

KIC 011818470

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})
011818470-01	OBS	No	604.890278	282.850395	703.2	15.573	8.1	3.7	0.70	5151	2.13	0.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011818470-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

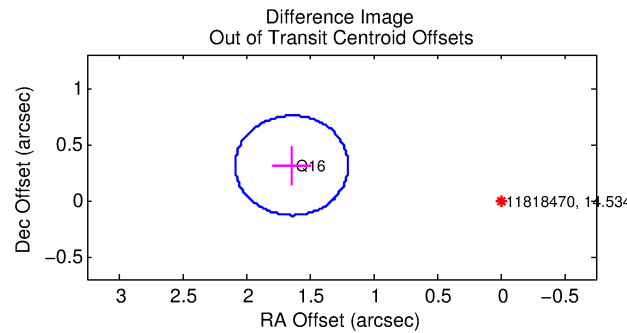
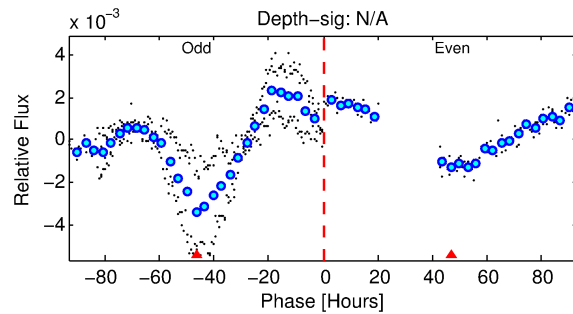
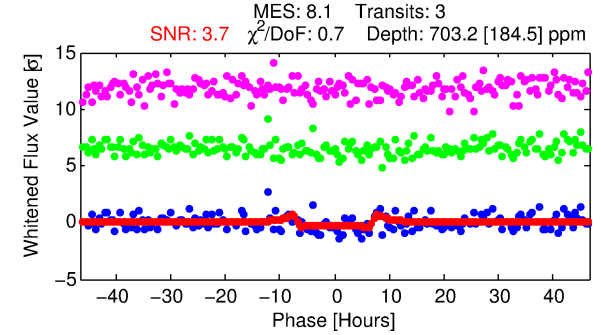
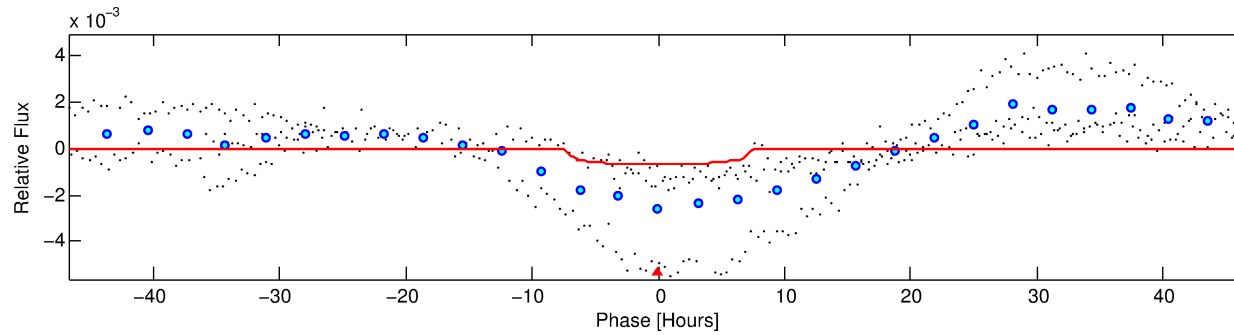
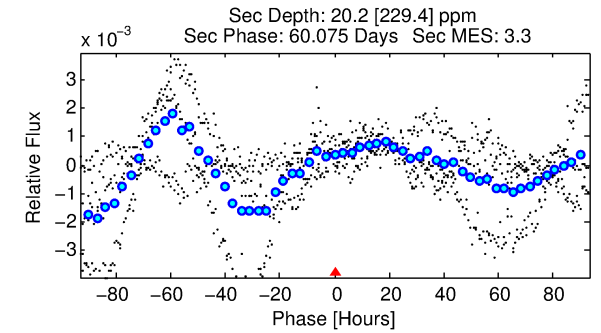
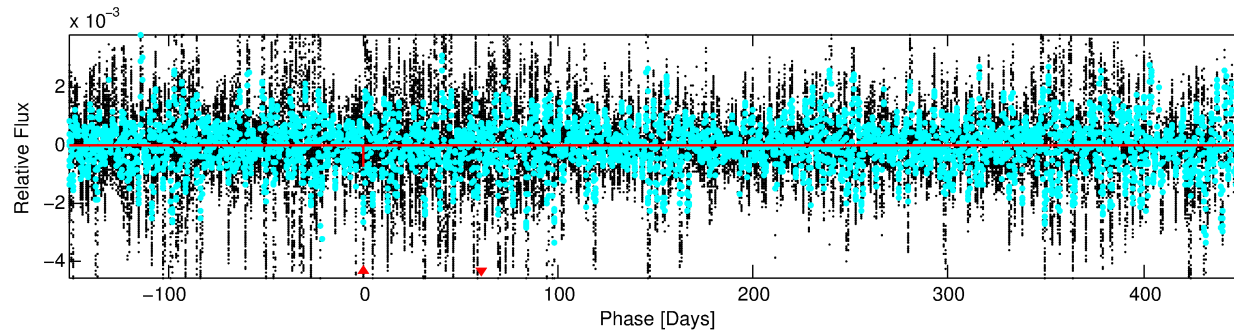
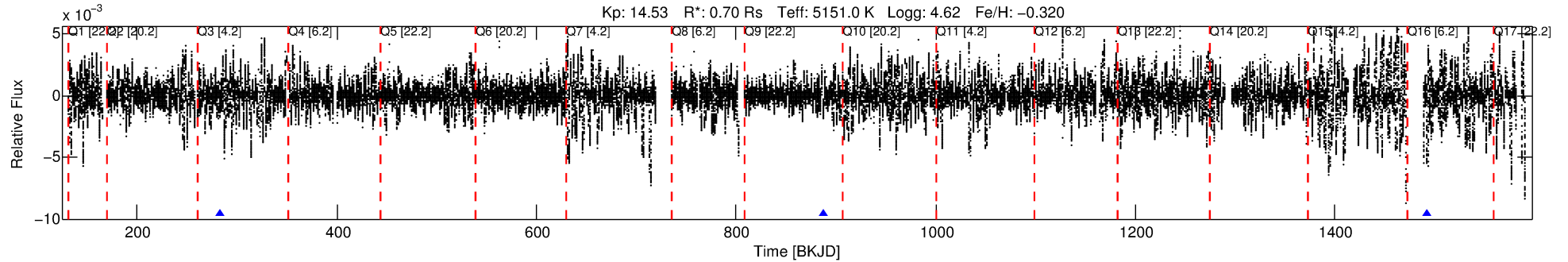
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011818470-01

No Significant Match Found

DV One-Page Summary

KIC: 11818470 Candidate: 1 of 1 Period: 604.890 d



DV Fit Results:

Period = 604.89028 [0.01418] d
Epoch = 282.8504 [0.0188] BKJD
Rp/R* = 0.0277 [0.0055]
a/R* = 177.57 [87.88]
b = 0.84 [0.18]
Seff = 0.19 [0.04]
Teq = 169 [8] K
Rp = 2.13 [0.50] Re
a = 1.2782 [0.1287] AU
Ag = 3989.20 [45384.66] [0.09σ]
Teffp = 2074 [5898] K [0.32σ]

