

KIC 005960989

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})
005960989-01	OBS	No	50.709885	151.024248	1751.3	23.770	60.6	66.1	1.87	6471	14.61	60.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005960989-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

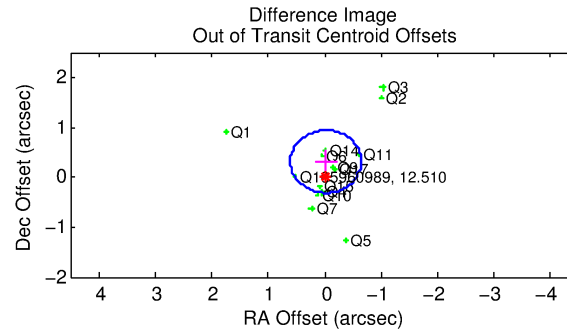
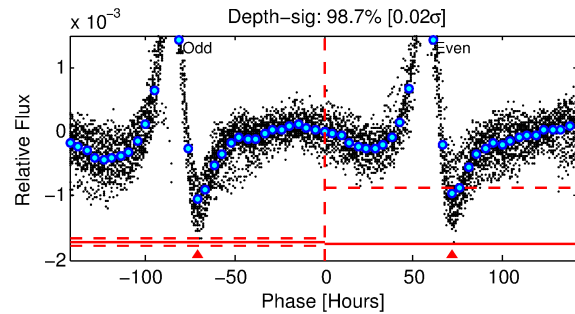
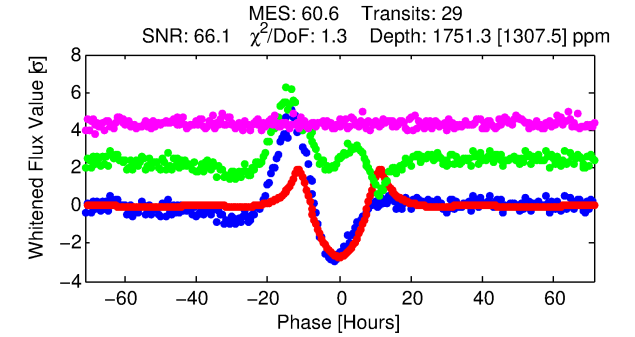
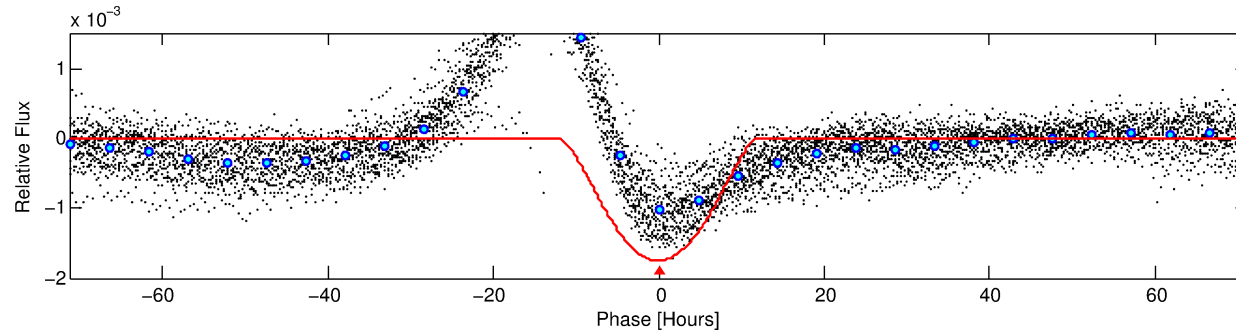
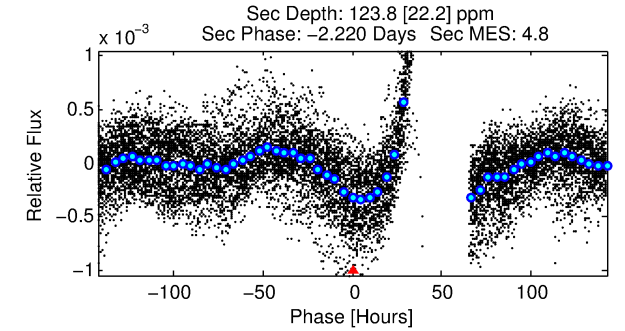
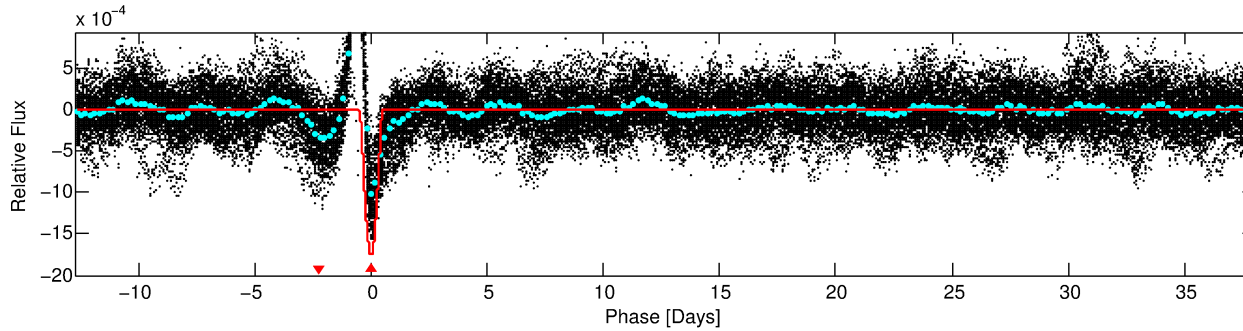
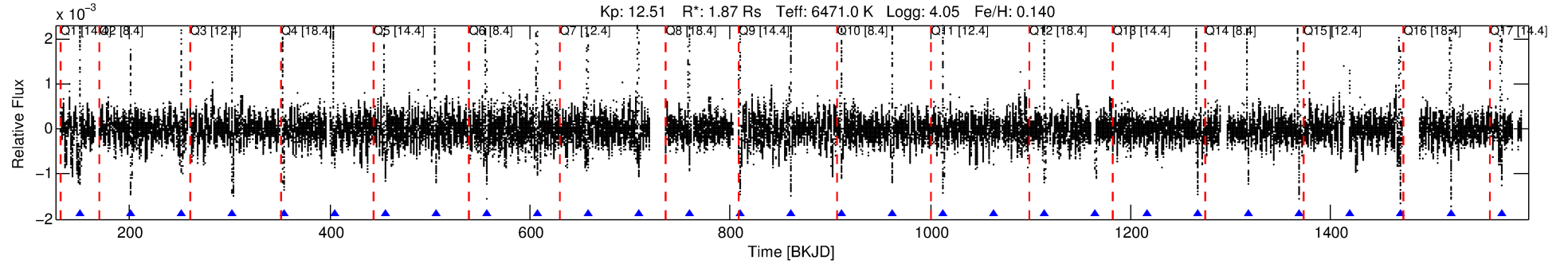
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005960989-01

No Significant Match Found

DV One-Page Summary

KIC: 5960989 Candidate: 1 of 1 Period: 50.710 d



DV Fit Results:

Period = 50.70989 [0.00036] d
Epoch = 151.0242 [0.0057] BKJD
Rp/R* = 0.0715 [0.0162]
a/R* = 6.36 [0.30]
b = 1.00 [0.06]
Seff = 60.28 [18.79]
Teq = 711 [55] K
Rp = 14.61 [4.68] Re
a = 0.3022 [0.0609] AU
Ag = 29.14 [16.78] [1.68σ]
Teffp = 2552 [313] K [5.80σ]

