

KIC 007422855

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})
007422855-01	OBS	No	0.618810	131.804744	928.3	1.500	7.6	-1.0	0.78	5614	2.35	2961.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007422855-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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

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

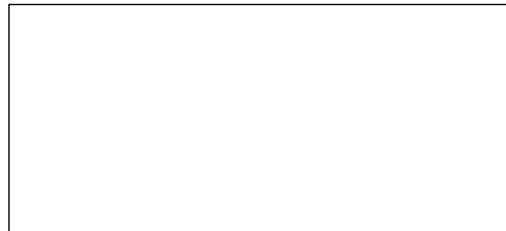
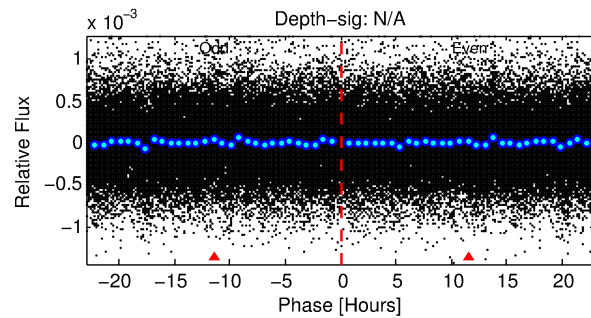
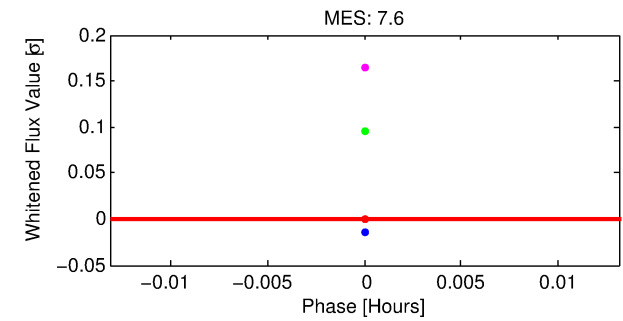
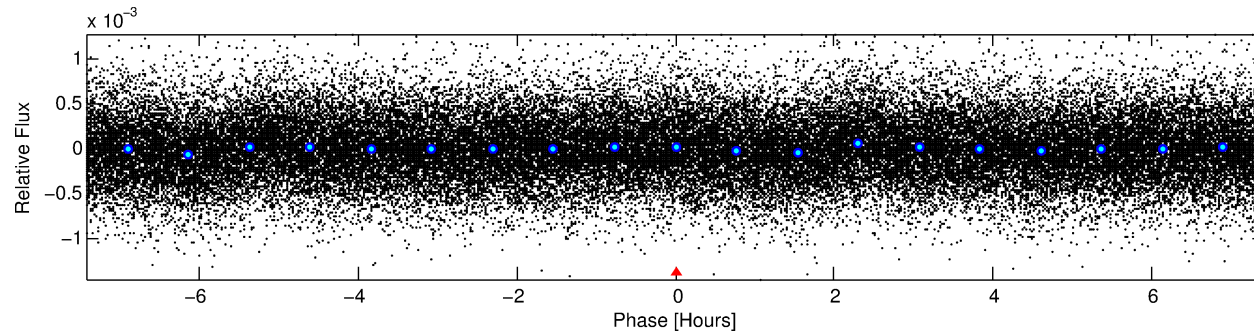
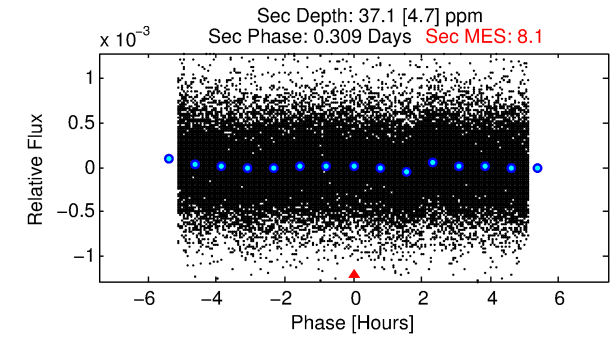
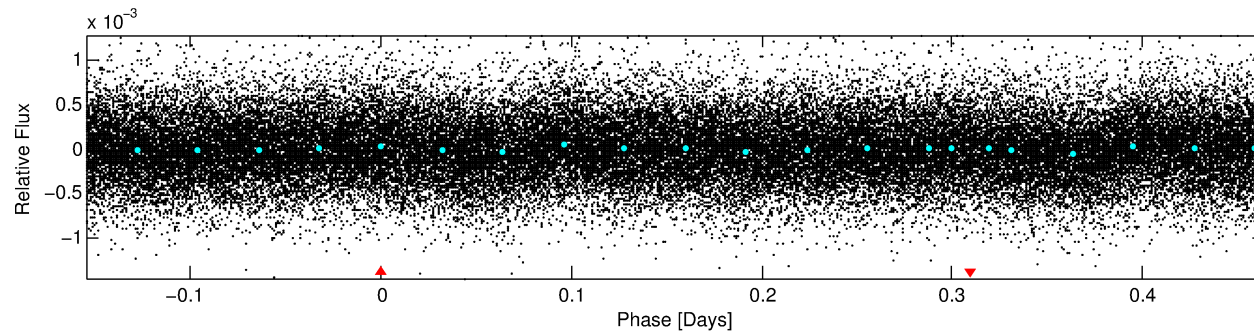
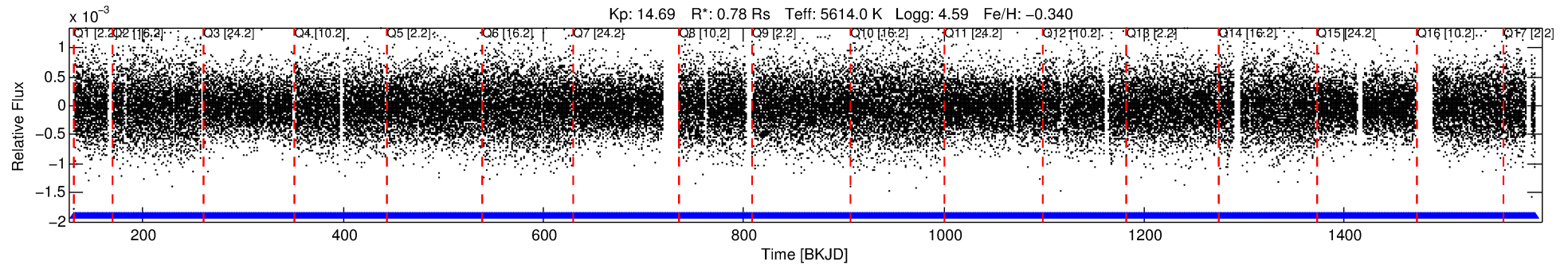
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007422855-01

No Significant Match Found

DV One-Page Summary

KIC: 7422855 Candidate: 1 of 1 Period: 0.619 d



TPS TCE Results:

Period = 0.61881 d
Epoch = 131.8047 BKJD

DV fit results are unavailable

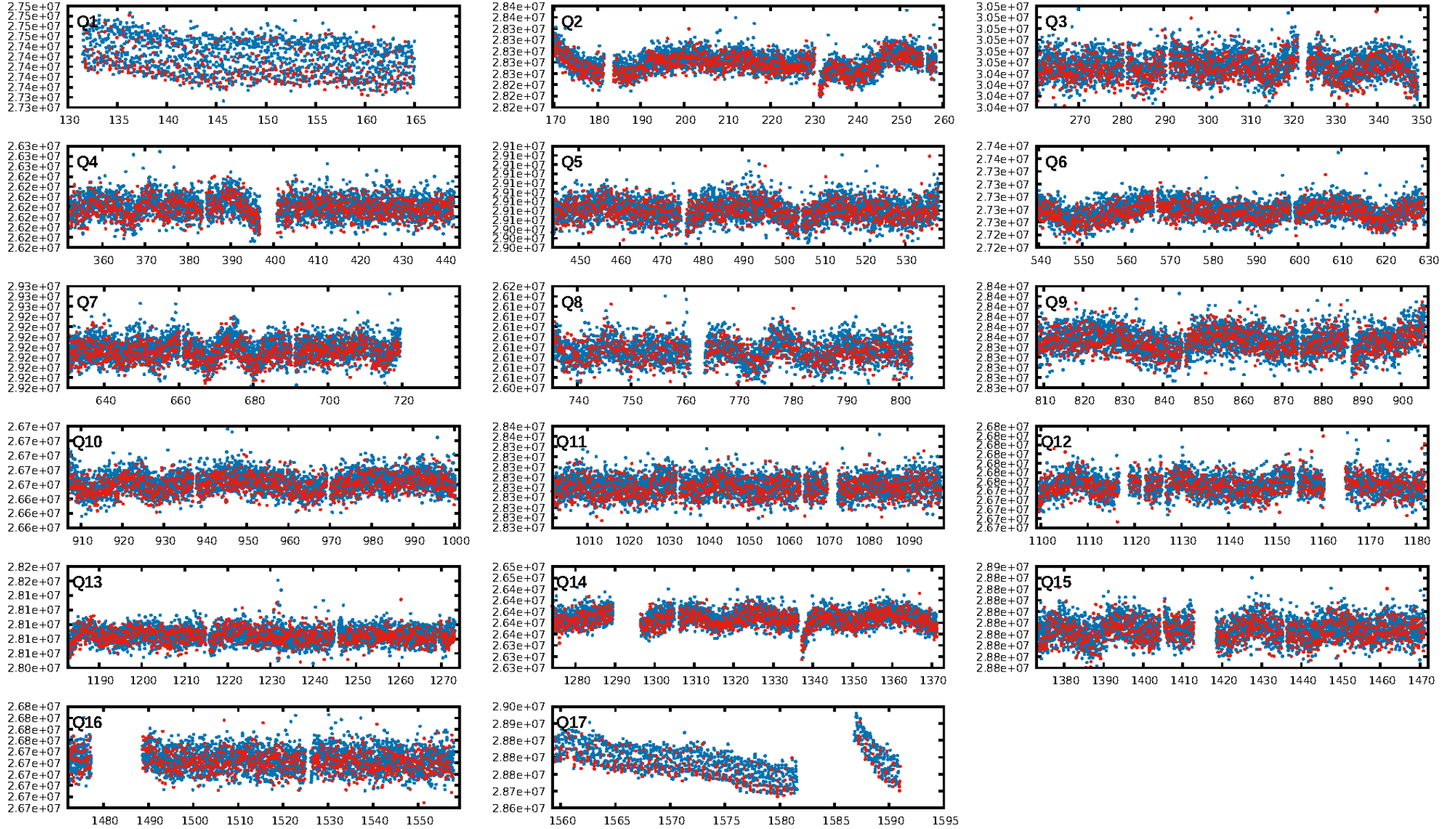
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.83e-14
RollingBand-fgt: 1.00 [2080/2080]
GhostDiagnostic-chr: 2.143
Centroid-sig: 98.6%
Centroid-so: 0.216 arcsec [0.86σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

