

KIC 005705819

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})
005705819-01	OBS	2091.01	8.780002	138.479132	808.2	4.328	25.7	28.9	0.76	5191	3.06	61.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005705819-01	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.

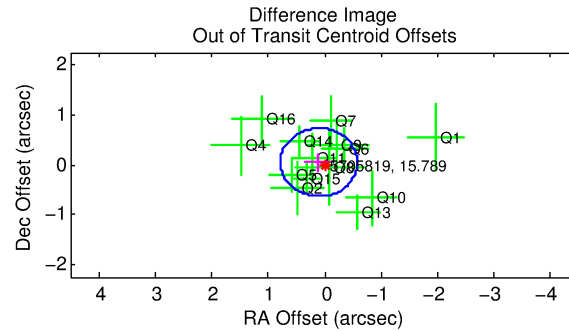
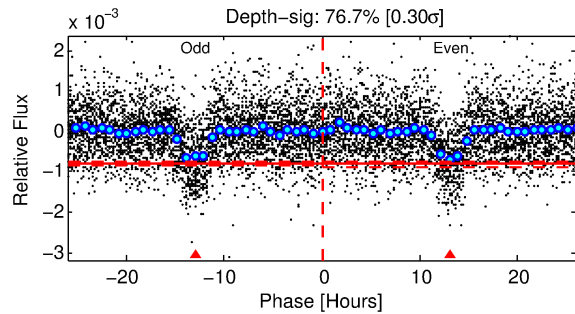
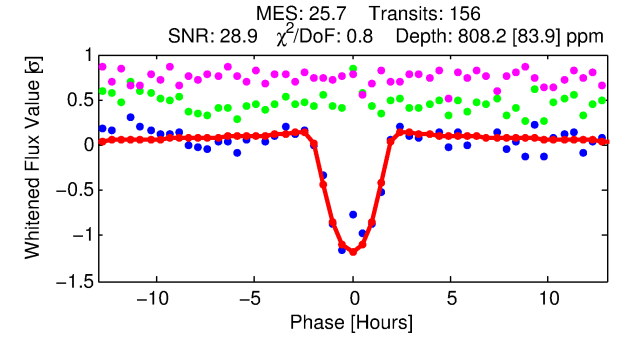
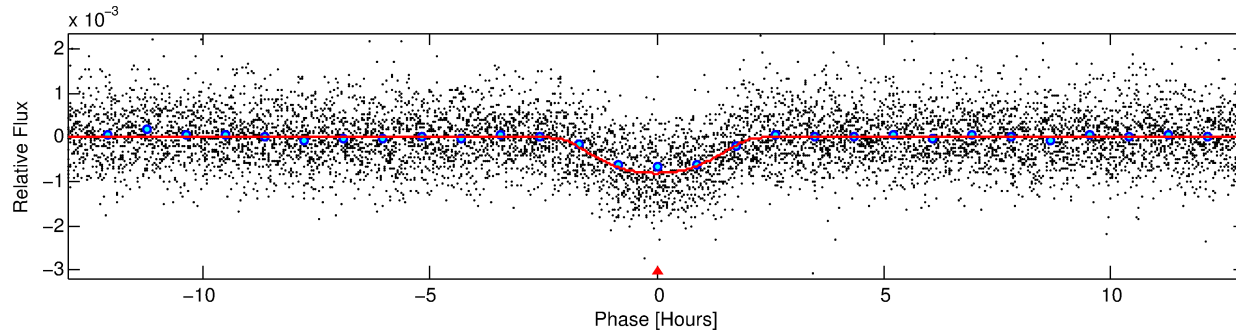
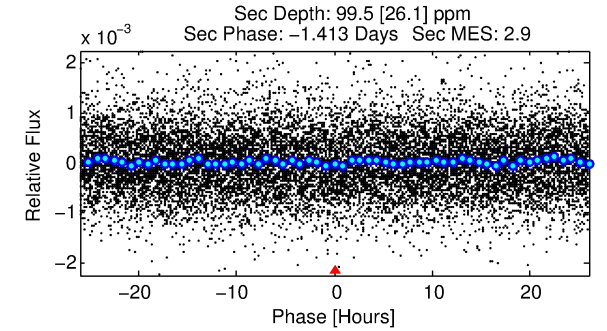
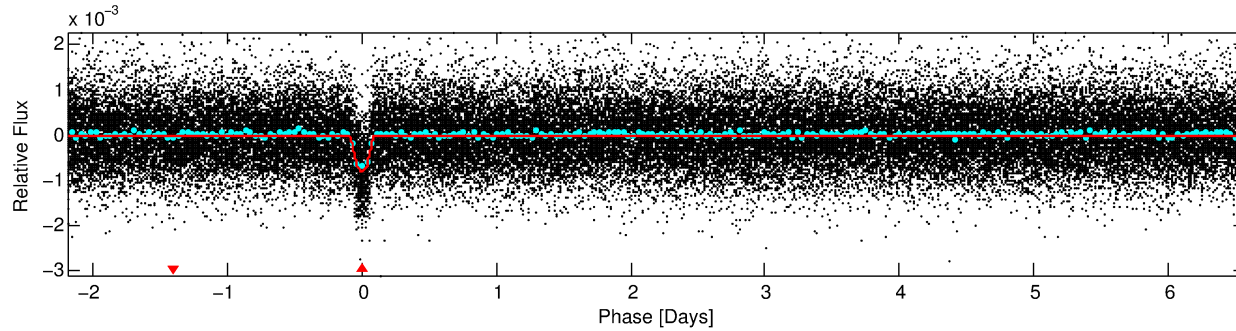
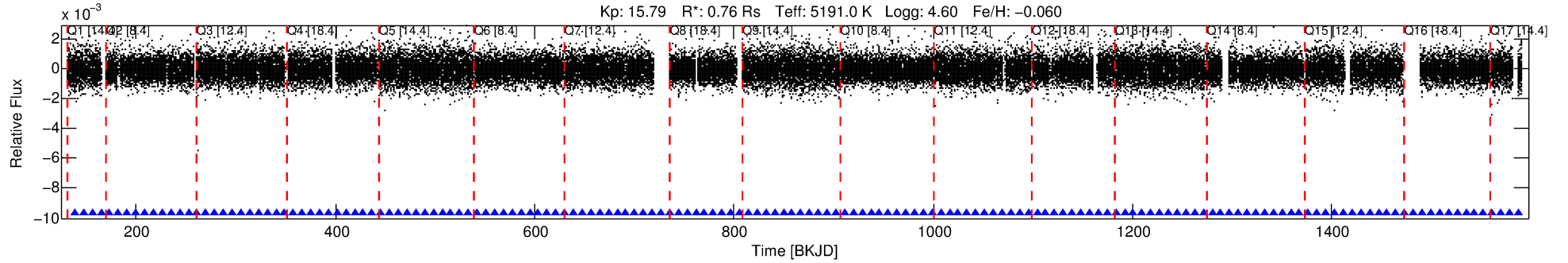
Ephemeris Match Information For 005705819-01

No Significant Match Found

DV One-Page Summary

KIC: 5705819 Candidate: 1 of 1 Period: 8.780 d

KOI: K02091.01 Corr: 0.947



DV Fit Results:

Period = 8.78000 [0.00004] d
Epoch = 138.4791 [0.0033] BKJD
Rp/R* = 0.0367 [0.0056]
a/R* = 5.78 [0.63]
b = 0.97 [0.02]
Seff = 61.37 [12.64]
Teq = 714 [37] K
Rp = 3.06 [0.64] Re
a = 0.0787 [0.0092] AU
Ag = 36.24 [15.79] [2.23σ]
Teffp = 2707 [284] K [6.96σ]

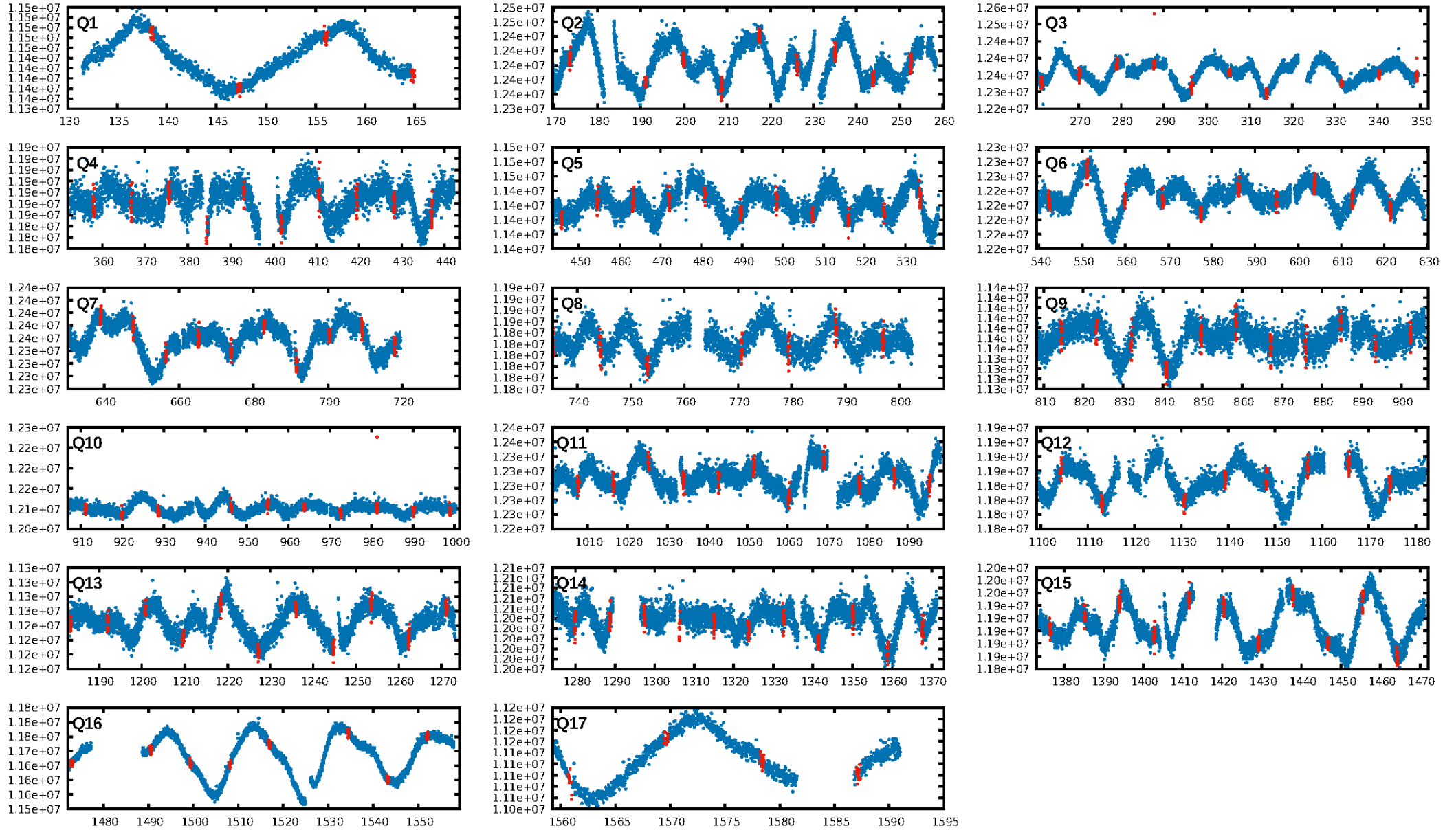
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.84e-143
RollingBand-fgt: 1.00 [148/148]
GhostDiagnostic-chr: 7.032
Centroid-sig: 31.3%
Centroid-so: 0.238 arcsec [0.52σ]
OotOffset-rm: 0.115 arcsec [0.51σ]
KicOffset-rm: 0.194 arcsec [1.06σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [17/17]

