

KIC 005730854

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})
005730854-01	OBS	No	1.382865	131.711656	1.4	15.622	8.4	1.6	1.96	6801	0.24	10450.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005730854-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

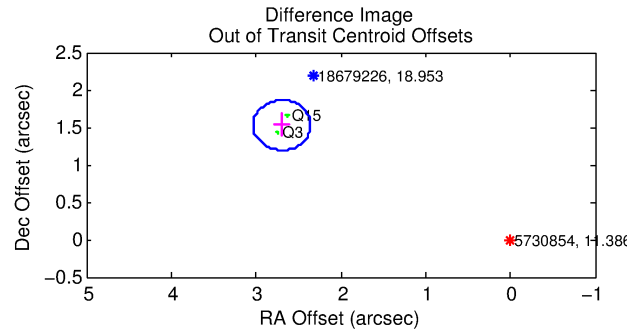
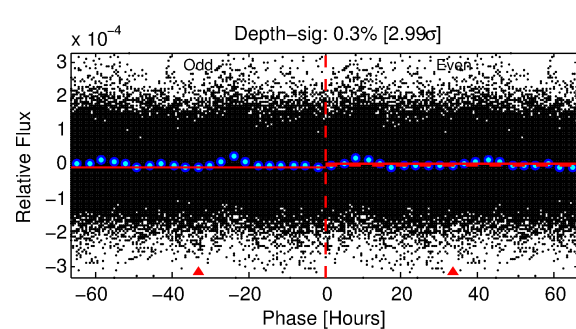
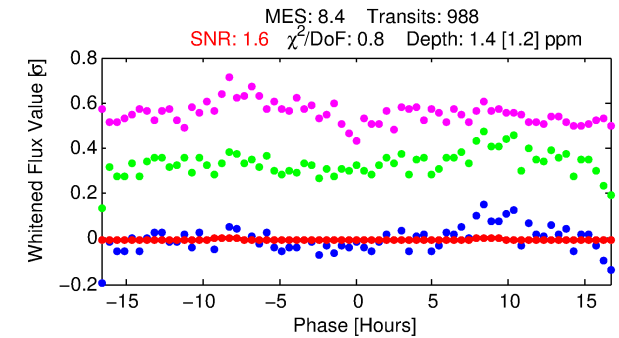
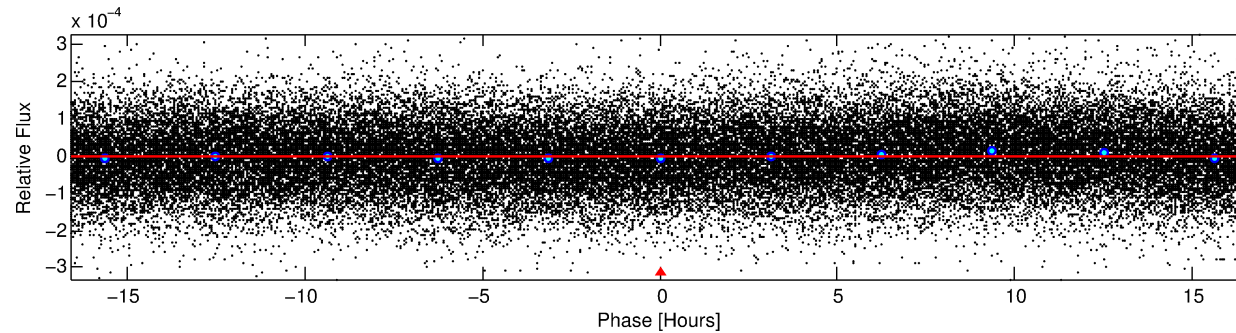
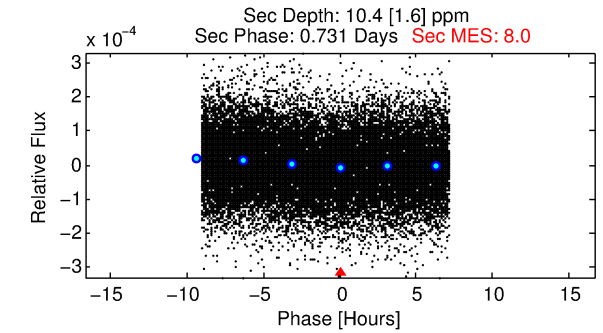
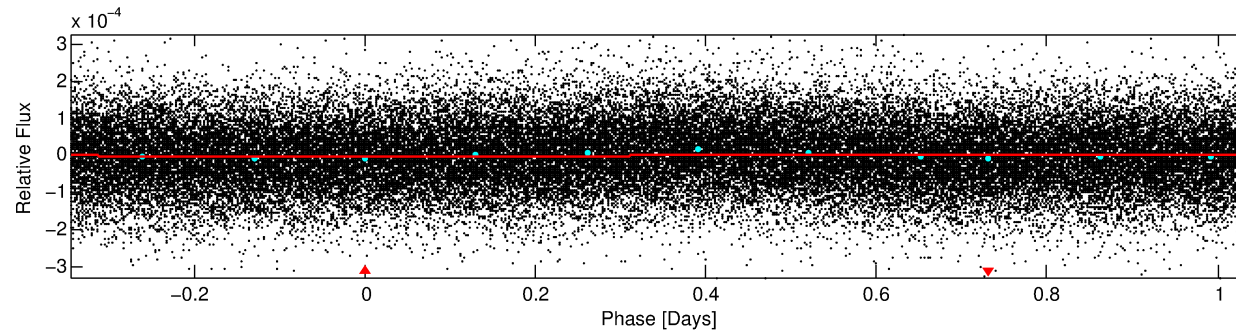
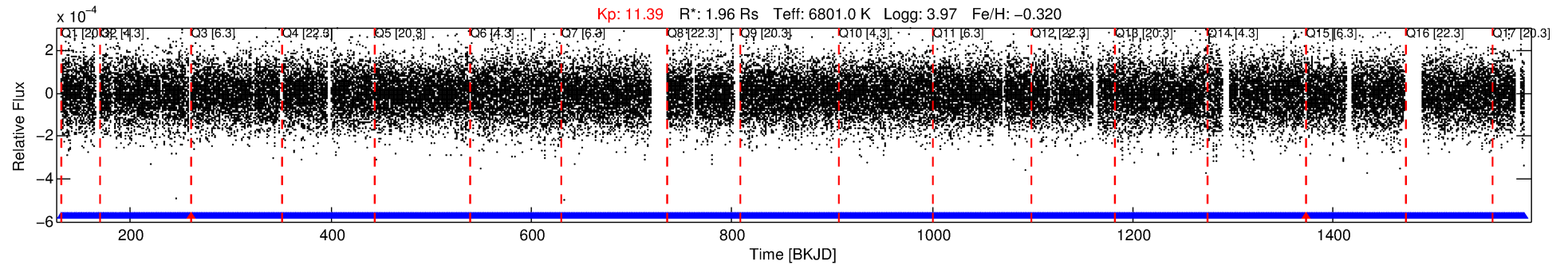
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005730854-01

No Significant Match Found

DV One-Page Summary

KIC: 5730854 Candidate: 1 of 1 Period: 1.383 d



DV Fit Results:

Period = 1.38287 [0.00020] d
Epoch = 131.7117 [0.0488] BKJD
Rp/R* = 0.0011 [0.0045]
a/R* = 1.00 [0.22]
b = 0.32 [67.93]
Seff = 10450.34 [4839.87]
Teq = 2578 [299] K
Rp = 0.24 [0.97] Re
a = 0.0266 [0.0076] AU
Ag = 71.71 [584.48] [0.12 σ]
Teff = 11600 [23604] K [0.38 σ]

