

KIC 004484128

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})
004484128-01	OBS	No	0.547858	131.673566	71963.5	6.574	17814.9	118.7	3.09	7056	84.11	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004484128-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT

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.

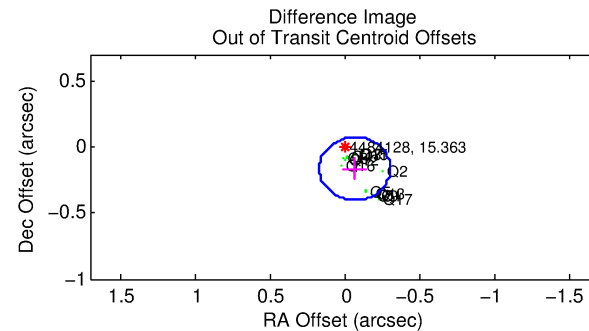
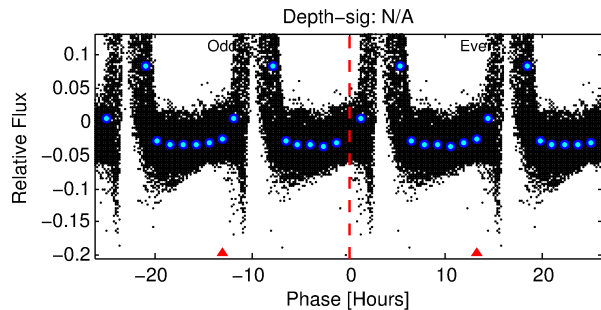
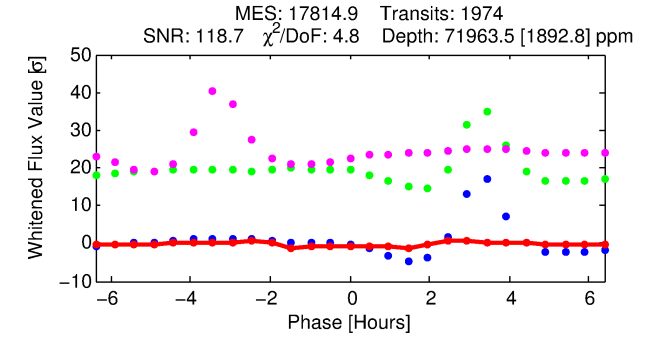
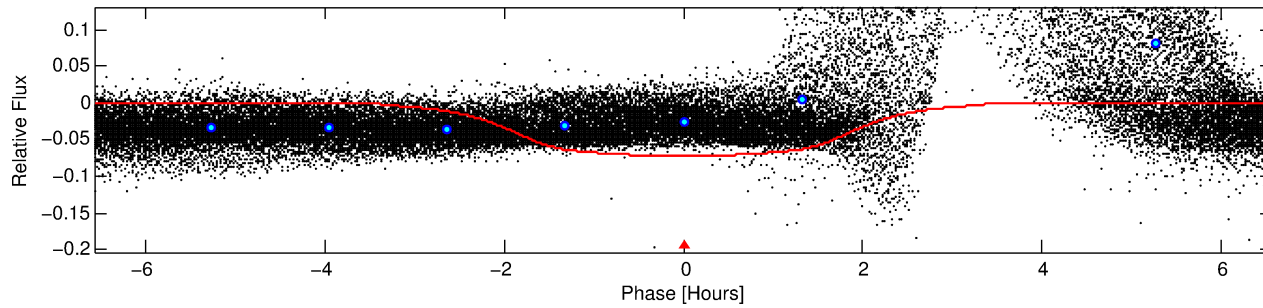
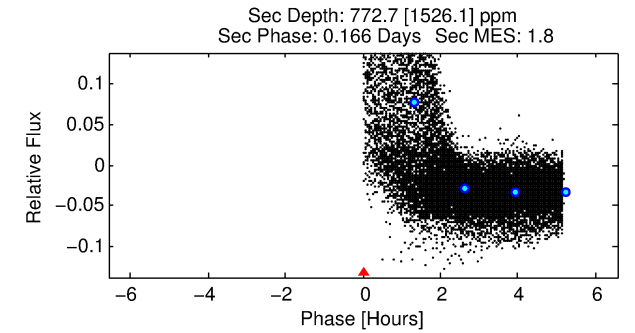
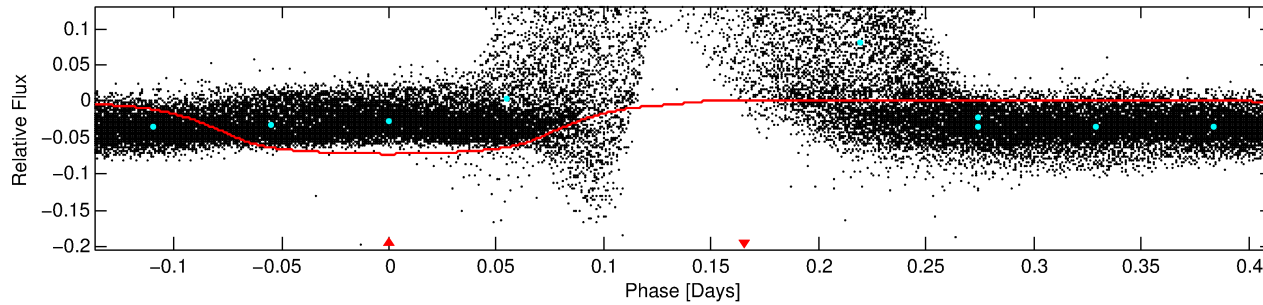
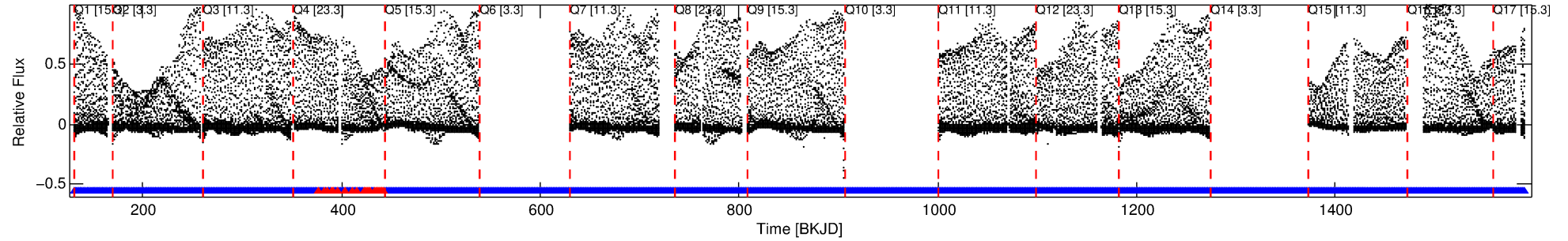
Ephemeris Match Information For 004484128-01

No Significant Match Found

DV One-Page Summary

KIC: 4484128 Candidate: 1 of 1 Period: 0.548 d

Kp: 15.36 R*: 3.09 Rs Teff: 7056.0 K Logg: 3.65 Fe/H: -0.560



DV Fit Results:

Period = 0.54786 [0.00000] d
Epoch = 131.6736 [0.0005] BKJD
Rp/R* = 0.2493 [0.0032]
a/R* = 1.17 [0.01]
b = 0.00 [7.61]
Seff = N/A
Teq = N/A
Rp = 84.11 [50.93] Re
a = N/A
Ag = N/A
Teffp = N/A

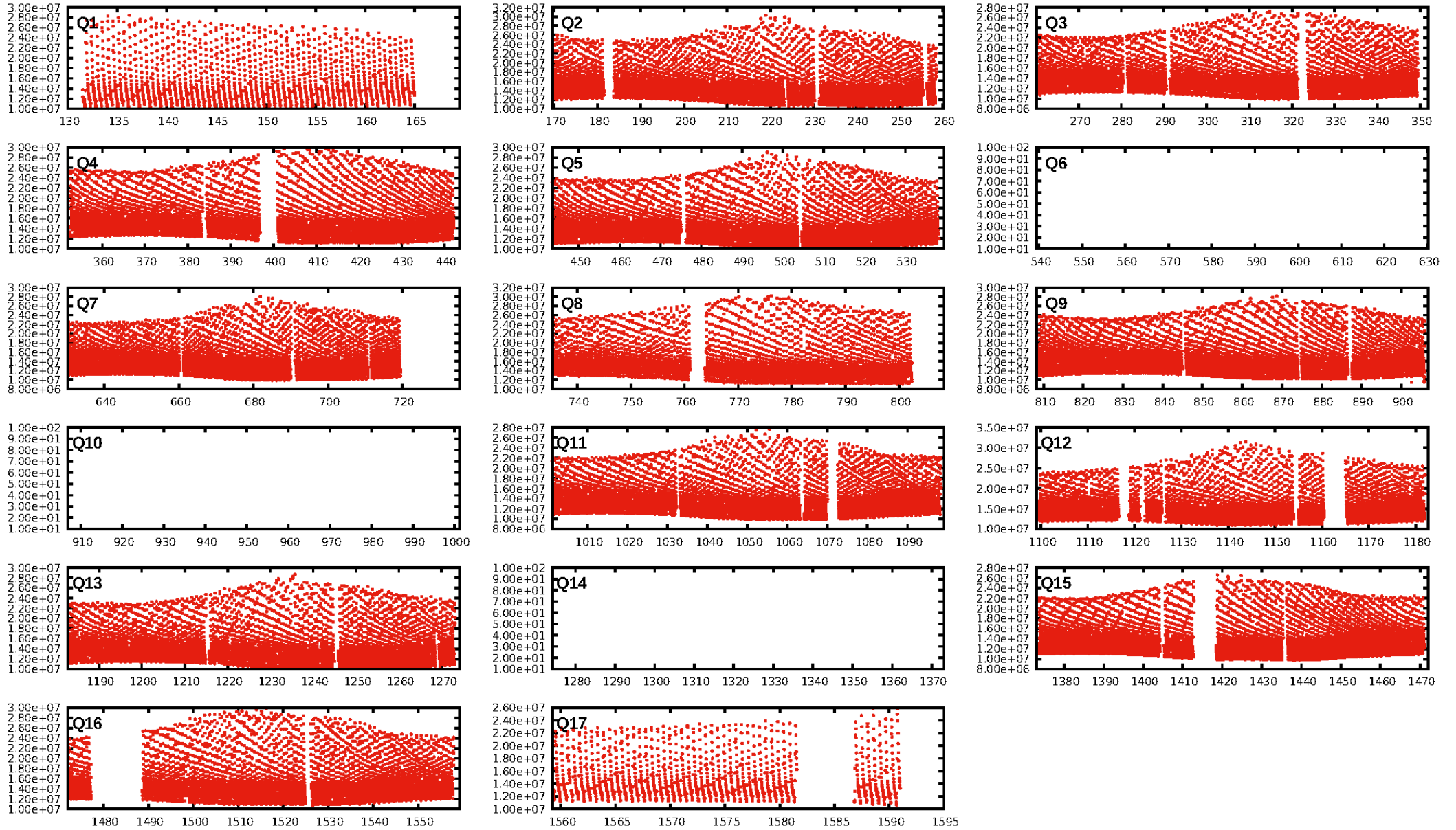
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [1833/1863]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.097 arcsec [148.06σ]
OotOffset-rm: 0.179 arcsec [2.26σ]
KicOffset-rm: 0.155 arcsec [2.22σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

