

KIC 005479106

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})
005479106-01	OBS	No	5.040608	134.241392	117.8	27.613	9.9	13.4	2.25	5952	5.07	1415.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005479106-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

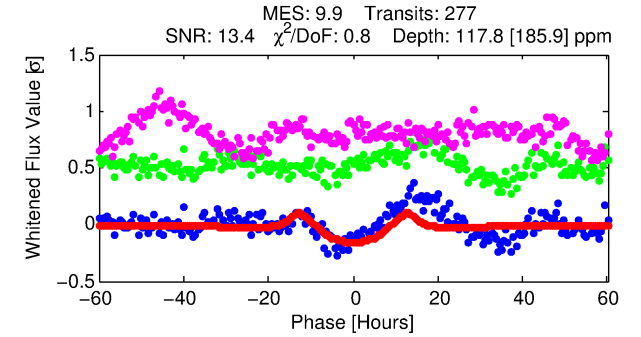
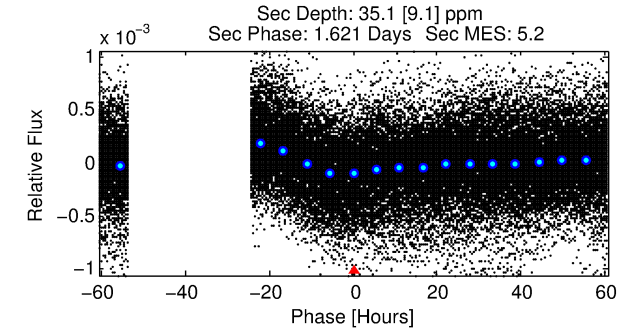
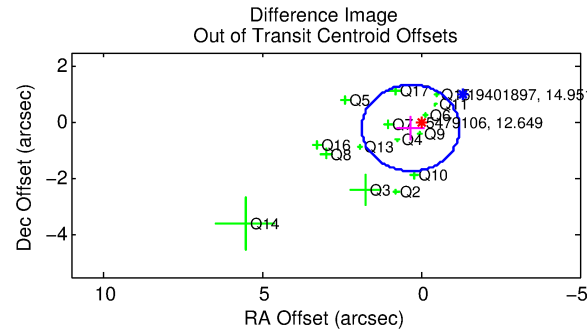
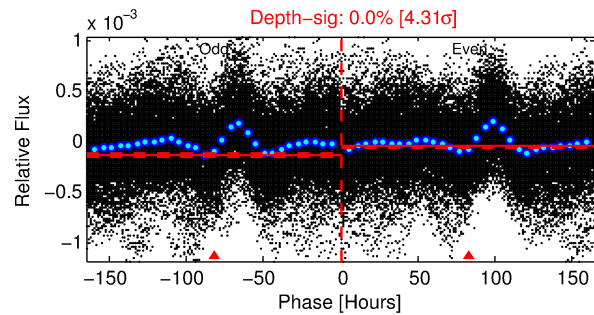
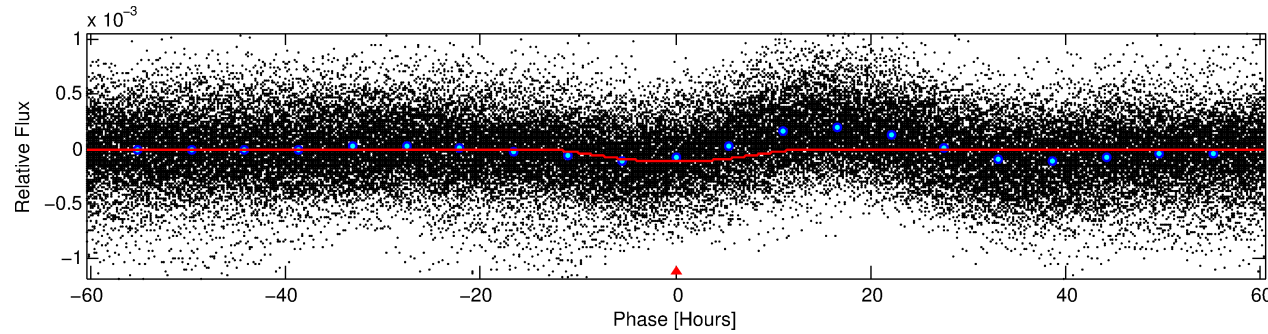
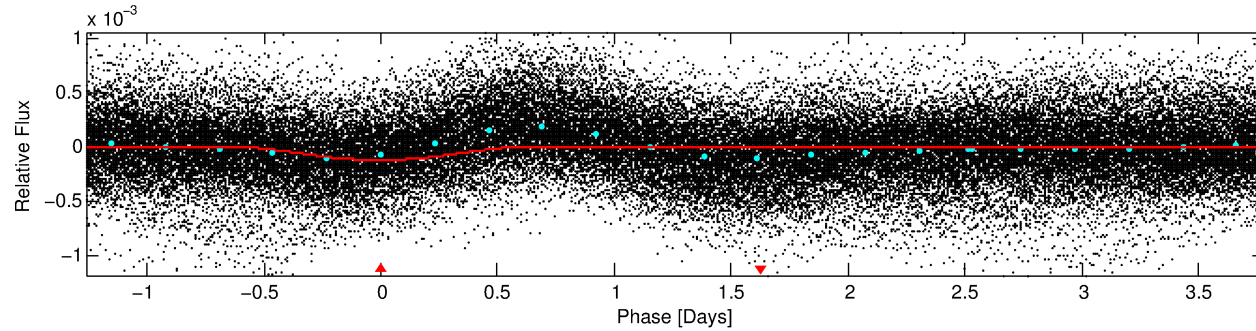
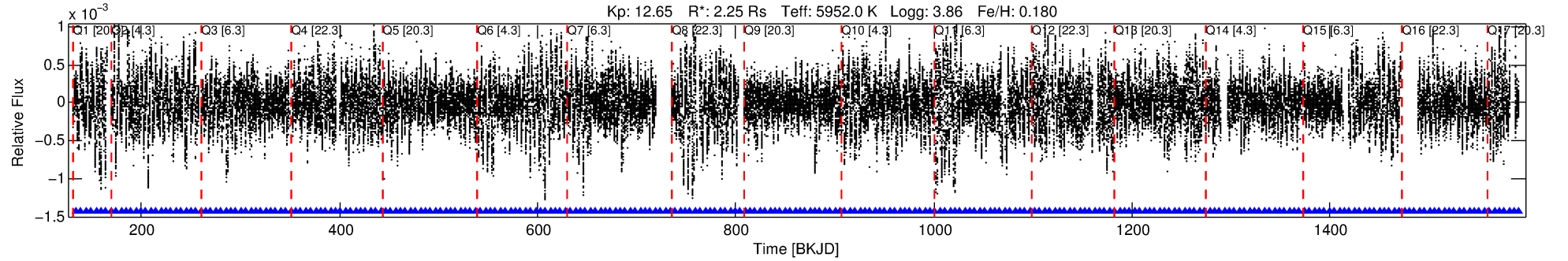
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005479106-01

No Significant Match Found

DV One-Page Summary

KIC: 5479106 Candidate: 1 of 1 Period: 5.041 d



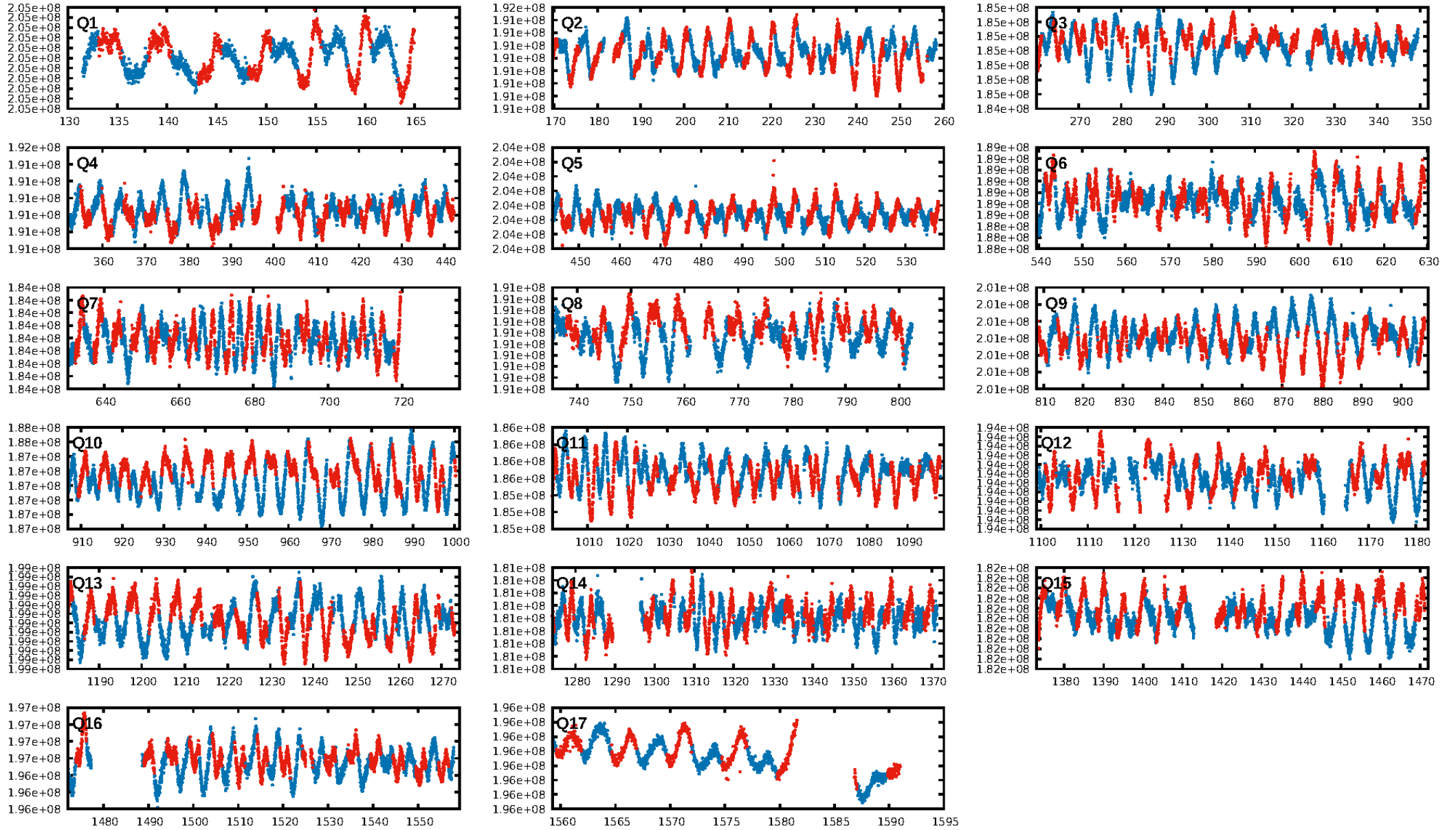
DV Fit Results:

Period = 5.04061 [0.00016] d
Epoch = 134.2414 [0.0255] BKJD
Rp/R* = 0.0206 [0.0112]
a/R* = 1.05 [0.00]
b = 1.00 [0.01]
Seff = 1415.87 [739.67]
Teq = 1564 [204] K
Rp = 5.07 [3.25] Re
a = 0.0634 [0.0202] AU
Ag = 3.03 [3.71] [0.55 σ]
Teffp = 3190 [900] K [1.76 σ]

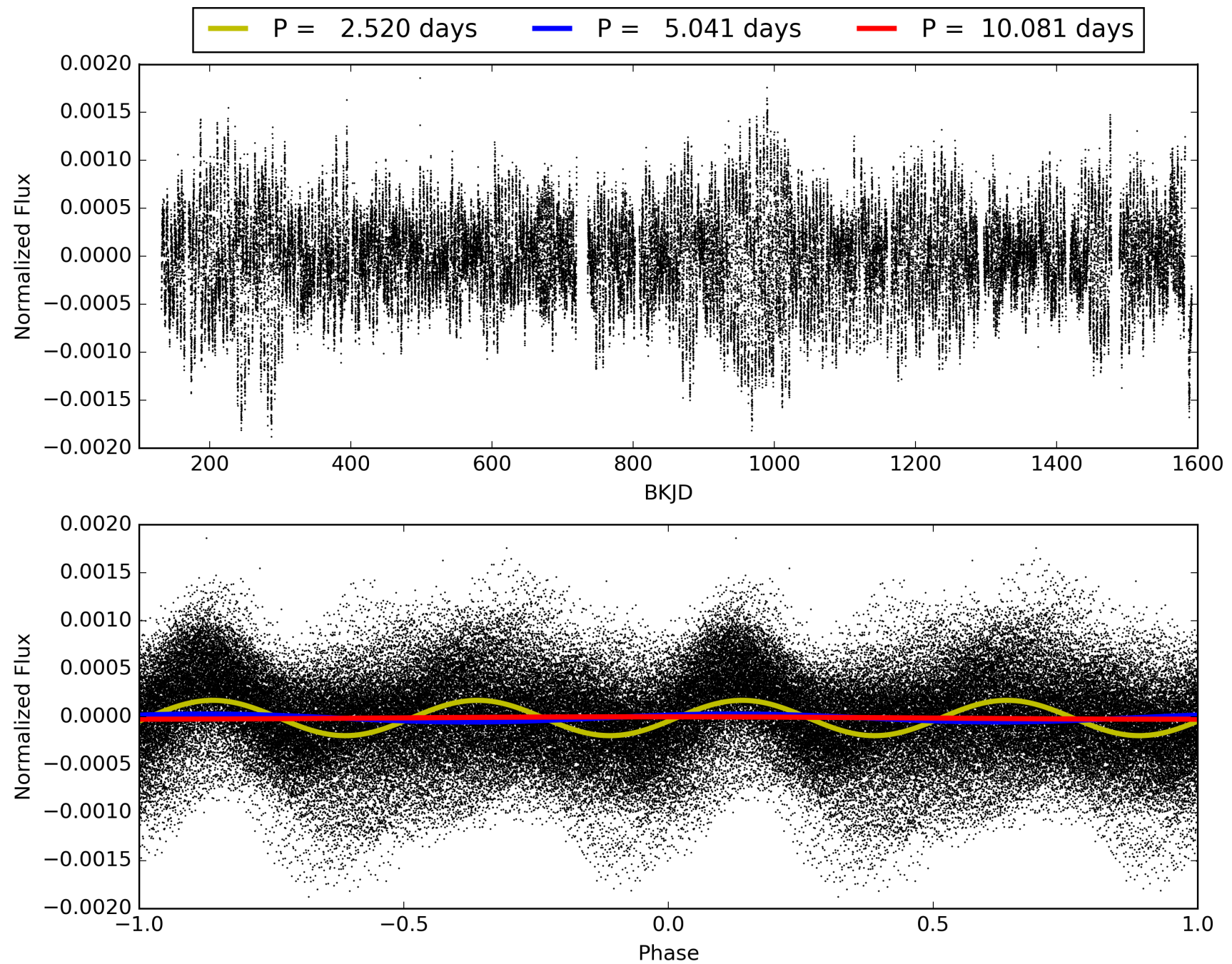
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.74e-23
RollingBand-fgt: 1.00 [264/264]
GhostDiagnostic-chr: 1.776
Centroid-sig: 0.3%
Centroid-so: 0.455 arcsec [2.09 σ]
OotOffset-rm: 0.378 arcsec [0.74 σ]
KicOffset-rm: 0.182 arcsec [0.48 σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005479106-01, PDC Light Curves