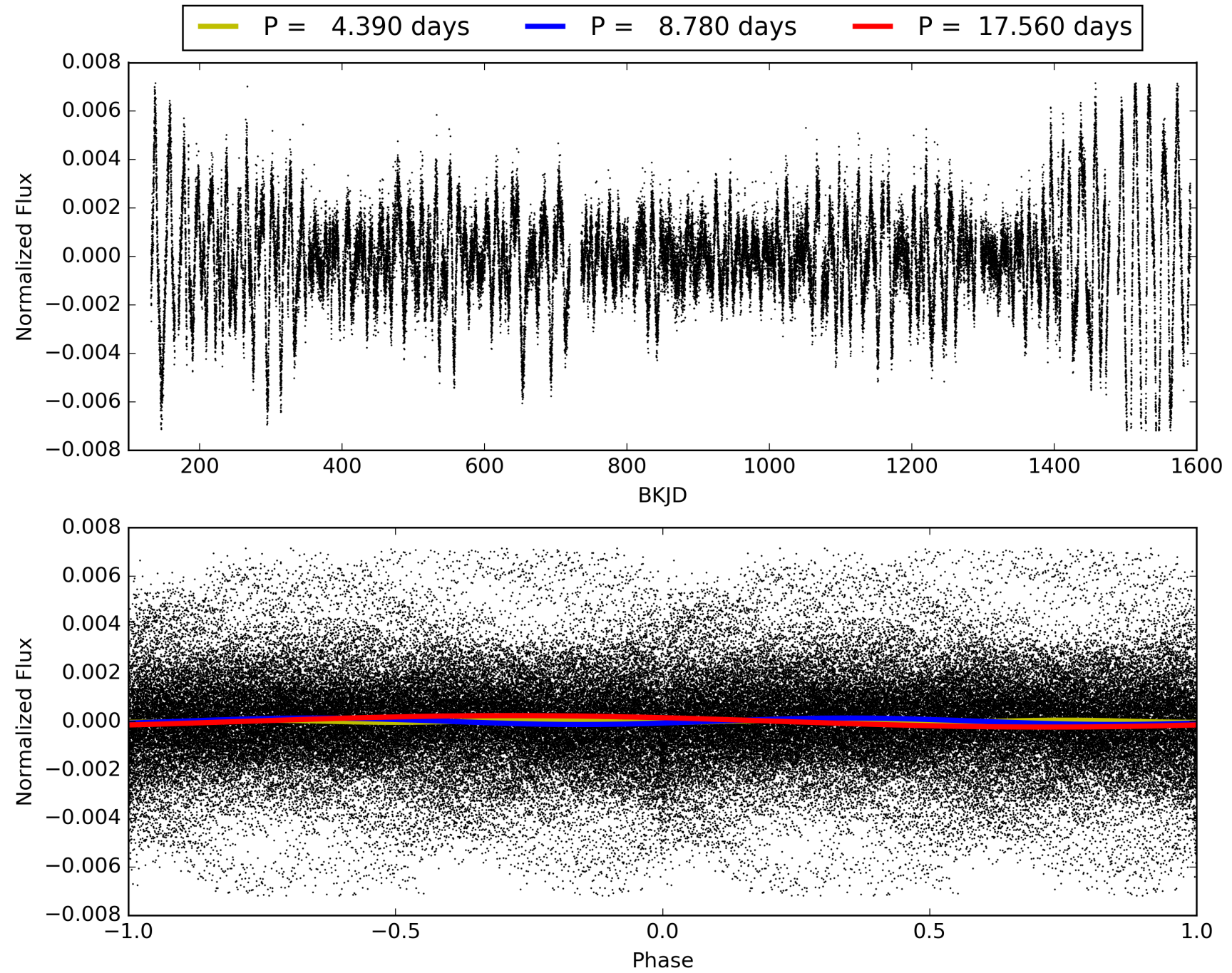
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:52:53 Z