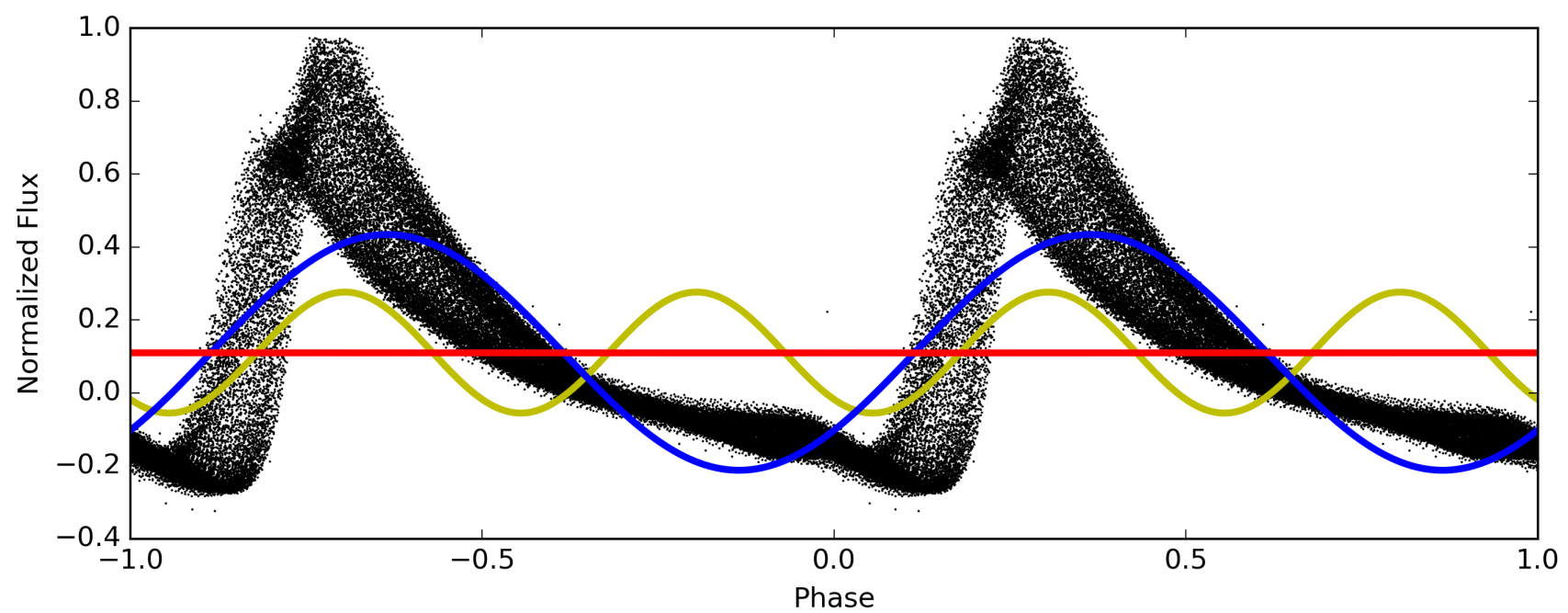
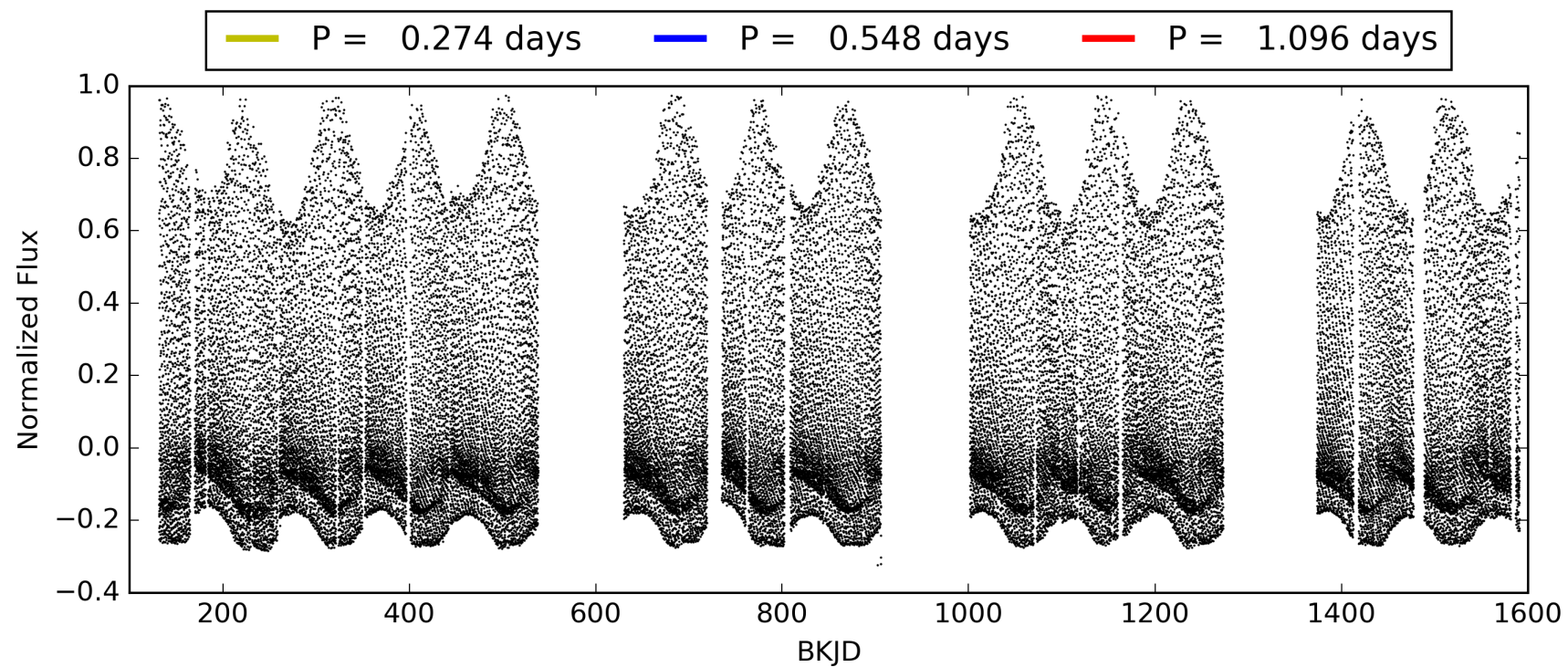
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:28:39 Z