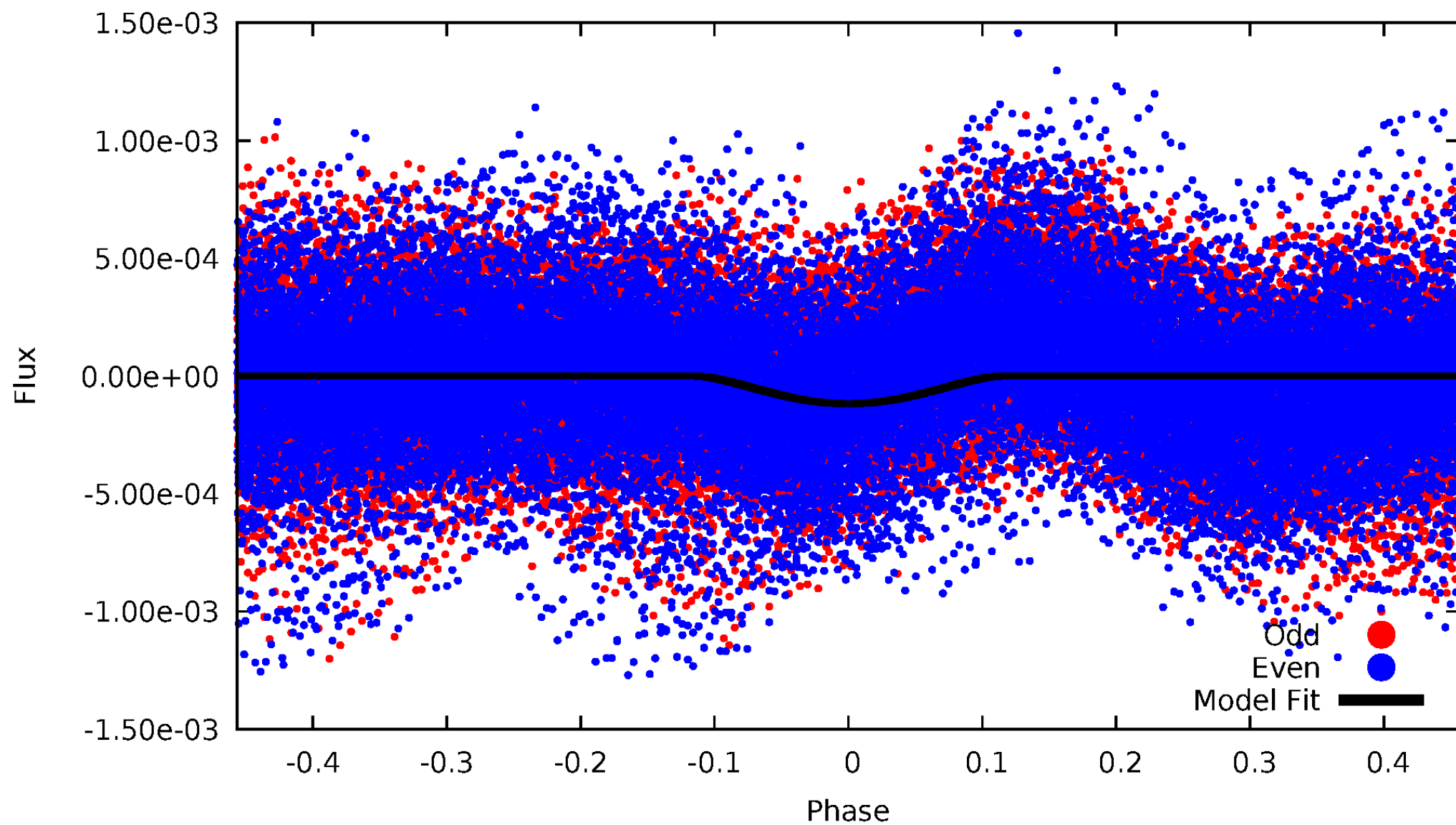


TCE 005479106-01



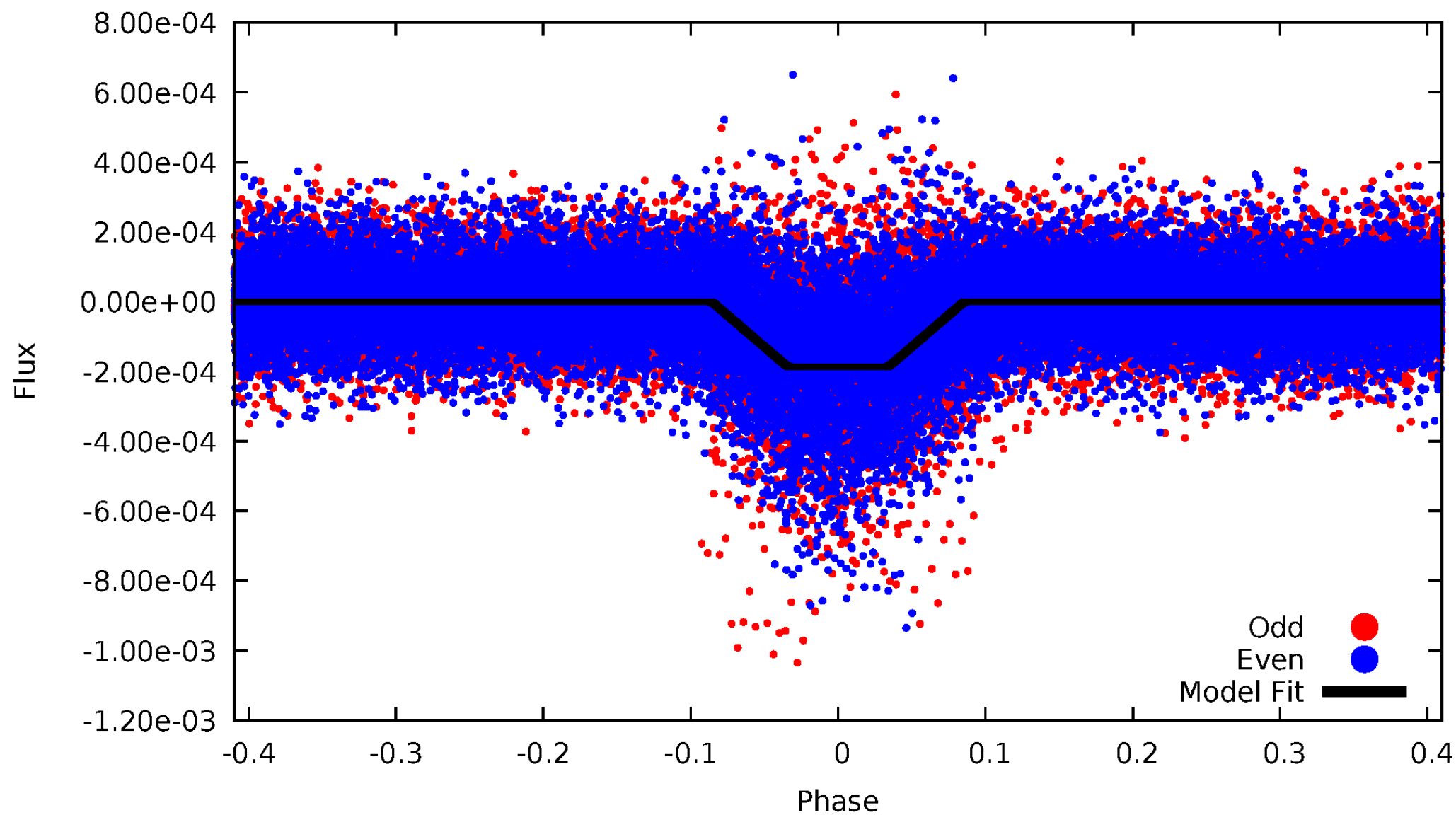
DV Odd/Even

TCE 005479106-01

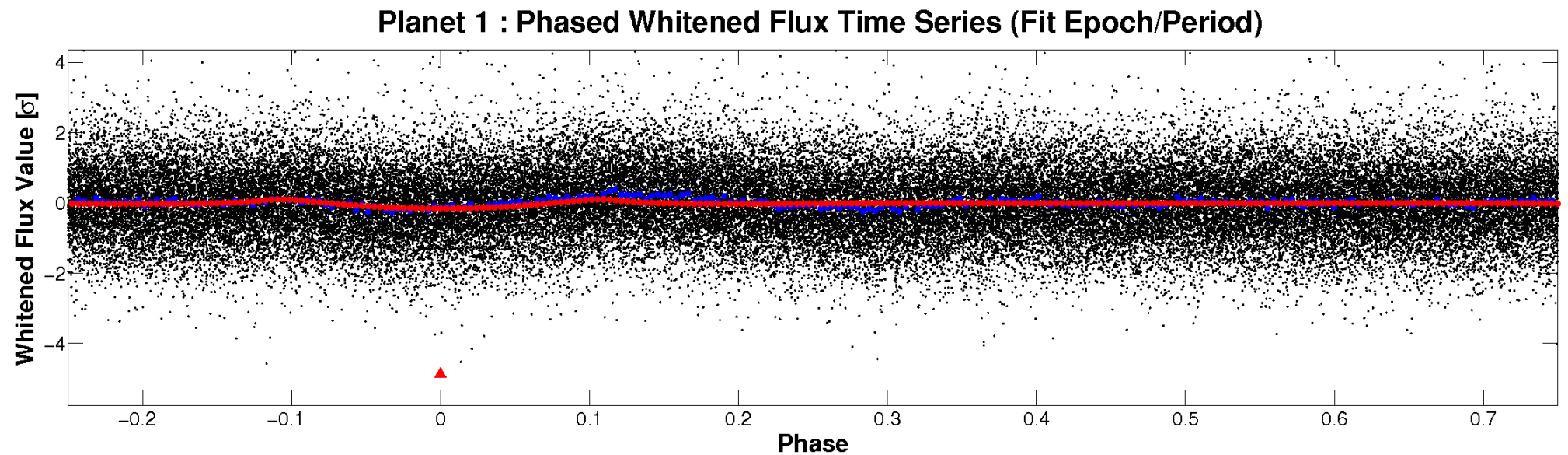
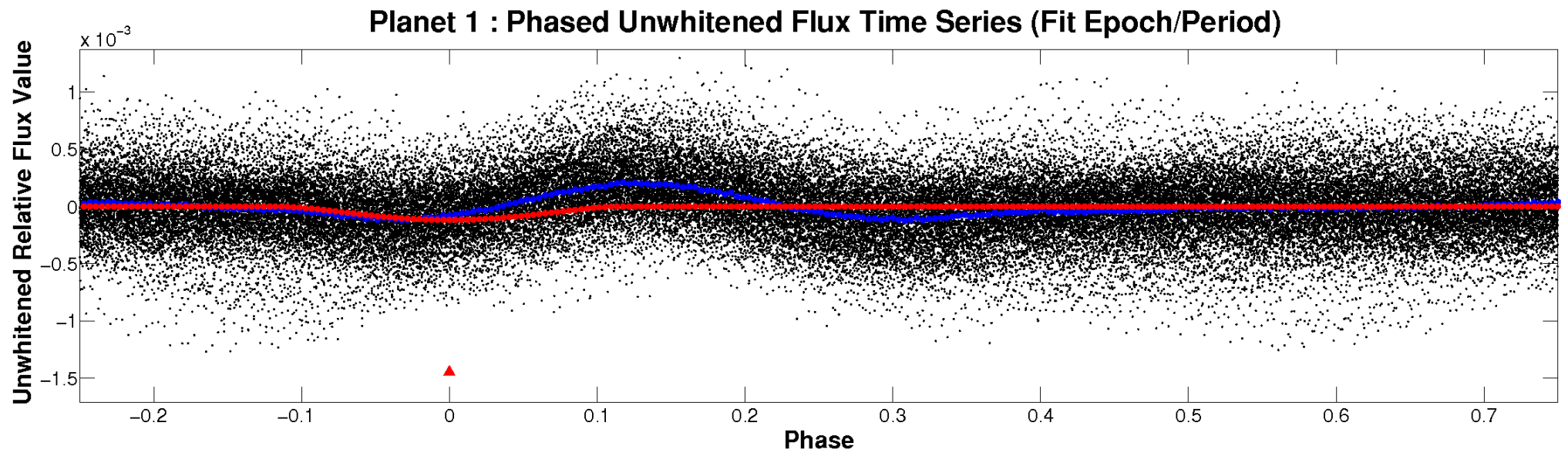