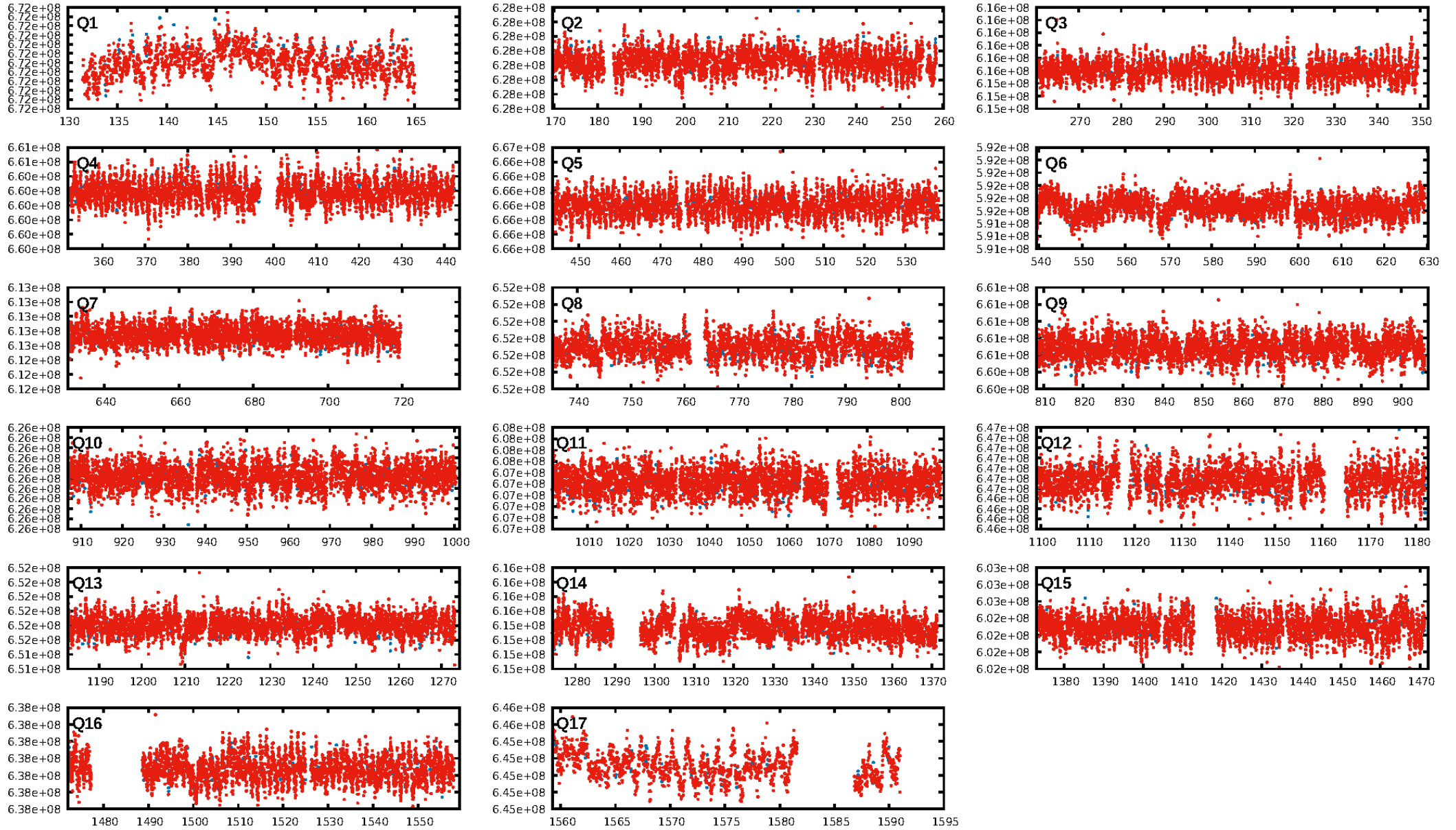
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [942/944]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.099 arcsec [27.67 σ]
KicOffset-rm: 3.070 arcsec [28.14 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [17/17]

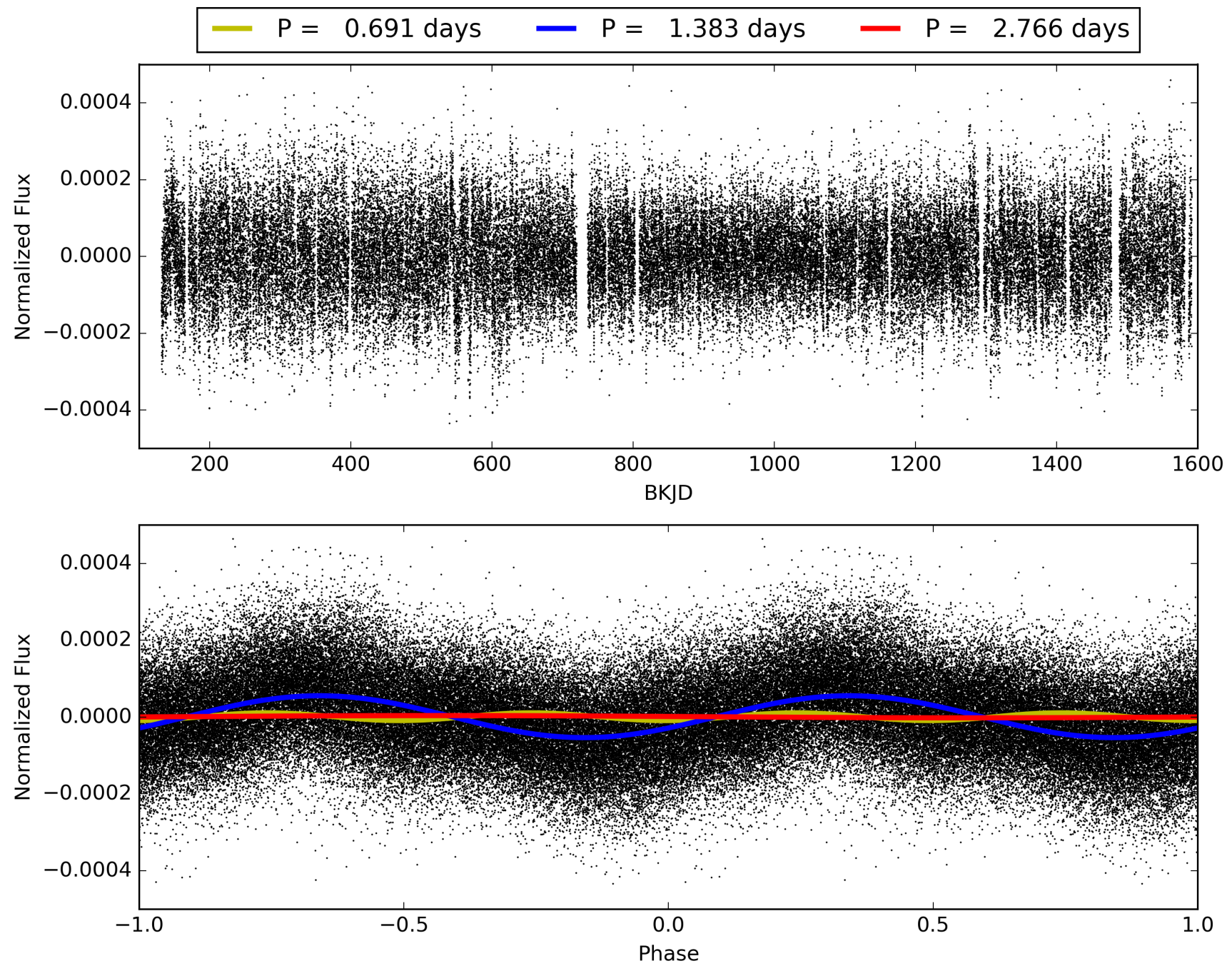
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:55:52 Z

