

KIC 006153233

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})
006153233-01	OBS	No	0.954117	131.657094	175.7	5.701	13.1	16.6	1.47	7088	1.98	10548.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006153233-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

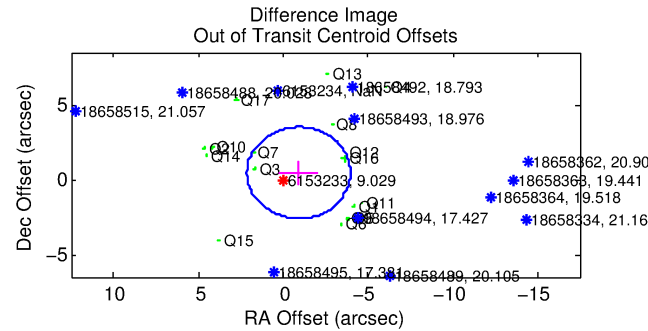
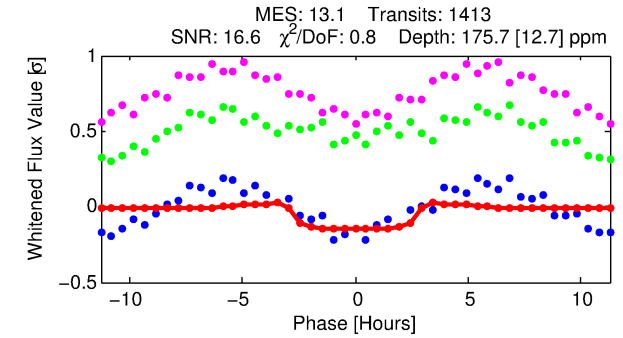
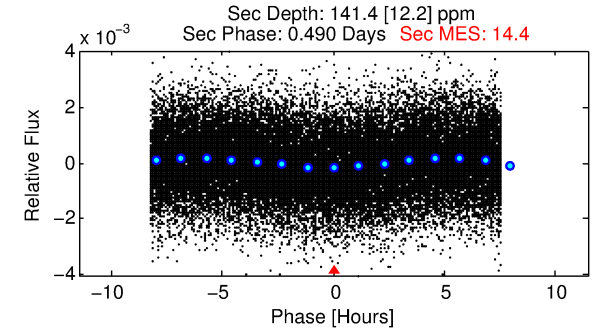
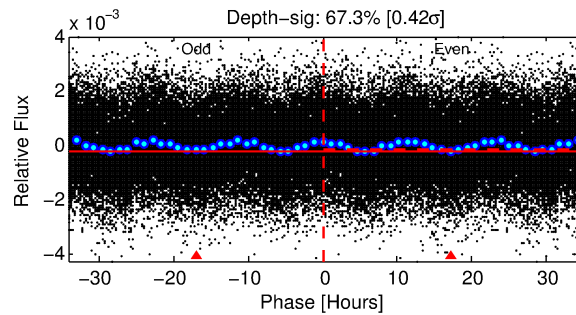
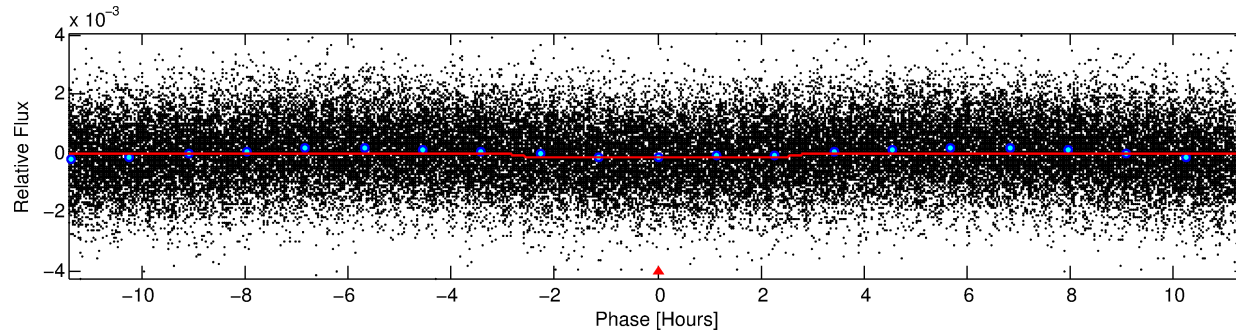
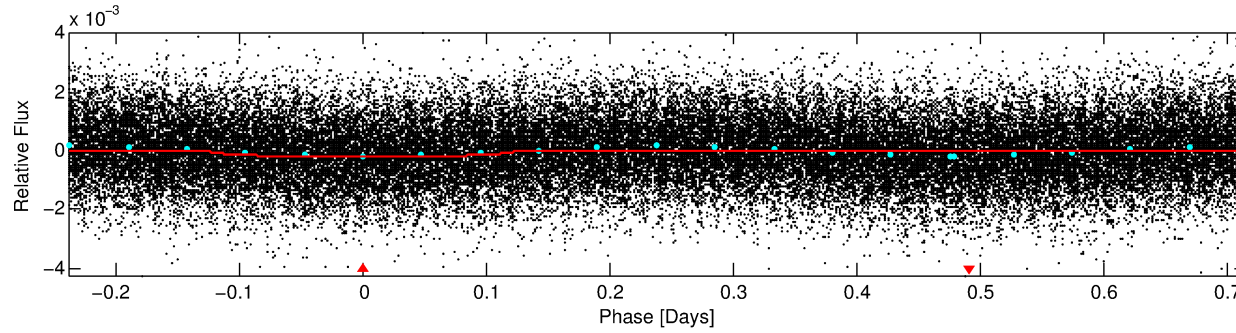