ALT Odd/Even

TCE 005479106-01

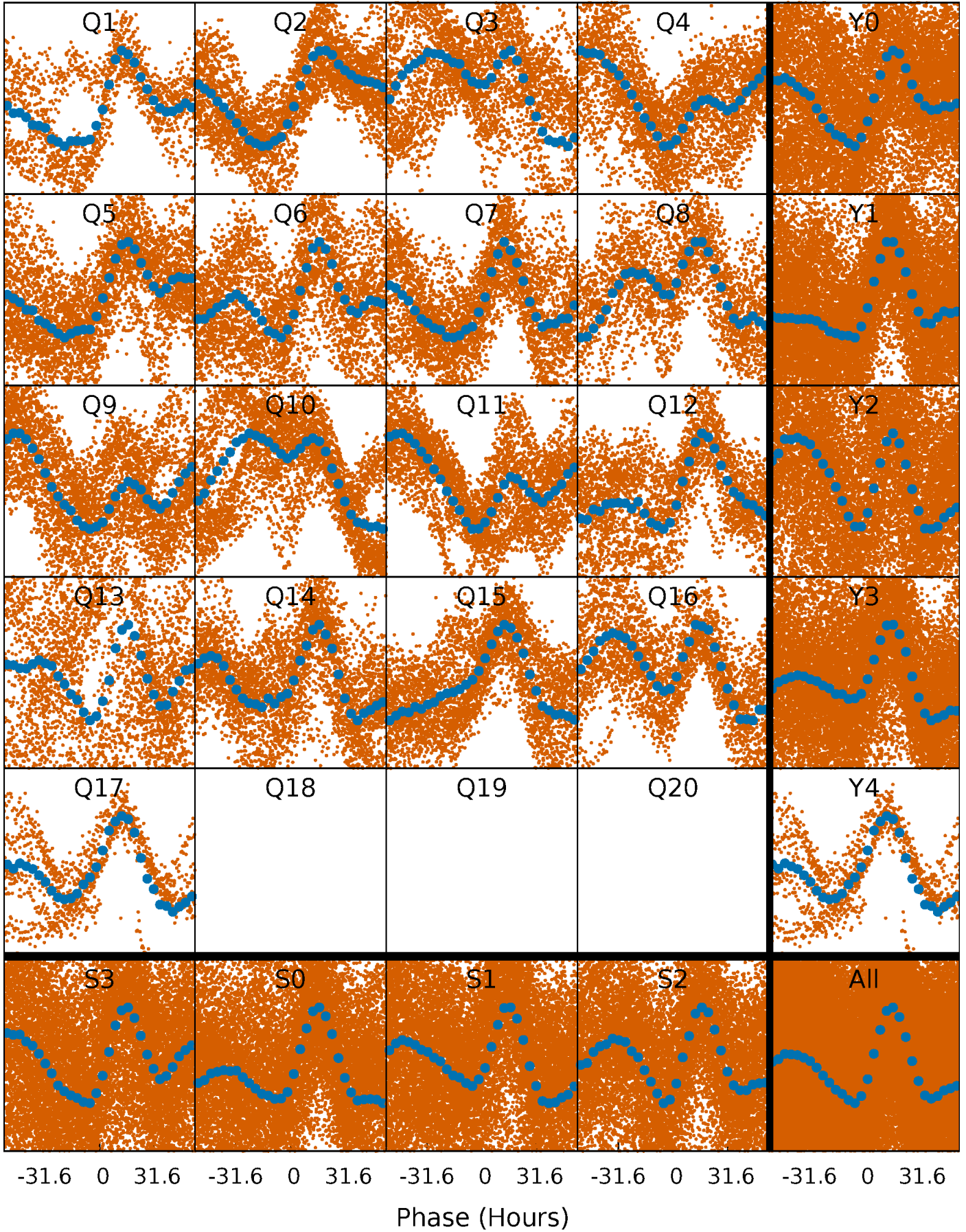


Non-Whitened Vs. Whitened Light Curve



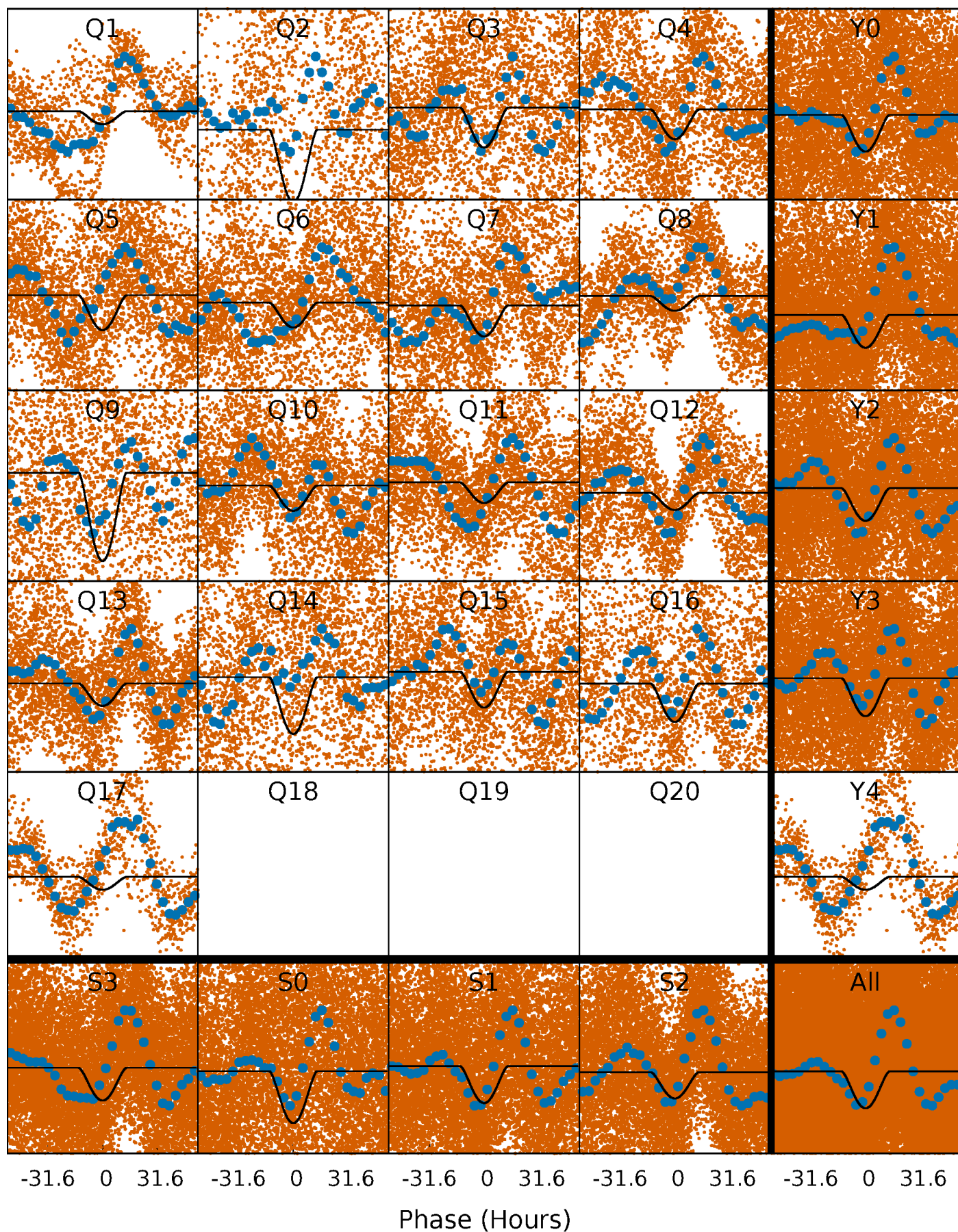
PDC Quarter-Phased Transit Curves

TCE 005479106-01 P= 5.040608 Days $T_0=134.241392$ (BKJD)



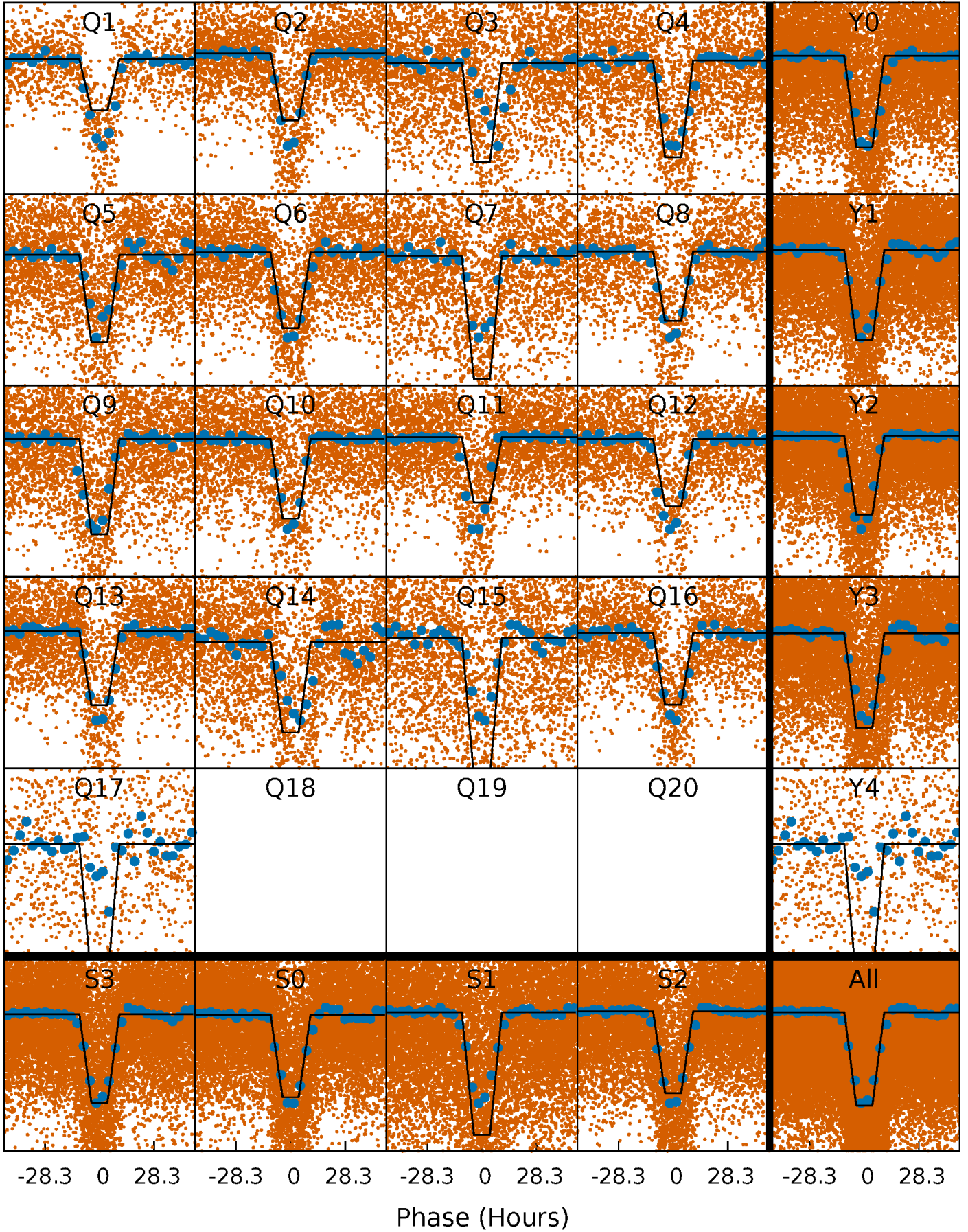
DV Quarter-Phased Transit Curves

TCE 005479106-01 P= 5.040608 Days $T_0=134.241392$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