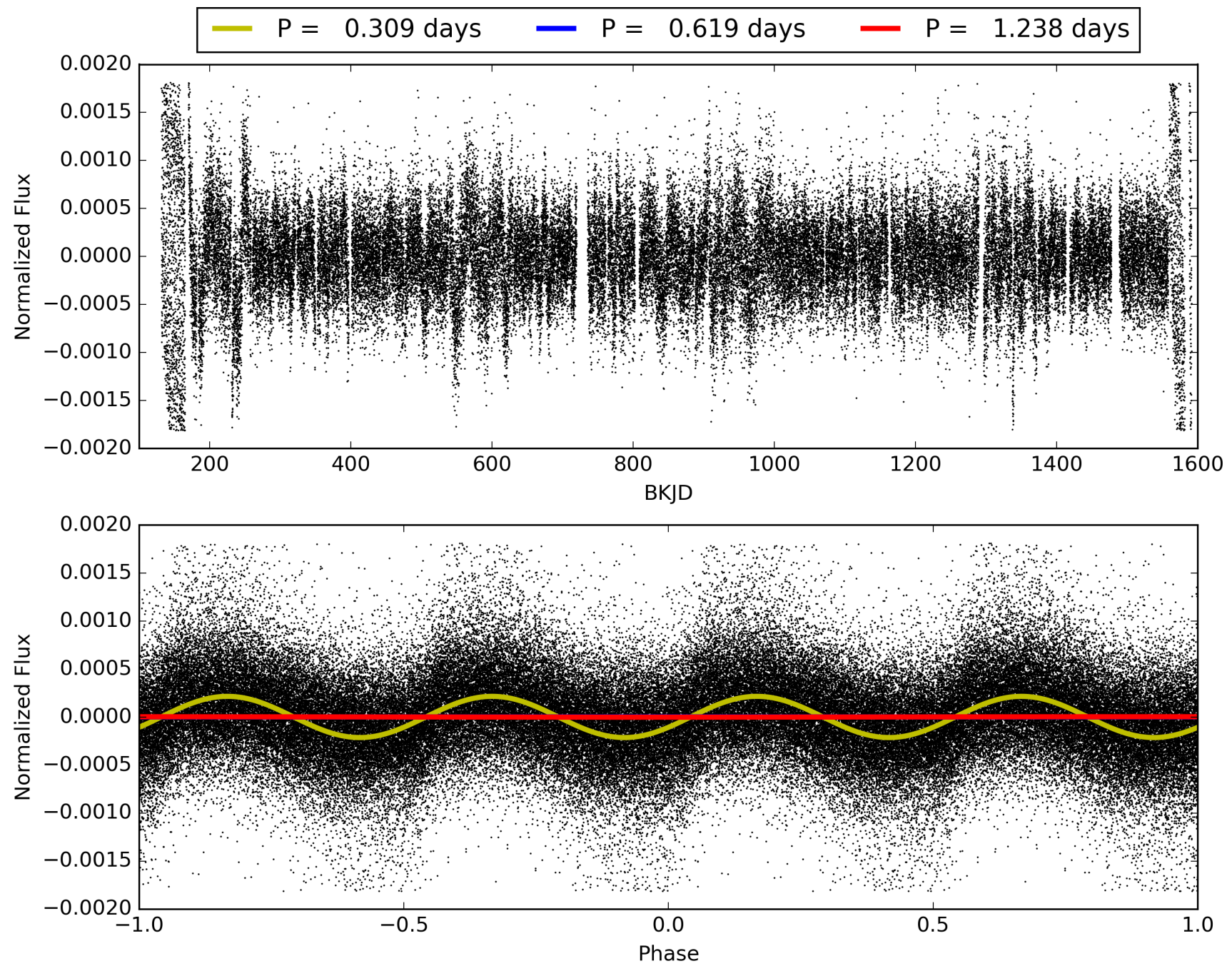
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:35:00 Z

