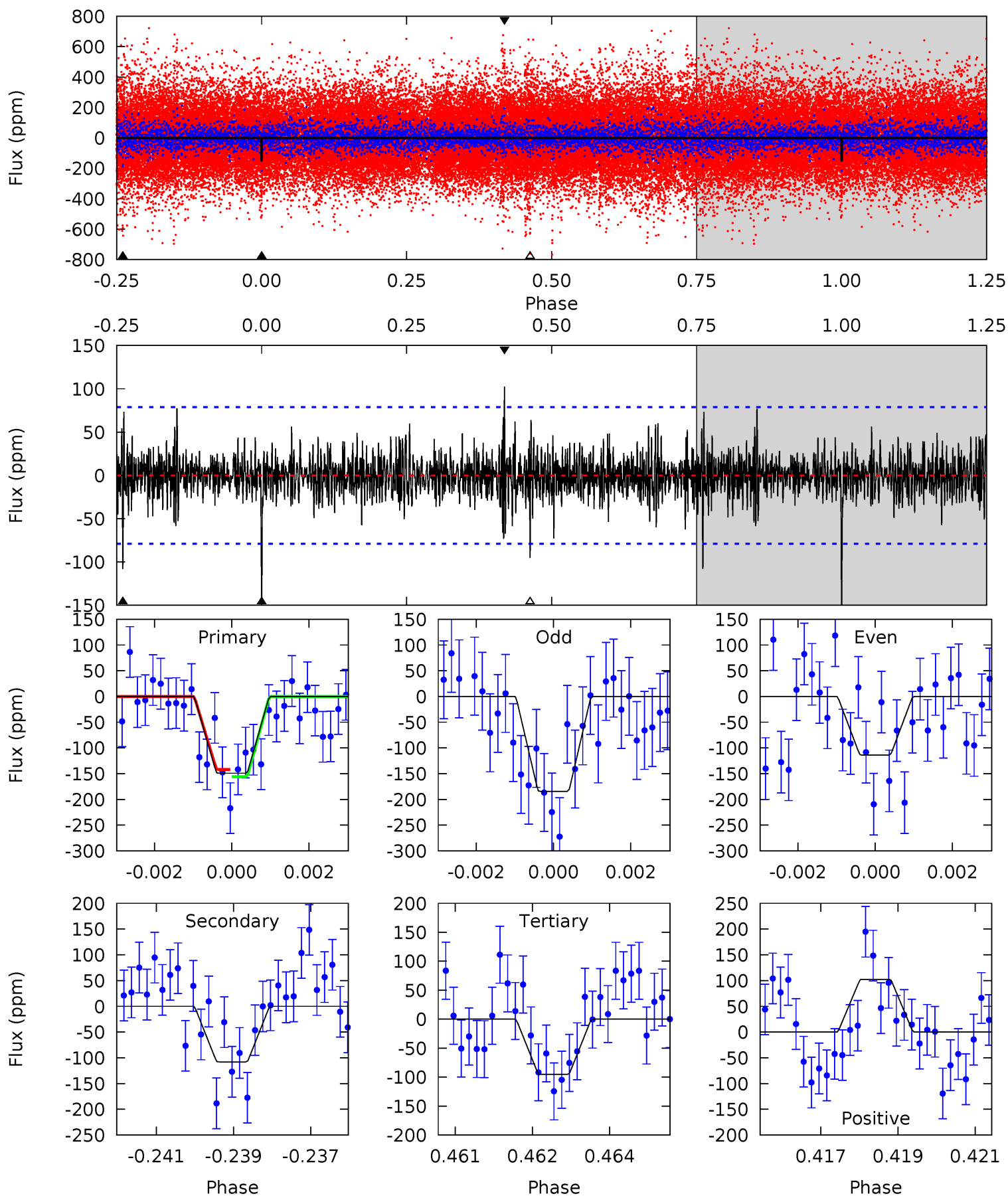
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.51	14.4	12.3	11.6	5.31	3.06	2.84	-3.74	-3.06	2.14	2.82	1.55	1.14	0.45	1.44