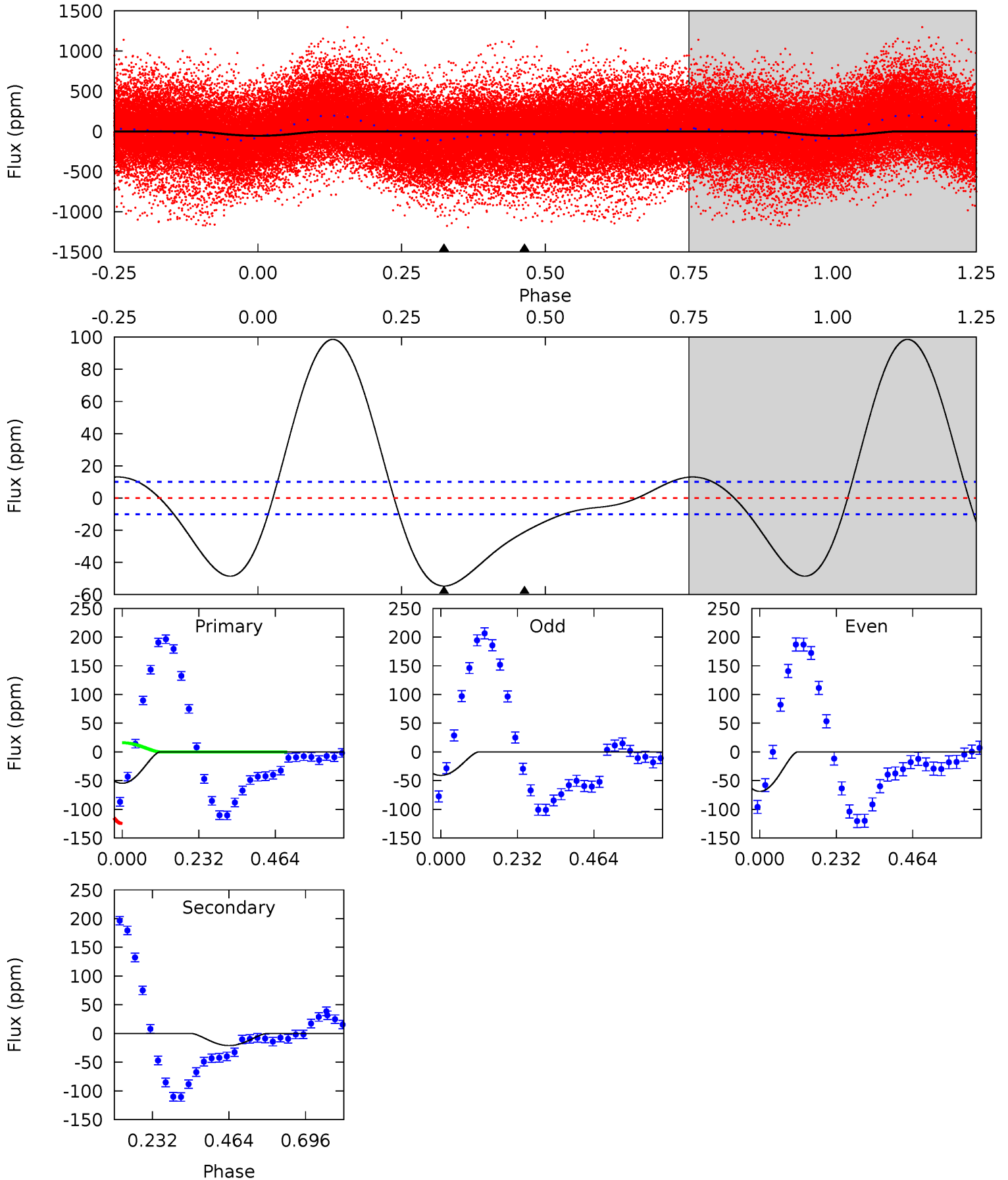
TCE 005479106-01 P= 5.040836 Days $T_0=134.128498$ (BKJD)



DV Model-Shift Uniqueness Test

005479106-01, P = 5.040608 Days, E = 129.200784 Days

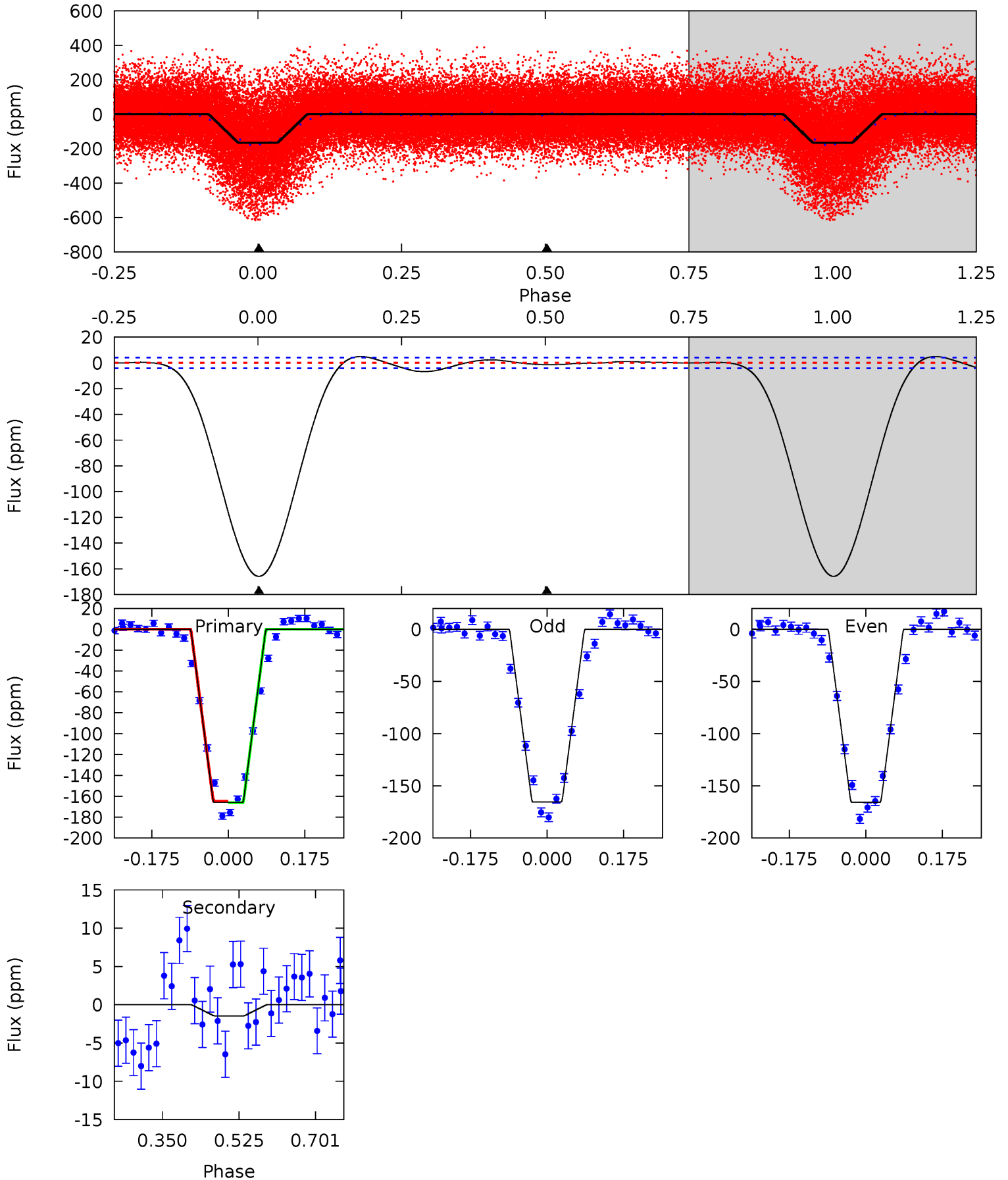
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.9	9.22	0	0	4.39	1.20	13.5	23.9	23.9	9.22	9.22	6.11	1.44	0.64	23.5



Alt Model-Shift Uniqueness Test

005479106-01, P = 5.040836 Days, E = 129.087662 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
178.4	1.57	0	0	4.45	1.36	3.38	178.4	178.4	1.57	1.57	0.11	0.91	0.03	0.70



Stellar Parameters For KIC 005479106

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5952^{+213}_{-196}	$3.860^{+0.292}_{-0.097}$	$0.180^{+0.200}_{-0.250}$	$2.250^{+0.413}_{-0.766}$	$1.336^{+0.182}_{-0.251}$	$0.165^{+0.342}_{-0.052}$
	+4%/-3%	+8%/-3%	+111%/-139%	+18%/-34%	+14%/-19%	+207%/-32%
Source	PHO1	FLK73	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 005479106-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-21 ± 2	$4.77^{+2.90}_{-2.41}$	2131^{+159}_{-195}	3222^{+945}_{-469}	$2.041^{+6.379}_{-1.246}$
Alt.	-1 ± 1	$3.39^{+2.63}_{-2.00}$	2144^{+151}_{-186}	-2193^{+5267}_{-354}	$0.208^{+1.358}_{-0.160}$

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

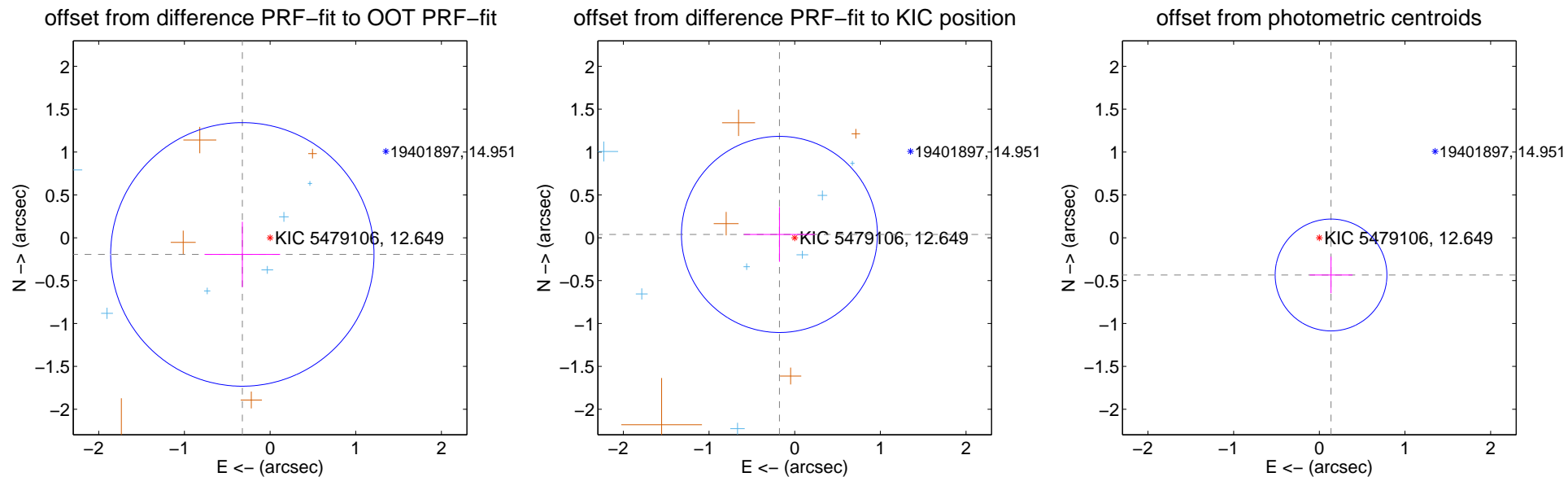
DV Centroid Data

Supplemental centroid analysis for 005479106-01. Kepler magnitude: 12.65. Transit SNR 13.44

