

KIC 011818607

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})
011818607-01	OBS	2467.01	5.056759	134.382614	130.8	4.253	13.1	14.3	0.94	5926	1.42	287.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011818607-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

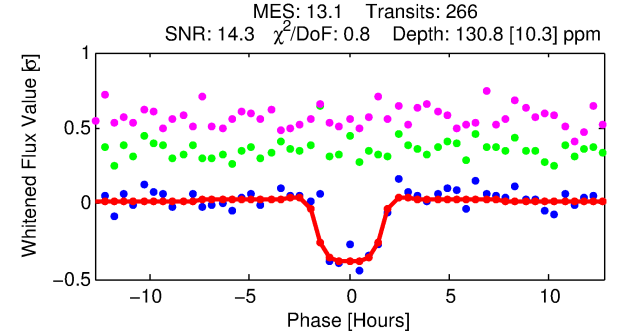
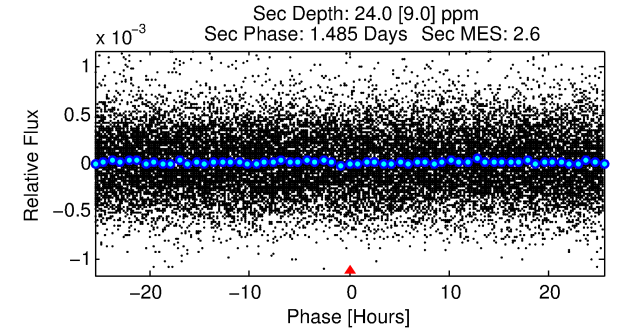
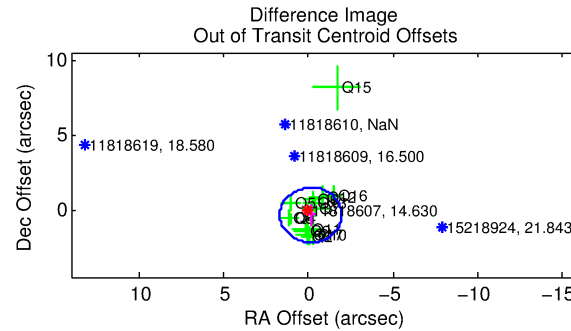
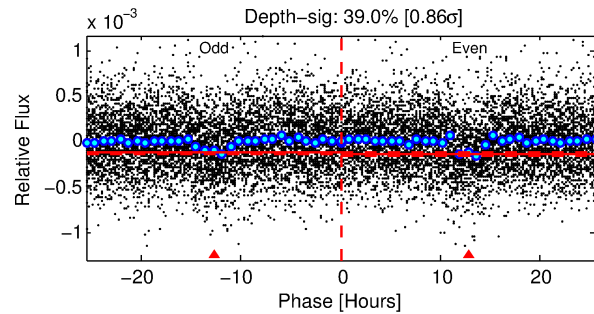
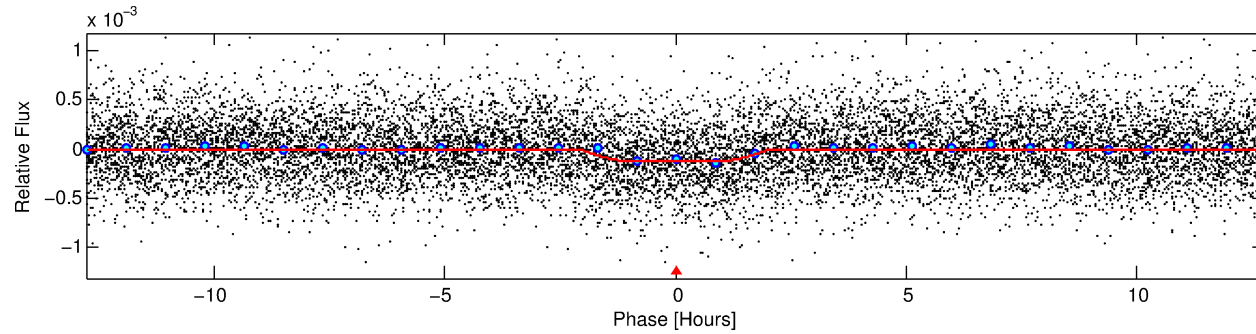
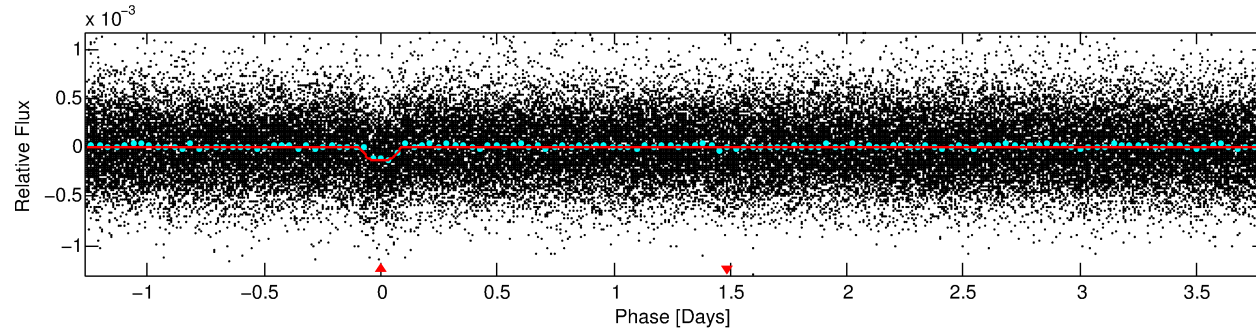
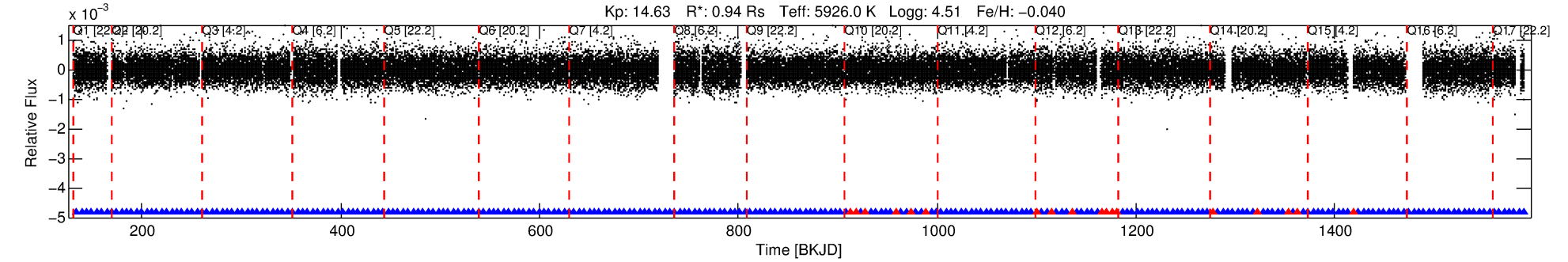
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011818607-01

No Significant Match Found

DV One-Page Summary

KIC: 11818607 Candidate: 1 of 1 Period: 5.057 d
KOI: K02467.01 Corr: 0.928



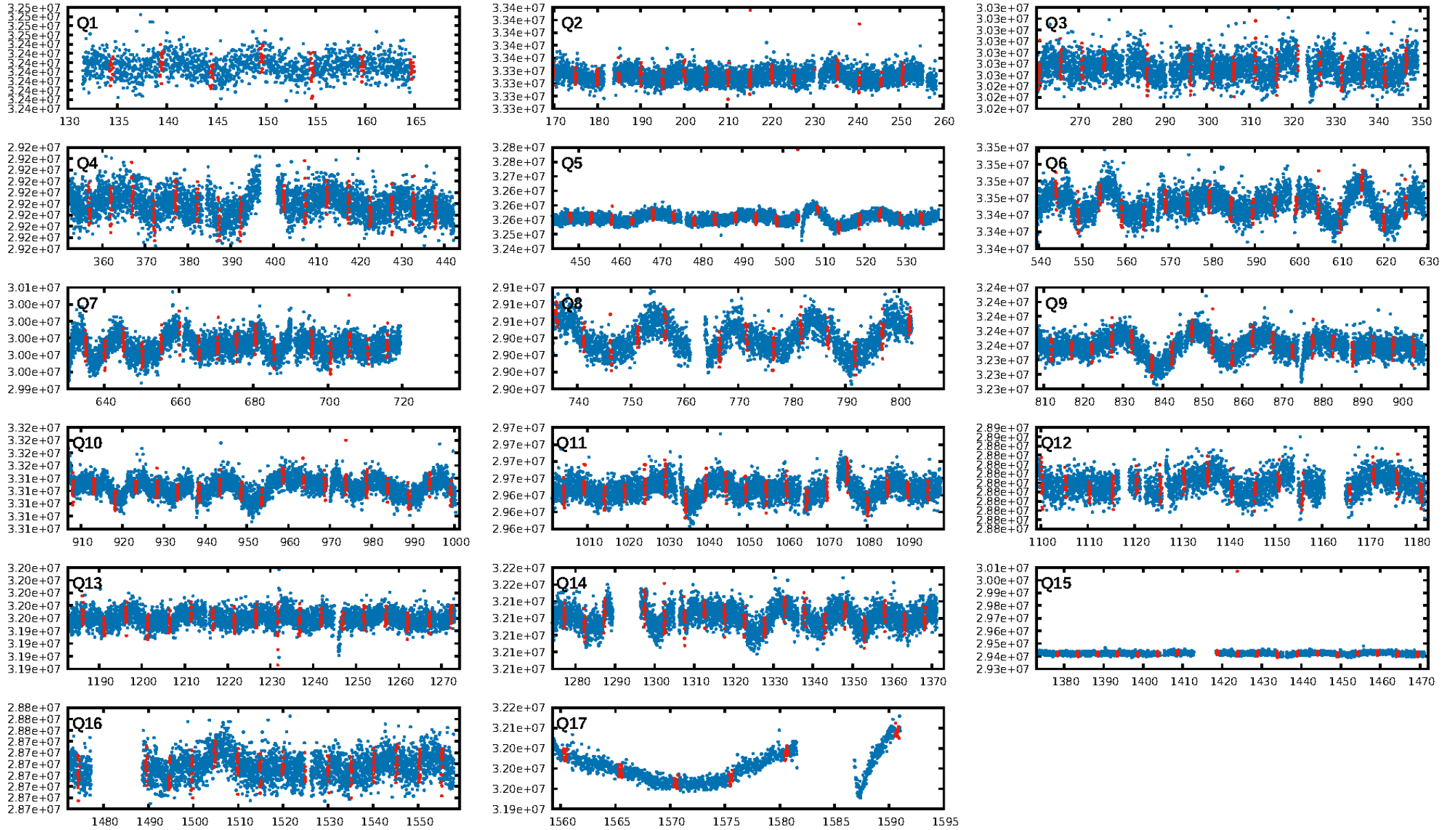
DV Fit Results:

Period = 5.05676 [0.00004] d
Epoch = 134.3826 [0.0055] BKJD
Rp/R* = 0.0138 [0.0010]
a/R* = 2.83 [0.73]
b = 0.97 [0.02]
Seff = 287.00 [115.63]
Teff = 1050 [106] K
Rp = 1.42 [0.44] Re
a = 0.0583 [0.0149] AU
Ag = 22.26 [12.24] [1.74 σ]
Teffp = 3525 [375] K [6.36 σ]

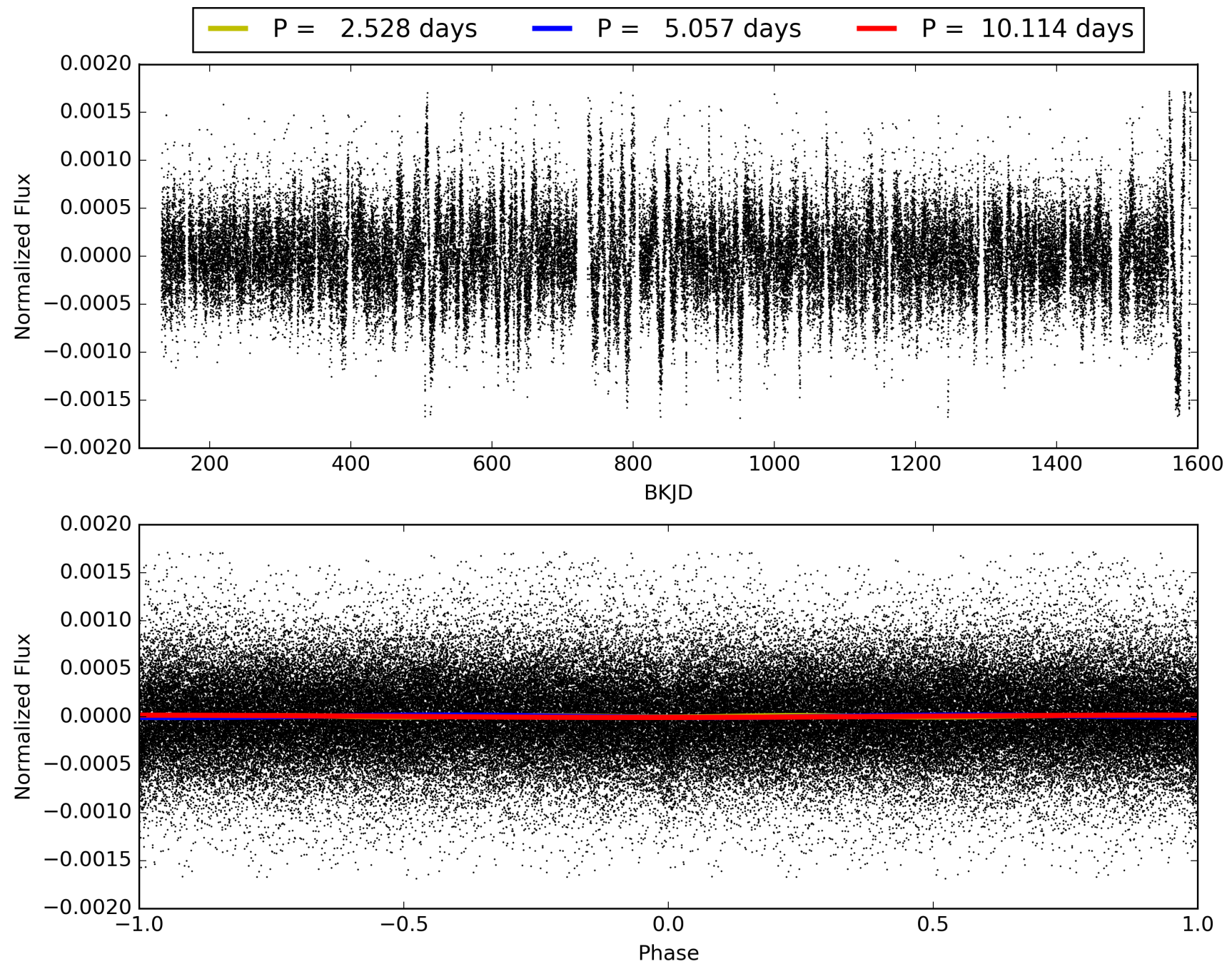
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.32e-38
RollingBand-fgt: 0.93 [235/253]
GhostDiagnostic-chr: 7.465
Centroid-sig: 0.0%
Centroid-so: 2.012 arcsec [2.23 σ]
OotOffset-rm: 0.382 arcsec [0.63 σ]
KicOffset-rm: 0.287 arcsec [0.43 σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011818607-01, PDC Light Curves