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

TCE 007422855-01, PDC Light Curves

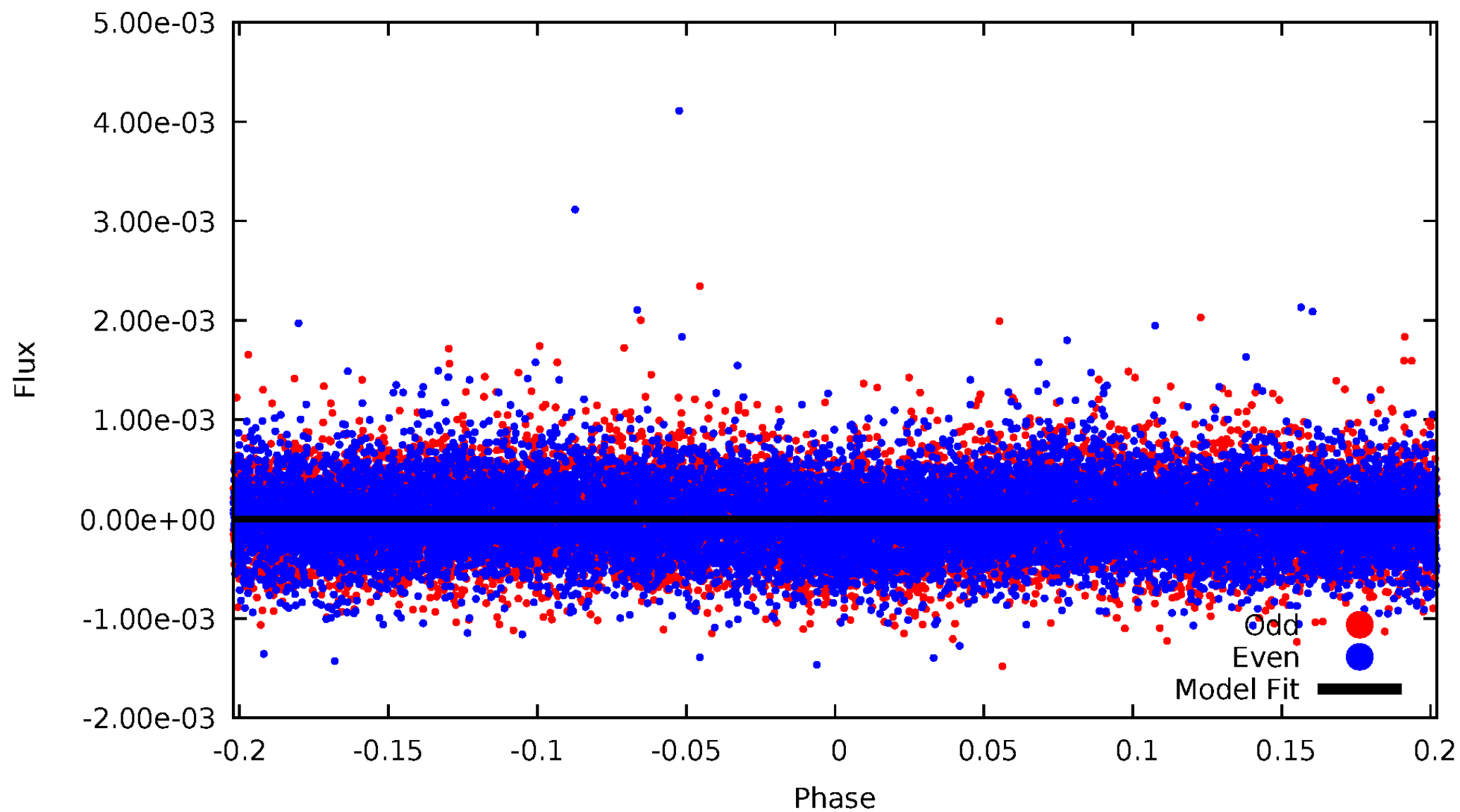


TCE 007422855-01



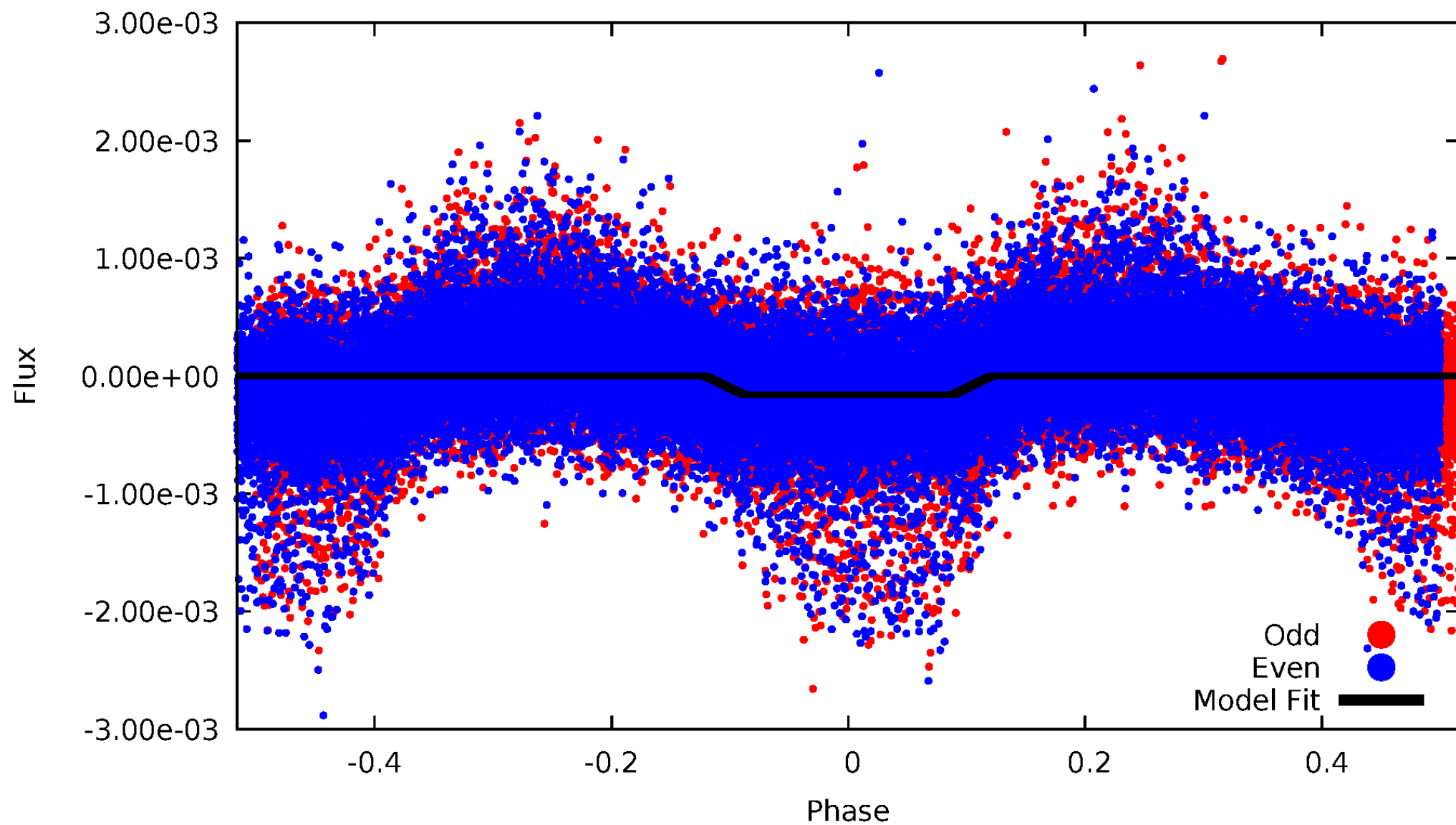
DV Odd/Even

TCE 007422855-01

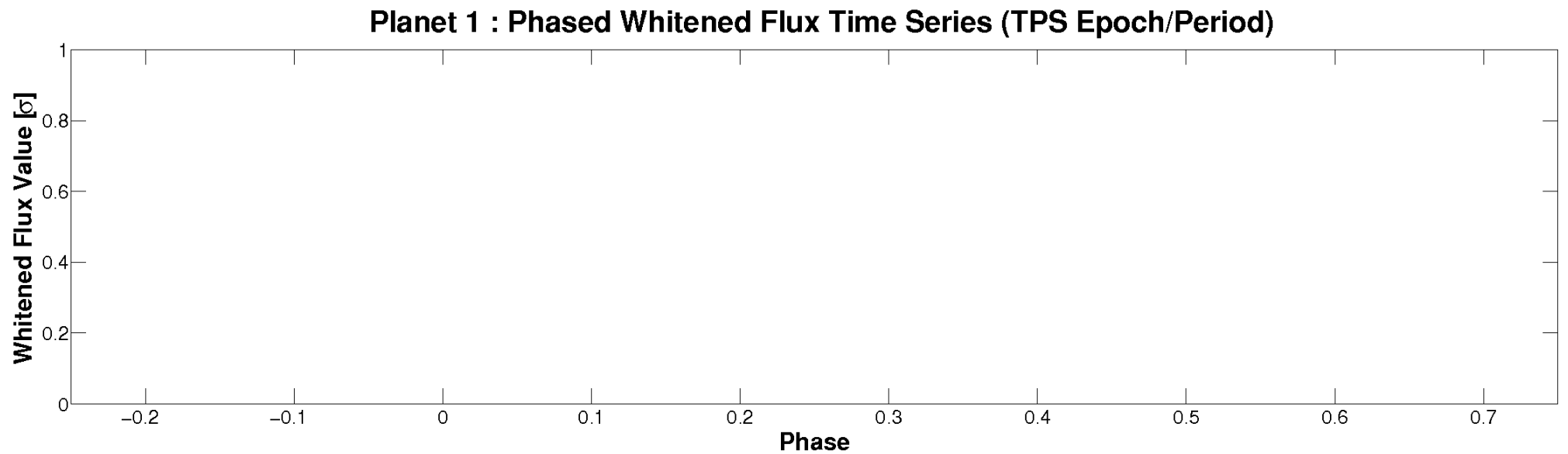
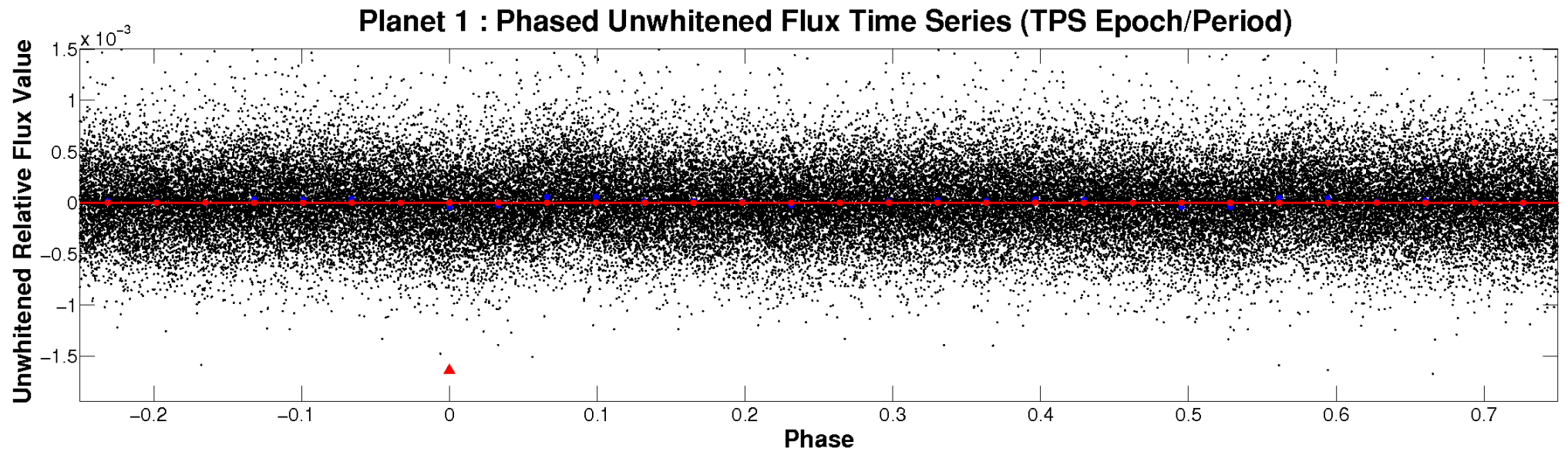


ALT Odd/Even

TCE 007422855-01

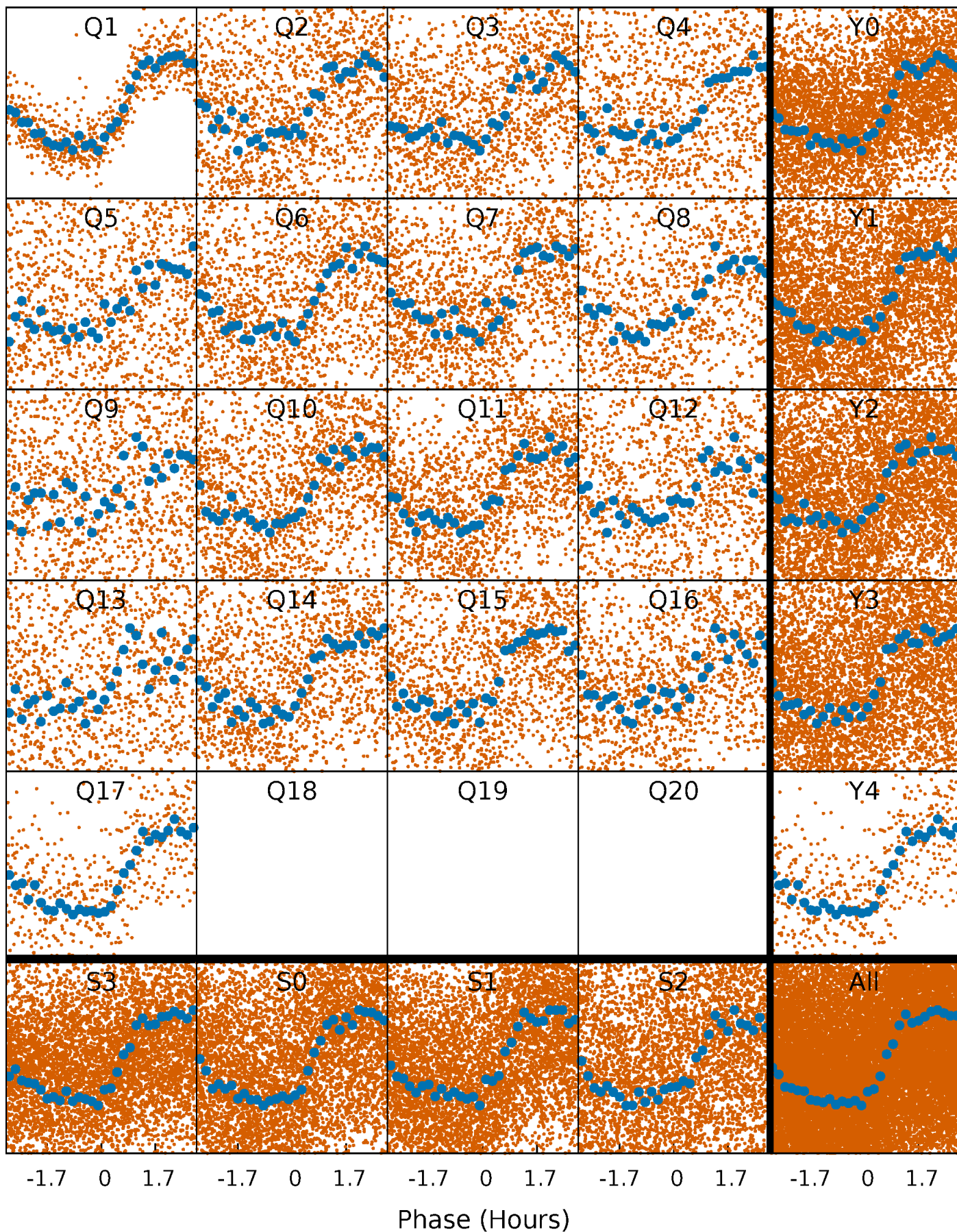


Non-Whitened Vs. Whitened Light Curve



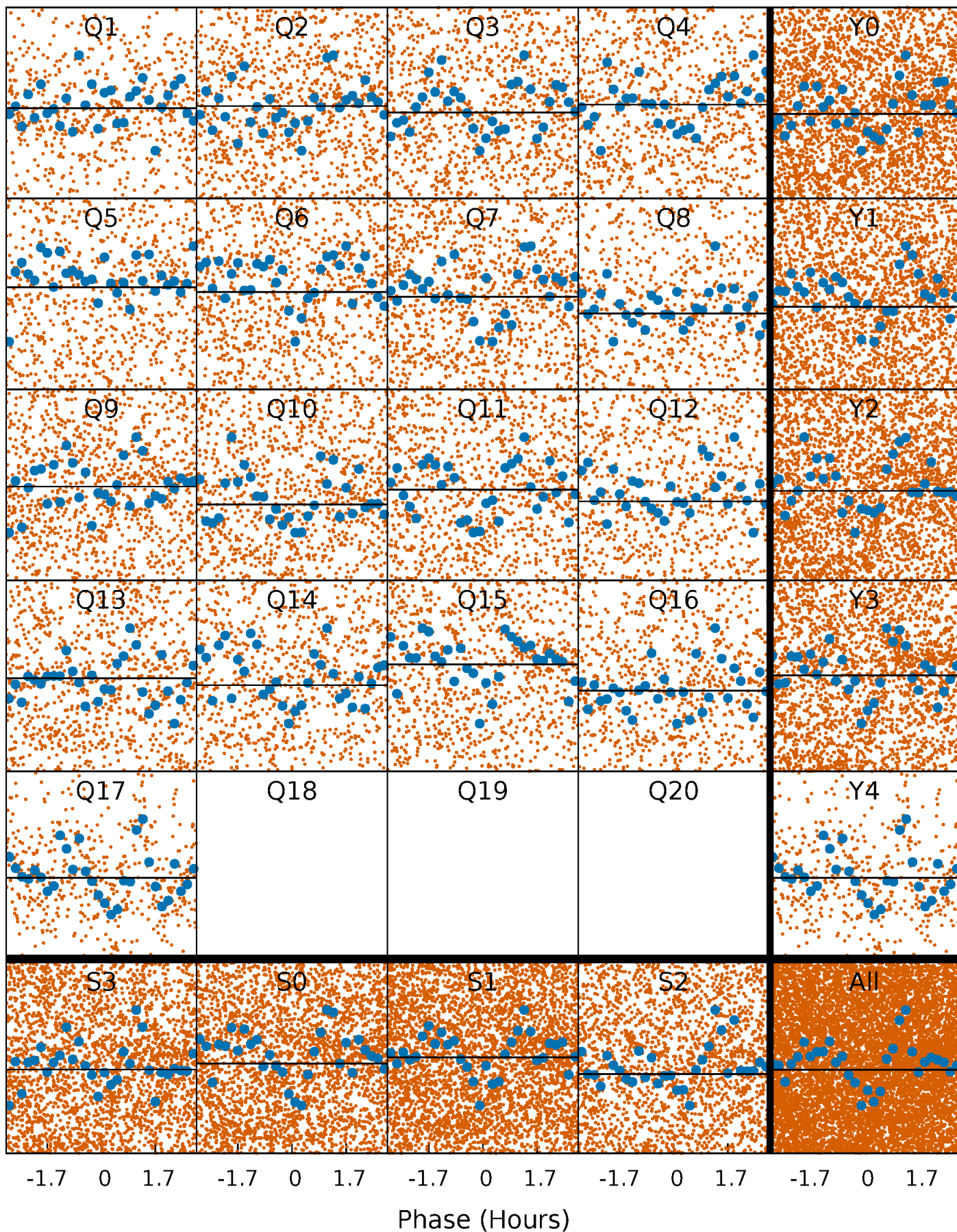
PDC Quarter-Phased Transit Curves

TCE 007422855-01 P= 0.618810 Days $T_0=131.804744$ (BKJD)