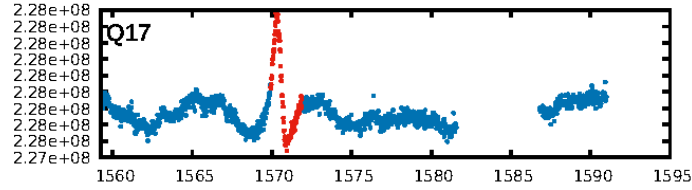
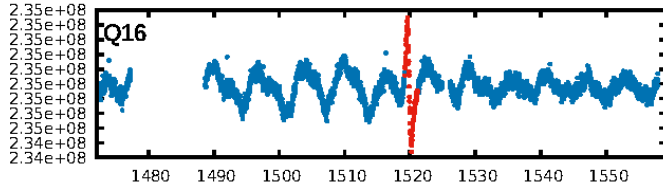
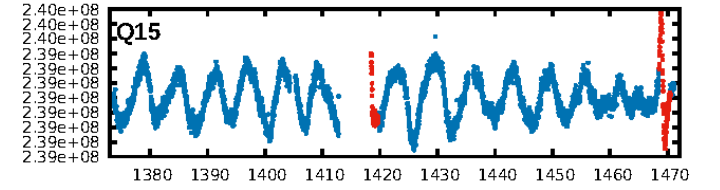
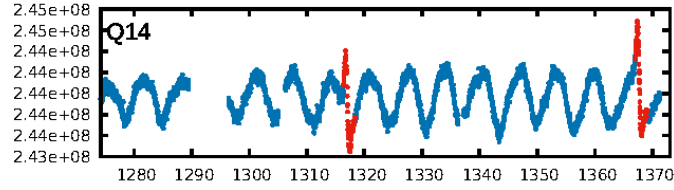
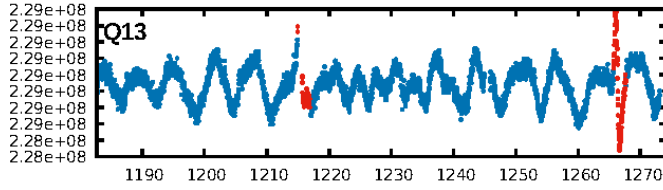
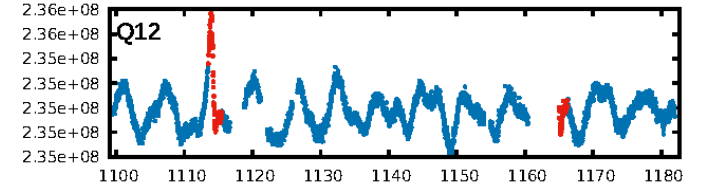
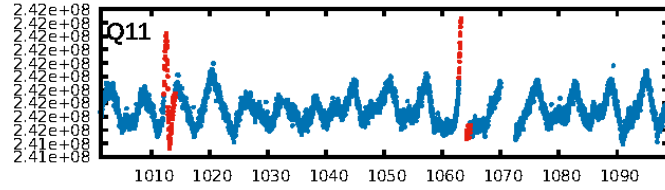
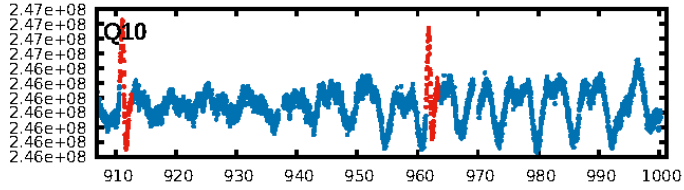
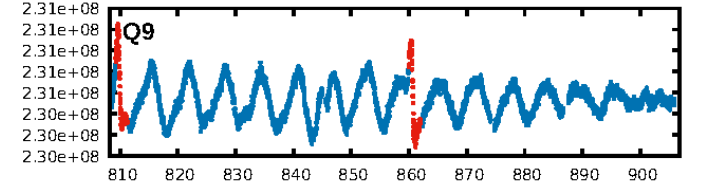
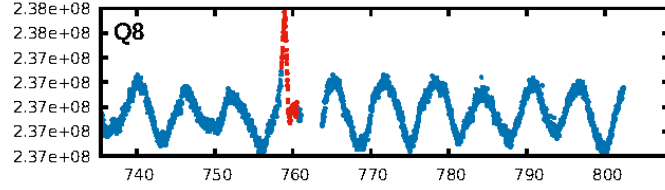
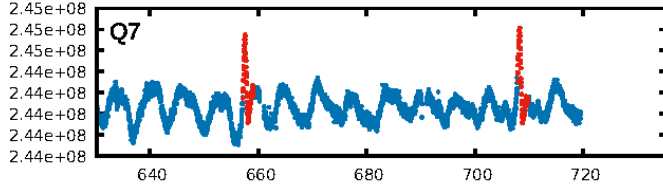
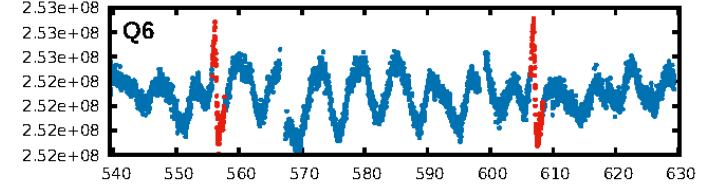
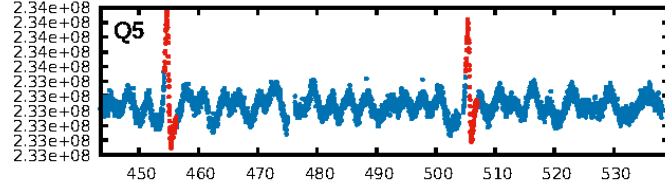
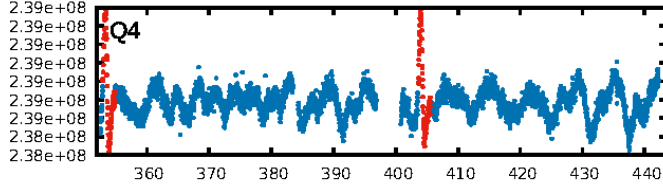
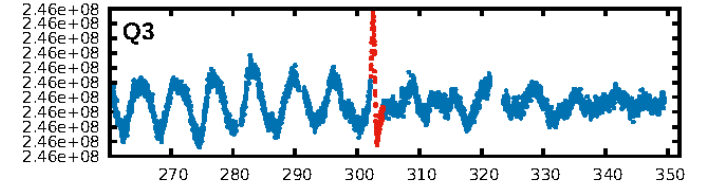
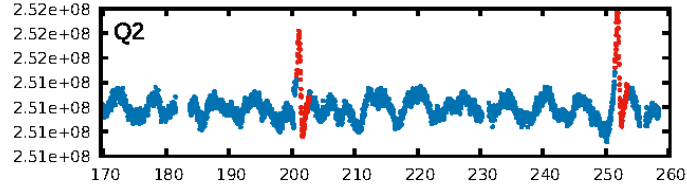
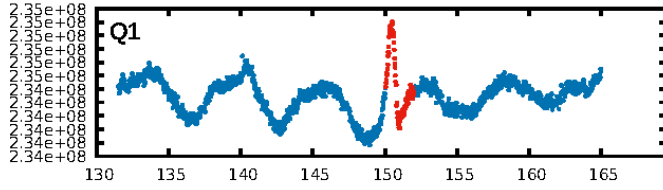
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 84.7%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [27/27]
GhostDiagnostic-chr: 2.298
Centroid-sig: 0.0%
Centroid-so: 0.111 arcsec [3.54σ]
OotOffset-rm: 0.310 arcsec [1.48σ]
KicOffset-rm: 0.258 arcsec [1.12σ]
OotOffset-st: 4/4/2/4 [14]
KicOffset-st: 4/4/2/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

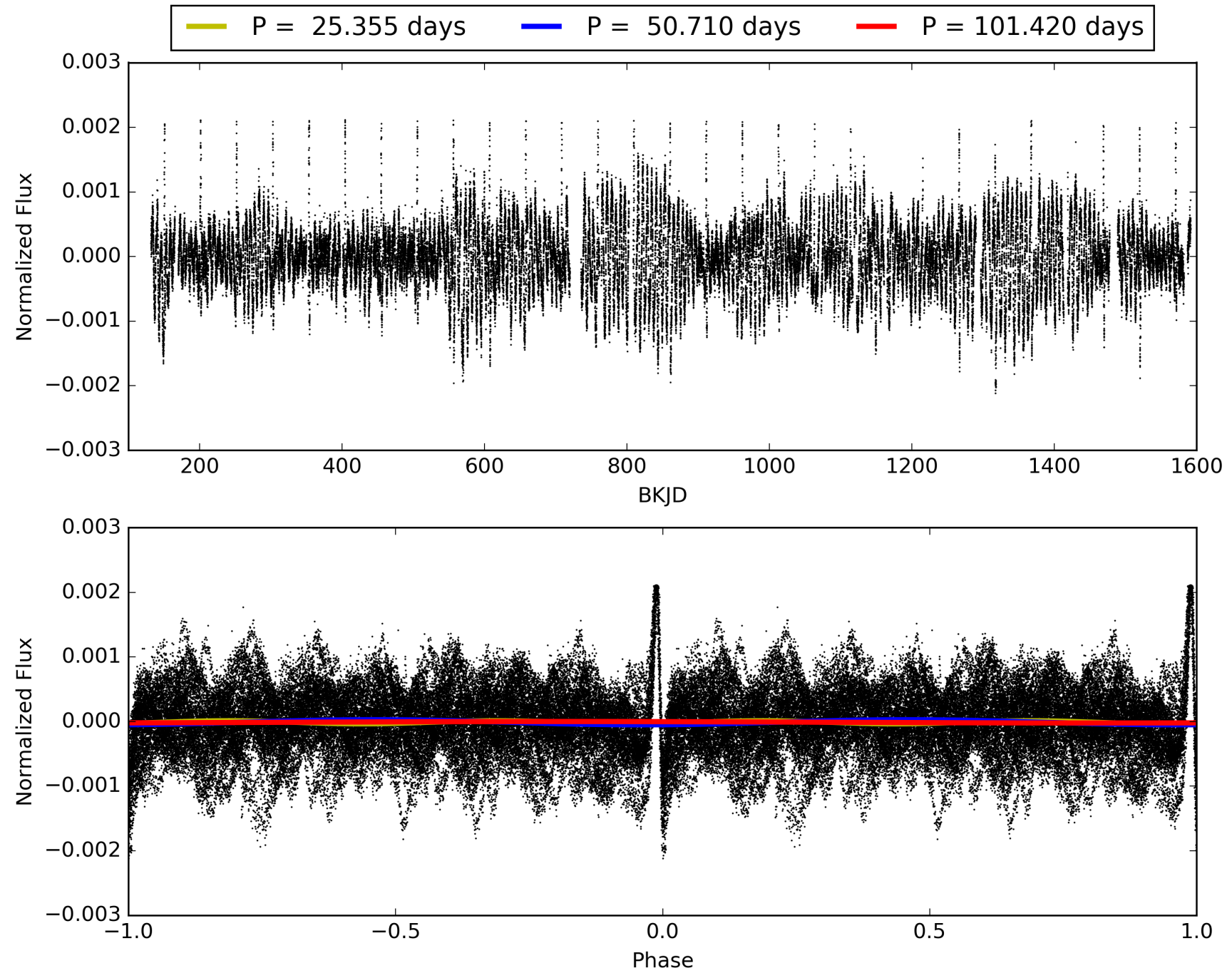
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:26:40 Z