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

TCE 004484128-01, PDC Light Curves

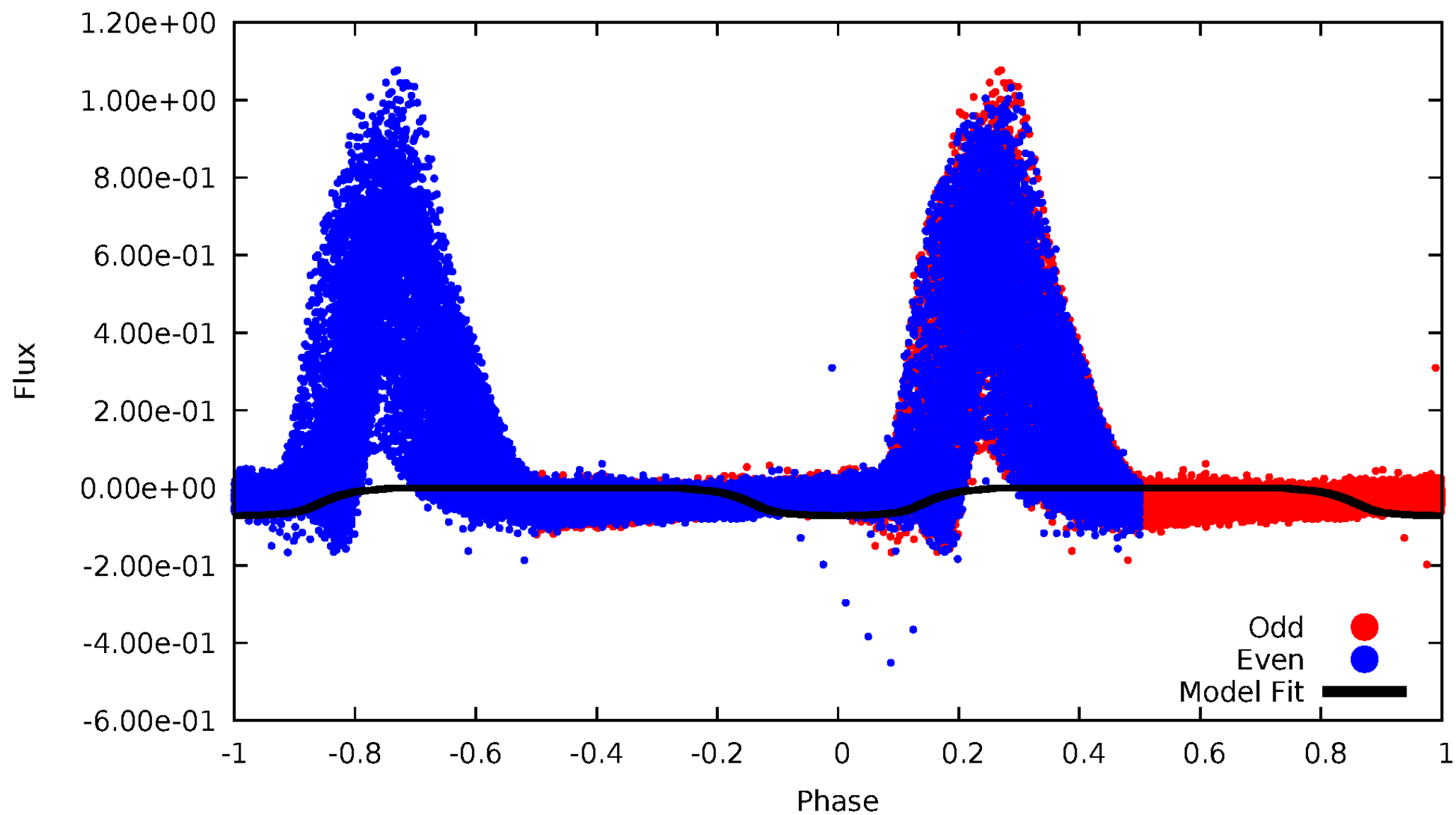


TCE 004484128-01



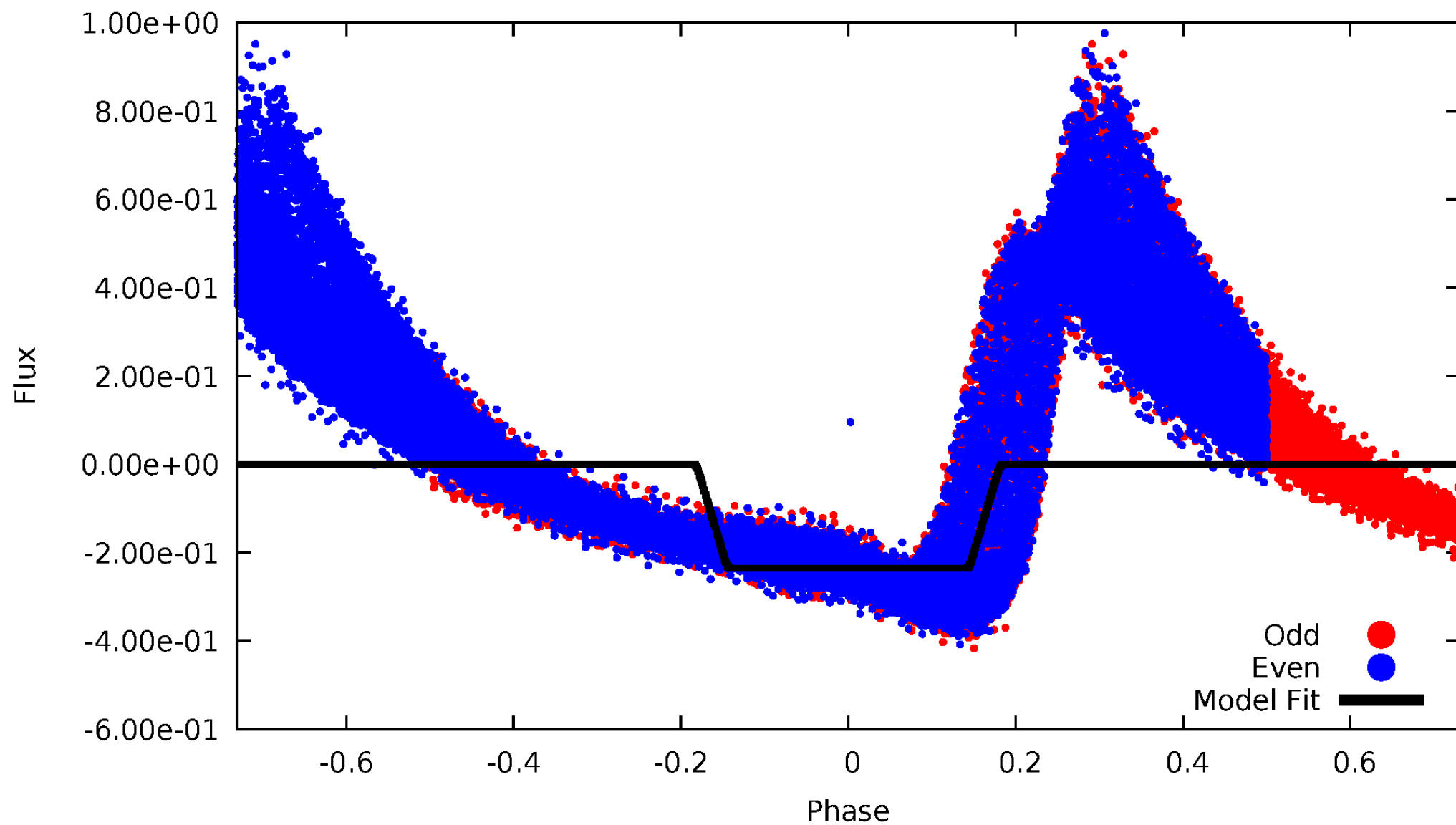
DV Odd/Even

TCE 004484128-01



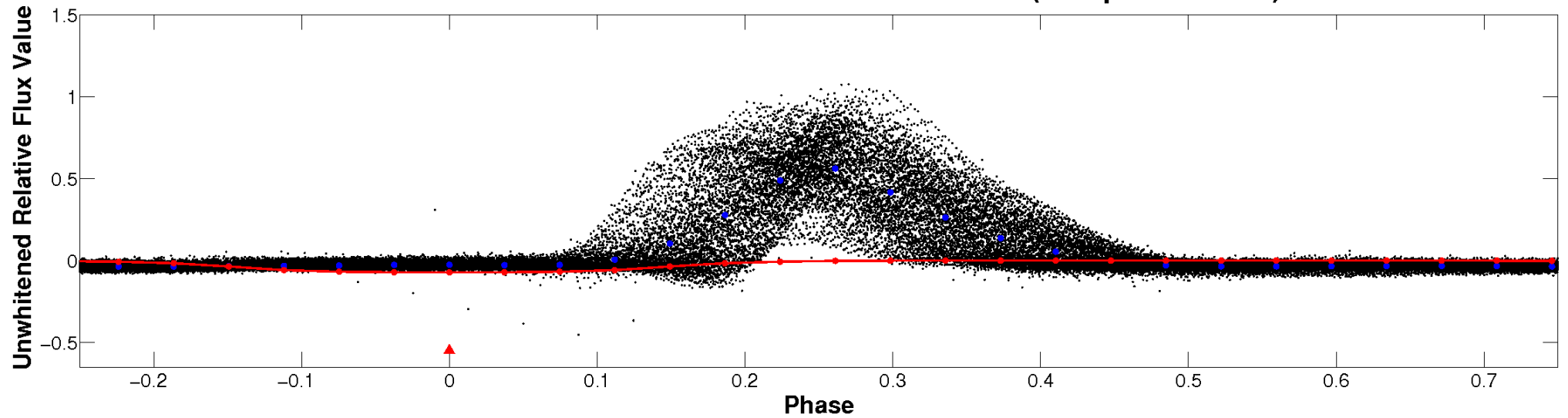
ALT Odd/Even

TCE 004484128-01

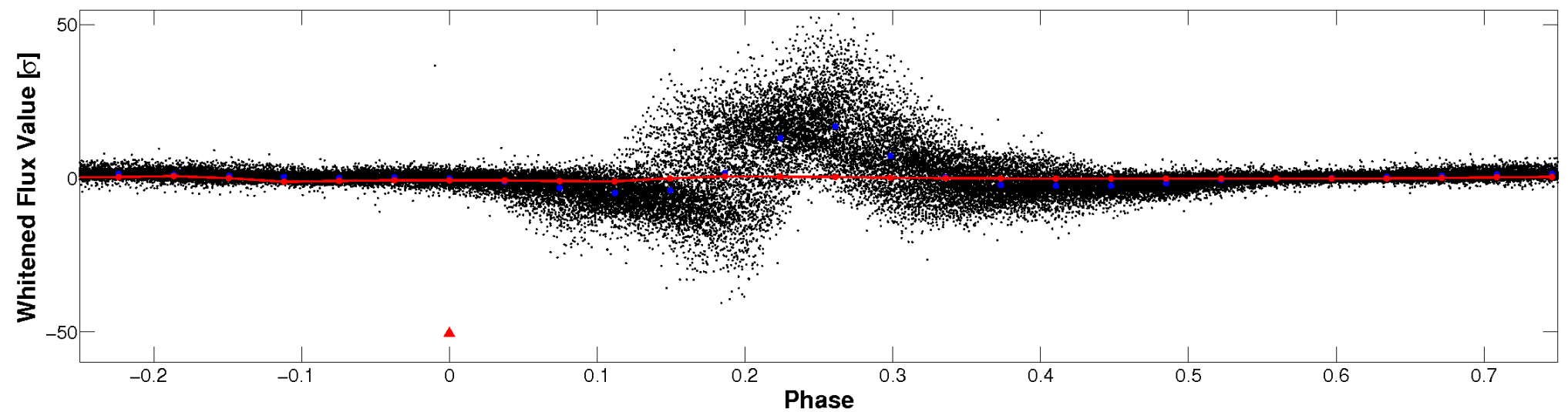


Non-Whitened Vs. Whitened Light Curve

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

