

KIC 006879183

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})
006879183-01	OBS	5333.01	20.547573	149.187094	253.5	4.804	10.6	11.0	1.06	5922	1.99	53.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006879183-01	OBS	PC	0.98	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.

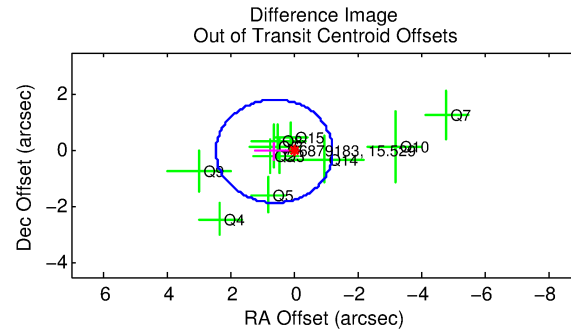
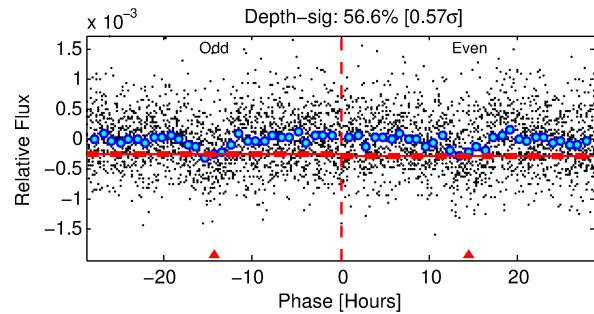
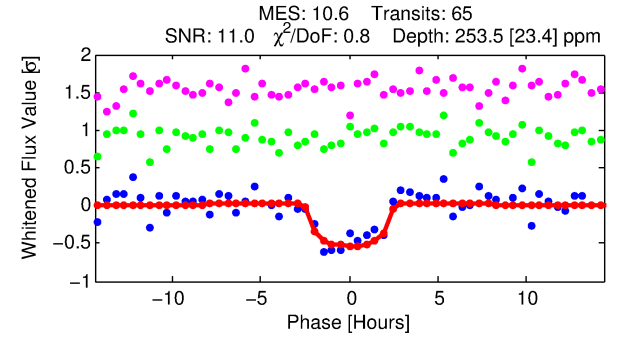
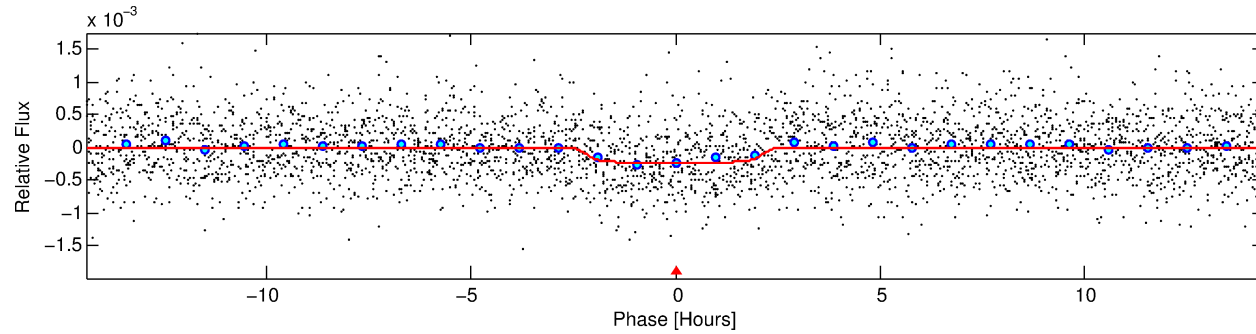
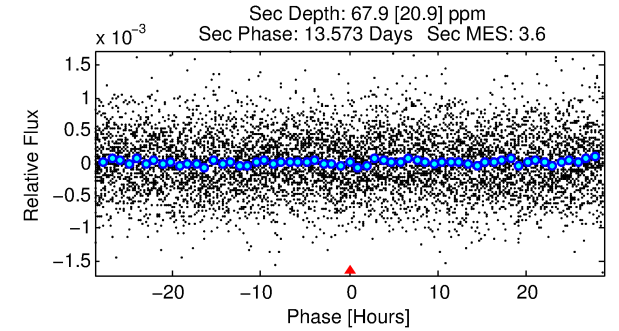
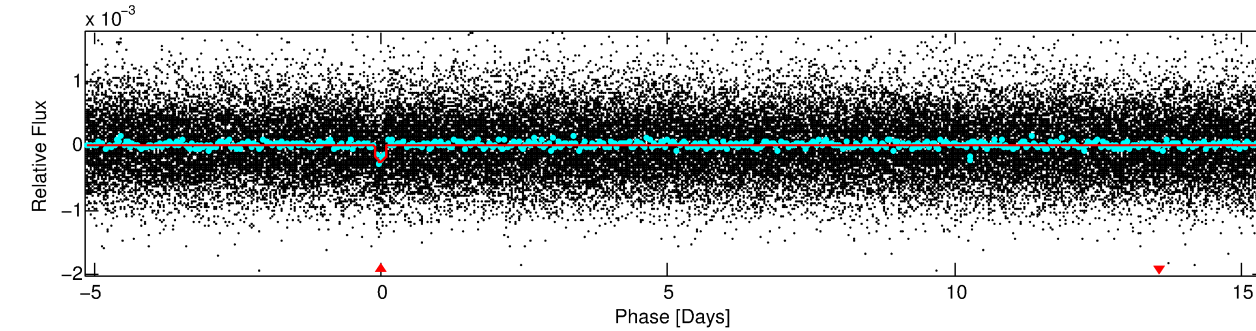
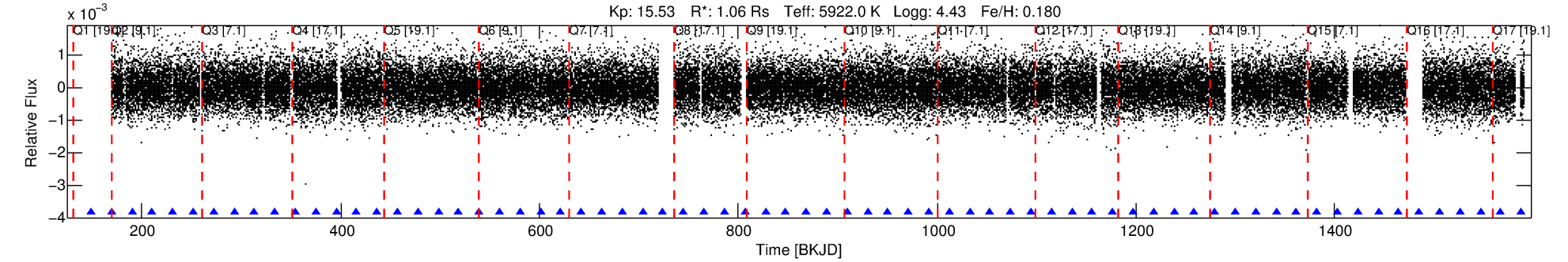
Ephemeris Match Information For 006879183-01

No Significant Match Found

DV One-Page Summary

KIC: 6879183 Candidate: 1 of 1 Period: 20.548 d

KOI: K05333.01 Corr: 0.943



DV Fit Results:

Period = 20.54757 [0.00023] d
Epoch = 149.1871 [0.0091] BKJD
Rp/R* = 0.0172 [0.0051]
a/R* = 15.78 [21.86]
b = 0.90 [0.31]
Seff = 53.76 [22.30]
Teff = 690 [72] K
Rp = 1.99 [0.86] Re
a = 0.1513 [0.0404] AU
Ag = 216.25 [165.91] [1.30σ]
Teffp = 4094 [696] K [4.87σ]

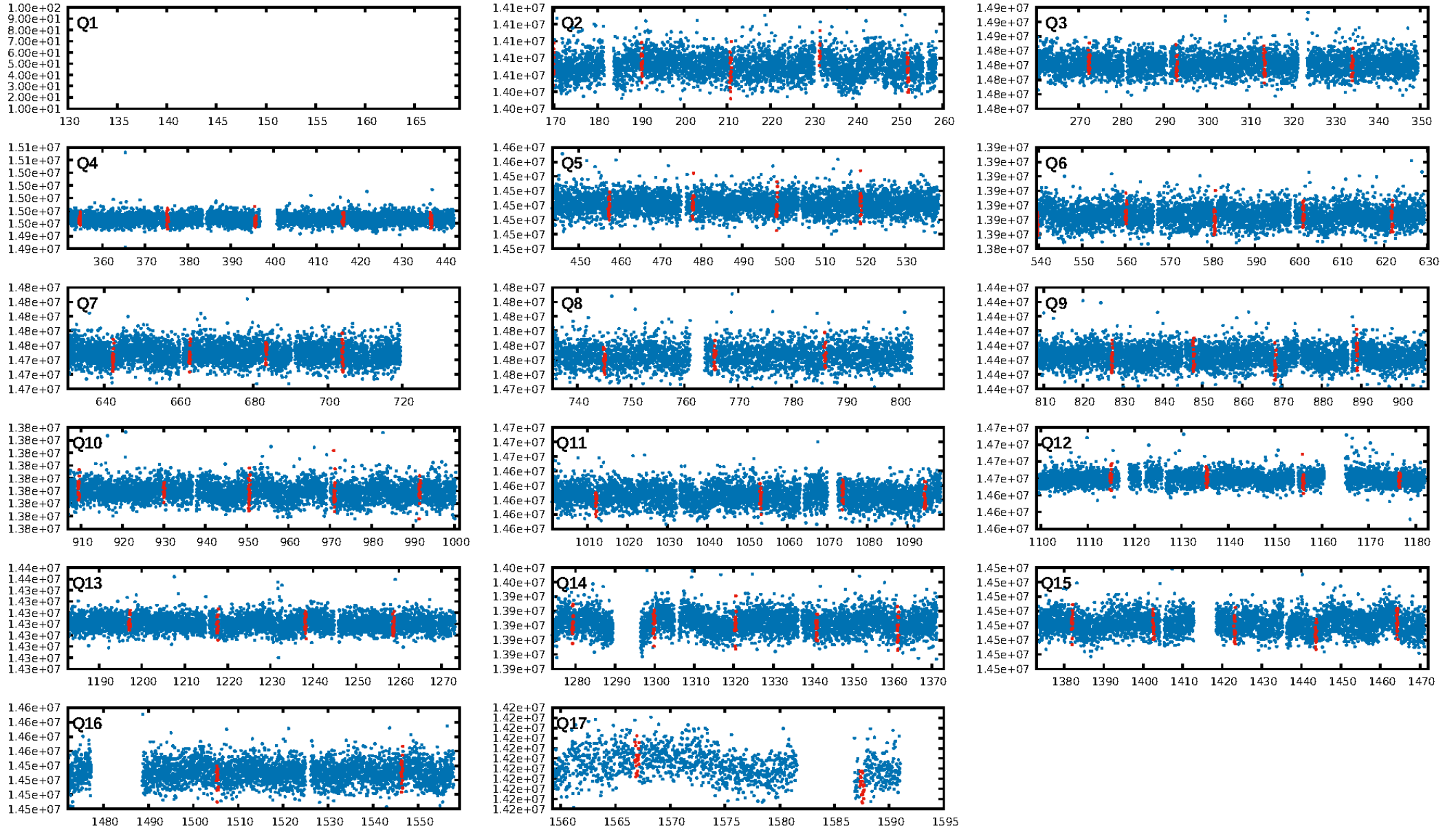
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.04e-26
RollingBand-fgt: 1.00 [63/63]
GhostDiagnostic-chr: 3.016
Centroid-sig: 12.2%
Centroid-so: 1.753 arcsec [1.30σ]
OotOffset-rm: 0.606 arcsec [0.99σ]
KicOffset-rm: 0.609 arcsec [0.99σ]
OotOffset-st: 4/3/2/2 [11]
KicOffset-st: 4/3/2/2 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [15/15]