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

TCE 005960989-01, PDC Light Curves

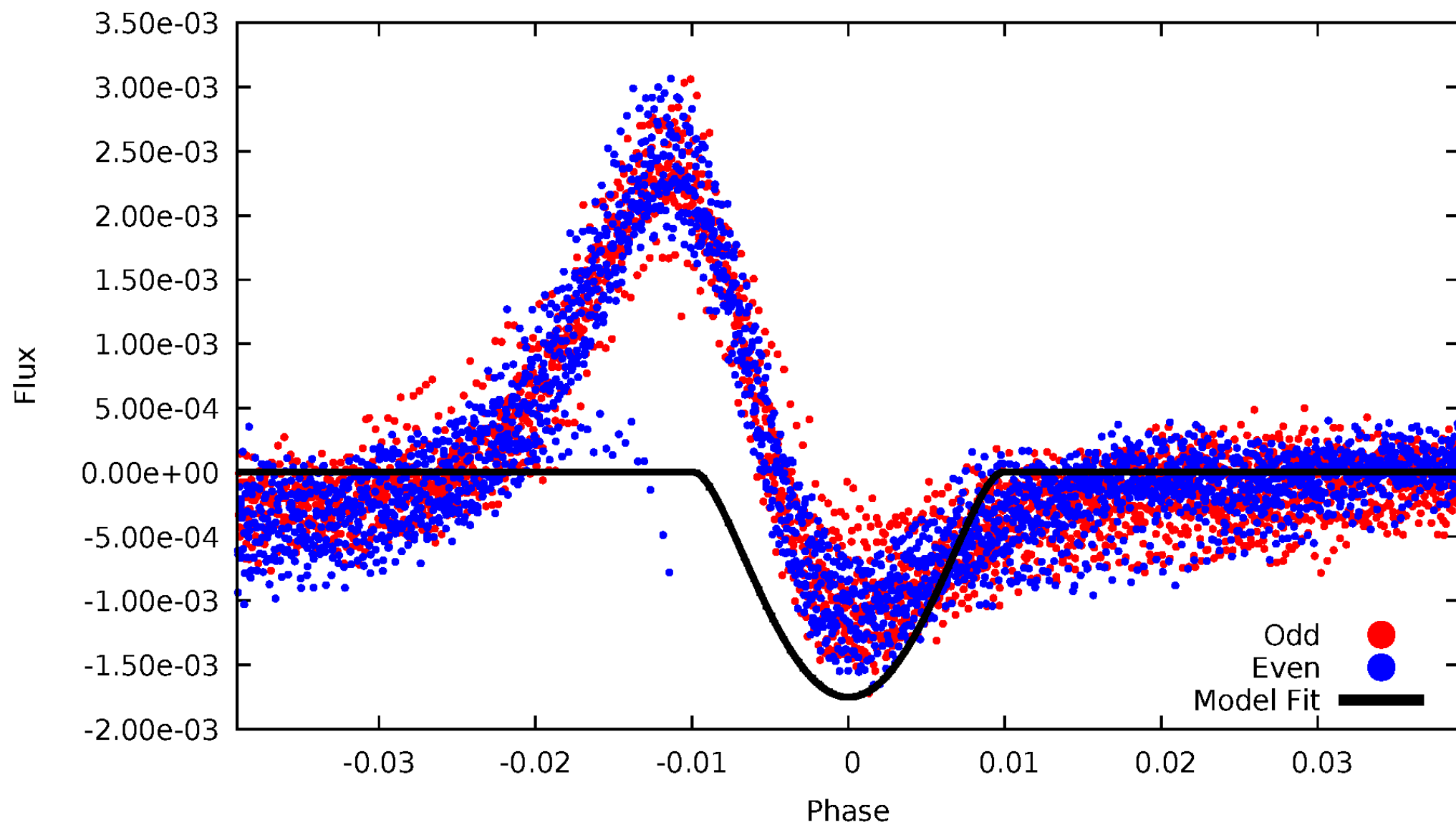


TCE 005960989-01



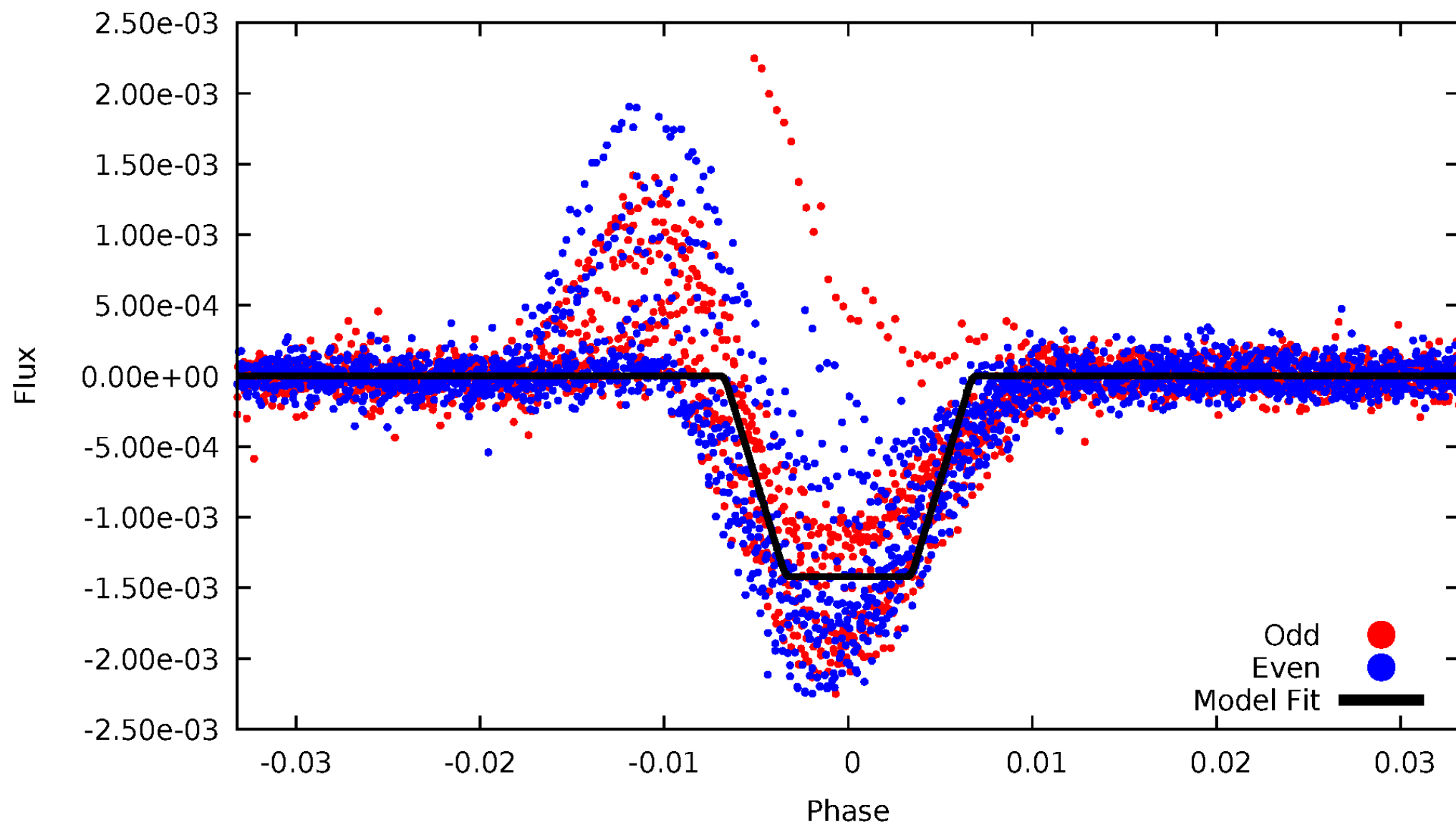
DV Odd/Even

TCE 005960989-01



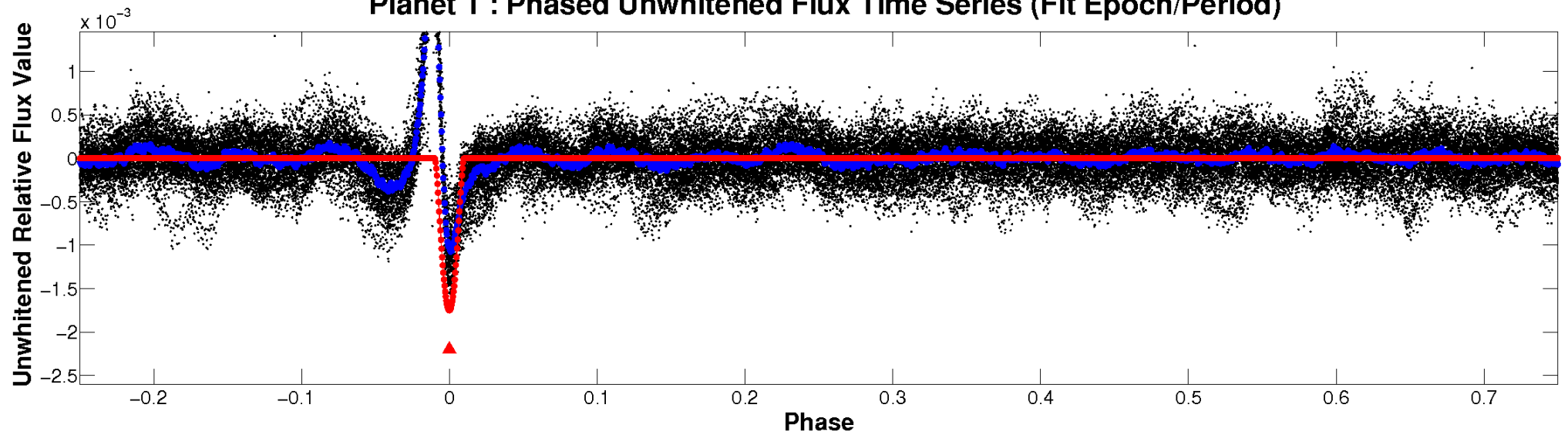
ALT Odd/Even

TCE 005960989-01

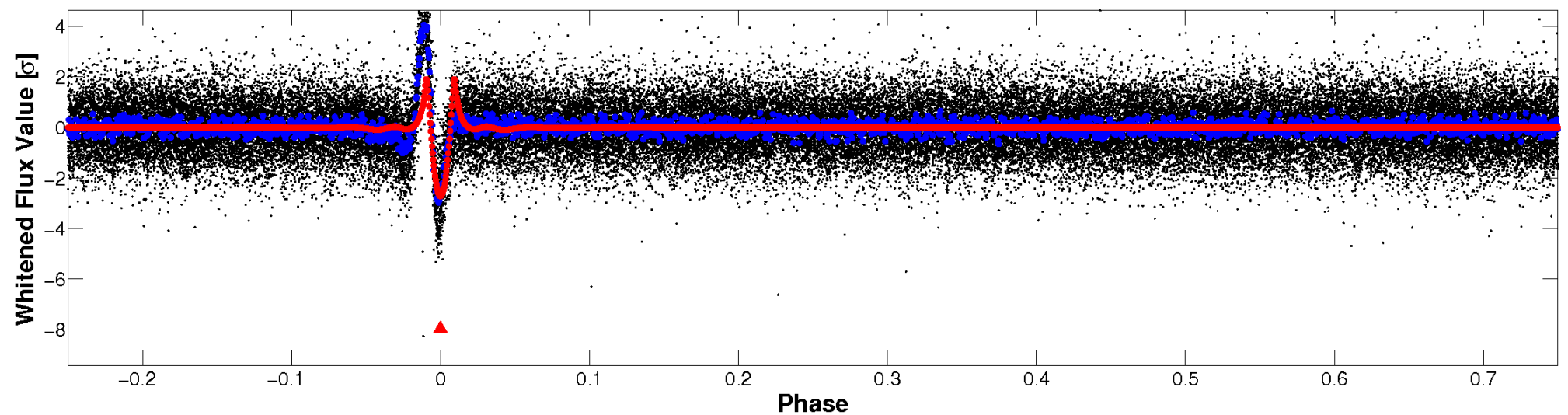