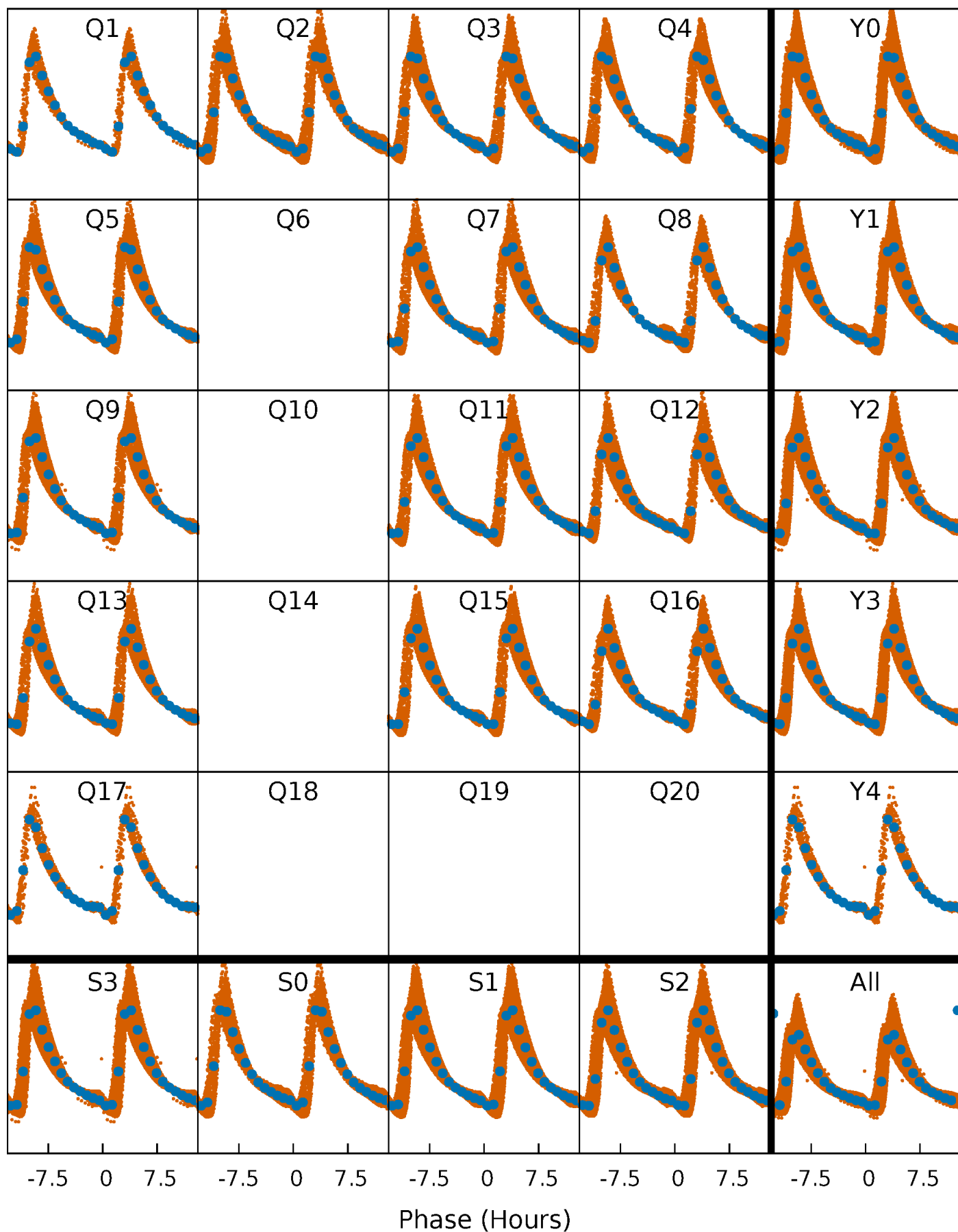


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



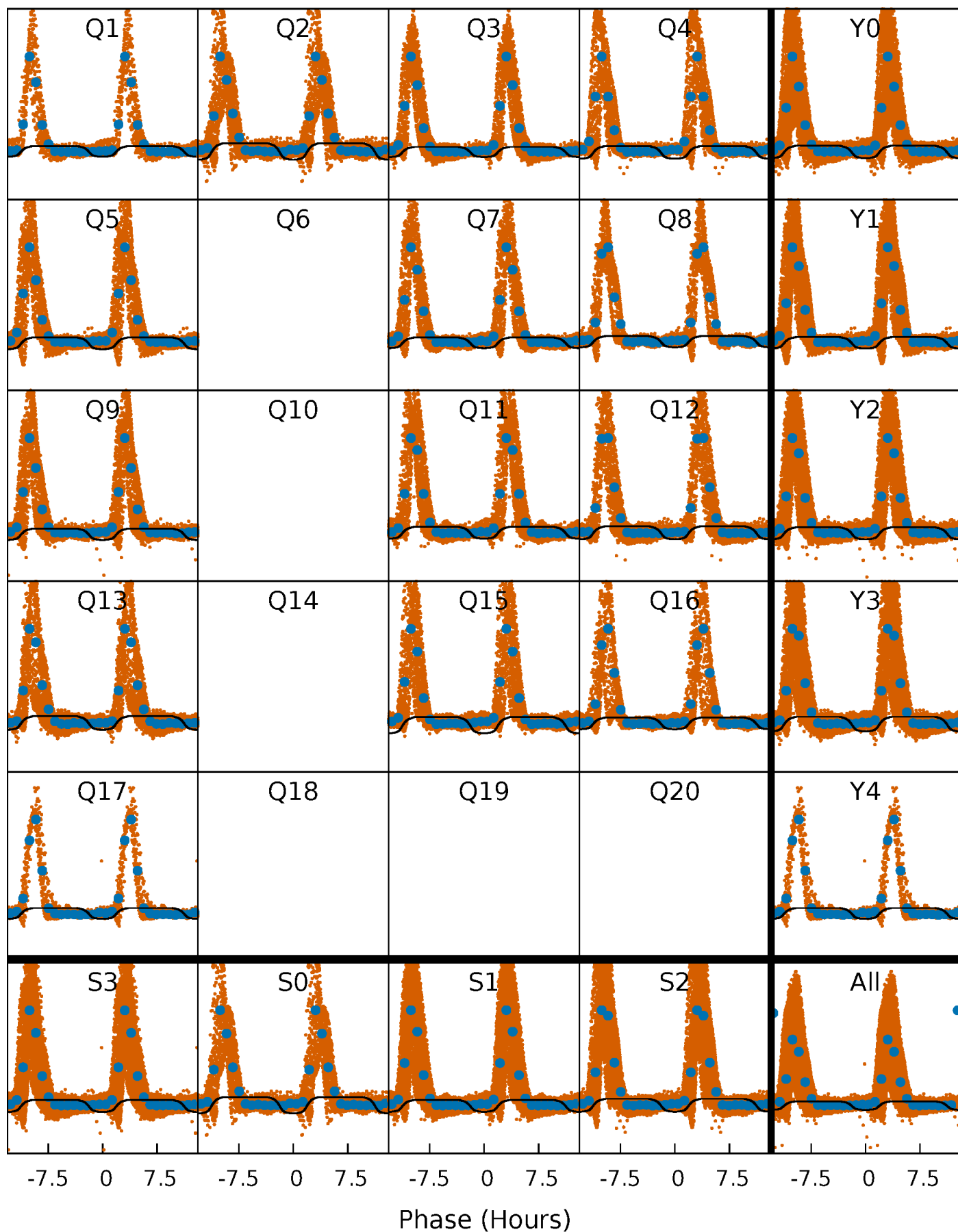
PDC Quarter-Phased Transit Curves

TCE 004484128-01 P= 0.547858 Days $T_0=131.673566$ (BKJD)



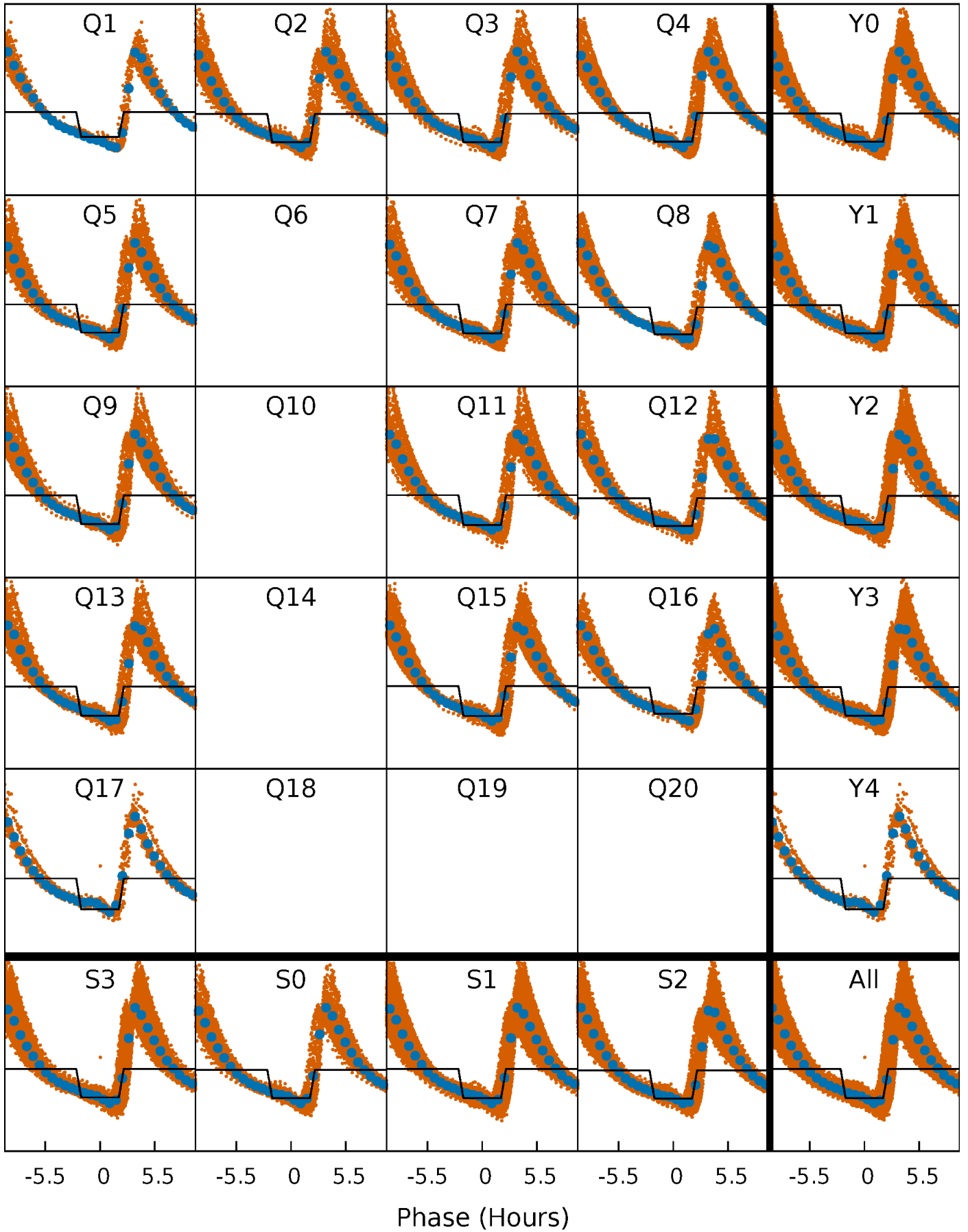
DV Quarter-Phased Transit Curves

TCE 004484128-01 P= 0.547858 Days $T_0=131.673566$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

