

KIC 005198390

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})
005198390-01	OBS	No	1.059140	132.173859	17.3	2.897	7.7	5.5	1.39	6911	0.67	7955.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005198390-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

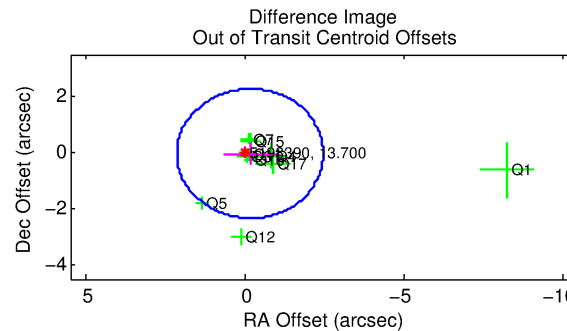
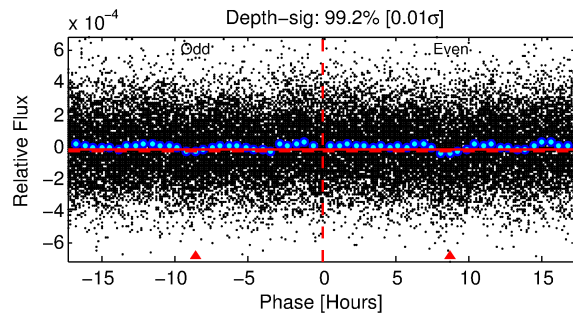
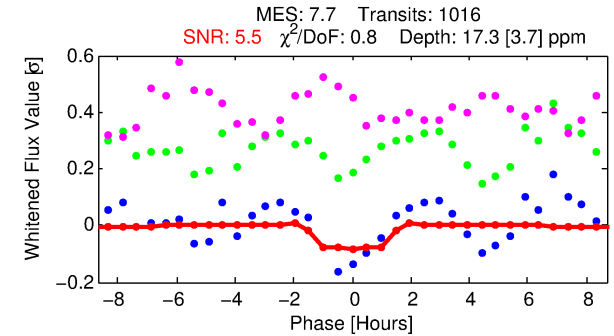
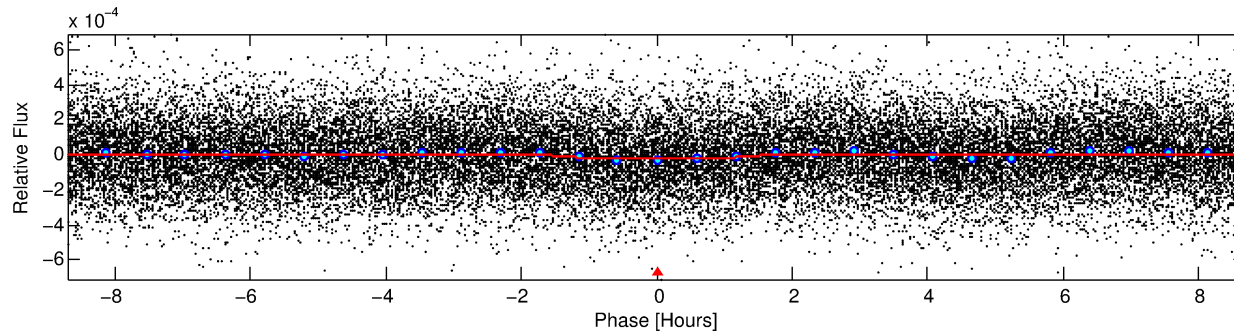
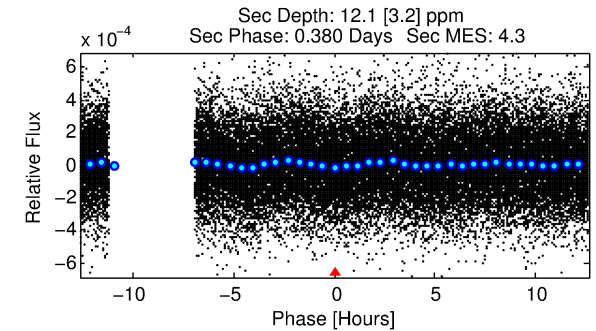
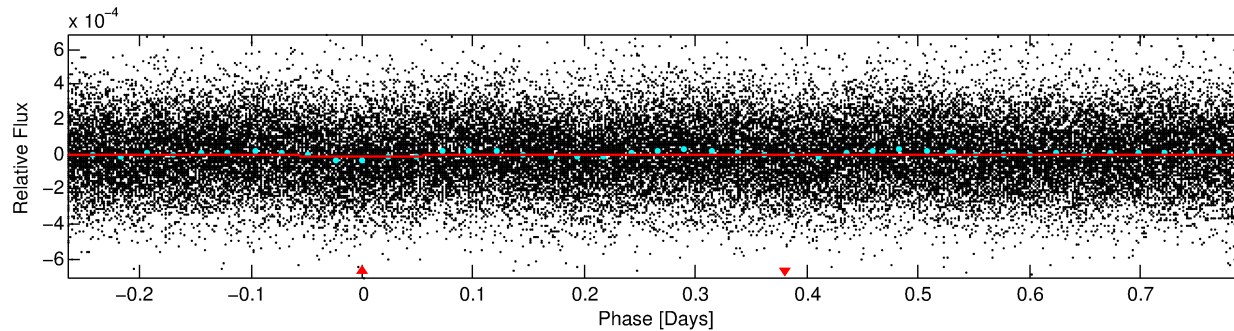
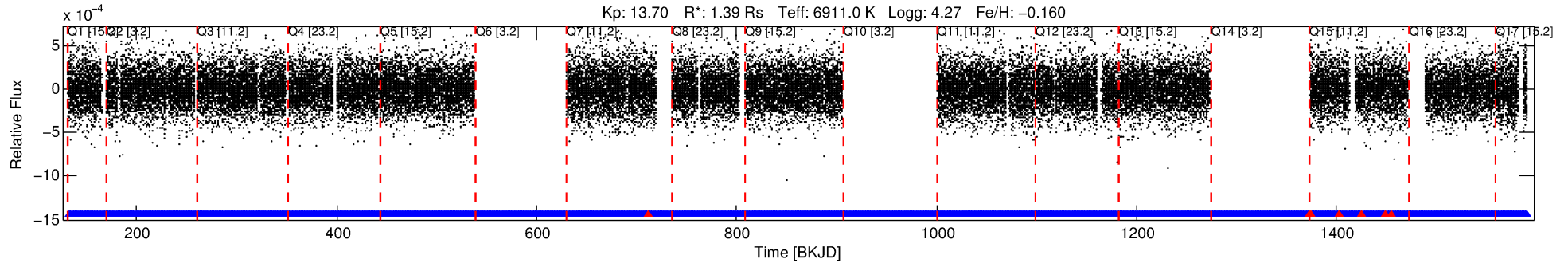
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005198390-01

No Significant Match Found

DV One-Page Summary

KIC: 5198390 Candidate: 1 of 1 Period: 1.059 d



DV Fit Results:

Period = 1.05914 [0.00002] d
Epoch = 132.1739 [0.0060] BKJD
Rp/R* = 0.0044 [0.0022]
a/R* = 1.56 [2.77]
b = 0.90 [0.64]
Seff = 7955.57 [3390.08]
Teq = 2408 [257] K
Rp = 0.67 [0.40] Re
a = 0.0223 [0.0061] AU
Ag = 7.33 [8.09] [0.78σ]
Teffp = 6126 [1601] K [2.29σ]

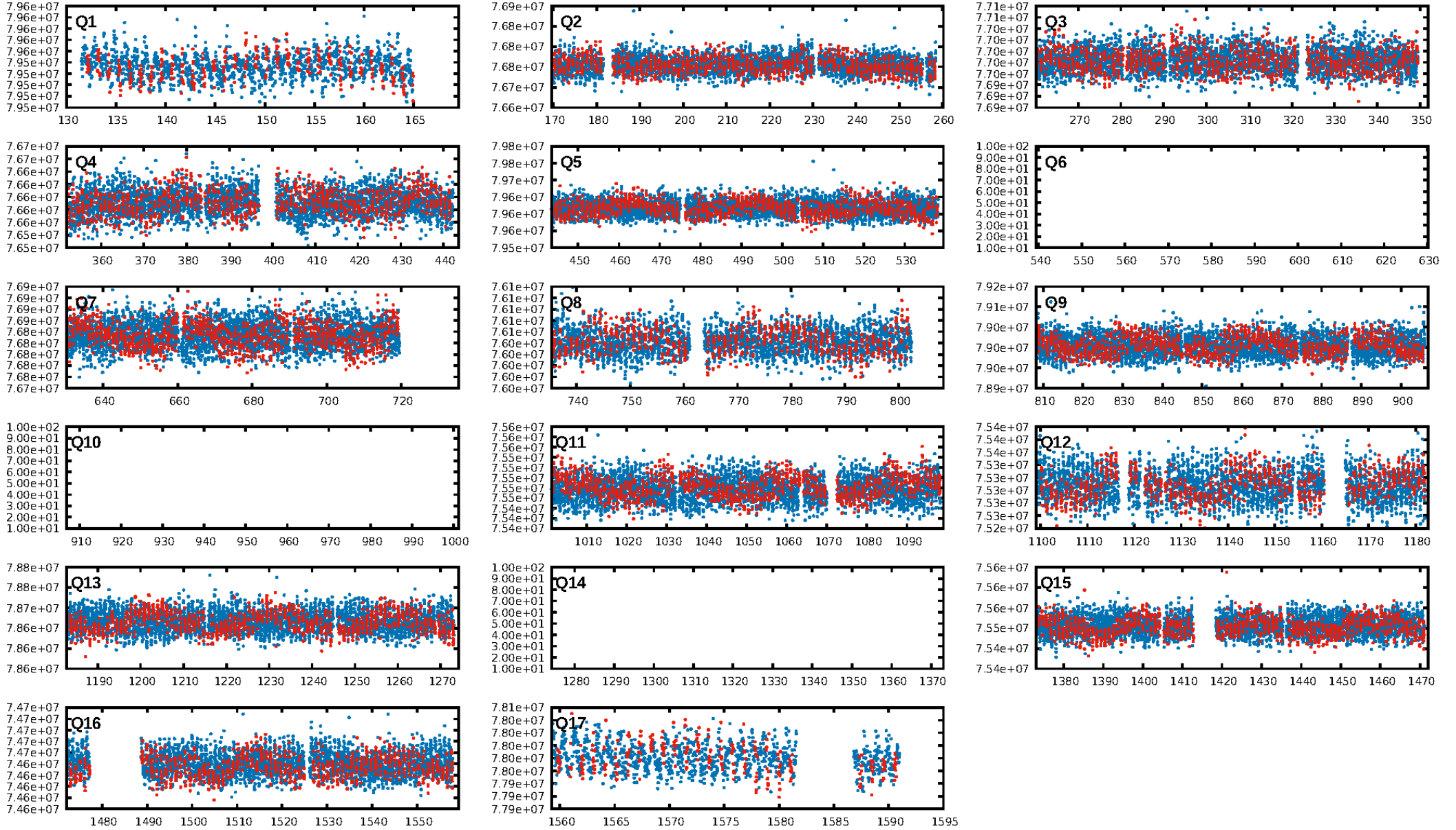
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.85e-14
RollingBand-fgt: 0.99 [952/959]
GhostDiagnostic-chr: 7.623
Centroid-sig: 33.5%
Centroid-so: 1.500 arcsec [0.75σ]
OotOffset-rm: 0.161 arcsec [0.21σ]
OotOffset-st: 0/4/3/3 [10]
KicOffset-rm: 0.160 arcsec [0.19σ]
KicOffset-st: 0/4/3/3 [10]
DiffImageQuality-fgm: 0.70 [7/10]
DiffImageOverlap-fno: 1.00 [14/14]