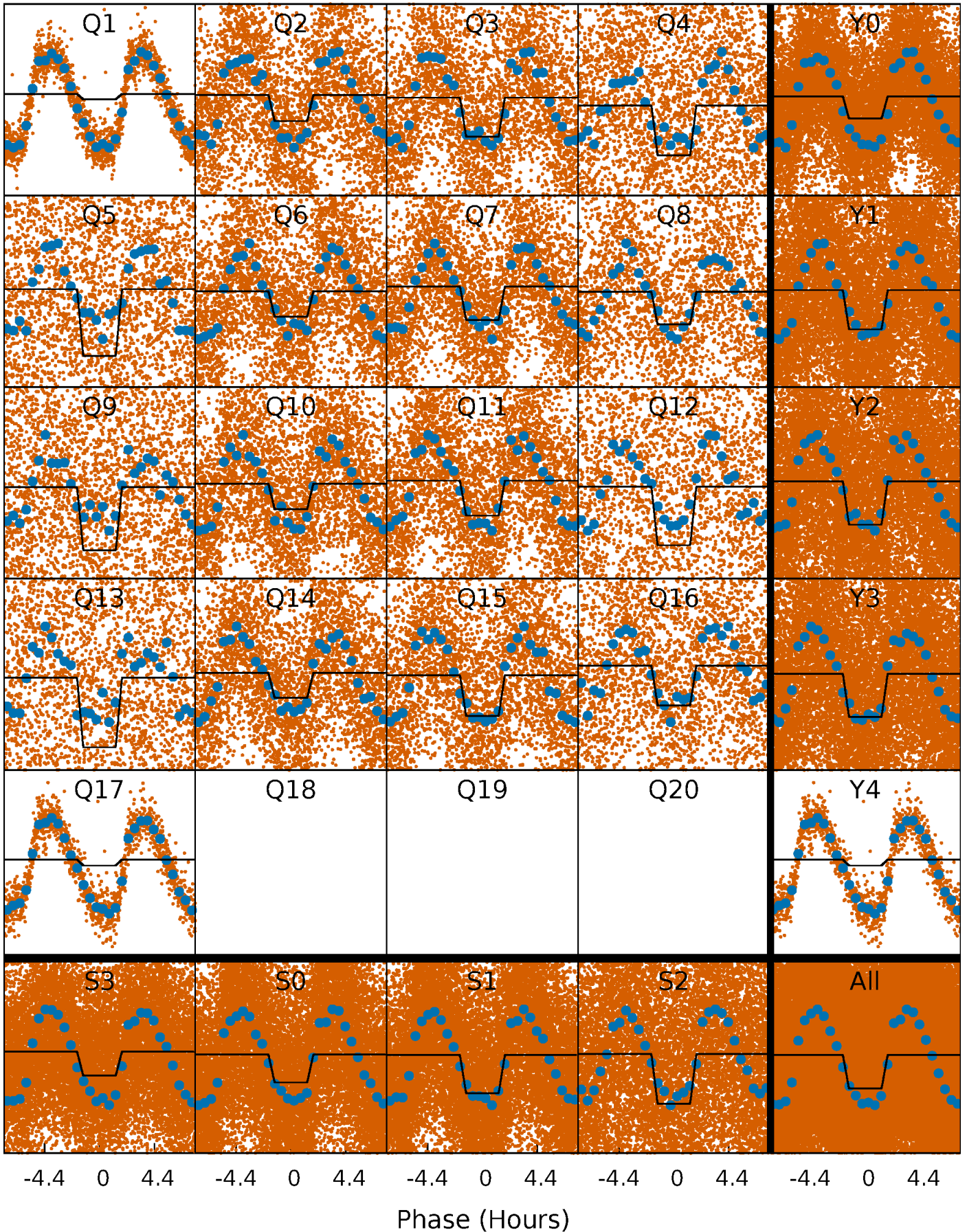
DV Quarter-Phased Transit Curves

TCE 007422855-01 P= 0.618810 Days $T_0=131.804744$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

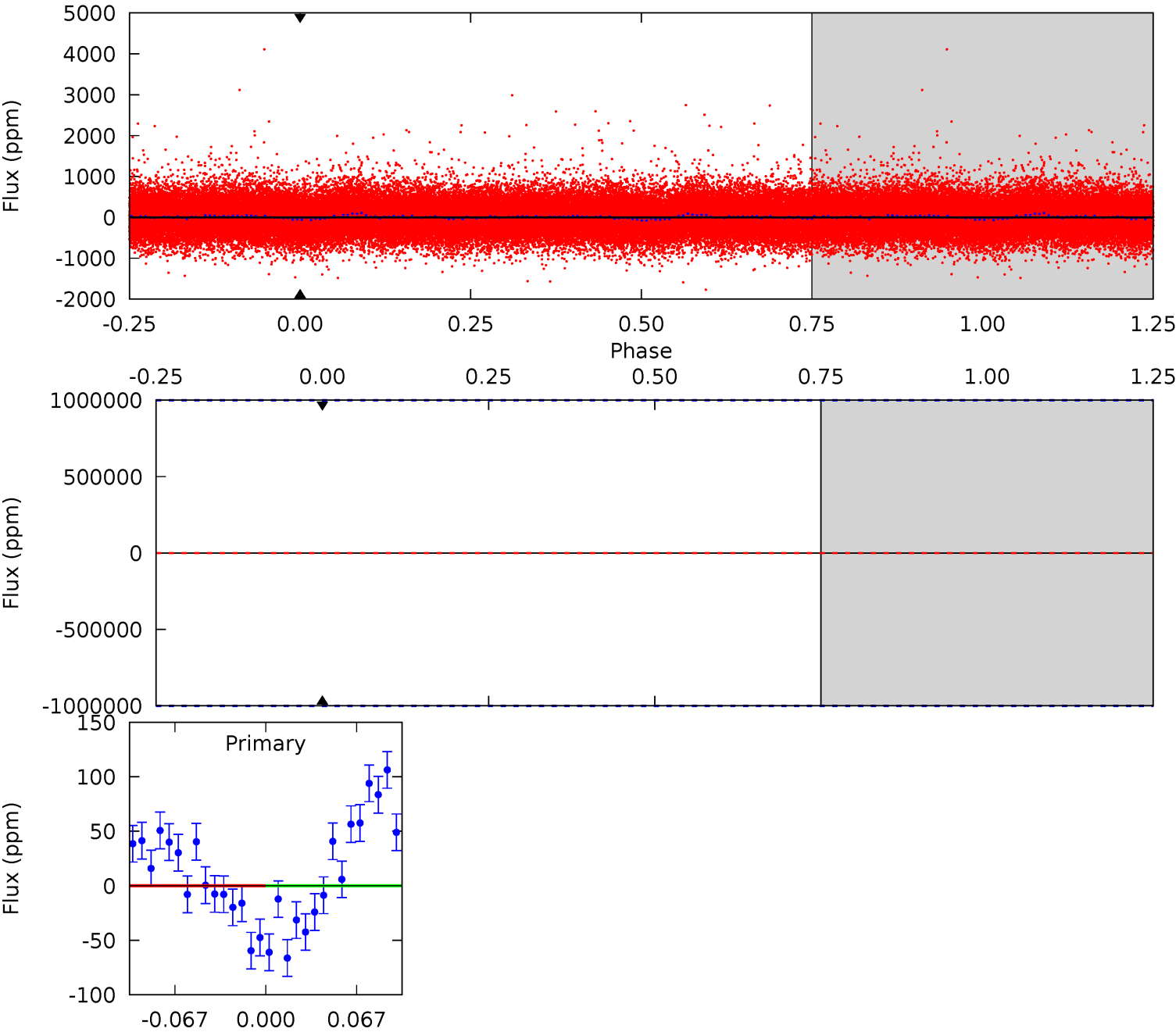
TCE 007422855-01 P= 0.618810 Days $T_0=131.756365$ (BKJD)



DV Model-Shift Uniqueness Test

007422855-01, P = 0.618810 Days, E = 131.185934 Days

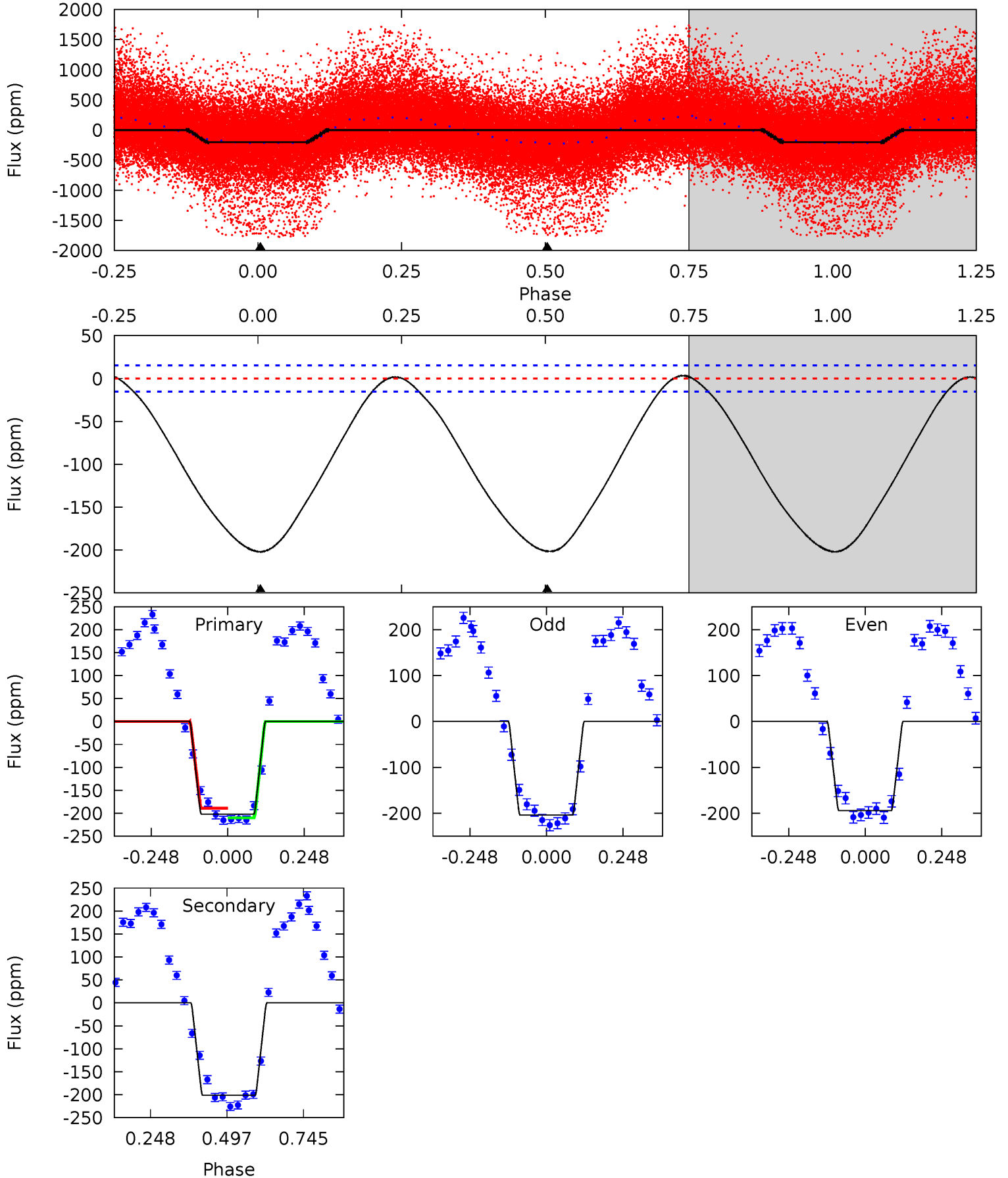
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007422855-01, P = 0.618810 Days, E = 131.137555 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.0	57.9	0	0	4.37	1.15	1.40	58.0	58.0	57.9	57.9	1.46	1.27	0.02	3.40