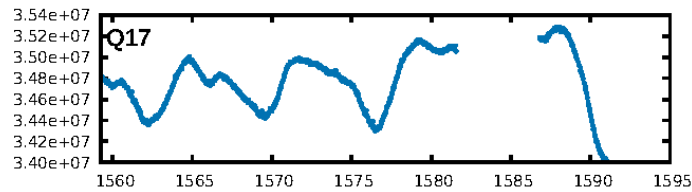
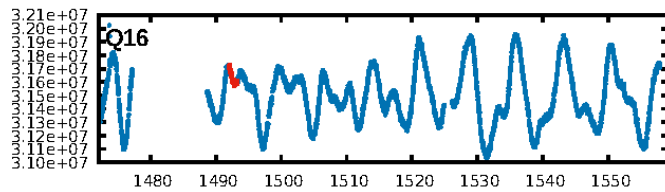
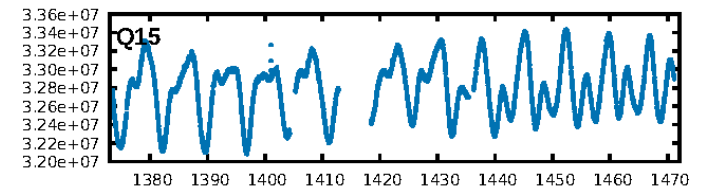
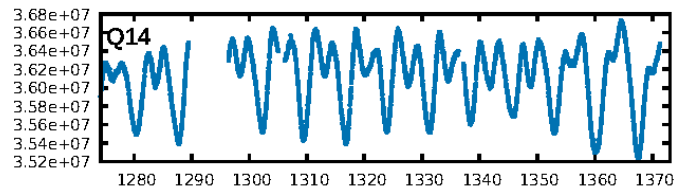
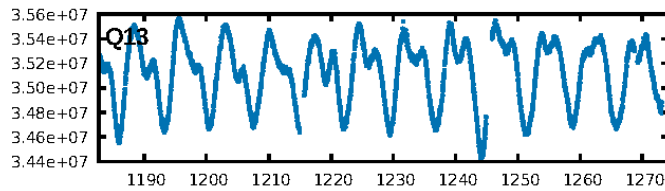
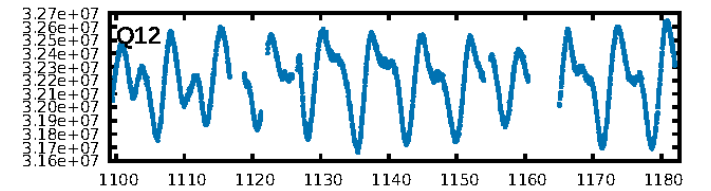
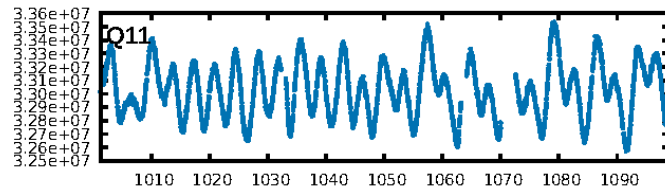
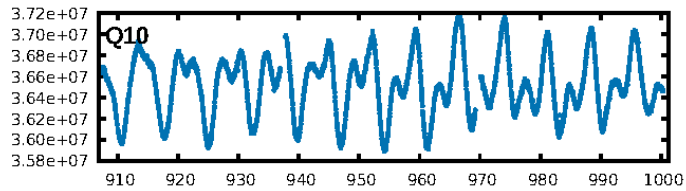
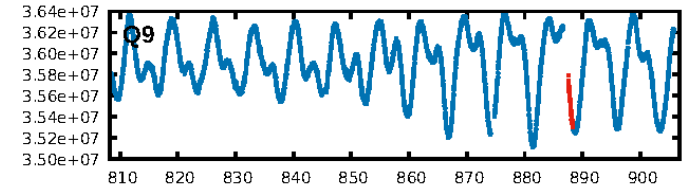
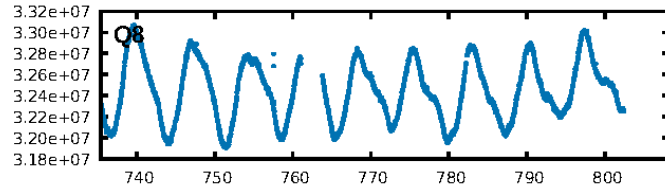
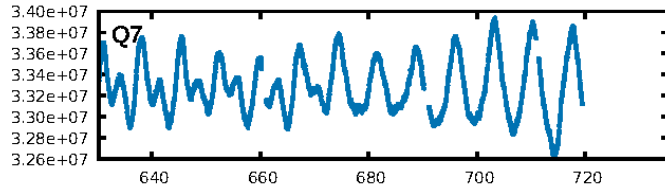
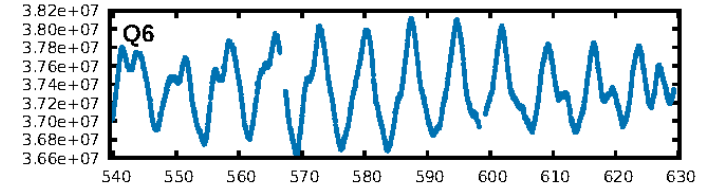
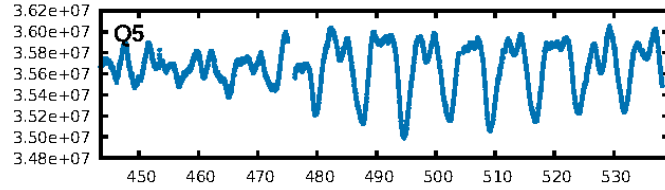
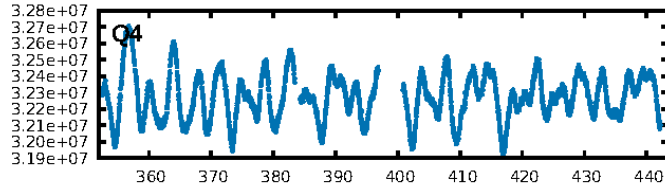
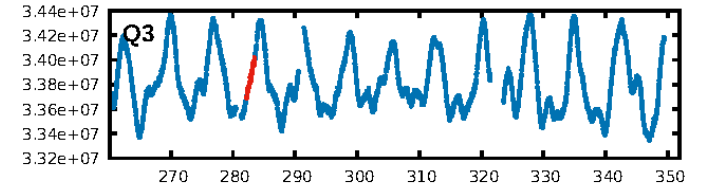
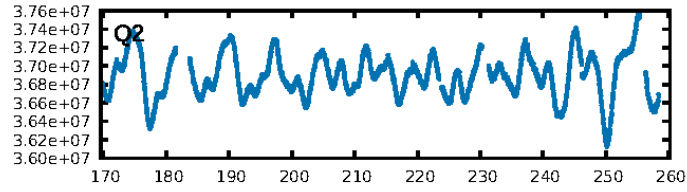
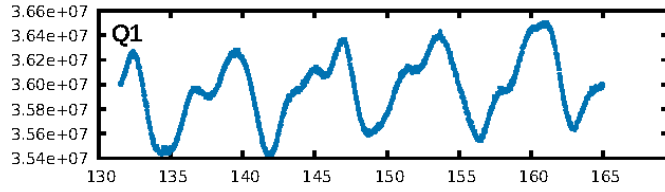
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 14.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.17e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.037
Centroid-sig: 24.8%
Centroid-so: 1.252 arcsec [1.39σ]
OotOffset-rm: 1.670 arcsec [11.29σ]
KicOffset-rm: 1.744 arcsec [11.77σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

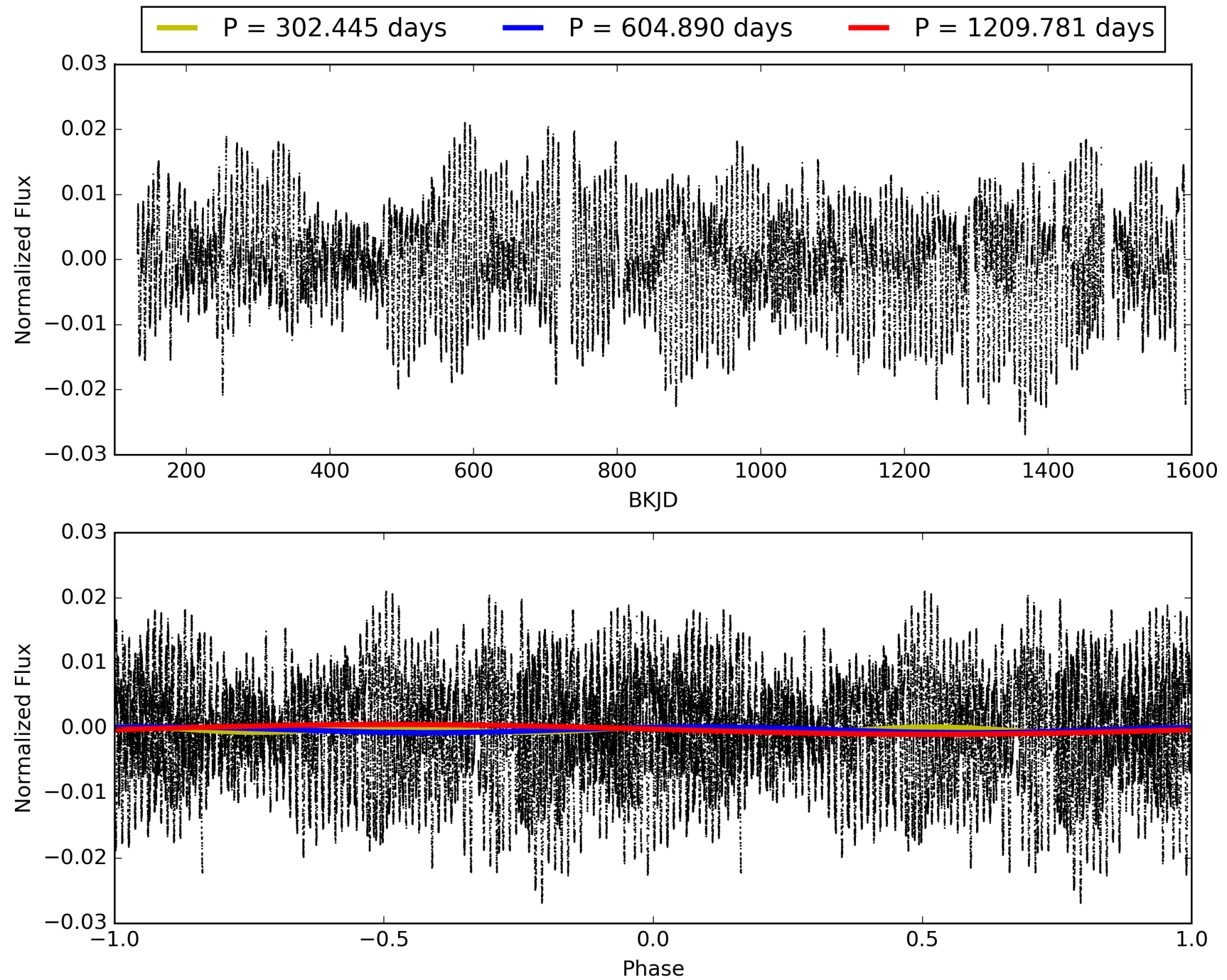
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:53:40 Z