Non-Whitened Vs. Whitened Light Curve

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

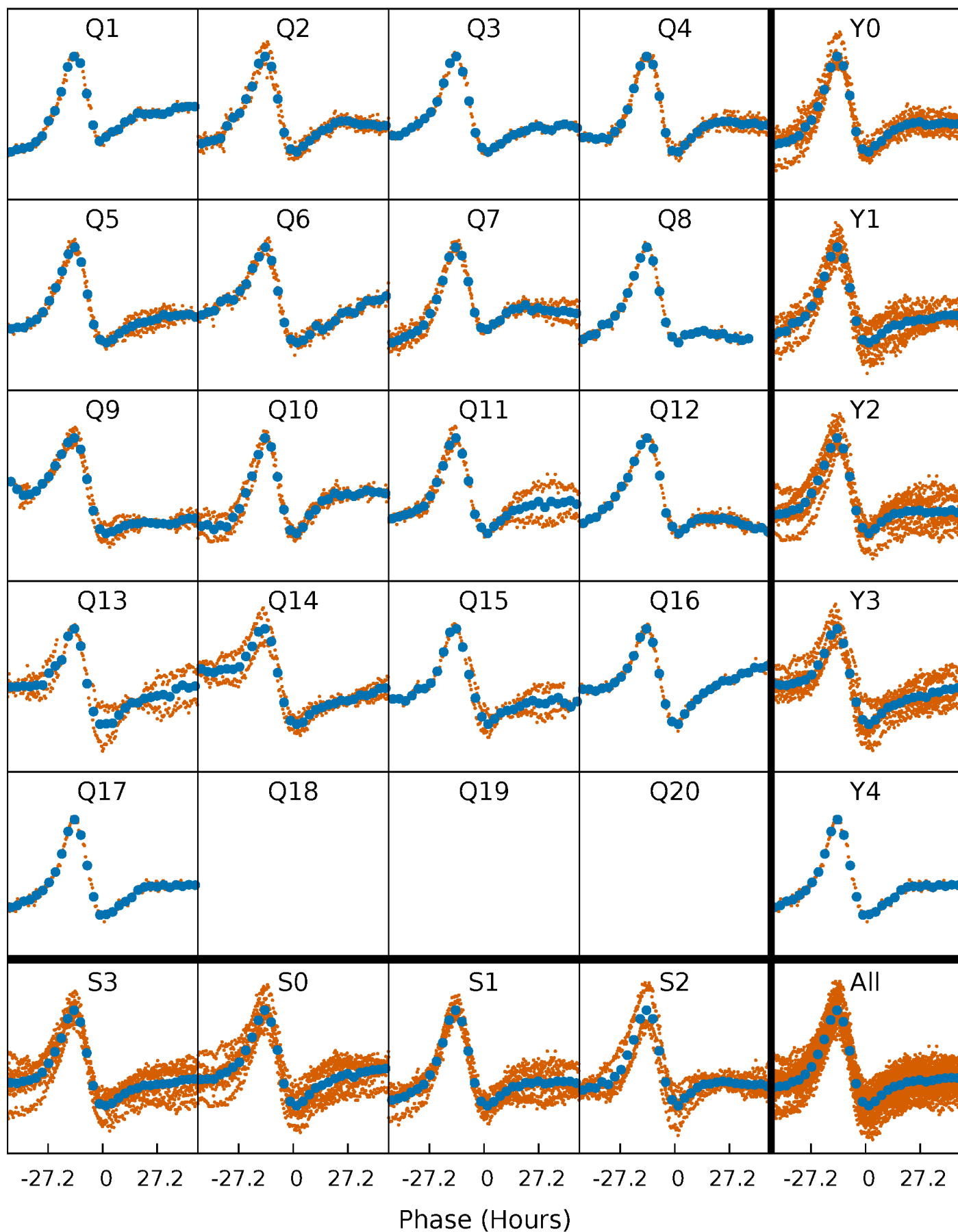


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



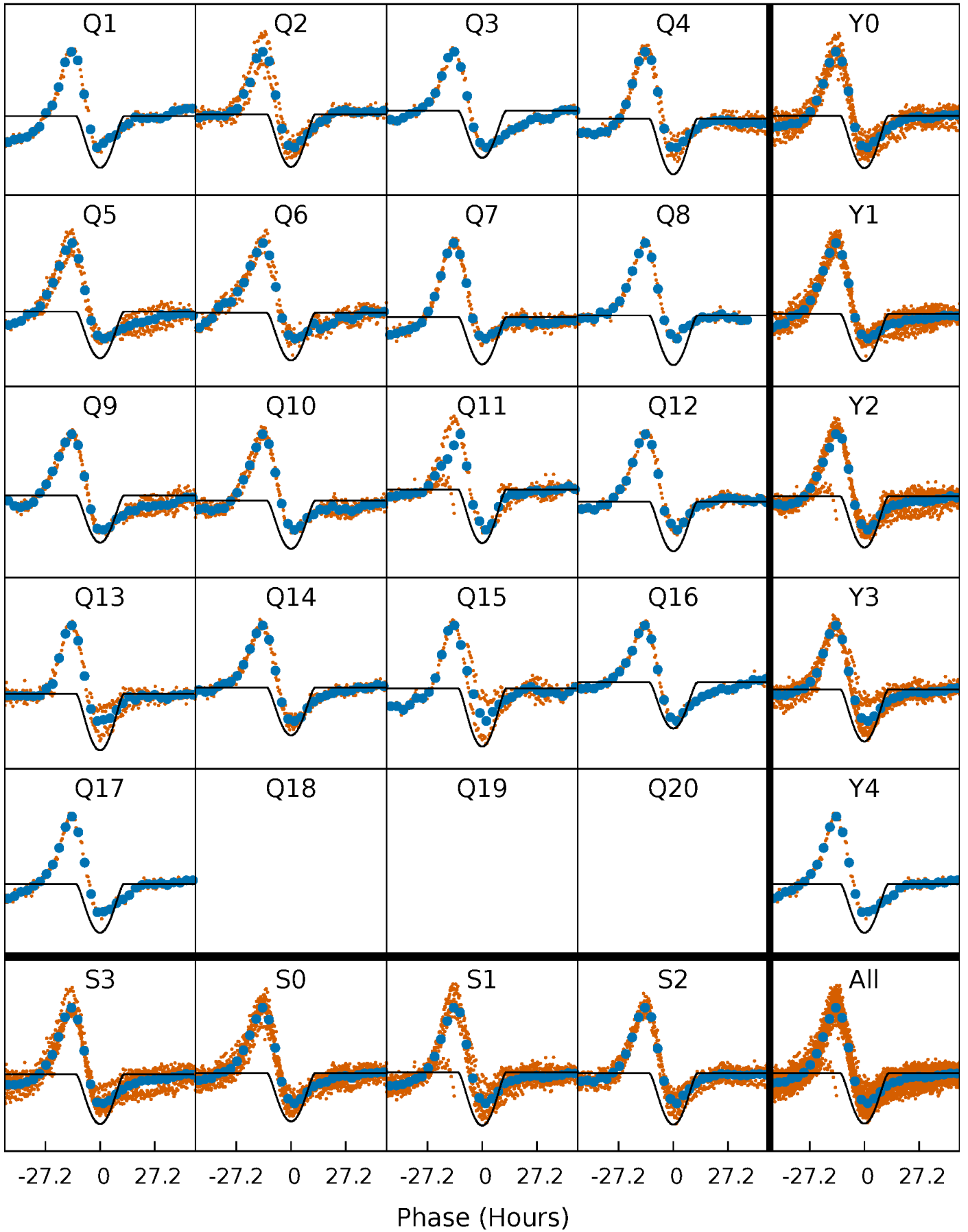
PDC Quarter-Phased Transit Curves

TCE 005960989-01 P= 50.709885 Days $T_0=151.024248$ (BKJD)