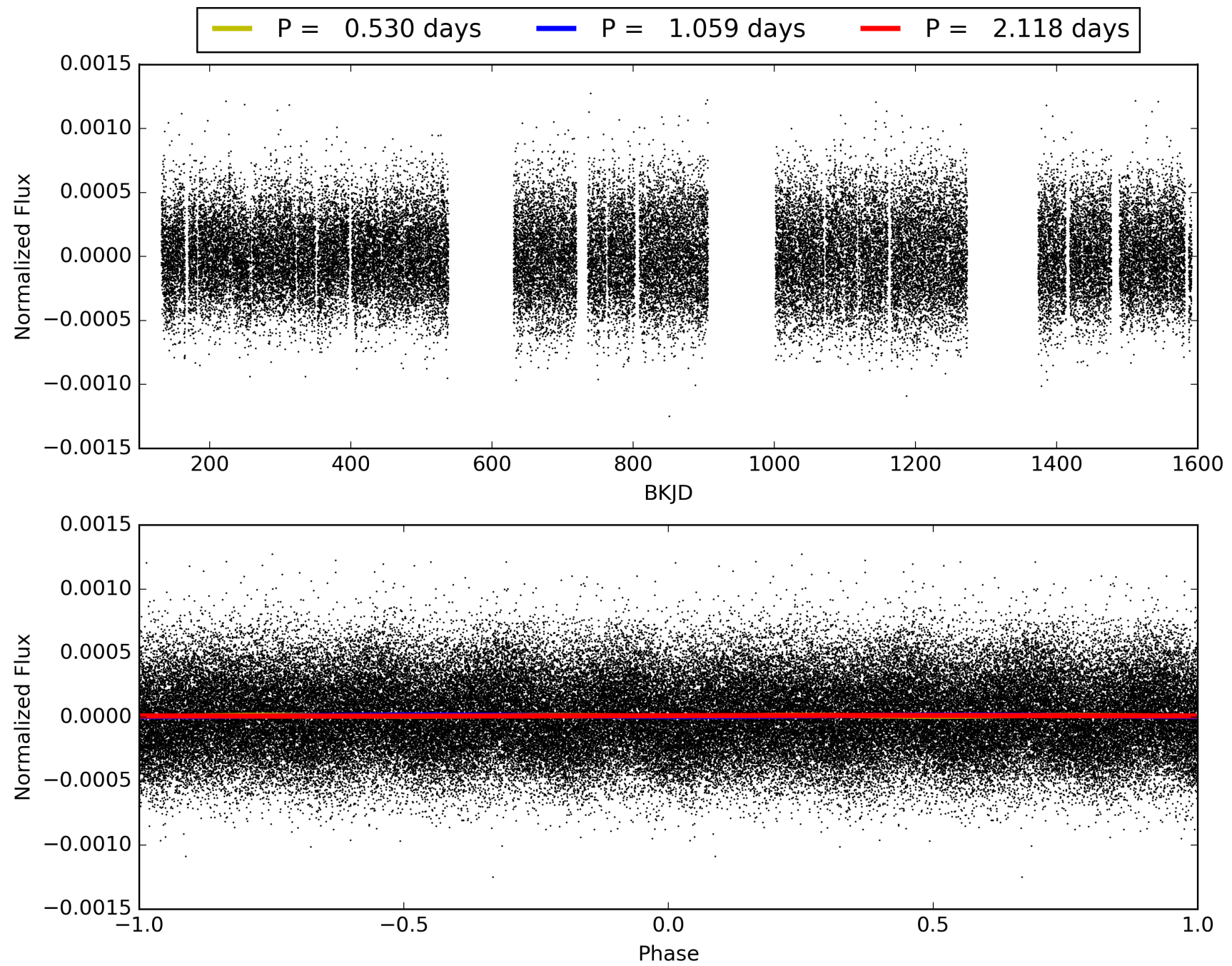
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:41:51 Z