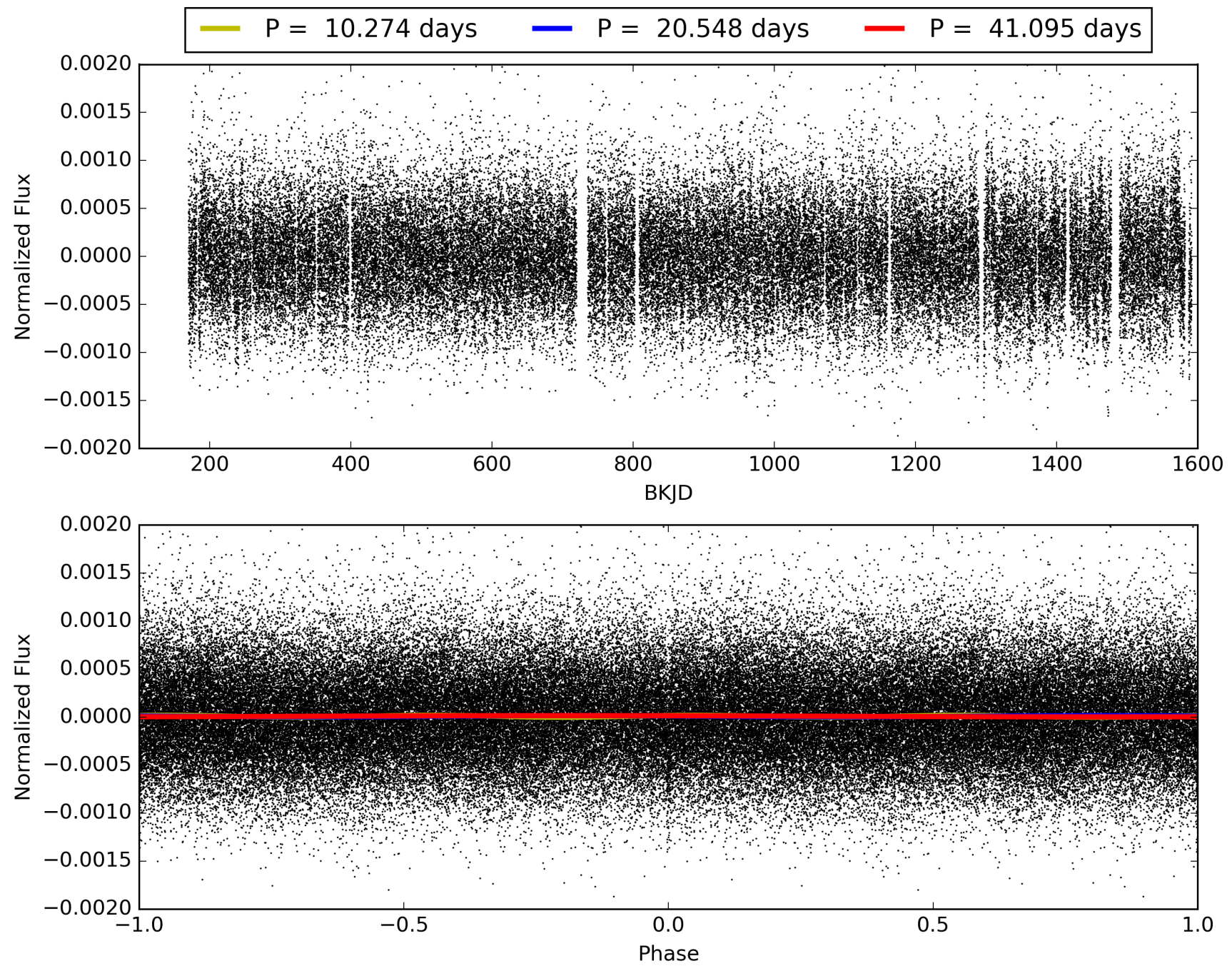
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:17:06 Z