Alt Model-Shift Uniqueness Test

007685906-01, P = 339.830536 Days, E = 29.627846 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	7.32	6.46	6.94	5.35	3.12	1.26	3.64	3.17	0.86	0.38	2.39	1.24	0.41	0.47



Stellar Parameters For KIC 007685906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6144^{+165}_{-201}	$4.499^{+0.054}_{-0.216}$	$-0.300^{+0.300}_{-0.300}$	$0.933^{+0.286}_{-0.095}$	$1.004^{+0.124}_{-0.137}$	$1.738^{+0.378}_{-0.905}$
	+3%/-3%	+1%/-5%	+100%/-100%	+31%/-10%	+12%/-14%	+22%/-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 007685906-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-223 ± 15	$1.29^{+0.33}_{-0.32}$	384^{+29}_{-18}	6848^{+1258}_{-735}	65679^{+51718}_{-24569}
Alt.	-108 ± 15	$1.43^{+0.38}_{-0.33}$	382^{+26}_{-19}	5411^{+714}_{-514}	25737^{+18478}_{-9233}

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 $A_{obs} \gg 1.0$

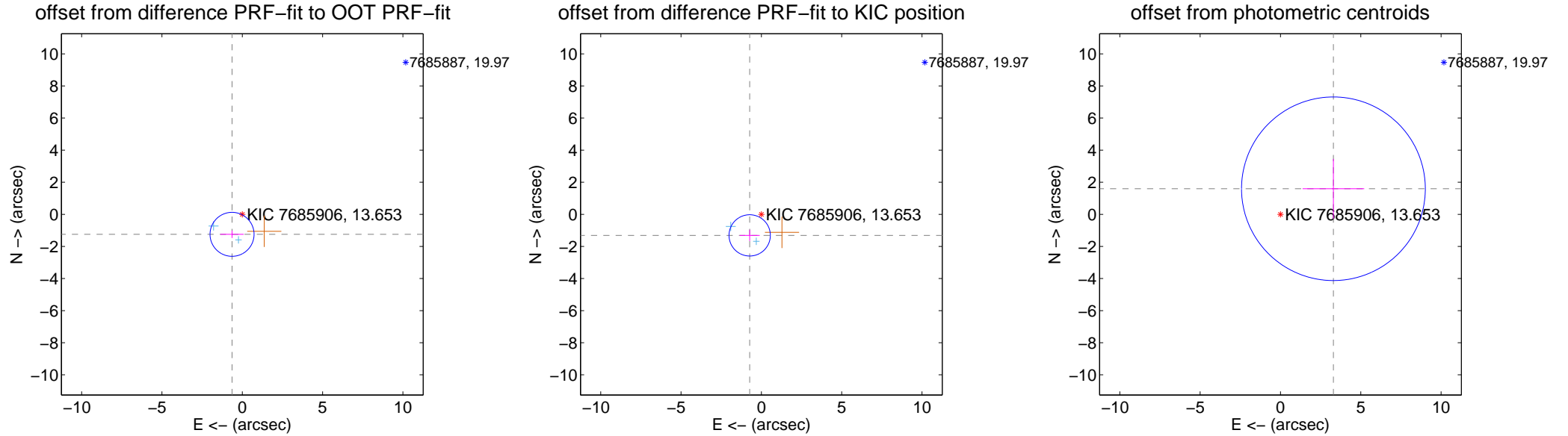
DV Centroid Data

Supplemental centroid analysis for 007685906-01. Kepler magnitude: 13.65. Transit SNR 7.18