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

TCE 005198390-01, PDC Light Curves

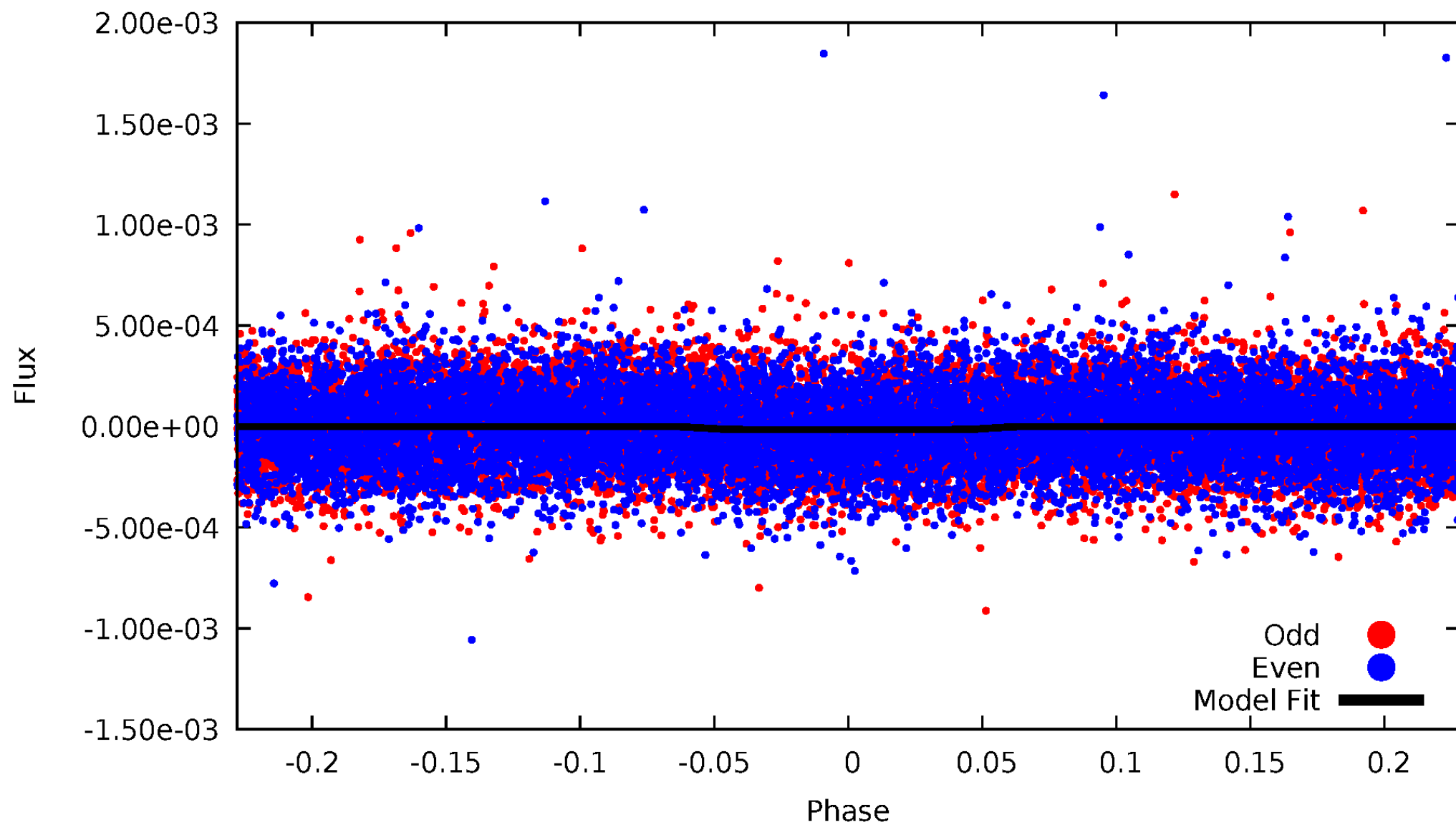


TCE 005198390-01



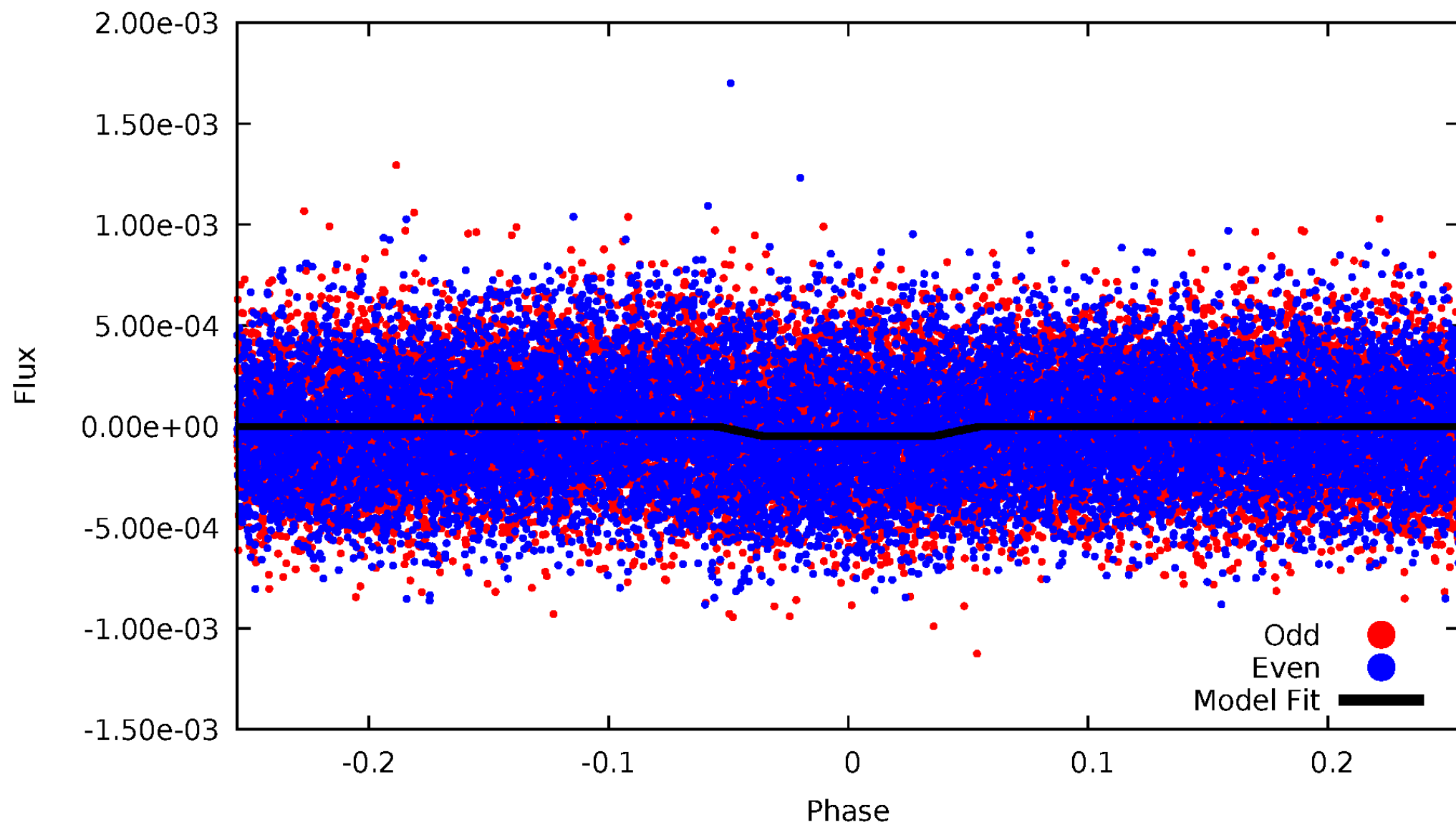
DV Odd/Even

TCE 005198390-01



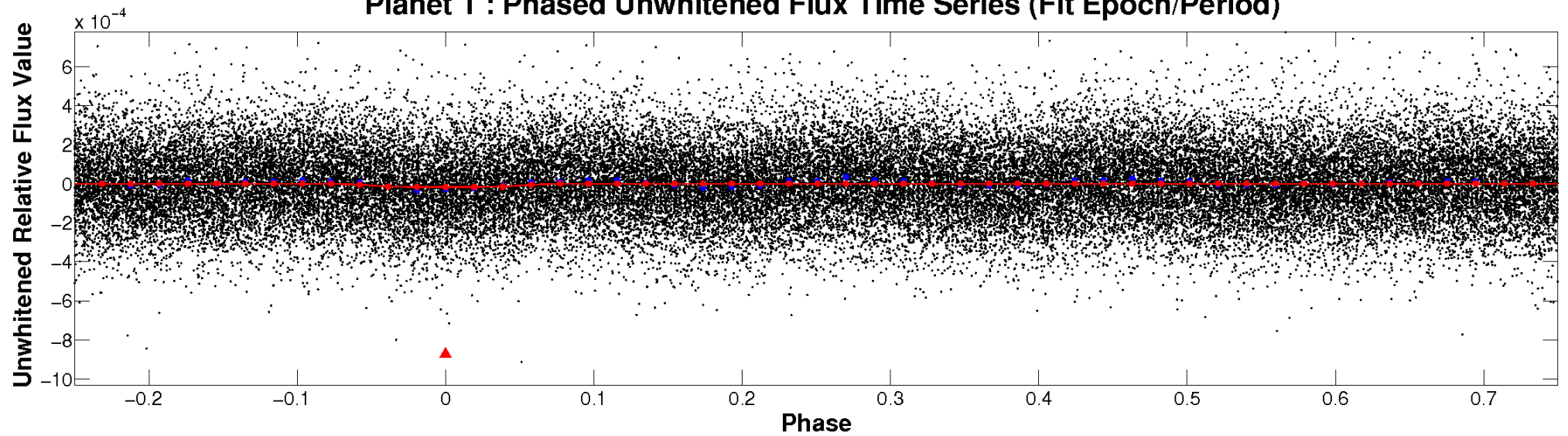
ALT Odd/Even

TCE 005198390-01

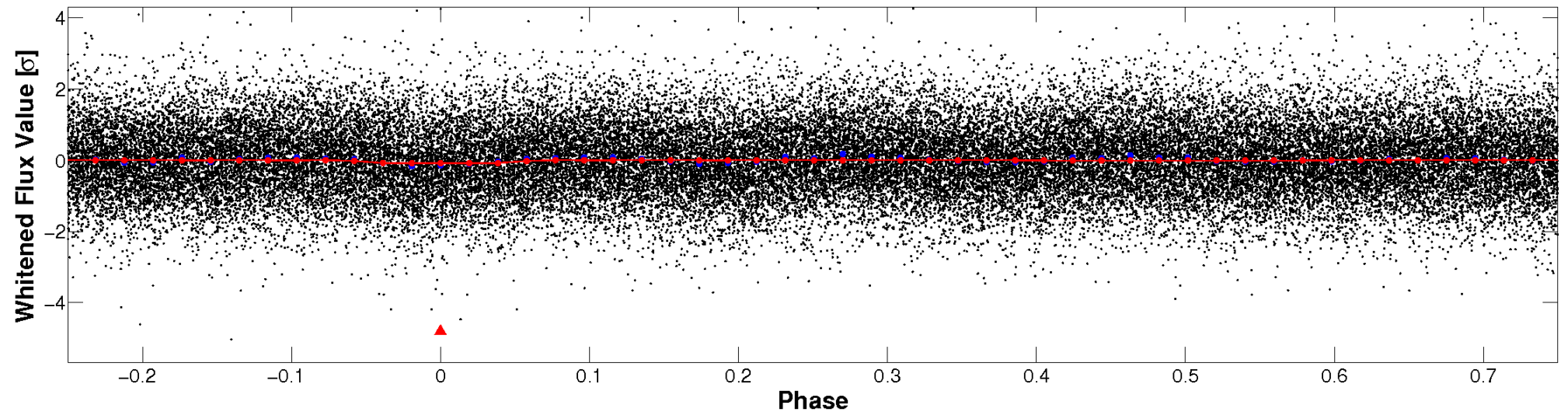


Non-Whitened Vs. Whitened Light Curve

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

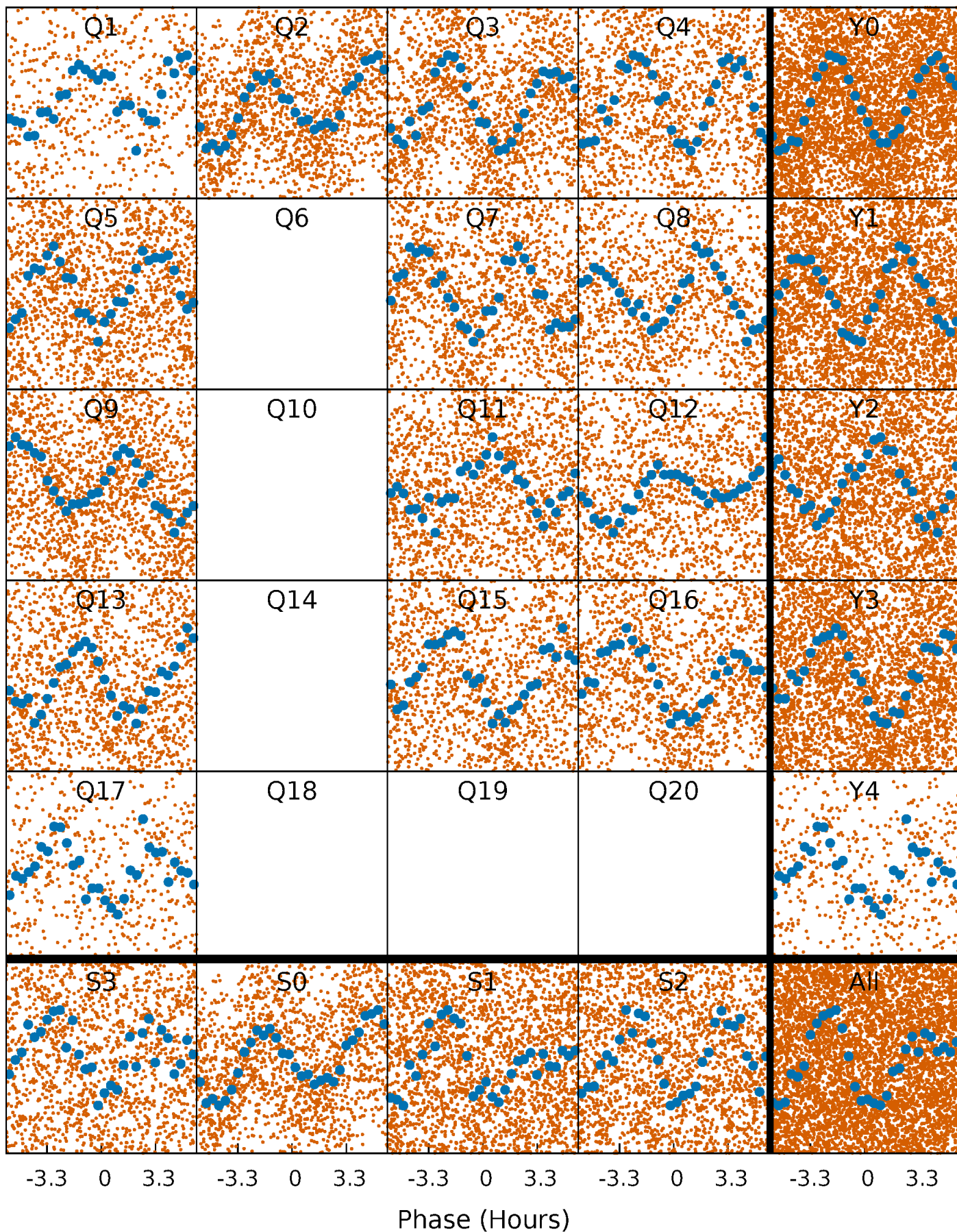