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

TCE 006879183-01, PDC Light Curves

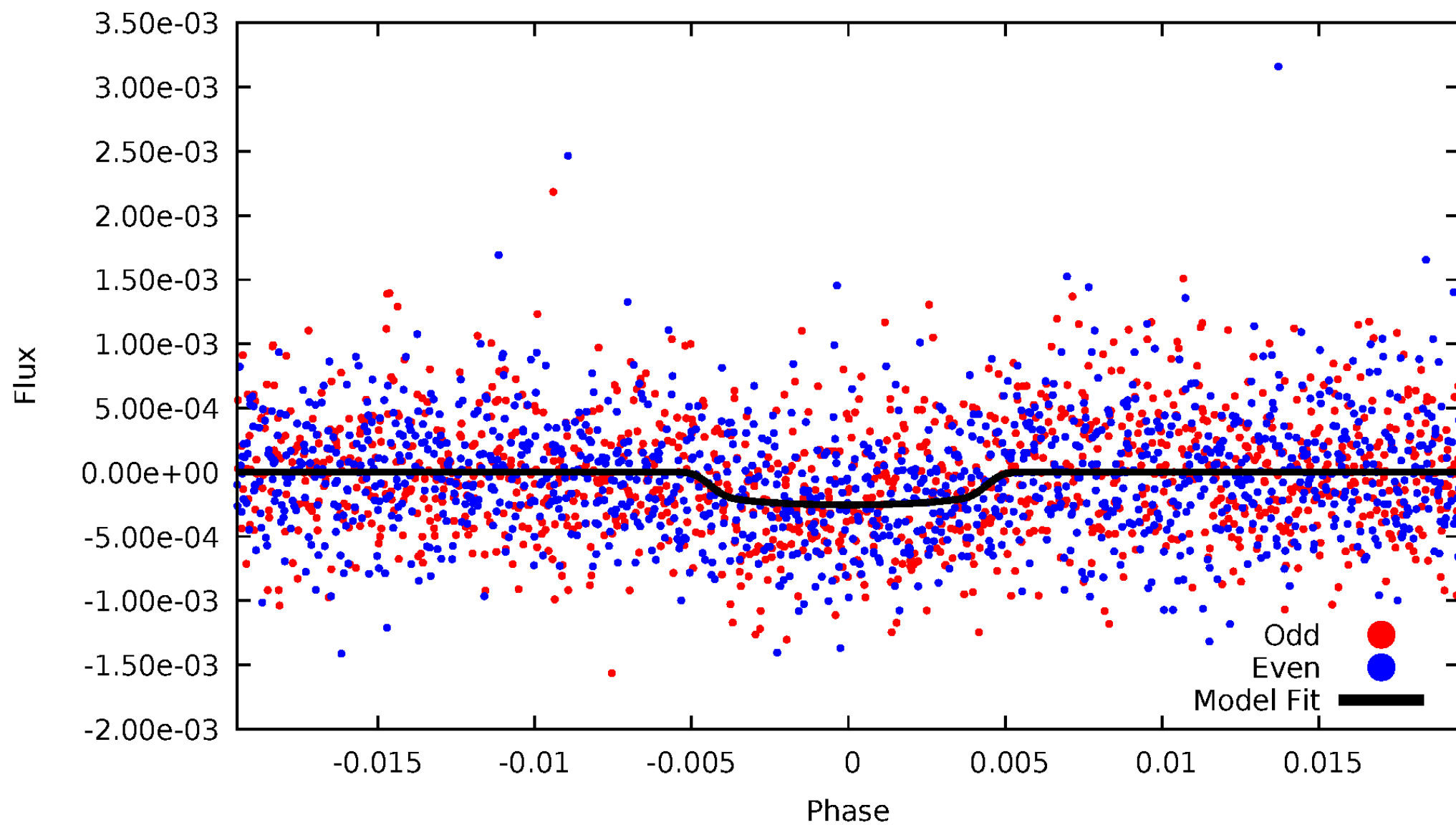


TCE 006879183-01



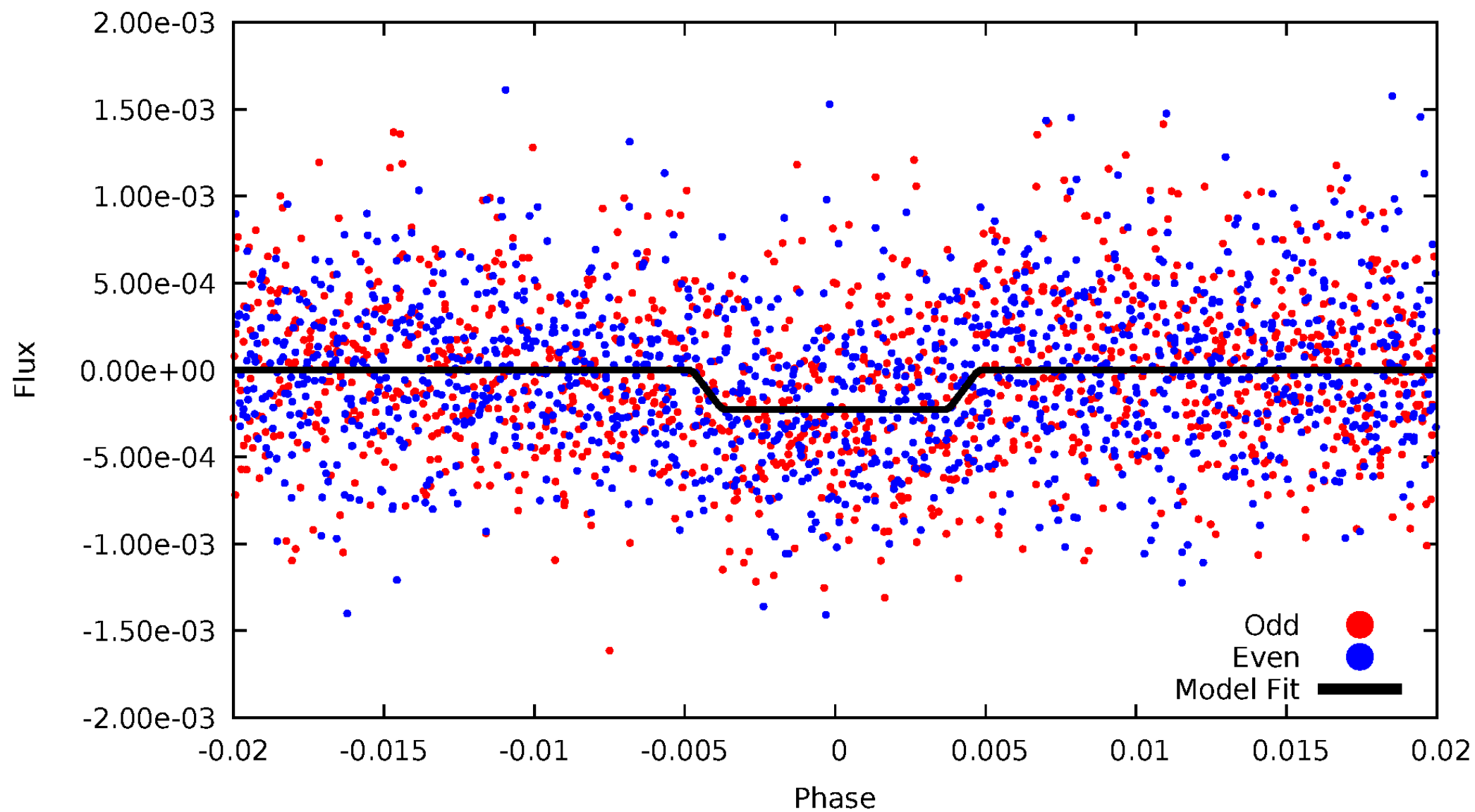
DV Odd/Even

TCE 006879183-01

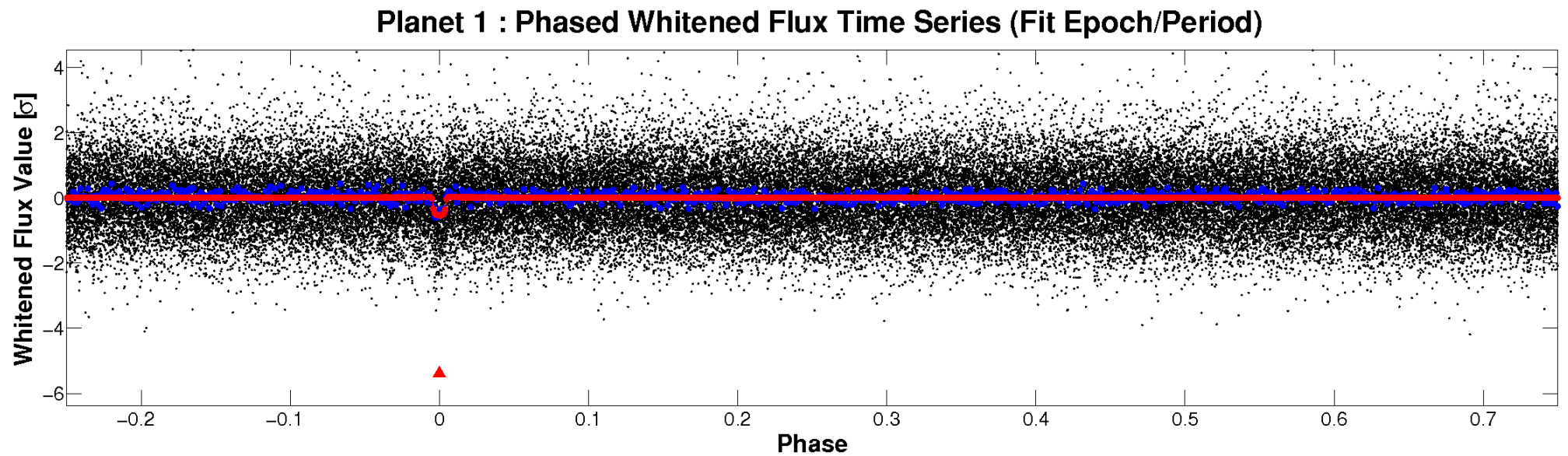
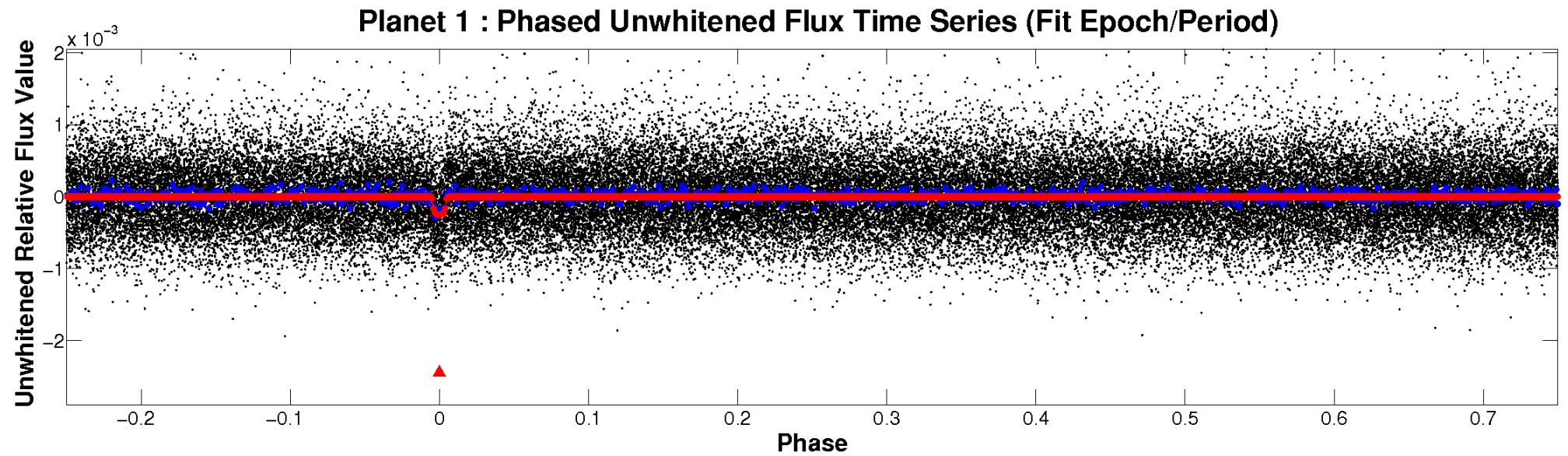