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

TCE 005730854-01, PDC Light Curves

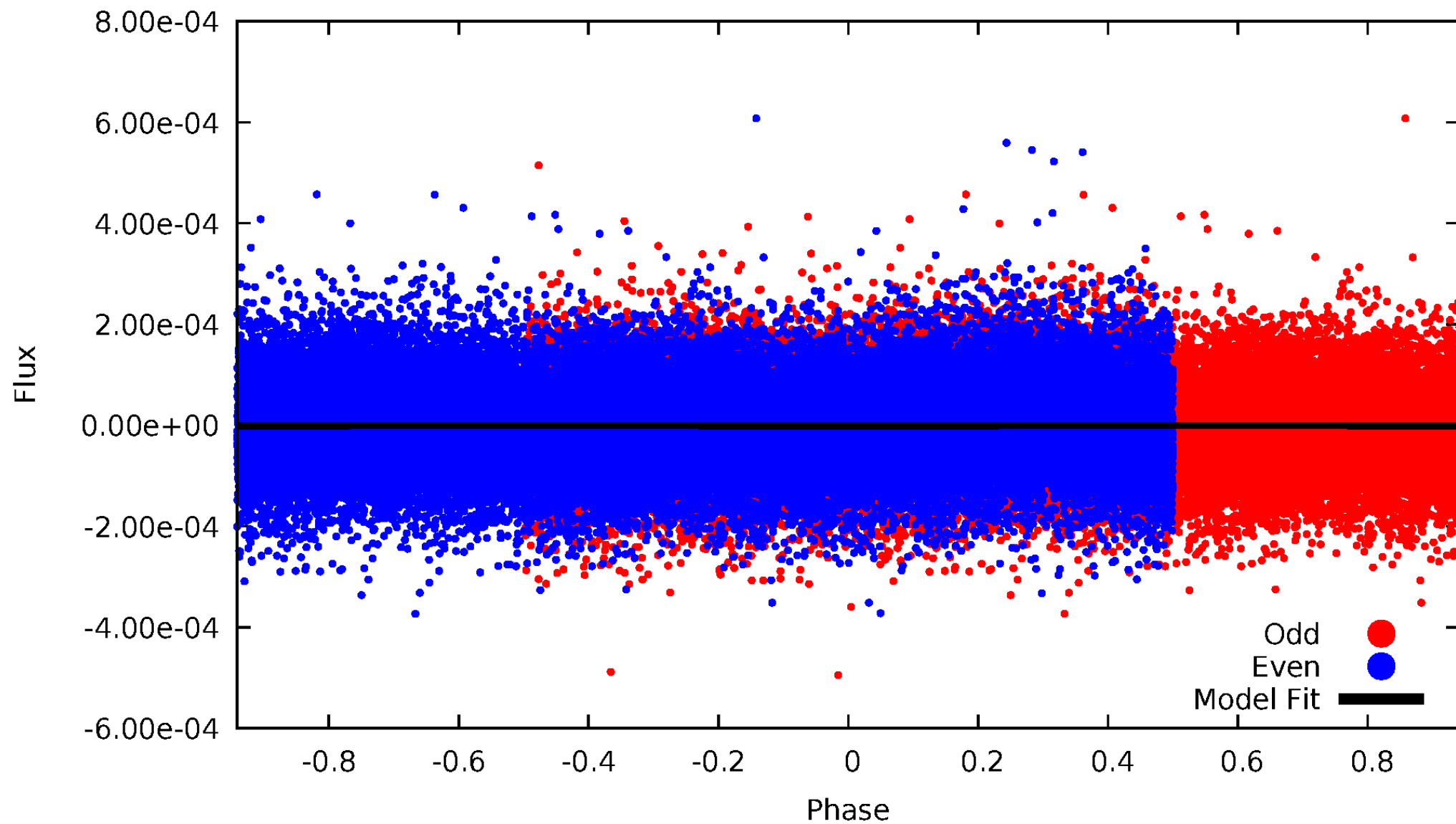


TCE 005730854-01



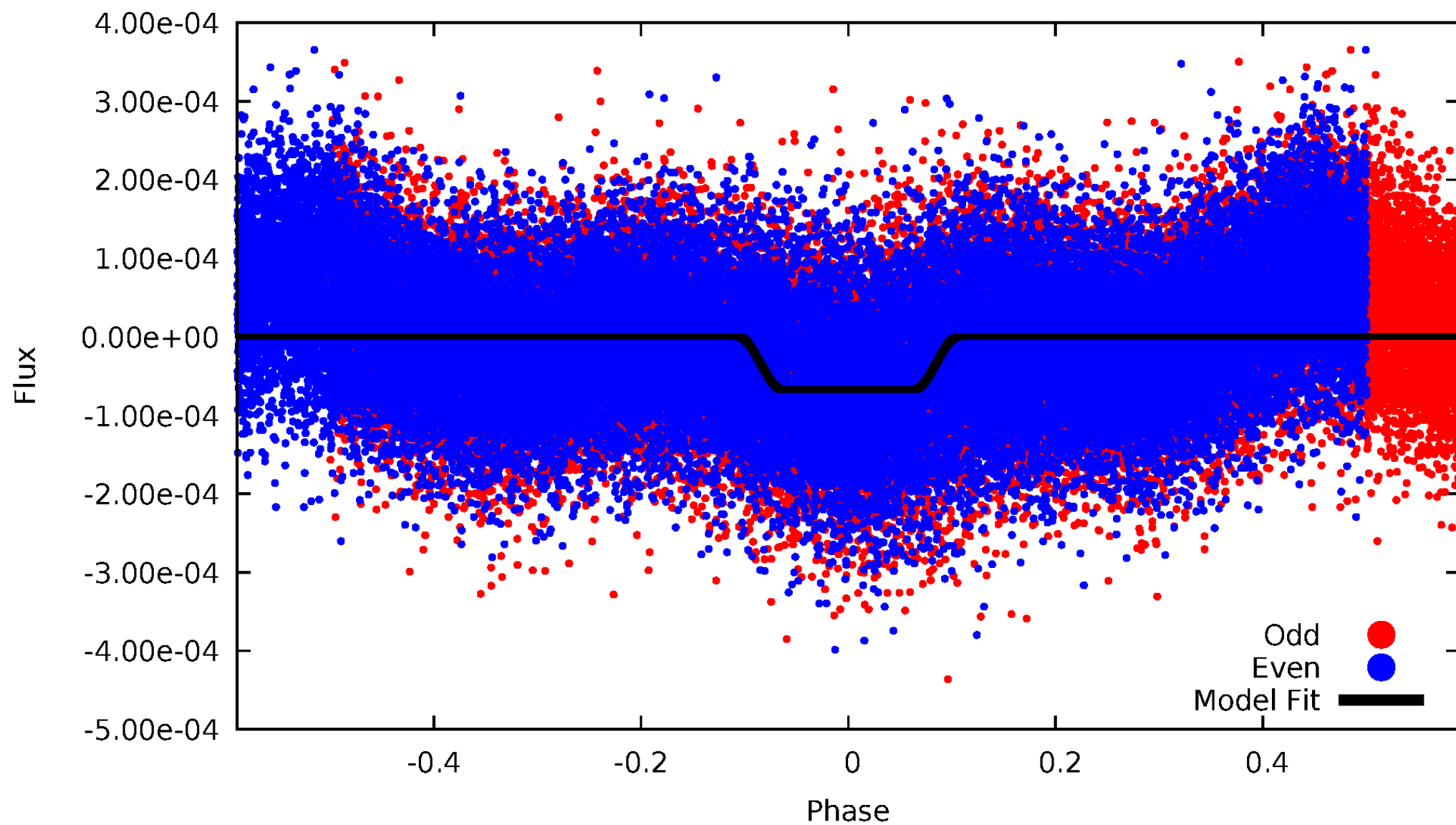
DV Odd/Even

TCE 005730854-01



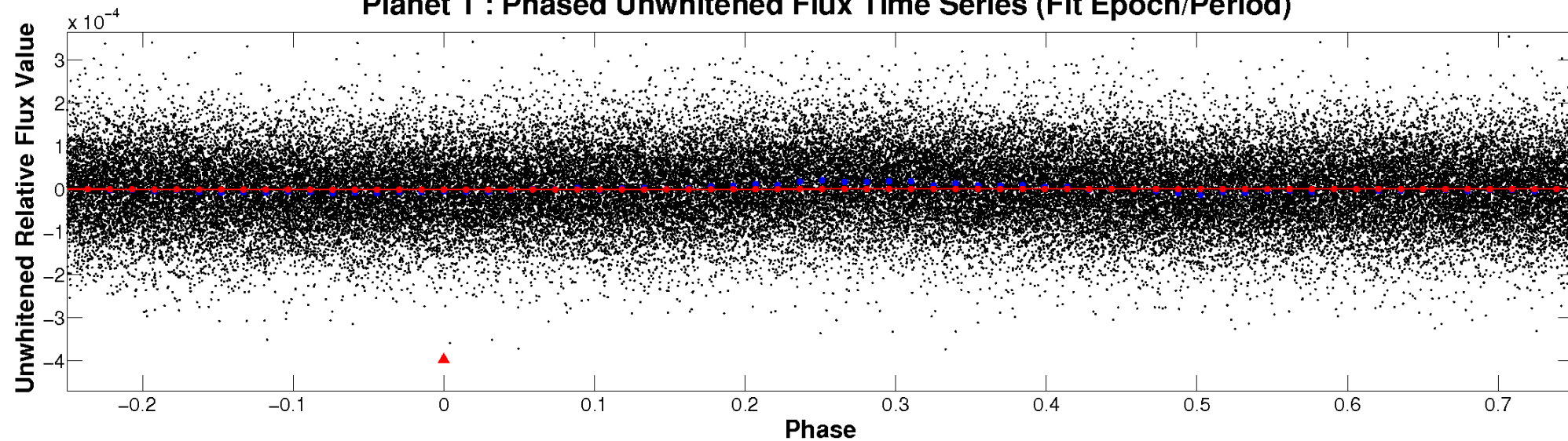
ALT Odd/Even