There are 7 quarters with good PRF difference image offsets

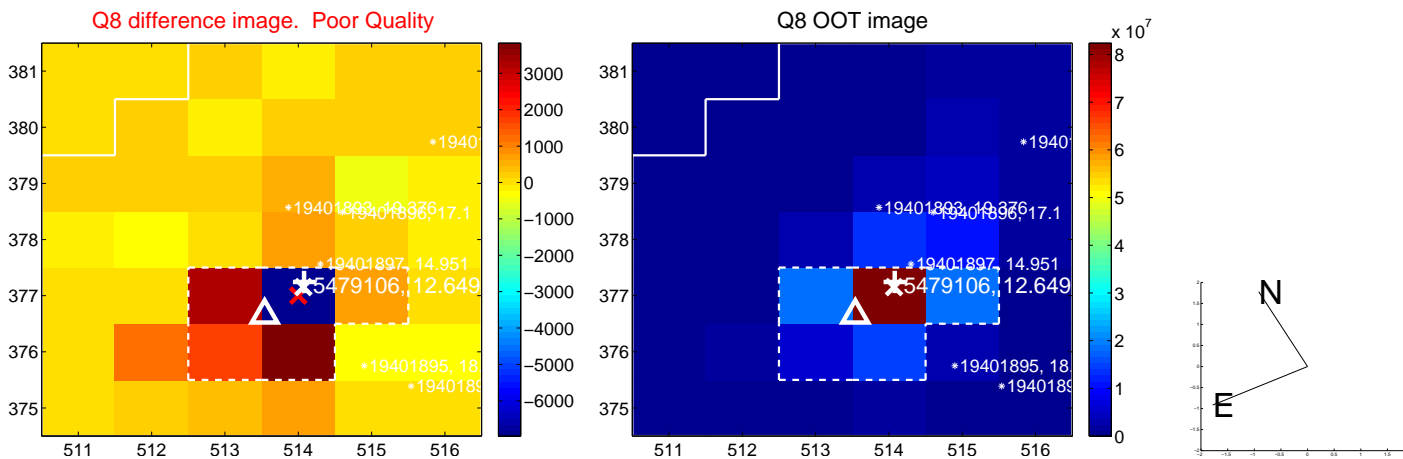
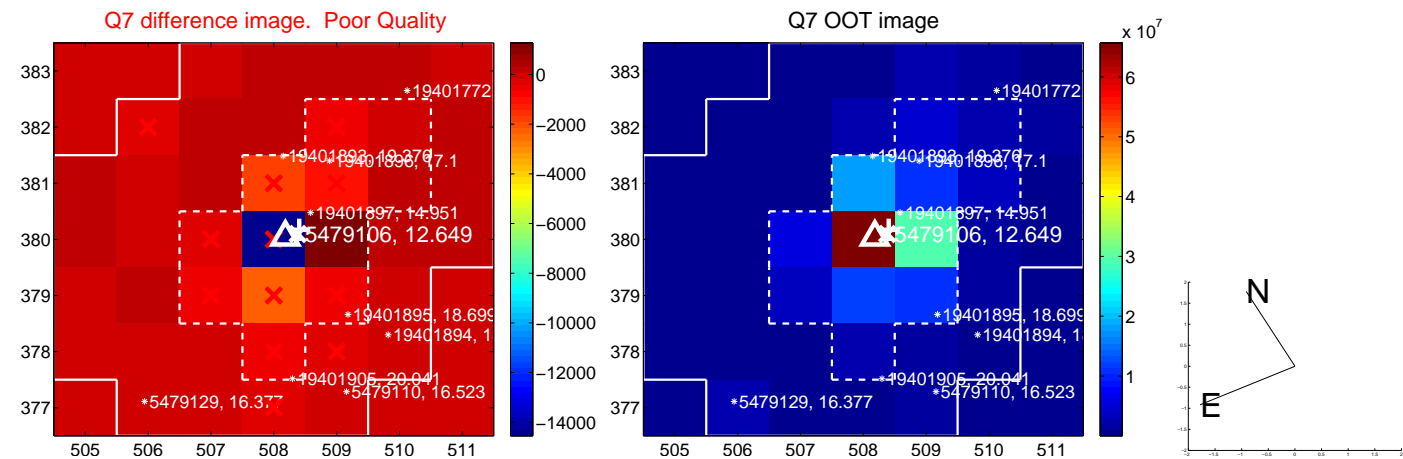
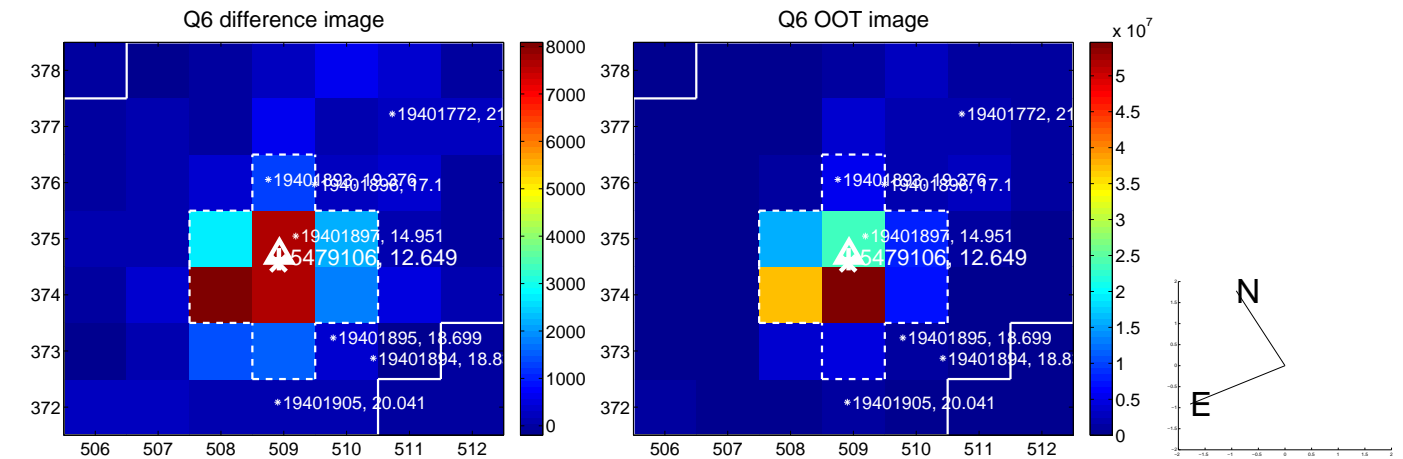
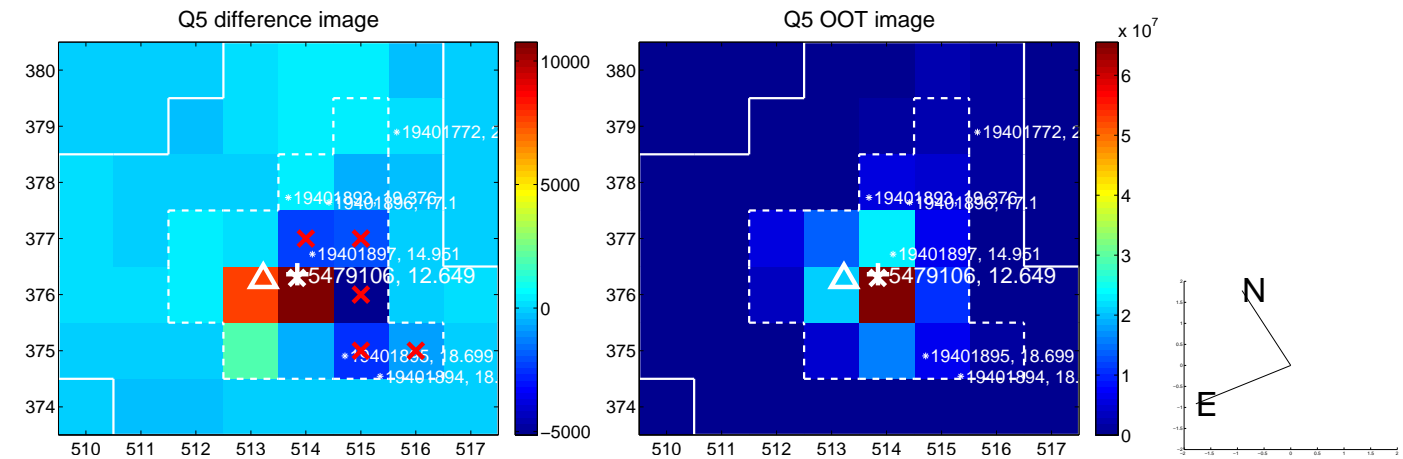
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.378 ± 0.512	0.74	0.324 ± 0.441	-0.194 ± 0.380
PRF-fit source offset from KIC position	0.182 ± 0.381	0.48	0.178 ± 0.415	0.039 ± 0.319
photometric centroid source offset	0.46 ± 0.22	2.09	-0.14 ± 0.25	-0.43 ± 0.21