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

TCE 011818470-01, PDC Light Curves

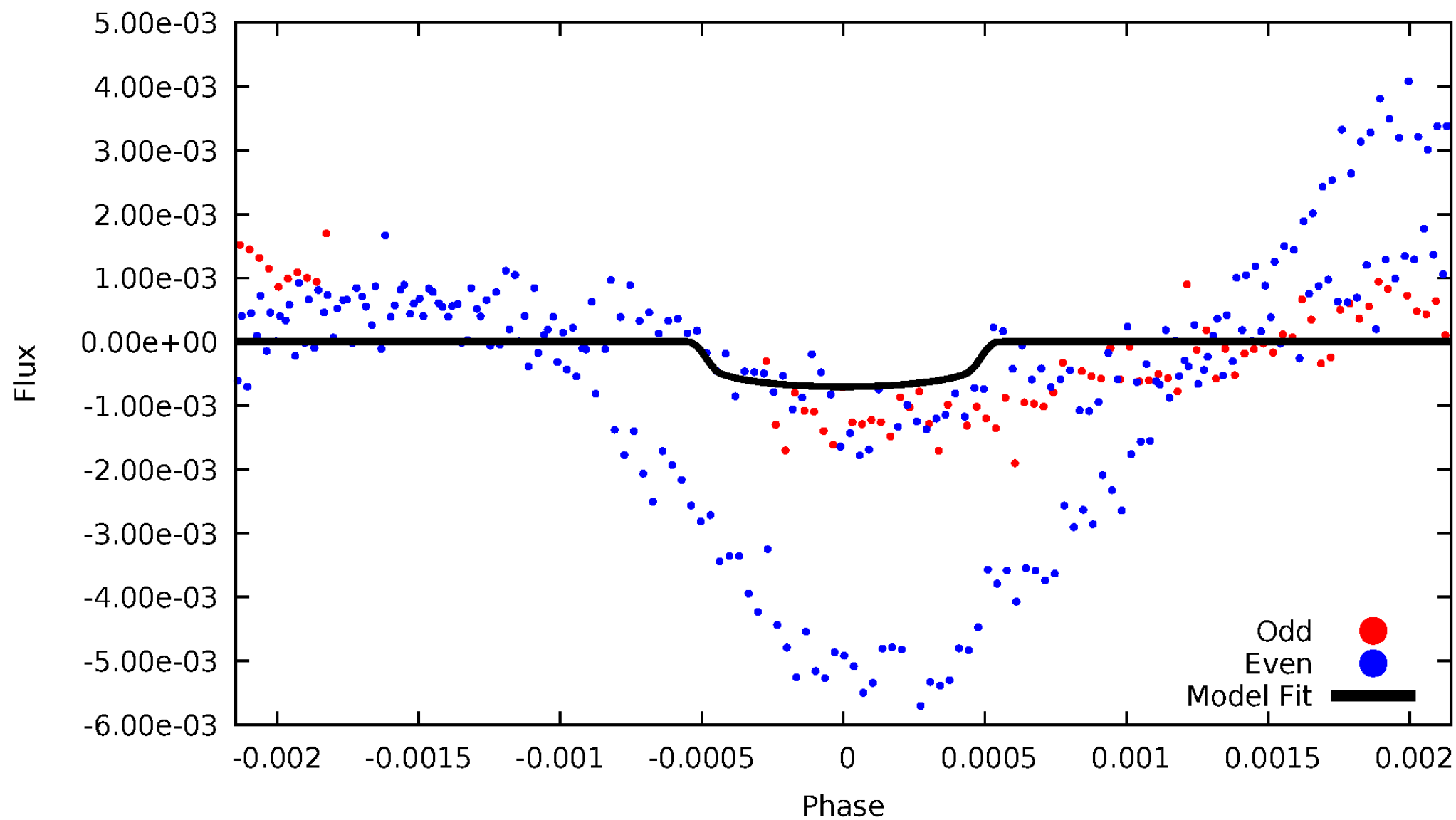


TCE 011818470-01



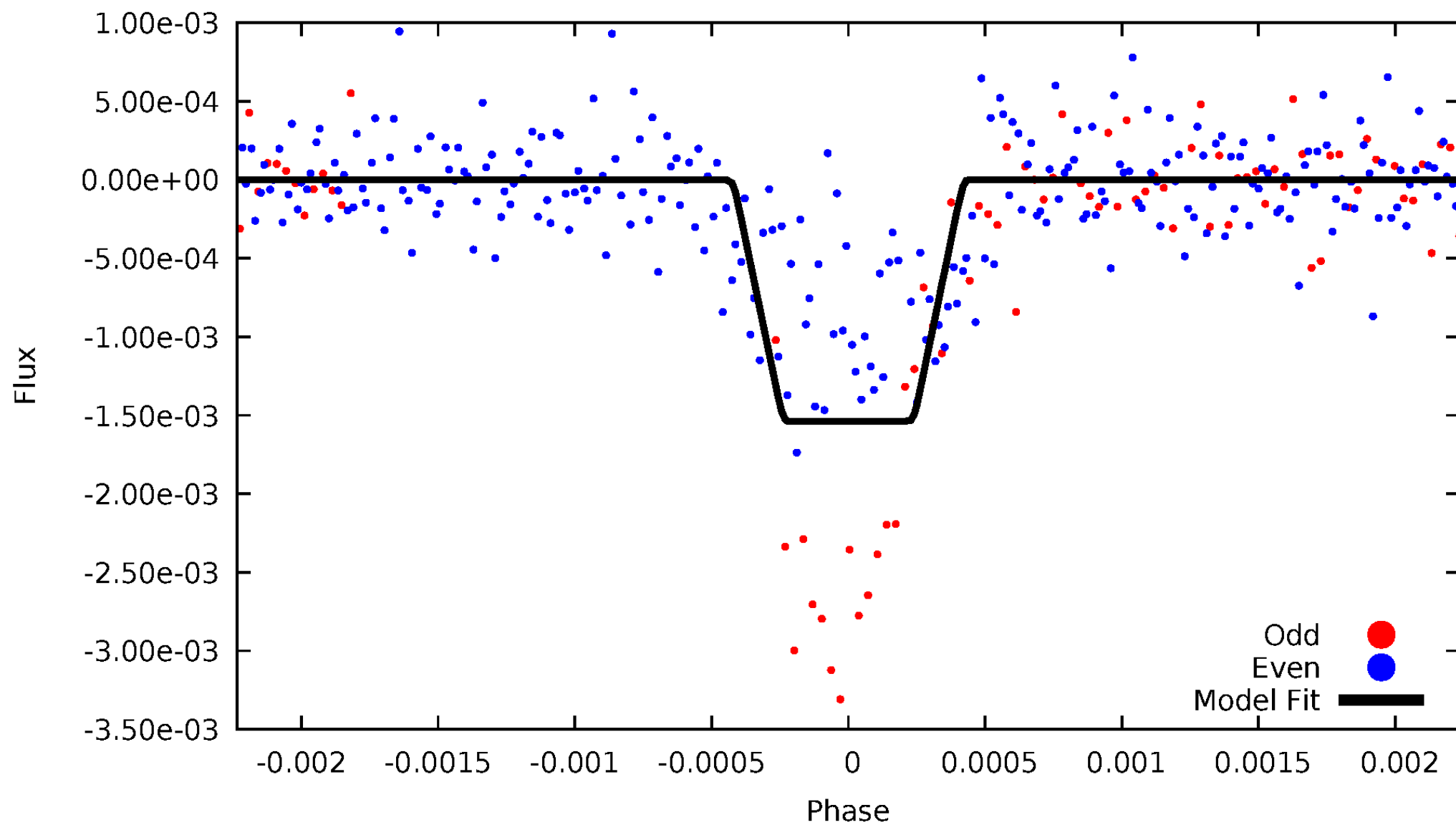
DV Odd/Even

TCE 011818470-01

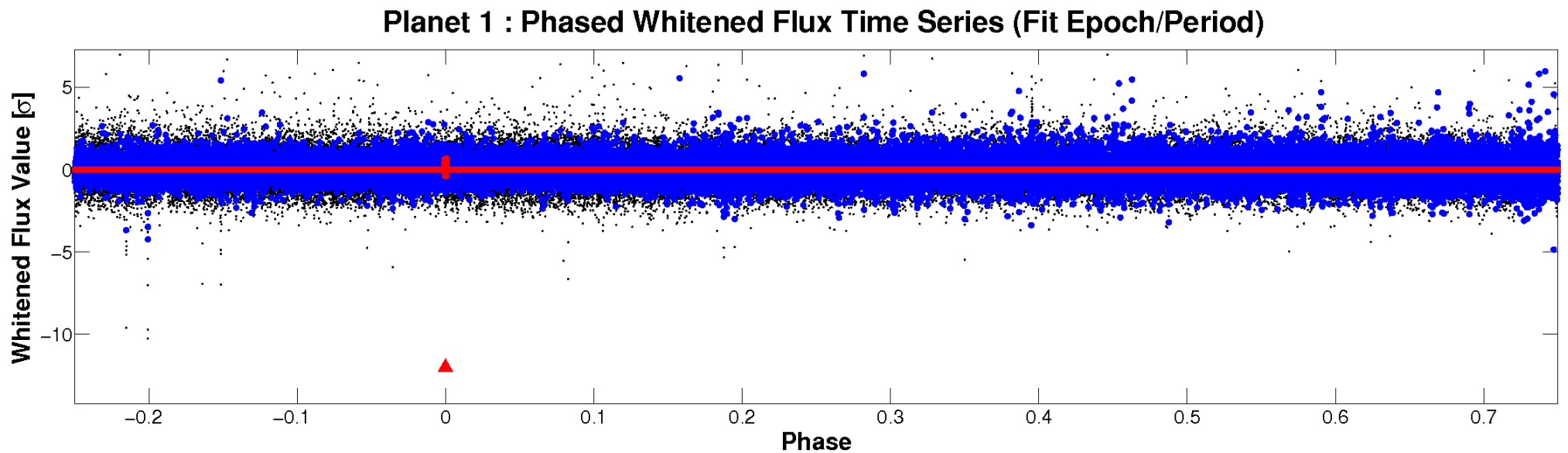
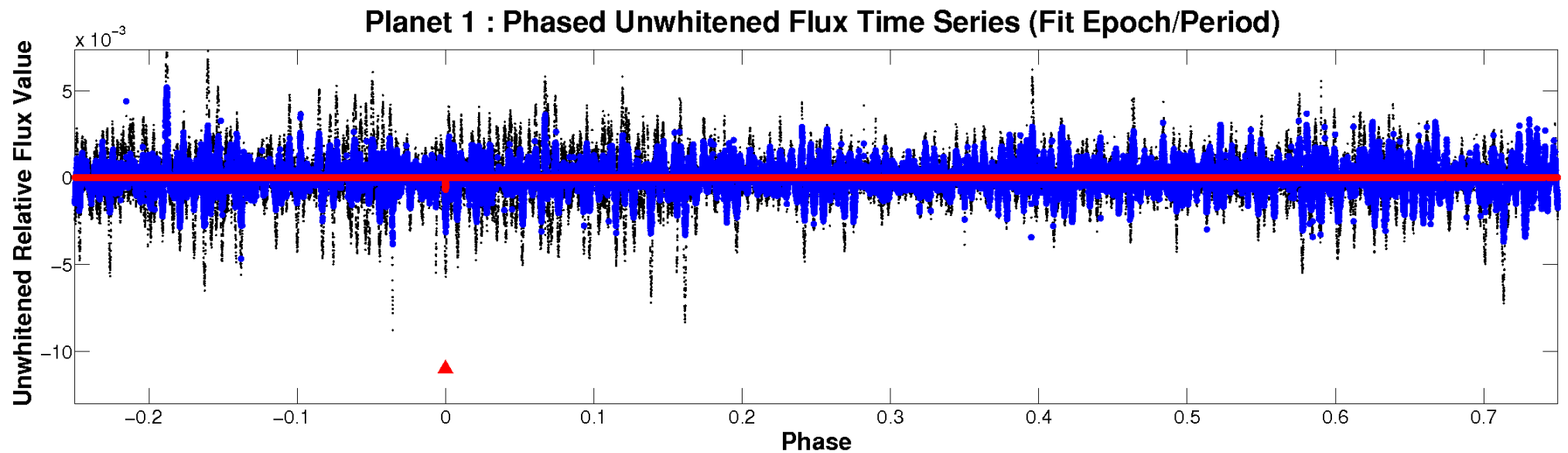