ALT Odd/Even

TCE 006879183-01

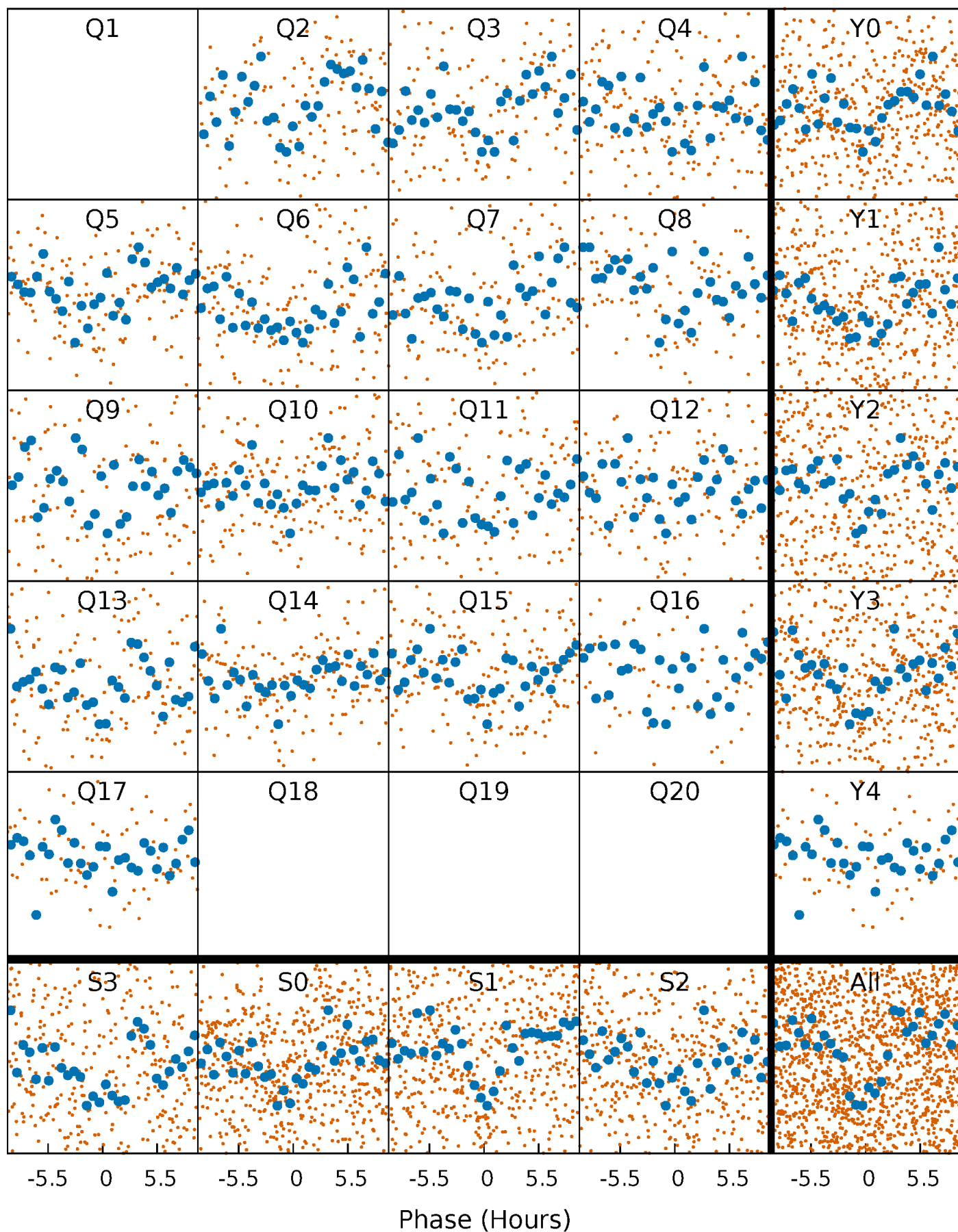


Non-Whitened Vs. Whitened Light Curve



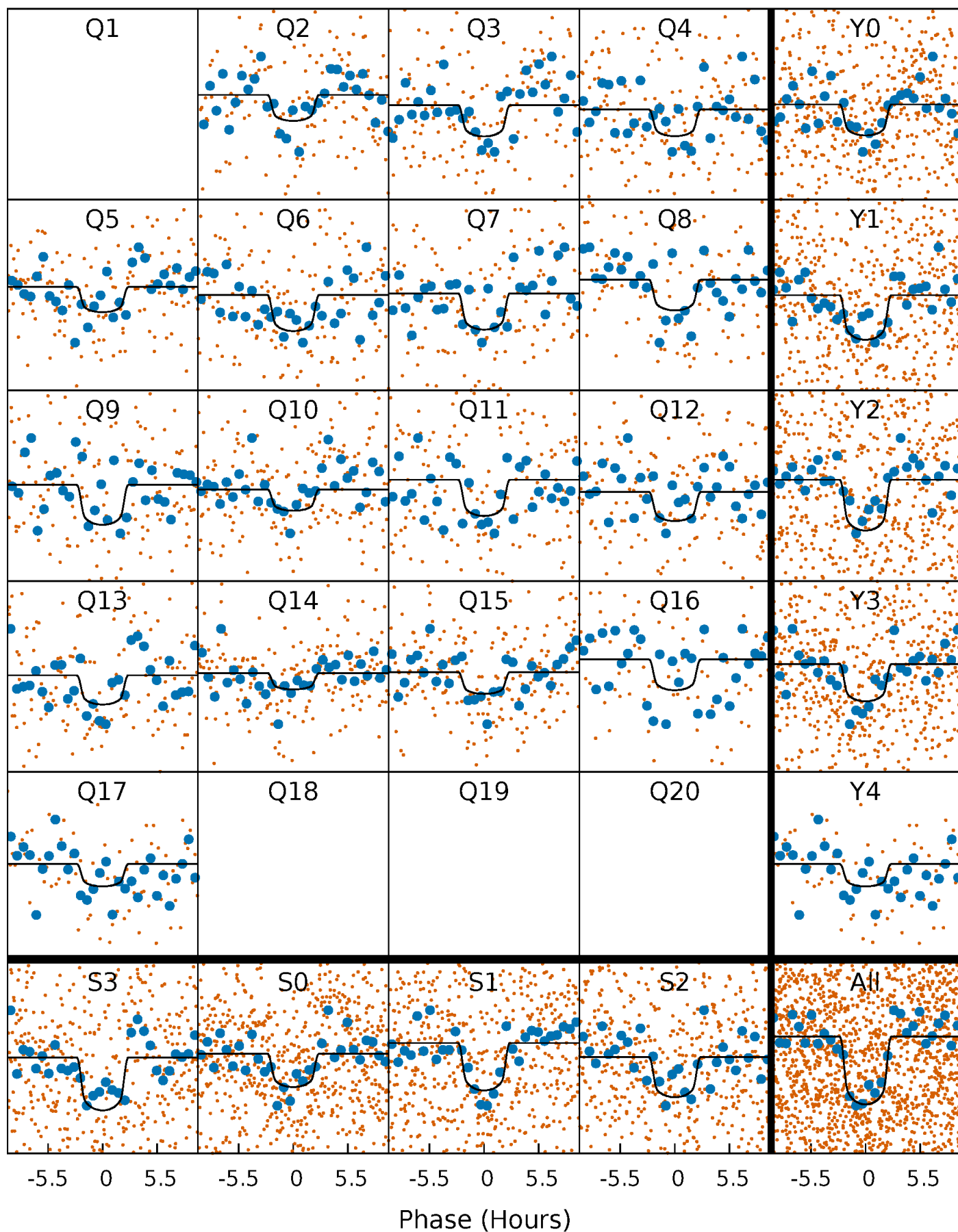
PDC Quarter-Phased Transit Curves

TCE 006879183-01 P= 20.547573 Days $T_0=149.187094$ (BKJD)



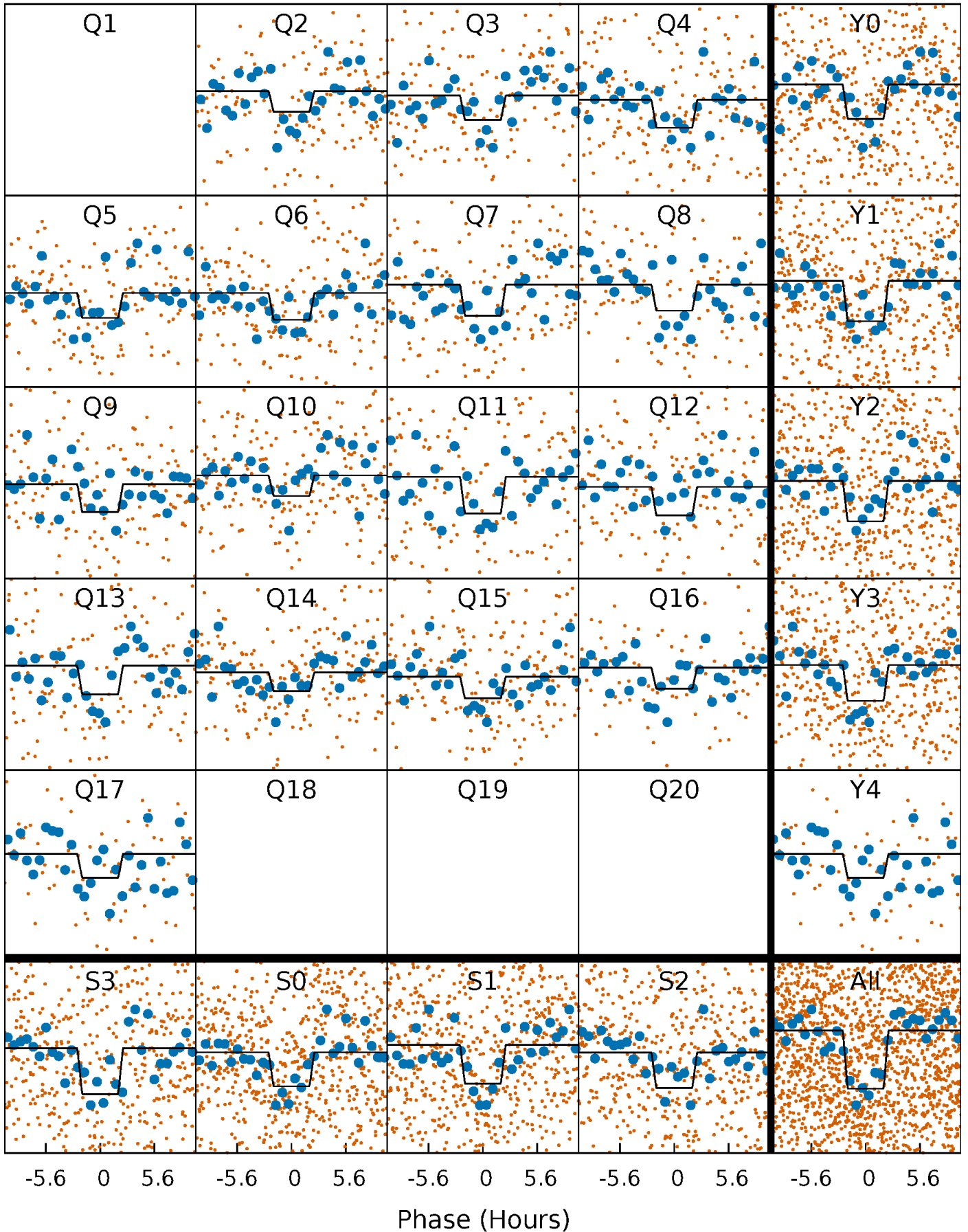
DV Quarter-Phased Transit Curves

TCE 006879183-01 P= 20.547573 Days $T_0=149.187094$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

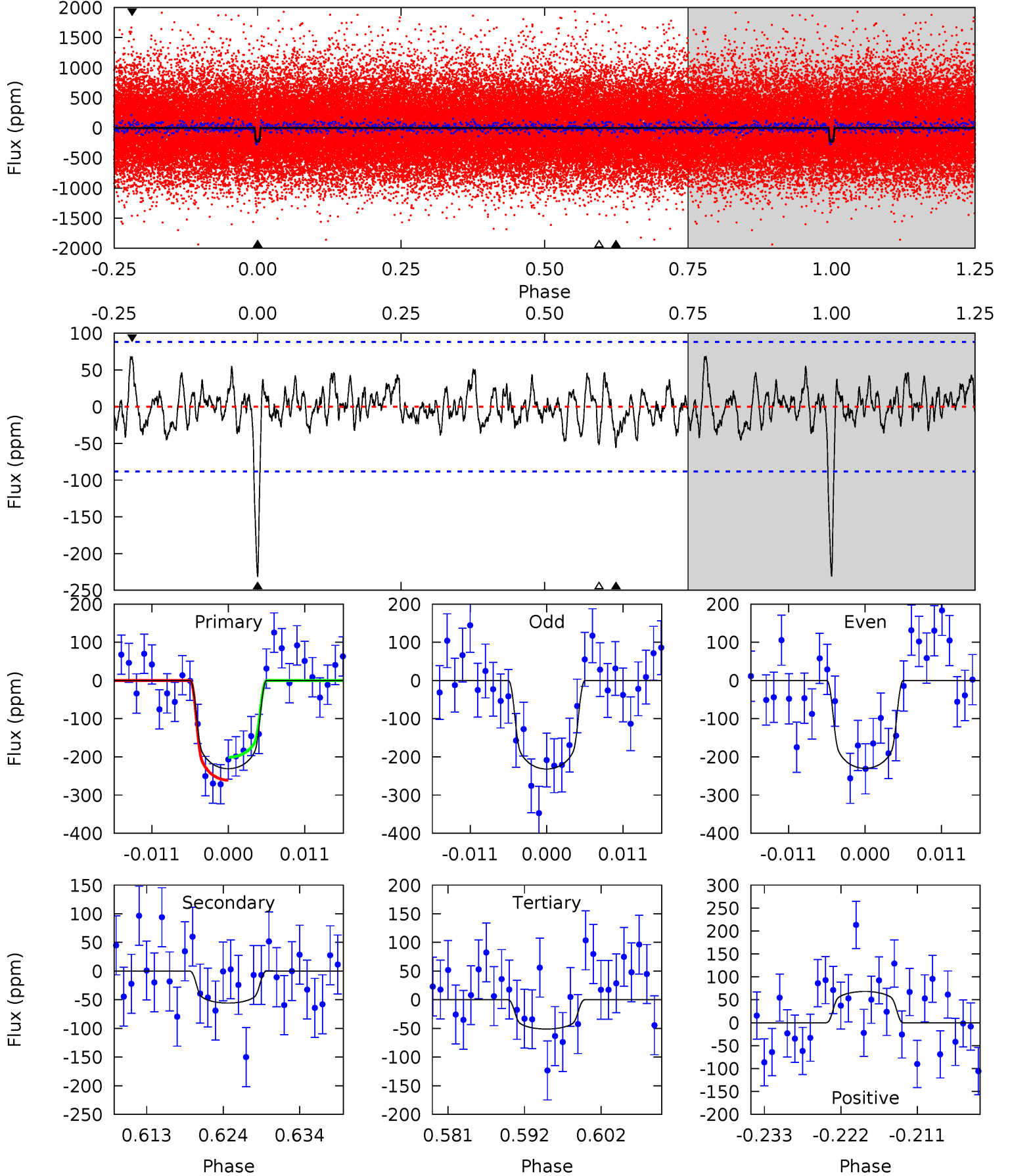
TCE 006879183-01 P= 20.547697 Days $T_0=149.181305$ (BKJD)