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

TCE 005705819-01, PDC Light Curves

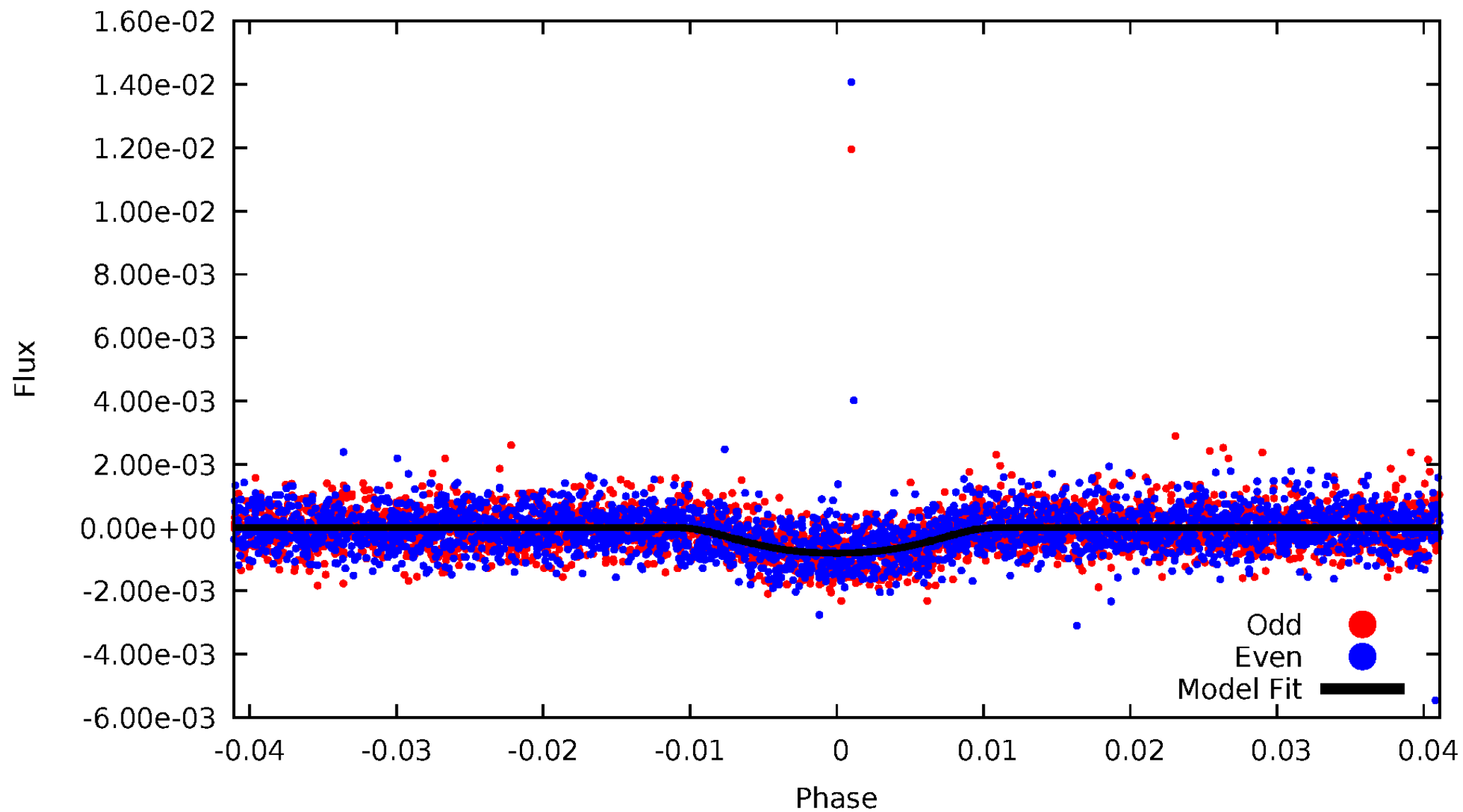


TCE 005705819-01



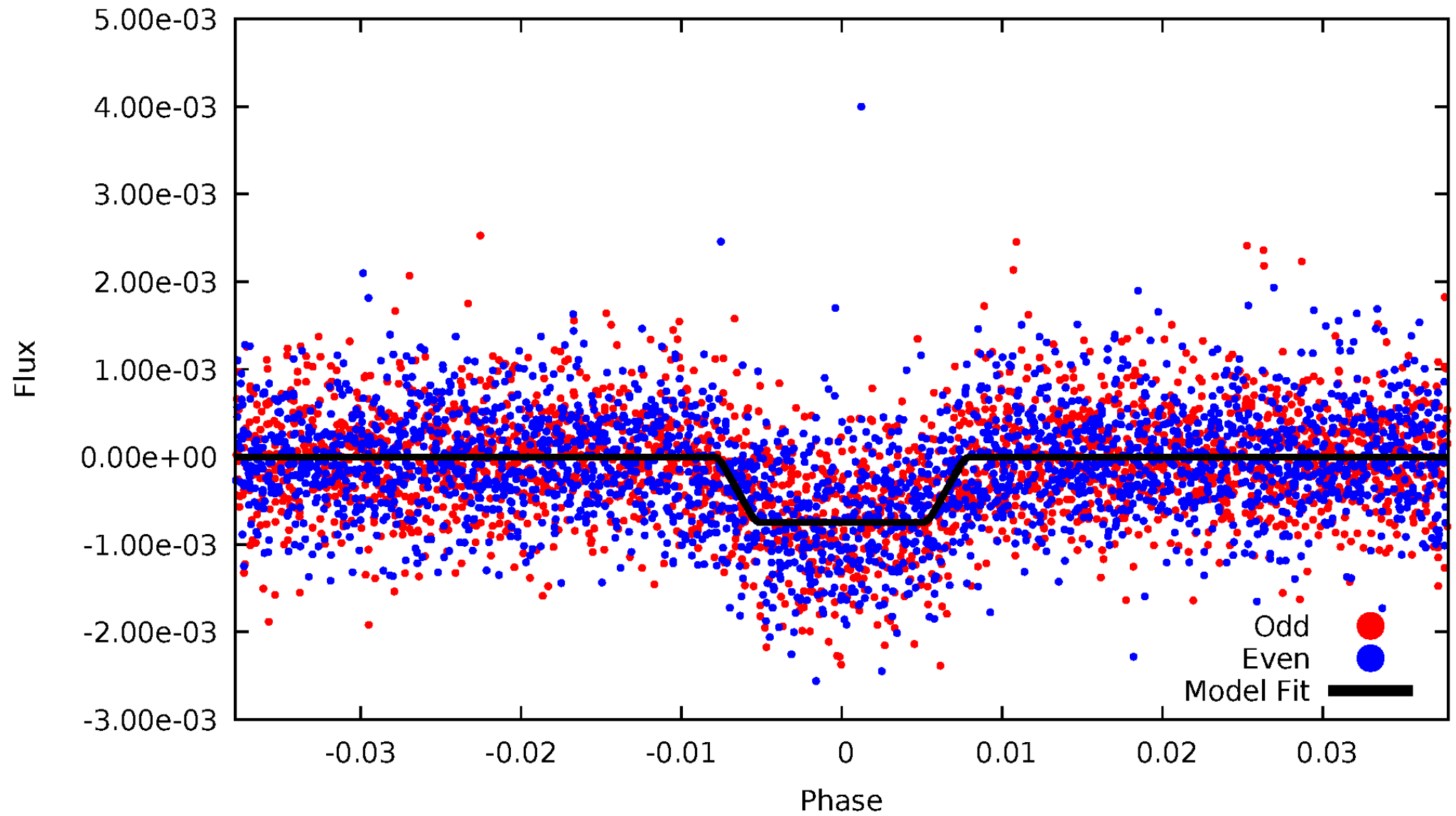
DV Odd/Even

TCE 005705819-01



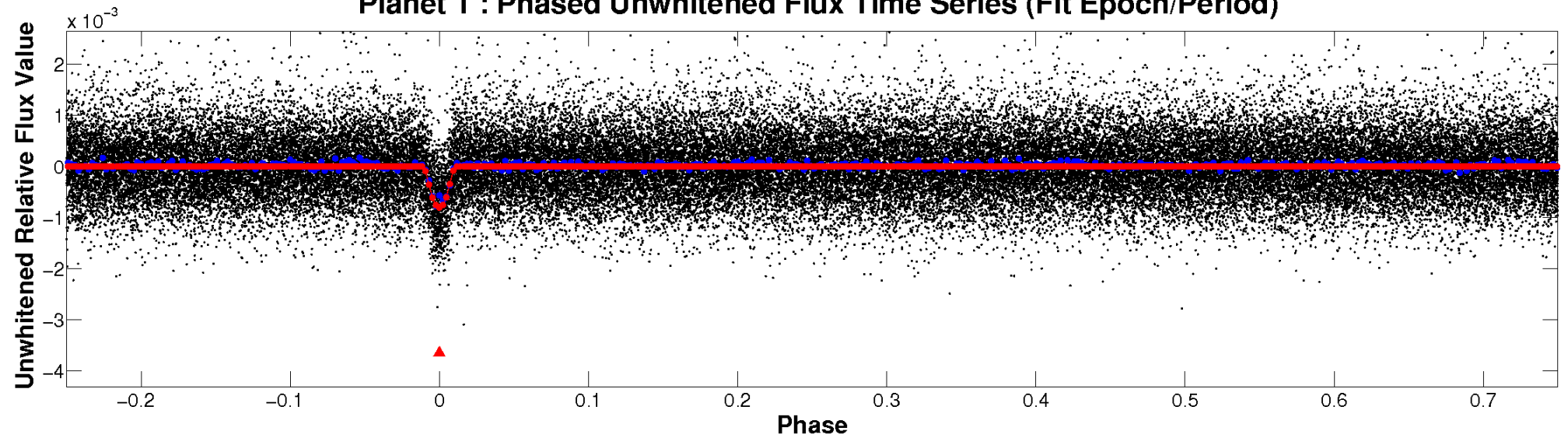
ALT Odd/Even

TCE 005705819-01

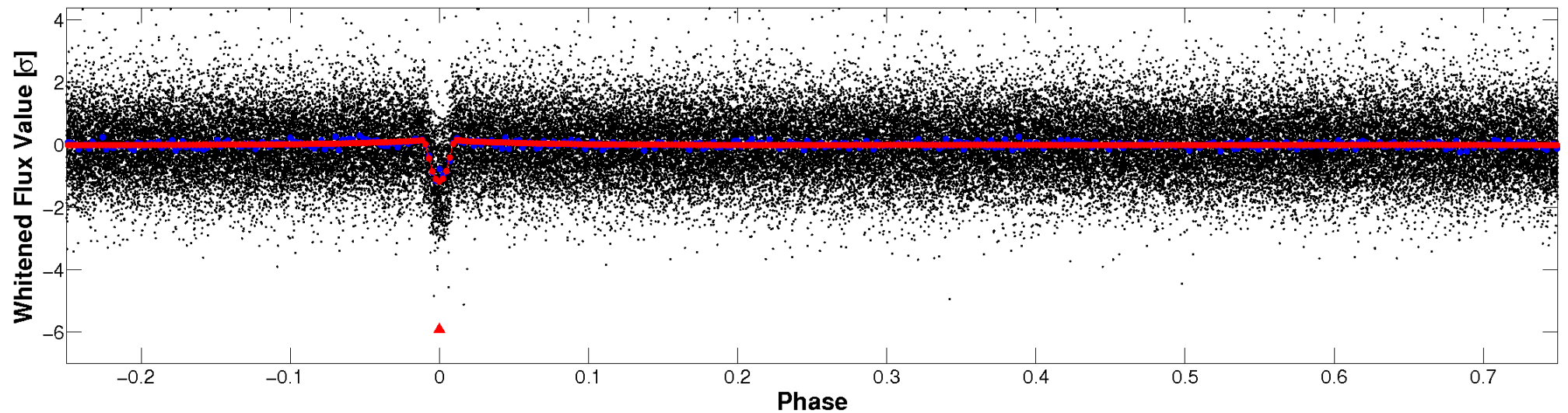


Non-Whitened Vs. Whitened Light Curve

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

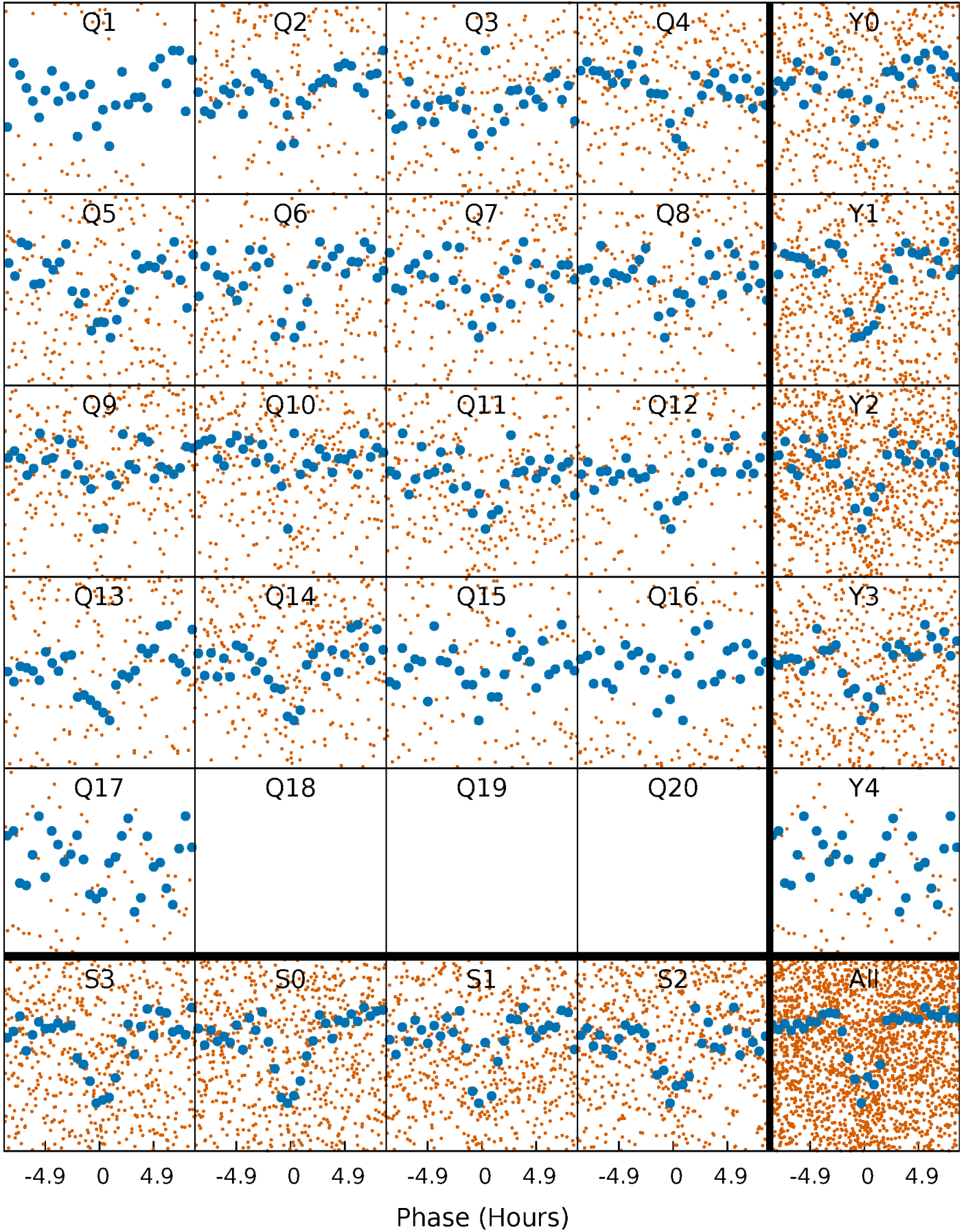


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



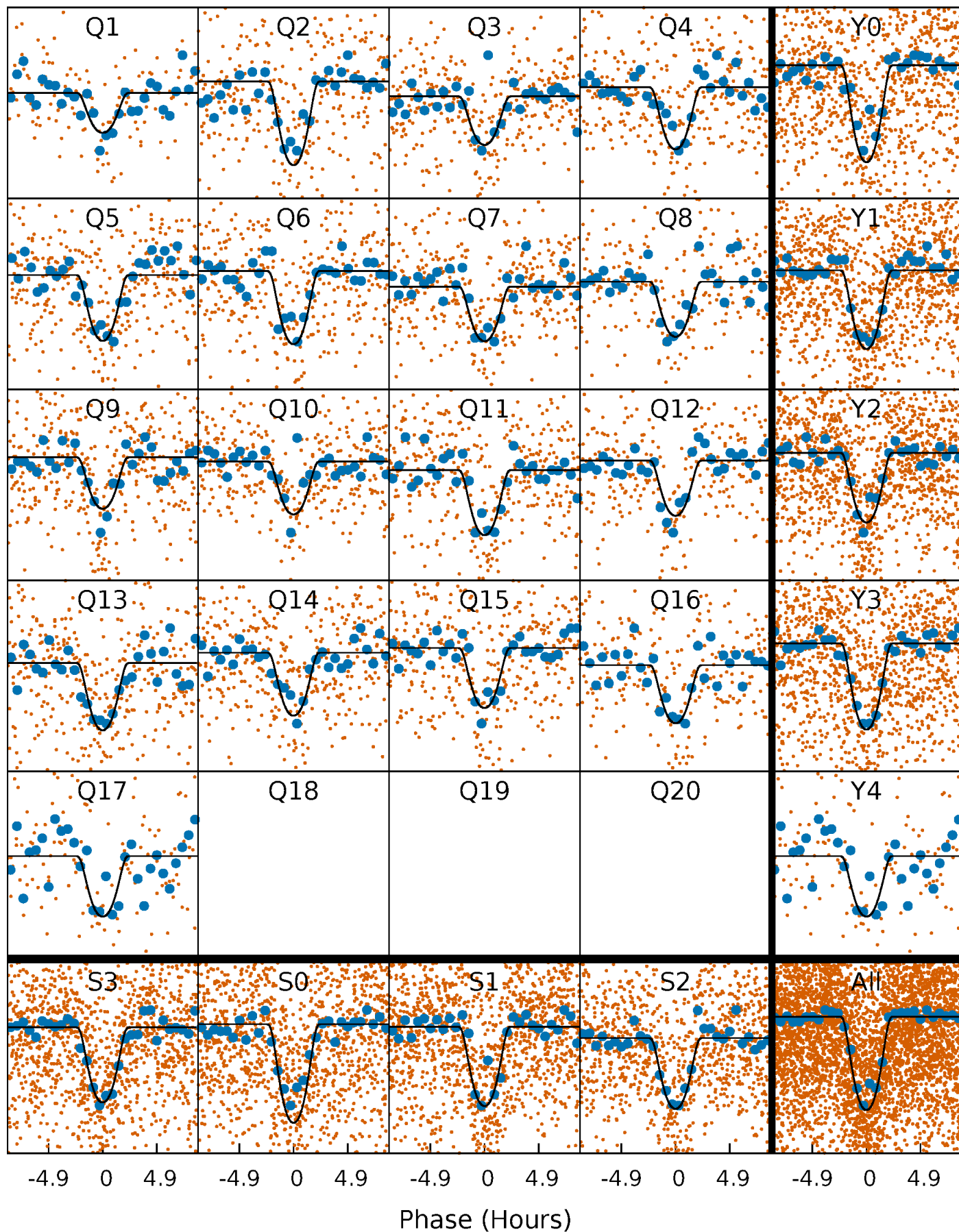
PDC Quarter-Phased Transit Curves

TCE 005705819-01 P= 8.780002 Days $T_0=138.479132$ (BKJD)