TCE 005730854-01

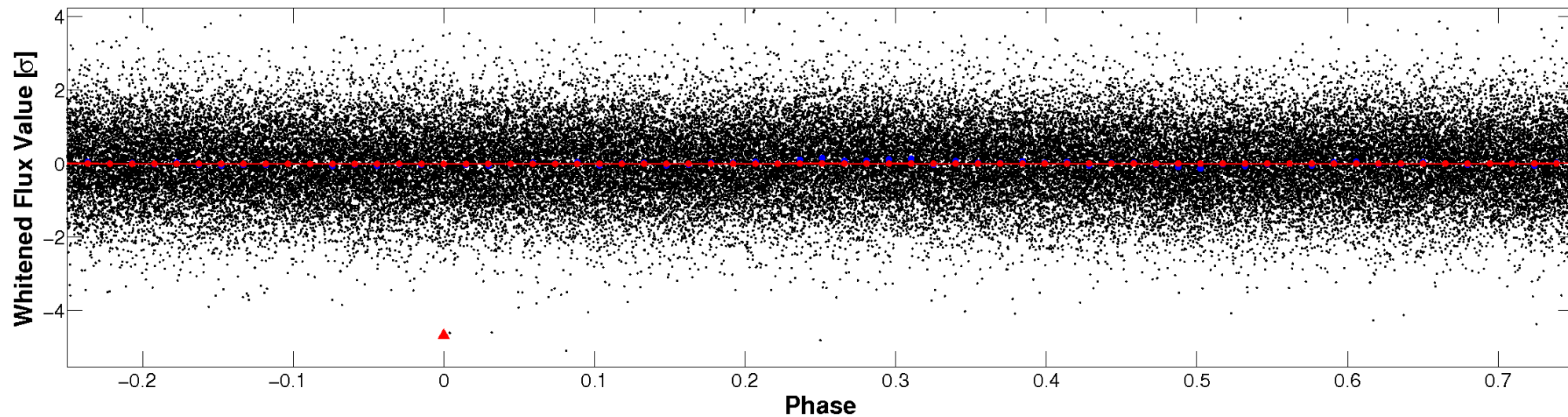


Non-Whitened Vs. Whitened Light Curve

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

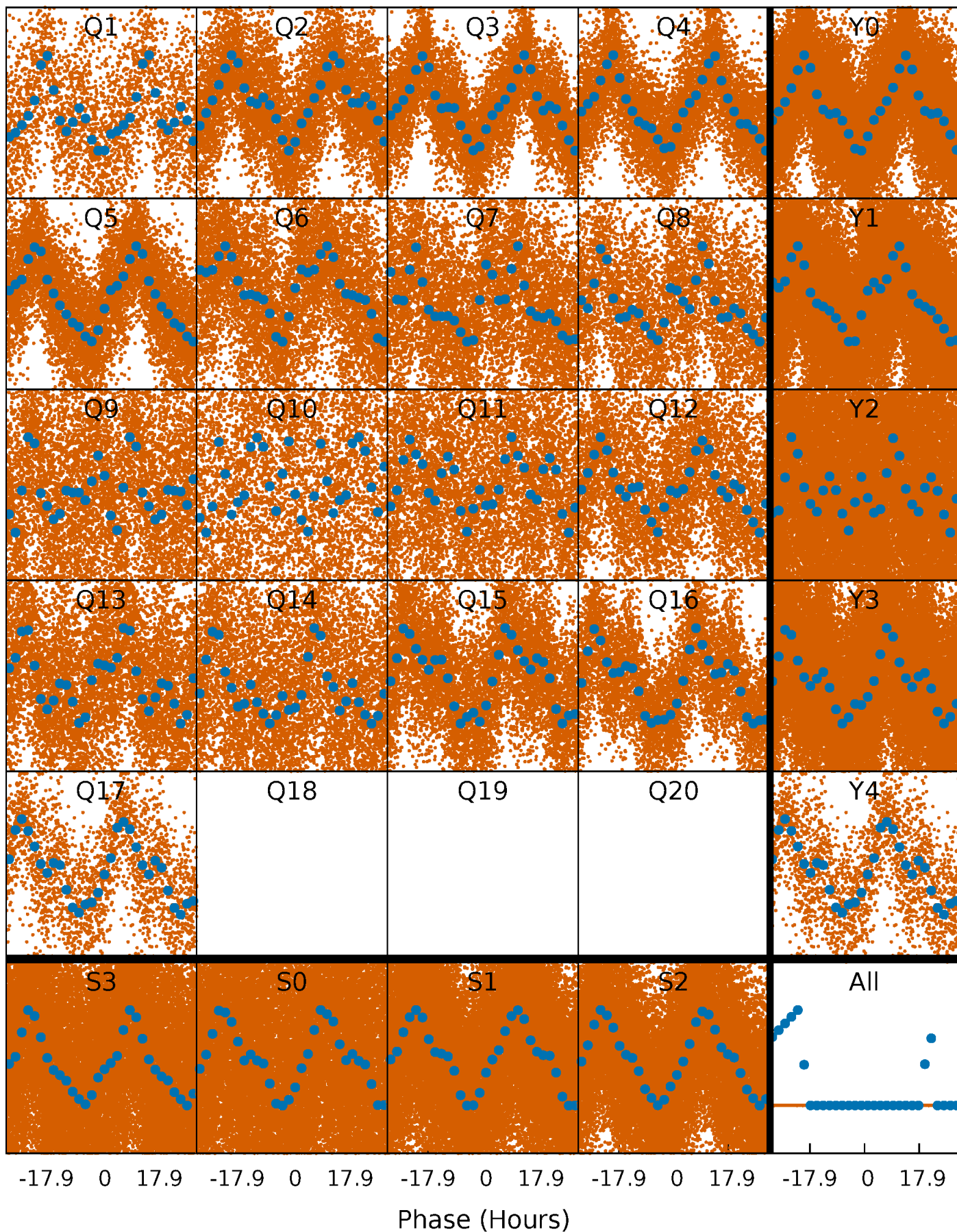


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



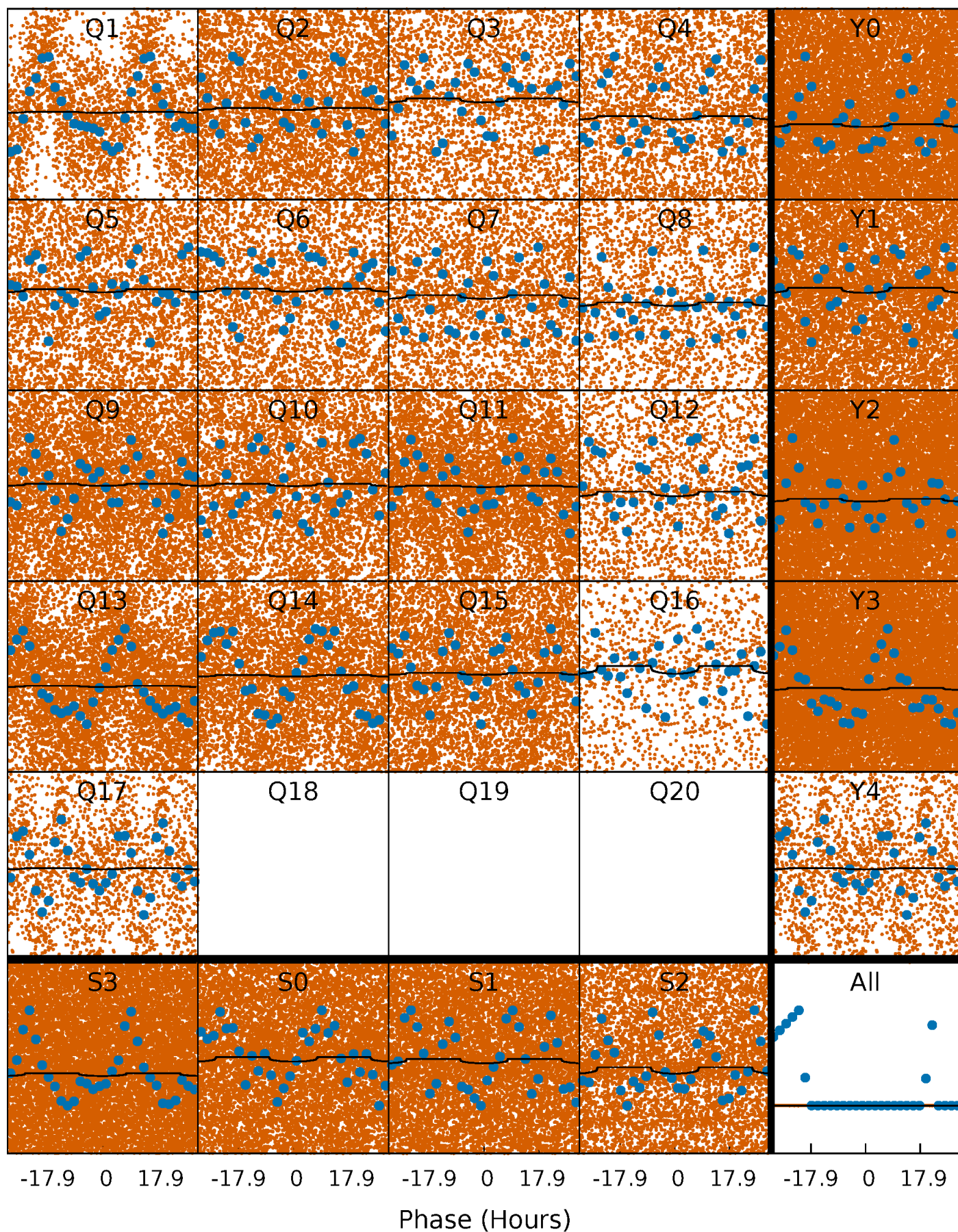