DV Model-Shift Uniqueness Test

006879183-01, P = 20.547573 Days, E = 149.187094 Days

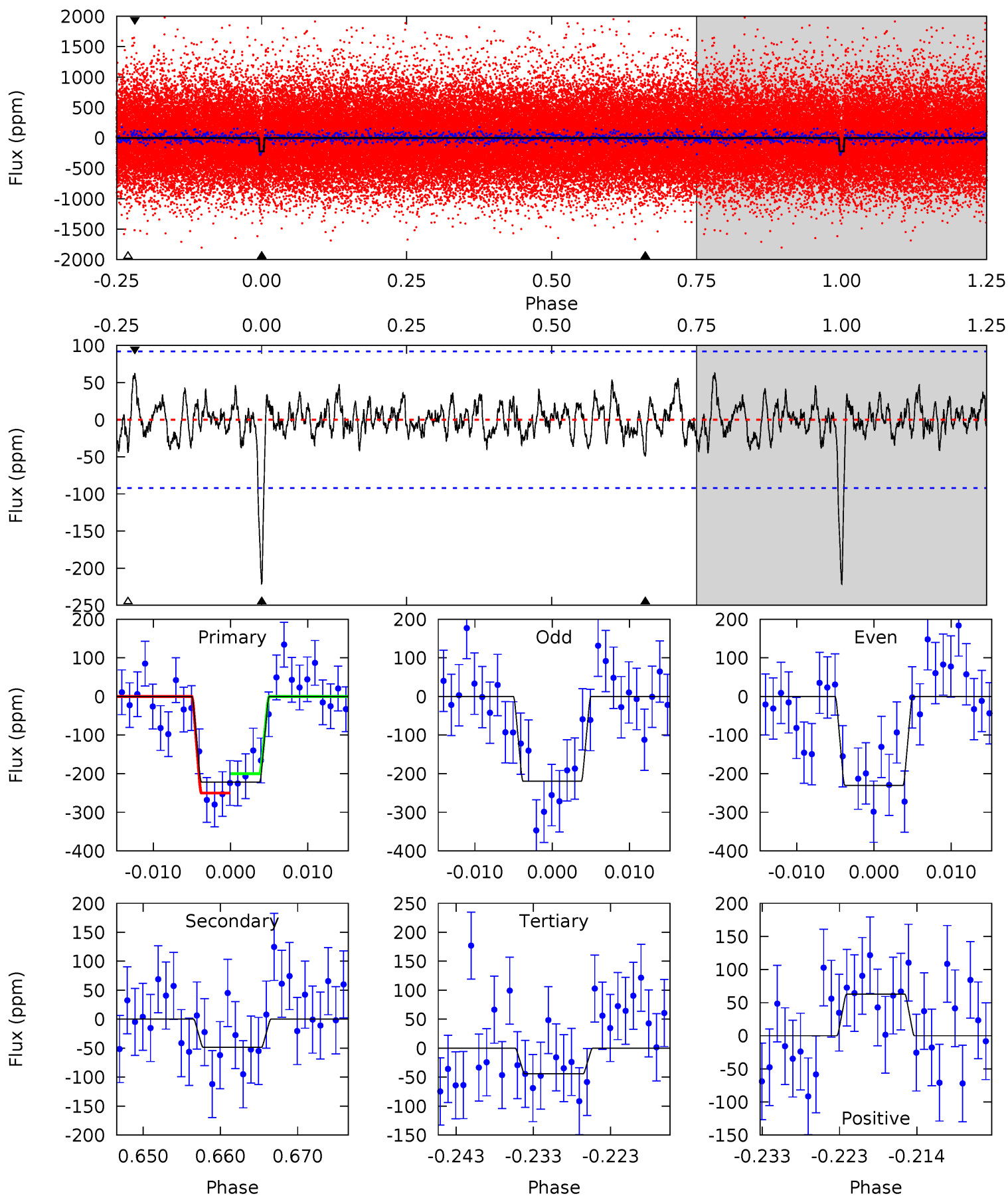
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	3.17	2.91	3.87	5.02	2.56	1.13	10.2	9.27	0.27	-0.70	0.05	1.08	0.23	1.71



Alt Model-Shift Uniqueness Test

006879183-01, P = 20.547697 Days, E = 149.181305 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	2.65	2.43	3.42	5.03	2.59	1.01	9.68	8.68	0.23	-0.77	0.28	0.98	0.22	1.37



Stellar Parameters For KIC 006879183

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5922^{+182}_{-223}	$4.429^{+0.070}_{-0.210}$	$0.180^{+0.200}_{-0.300}$	$1.057^{+0.338}_{-0.135}$	$1.095^{+0.133}_{-0.147}$	$1.307^{+0.460}_{-0.689}$
	+3%/-4%	+2%/-5%	+111%/-167%	+32%/-13%	+12%/-13%	+35%/-53%
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 006879183-01 / KOI 5333.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-56 ± 18	$2.12^{+0.63}_{-0.66}$	983^{+78}_{-54}	4136^{+549}_{-467}	150^{+163}_{-72}
Alt.	-49 ± 18	$1.77^{+0.74}_{-0.57}$	978^{+77}_{-49}	4254^{+720}_{-546}	180^{+234}_{-98}

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

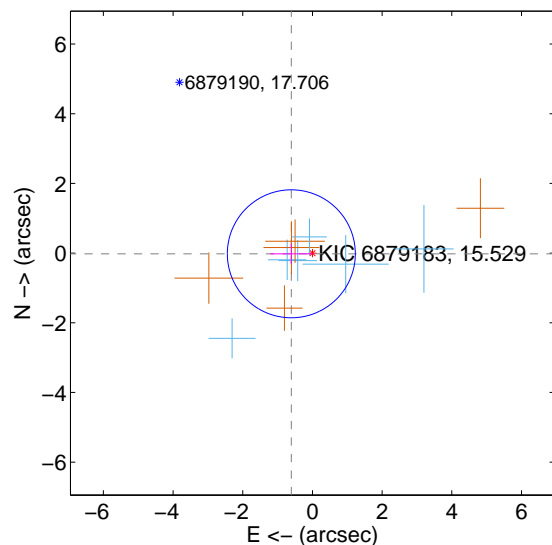
Supplemental centroid analysis for 006879183-01. Kepler magnitude: 15.53. Transit SNR 11.00

There are 6 quarters with good PRF difference image offsets

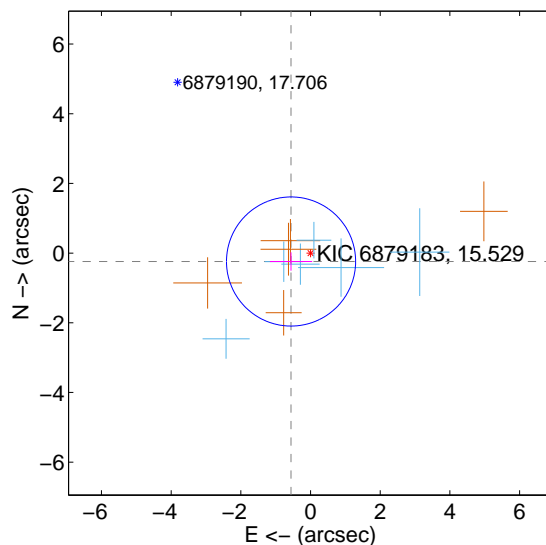
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.606 ± 0.612	0.99	0.606 ± 0.607	-0.020 ± 0.287
PRF-fit source offset from KIC position	0.609 ± 0.618	0.99	0.559 ± 0.606	-0.241 ± 0.263
photometric centroid source offset	1.75 ± 1.34	1.30	-1.67 ± 1.34	-0.54 ± 1.41

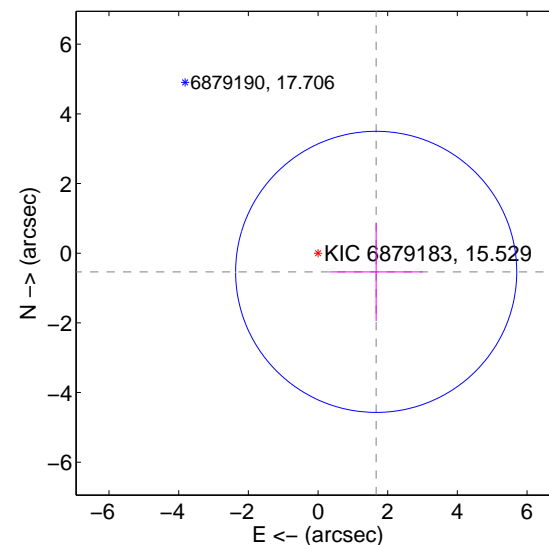
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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.