There are 2 quarters with good PRF difference image offsets

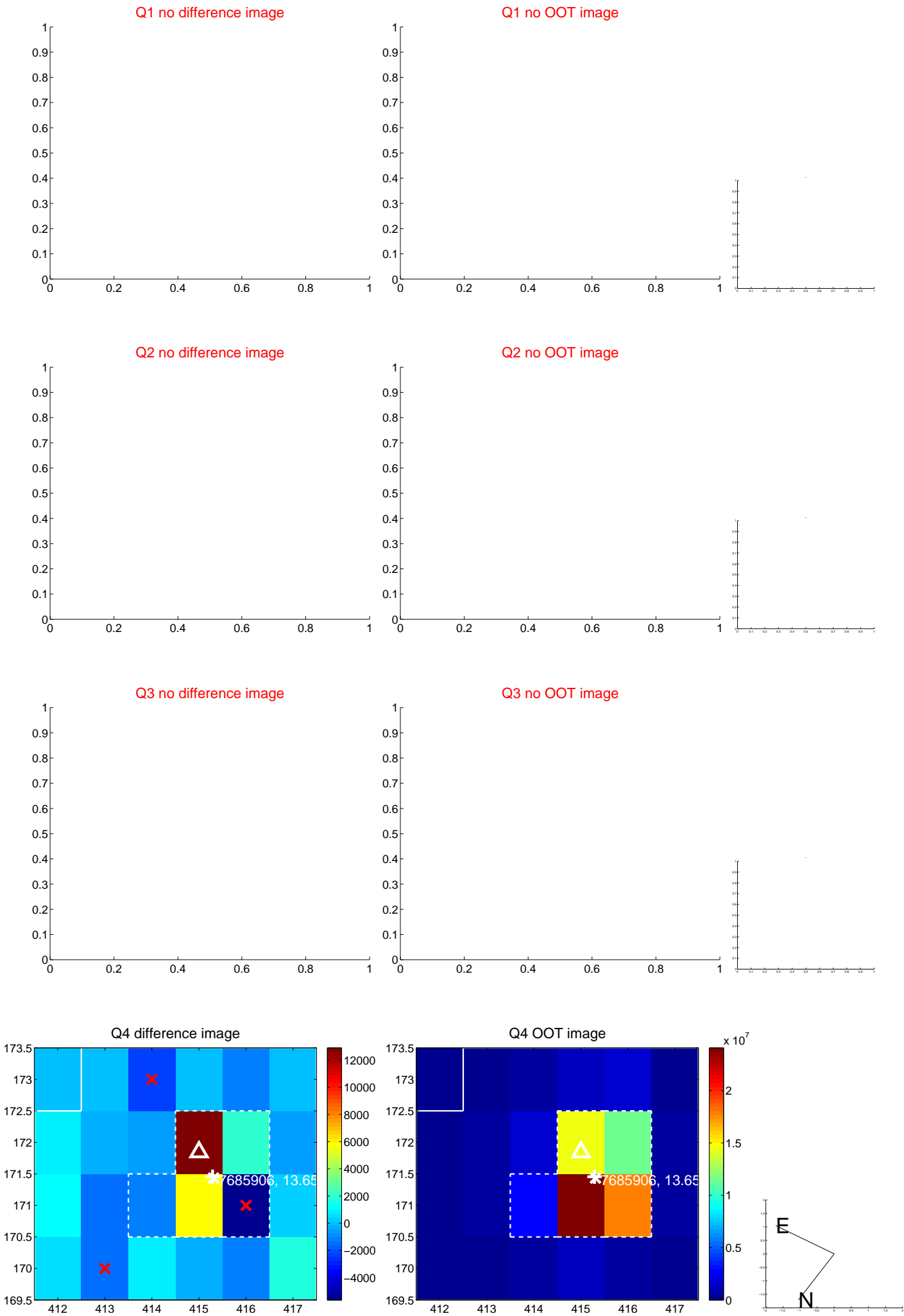
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.399 ± 0.457	3.06	0.637 ± 0.727	-1.245 ± 0.229
PRF-fit source offset from KIC position	1.499 ± 0.429	3.50	0.727 ± 0.623	-1.311 ± 0.347
photometric centroid source offset	3.66 ± 1.91	1.92	-3.30 ± 1.92	1.59 ± 1.86