Stellar Parameters For KIC 007422855

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5614^{+152}_{-152}	$4.587^{+0.036}_{-0.144}$	$-0.340^{+0.300}_{-0.300}$	$0.777^{+0.169}_{-0.056}$	$0.858^{+0.089}_{-0.089}$	$2.573^{+0.472}_{-1.075}$
	+3%/-3%	+1%/-3%	+88%/-88%	+22%/-7%	+10%/-10%	+18%/-42%
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 007422855-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$7.20^{+6.88}_{-4.93}$	2675^{+144}_{-106}	-3776^{+21904}_{-12590}	$-1.061^{+375.725}_{-291.442}$
Alt.	-201 ± 3	$6.45^{+6.86}_{-4.47}$	2676^{+135}_{-104}	2707^{+1846}_{-5431}	$0.471^{+4.449}_{-0.358}$

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 $A_{obs} \gg 1.0$

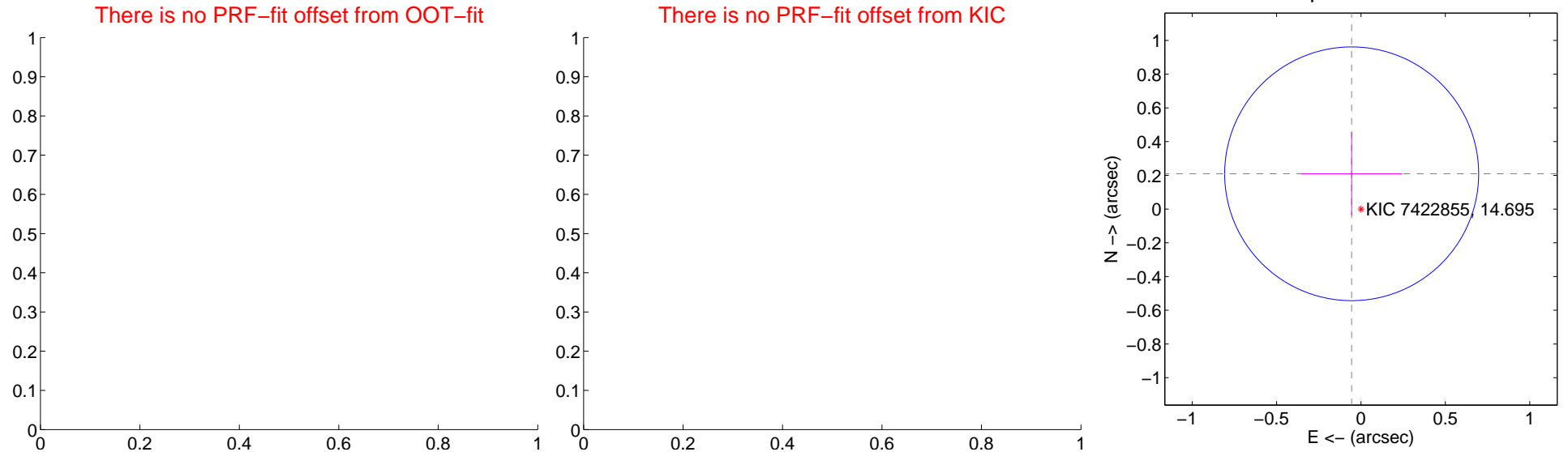
DV Centroid Data

Supplemental centroid analysis for 007422855-01. Kepler magnitude: 14.70. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

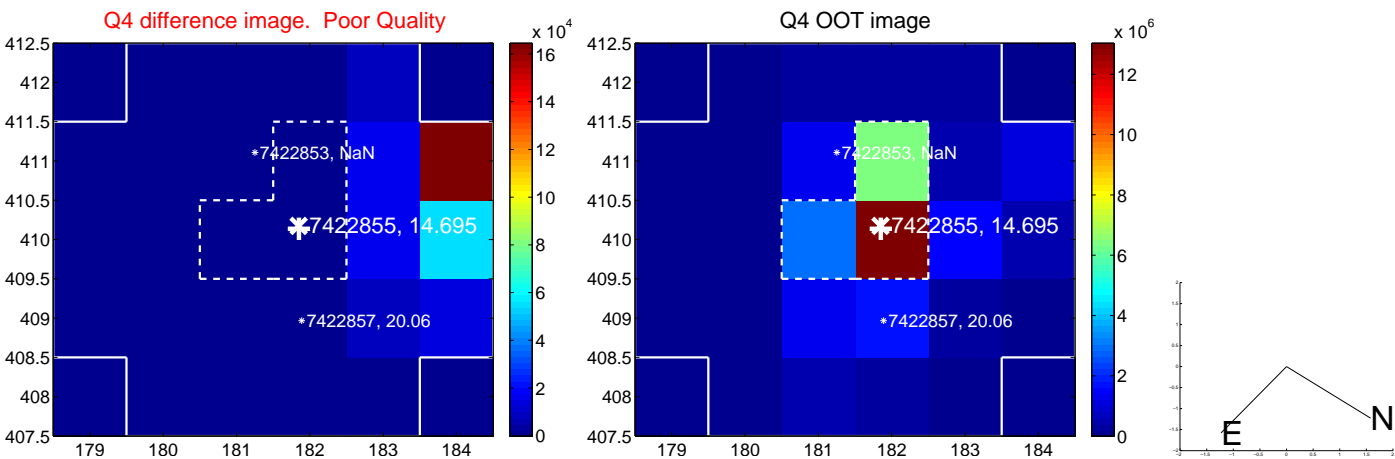
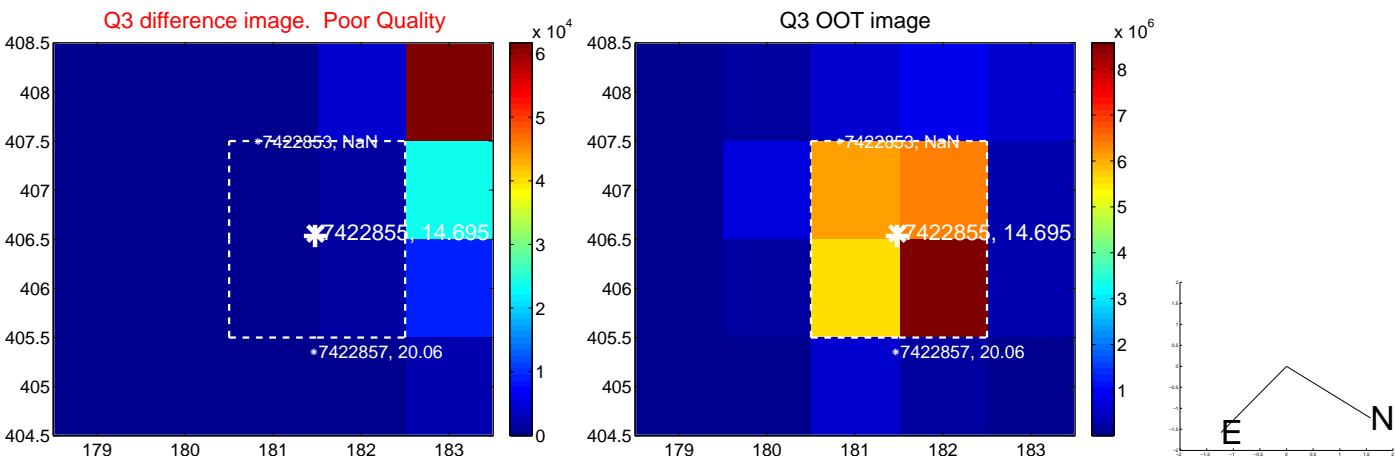
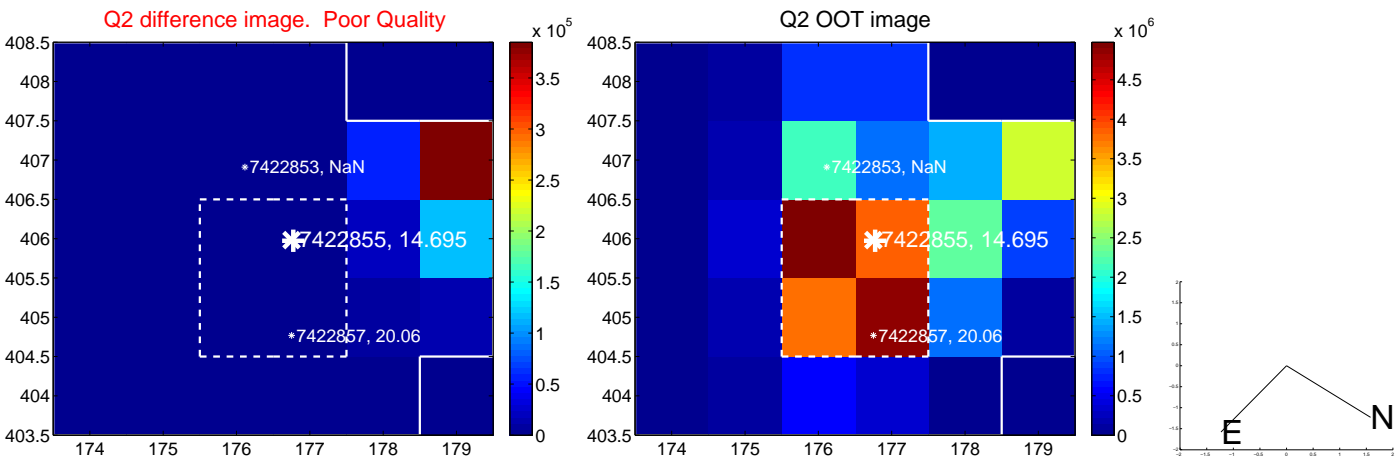
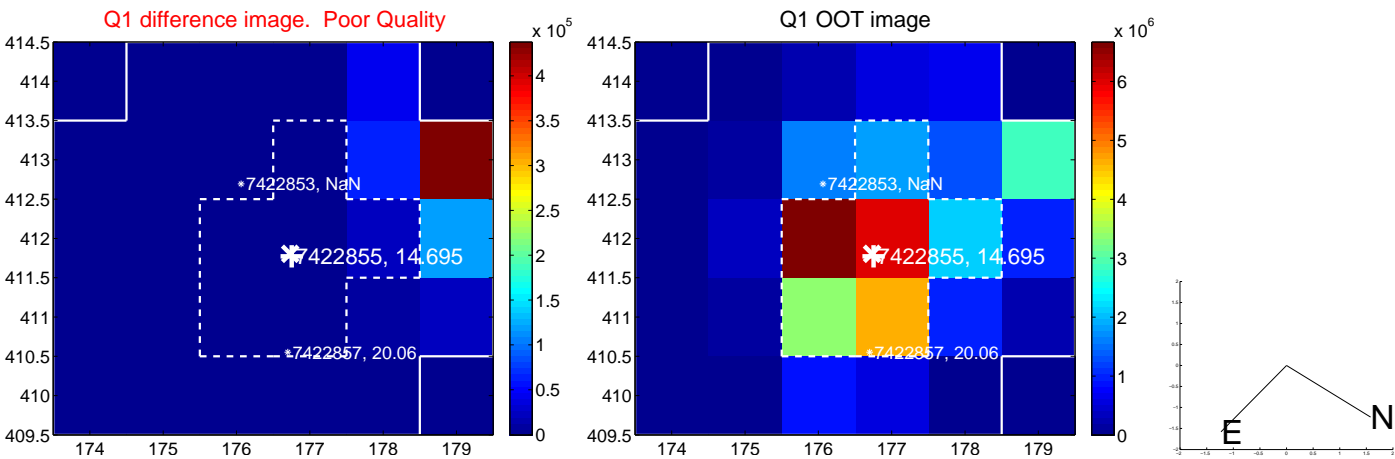
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.22 ± 0.25	0.86	0.06 ± 0.30	0.21 ± 0.25