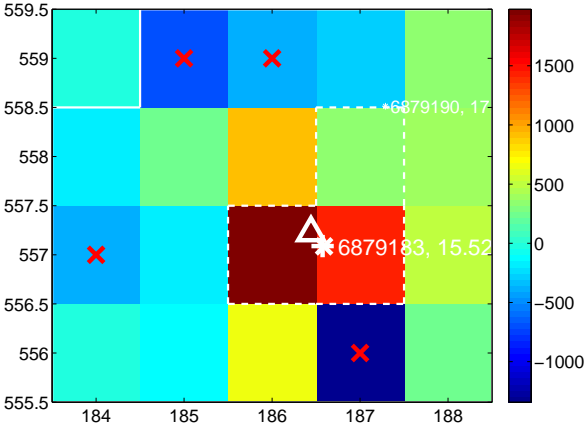
Q1 no difference image



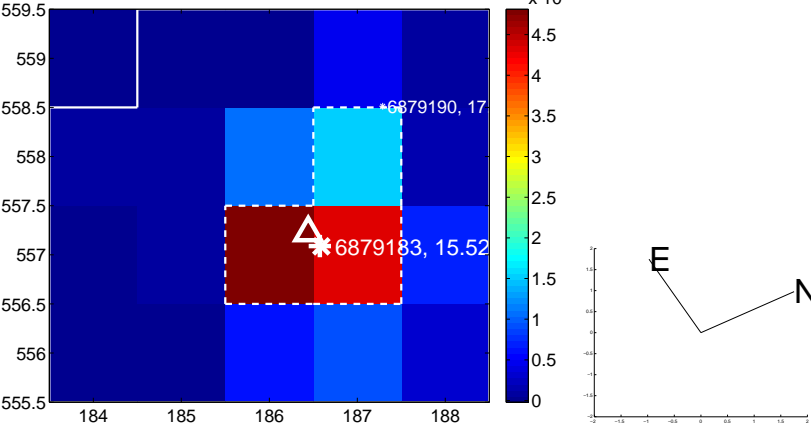
Q1 no OOT image



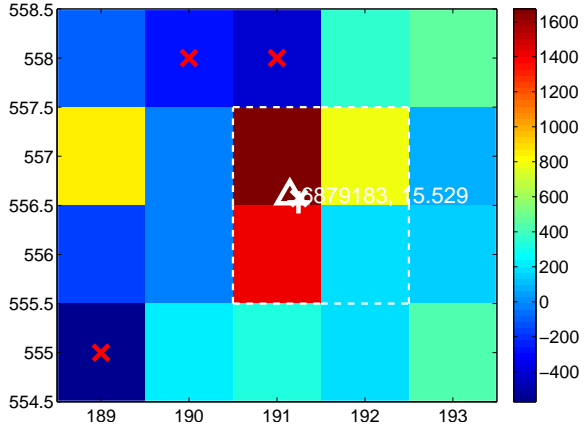
Q2 difference image



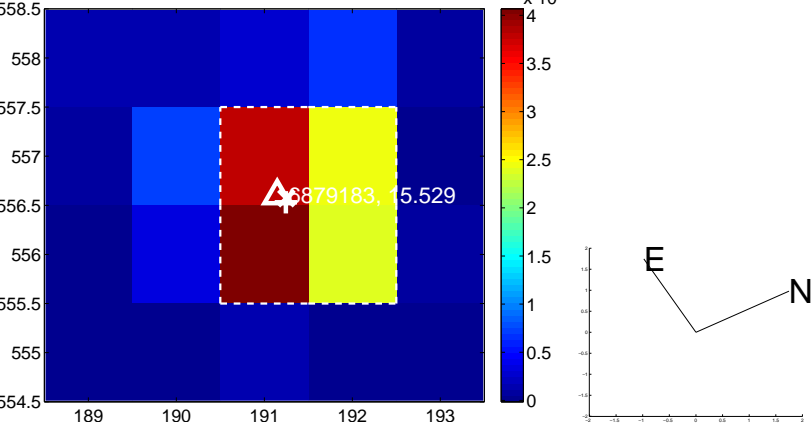
Q2 OOT image



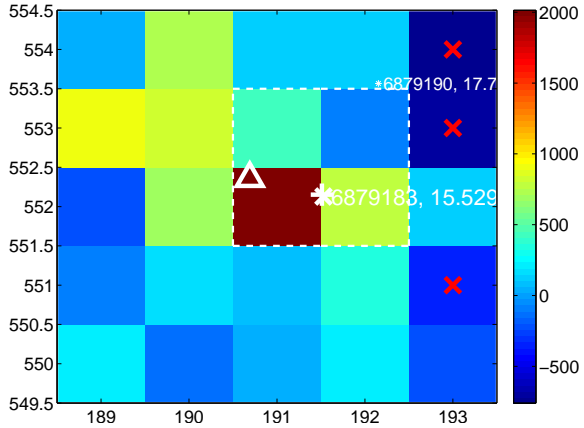
Q3 difference image



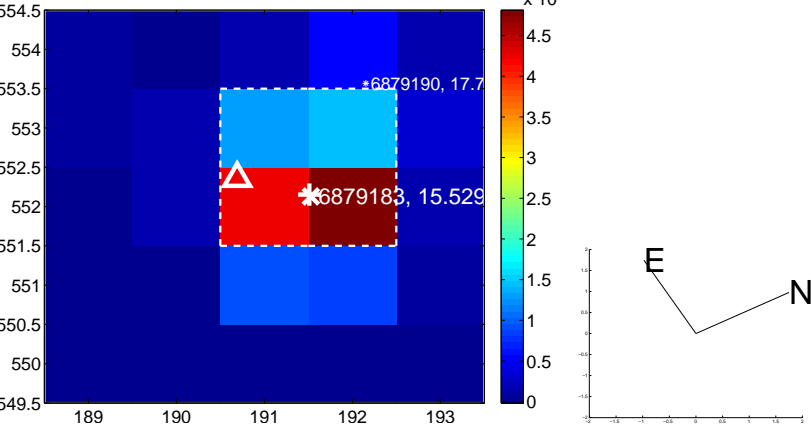
Q3 OOT image



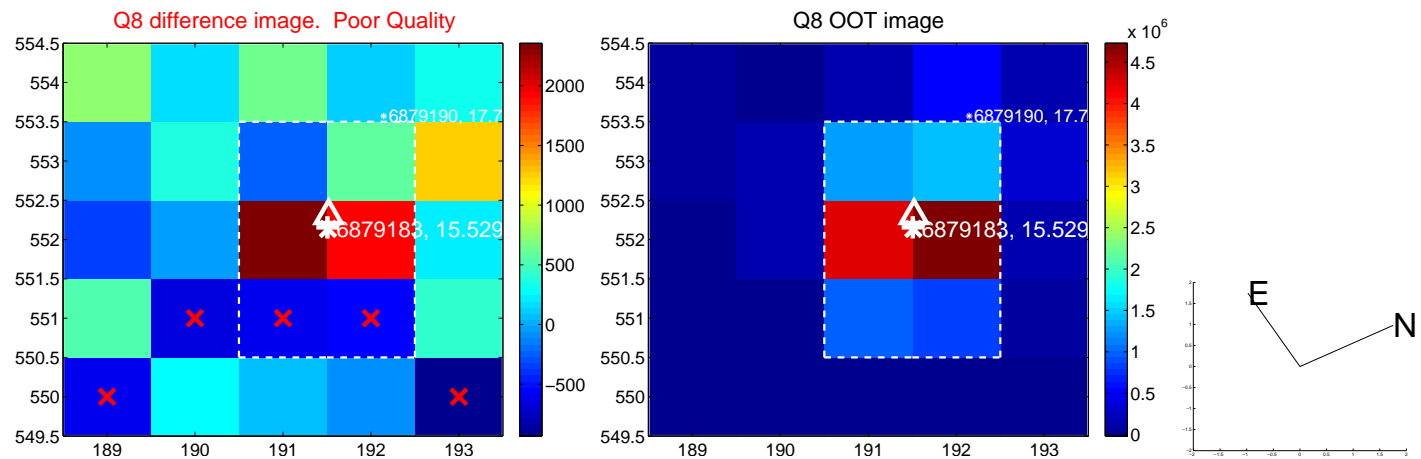
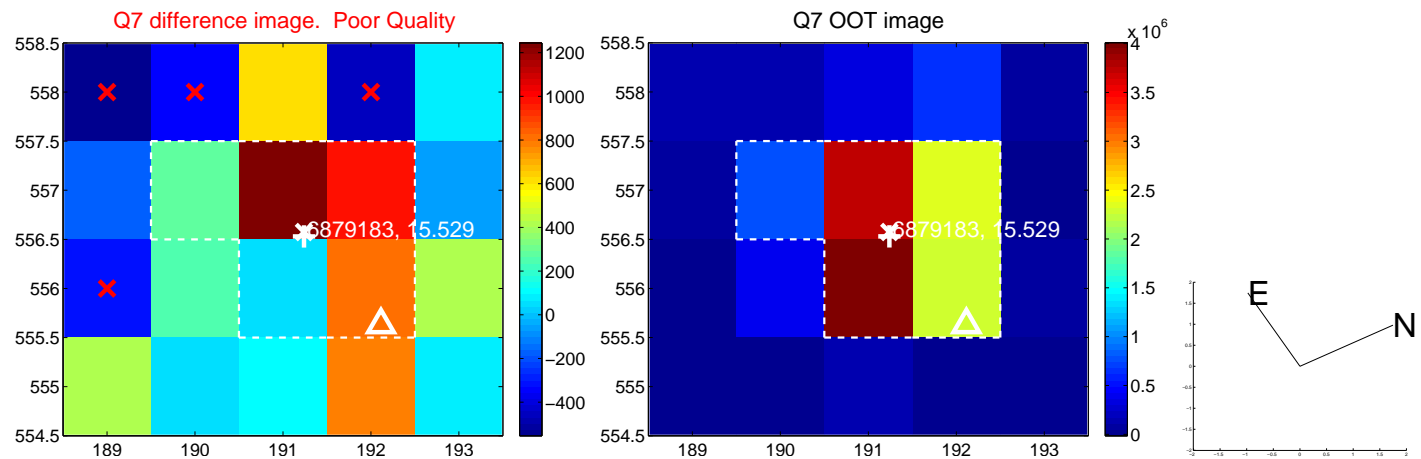
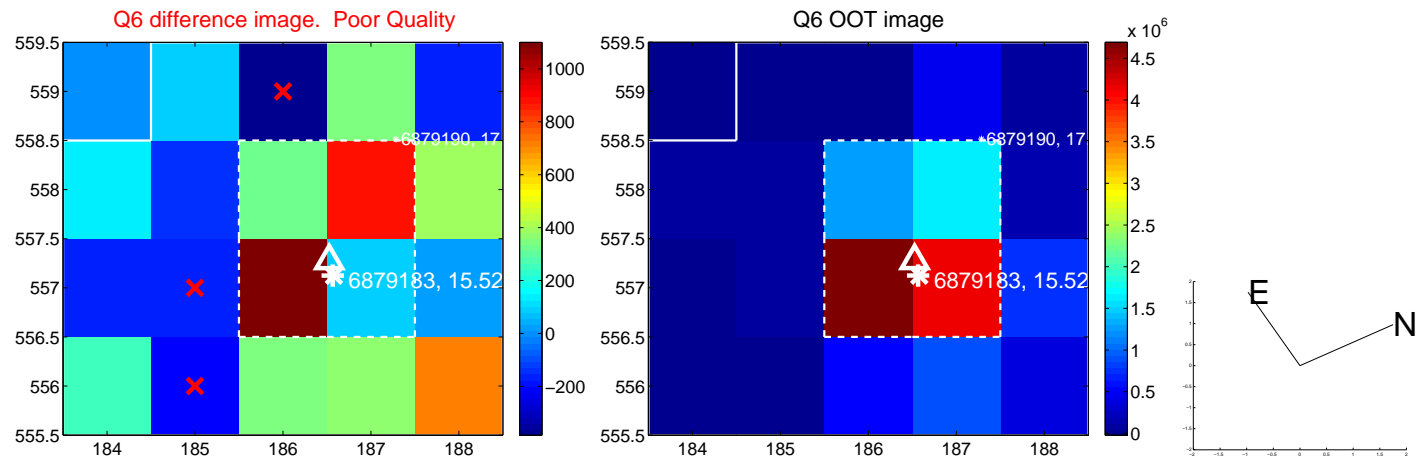
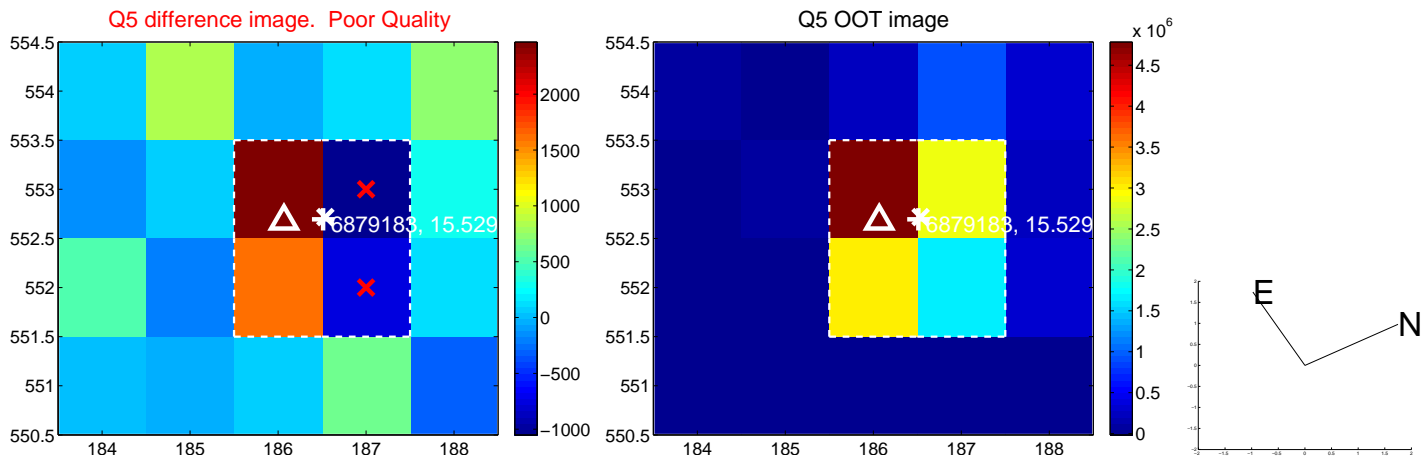
Q4 difference image