ALT Odd/Even

TCE 011818470-01

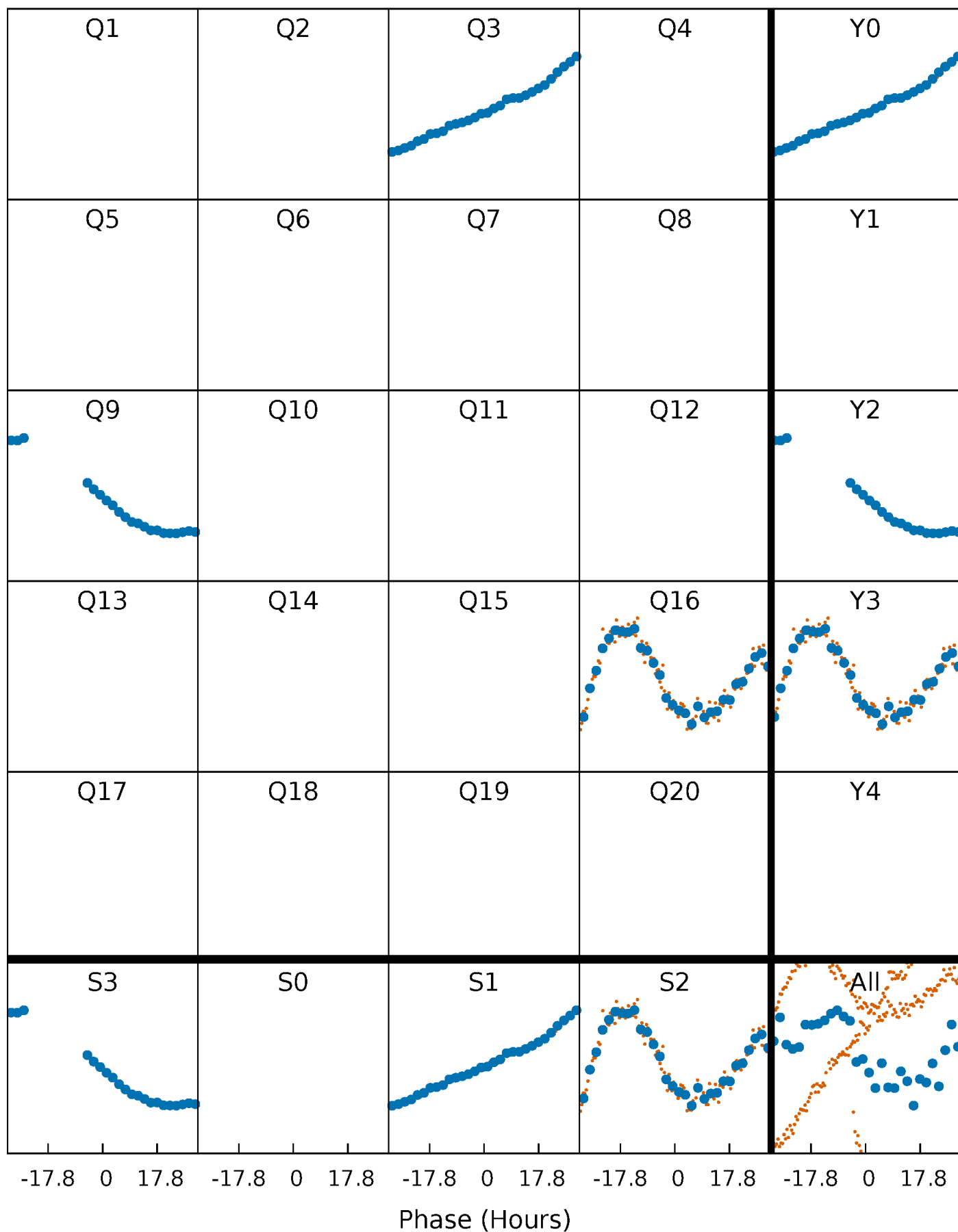


Non-Whitened Vs. Whitened Light Curve



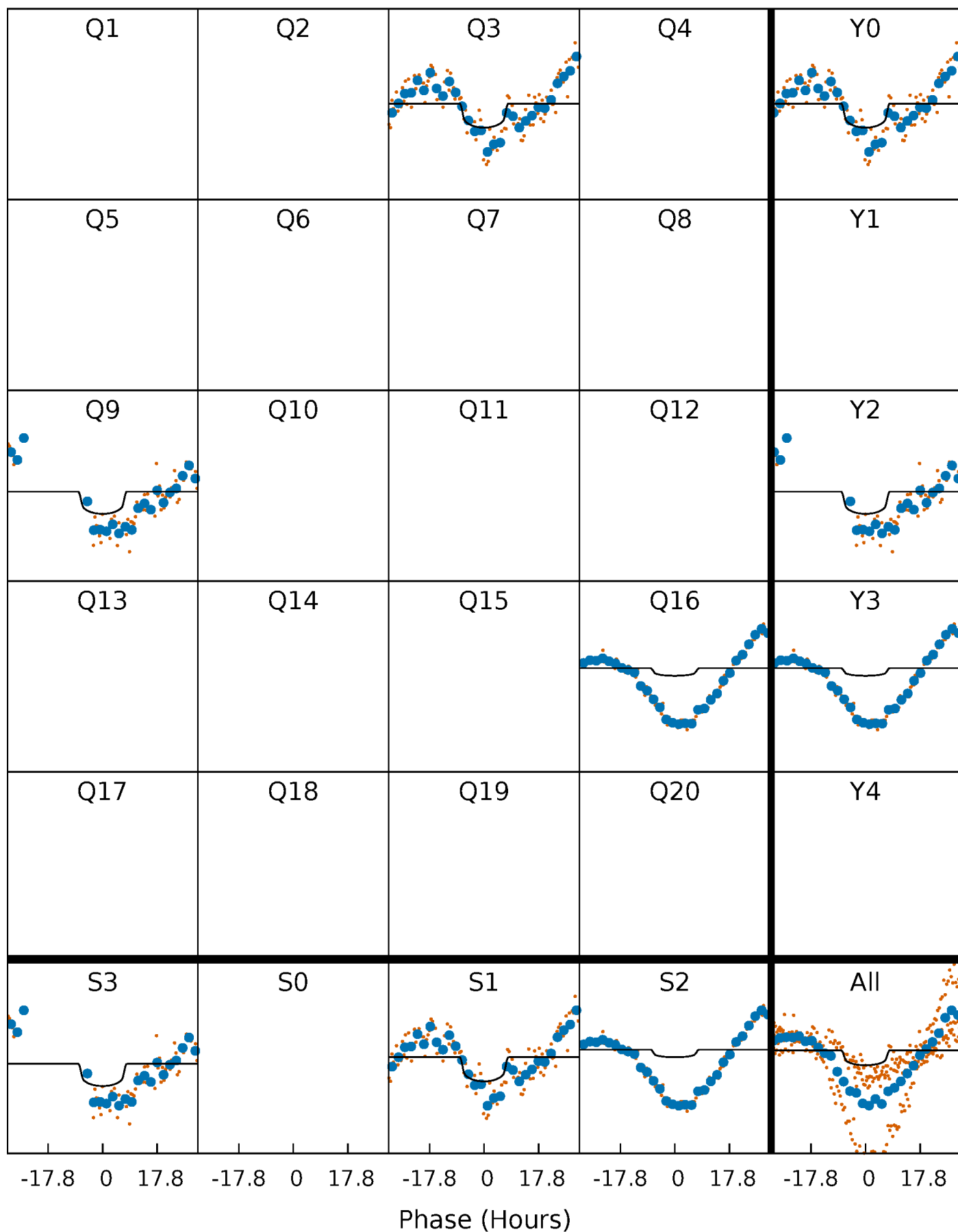
PDC Quarter-Phased Transit Curves

TCE 011818470-01 P=604.890278 Days $T_0=282.850395$ (BKJD)