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



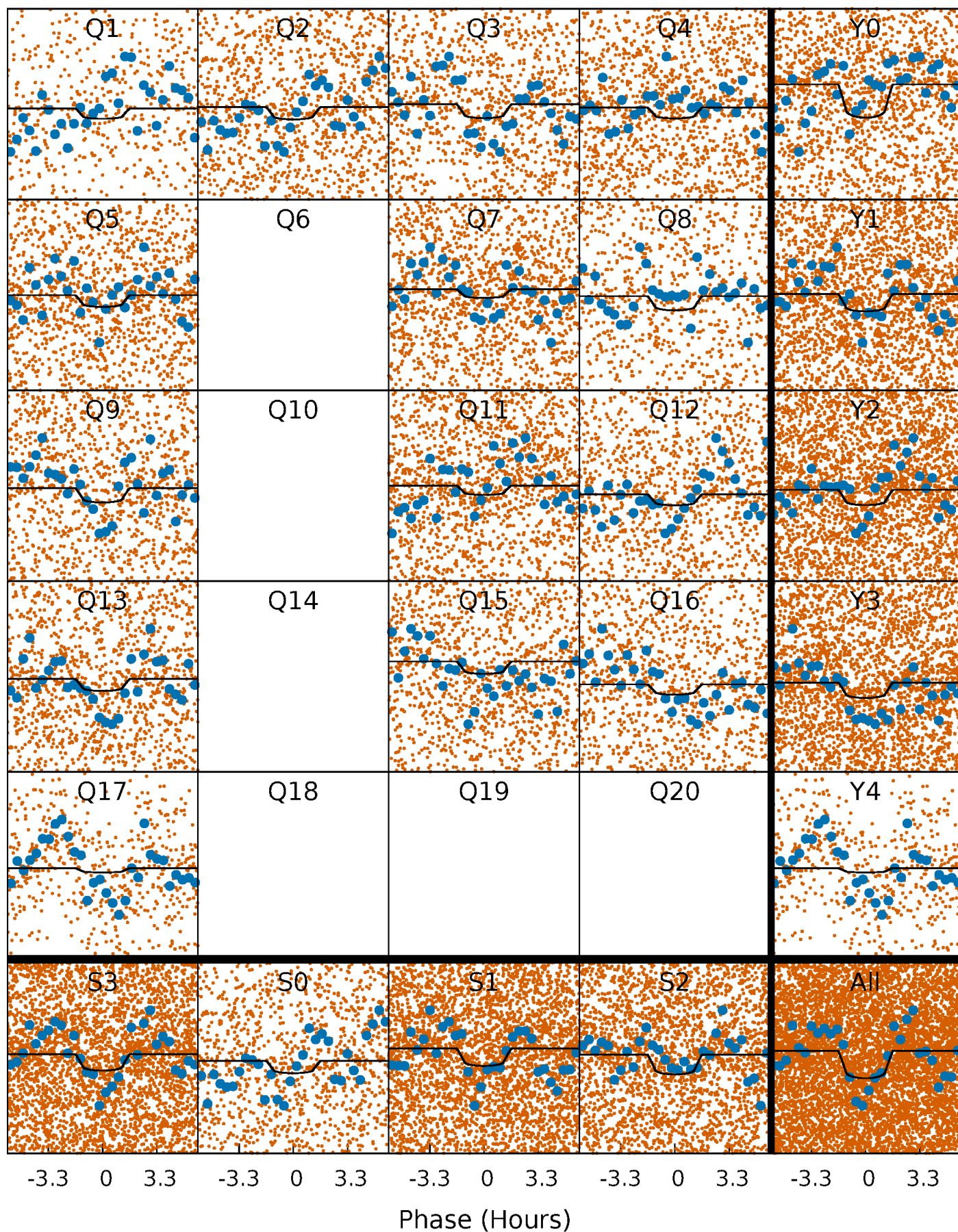
PDC Quarter-Phased Transit Curves

TCE 005198390-01 P= 1.059140 Days $T_0=132.173859$ (BKJD)



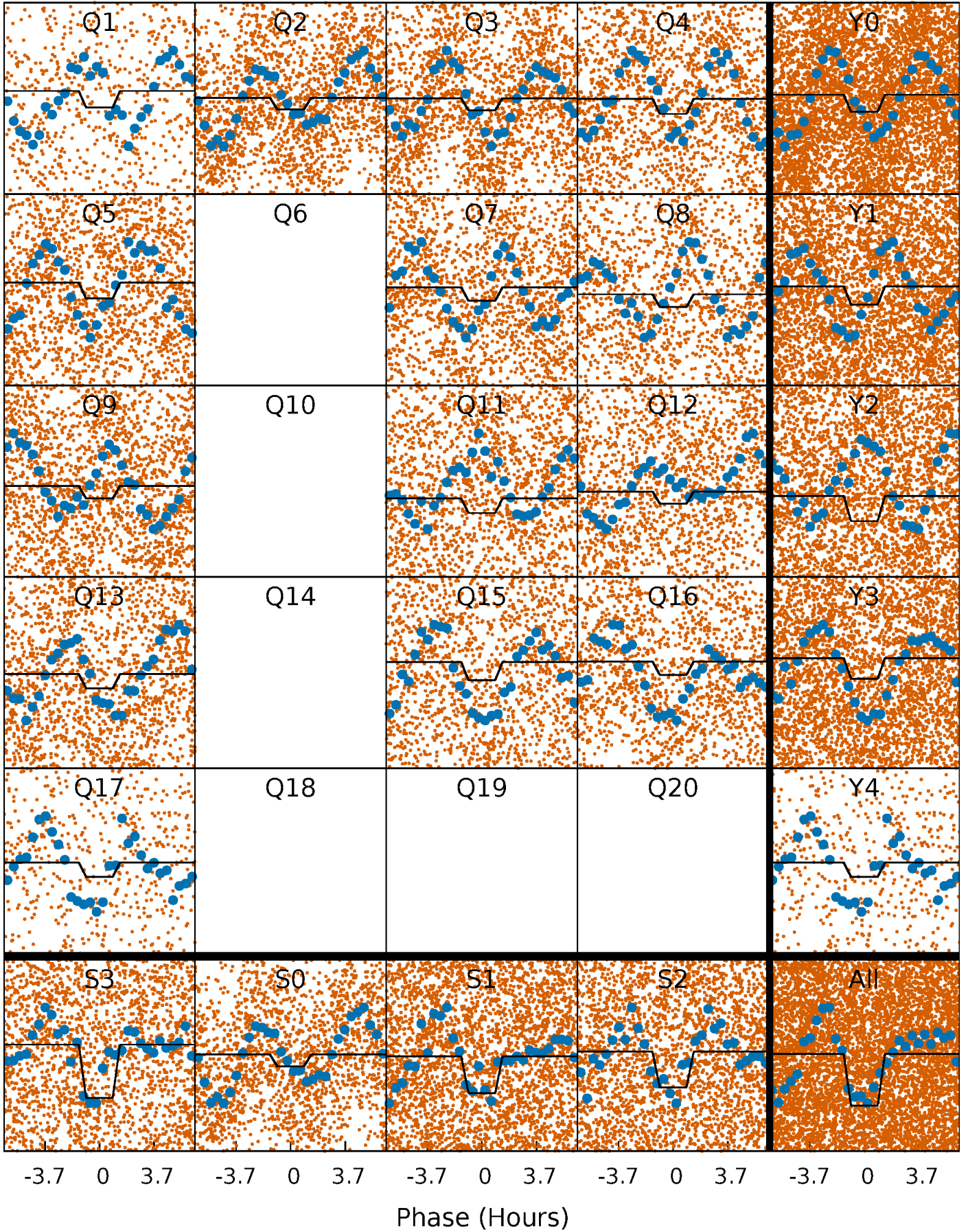
DV Quarter-Phased Transit Curves

TCE 005198390-01 P= 1.059140 Days $T_0=132.173859$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

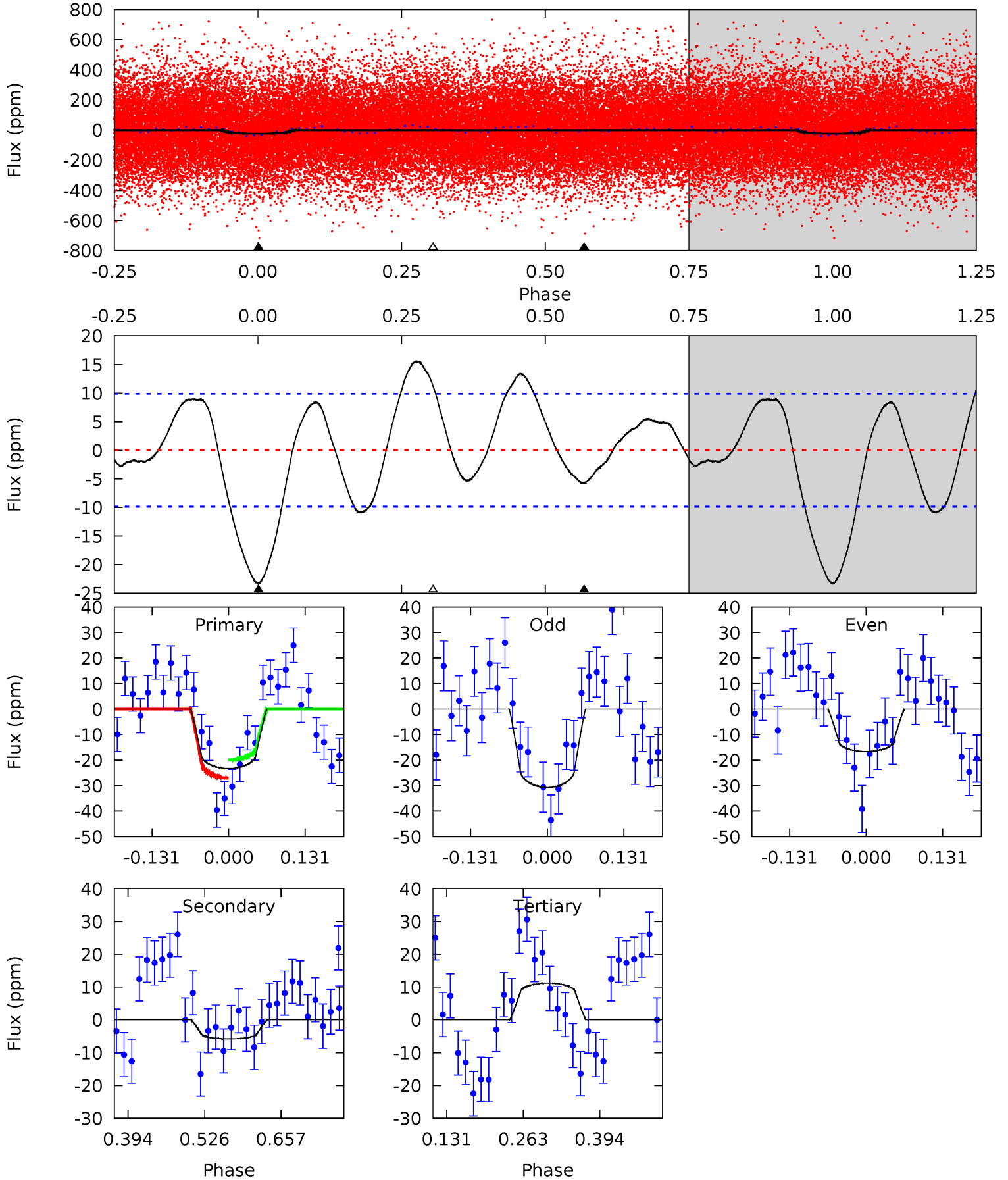
TCE 005198390-01 P= 1.059167 Days $T_0=132.183051$ (BKJD)