PDC Quarter-Phased Transit Curves

TCE 005730854-01 P= 1.382865 Days $T_0=131.711656$ (BKJD)



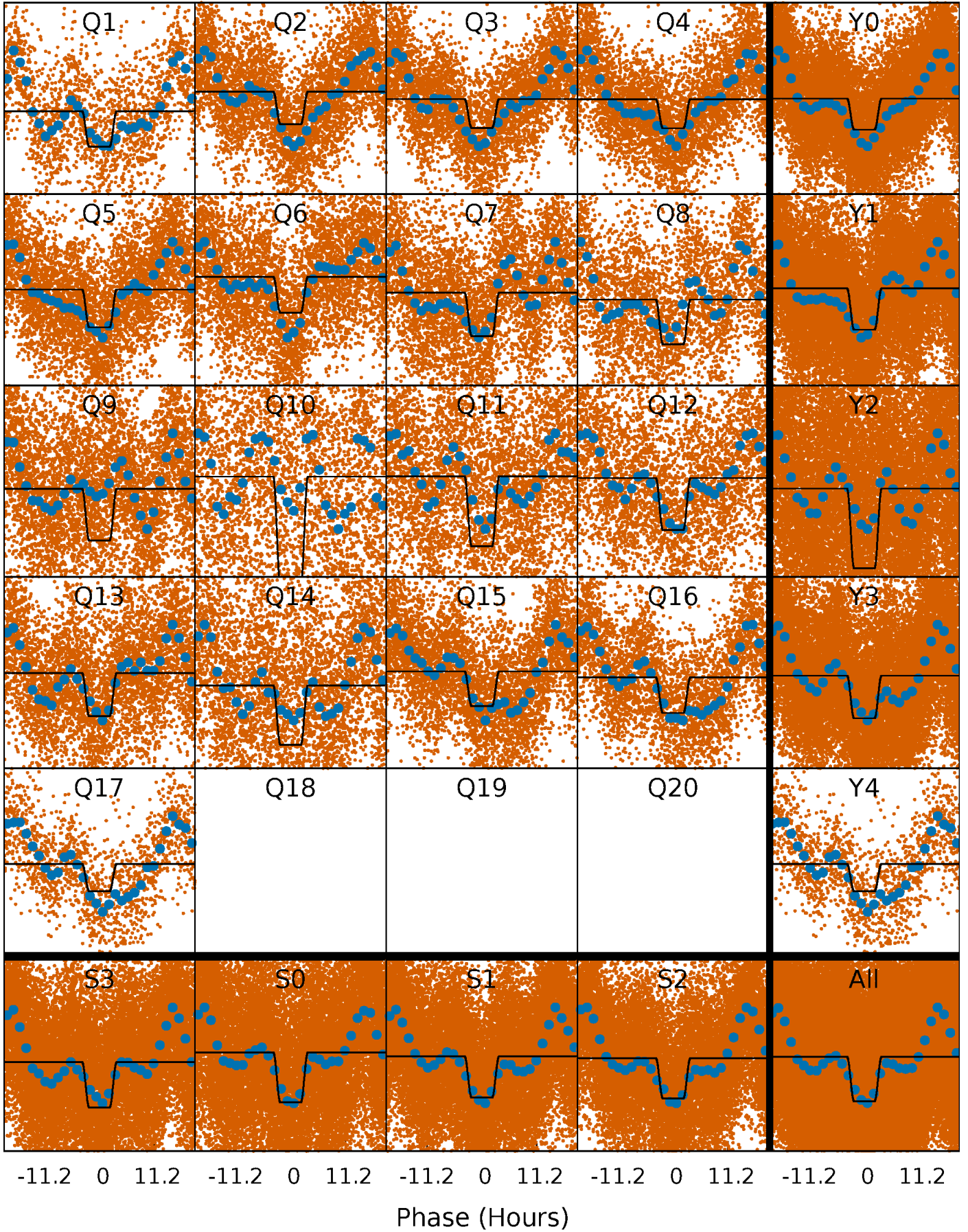
DV Quarter-Phased Transit Curves

TCE 005730854-01 P= 1.382865 Days $T_0=131.711656$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