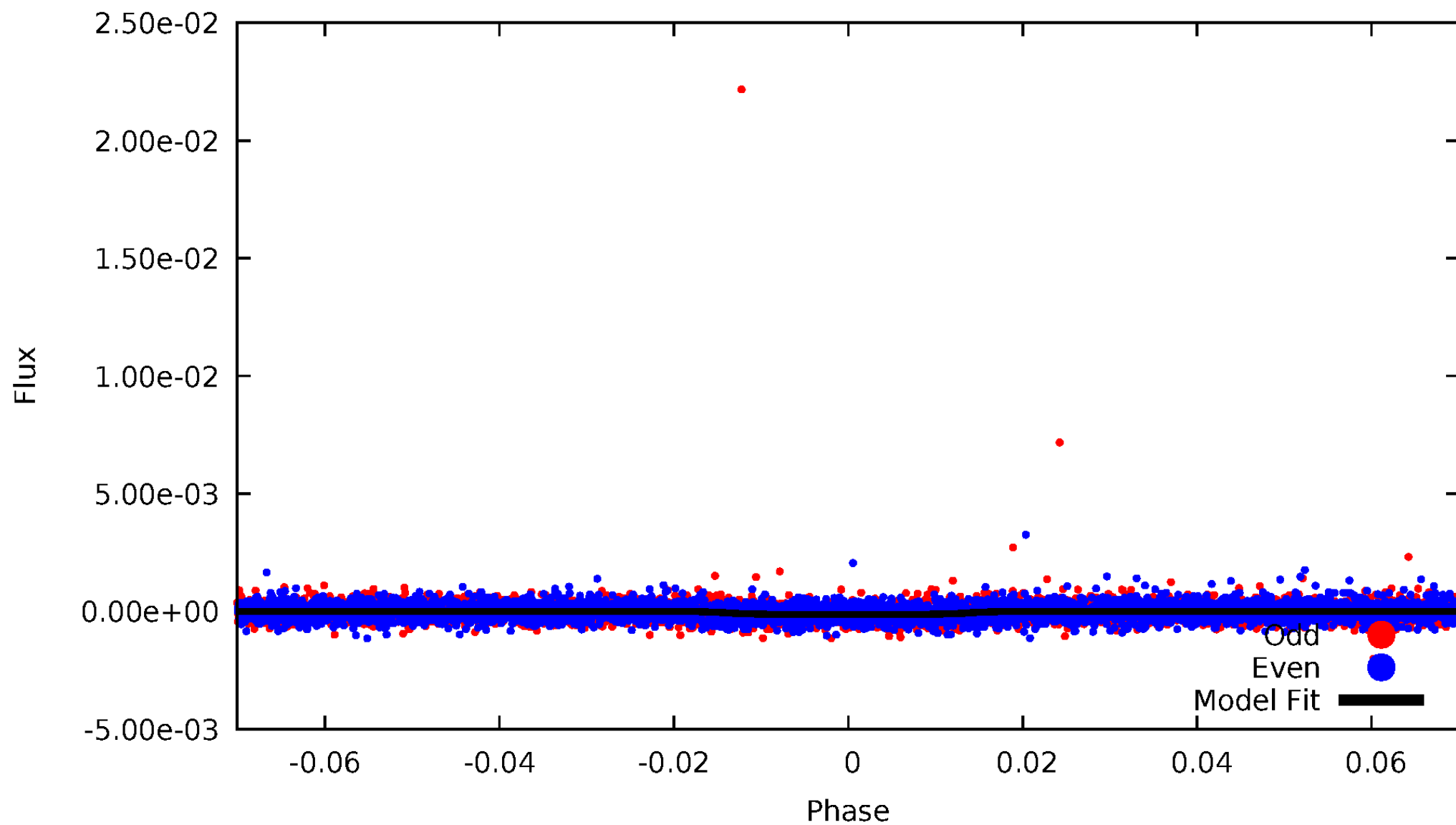


TCE 011818607-01



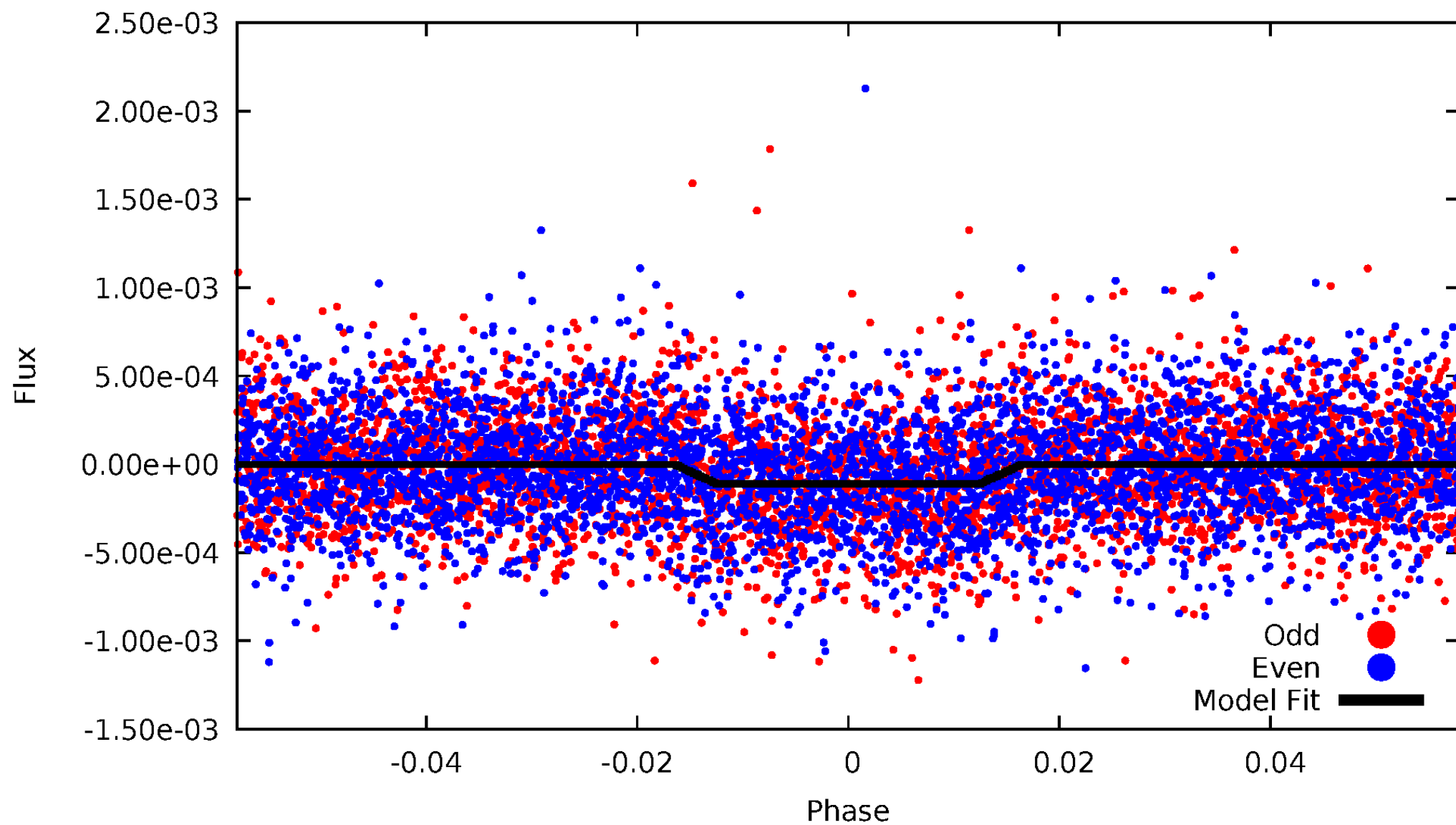
DV Odd/Even

TCE 011818607-01

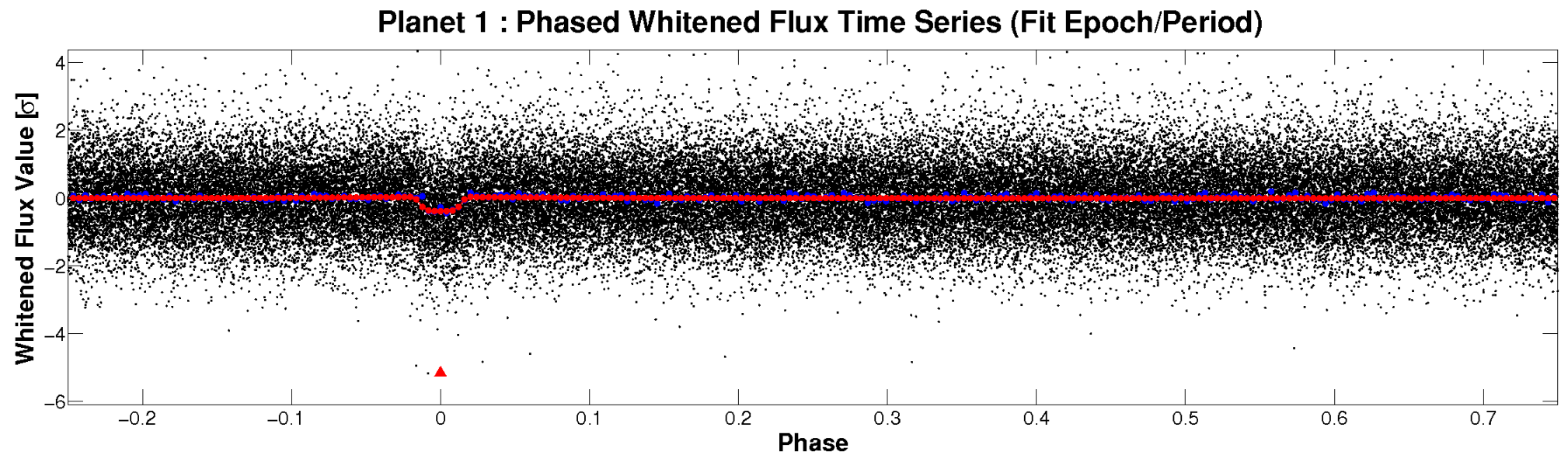
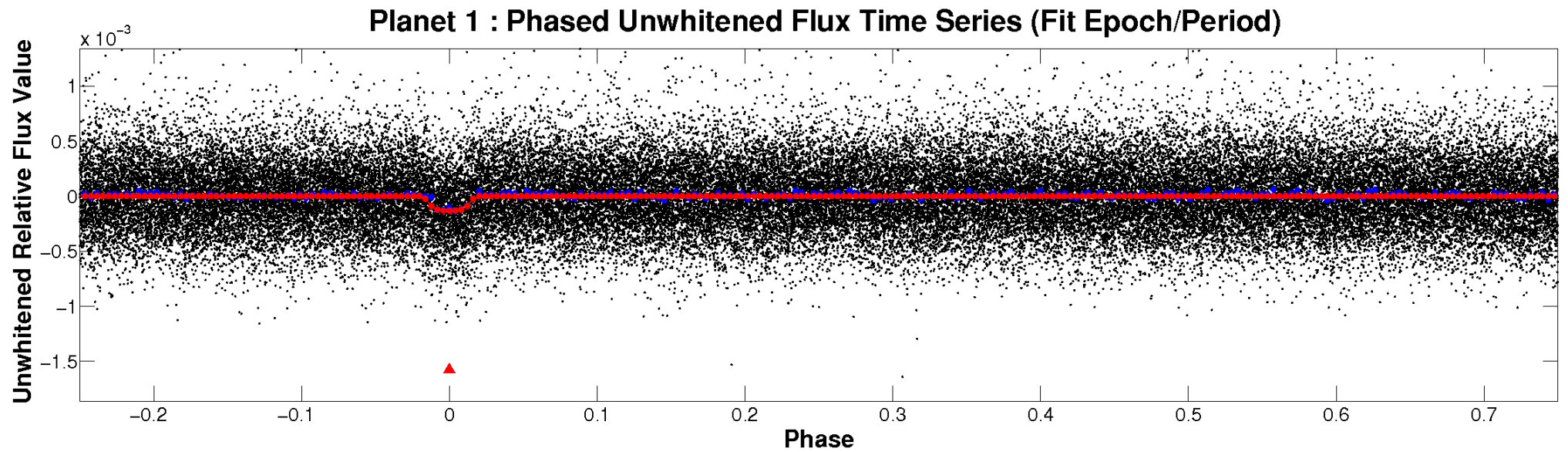