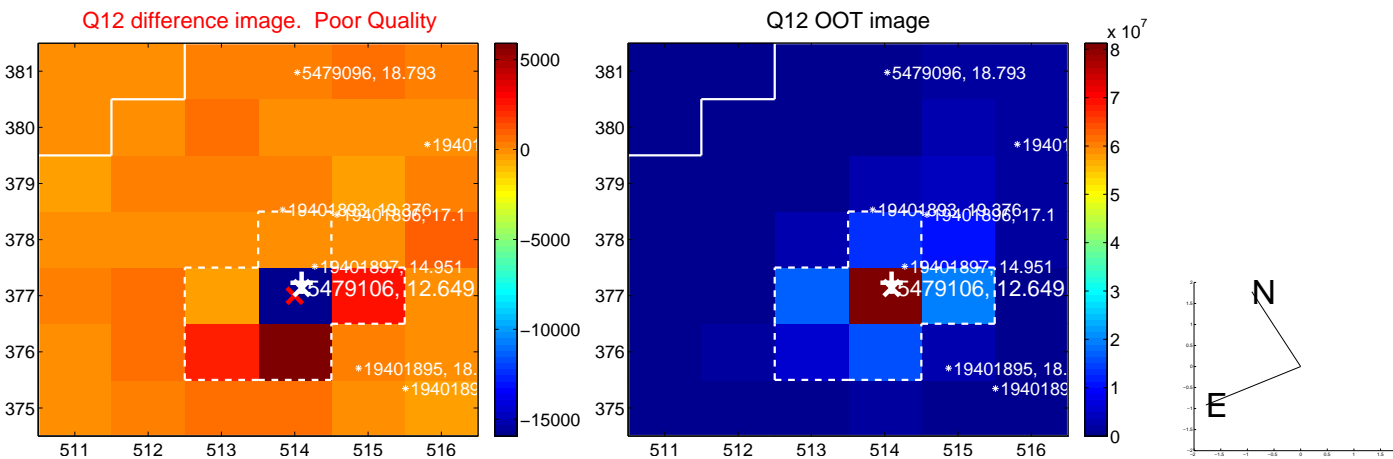
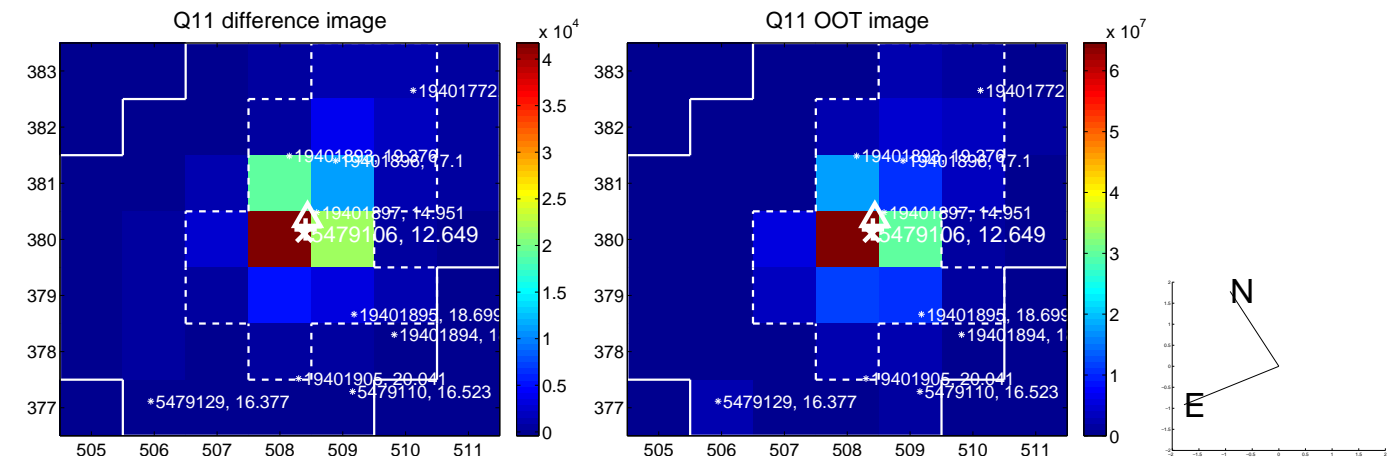
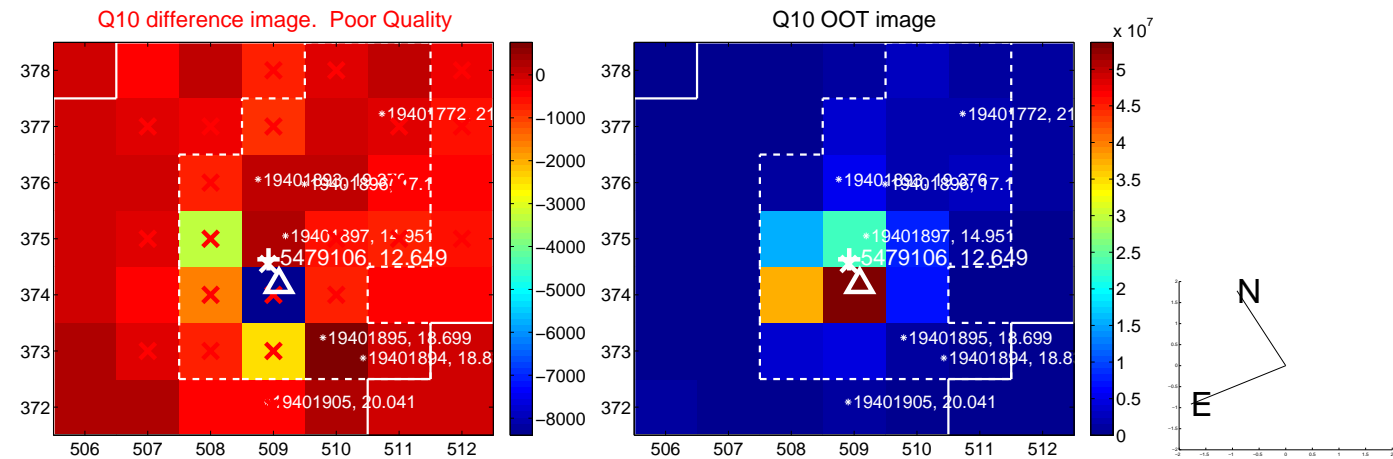
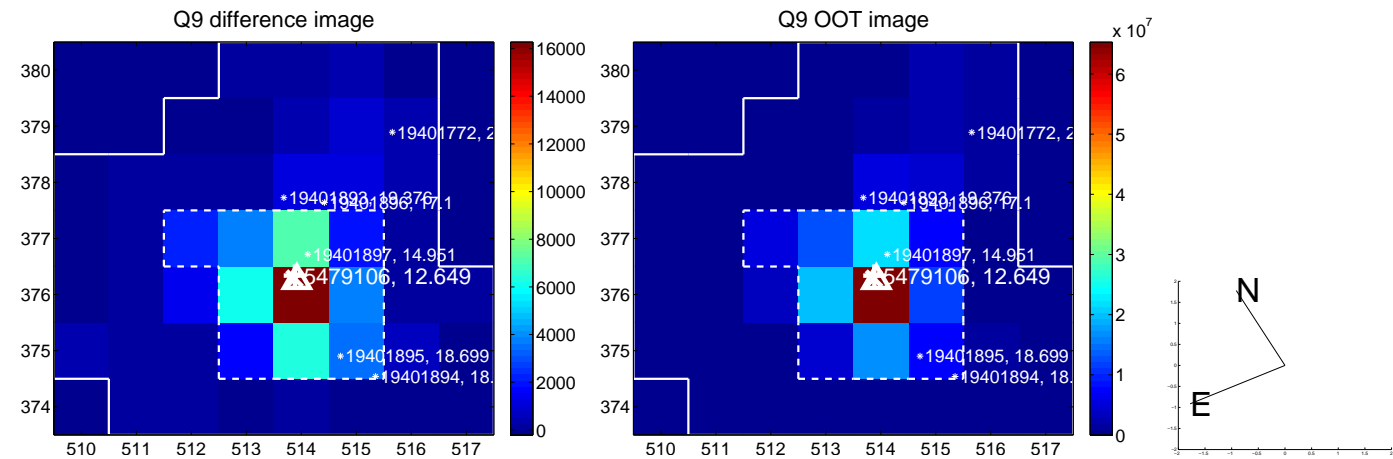