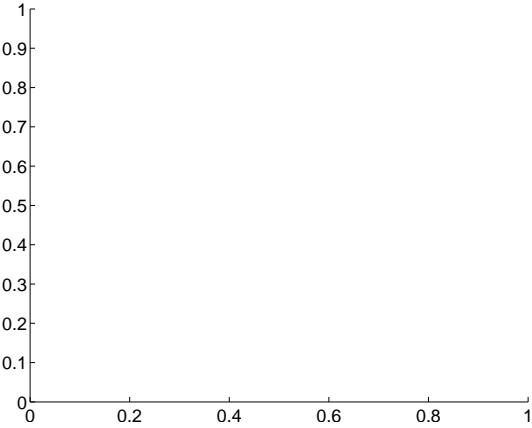
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

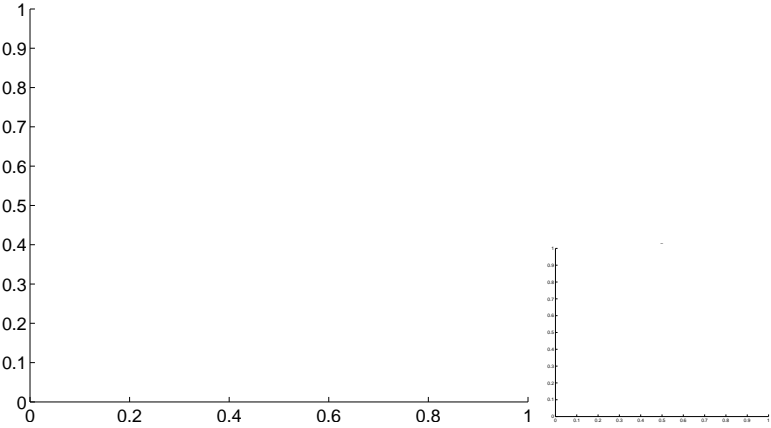