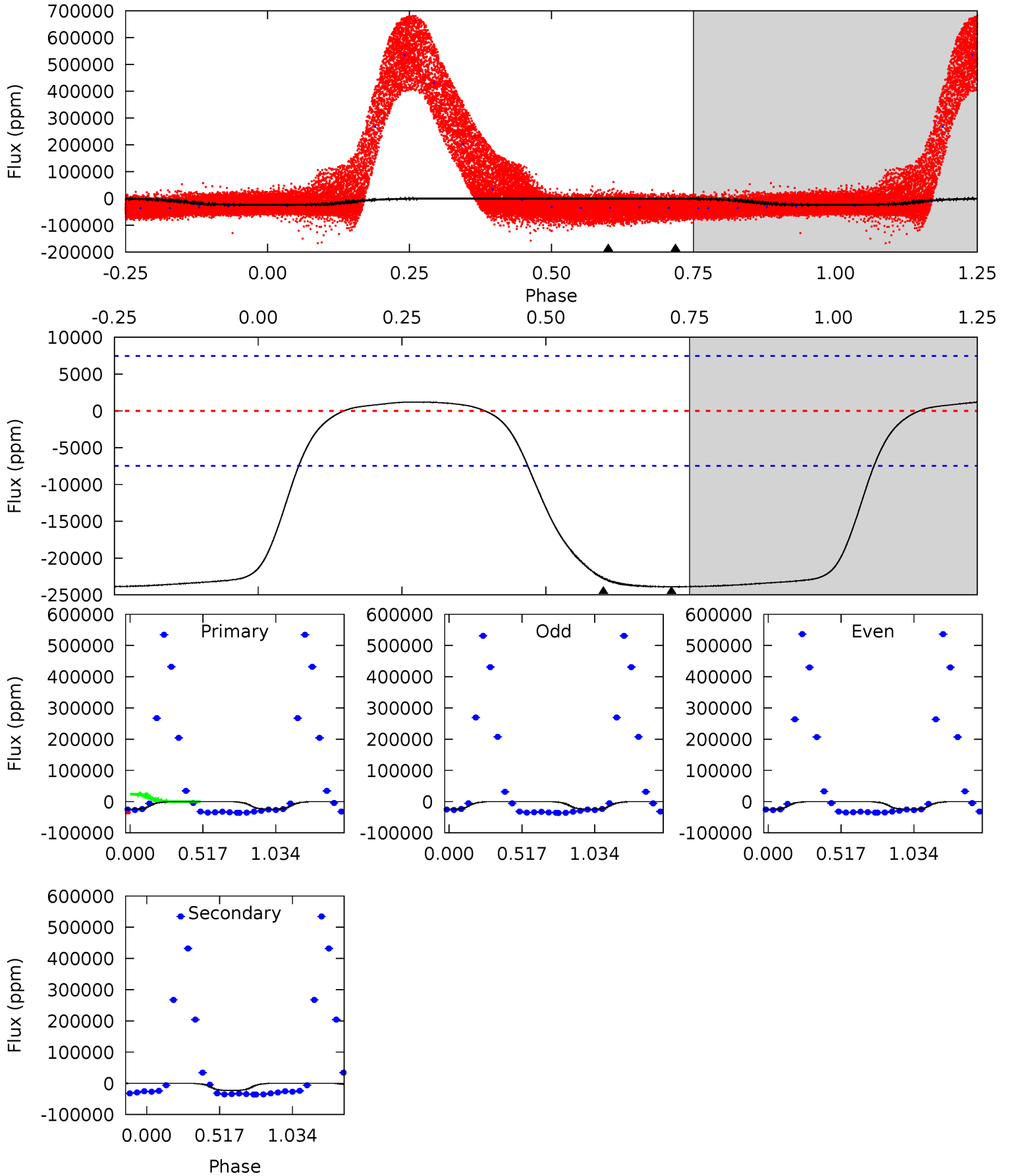
TCE 004484128-01 P= 0.547859 Days $T_0=131.664766$ (BKJD)



DV Model-Shift Uniqueness Test

004484128-01, P = 0.547858 Days, E = 131.125708 Days

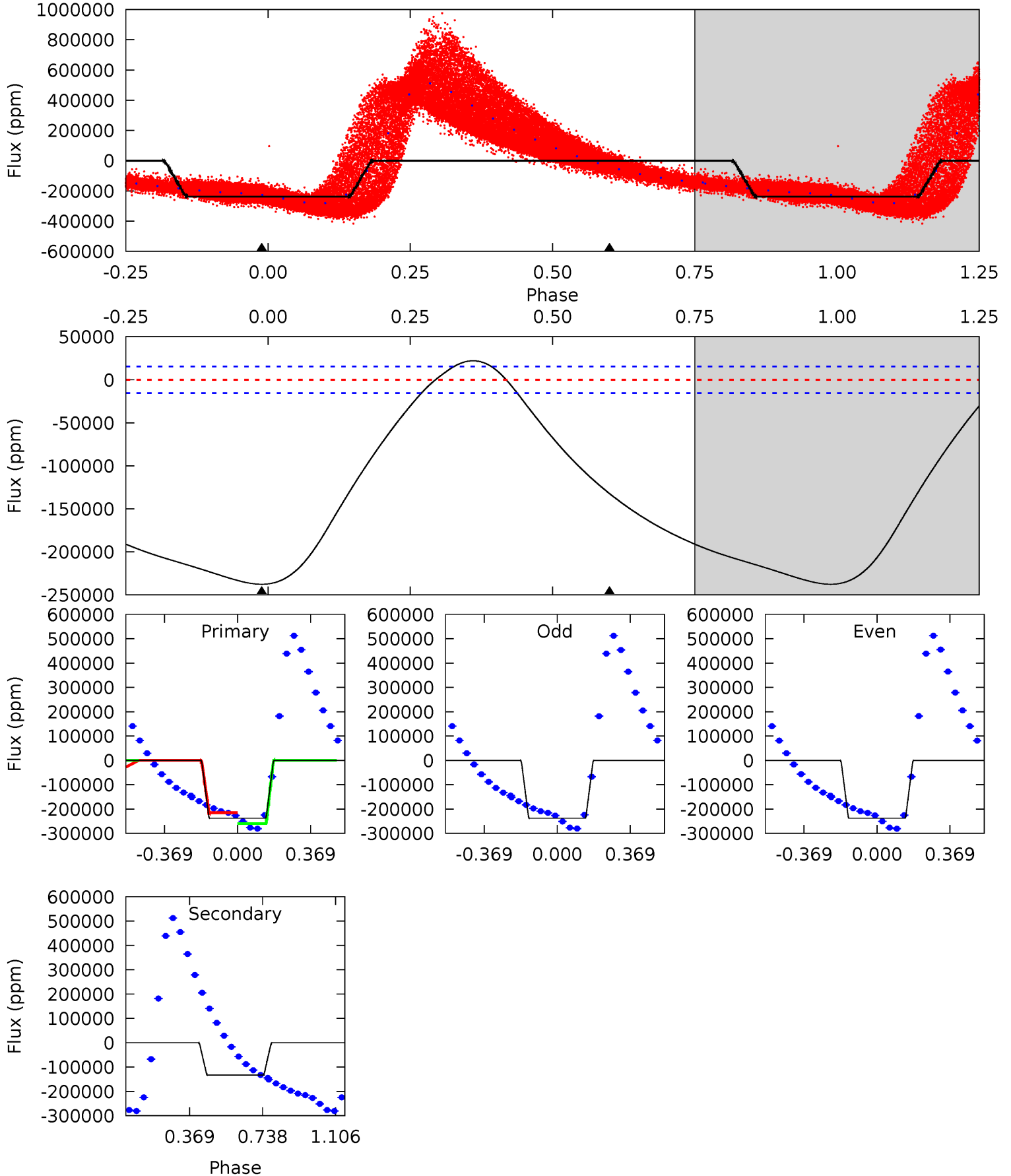
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	12.8	0	0	4.21	0.65	0.69	13.5	13.5	12.8	12.8	0.06	-2.26	0.05	9.24



Alt Model-Shift Uniqueness Test

004484128-01, P = 0.547859 Days, E = 131.116907 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
66.0	36.7	0	0	4.28	0.90	4.87	66.0	66.0	36.7	36.7	0.01	0.98	0.09	9.08



Stellar Parameters For KIC 004484128

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7056^{+272}_{-408}	$3.646^{+0.612}_{-0.108}$	$-0.560^{+0.300}_{-0.300}$	$3.092^{+0.441}_{-1.872}$	$1.544^{+0.195}_{-0.454}$	$0.074^{+0.676}_{-0.023}$
	+4%/-6%	+17%/-3%	+54%/-54%	+14%/-61%	+13%/-29%	+919%/-31%
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 004484128-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-22757 ± 1774	$82.57^{+8.79}_{-27.01}$	6004^{+526}_{-918}	4373^{+627}_{-672}	$0.450^{+0.437}_{-0.098}$
Alt.	-132248 ± 3602	$162.14^{+16.70}_{-54.33}$	5978^{+528}_{-920}	5557^{+396}_{-326}	$0.766^{+0.729}_{-0.146}$

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

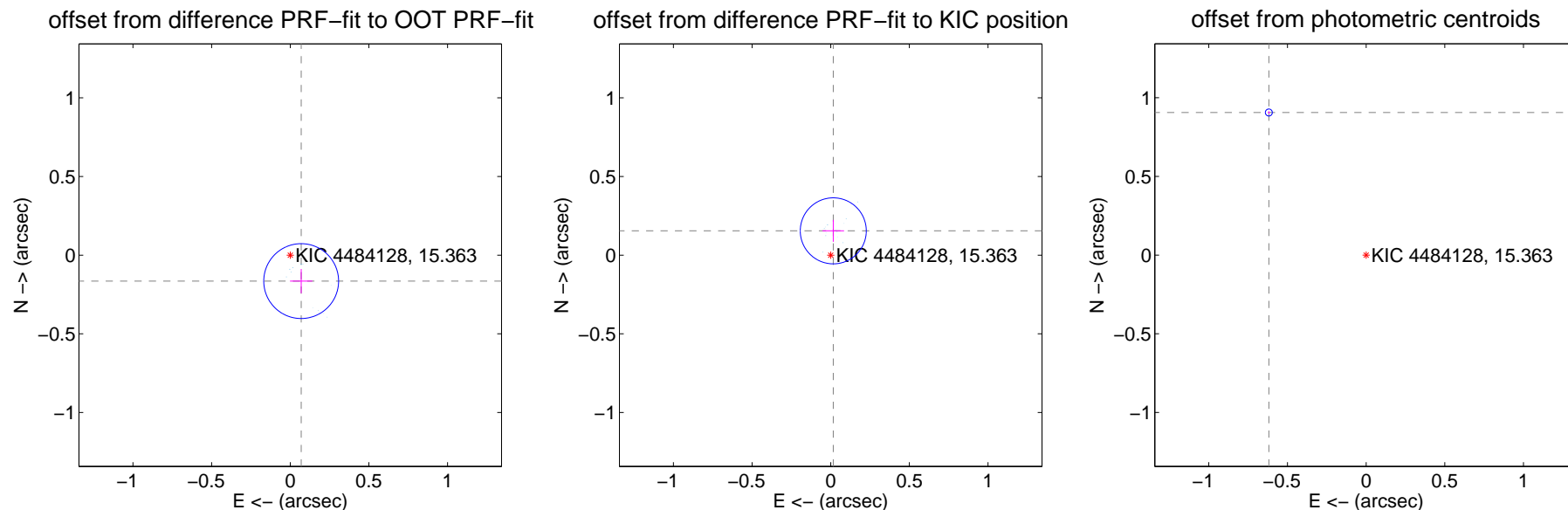
DV Centroid Data

Supplemental centroid analysis for 004484128-01. Kepler magnitude: 15.36. Transit SNR 118.70