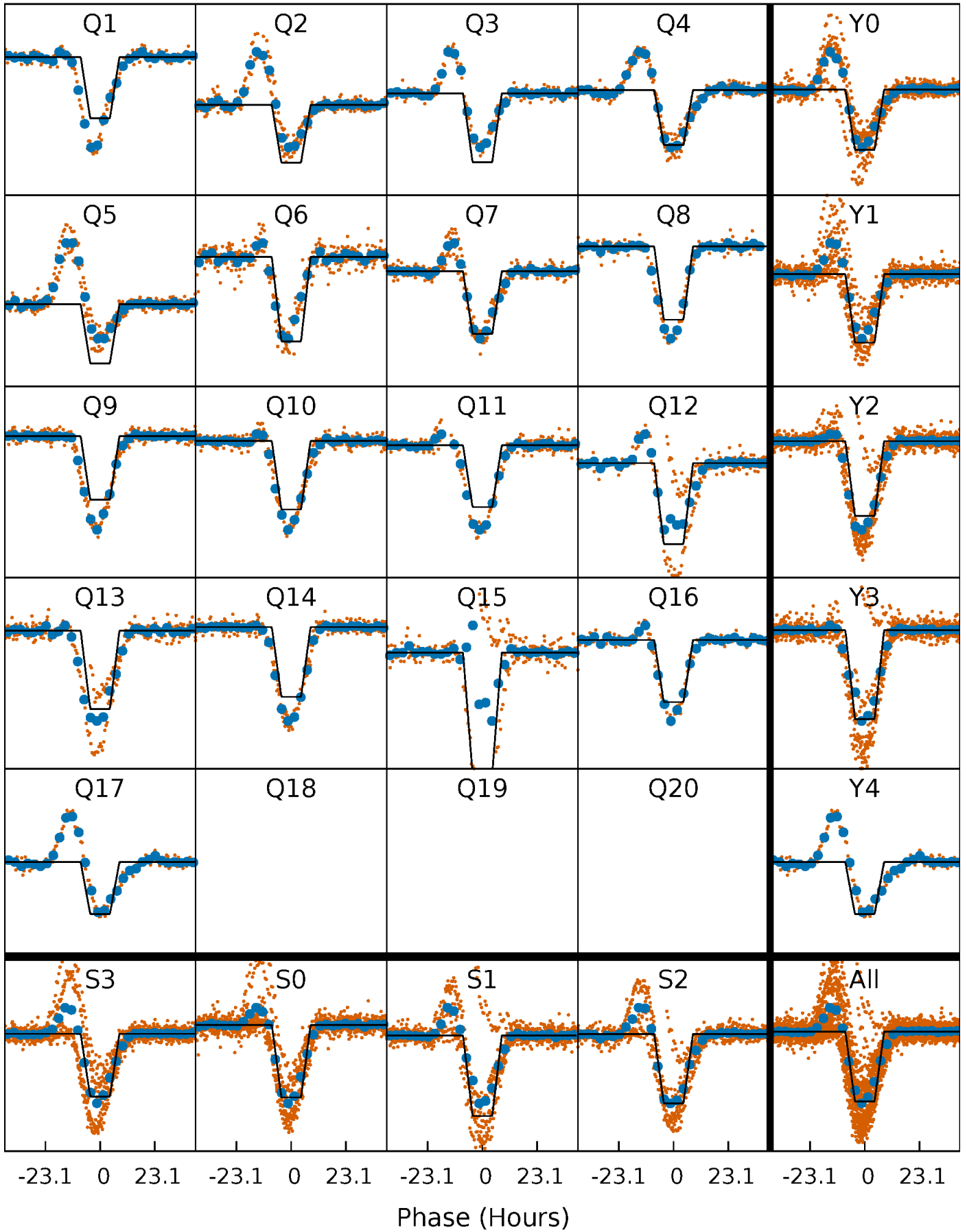
DV Quarter-Phased Transit Curves

TCE 005960989-01 P= 50.709885 Days $T_0=151.024248$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

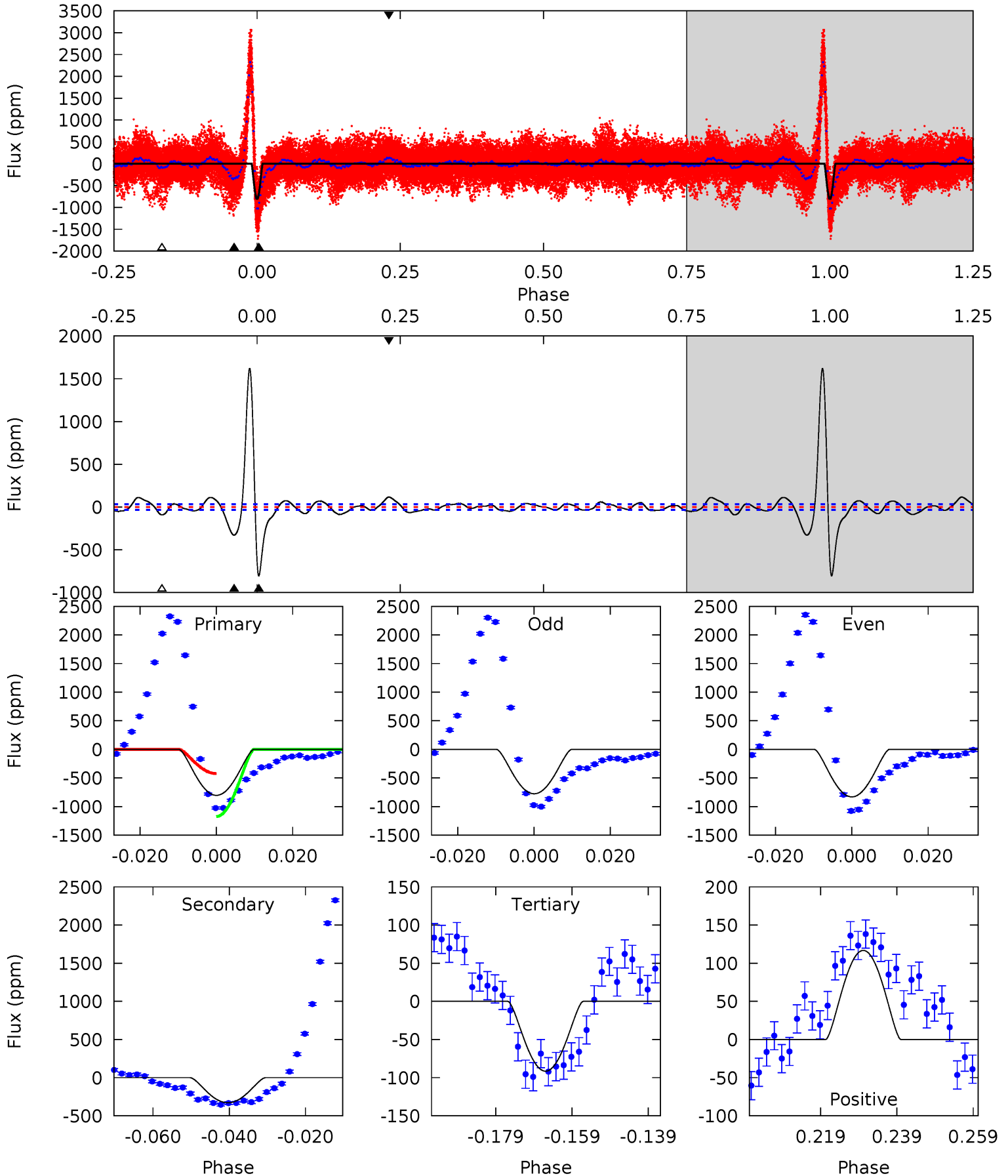
TCE 005960989-01 P= 50.707826 Days $T_0=151.024259$ (BKJD)