DV Model-Shift Uniqueness Test

005198390-01, P = 1.059140 Days, E = 131.114719 Days

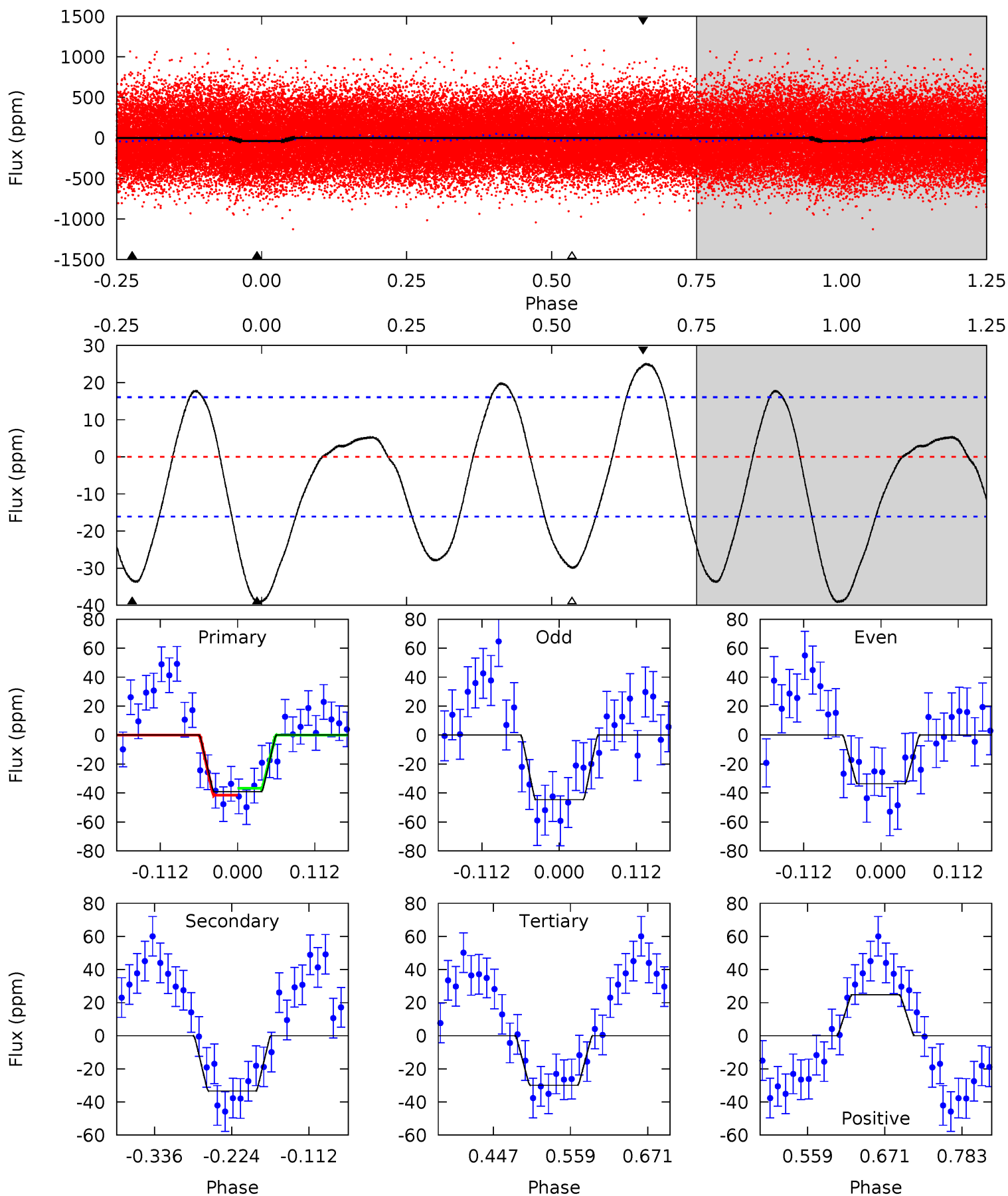
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	2.63	-5.10	0	4.51	1.51	3.11	15.7	10.6	7.73	2.63	3.22	0.84	0.40	1.63



Alt Model-Shift Uniqueness Test

005198390-01, P = 1.059167 Days, E = 131.123884 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	9.42	8.44	6.97	4.54	1.59	4.61	2.59	4.05	0.98	2.45	1.51	0.57	0.39	0.64



Stellar Parameters For KIC 005198390

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6911^{+192}_{-288}	$4.271^{+0.090}_{-0.210}$	$-0.160^{+0.250}_{-0.350}$	$1.391^{+0.466}_{-0.200}$	$1.325^{+0.201}_{-0.201}$	$0.693^{+0.279}_{-0.378}$
	+3%/-4%	+2%/-5%	+156%/-219%	+34%/-14%	+15%/-15%	+40%/-55%
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 005198390-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 2	$0.70^{+0.39}_{-0.33}$	3406^{+257}_{-202}	4930^{+1866}_{-962}	$3.016^{+7.772}_{-1.910}$
Alt.	-33 ± 4	$1.06^{+0.39}_{-0.37}$	3401^{+260}_{-200}	6235^{+1726}_{-894}	$8.073^{+11.082}_{-3.900}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

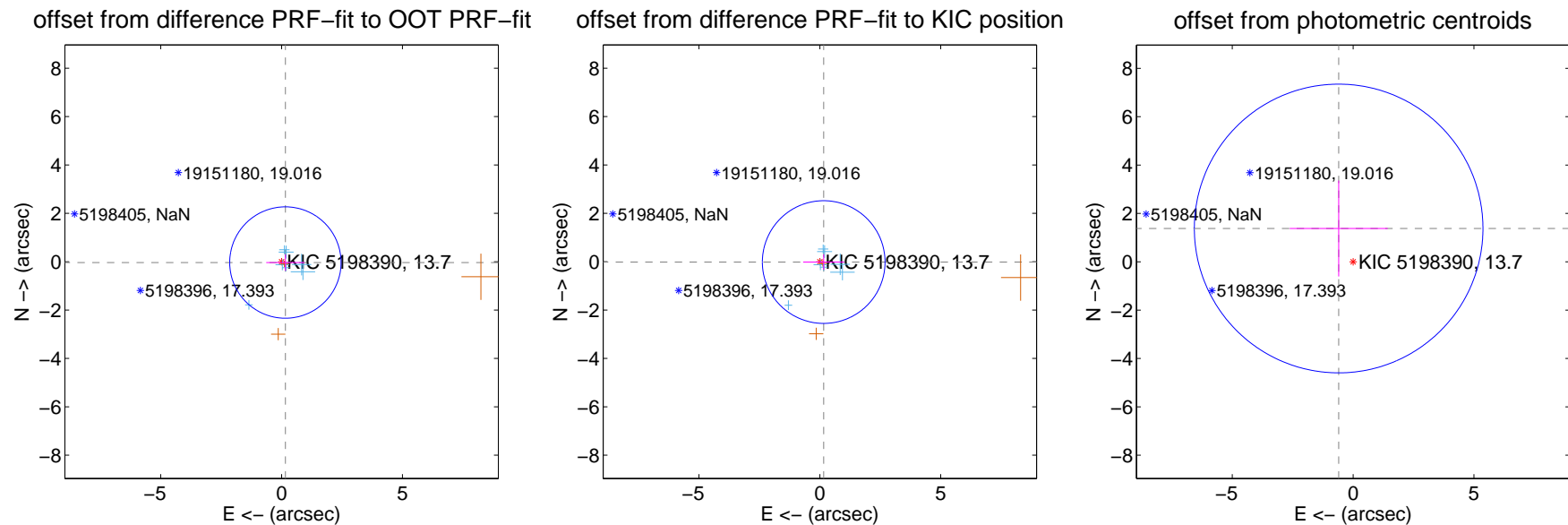
DV Centroid Data

Supplemental centroid analysis for 005198390-01. Kepler magnitude: 13.70. Transit SNR 5.53

There are 7 quarters with good PRF difference image offsets

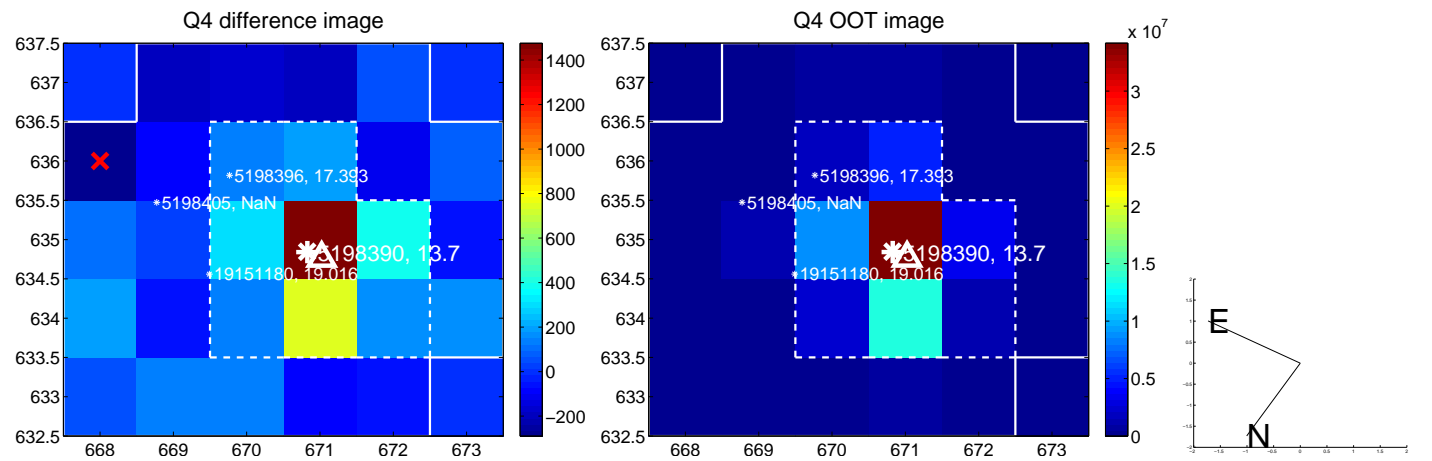
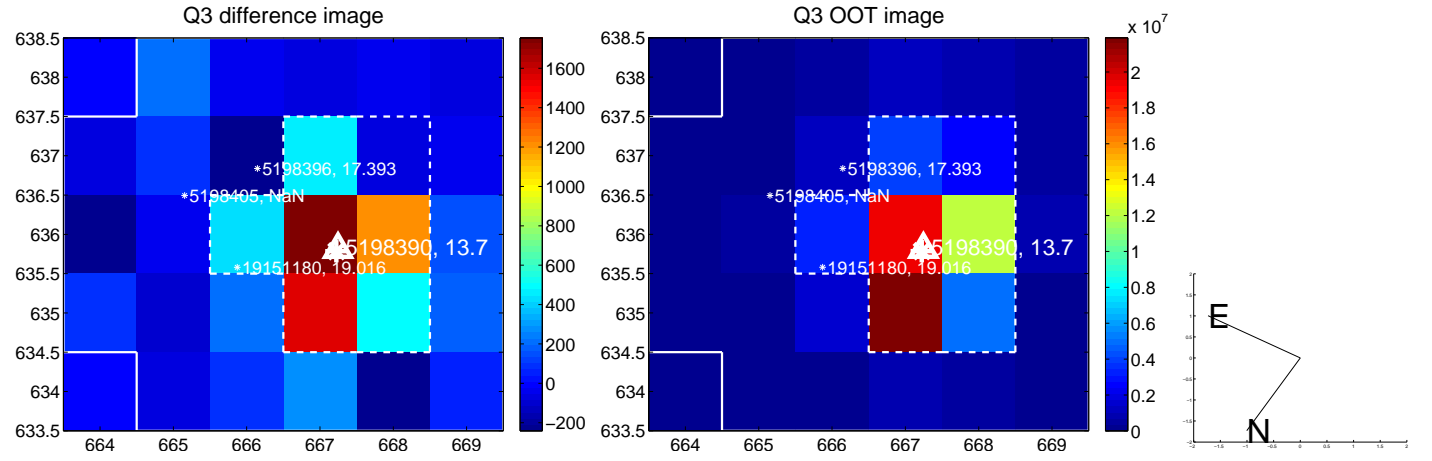
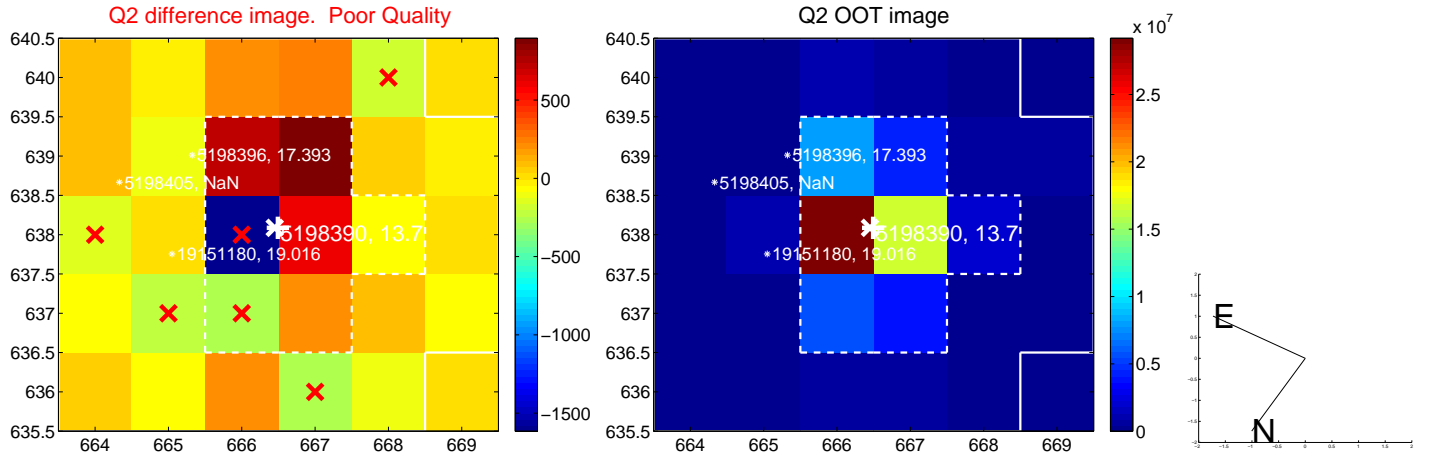
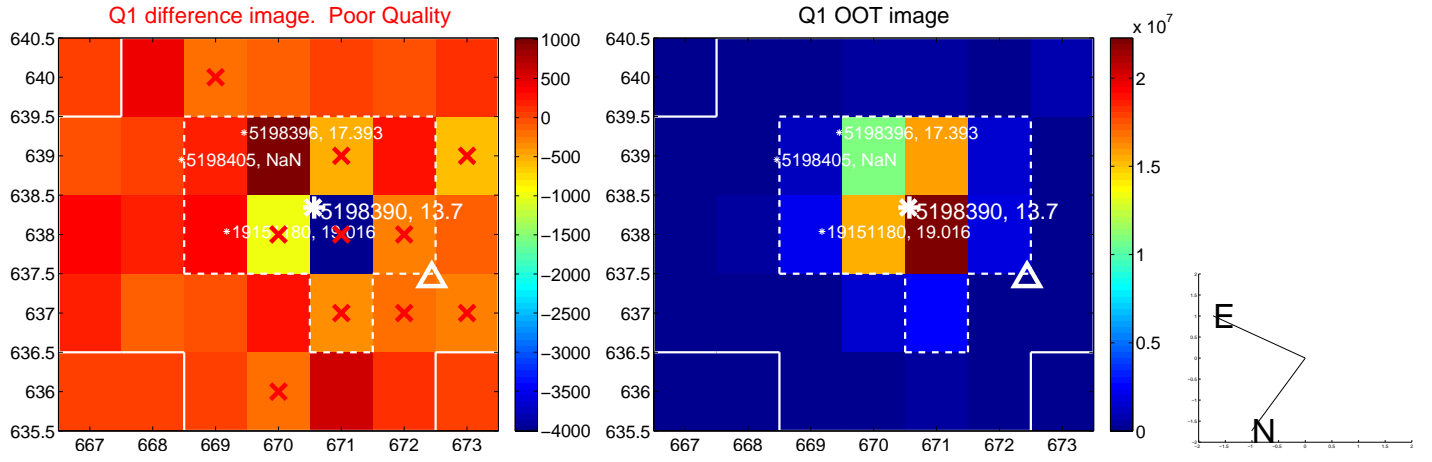
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.161 ± 0.768	0.21	-0.157 ± 0.790	-0.035 ± 0.335
PRF-fit source offset from KIC position	0.160 ± 0.846	0.19	-0.160 ± 0.849	-0.015 ± 0.317
photometric centroid source offset	1.50 ± 1.99	0.75	0.60 ± 2.03	1.38 ± 1.98