ALT Odd/Even

TCE 011818607-01

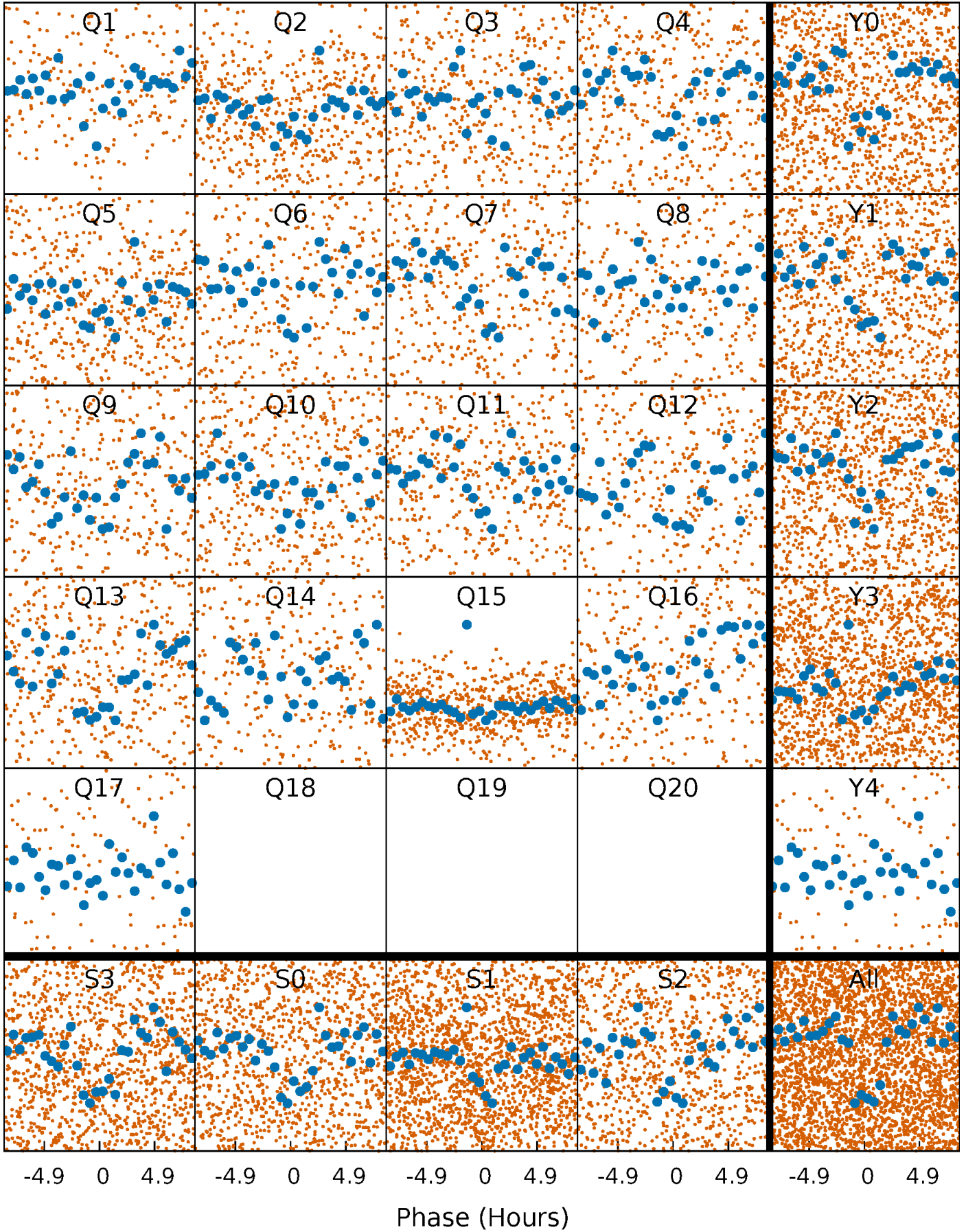


Non-Whitened Vs. Whitened Light Curve



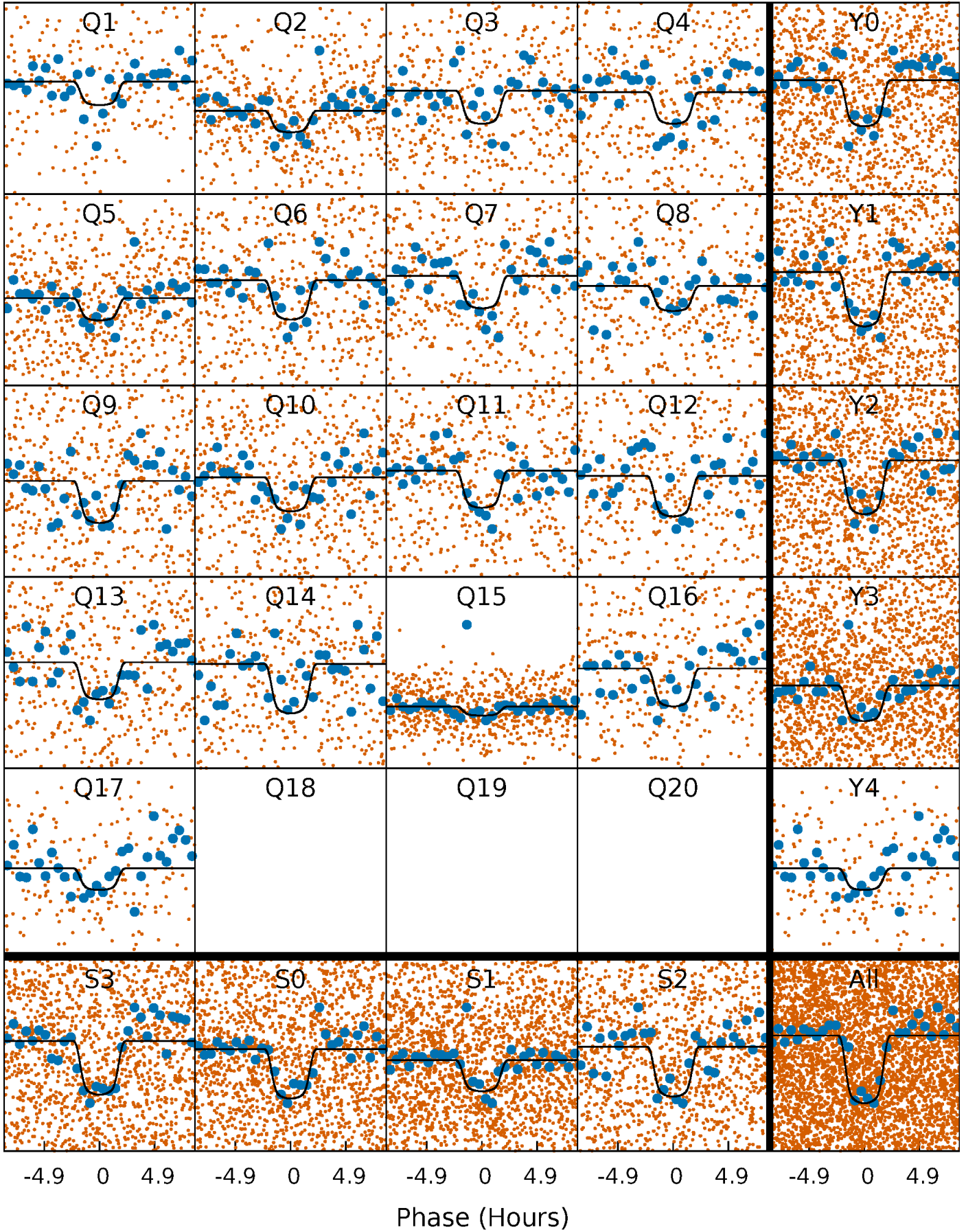
PDC Quarter-Phased Transit Curves

TCE 011818607-01 P= 5.056759 Days $T_0=134.382614$ (BKJD)



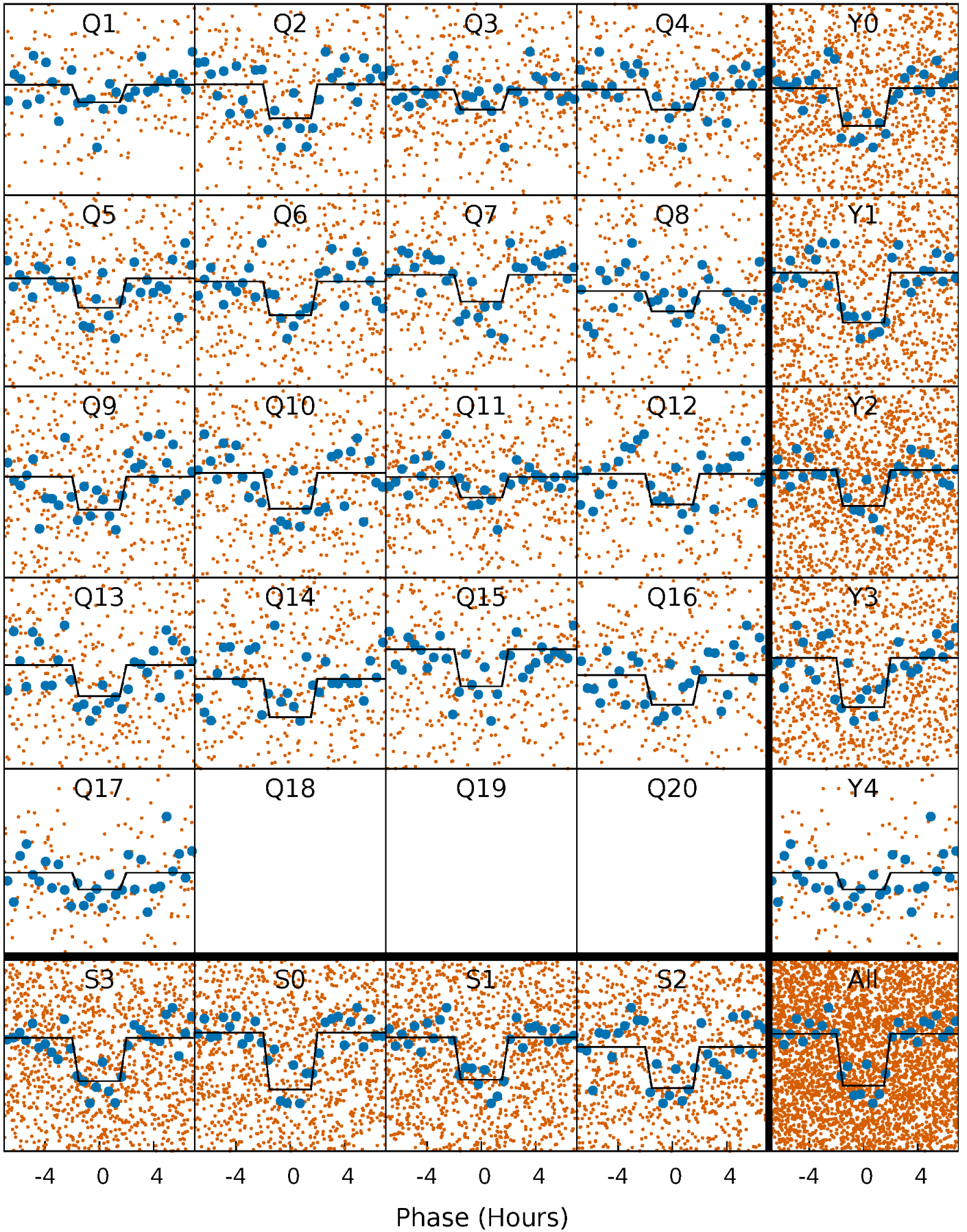
DV Quarter-Phased Transit Curves

TCE 011818607-01 P= 5.056759 Days $T_0=134.382614$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