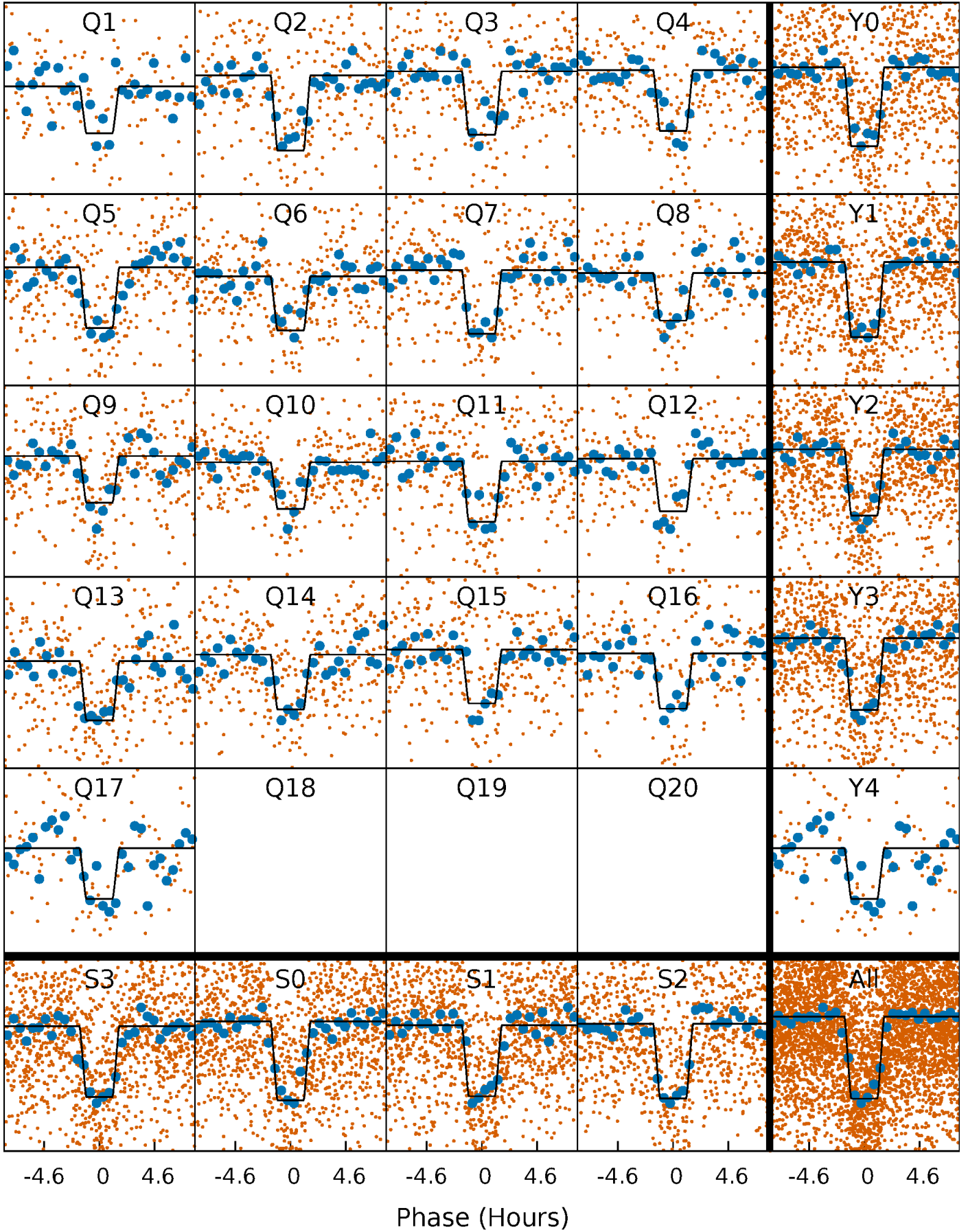
DV Quarter-Phased Transit Curves

TCE 005705819-01 P= 8.780002 Days $T_0=138.479132$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

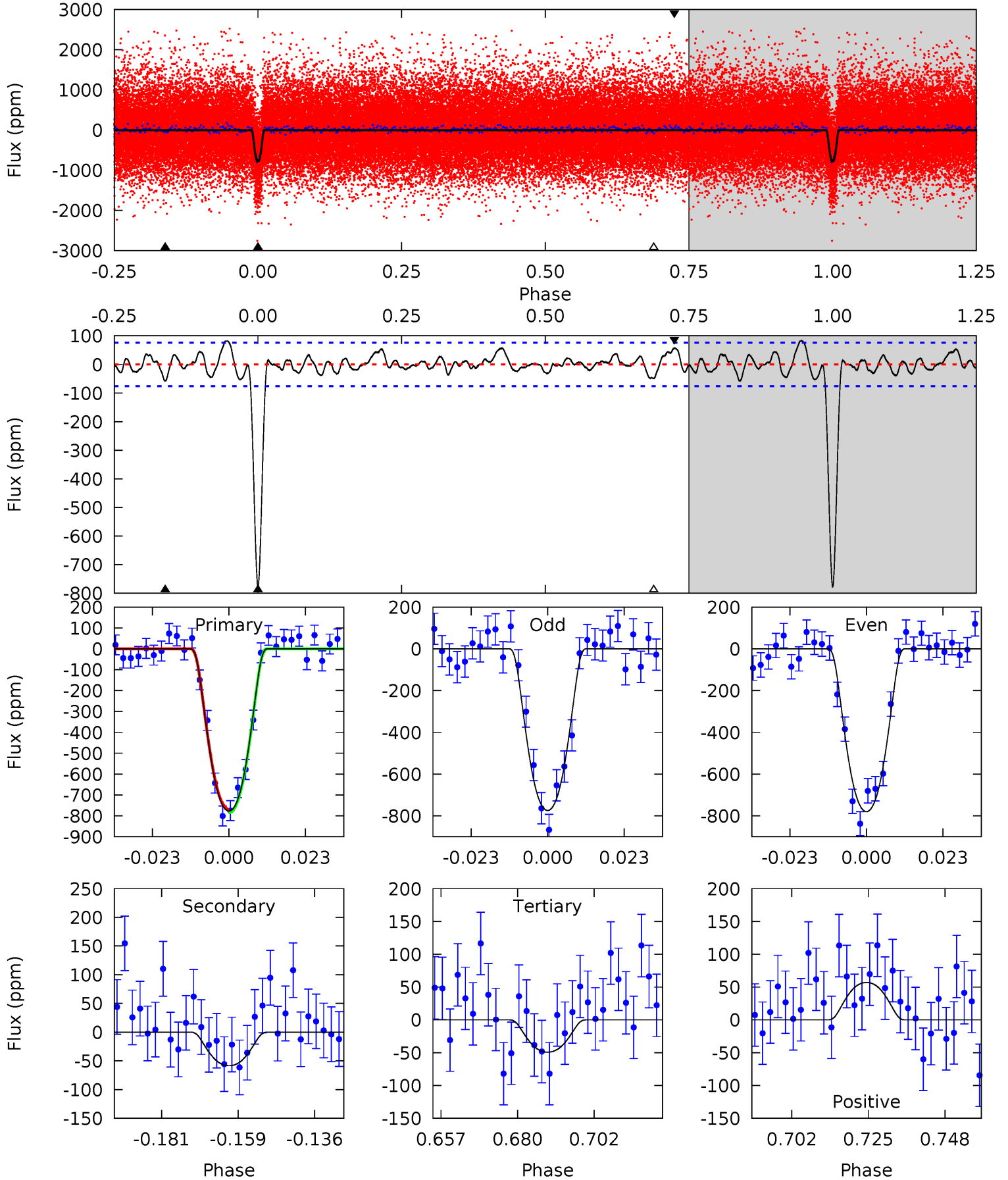
TCE 005705819-01 P= 8.780037 Days $T_0=138.477738$ (BKJD)



DV Model-Shift Uniqueness Test

005705819-01, P = 8.780002 Days, E = 129.699130 Days

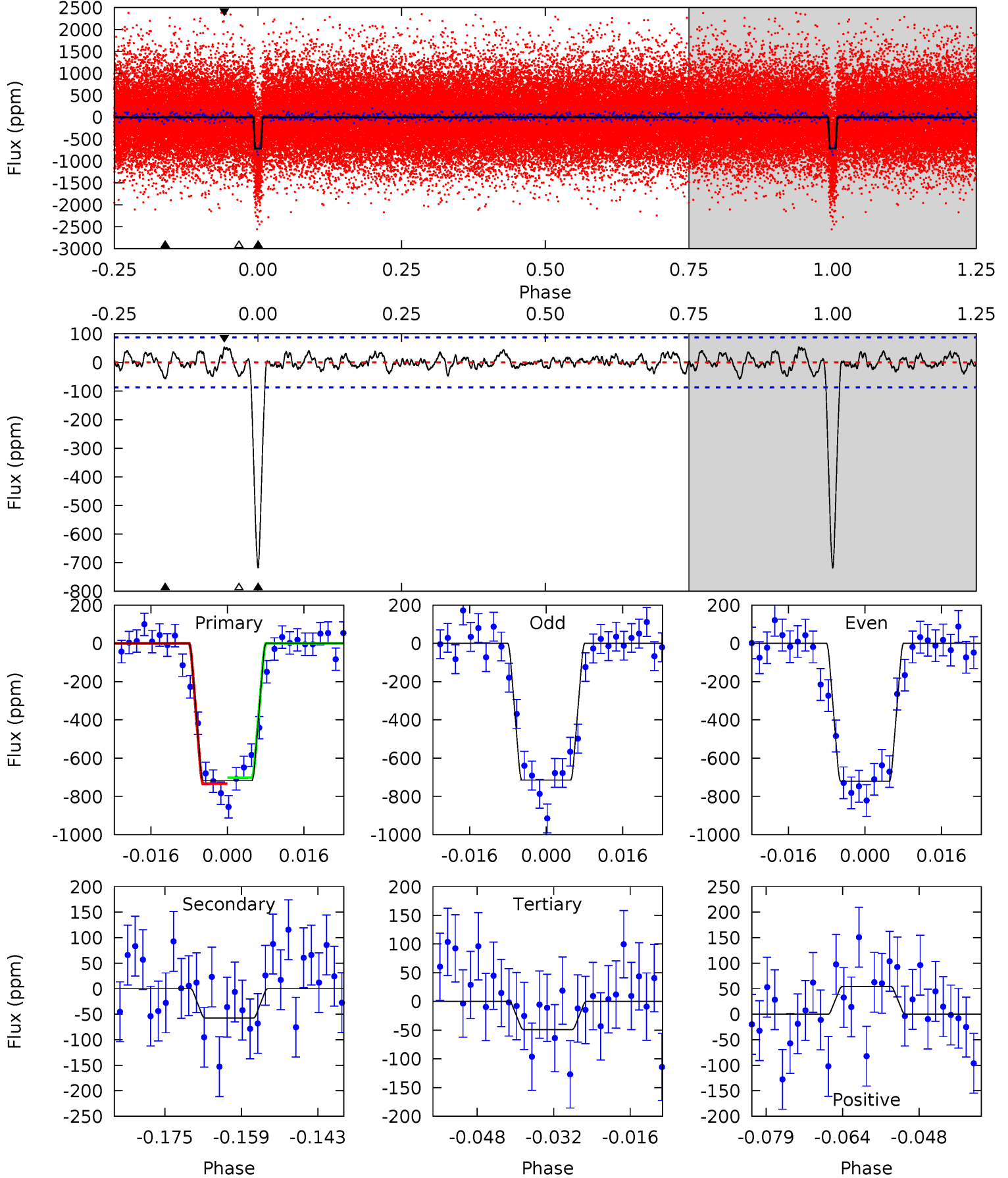
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.0	3.76	3.17	3.67	4.87	2.28	1.55	46.8	46.3	0.59	0.09	0.18	0.95	0.10	0.46