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

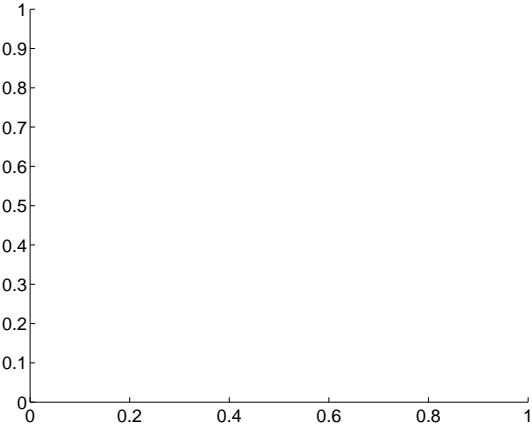
Q5 no difference image



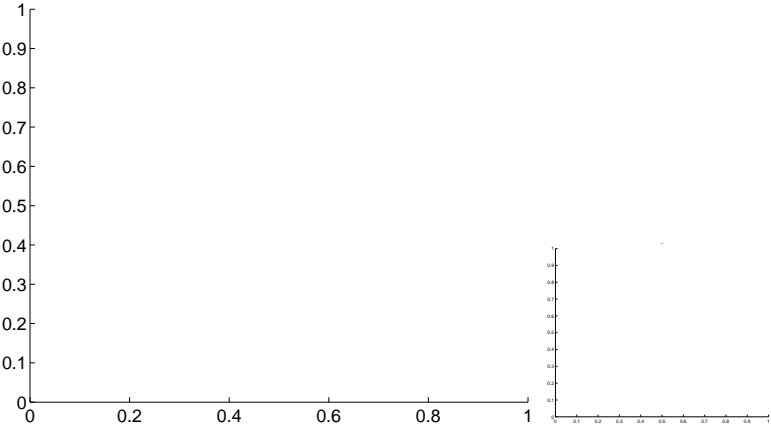
Q5 no OOT image