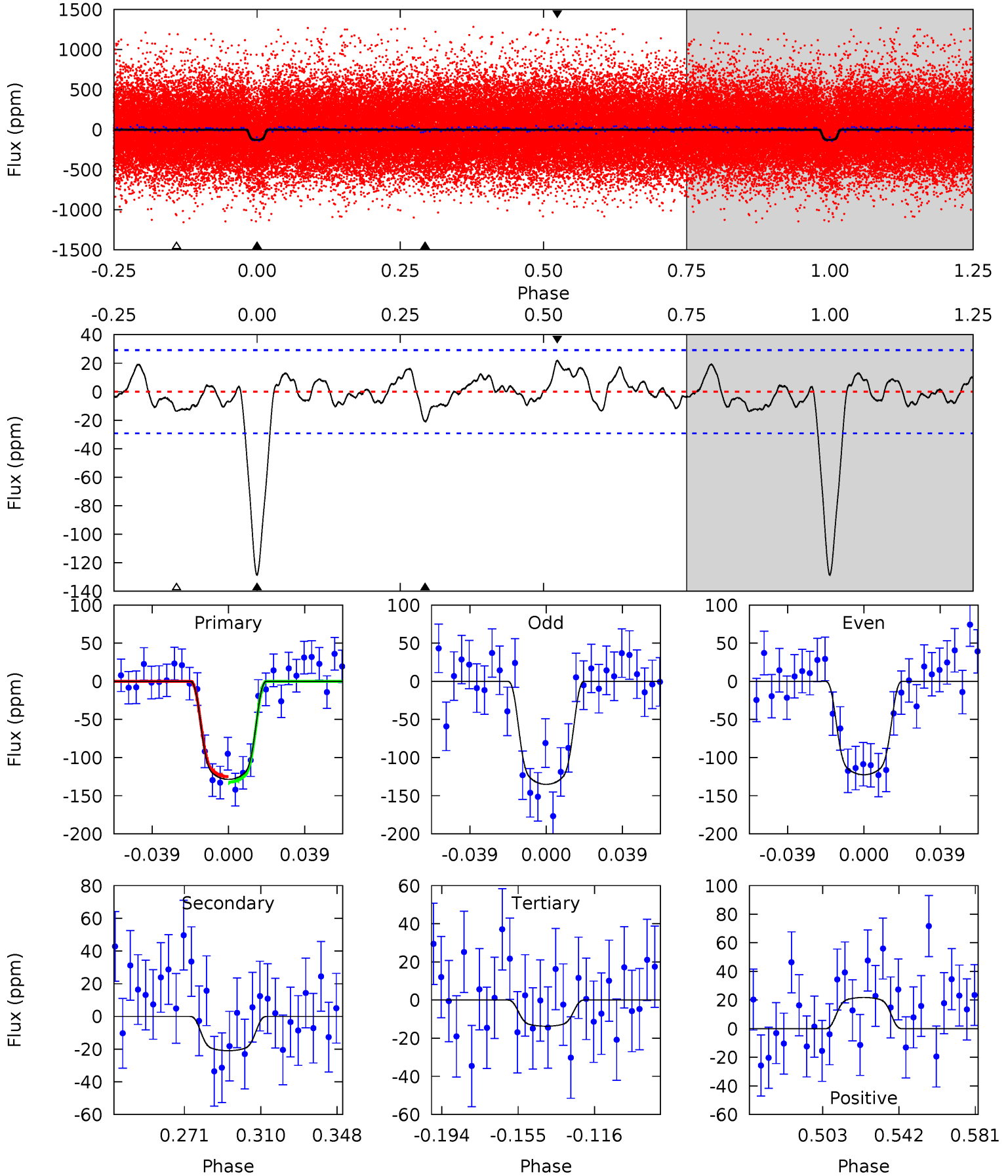
TCE 011818607-01 P= 5.056695 Days $T_0=134.387597$ (BKJD)



DV Model-Shift Uniqueness Test

011818607-01, P = 5.056759 Days, E = 129.325855 Days

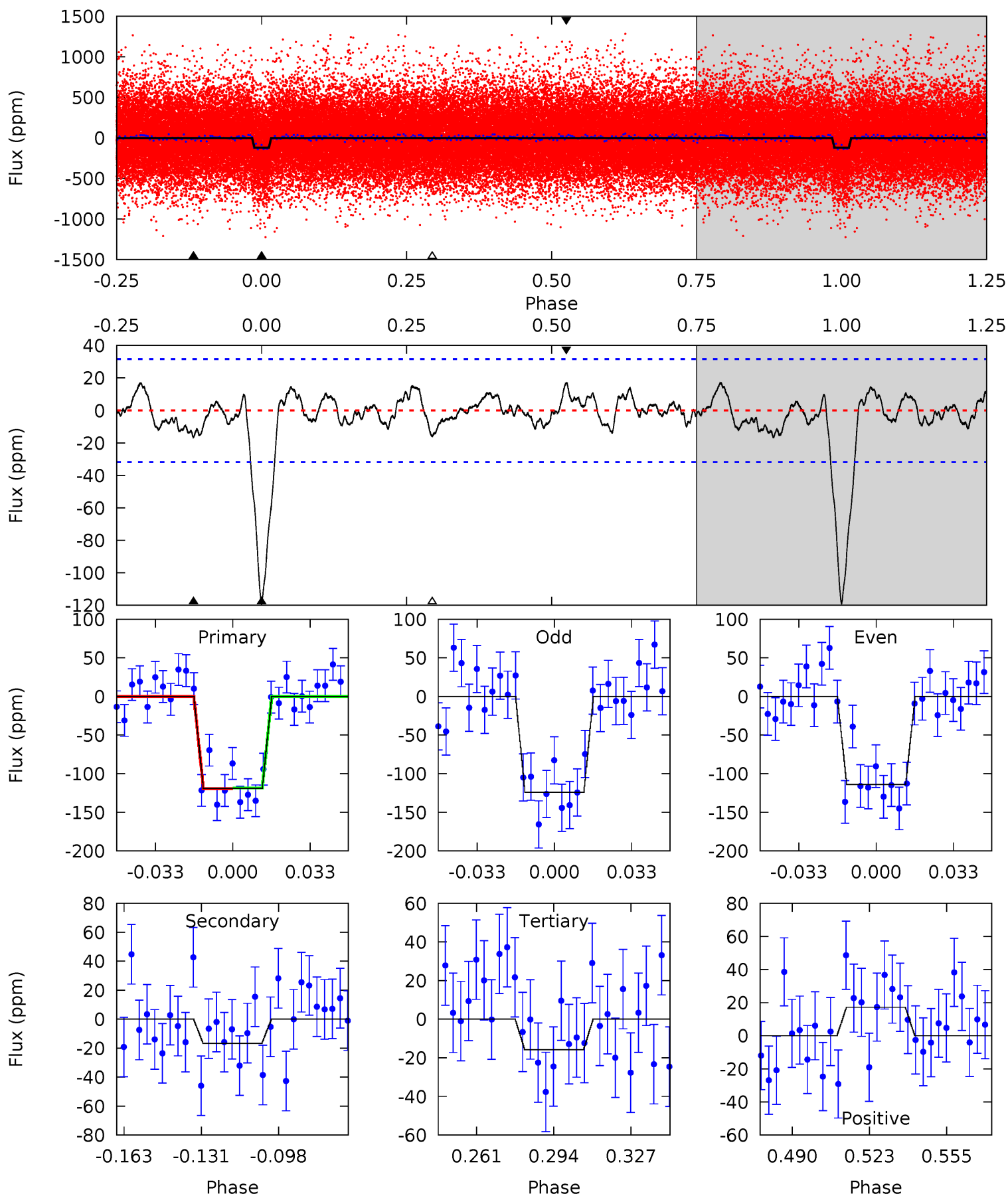
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.0	3.42	2.24	3.56	4.76	2.07	1.32	18.7	17.4	1.18	-0.14	1.03	0.97	0.15	0.59



Alt Model-Shift Uniqueness Test

011818607-01, P = 5.056695 Days, E = 129.330902 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.0	2.52	2.40	2.61	4.79	2.14	1.05	15.6	15.4	0.12	-0.09	0.77	1.02	0.13	0.07



Stellar Parameters For KIC 011818607

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5926^{+176}_{-211}	$4.506^{+0.052}_{-0.208}$	$-0.040^{+0.250}_{-0.300}$	$0.939^{+0.282}_{-0.094}$	$1.030^{+0.127}_{-0.140}$	$1.752^{+0.372}_{-0.950}$
	+3%/-4%	+1%/-5%	+625%/-750%	+30%/-10%	+12%/-14%	+21%/-54%
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 011818607-01 / KOI 2467.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-21 ± 6	$1.47^{+0.25}_{-0.16}$	1498^{+98}_{-78}	3767^{+238}_{-250}	17^{+8}_{-6}
Alt.	-17 ± 7	$1.12^{+0.21}_{-0.14}$	1501^{+102}_{-76}	3977^{+311}_{-351}	23^{+13}_{-11}

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

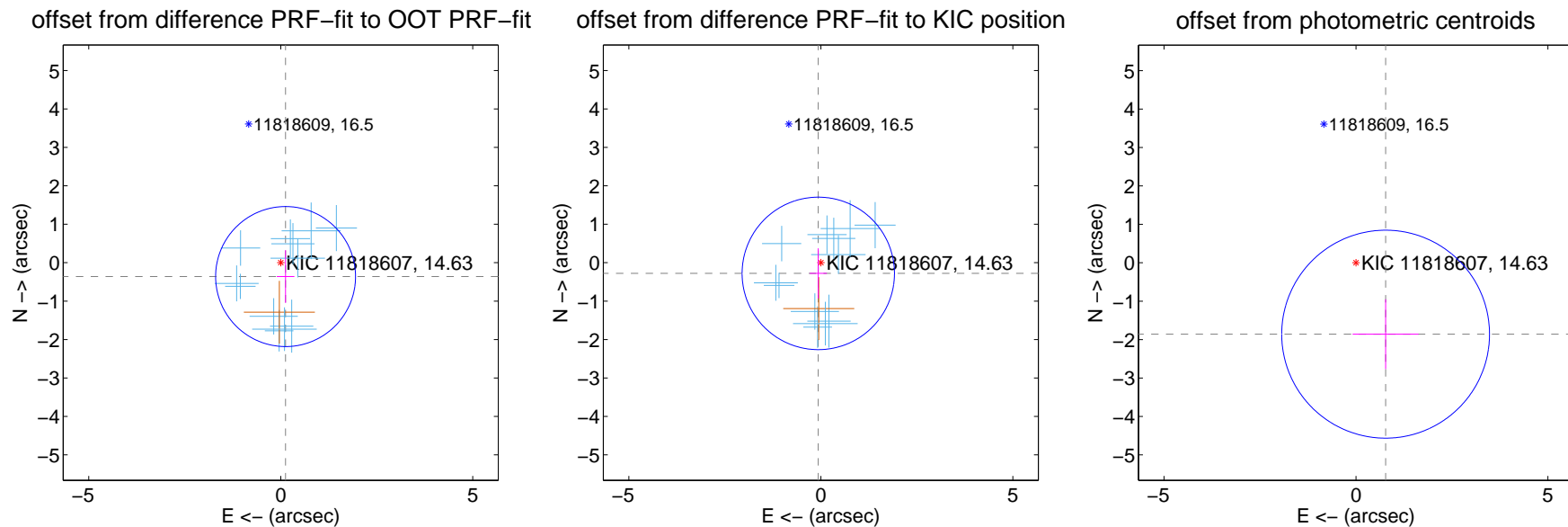
DV Centroid Data

Supplemental centroid analysis for 011818607-01. Kepler magnitude: 14.63. Transit SNR 14.32