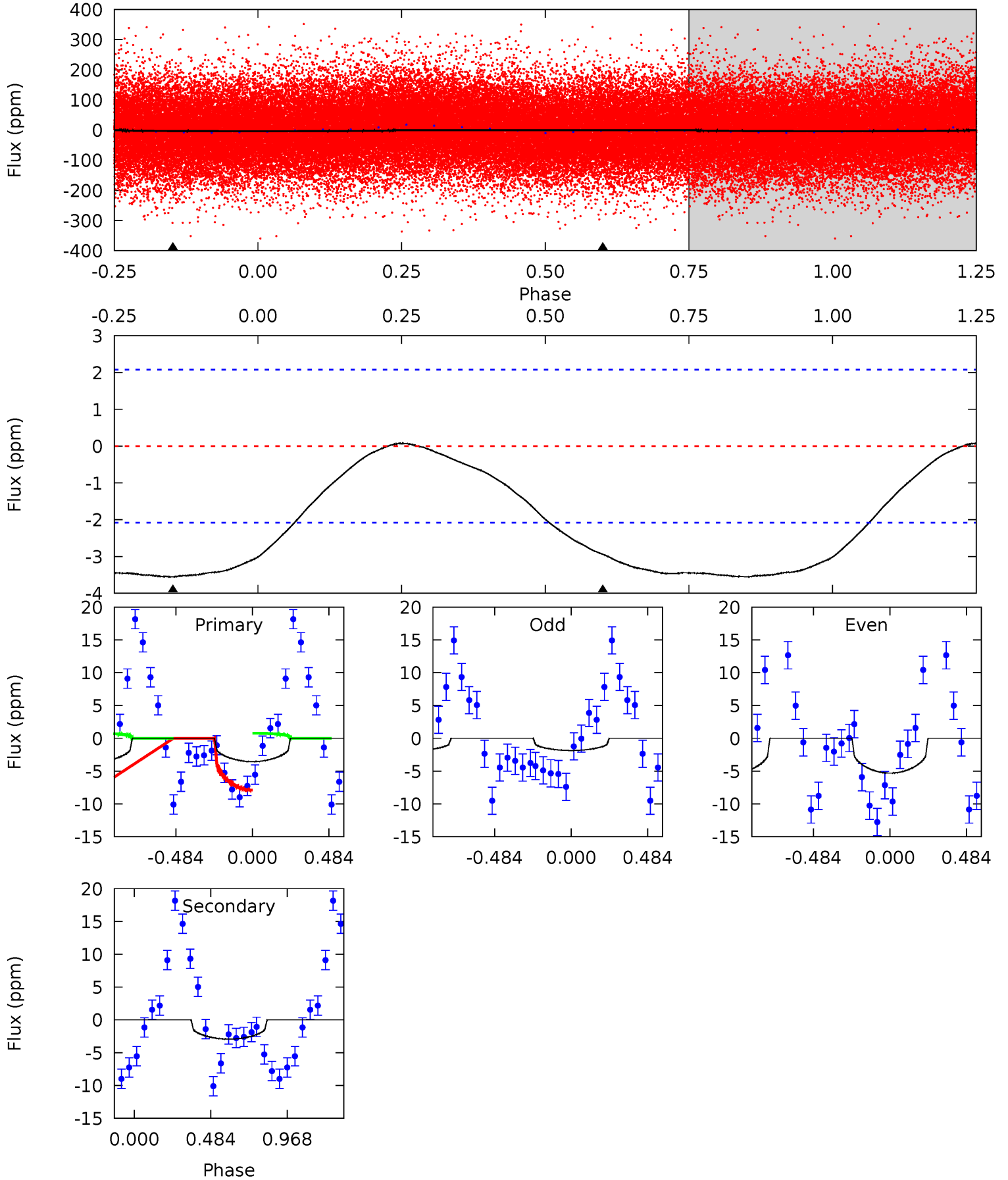
TCE 005730854-01 P= 1.382569 Days $T_0=131.664188$ (BKJD)



DV Model-Shift Uniqueness Test

005730854-01, P = 1.382865 Days, E = 130.328791 Days

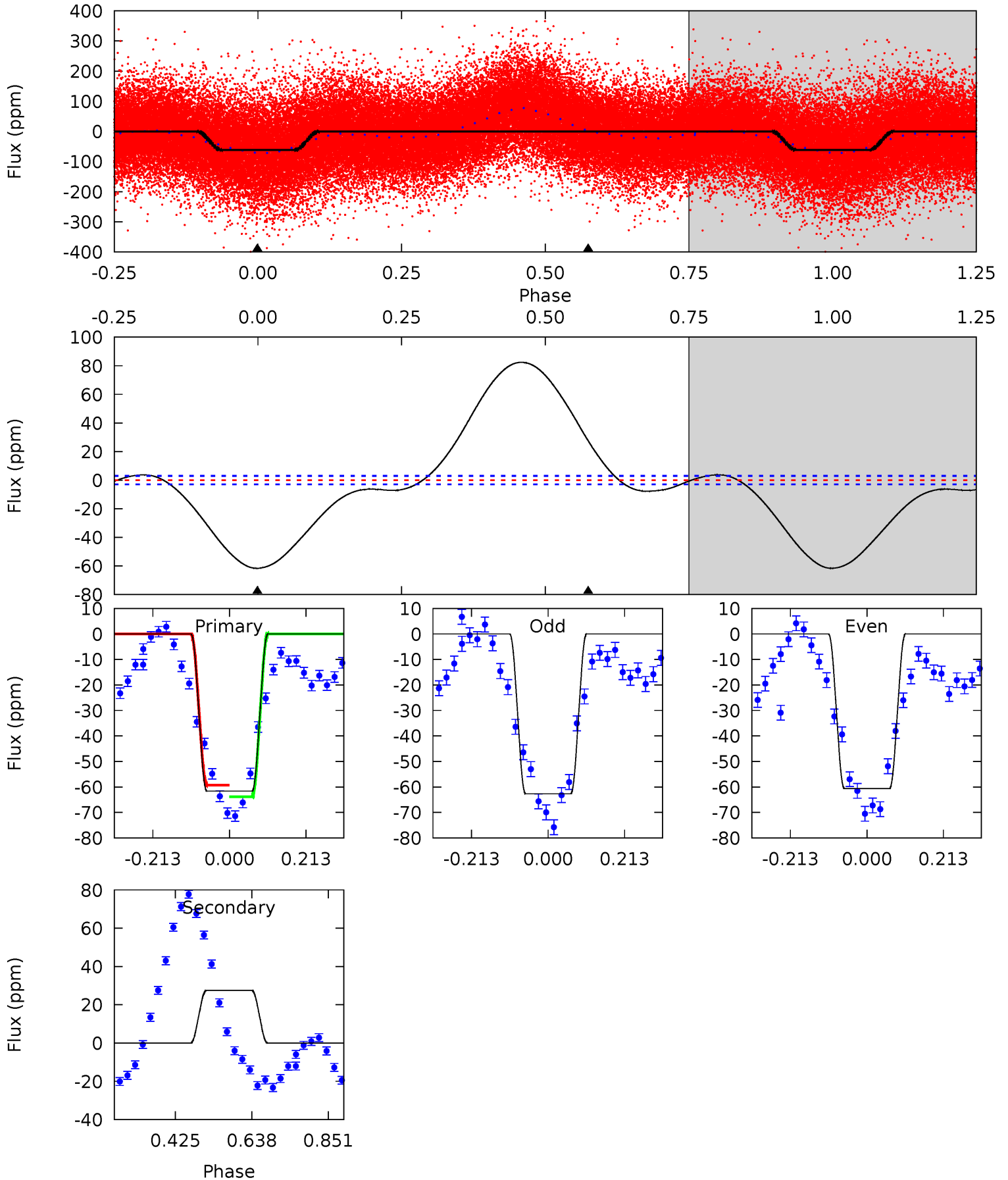
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.22	5.97	0	0	4.22	0.70	0.30	7.22	7.22	5.97	5.97	3.51	1.04	0.02	7.62



Alt Model-Shift Uniqueness Test

005730854-01, P = 1.382569 Days, E = 130.281619 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
91.4	-40.9	0	0	4.40	1.25	20.3	91.4	91.4	-40.9	-40.9	1.53	1.00	0.57	3.42



Stellar Parameters For KIC 005730854

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6801^{+183}_{-204}	$3.969^{+0.259}_{-0.111}$	$-0.320^{+0.300}_{-0.250}$	$1.961^{+0.402}_{-0.603}$	$1.308^{+0.203}_{-0.203}$	$0.244^{+0.350}_{-0.092}$
	+3%/-3%	+7%/-3%	+94%/-78%	+20%/-31%	+16%/-16%	+143%/-38%
Source	PHO1	FLK73	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 005730854-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 0	$0.75^{+0.74}_{-0.51}$	3546^{+234}_{-273}	4607^{+3565}_{-1384}	$1.976^{+17.305}_{-1.462}$
Alt.	28 ± 1	$1.81^{+1.00}_{-0.88}$	3554^{+223}_{-267}	-5435^{+853}_{-1962}	$-3.317^{+1.952}_{-8.994}$