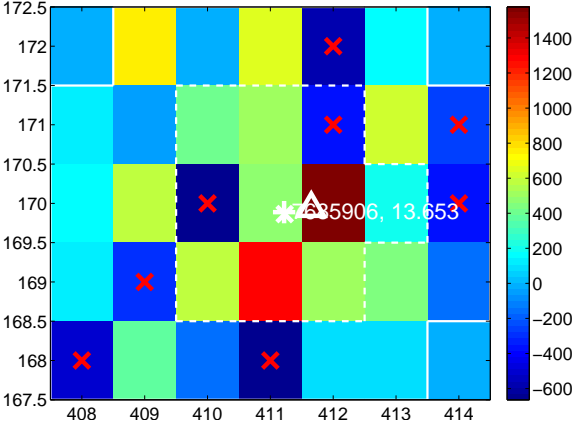
Q6 no difference image



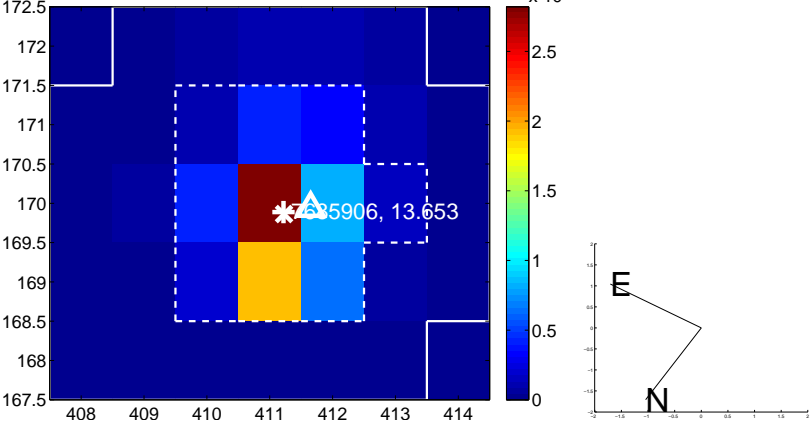
Q6 no OOT image



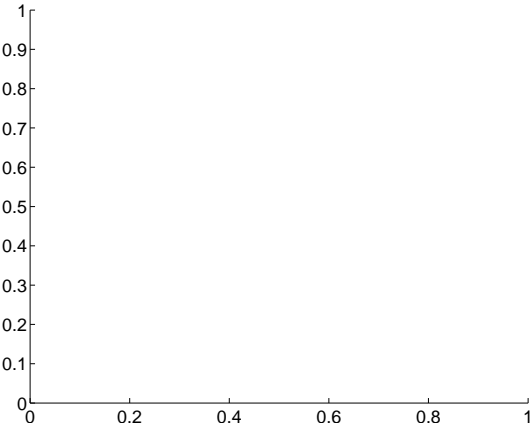