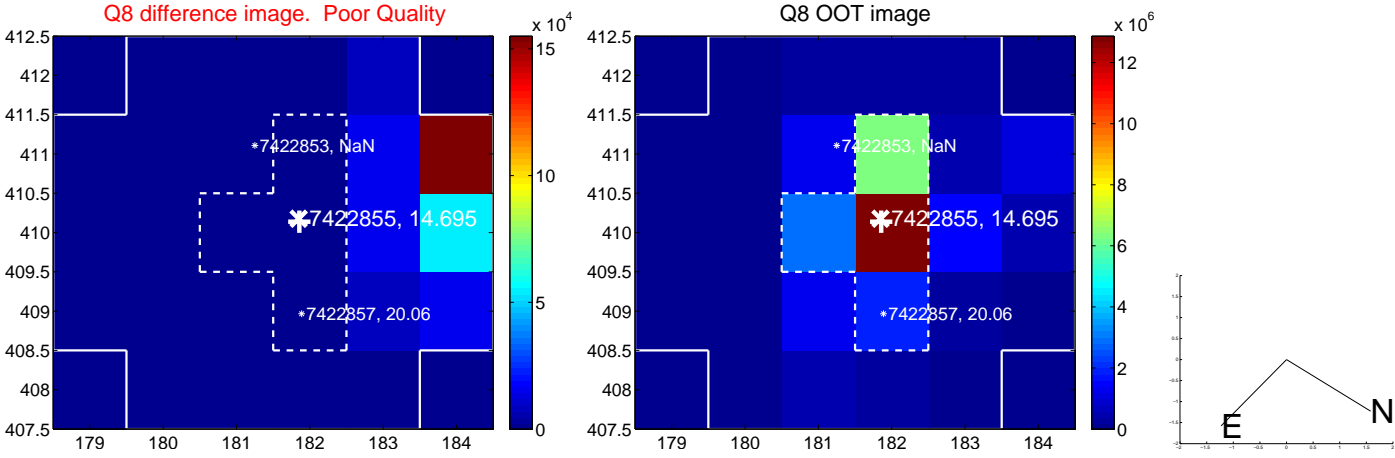
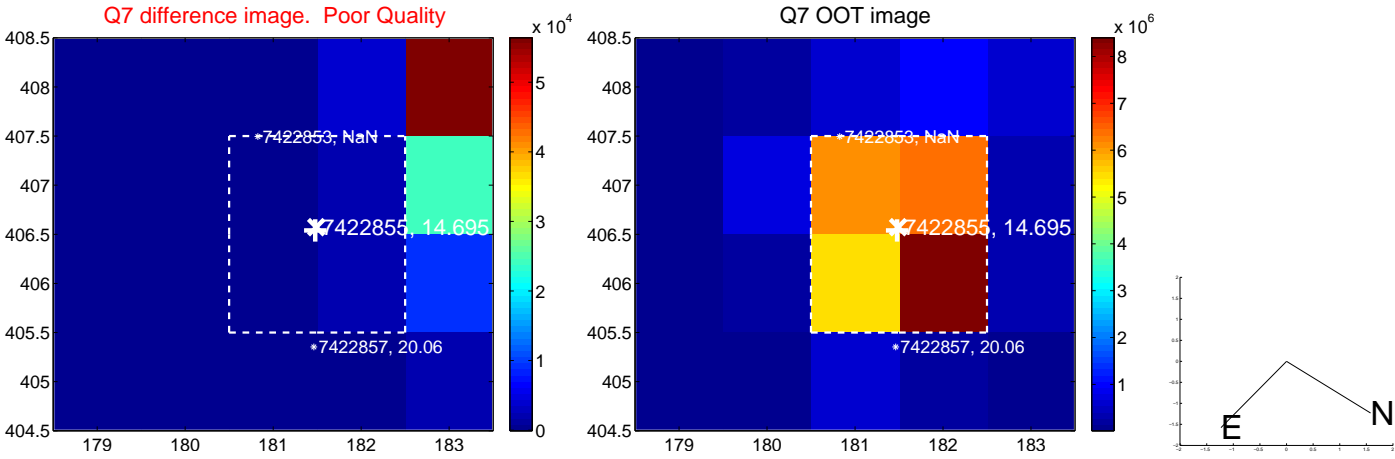
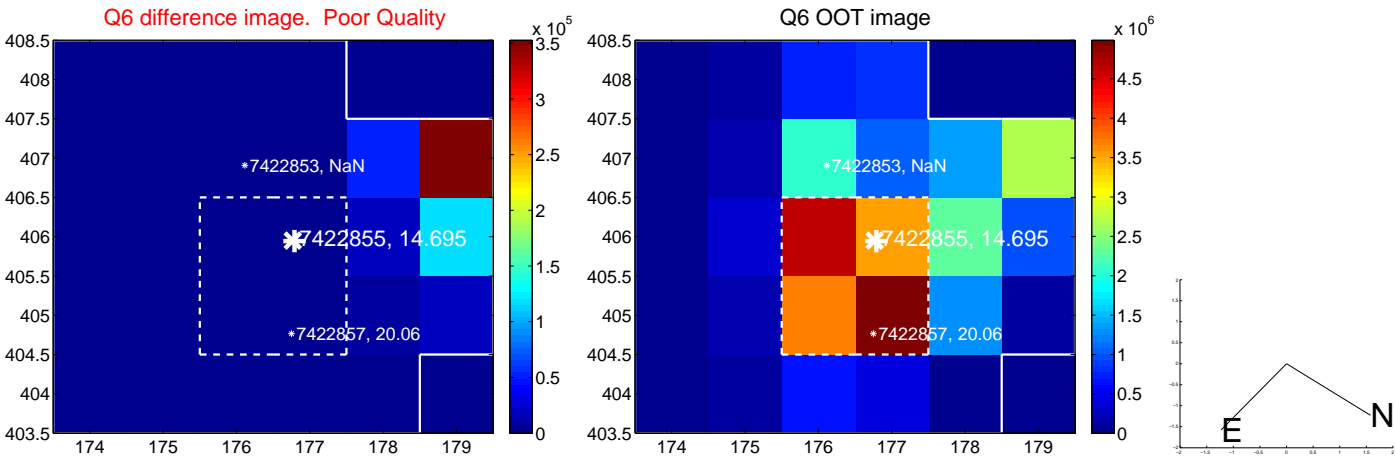
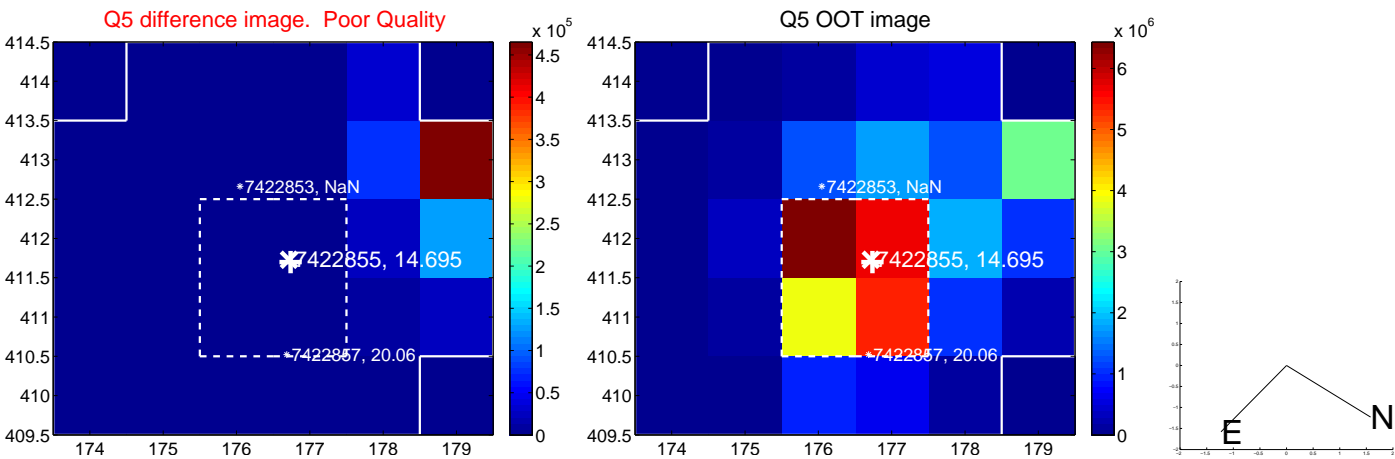