There are 12 quarters with good PRF difference image offsets

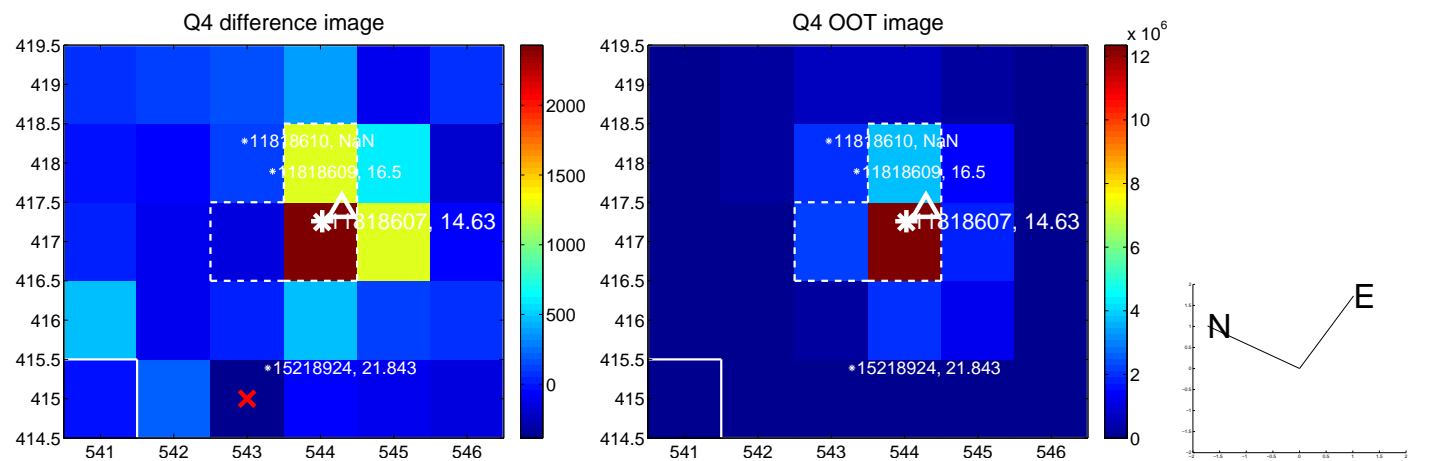
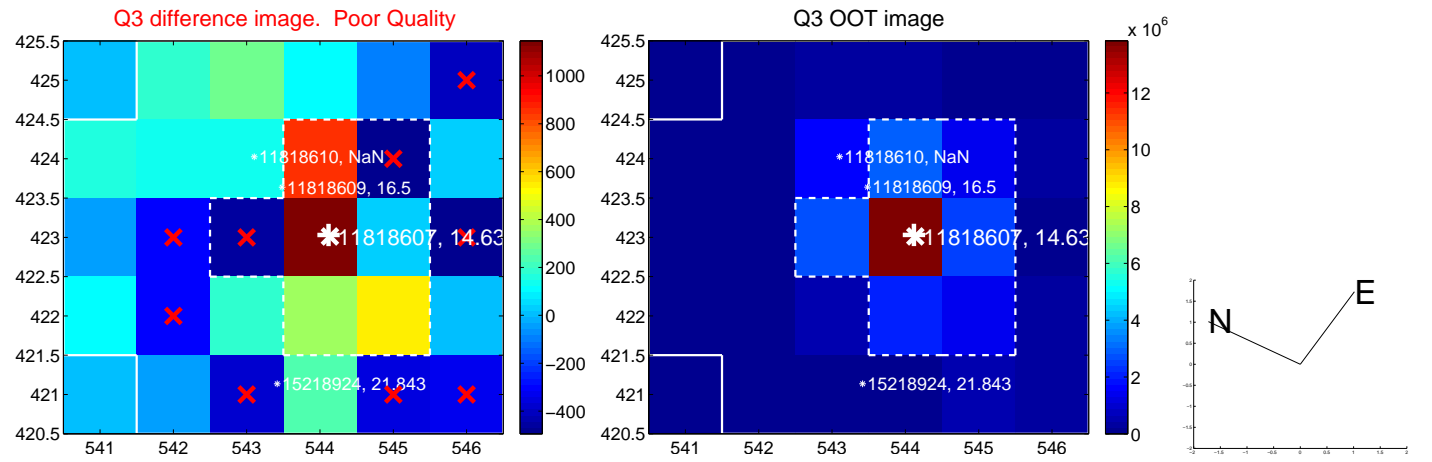
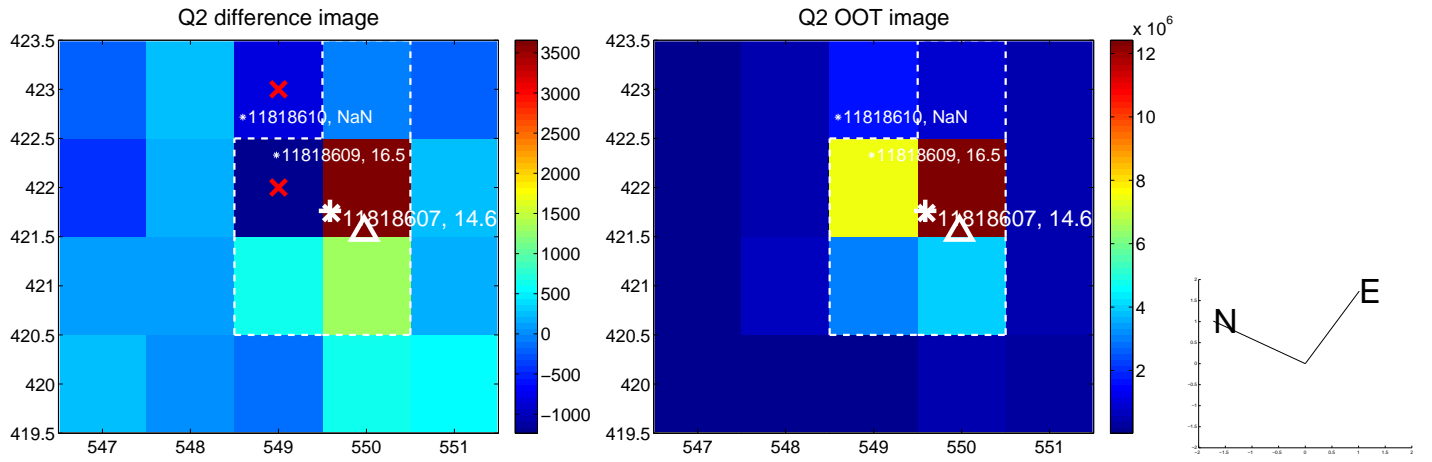
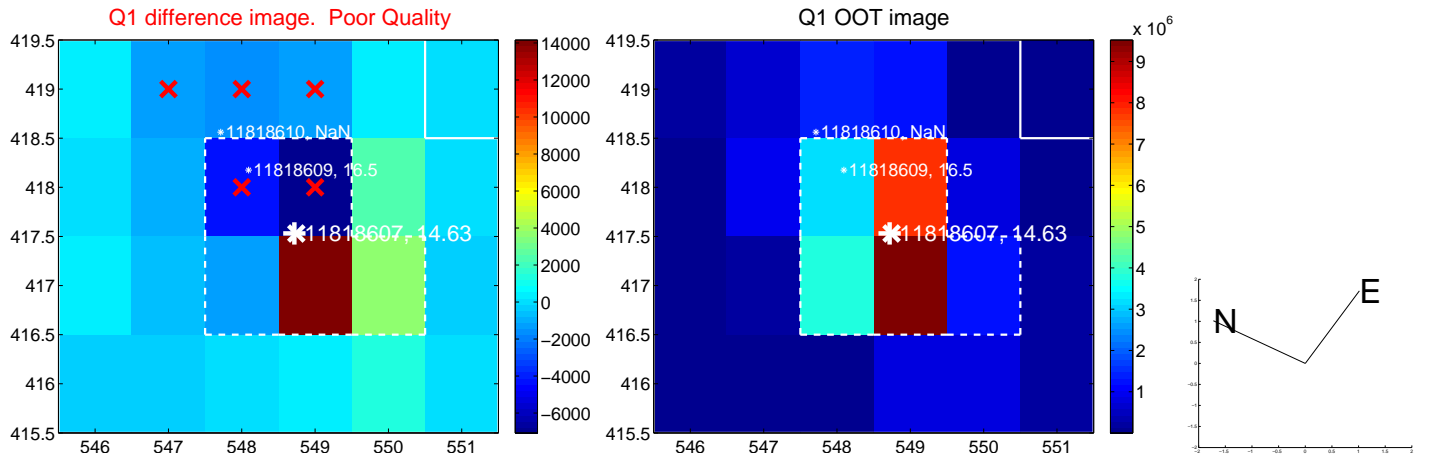
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.382 ± 0.607	0.63	-0.126 ± 0.228	-0.361 ± 0.687
PRF-fit source offset from KIC position	0.287 ± 0.661	0.43	0.067 ± 0.223	-0.279 ± 0.652
photometric centroid source offset	2.01 ± 0.90	2.23	-0.77 ± 0.86	-1.86 ± 0.91