Alt Model-Shift Uniqueness Test

005705819-01, P = 8.780037 Days, E = 129.697701 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.4	3.23	2.75	3.05	4.94	2.41	1.07	37.6	37.4	0.48	0.18	0.17	1.04	0.07	0.88



Stellar Parameters For KIC 005705819

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5191^{+155}_{-155}	$4.597^{+0.030}_{-0.090}$	$-0.060^{+0.300}_{-0.300}$	$0.764^{+0.109}_{-0.058}$	$0.850^{+0.068}_{-0.093}$	$2.683^{+0.445}_{-0.809}$
	+3%/-3%	+1%/-2%	+500%/-500%	+14%/-8%	+8%/-11%	+17%/-30%
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 005705819-01 / KOI 2091.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-58 ± 16	$3.14^{+0.52}_{-0.51}$	1009^{+45}_{-35}	2996^{+181}_{-178}	20^{+9}_{-7}
Alt.	-57 ± 18	$2.34^{+0.44}_{-0.50}$	1009^{+44}_{-37}	3272^{+288}_{-255}	36^{+25}_{-14}

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

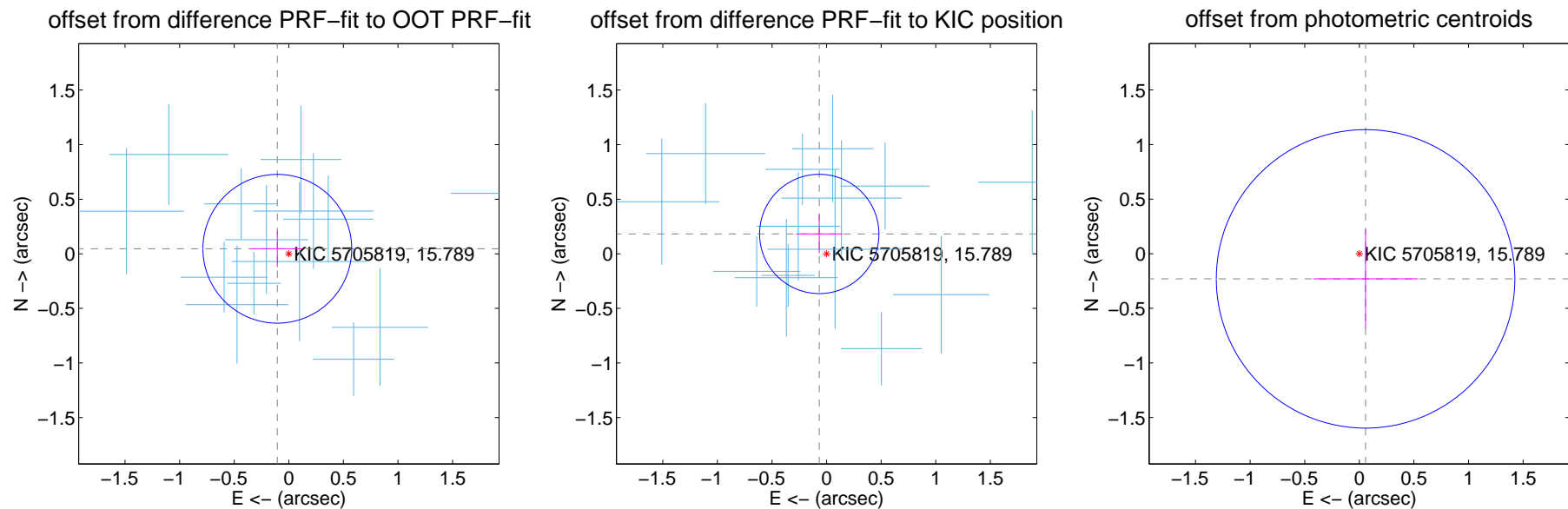
DV Centroid Data

Supplemental centroid analysis for 005705819-01. Kepler magnitude: 15.79. Transit SNR 28.89

There are 14 quarters with good PRF difference image offsets

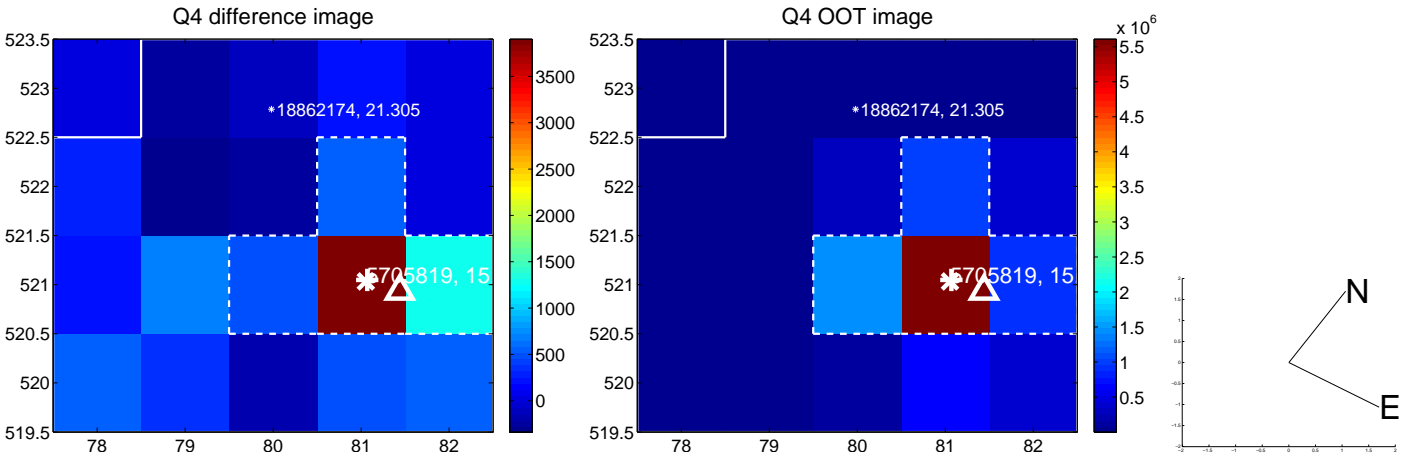
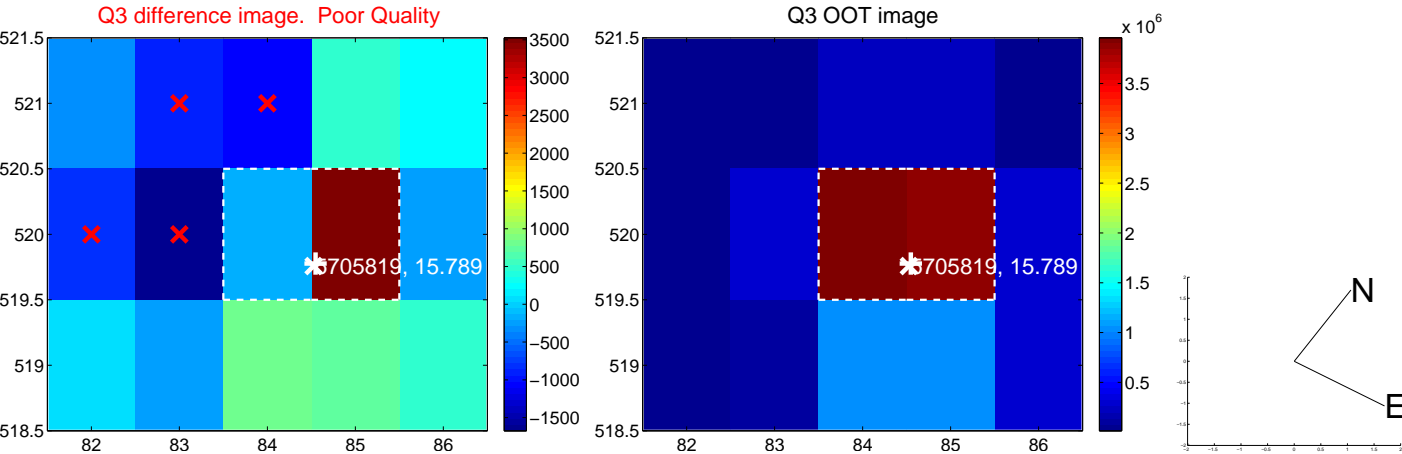
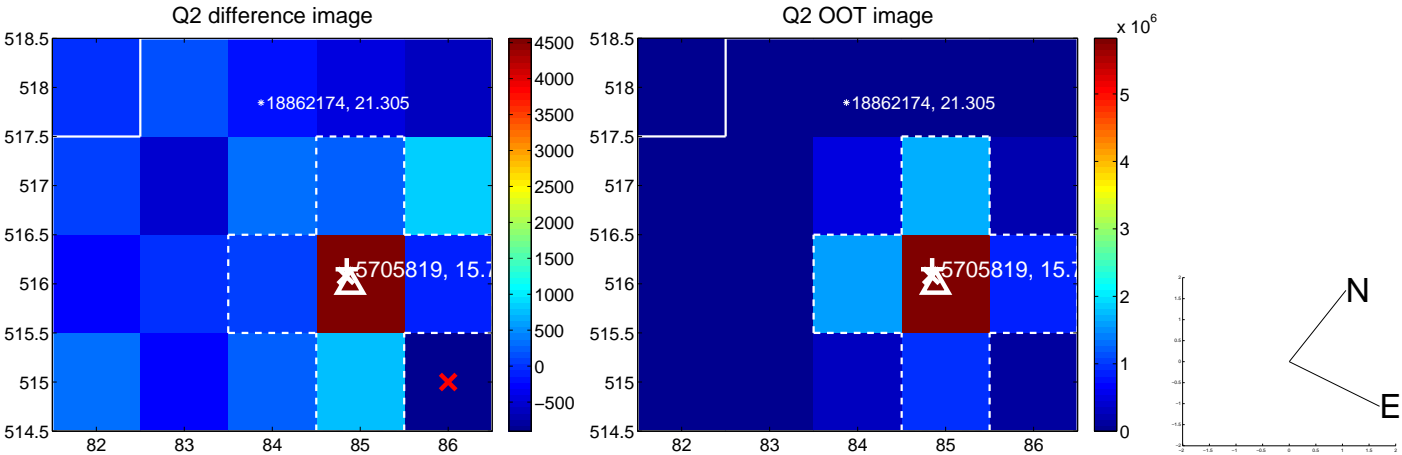
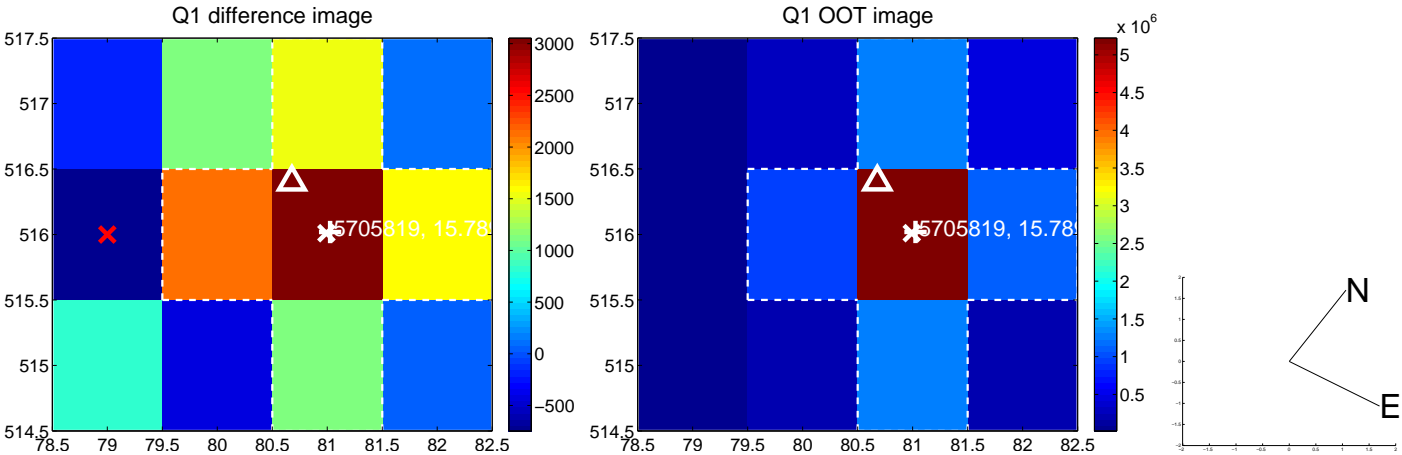
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.115 ± 0.227	0.51	0.105 ± 0.228	0.046 ± 0.166
PRF-fit source offset from KIC position	0.194 ± 0.182	1.06	0.067 ± 0.212	0.182 ± 0.178
photometric centroid source offset	0.24 ± 0.46	0.52	-0.06 ± 0.48	-0.23 ± 0.45