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

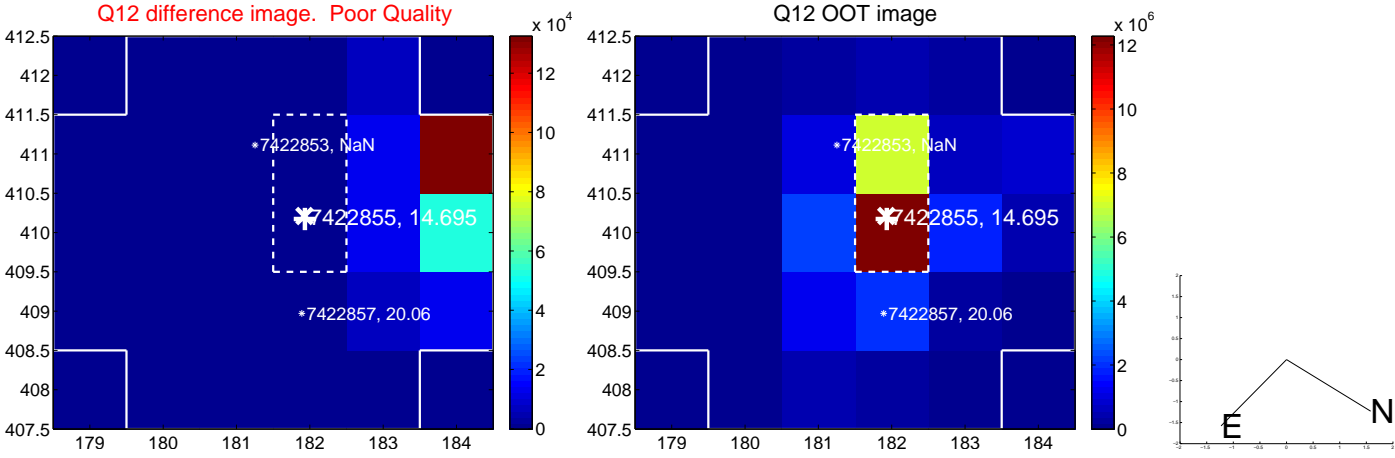
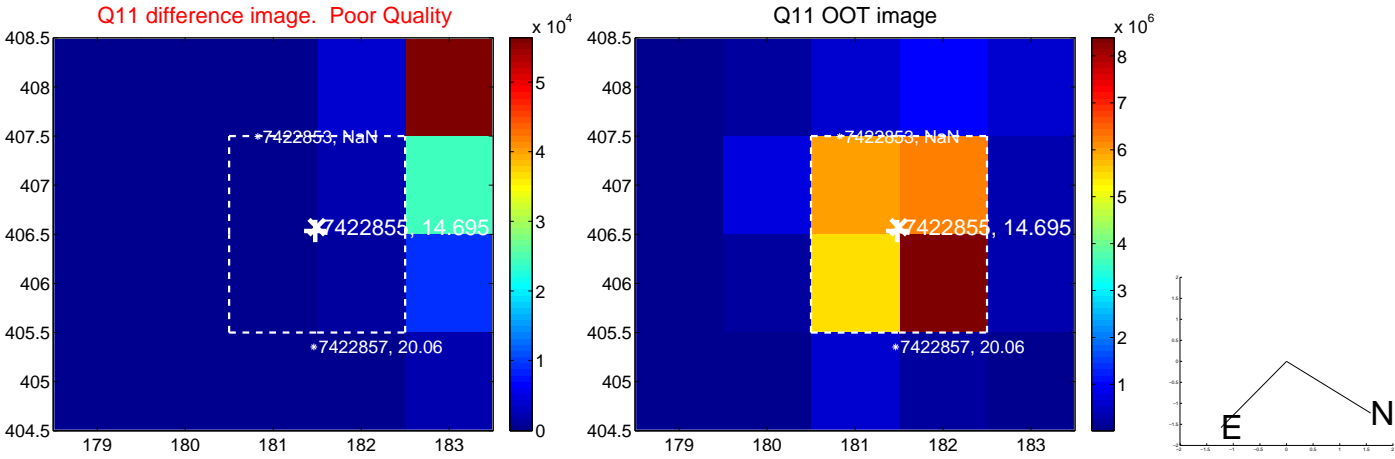
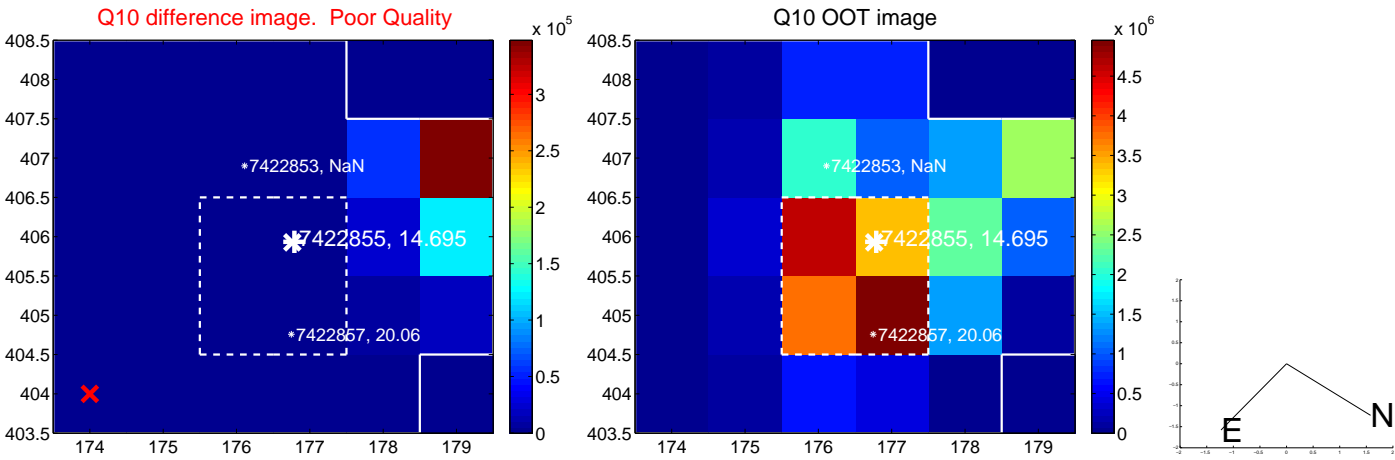
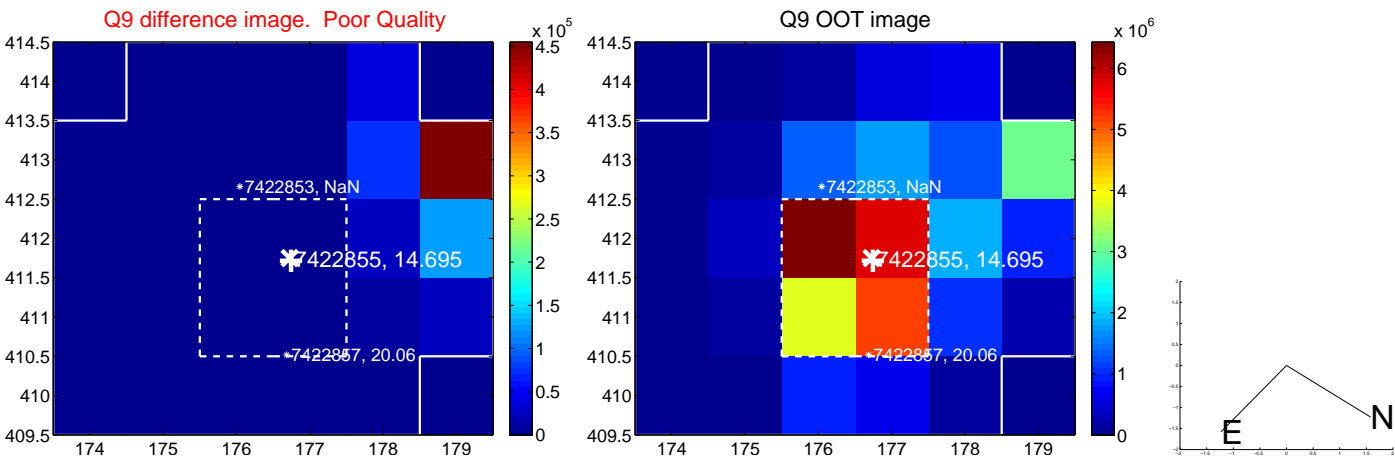
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