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 $A_{obs} \gg 1.0$

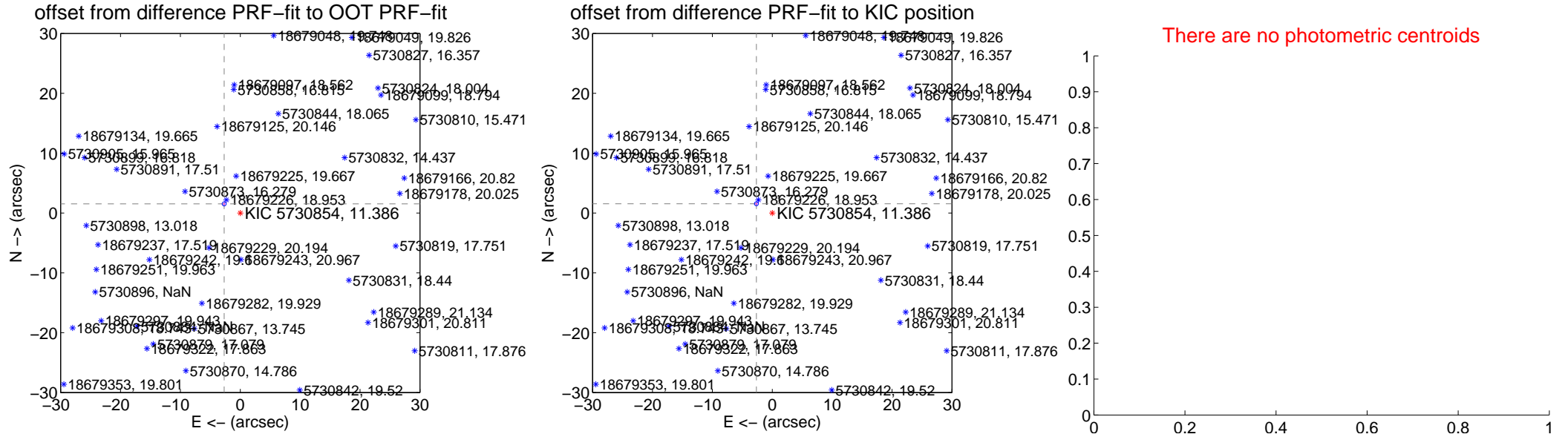
DV Centroid Data

Supplemental centroid analysis for 005730854-01. **Kepler magnitude: 11.39.** Transit SNR 1.56

There are 0 quarters with good PRF difference image offsets

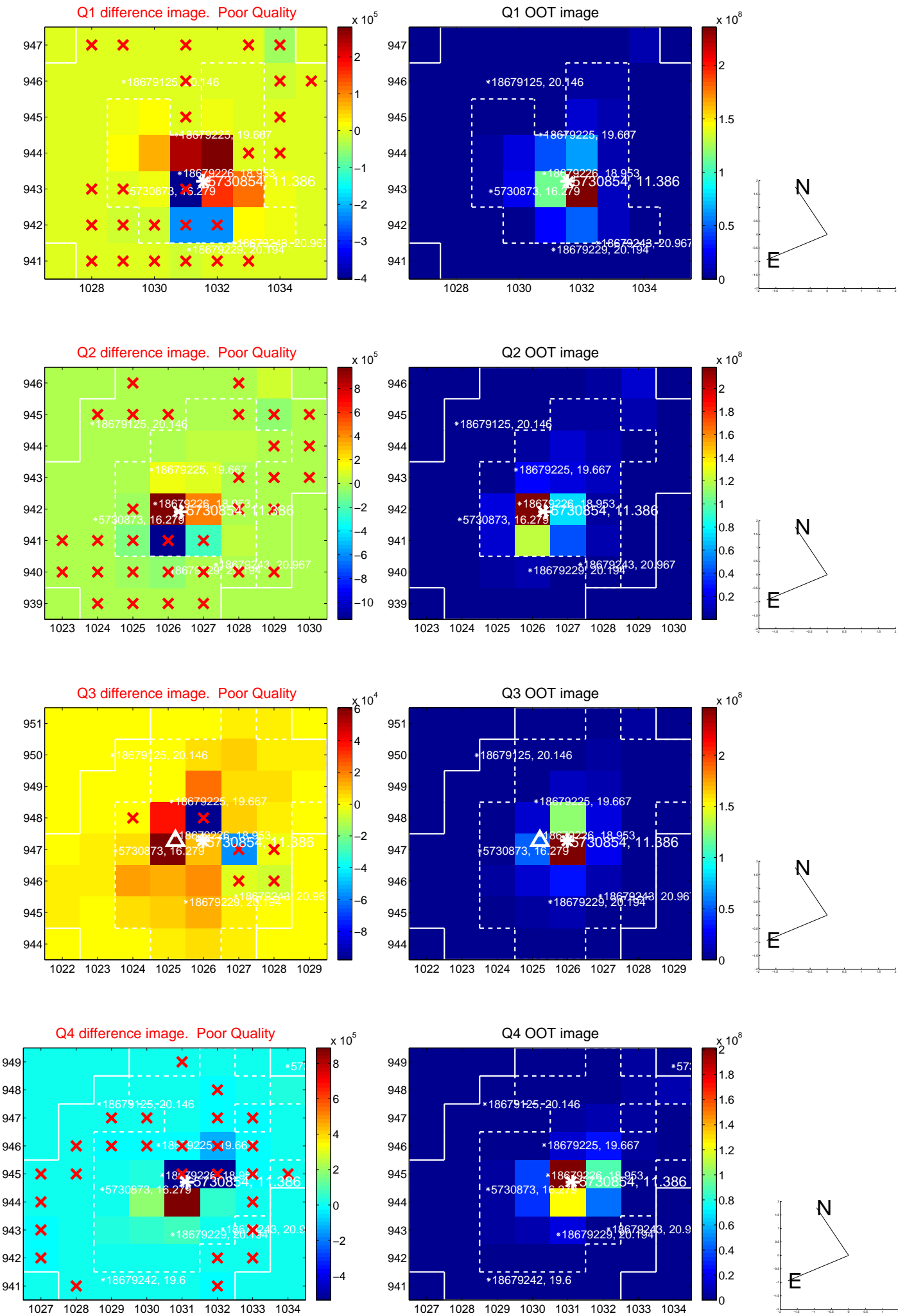
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.099 ± 0.112	27.67	2.696 ± 0.098	1.528 ± 0.147
PRF-fit source offset from KIC position	3.070 ± 0.109	28.14	2.655 ± 0.093	1.542 ± 0.148
photometric centroid source offset	—	—	—	—