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

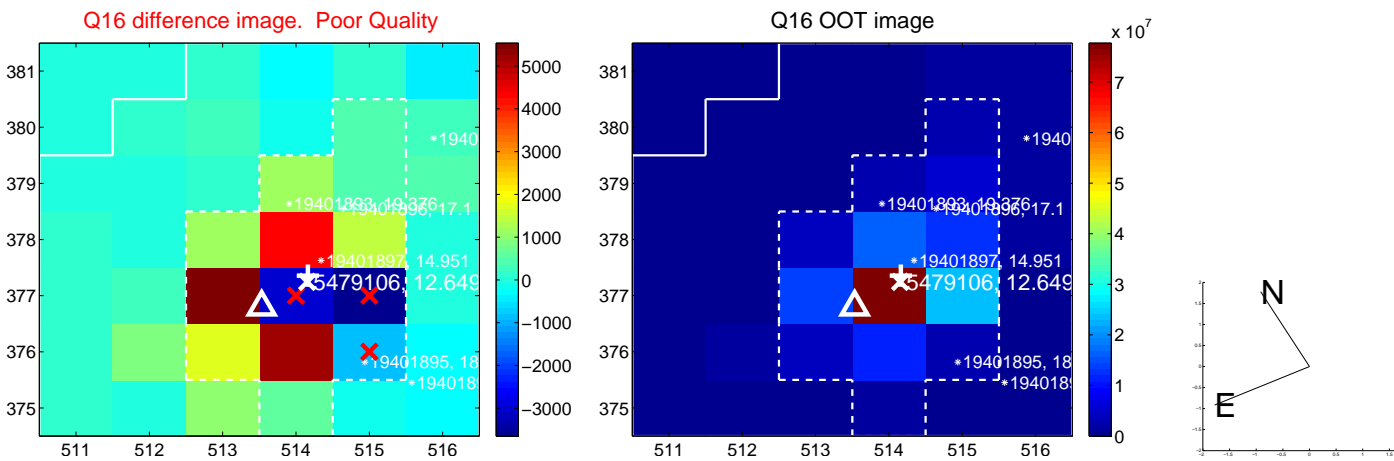
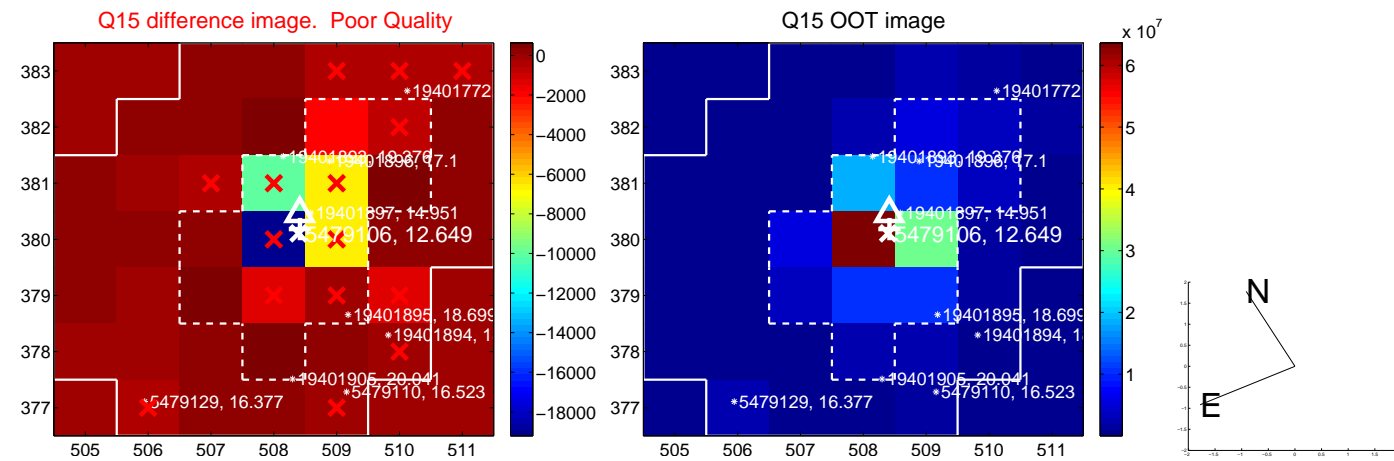
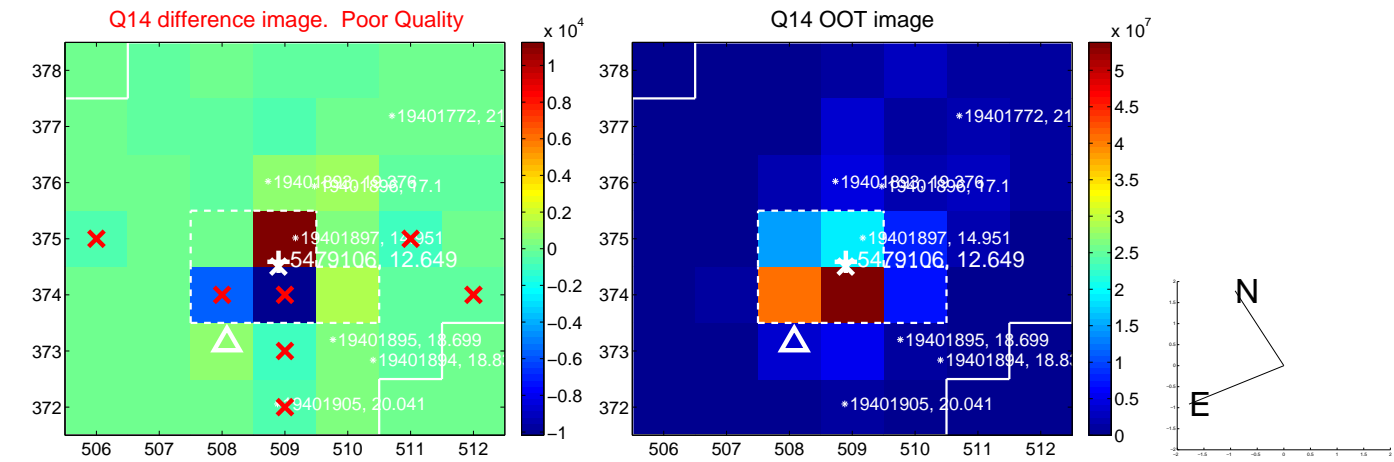
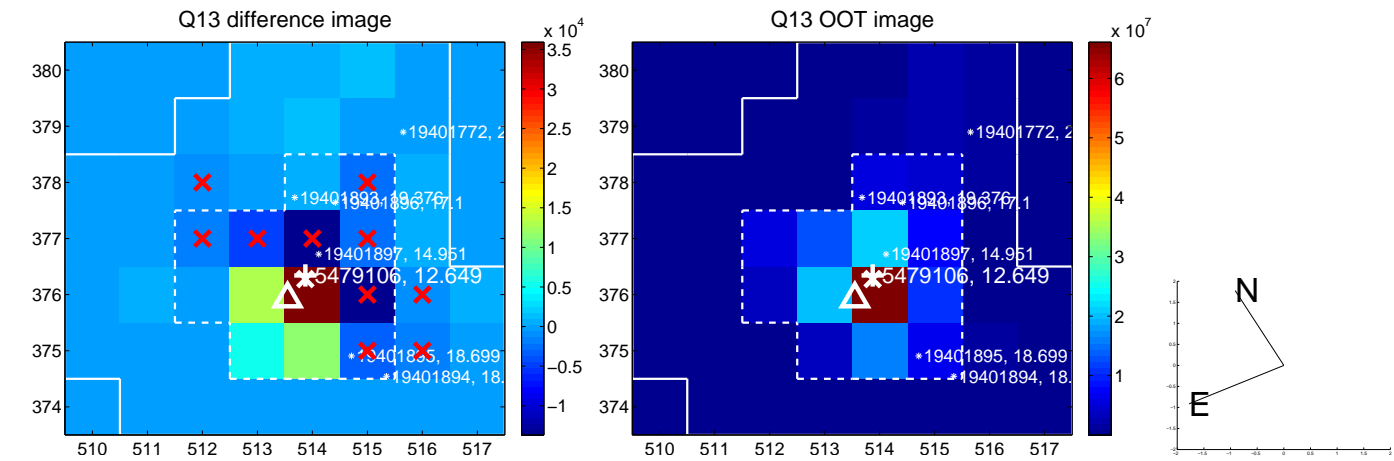
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



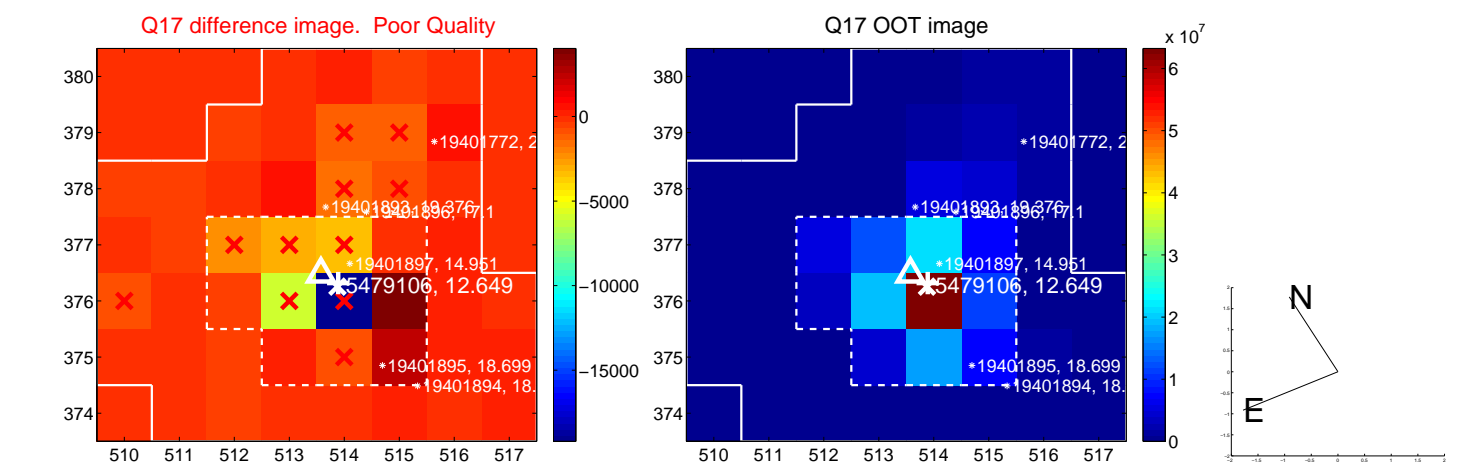
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



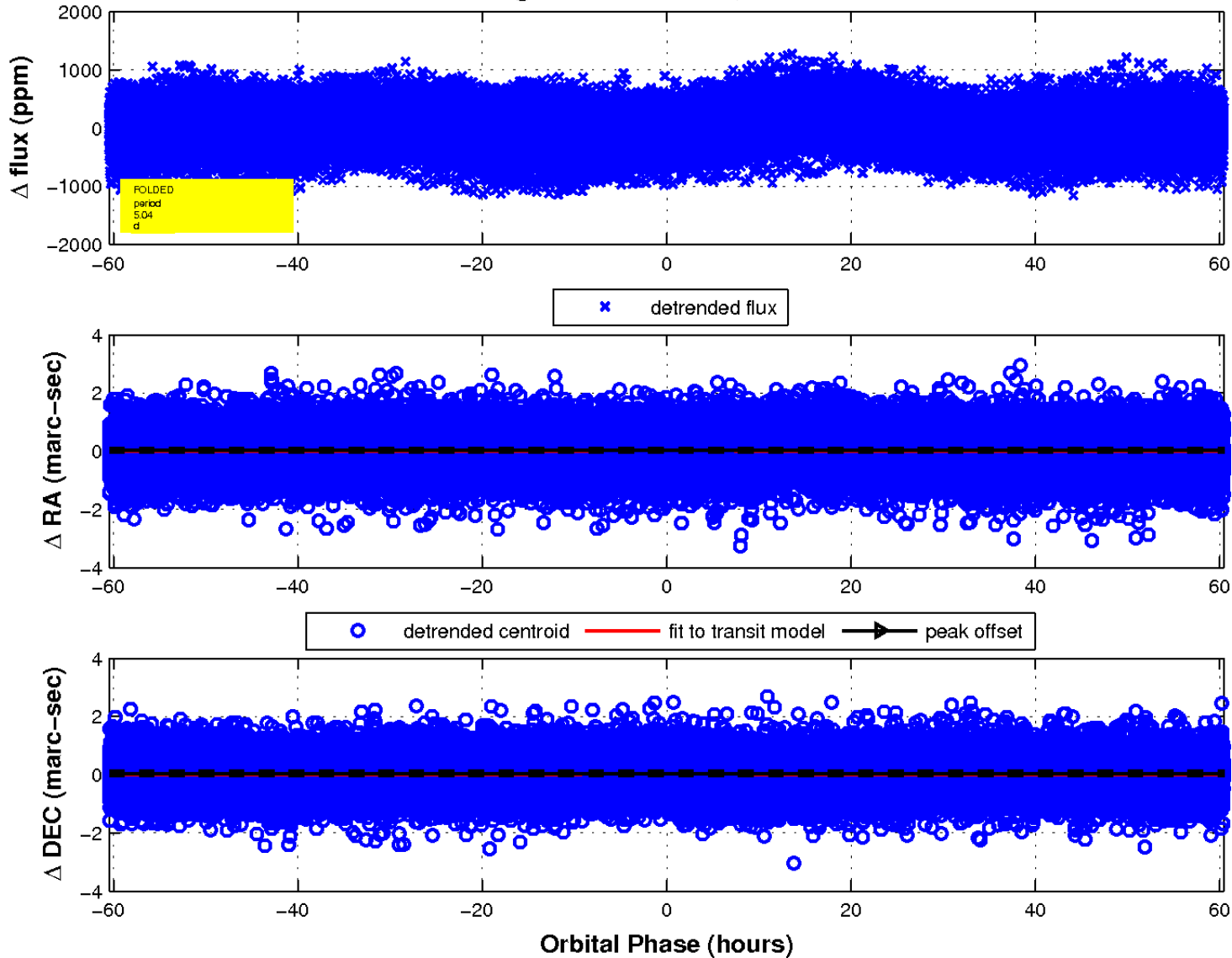
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