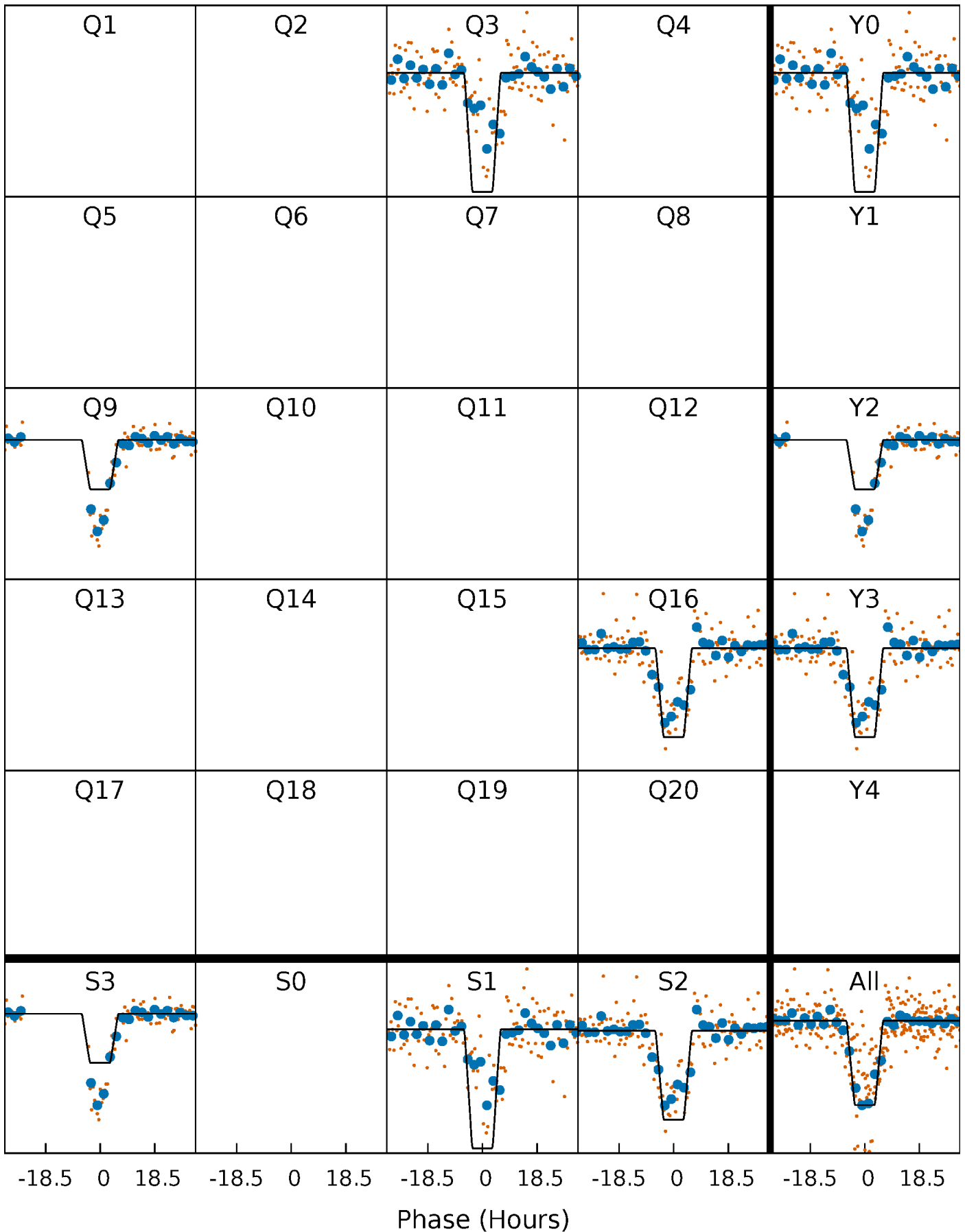
DV Quarter-Phased Transit Curves

TCE 011818470-01 $P=604.890278$ Days $T_0=282.850395$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

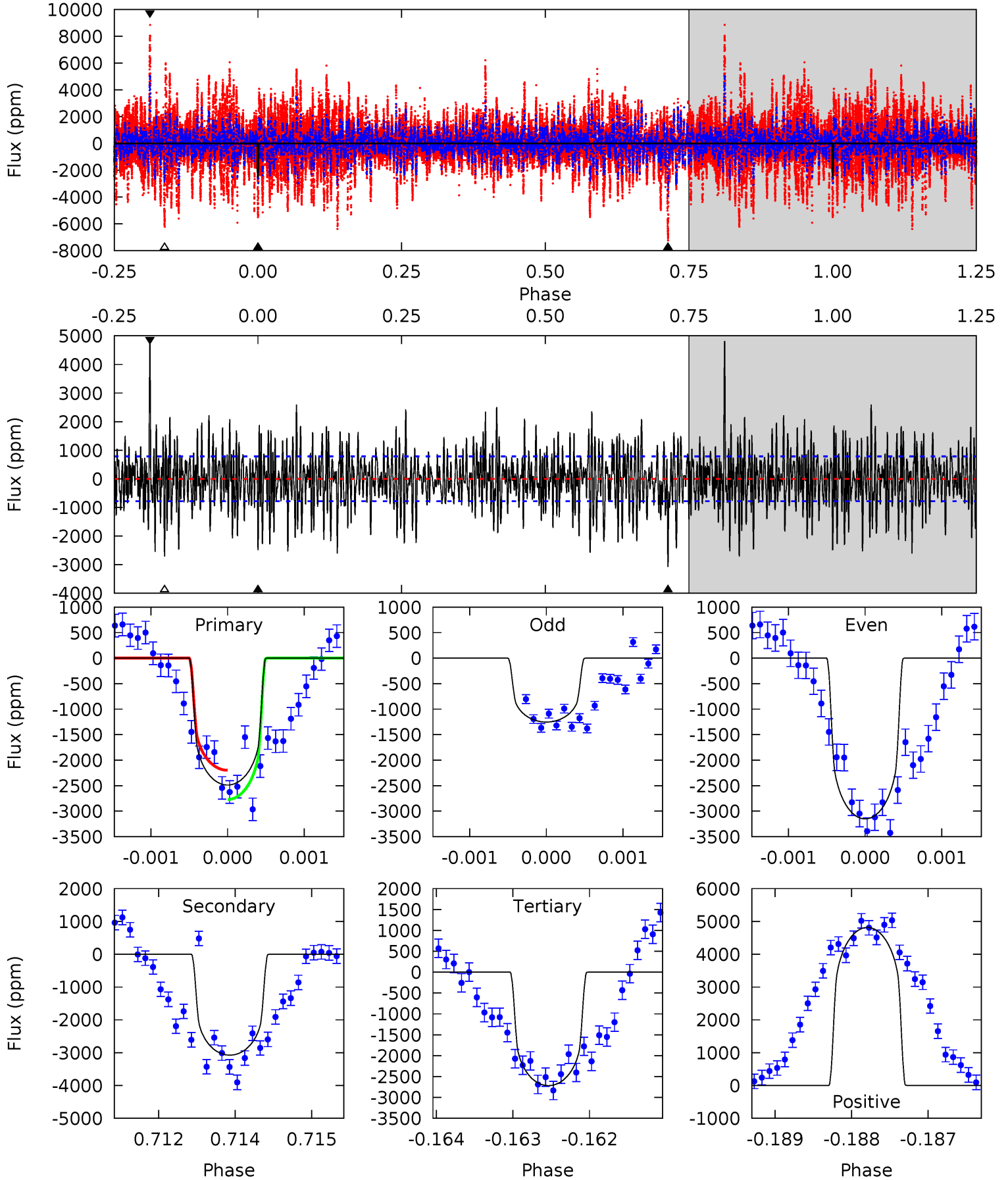
TCE 011818470-01 P=604.908299 Days $T_0=282.828222$ (BKJD)



DV Model-Shift Uniqueness Test

011818470-01, P = 604.890278 Days, E = 282.850395 Days

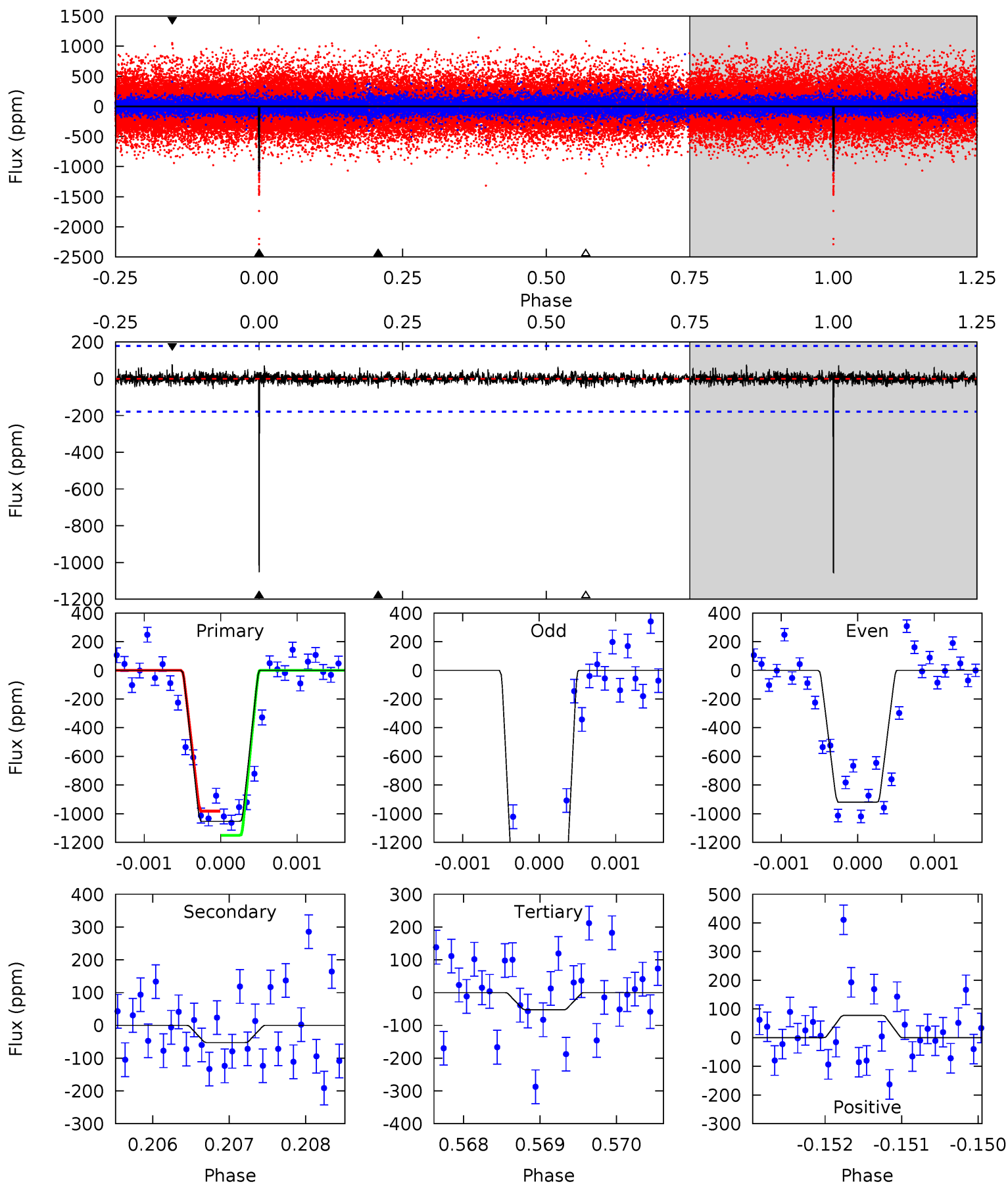
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.3	21.3	18.9	33.4	5.44	3.27	5.89	-1.59	-16.2	2.48	-12.1	6.19	2.01	0.61	2.00