Q7 difference image. Poor Quality



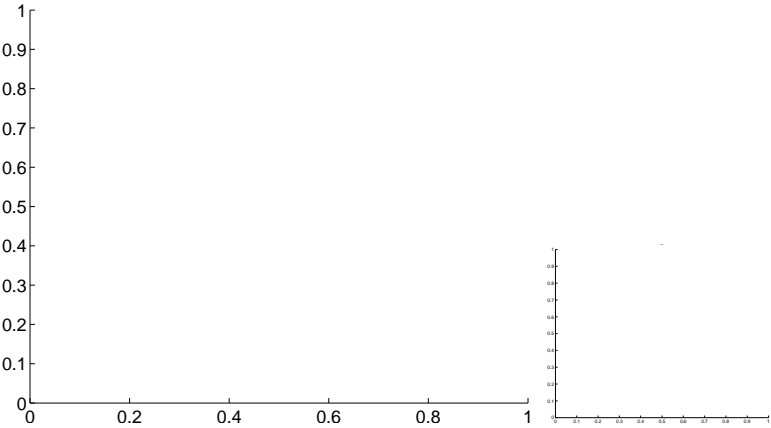
Q7 OOT image



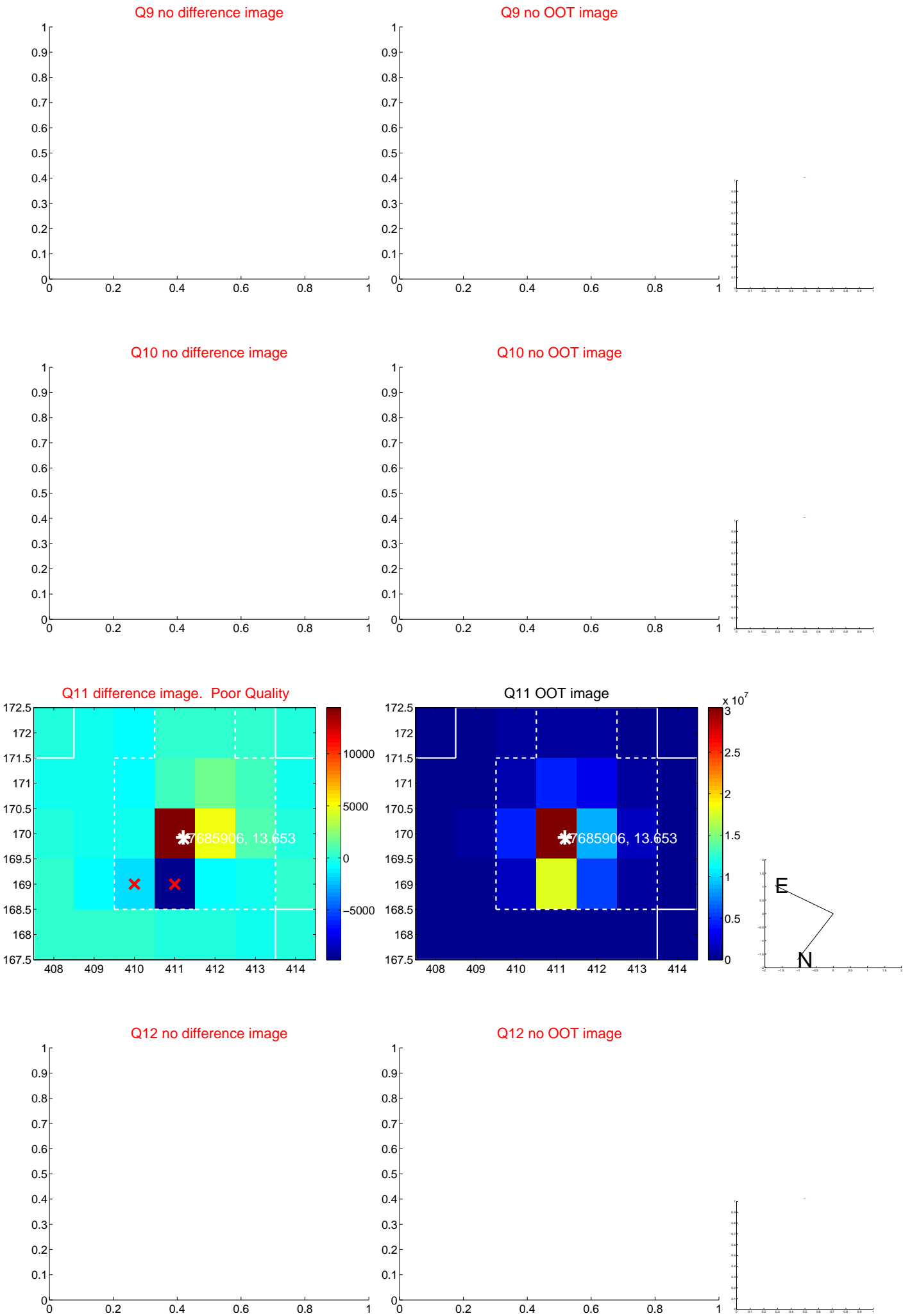
Q8 no difference image