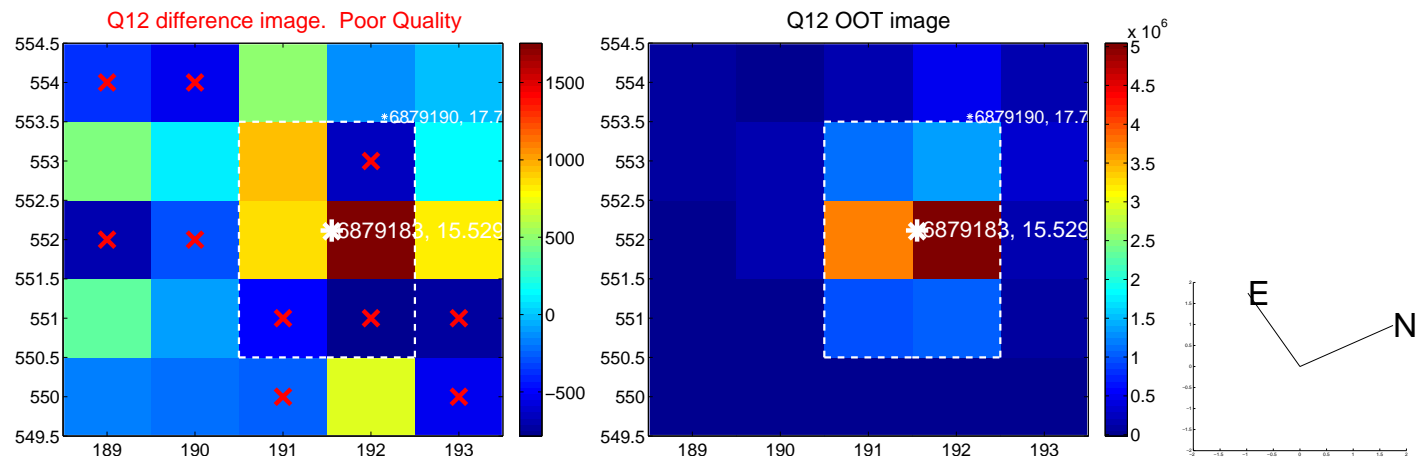
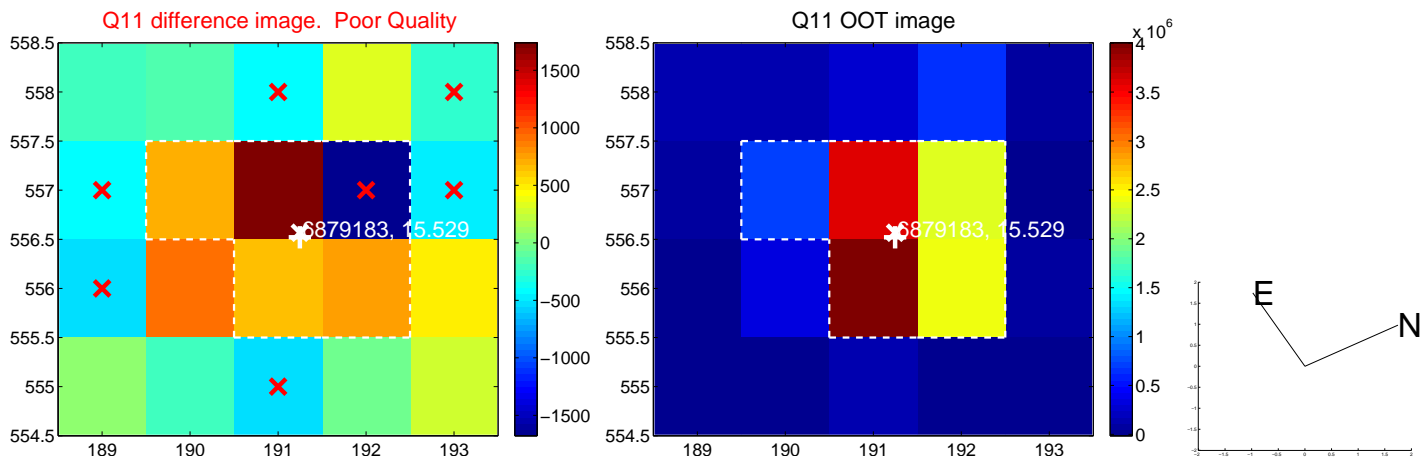
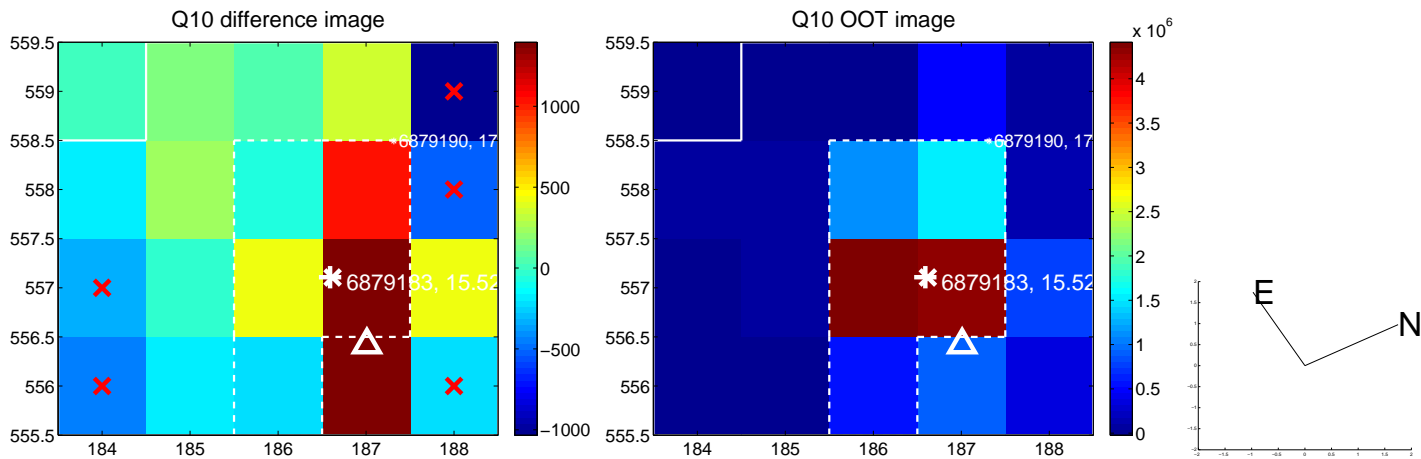
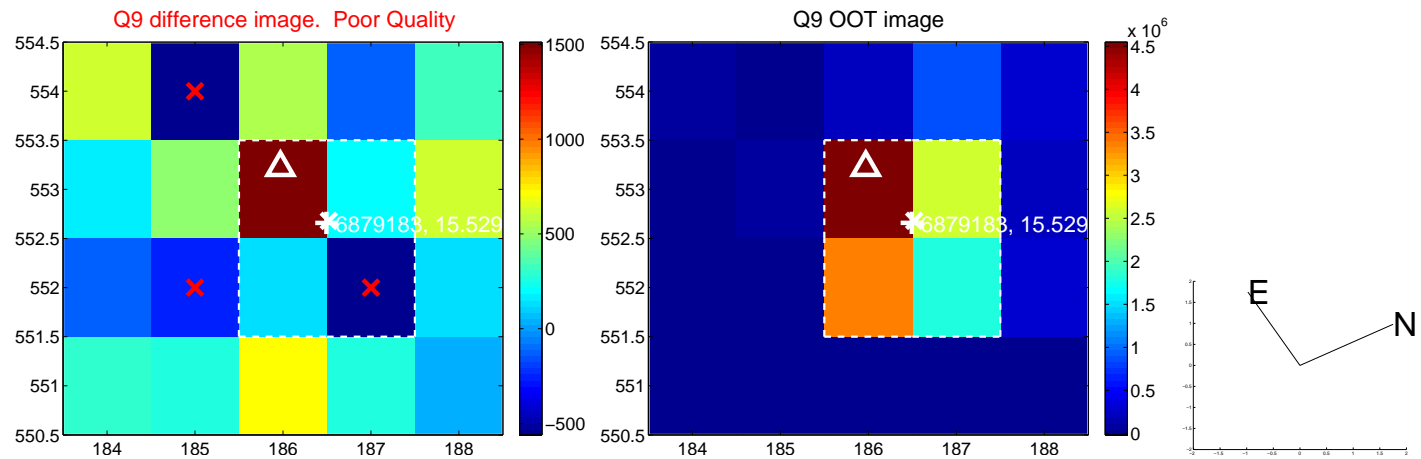
Q4 OOT image