There are 14 quarters with good PRF difference image offsets

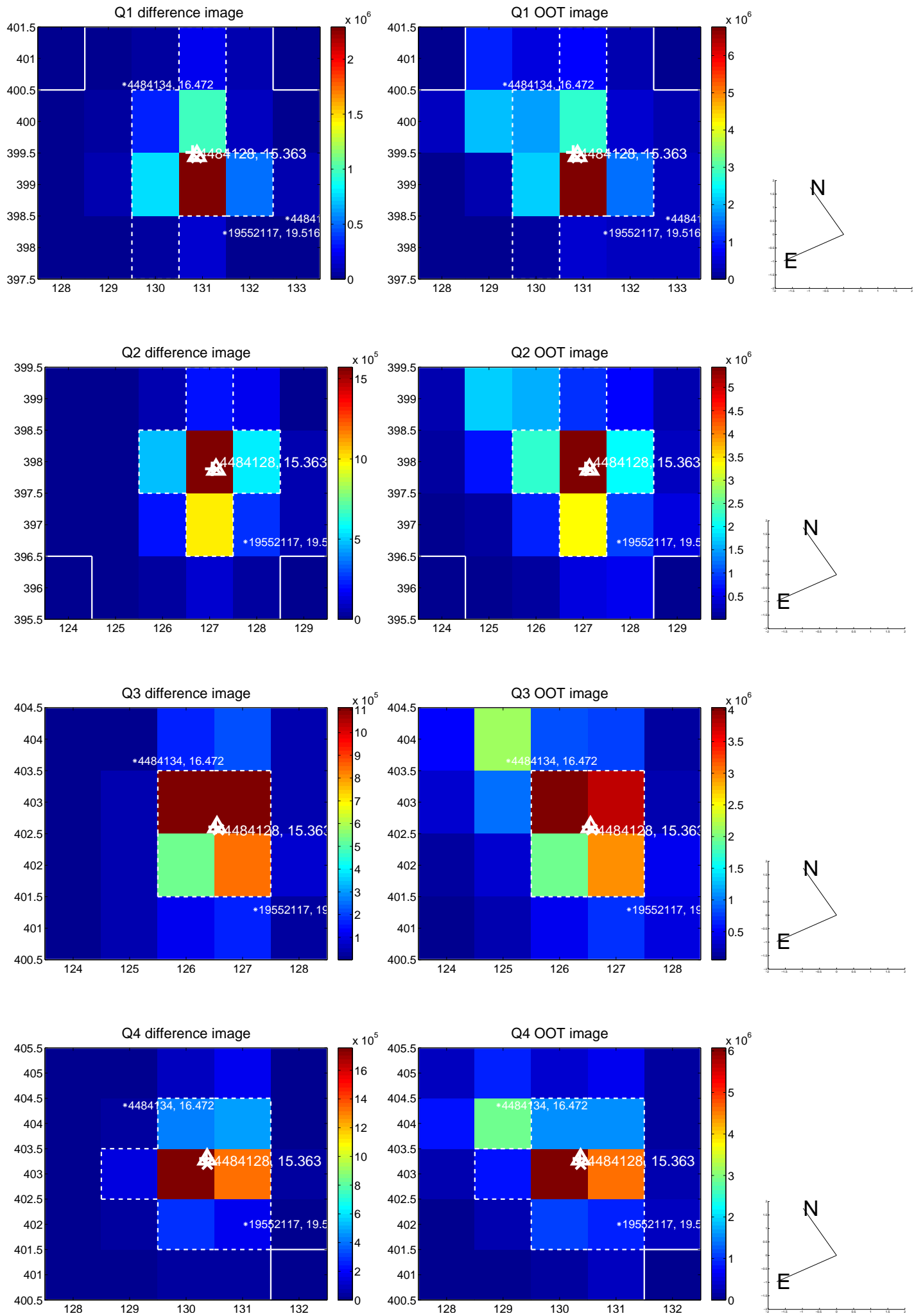
The direct PRF centroid is offset from the target star catalog position by about 0.57 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.179 ± 0.079	2.26	-0.069 ± 0.071	-0.165 ± 0.077
PRF-fit source offset from KIC position	0.155 ± 0.070	2.22	-0.016 ± 0.069	0.155 ± 0.070
photometric centroid source offset	1.10 ± 0.01	148.06	0.62 ± 0.00	0.91 ± 0.01

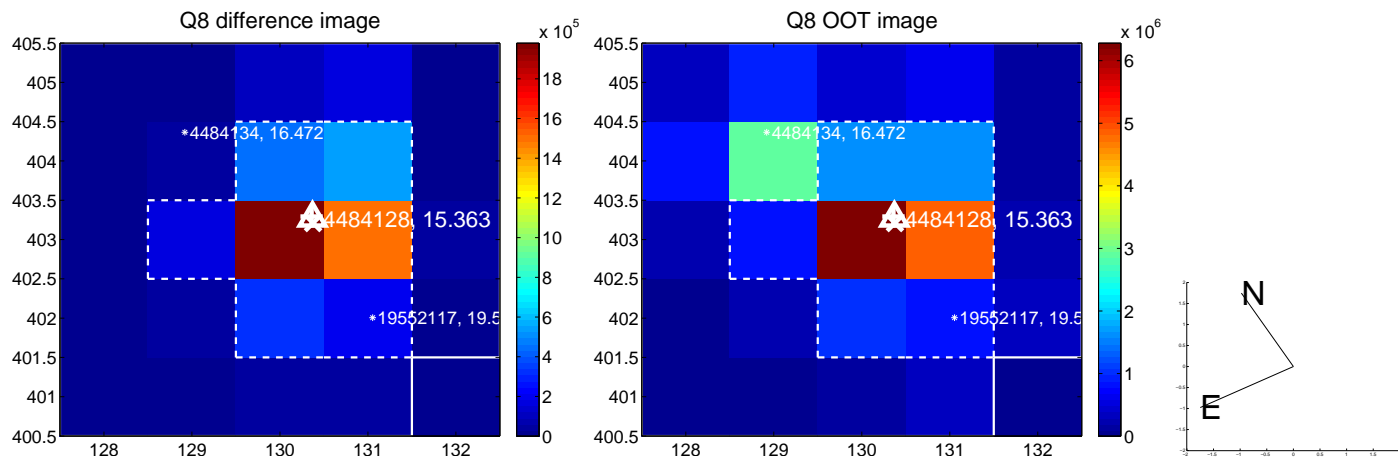
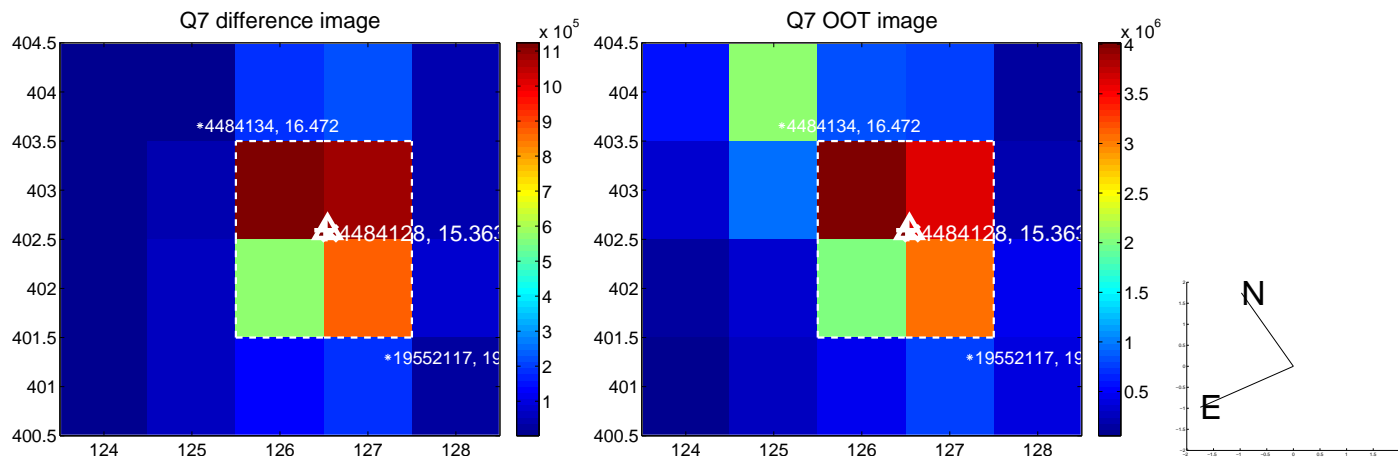
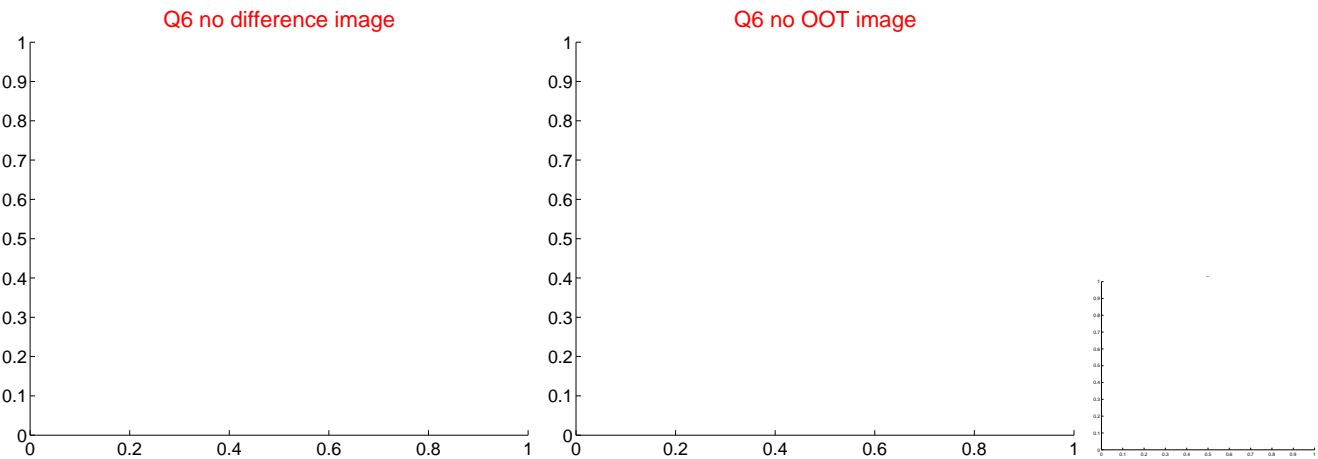
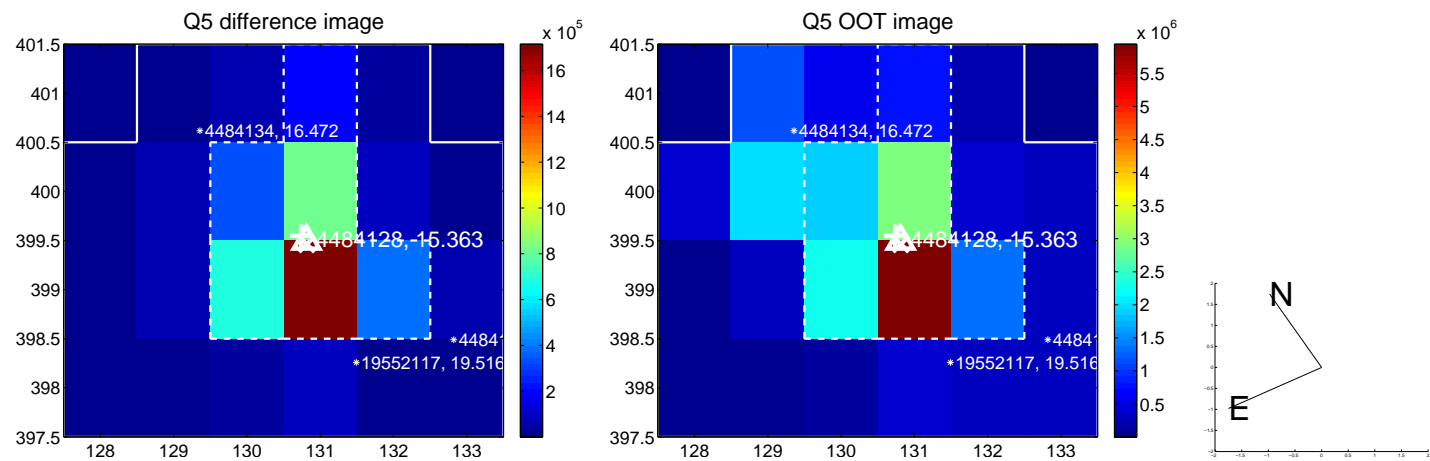