DV Model-Shift Uniqueness Test

005960989-01, P = 50.709885 Days, E = 100.314363 Days

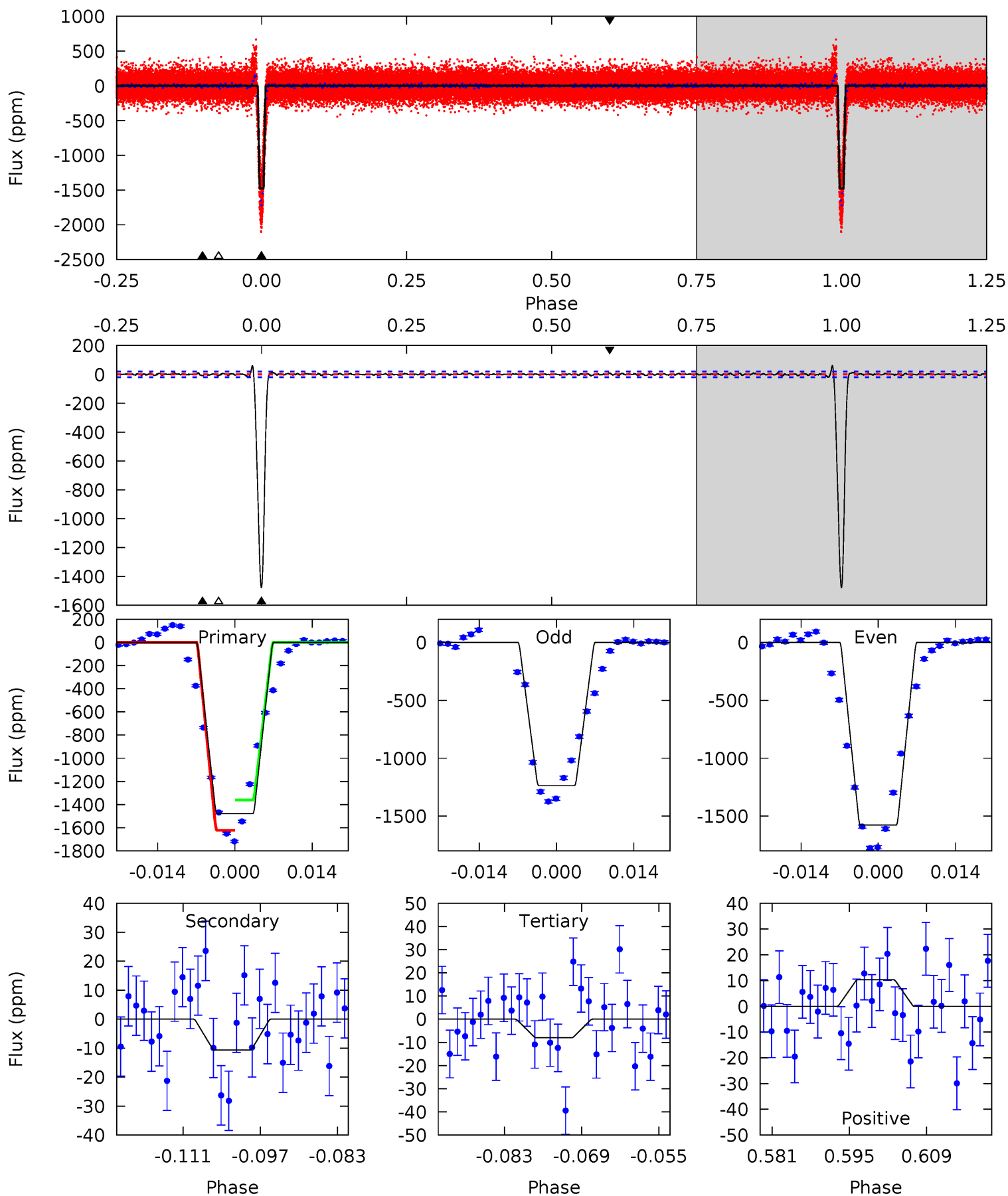
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
119.7	48.9	13.6	17.4	4.89	2.33	11.7	106.1	102.3	35.3	31.5	4.05	0.96	0.67	42.5



Alt Model-Shift Uniqueness Test

005960989-01, P = 50.707826 Days, E = 100.316433 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
373.4	2.69	2.02	2.61	4.96	2.46	1.15	371.4	370.8	0.67	0.08	43.4	0.84	0.04	32.2



Stellar Parameters For KIC 005960989

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6471^{+77}_{-89}	$4.049^{+0.174}_{-0.116}$	$0.140^{+0.150}_{-0.150}$	$1.872^{+0.347}_{-0.424}$	$1.431^{+0.123}_{-0.151}$	$0.307^{+0.275}_{-0.106}$
	+1%/-1%	+4%/-3%	+107%/-107%	+19%/-23%	+9%/-11%	+90%/-34%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005960989-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-328 ± 7	$14.40^{+3.92}_{-3.71}$	992^{+49}_{-58}	3687^{+362}_{-251}	80^{+67}_{-30}
Alt.	-11 ± 4	$7.60^{+3.55}_{-3.16}$	988^{+51}_{-55}	2674^{+453}_{-281}	$9.233^{+19.593}_{-5.435}$

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 $A_{obs} \gg 1.0$

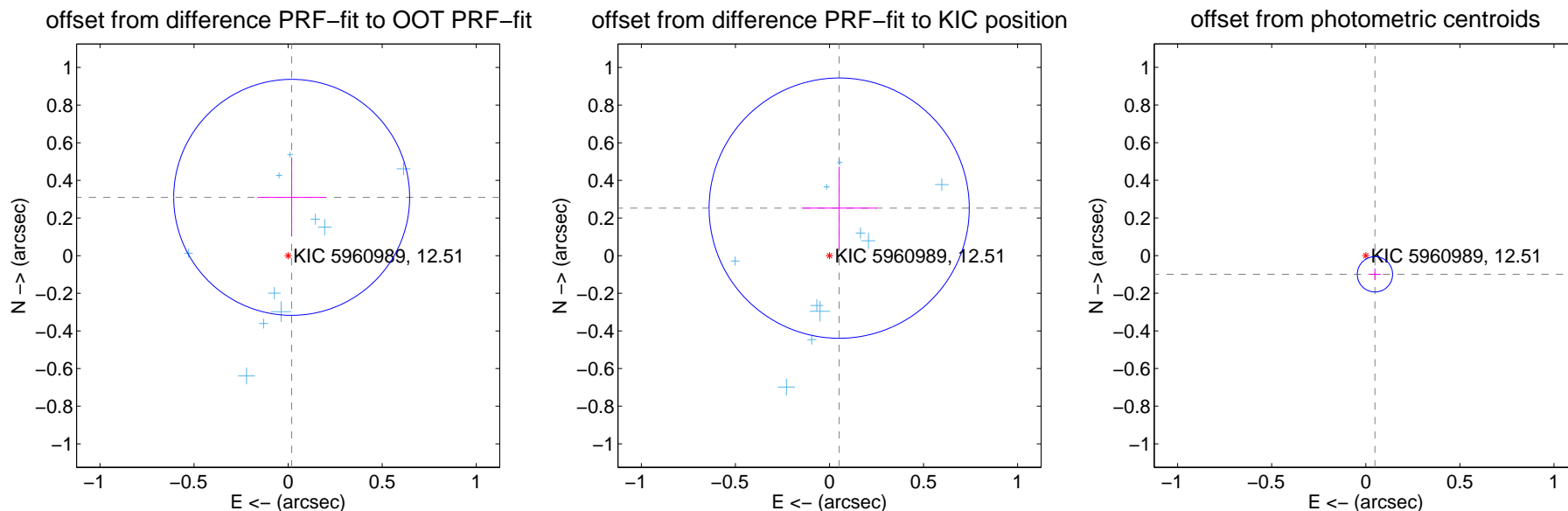
DV Centroid Data

Supplemental centroid analysis for 005960989-01. Kepler magnitude: 12.51. Transit SNR 66.08

There are 14 quarters with good PRF difference image offsets

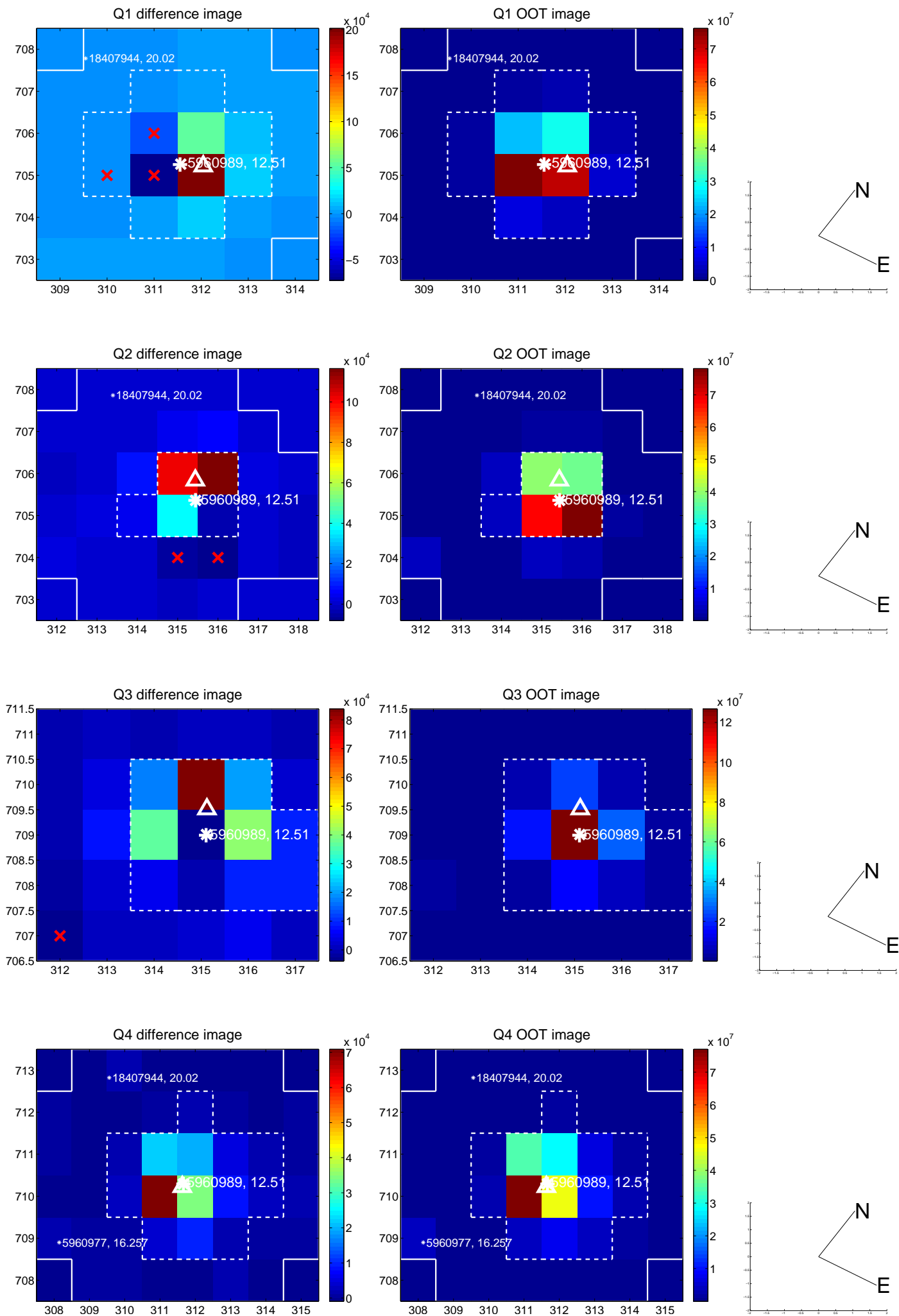
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.310 ± 0.209	1.48	-0.019 ± 0.182	0.310 ± 0.206
PRF-fit source offset from KIC position	0.258 ± 0.231	1.12	-0.052 ± 0.199	0.253 ± 0.220
photometric centroid source offset	0.11 ± 0.03	3.54	-0.05 ± 0.03	-0.10 ± 0.03