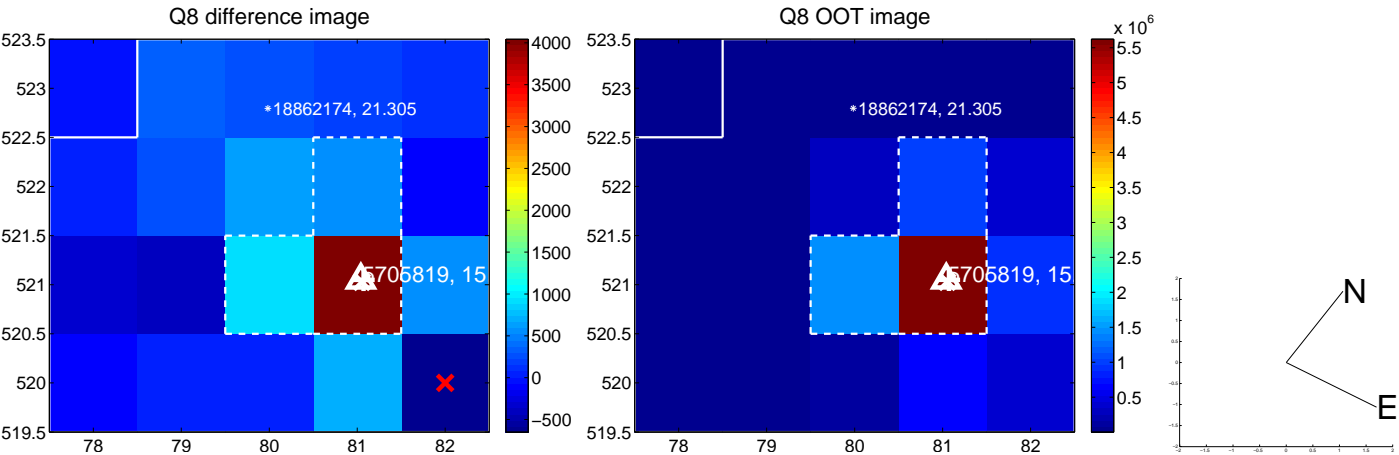
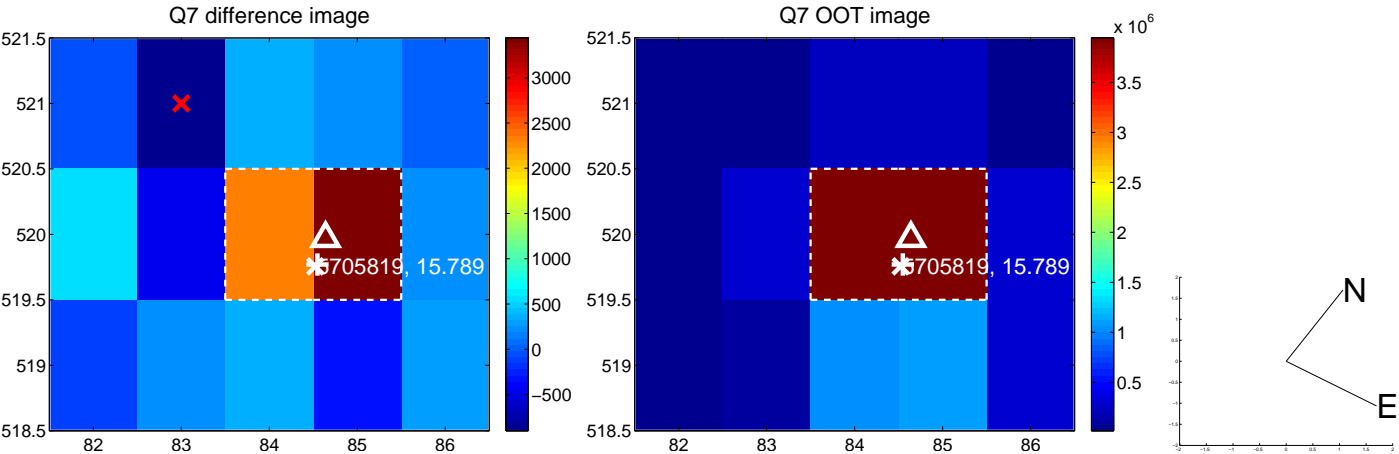
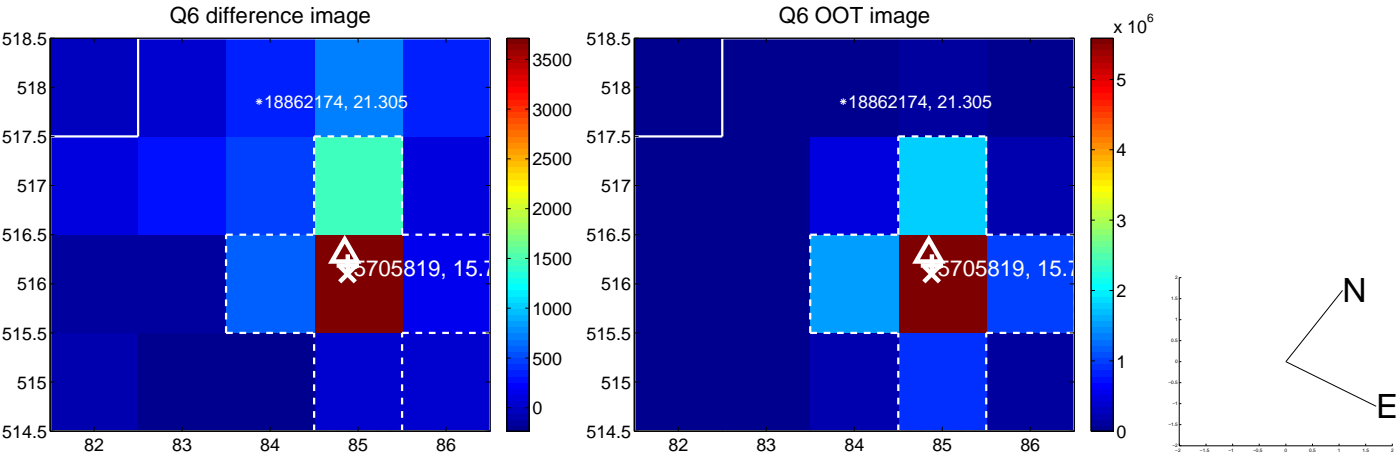
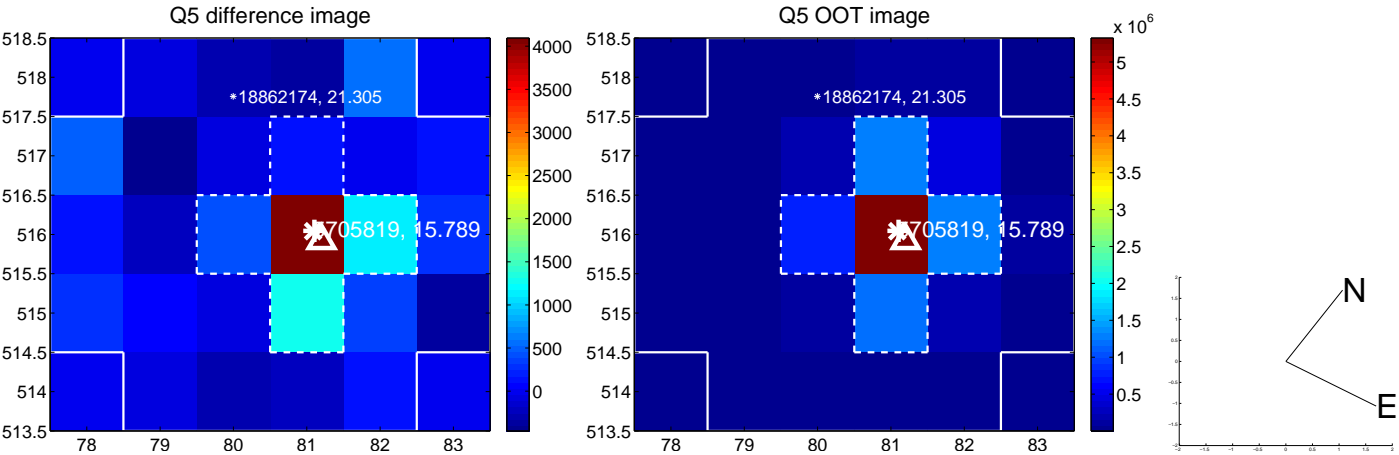