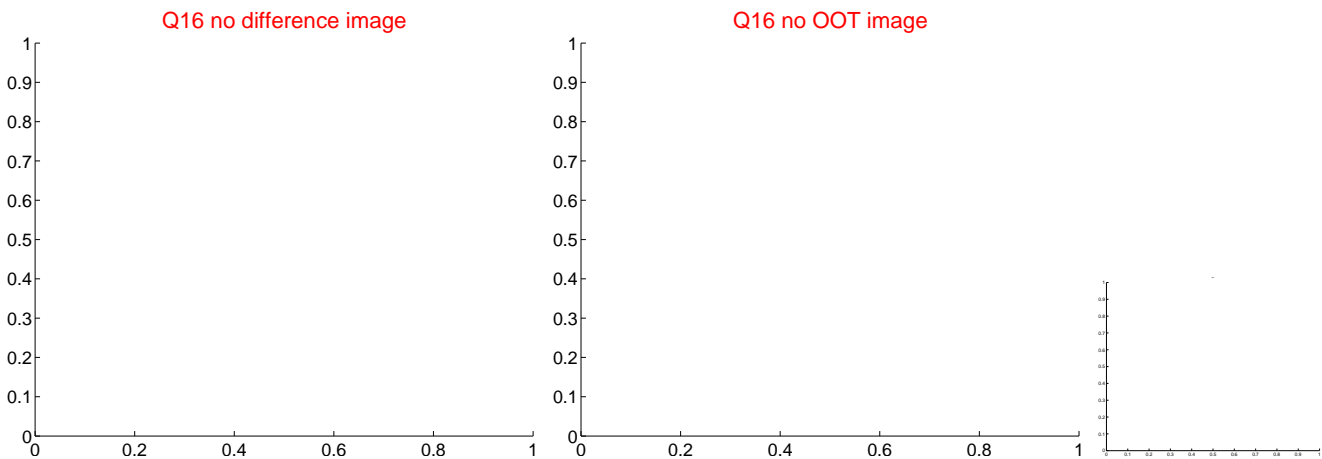
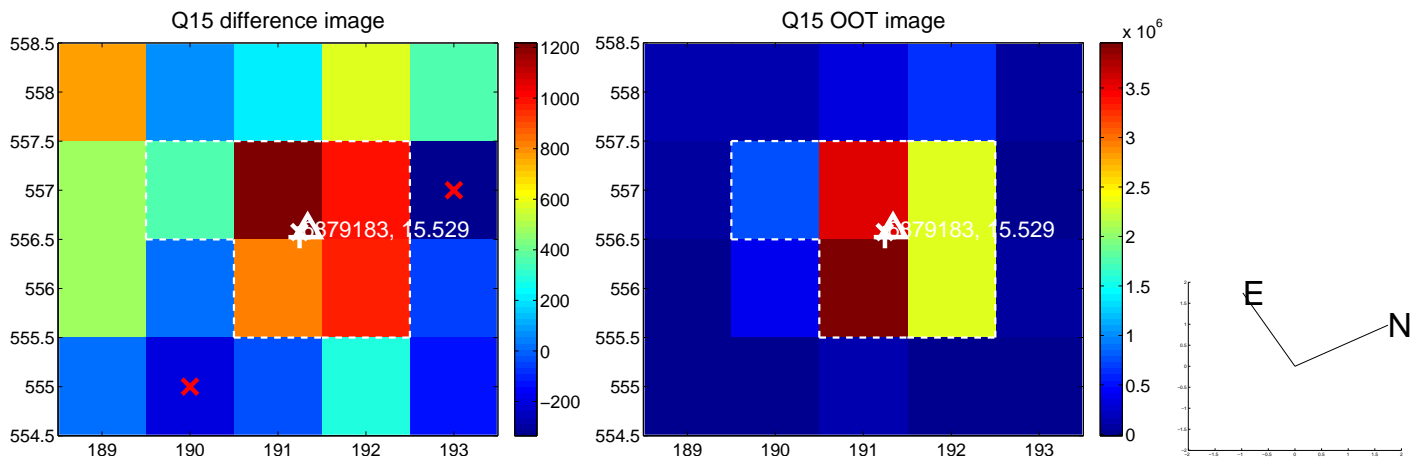
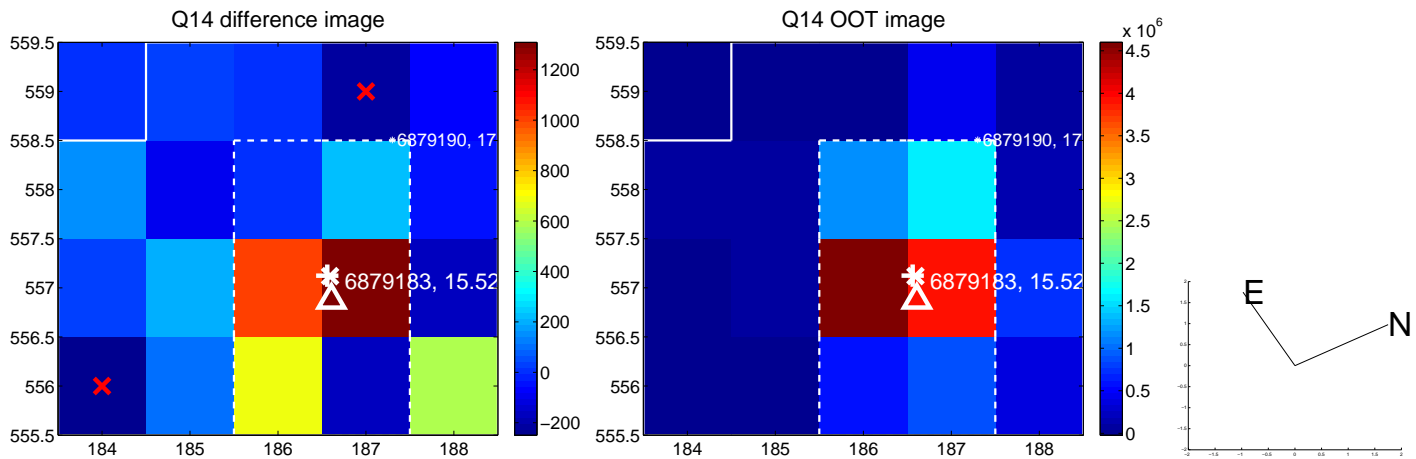
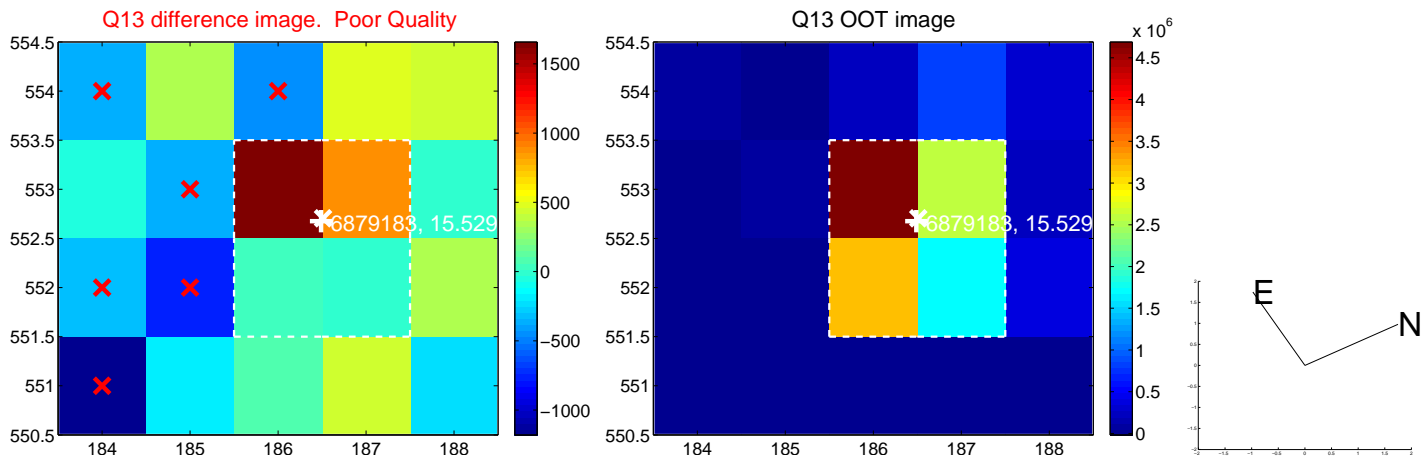
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



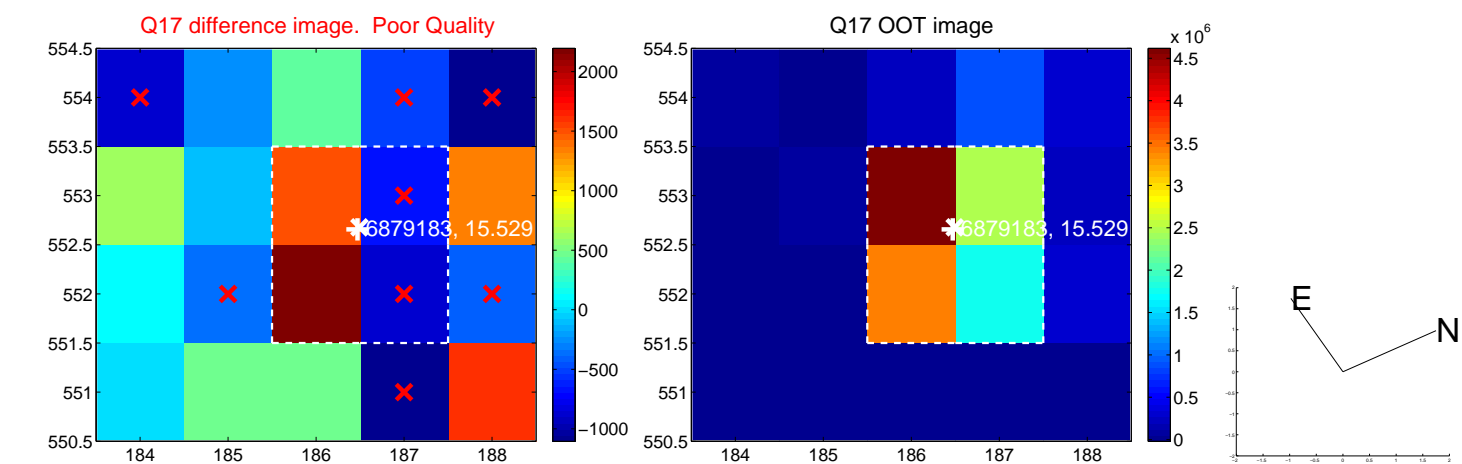
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



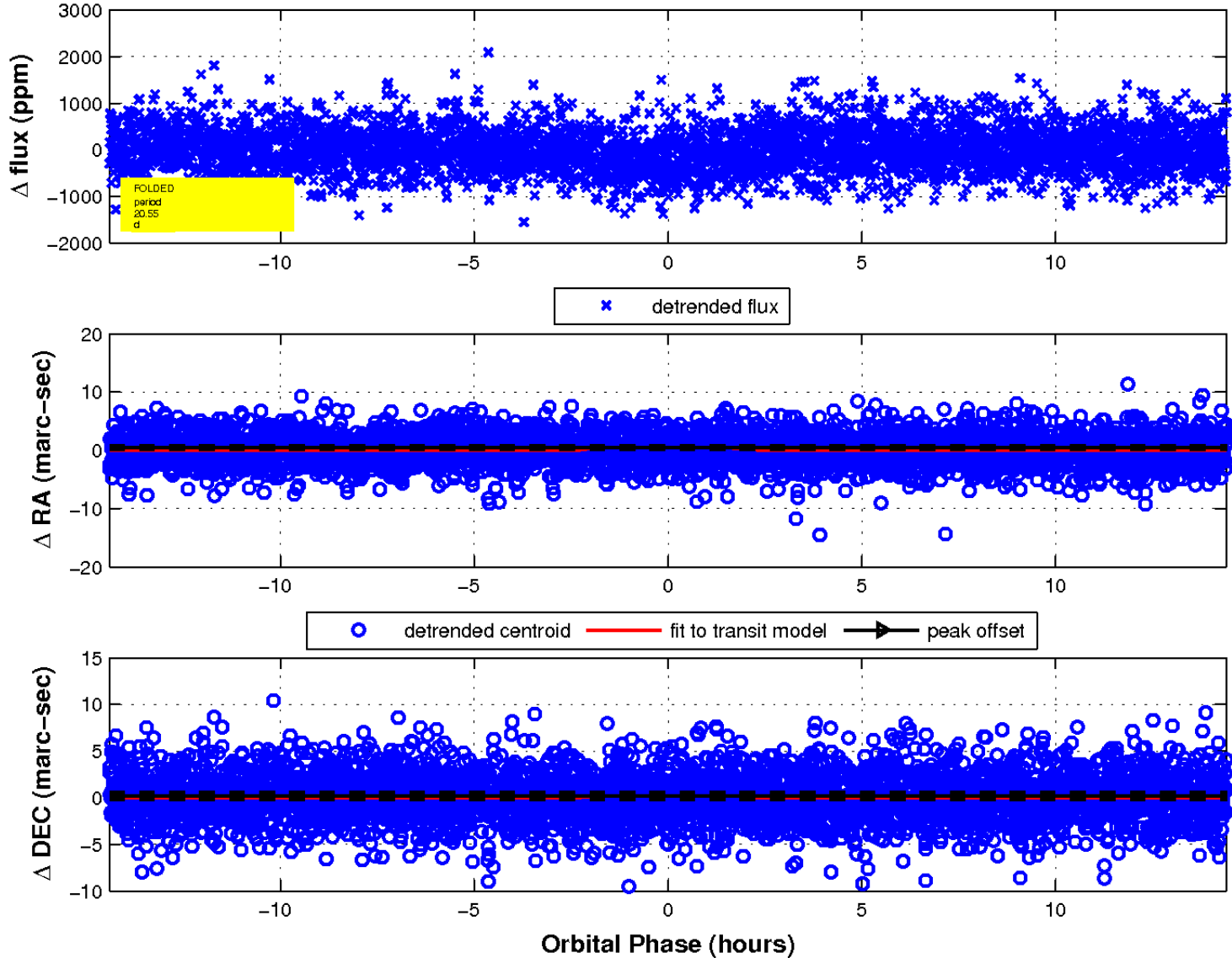
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