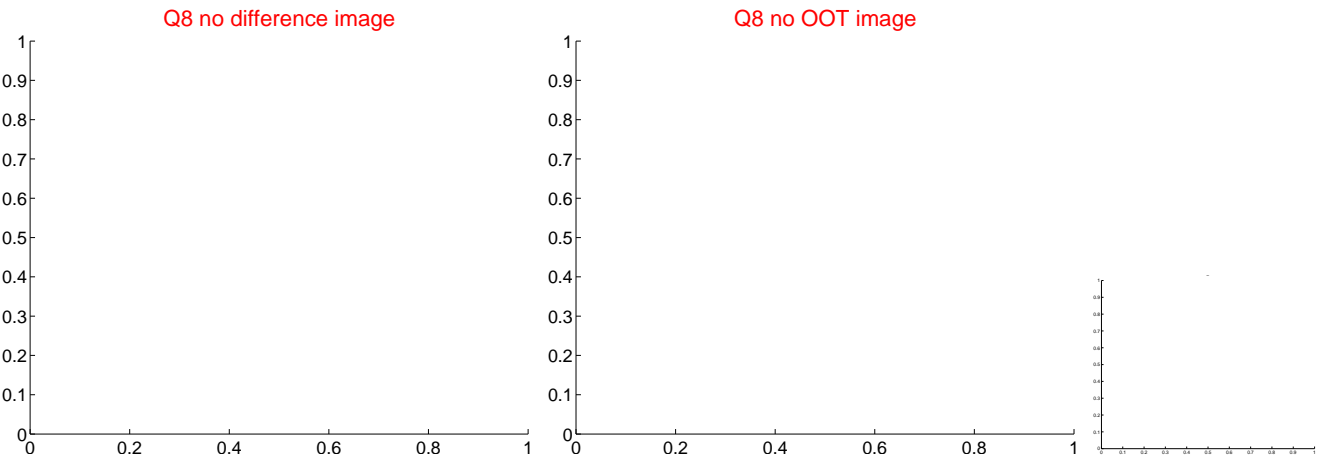
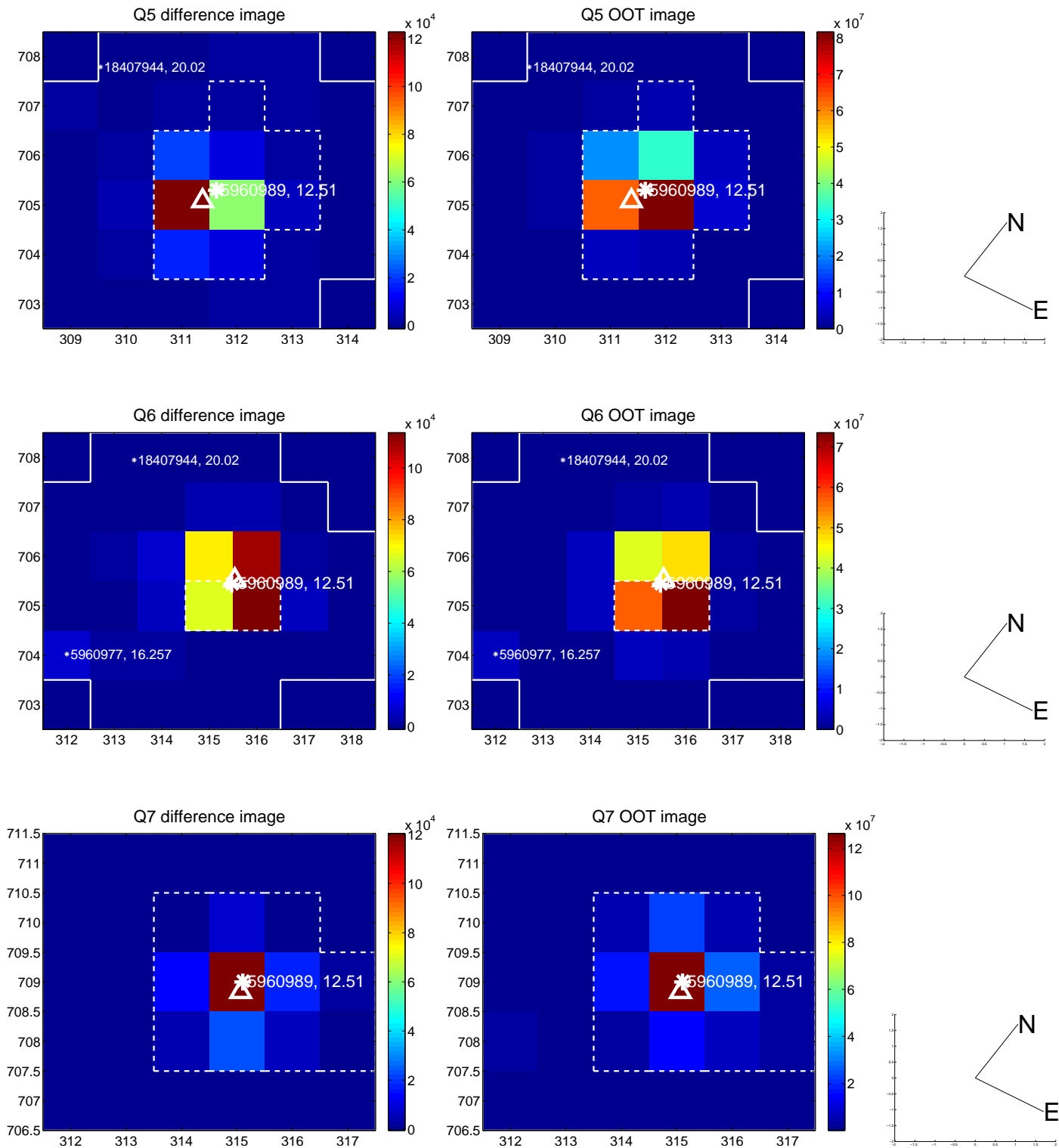


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

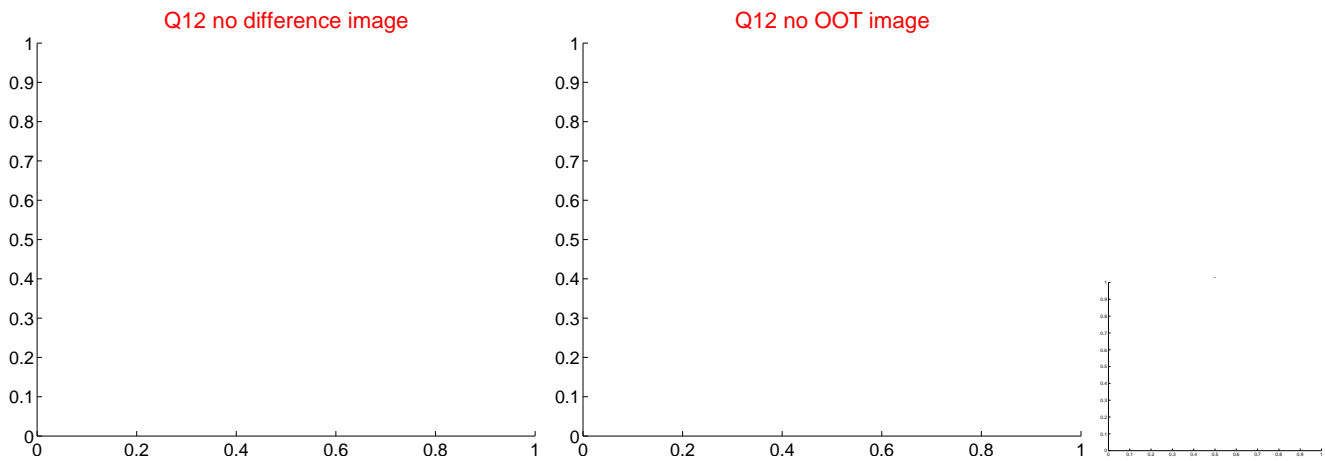
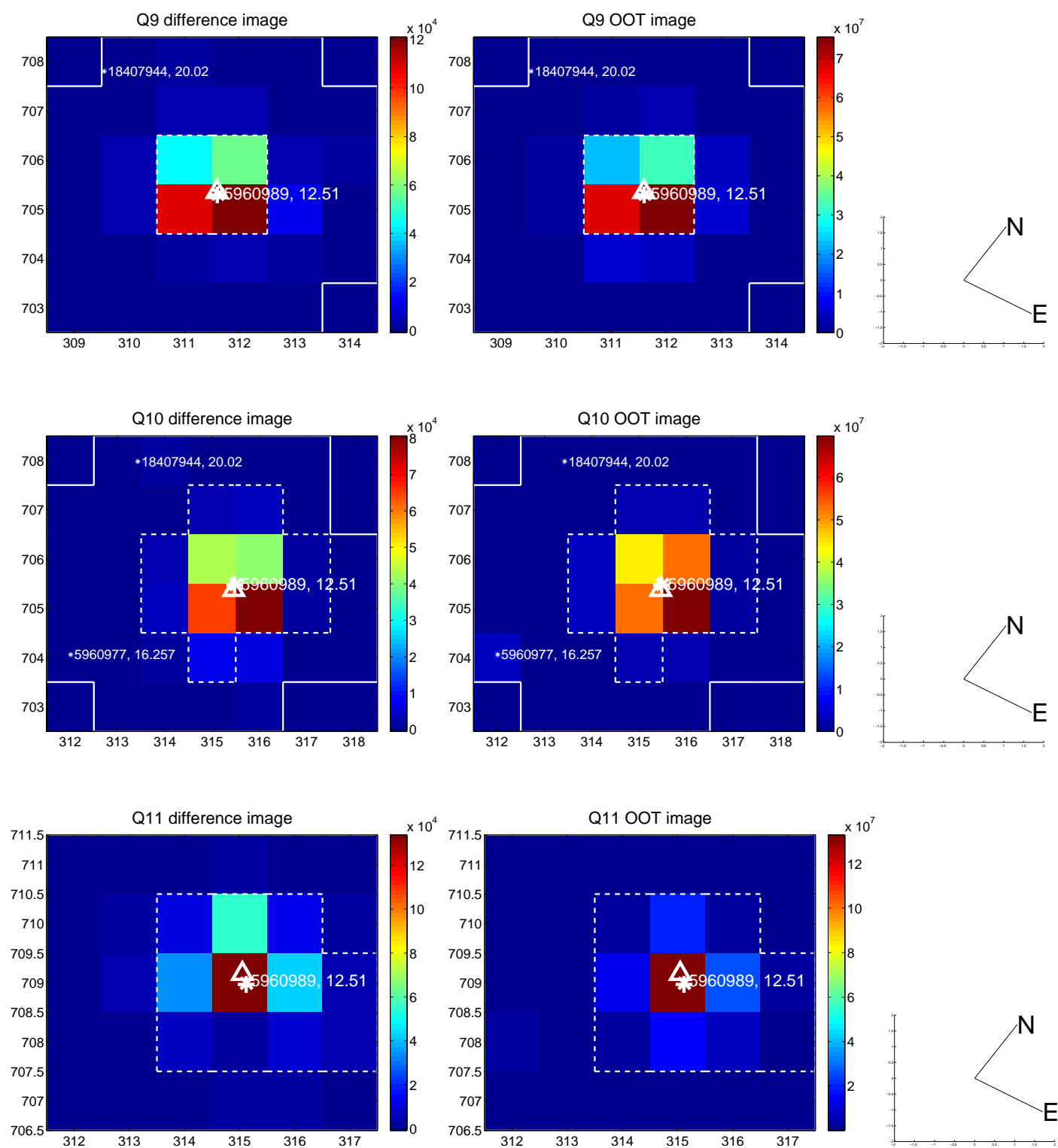
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