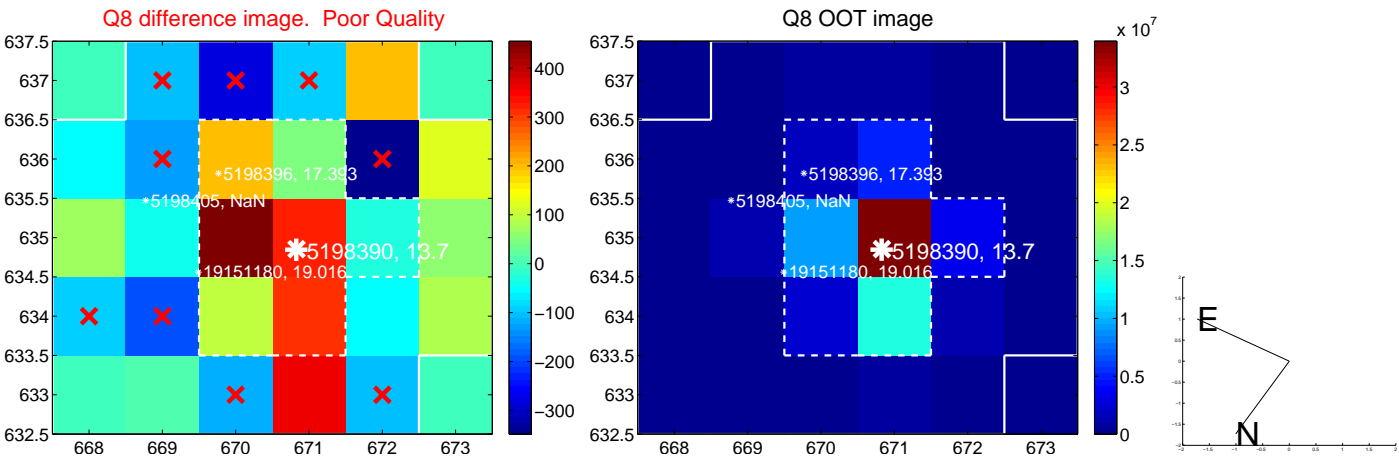
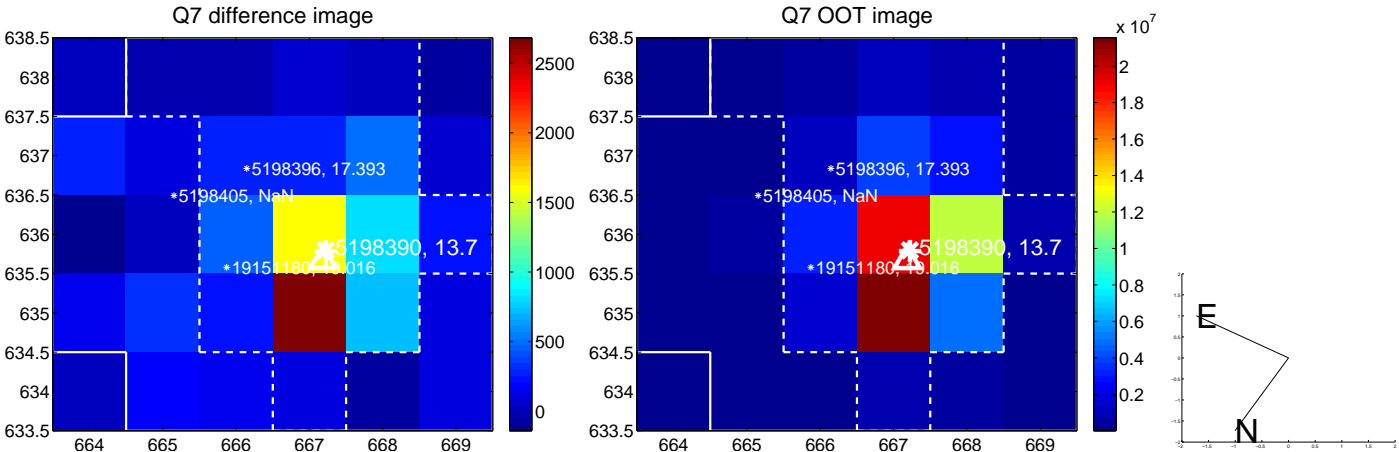
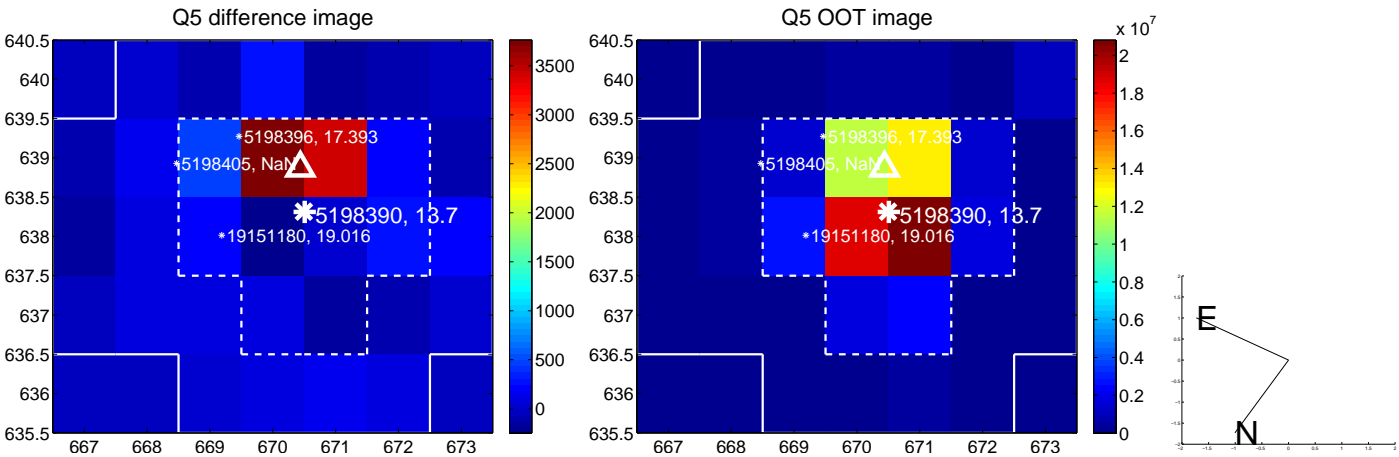