Alt Model-Shift Uniqueness Test

011818470-01, P = 604.908299 Days, E = 282.828222 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.3	1.61	1.60	2.36	5.48	3.33	0.46	30.7	29.9	0.01	-0.75	21.3	1.18	0.07	2.55



Stellar Parameters For KIC 011818470

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5151^{+153}_{-138}	$4.623^{+0.036}_{-0.072}$	$-0.320^{+0.300}_{-0.300}$	$0.705^{+0.089}_{-0.057}$	$0.763^{+0.073}_{-0.073}$	$3.072^{+0.533}_{-0.788}$
	+3%/-3%	+1%/-2%	+94%/-94%	+13%/-8%	+10%/-10%	+17%/-26%
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 011818470-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-3075 ± 144	$2.18^{+0.46}_{-0.43}$	238^{+9}_{-8}	7241^{+1058}_{-691}	$583379^{+302356}_{-188052}$
Alt.	-53 ± 33	$3.08^{+0.45}_{-0.44}$	238^{+9}_{-8}	2888^{+252}_{-331}	4896^{+3813}_{-2944}

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

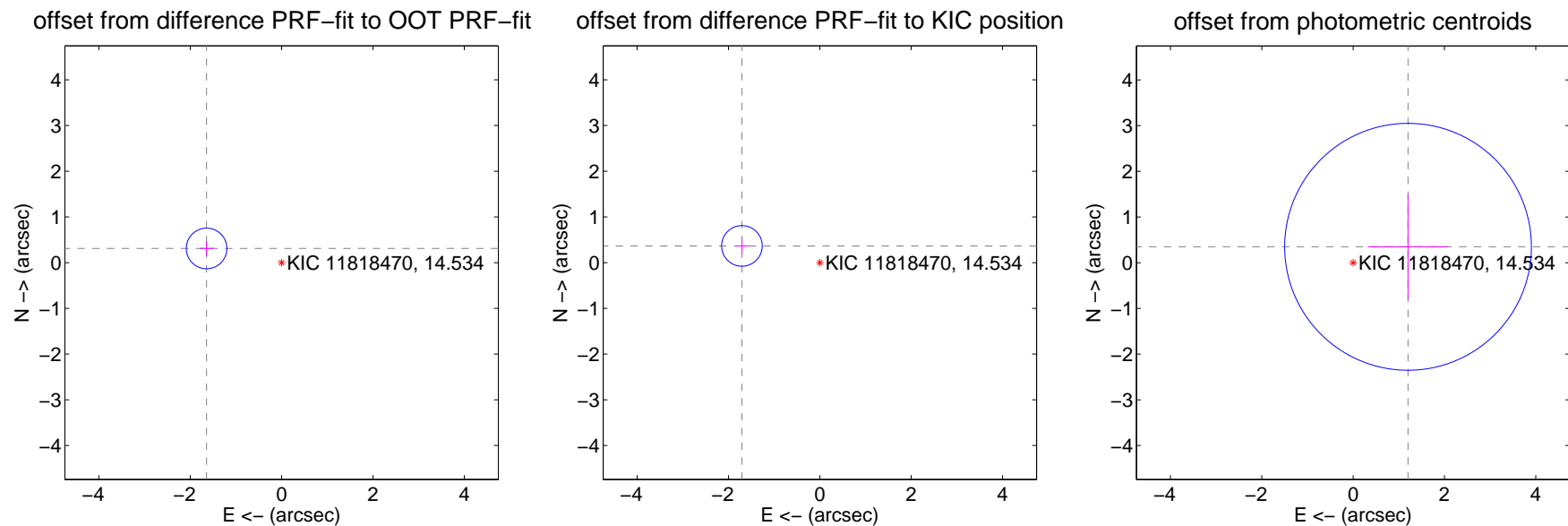
DV Centroid Data

Supplemental centroid analysis for 011818470-01. Kepler magnitude: 14.53. Transit SNR 3.65

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

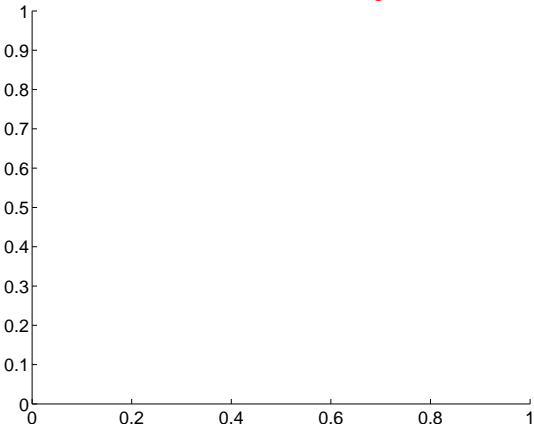
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.670 ± 0.148	11.29	1.641 ± 0.147	0.310 ± 0.162
PRF-fit source offset from KIC position	1.744 ± 0.148	11.77	1.705 ± 0.147	0.366 ± 0.162
photometric centroid source offset	1.25 ± 0.90	1.39	-1.20 ± 0.88	0.35 ± 1.14



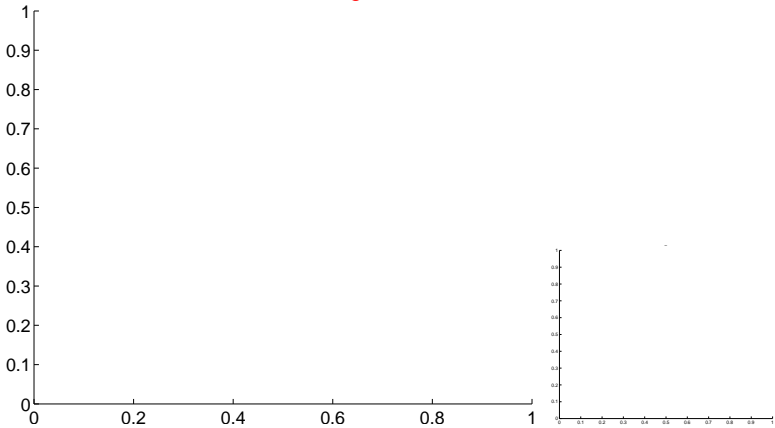
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