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

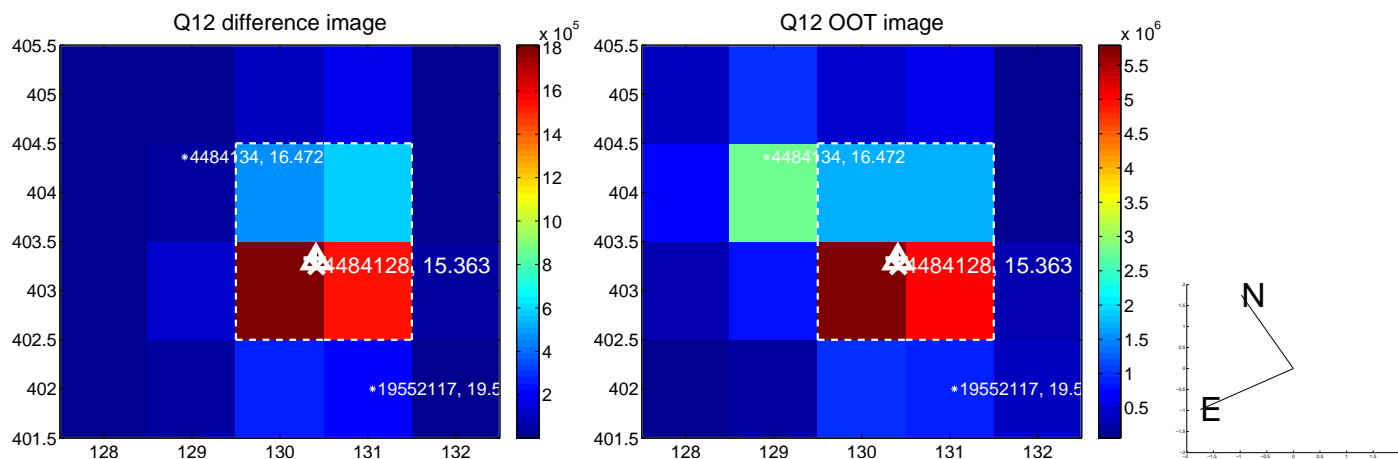
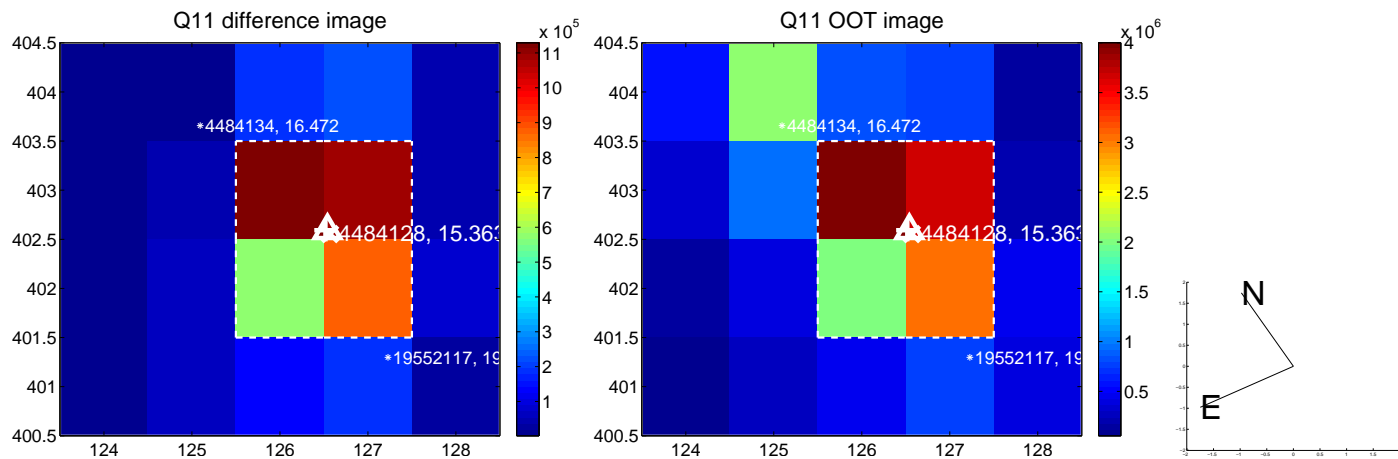
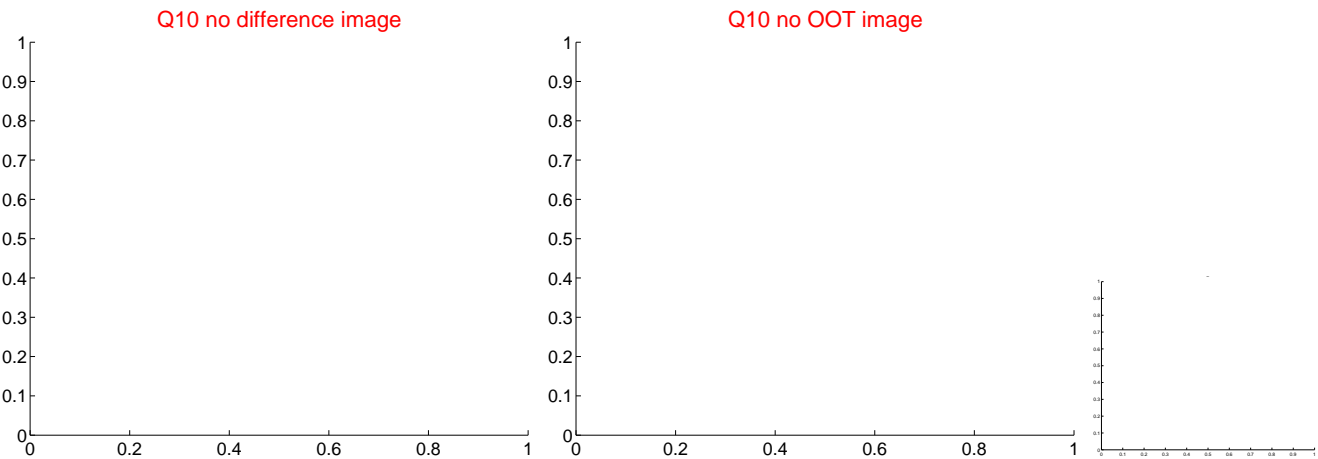
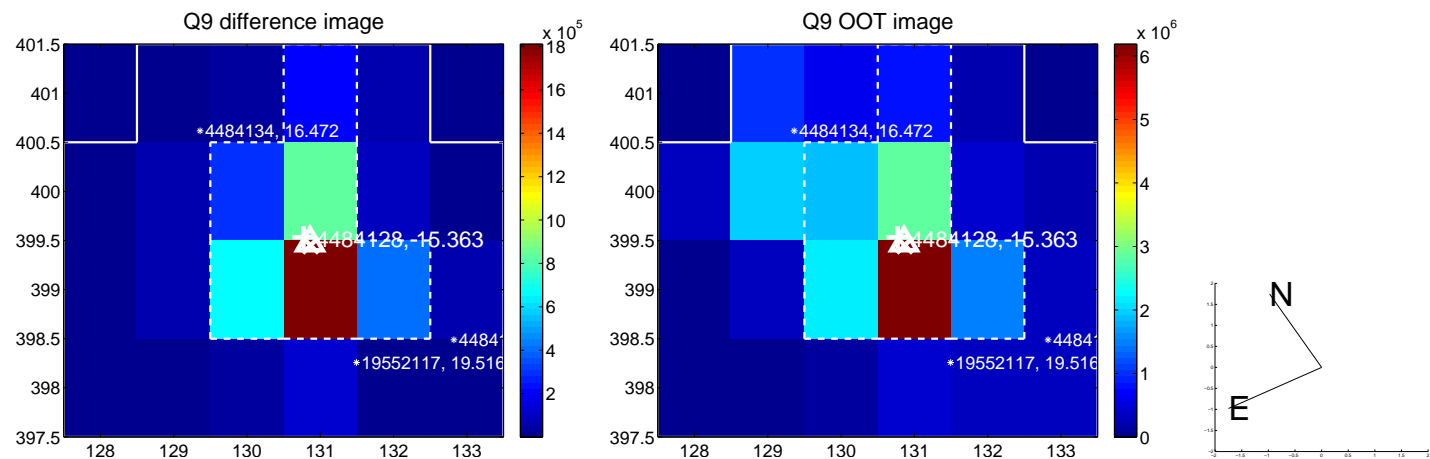
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