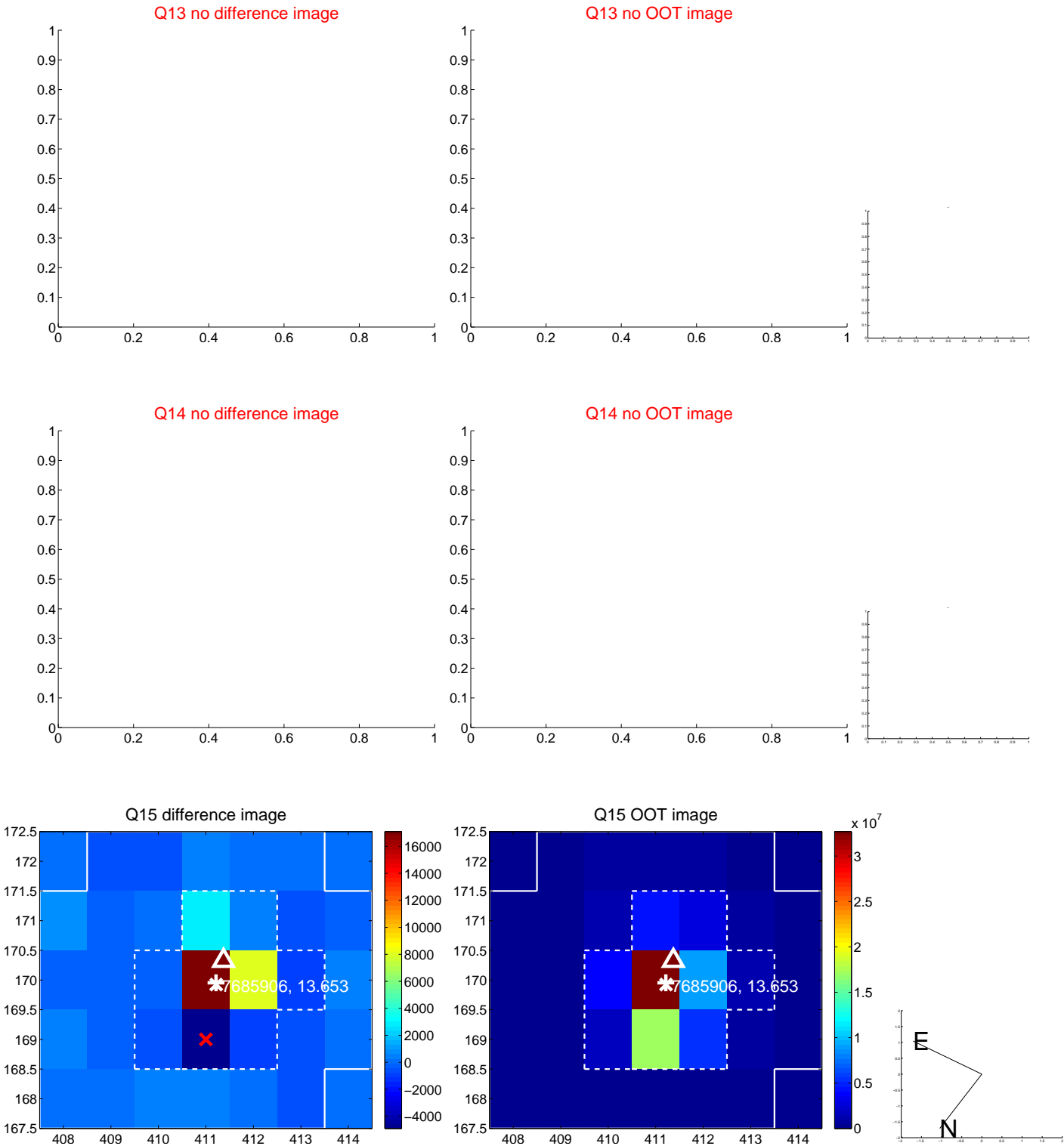
Q8 no OOT image



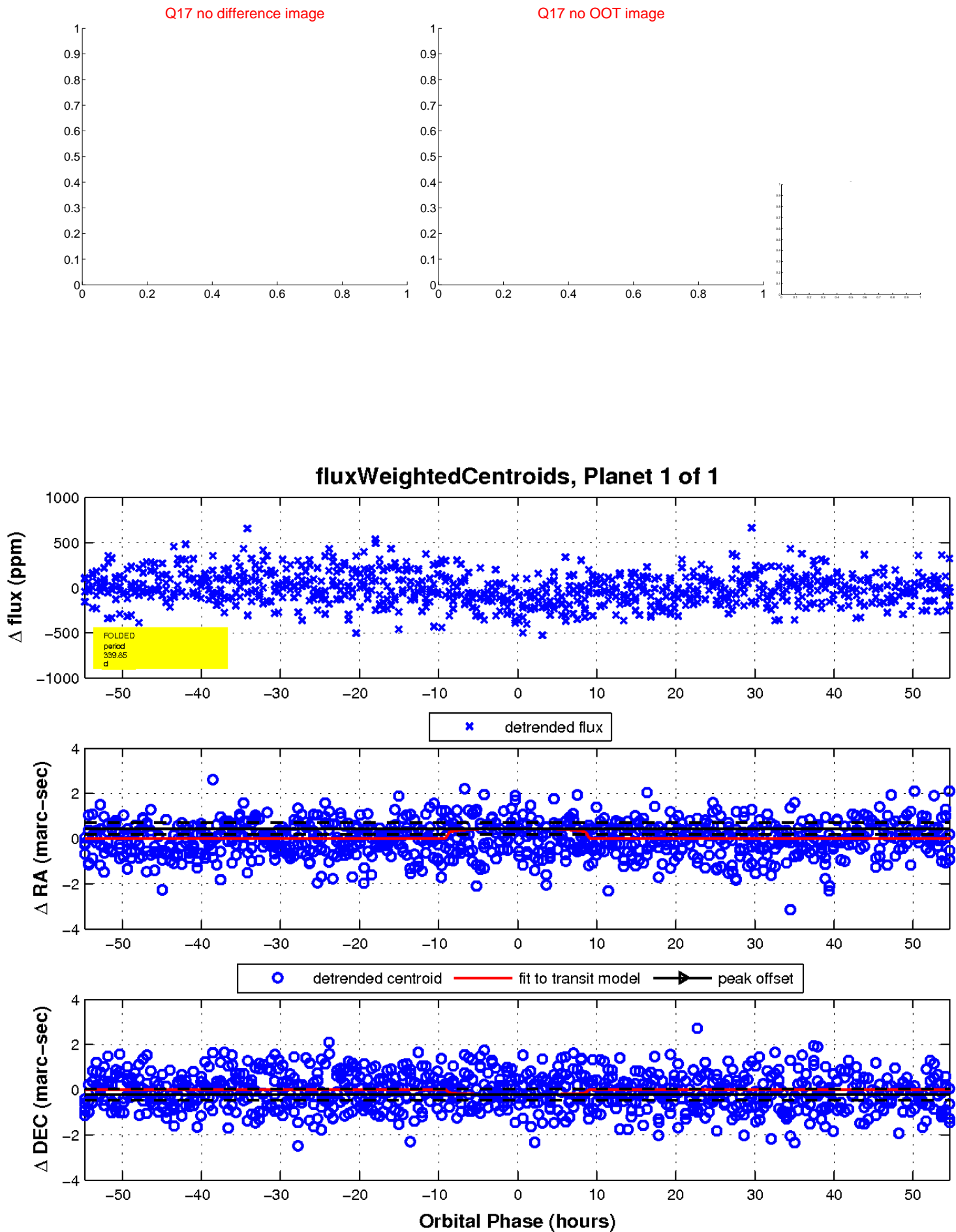
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