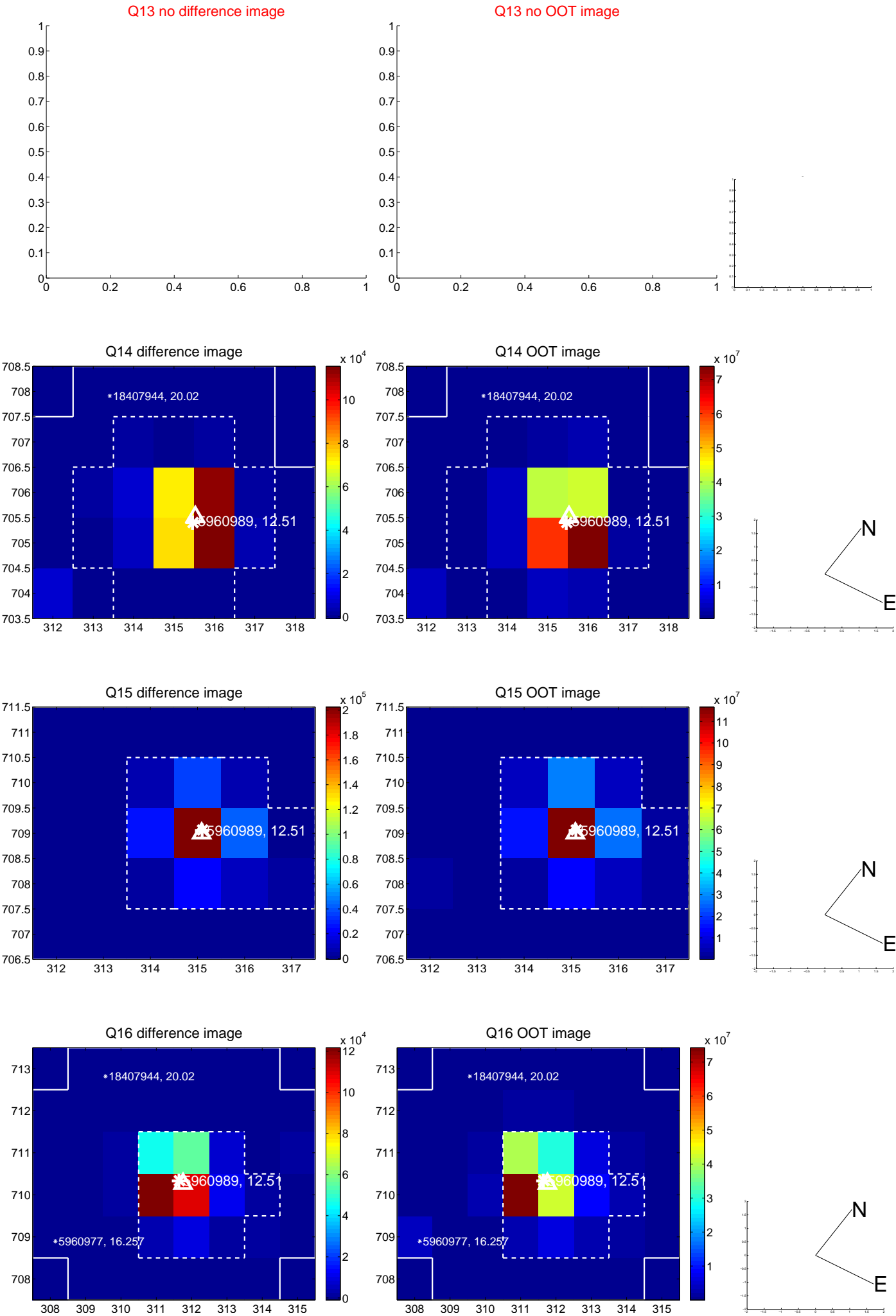
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



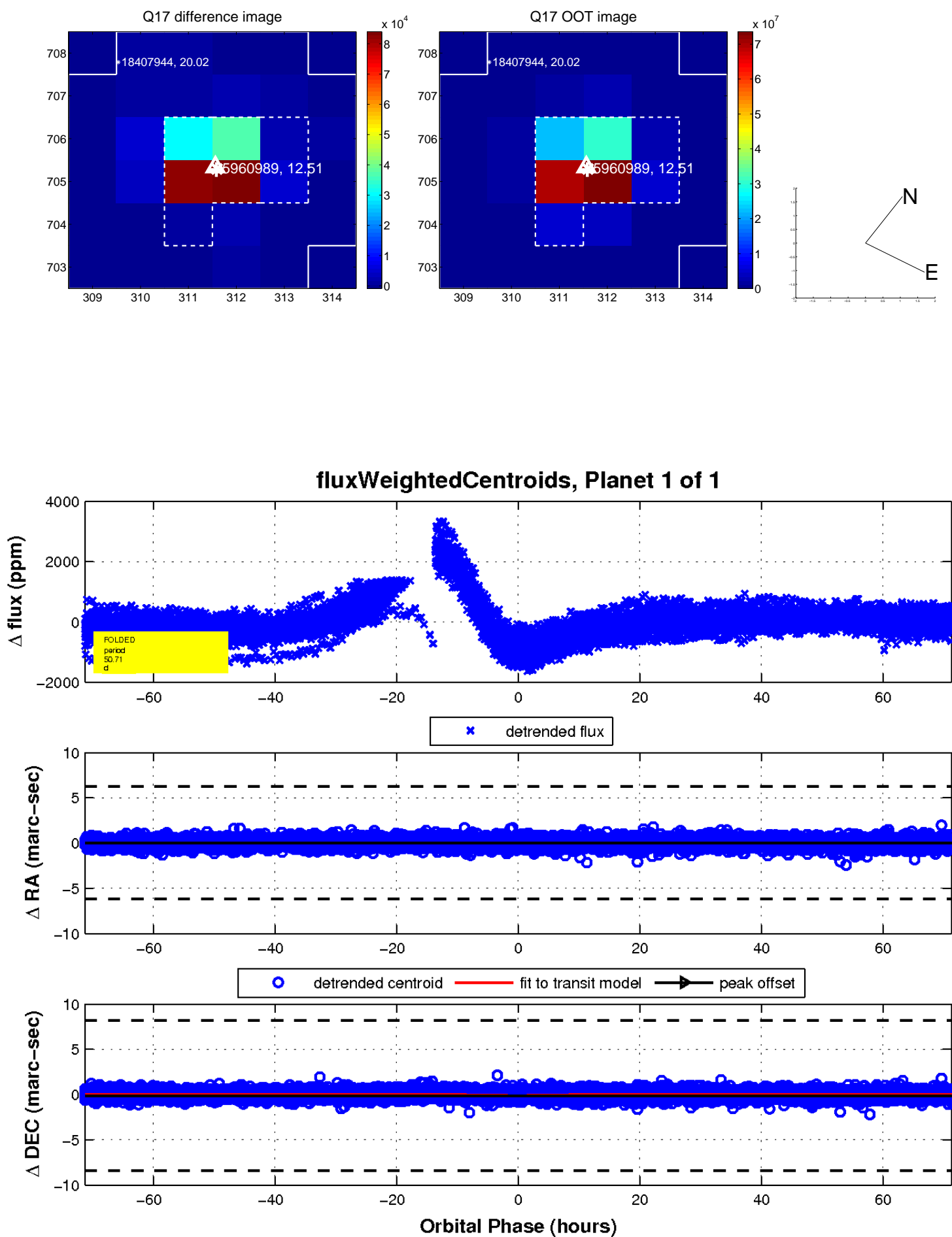
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