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

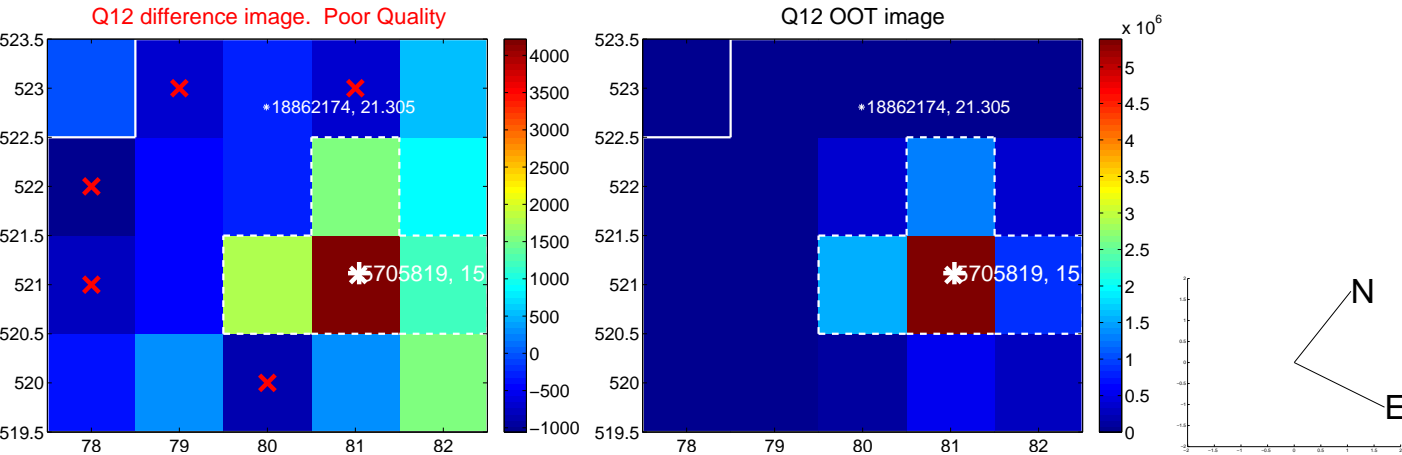
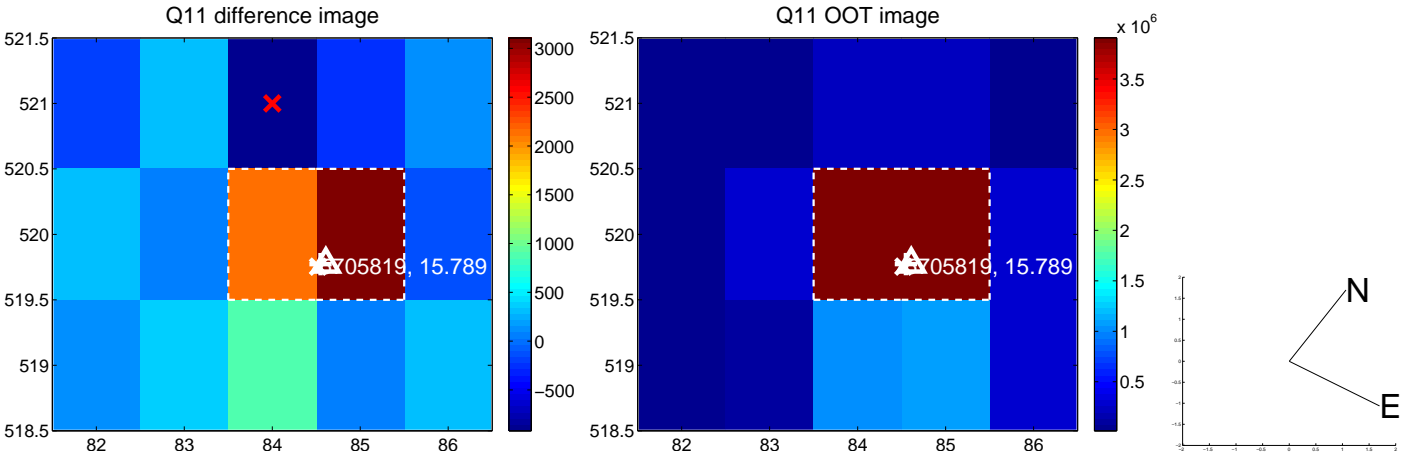
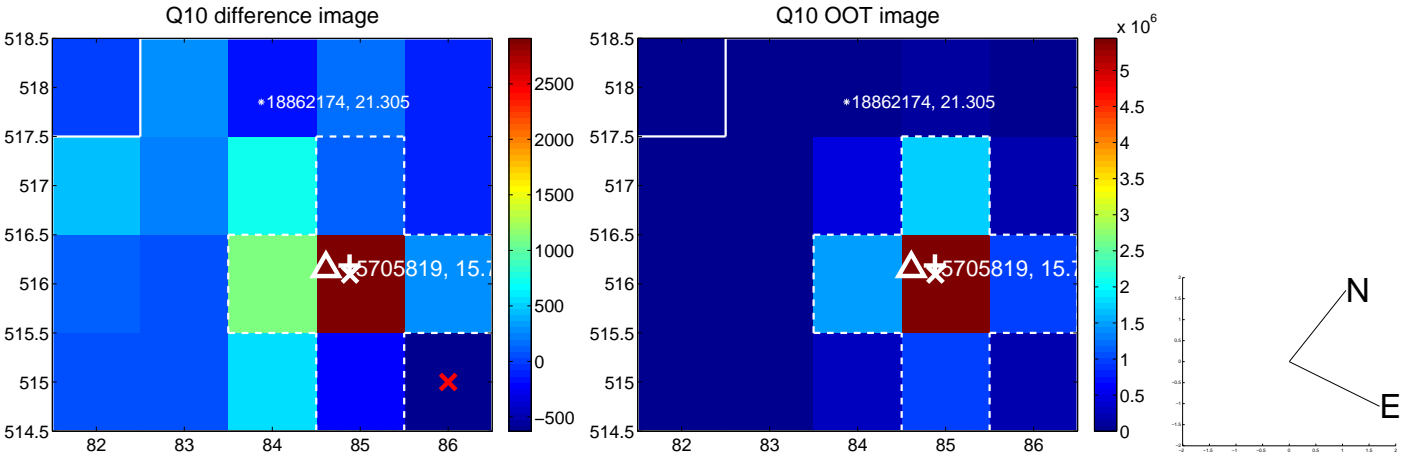
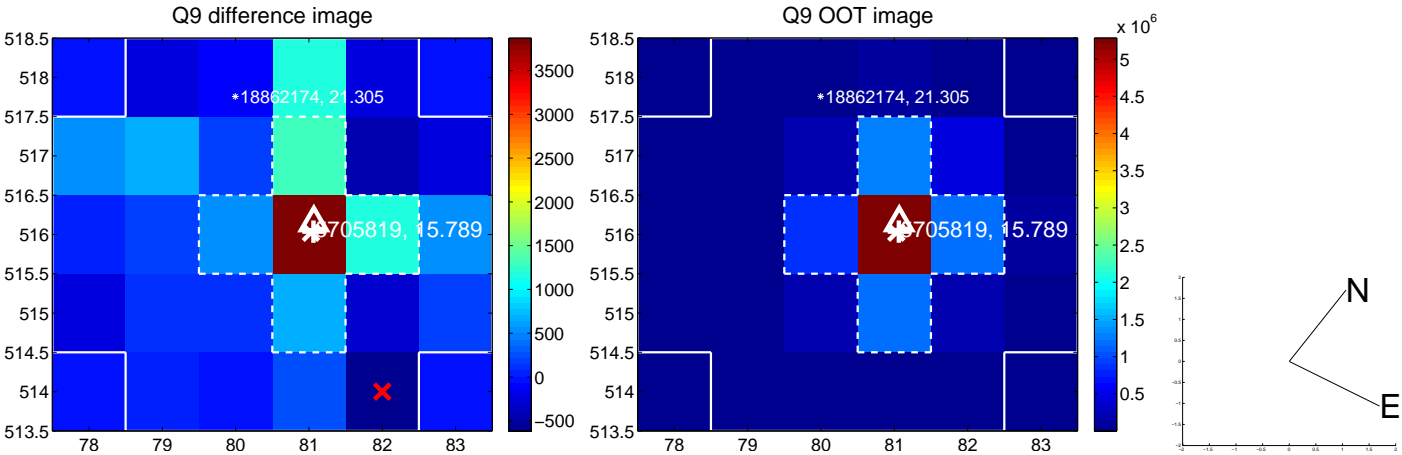
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