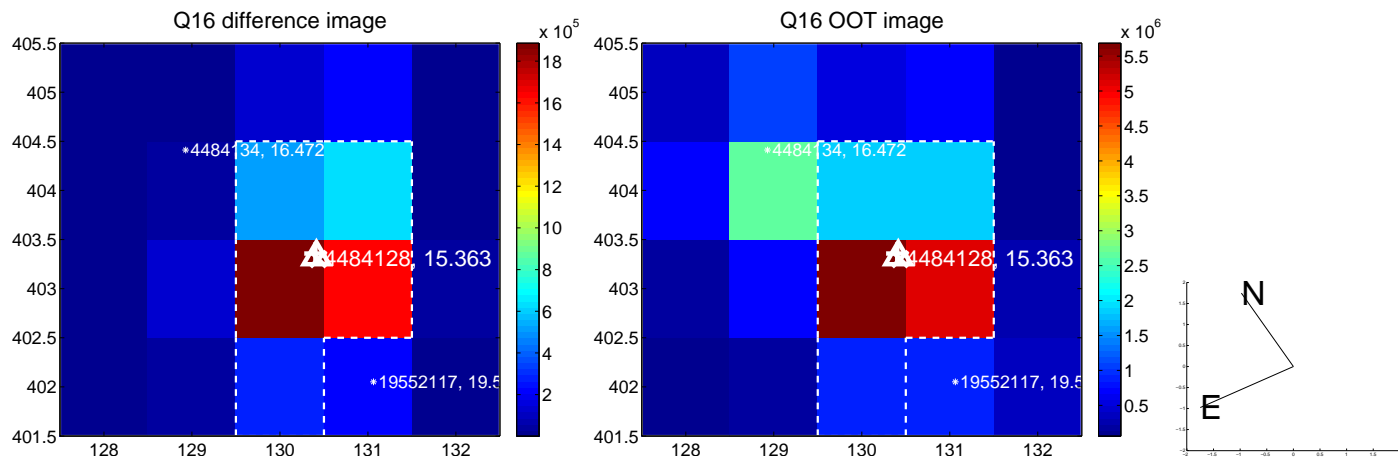
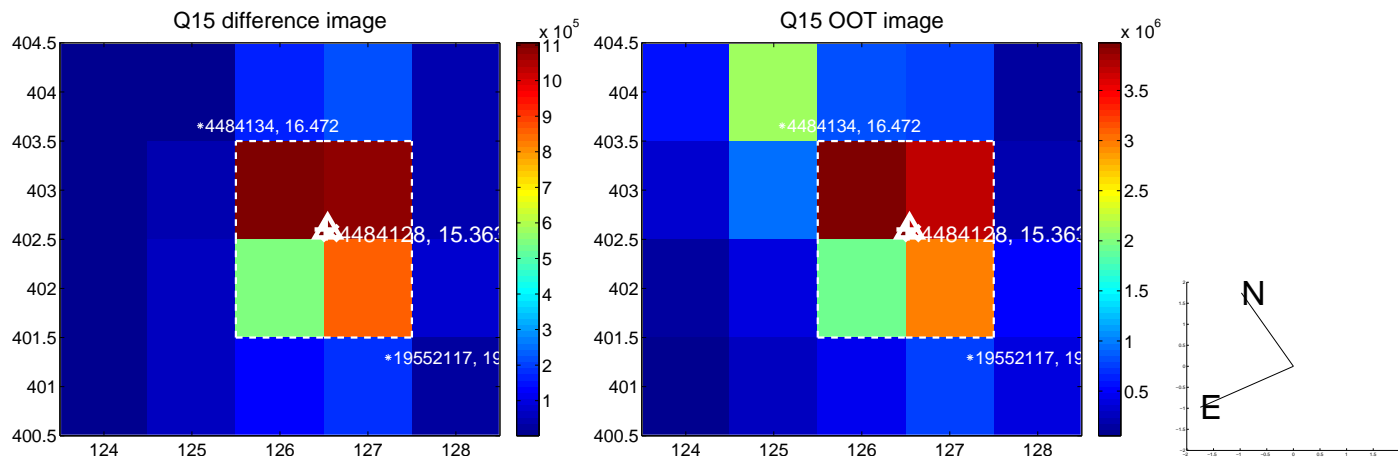
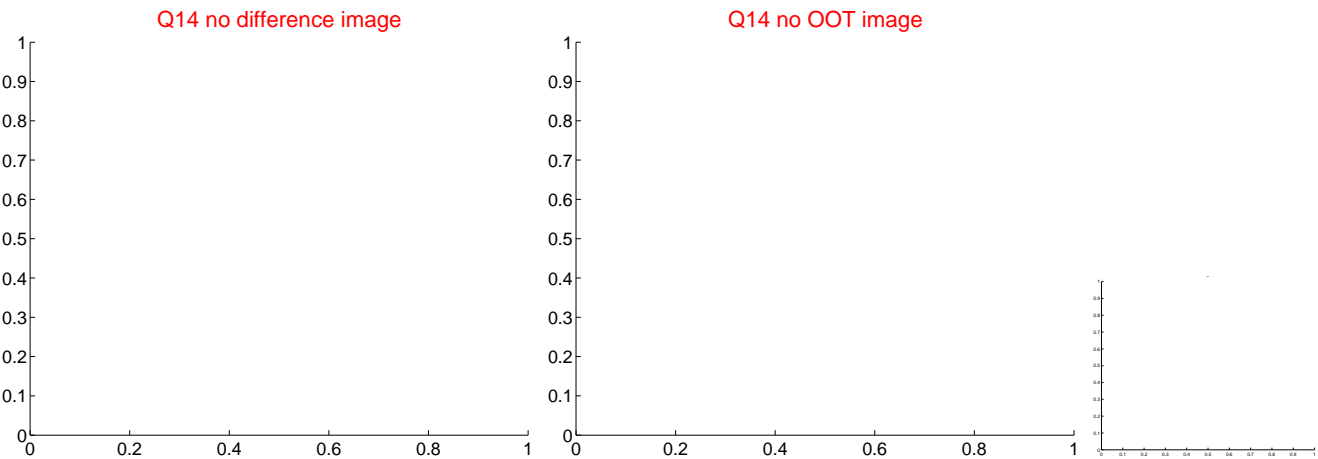
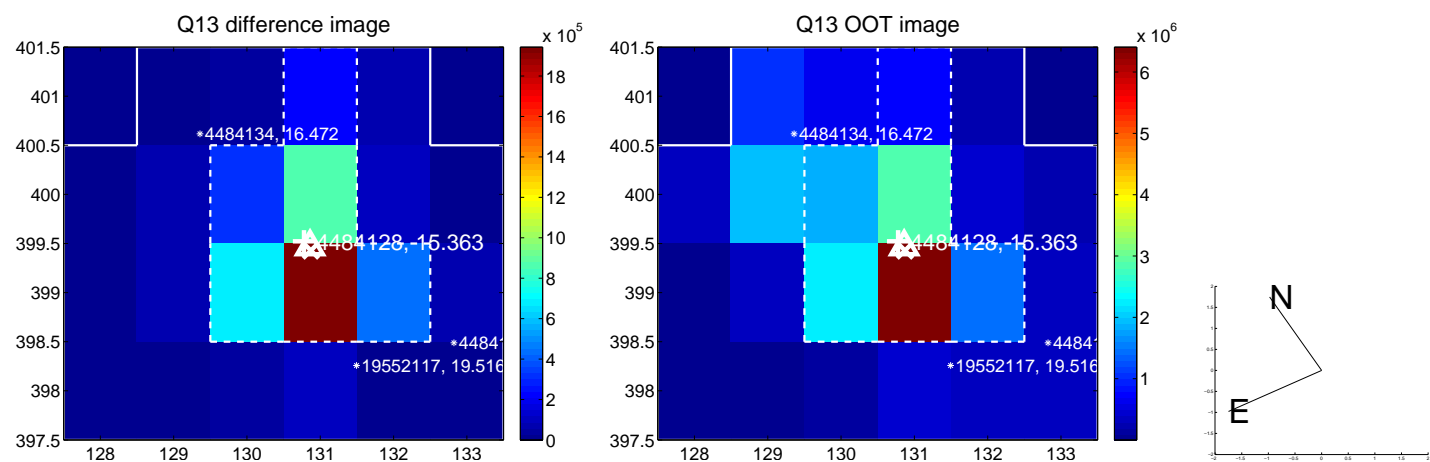
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



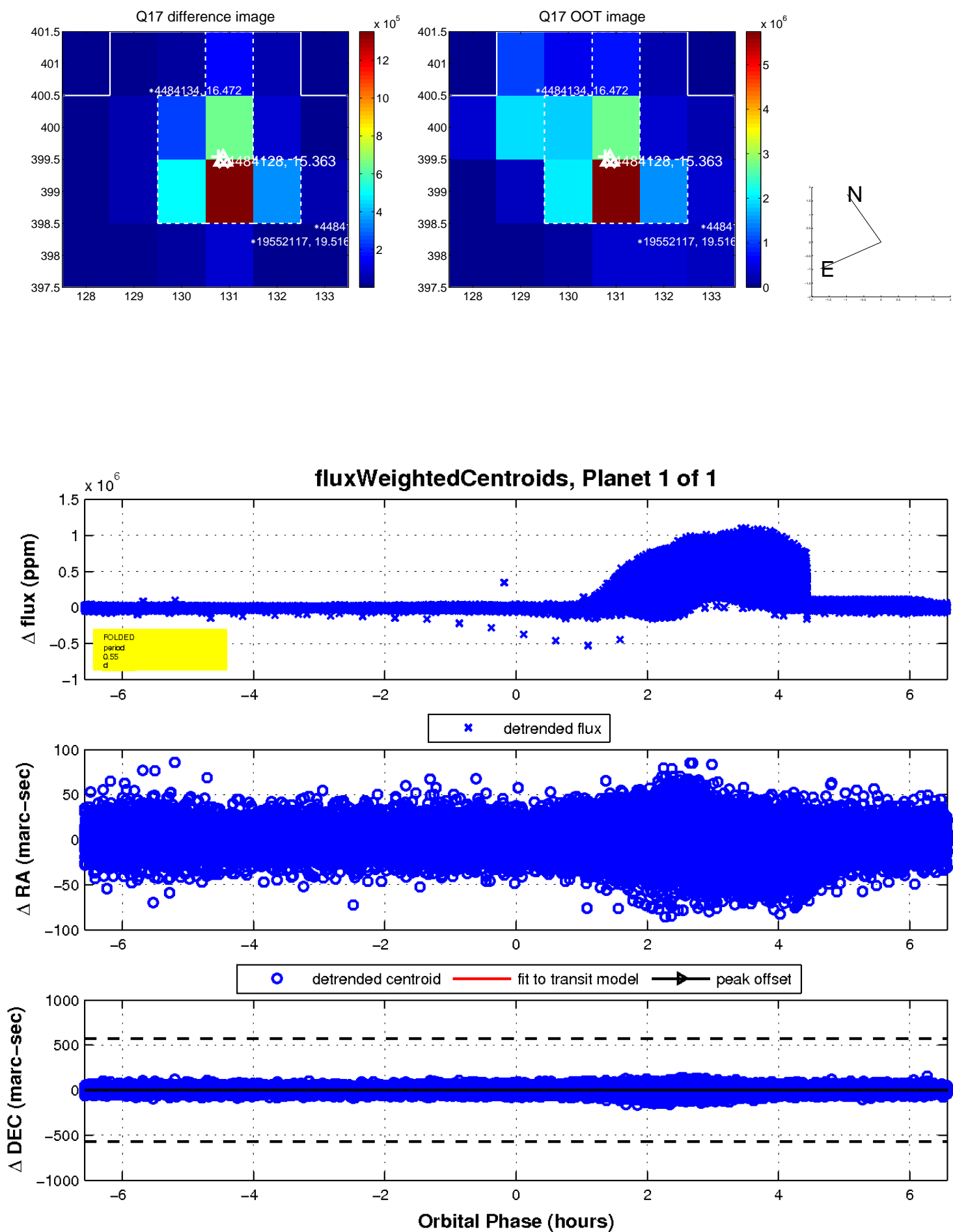
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