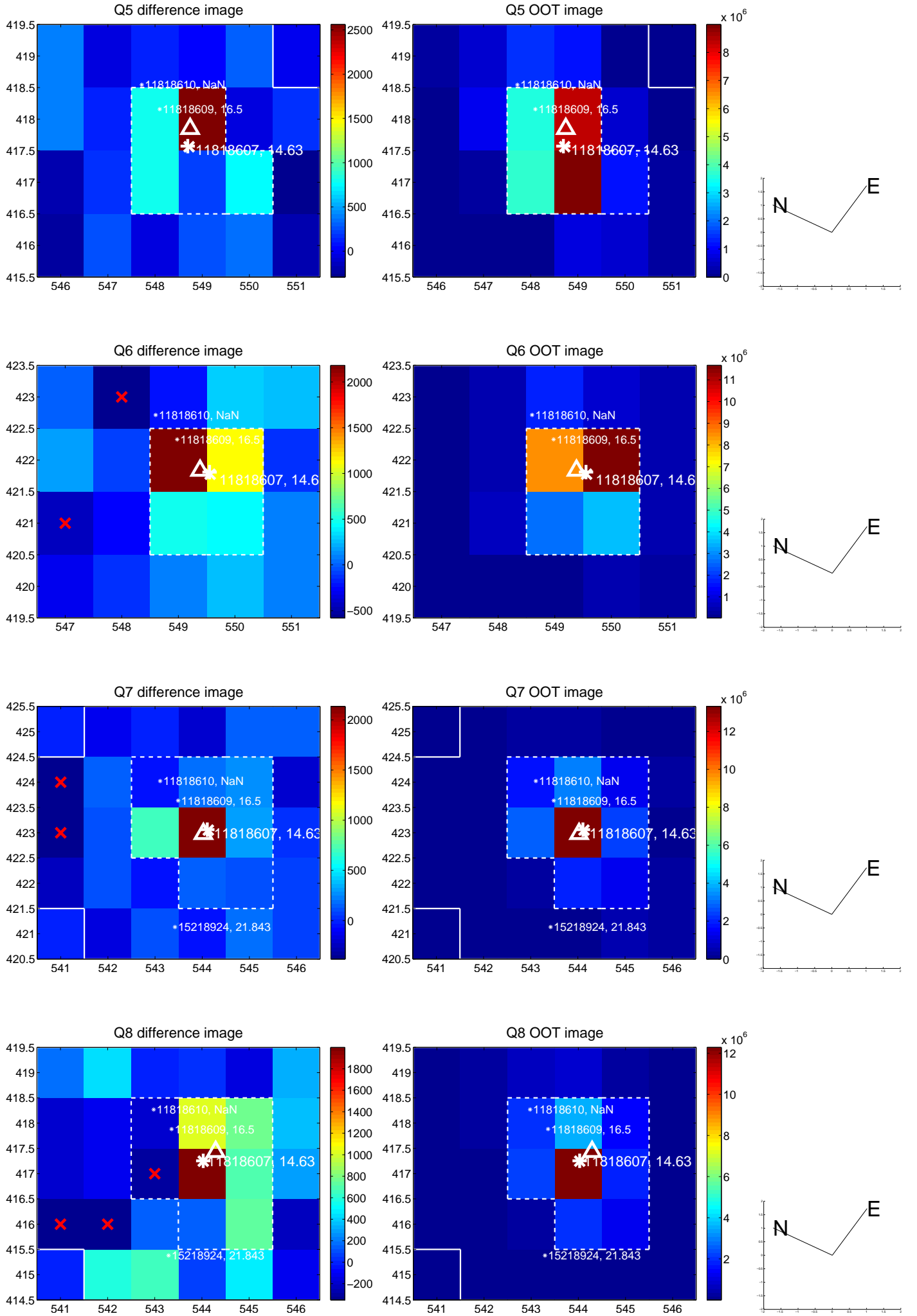


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

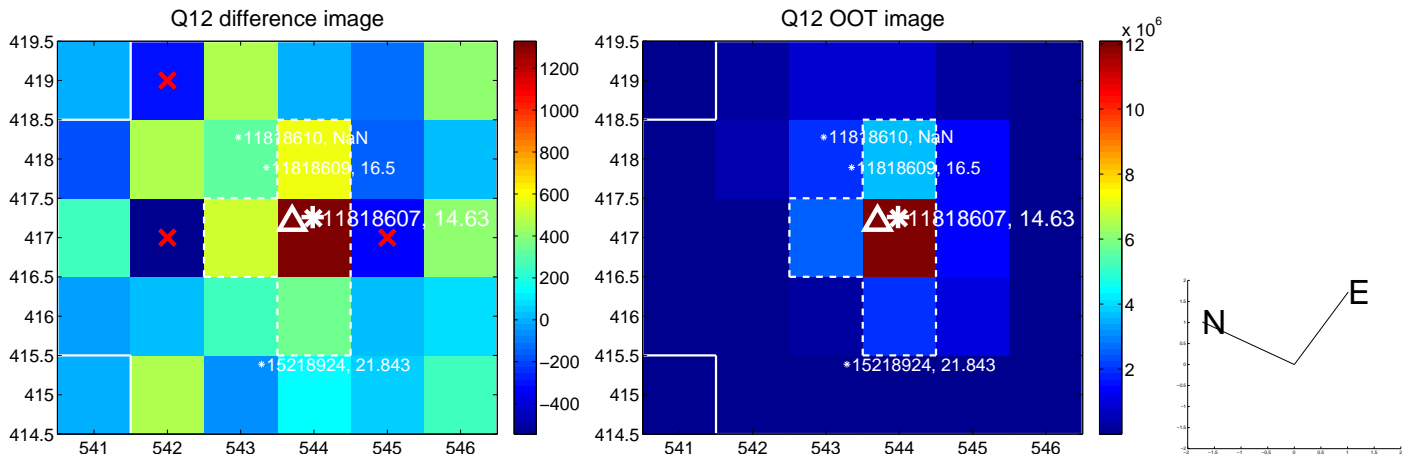
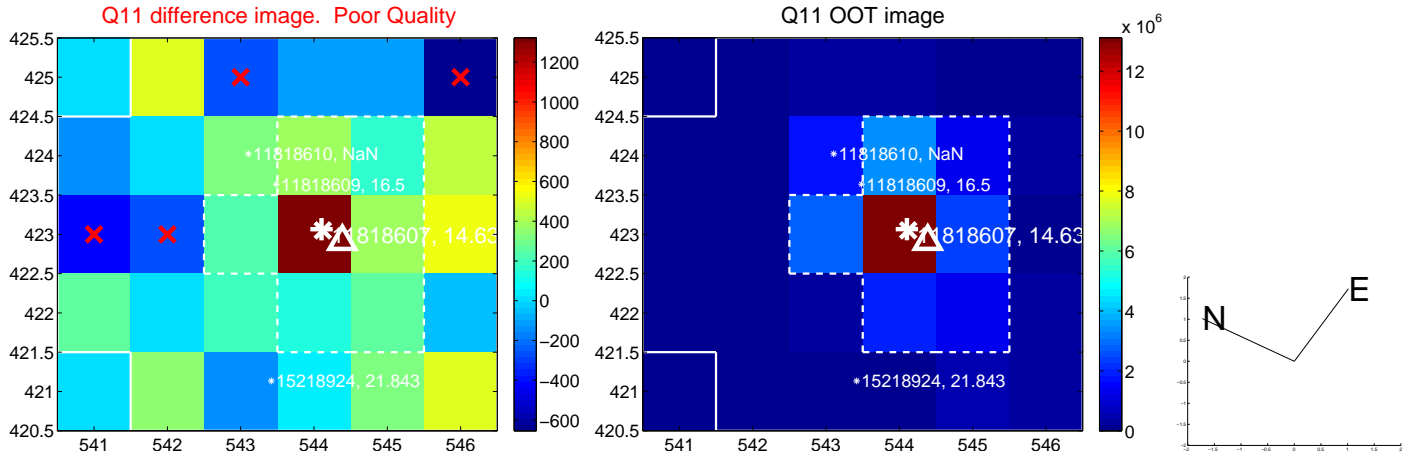
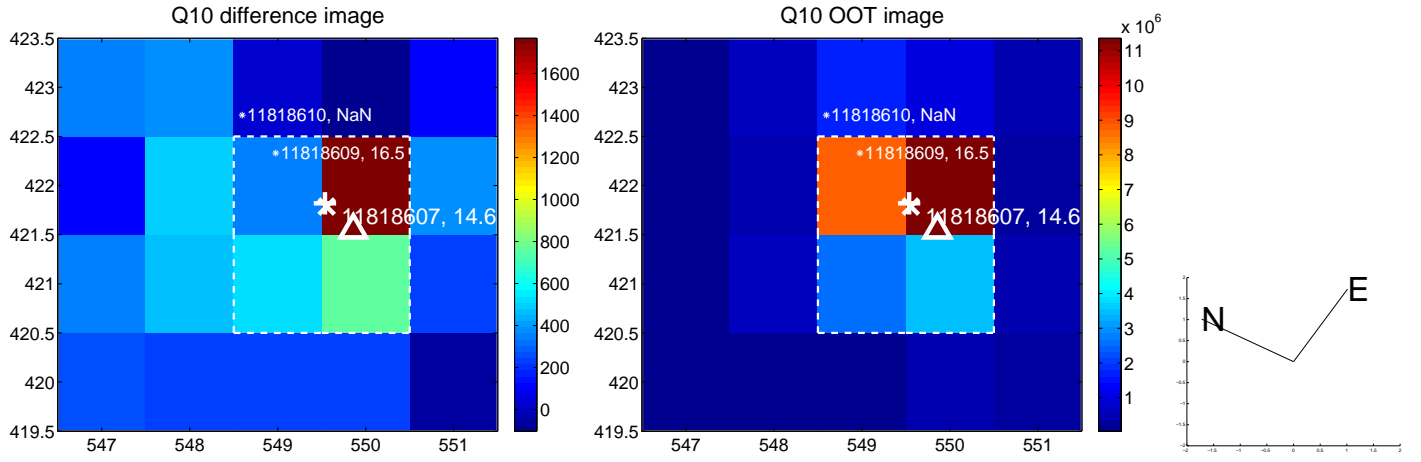
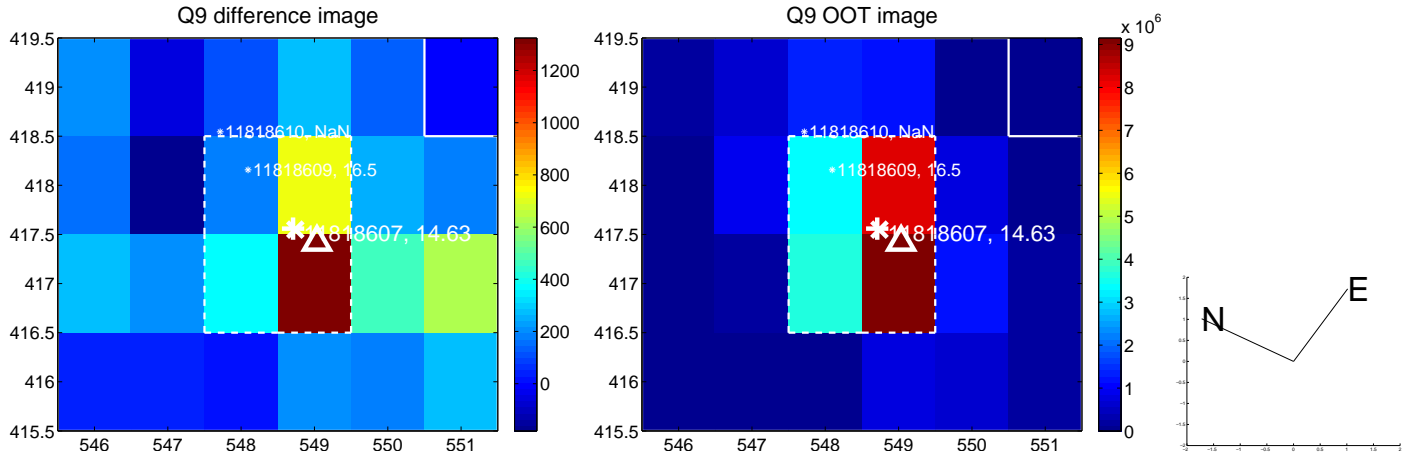
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