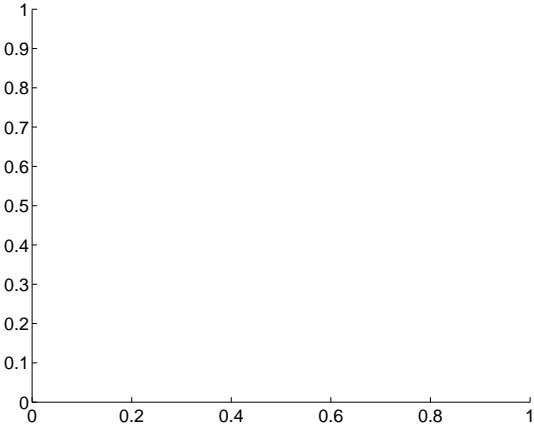
Q1 no difference image



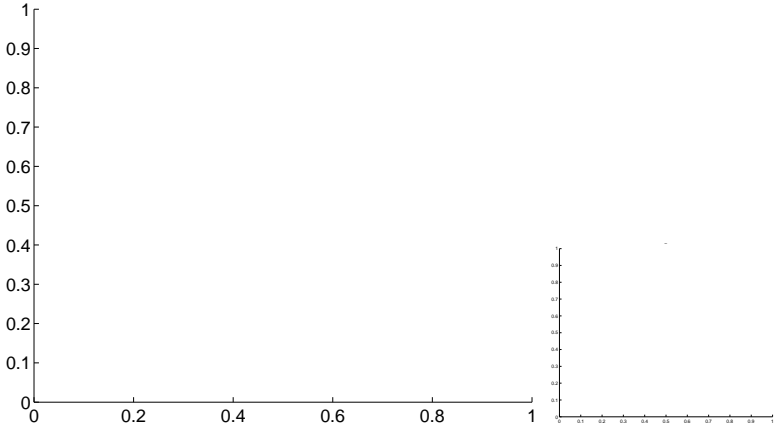
Q1 no OOT image



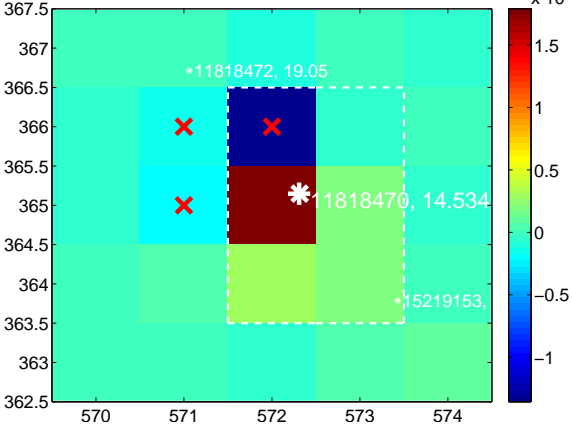
Q2 no difference image



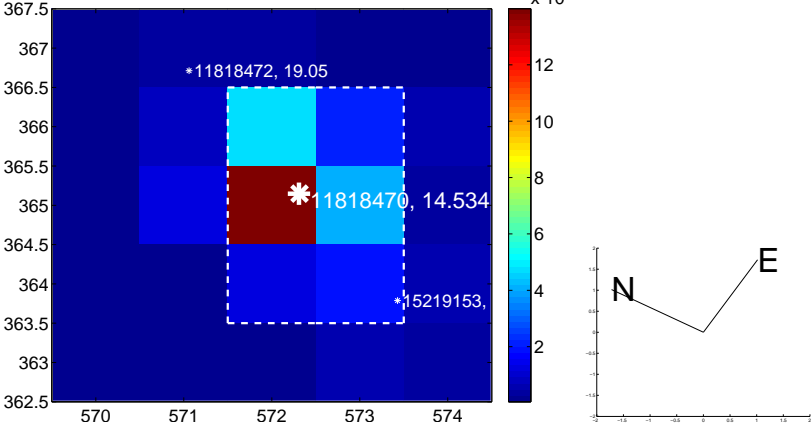
Q2 no OOT image



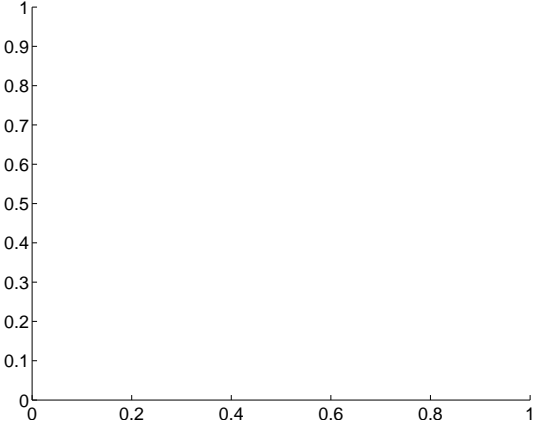
Q3 difference image. Poor Quality



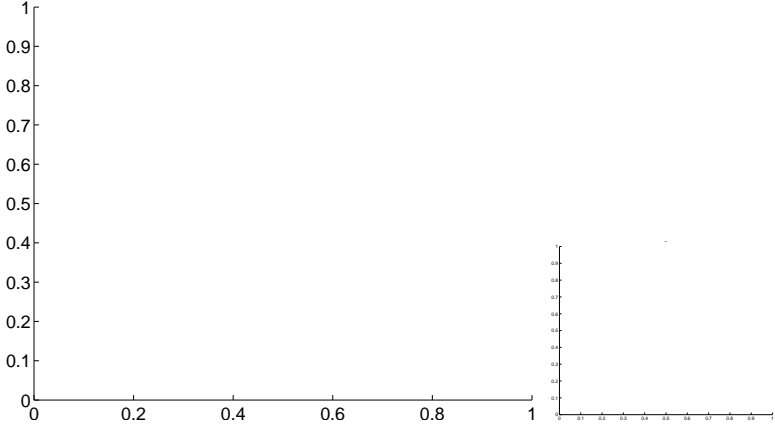
Q3 OOT image



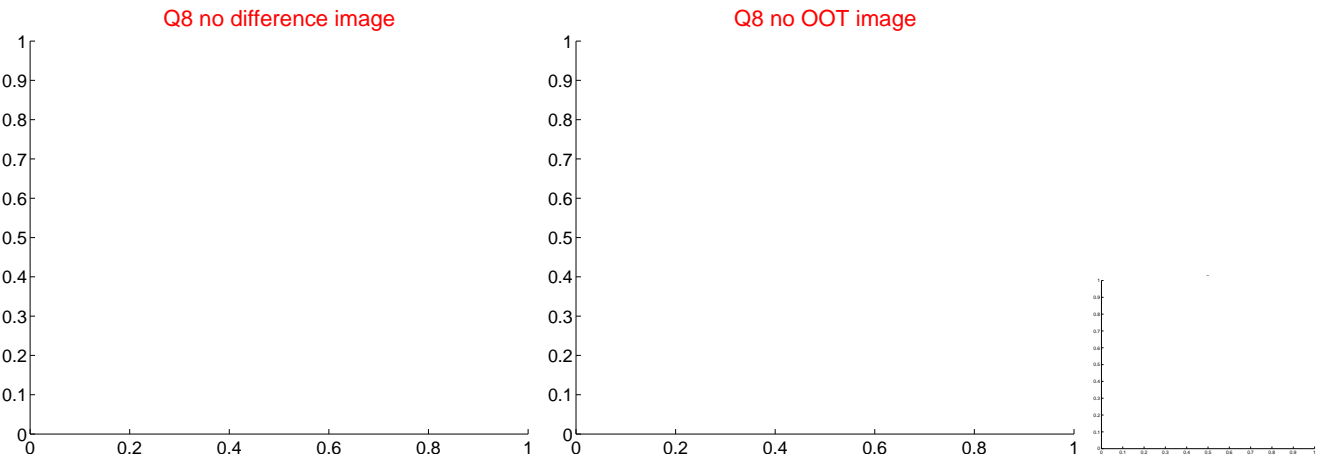
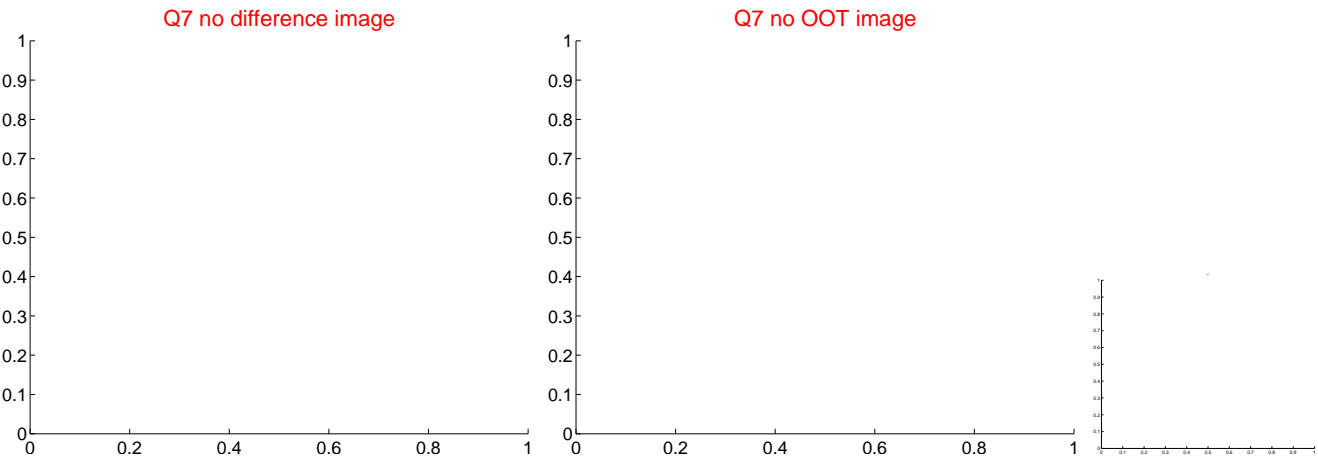
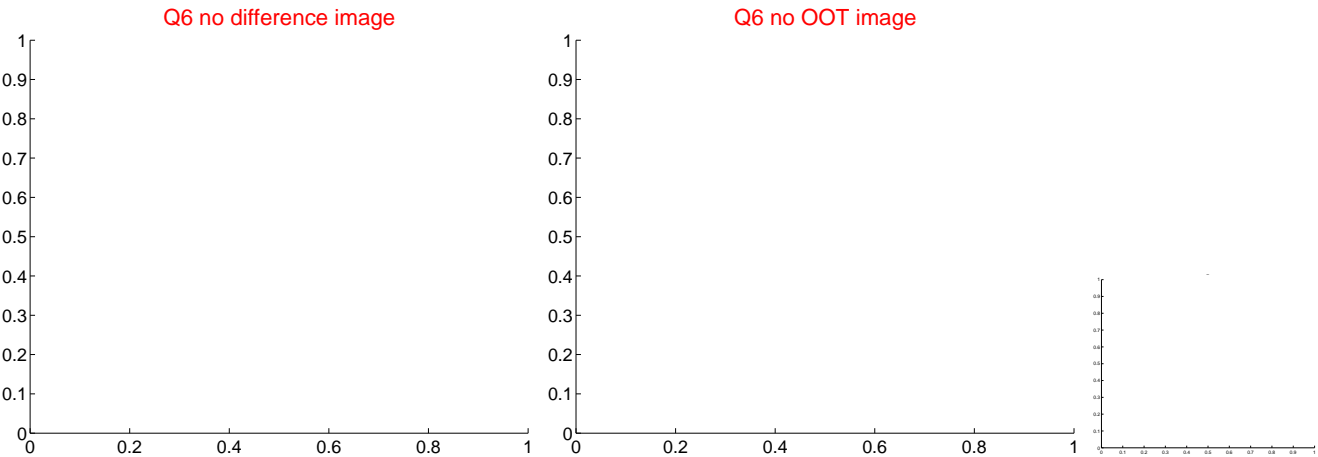
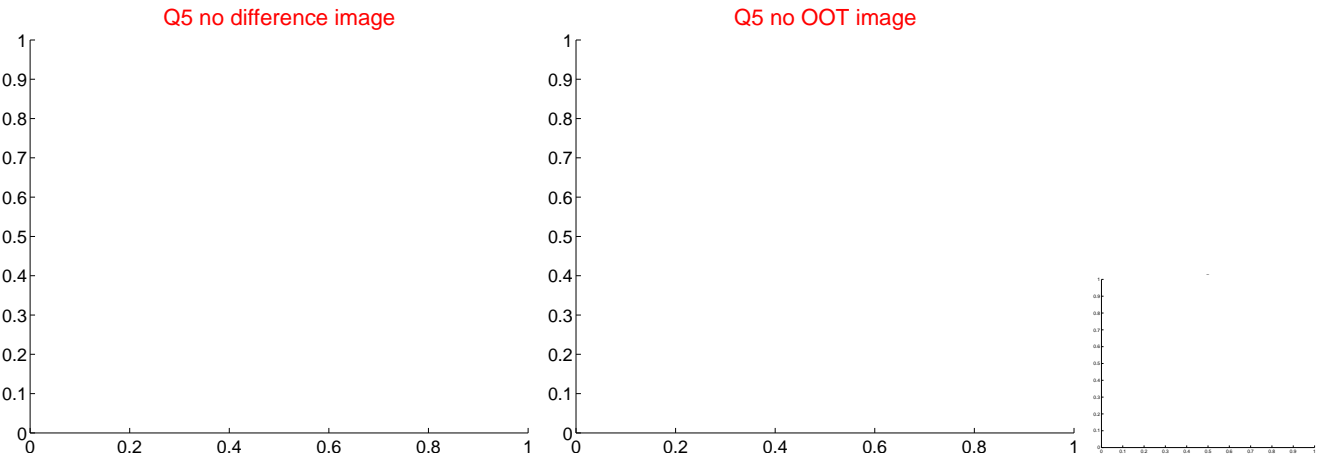
Q4 no difference image