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

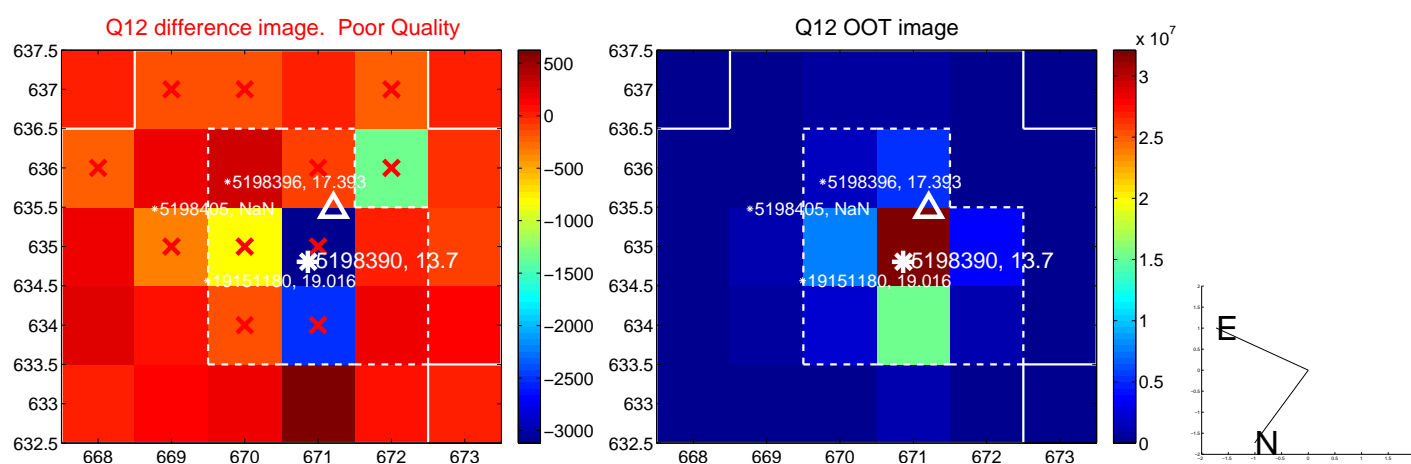
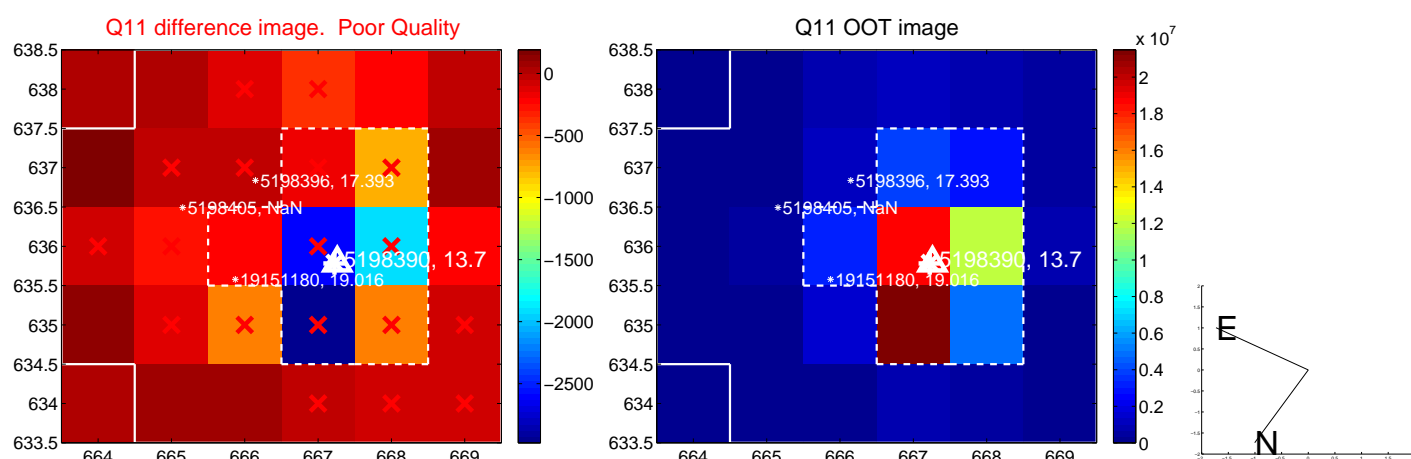
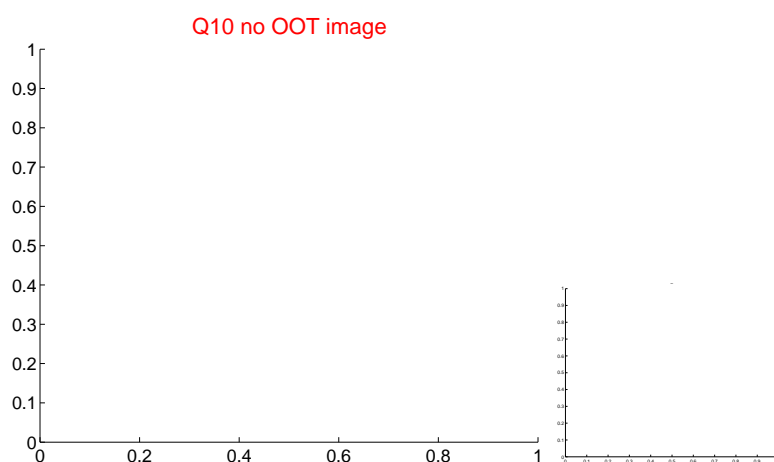
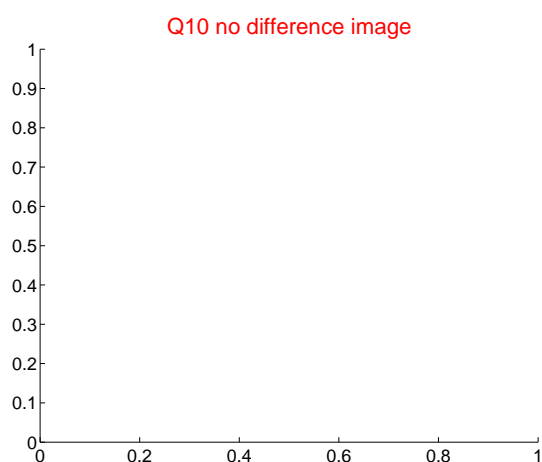
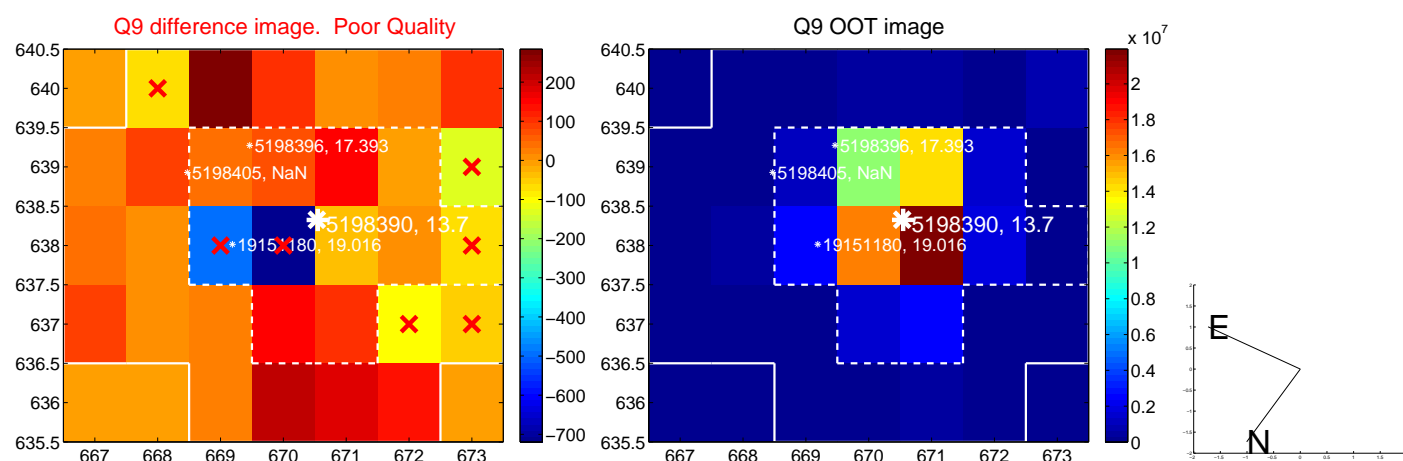
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