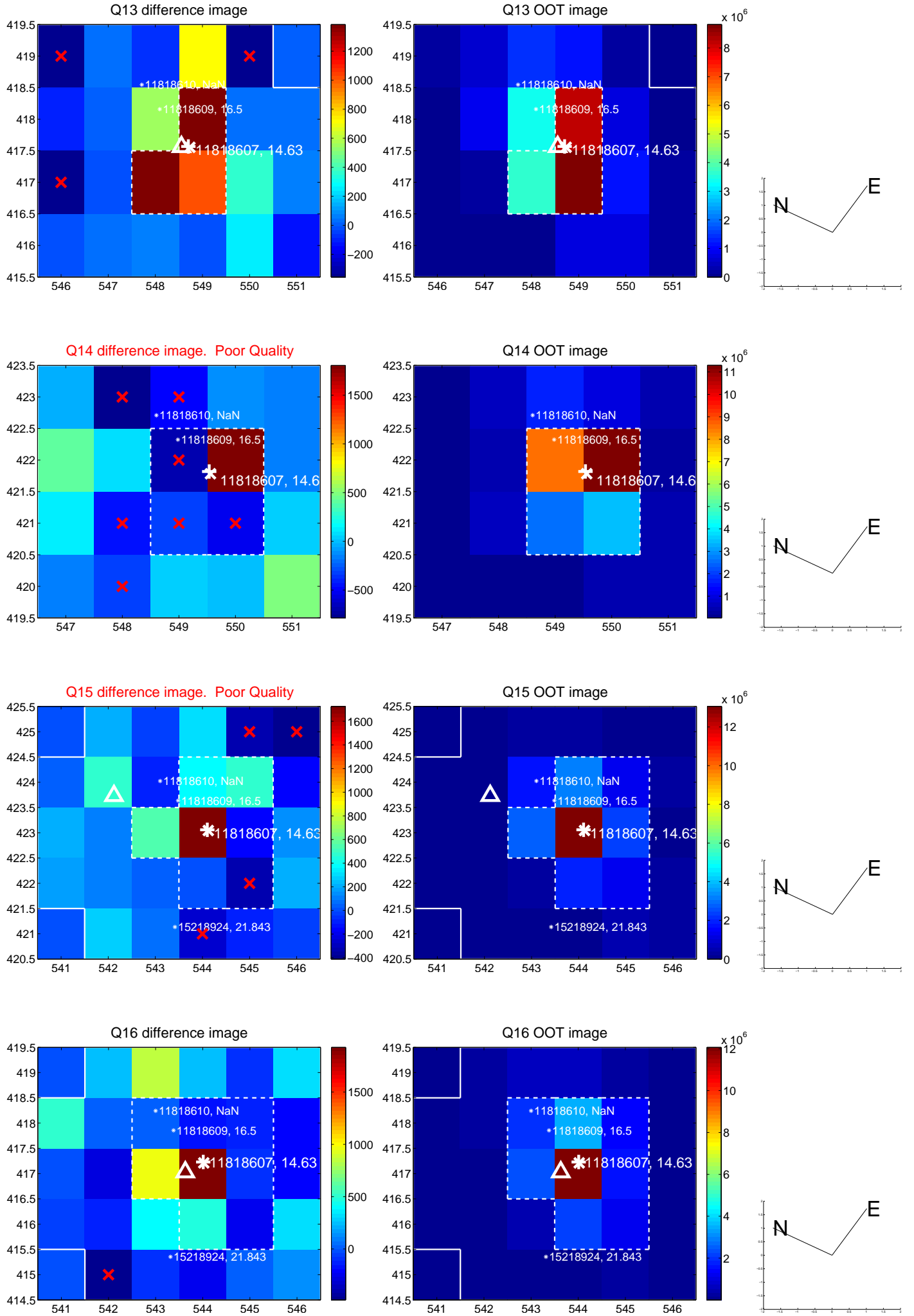
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



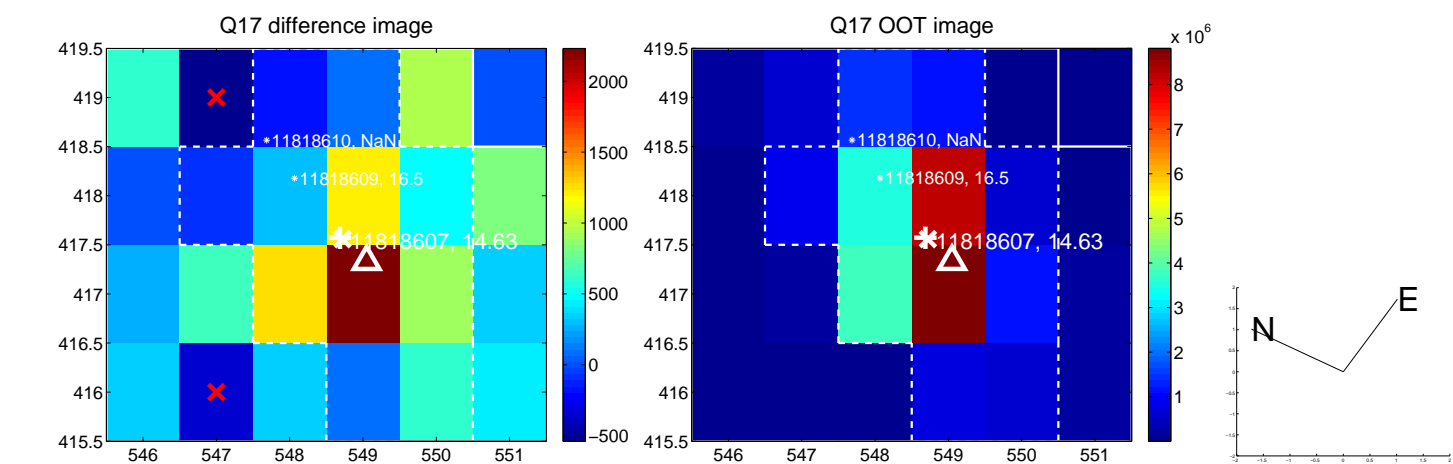
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



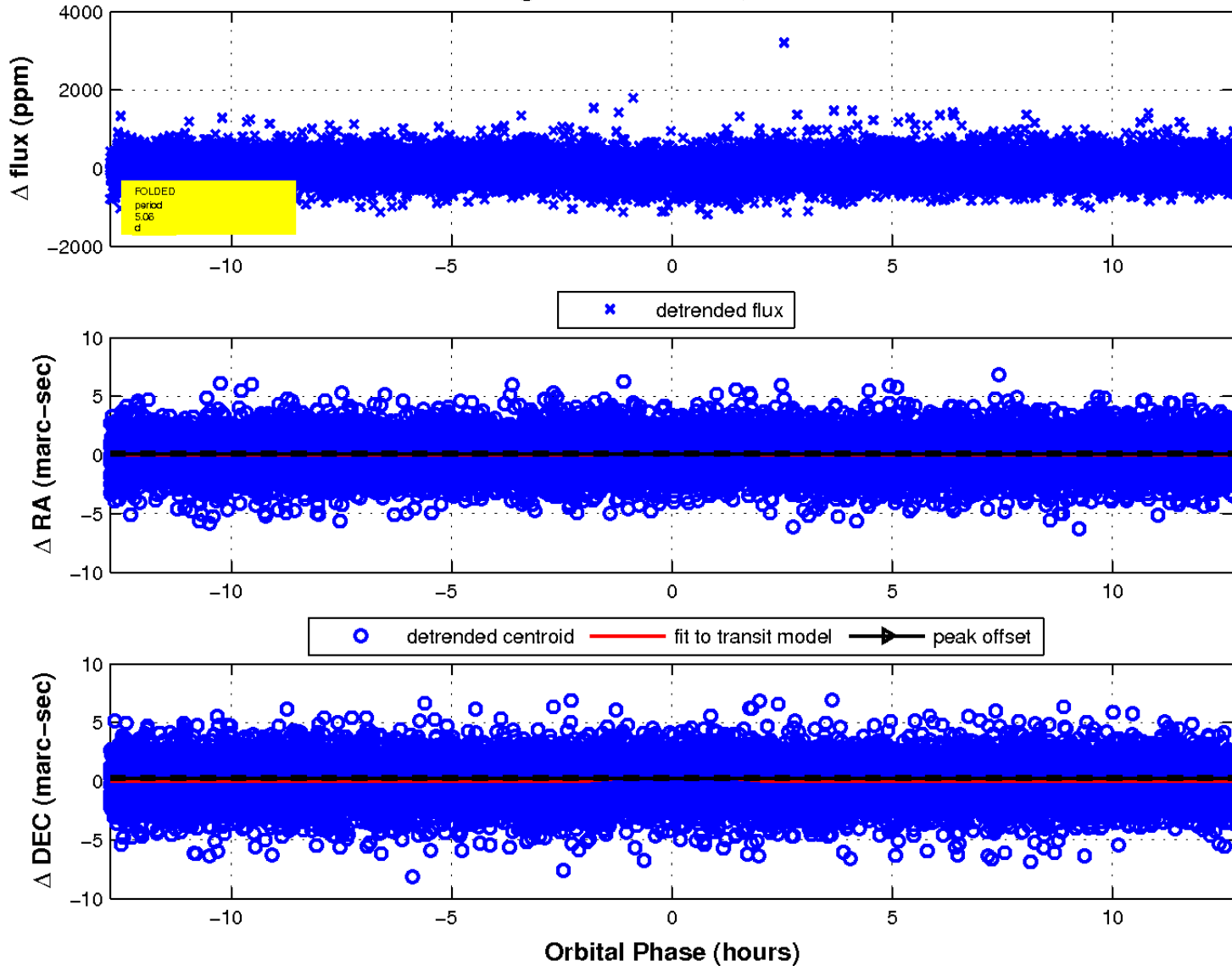
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