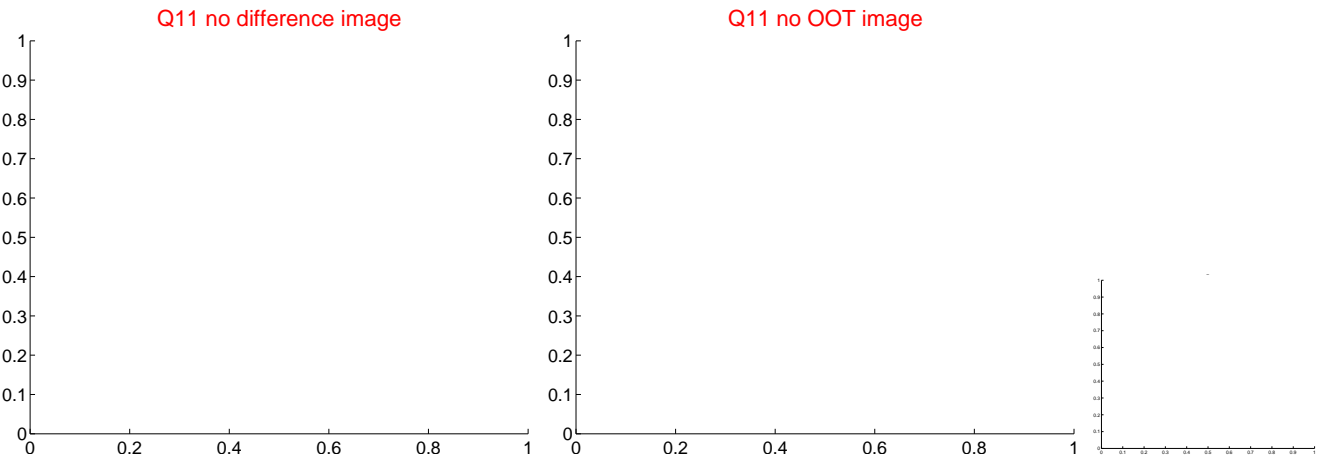
Q4 no OOT image



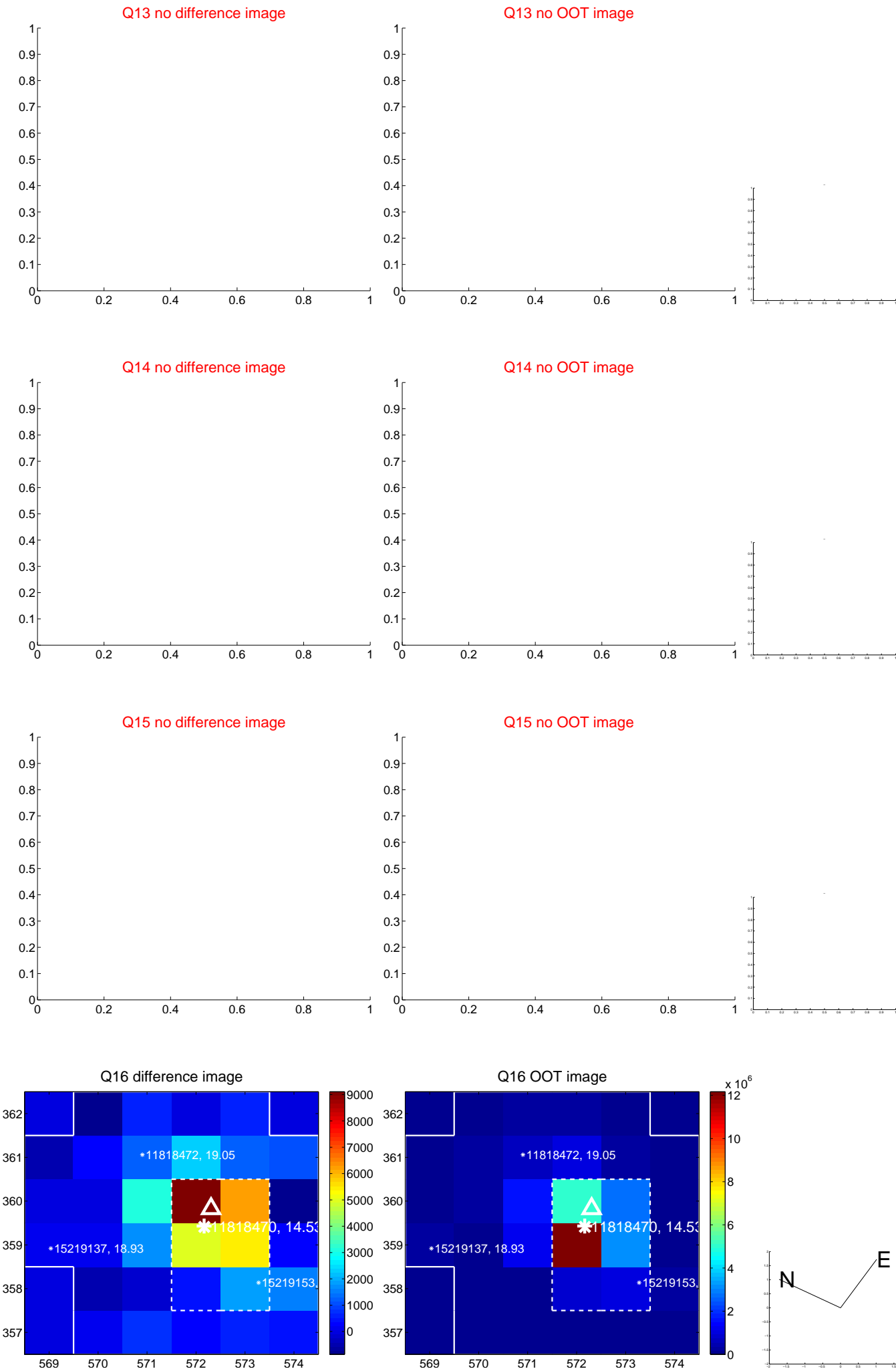
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



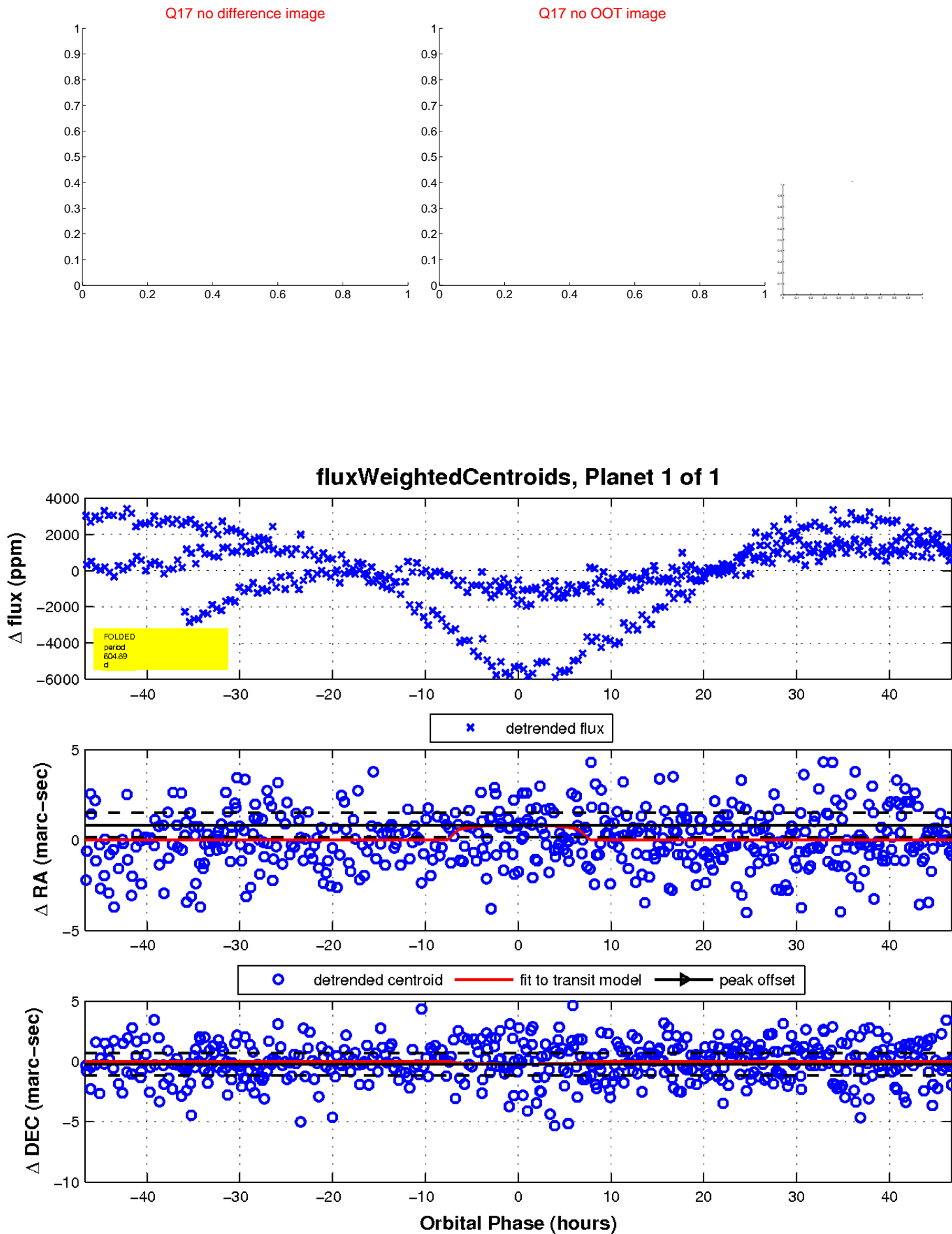
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