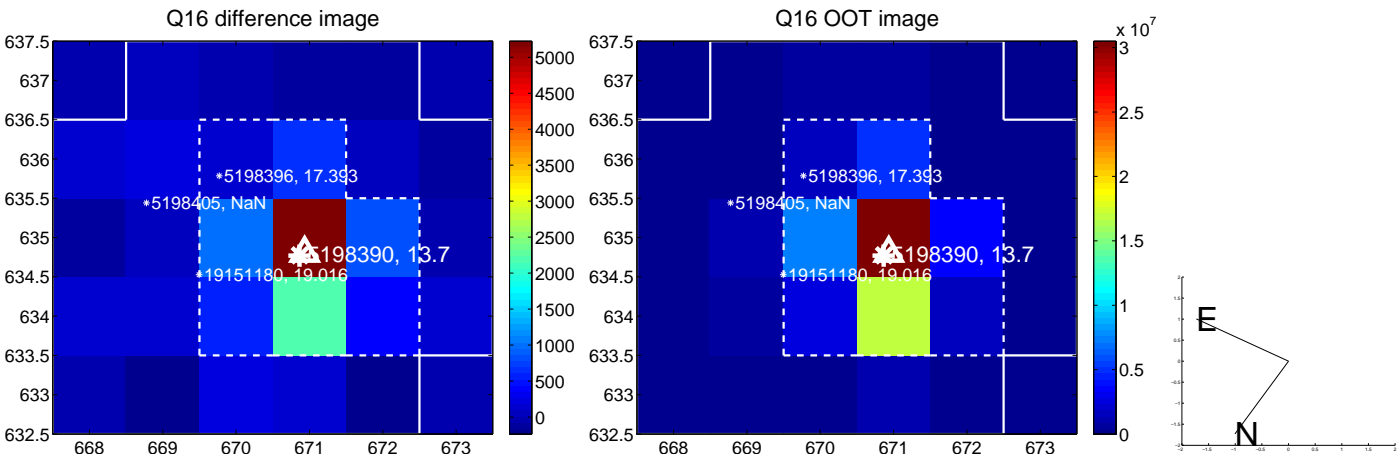
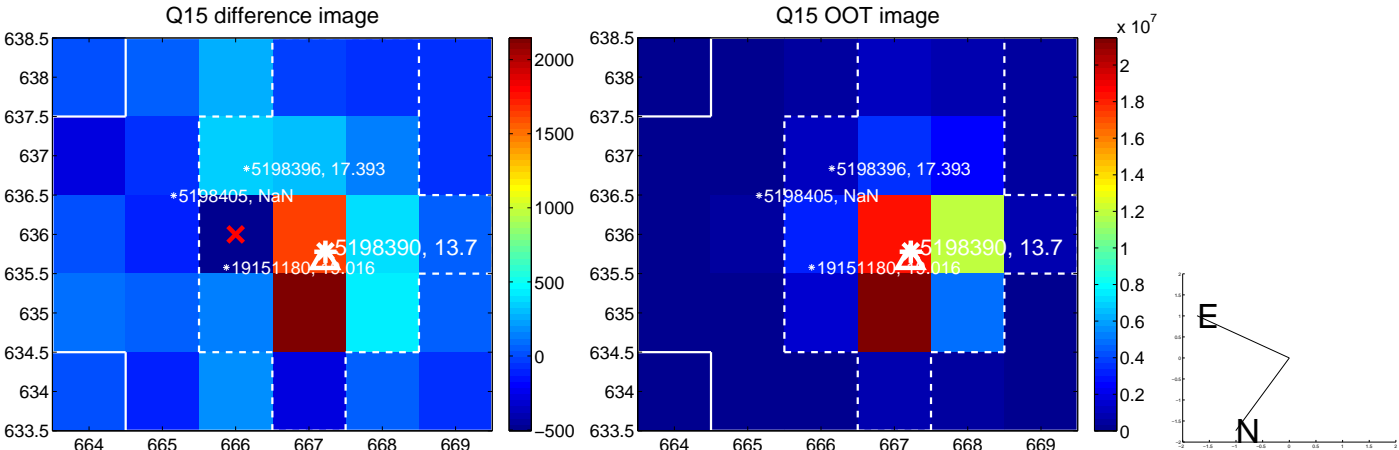
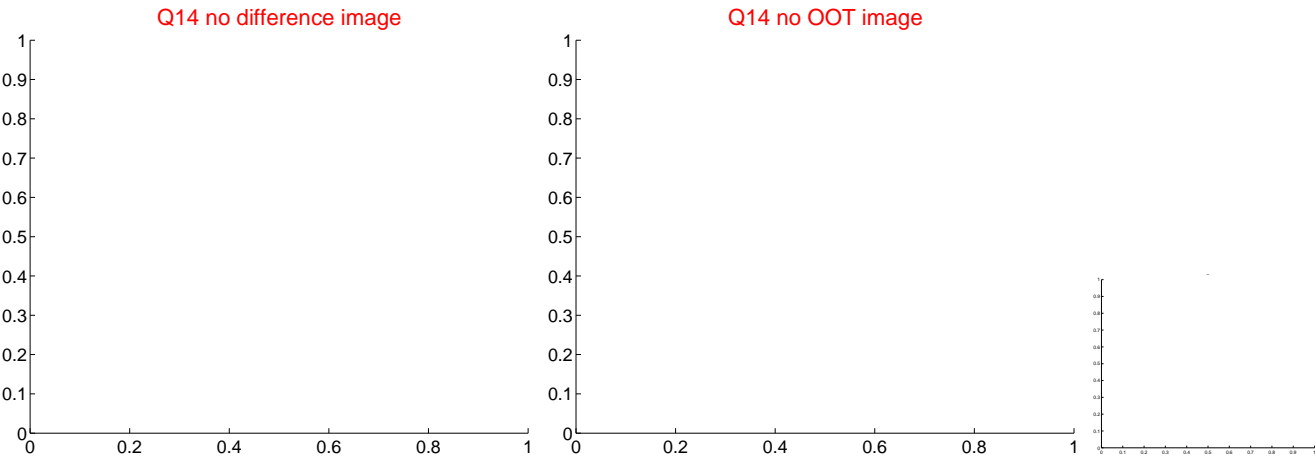
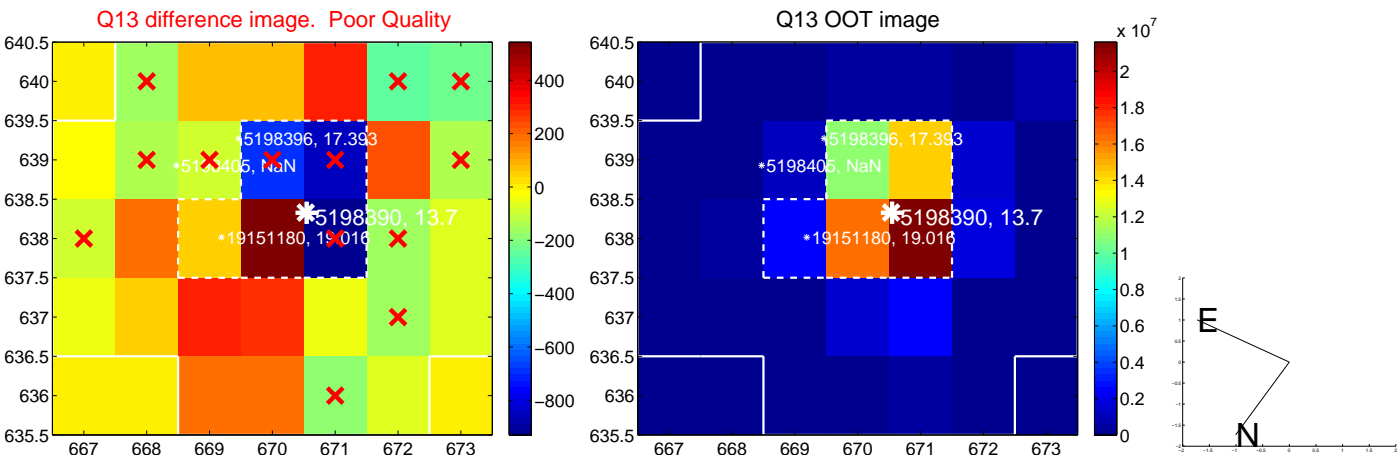
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



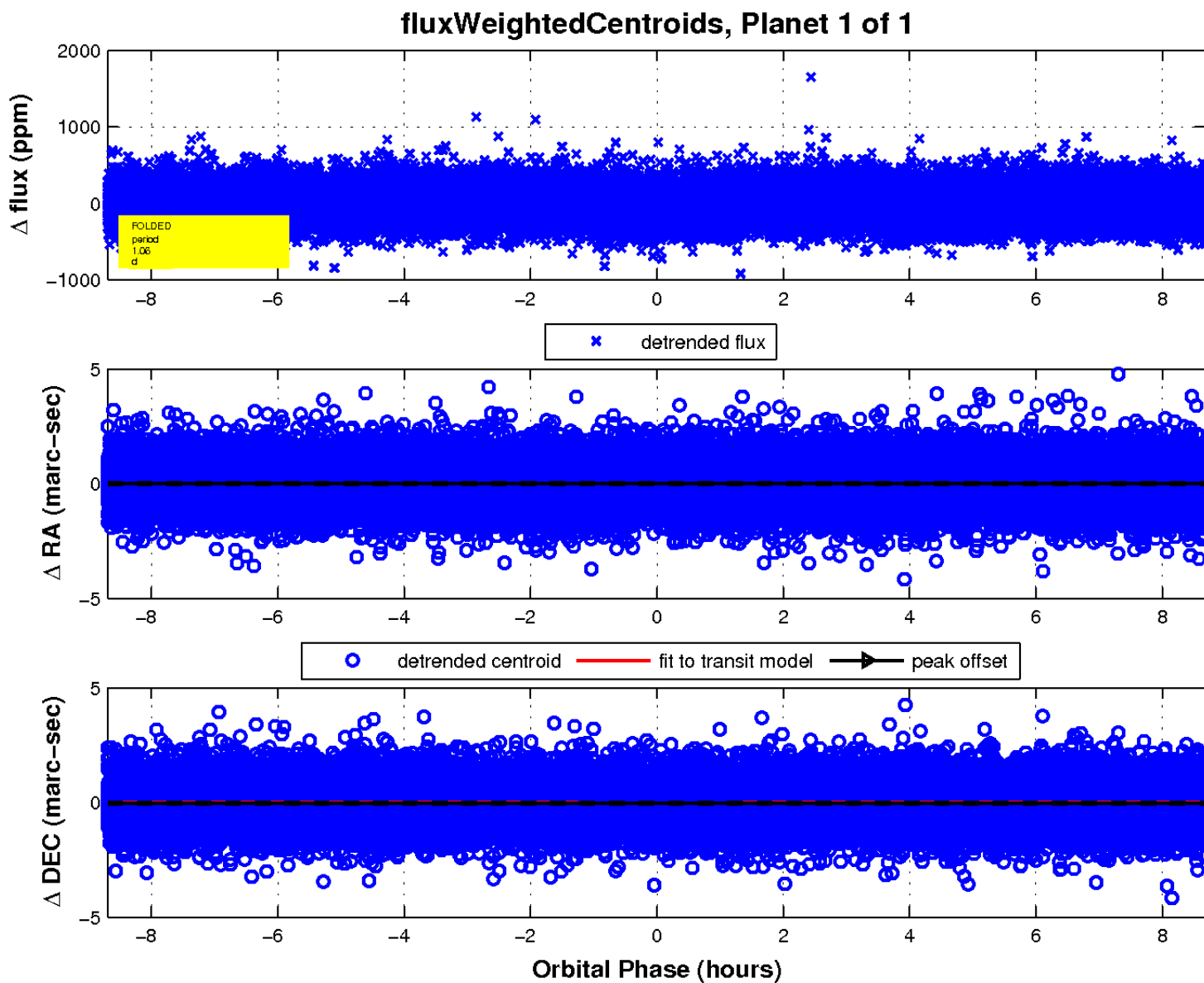
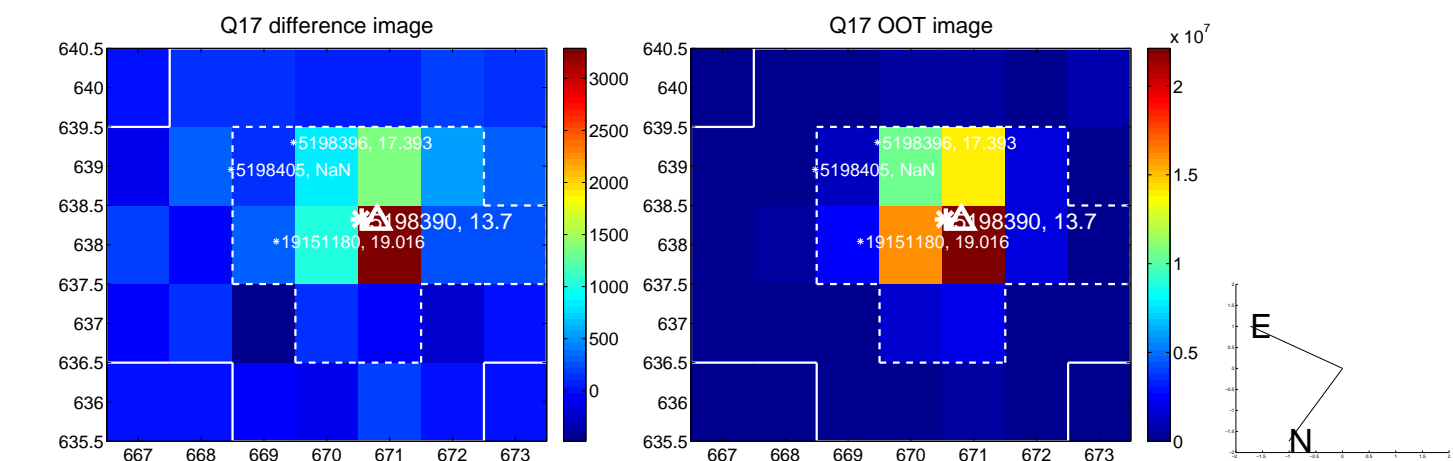
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UKIRT Image

Declination