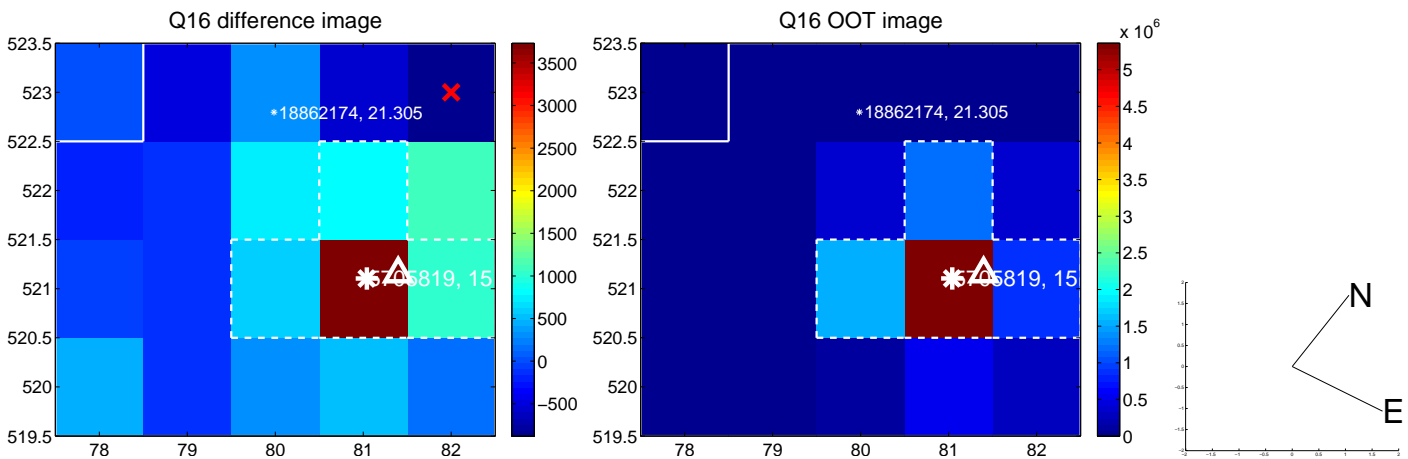
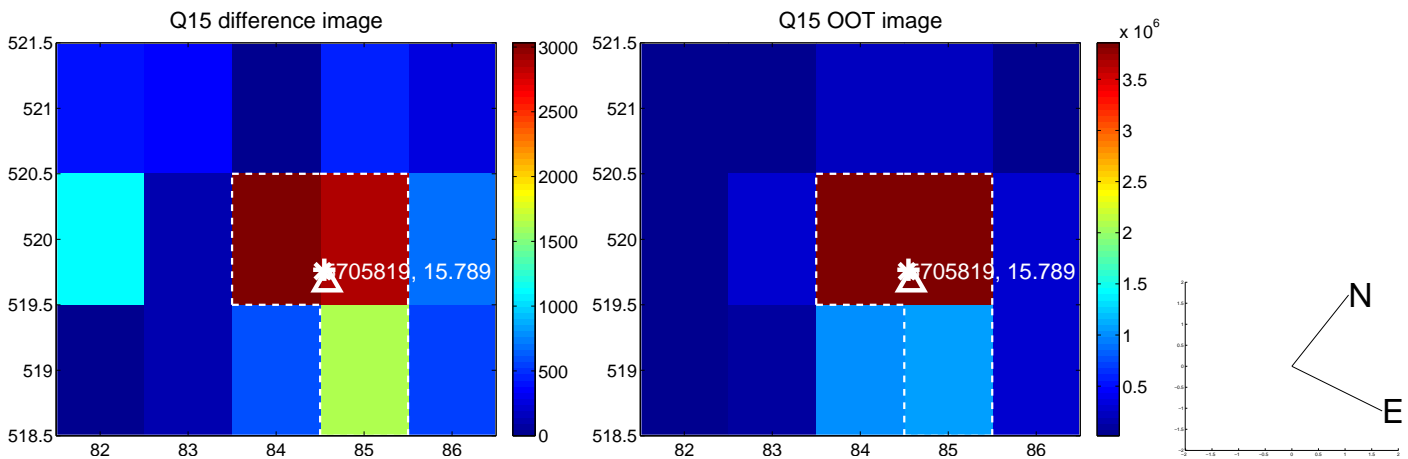
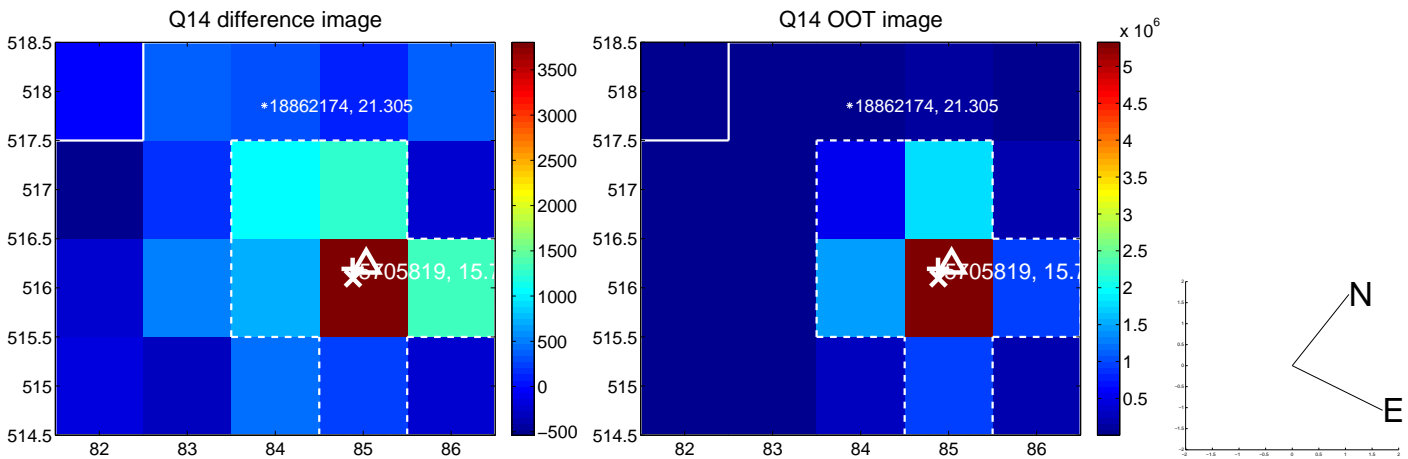
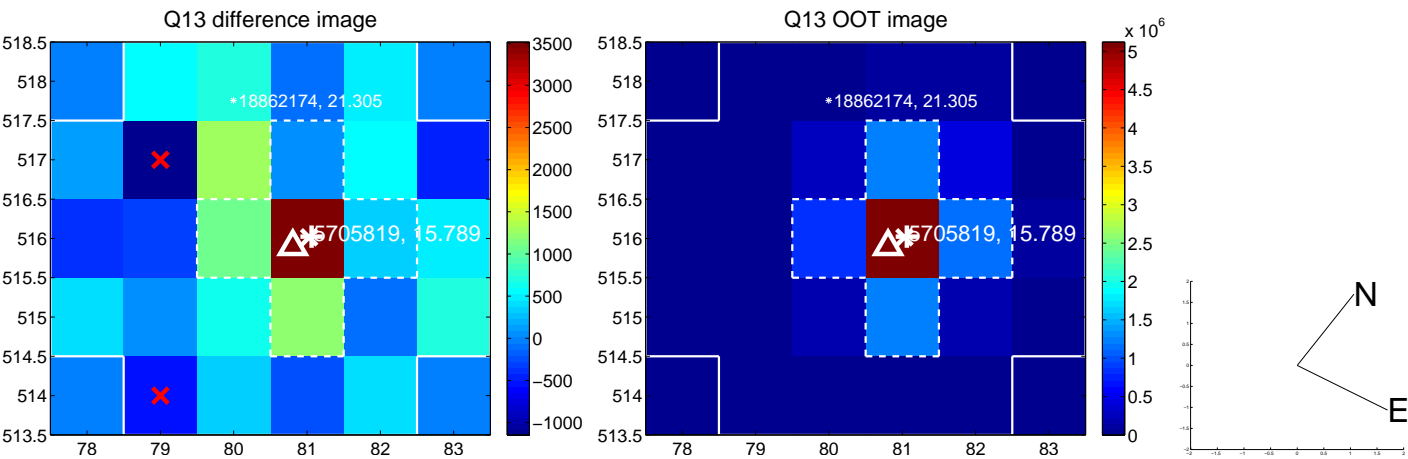
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



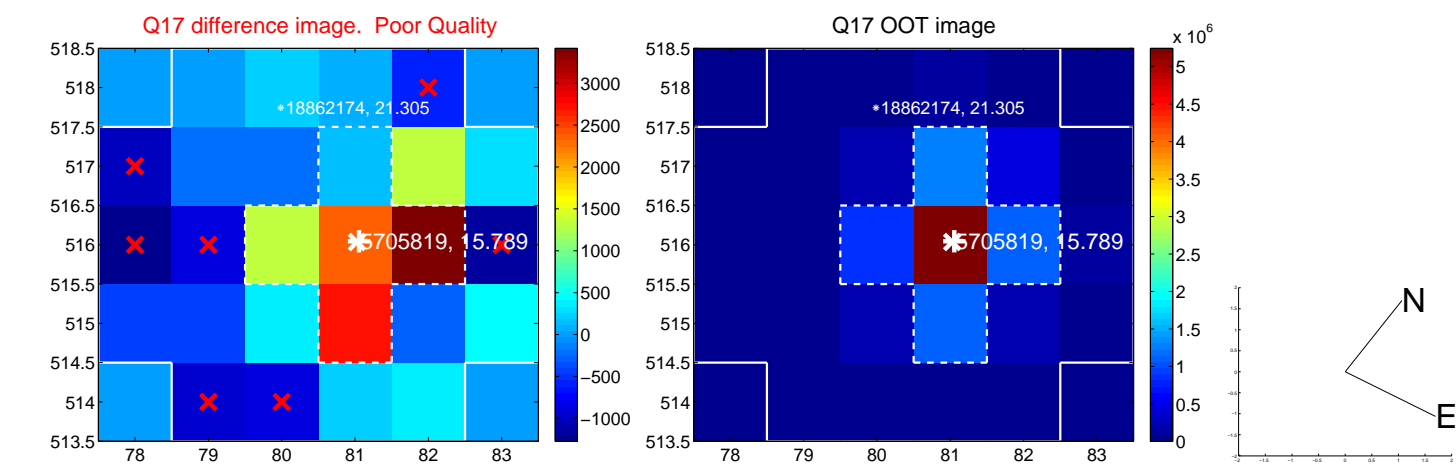
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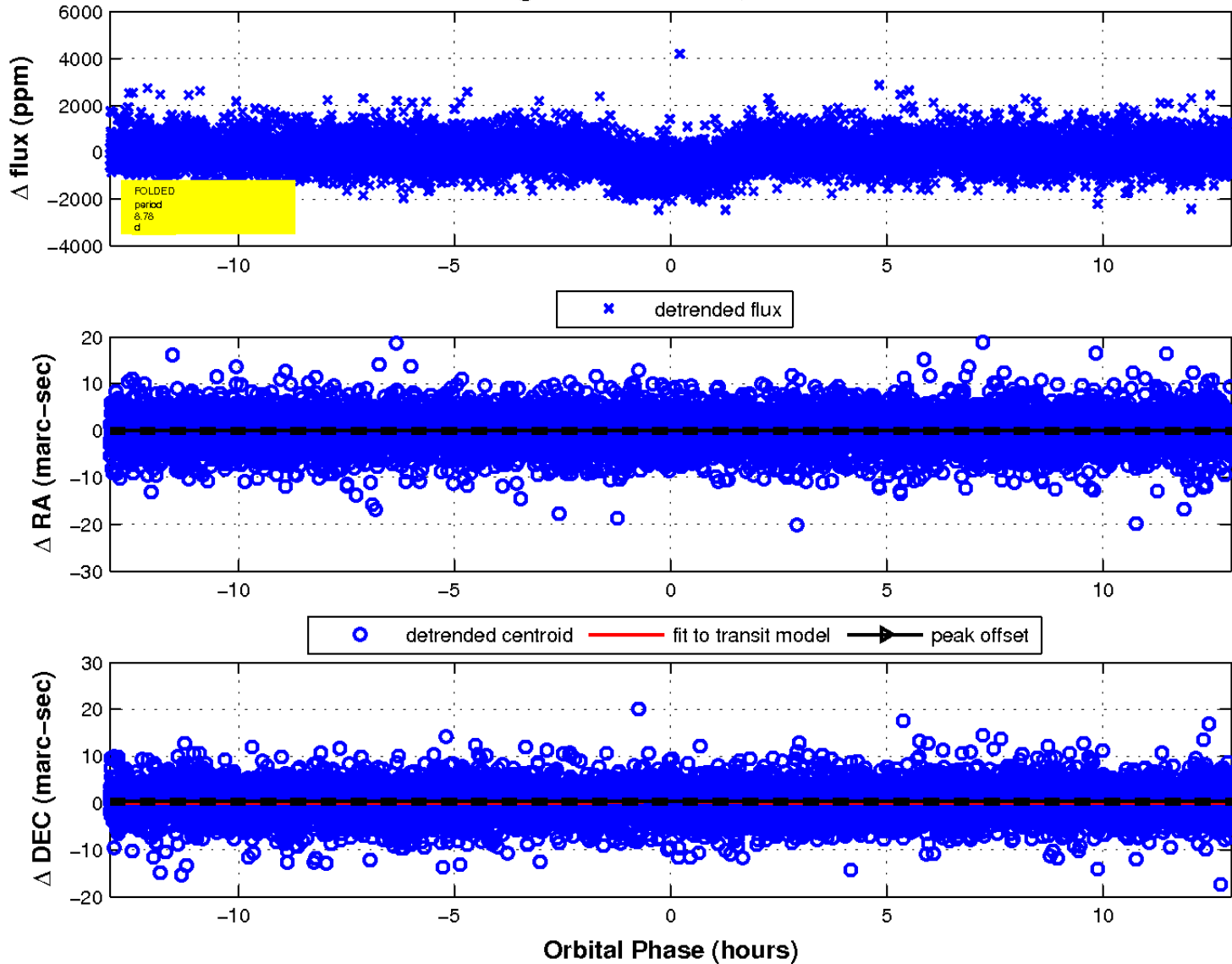
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