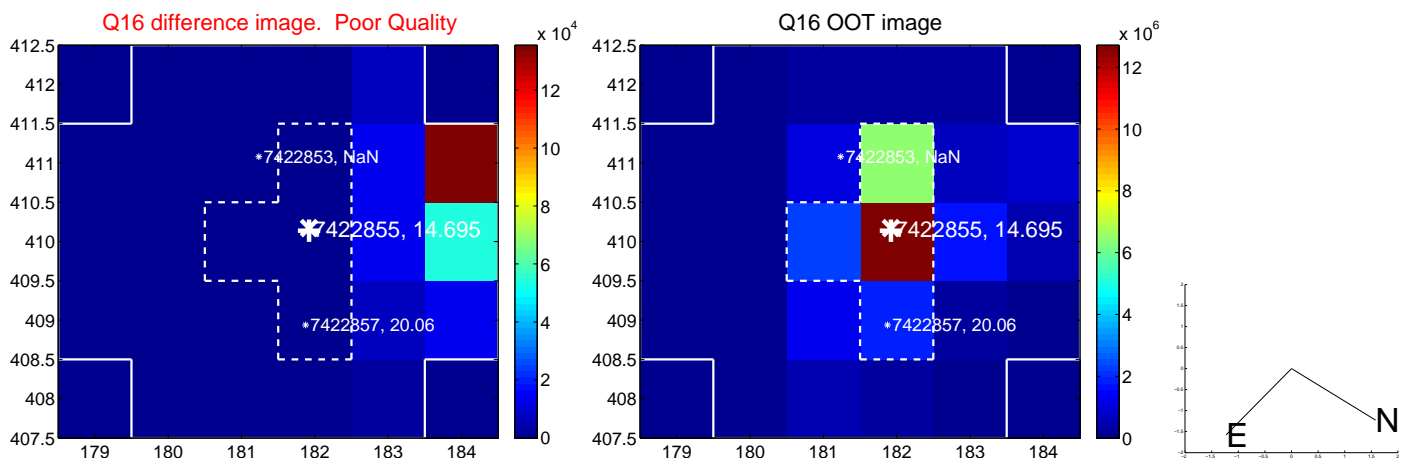
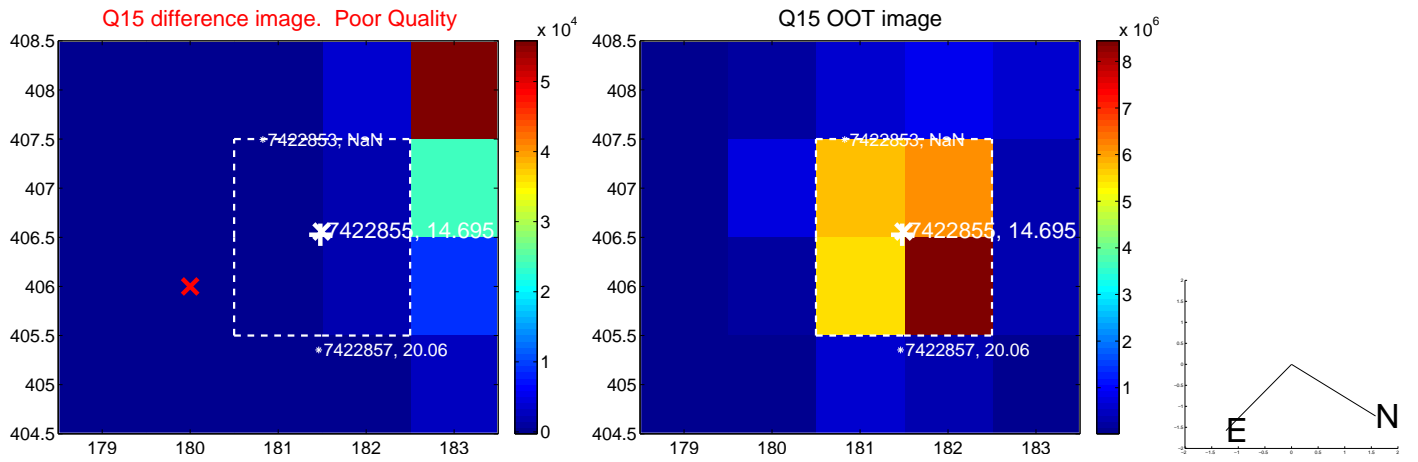
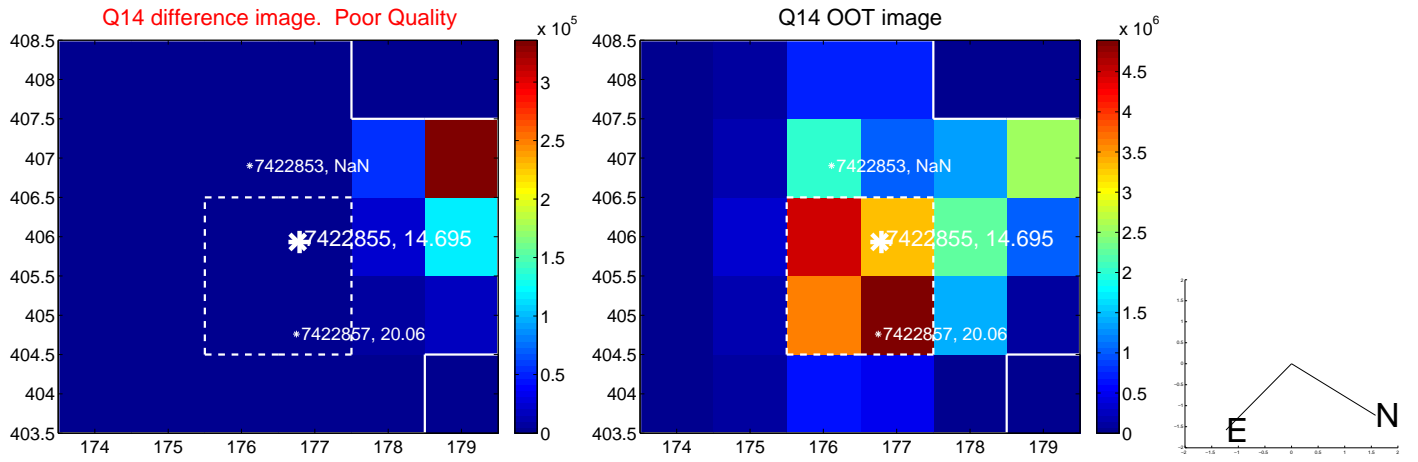
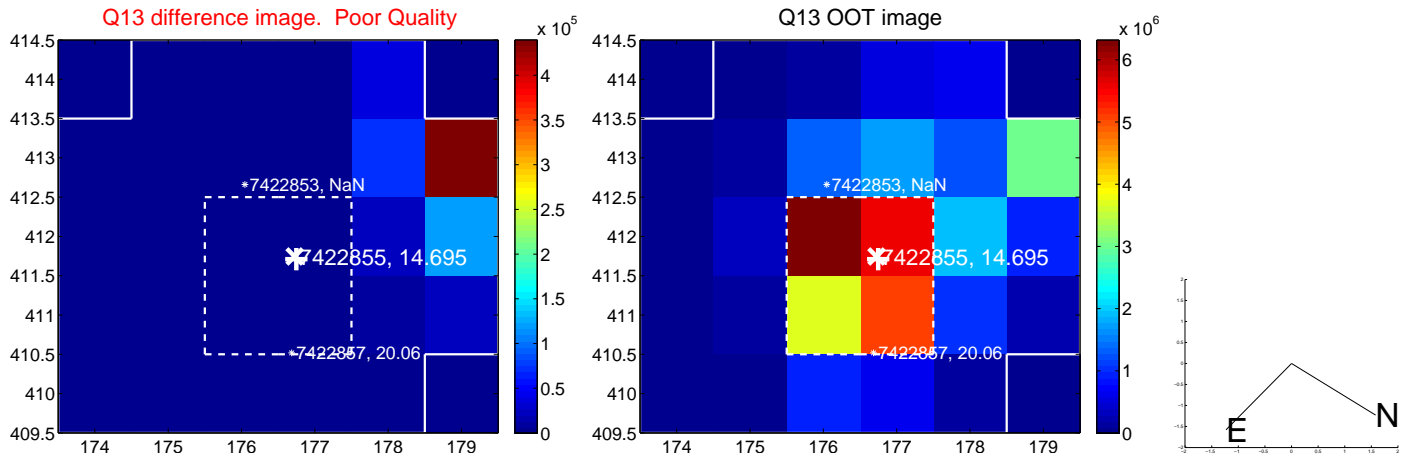
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



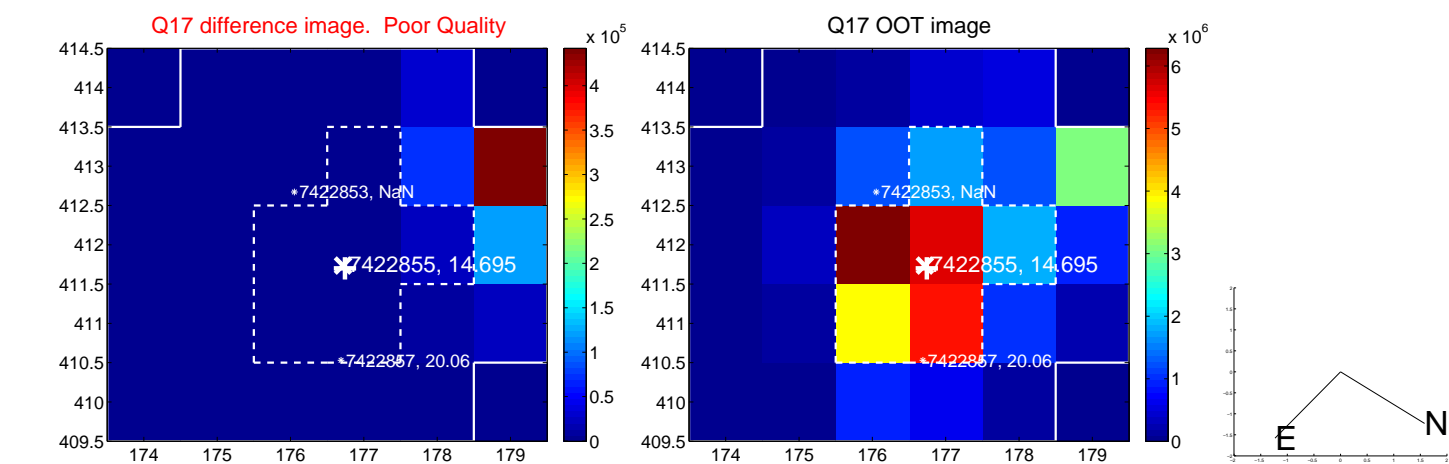
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



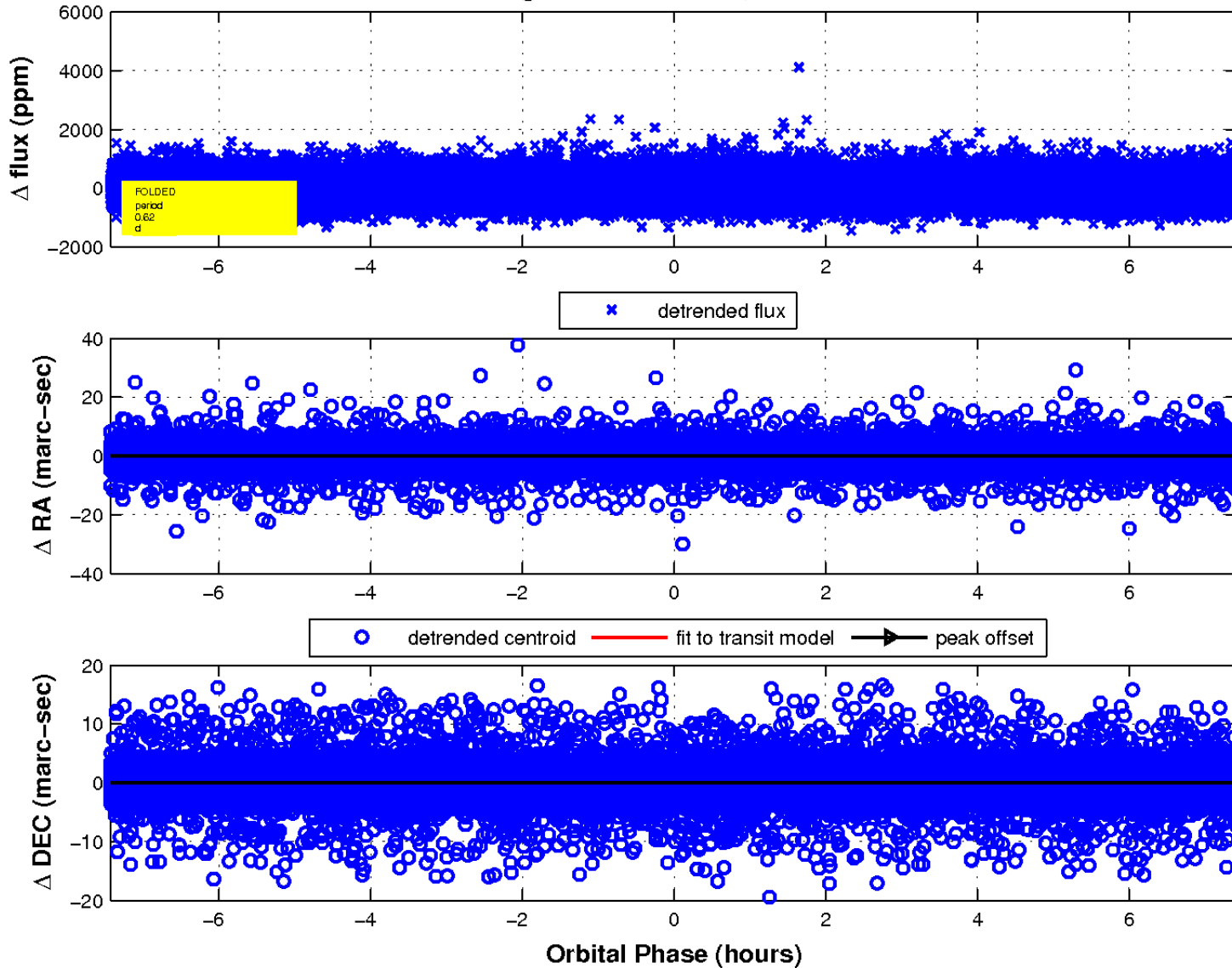
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