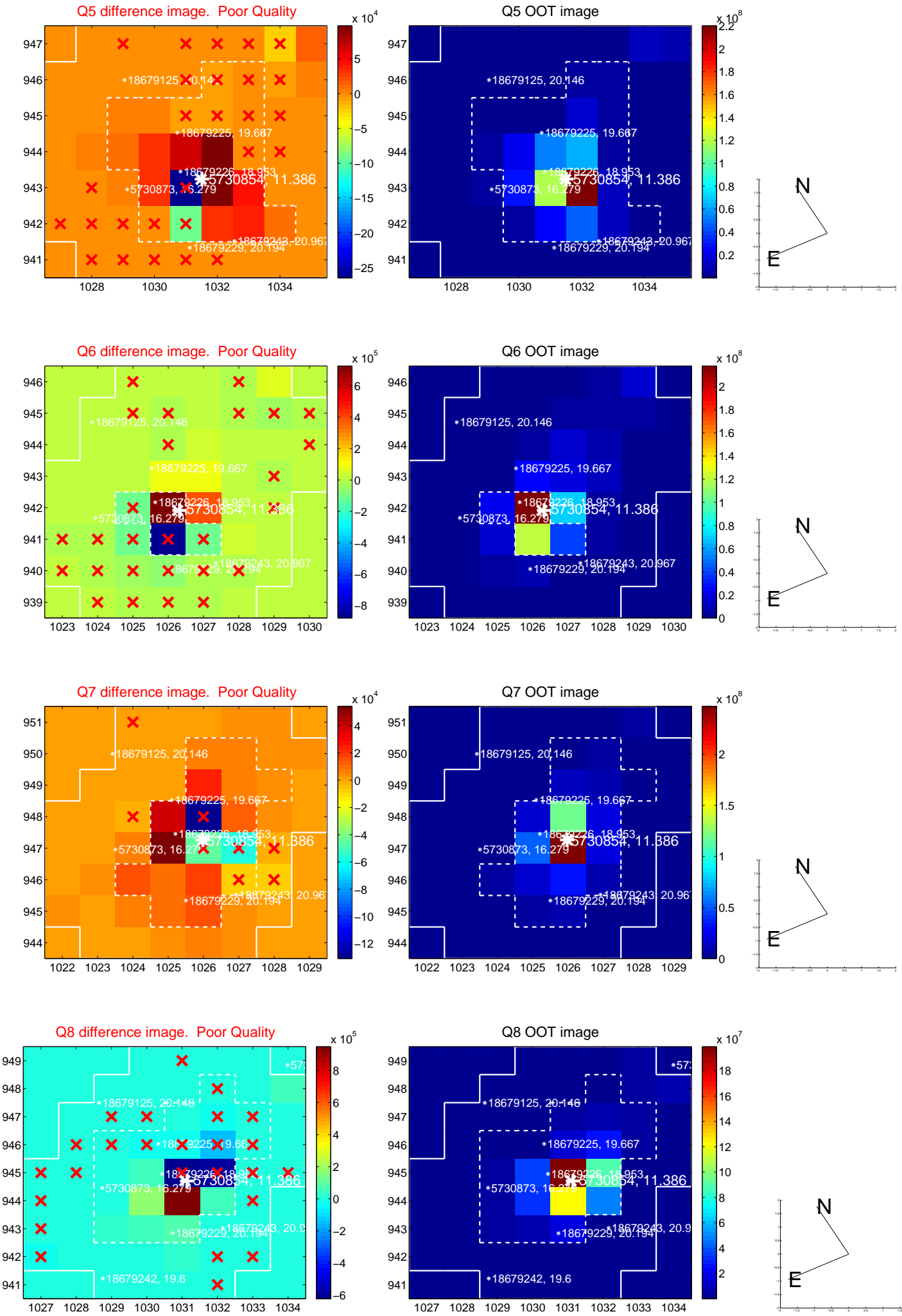


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

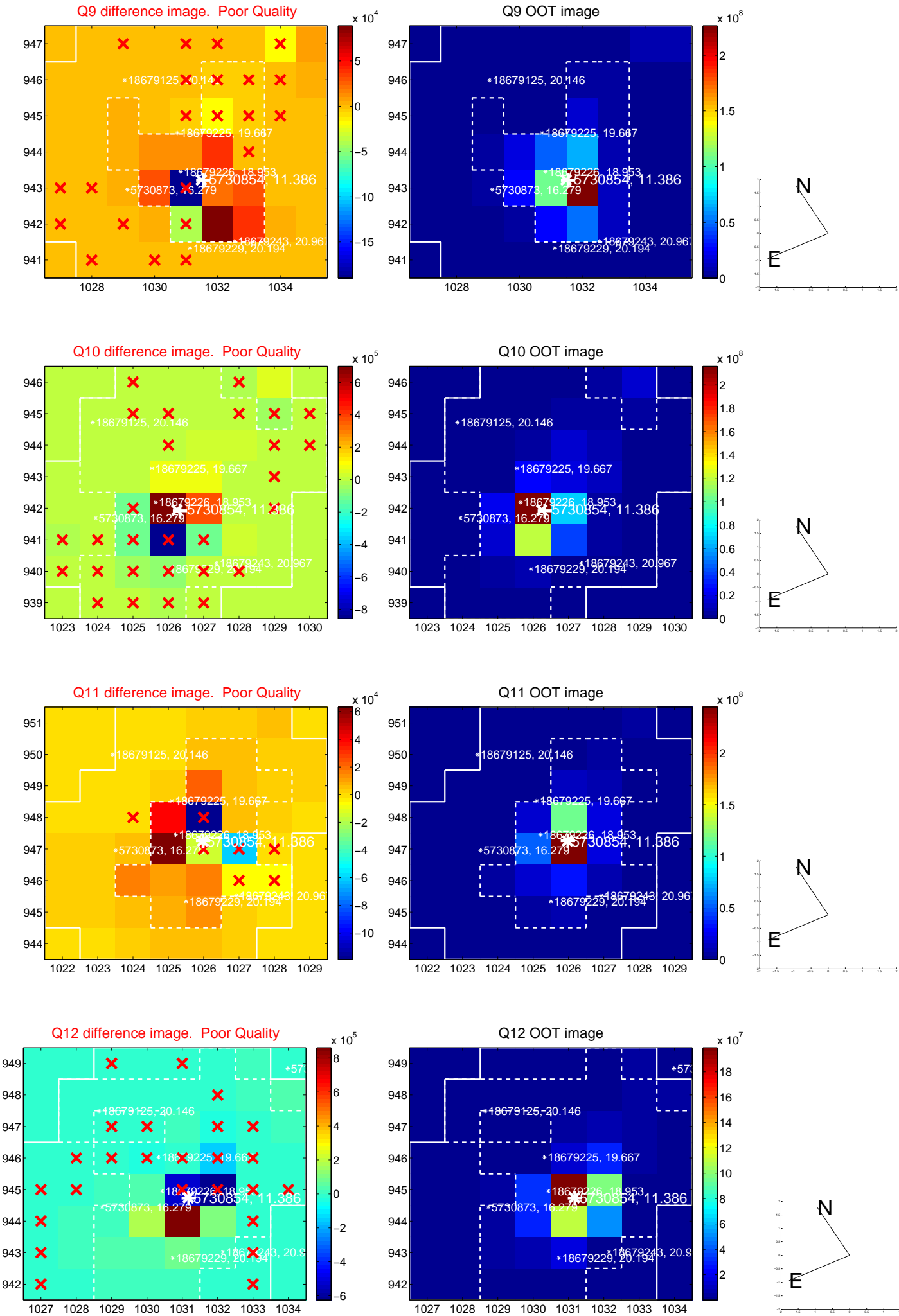
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



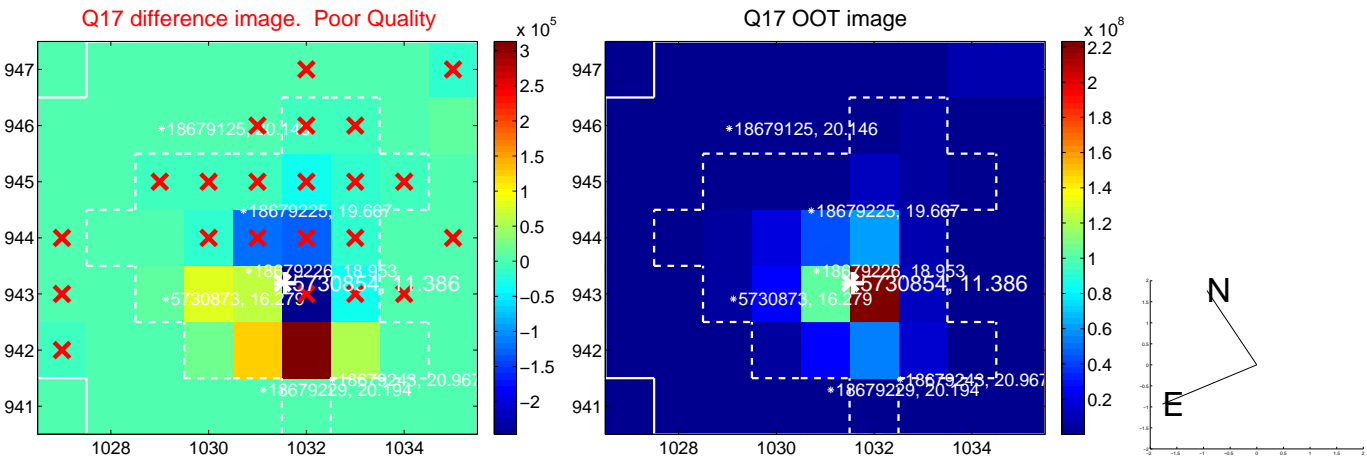
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