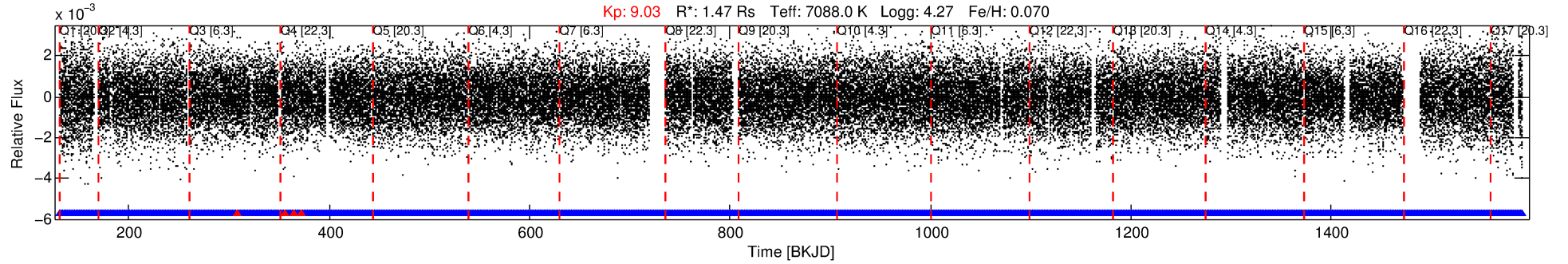
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006153233-01

No Significant Match Found

DV One-Page Summary

KIC: 6153233 Candidate: 1 of 1 Period: 0.954 d



DV Fit Results:

Period = 0.95412 [0.00001] d
Epoch = 131.6571 [0.0033] BKJD
 $R_p/R^* = 0.0123$ [0.0092]
 $a/R^* = 1.44$ [3.16]
 $b = 0.02$ [283.32]
 $\text{Seff} = 10548.37$ [4867.37]
 $T_{\text{eq}} = 2584$ [298] K
 $R_p = 1.97$ [1.64] R_e
 $a = 0.0216$ [0.0064] AU
 $A_g = 9.29$ [14.48] [0.57 σ]
 $T_{\text{eff}} = 6975$ [2639] K [1.65 σ]

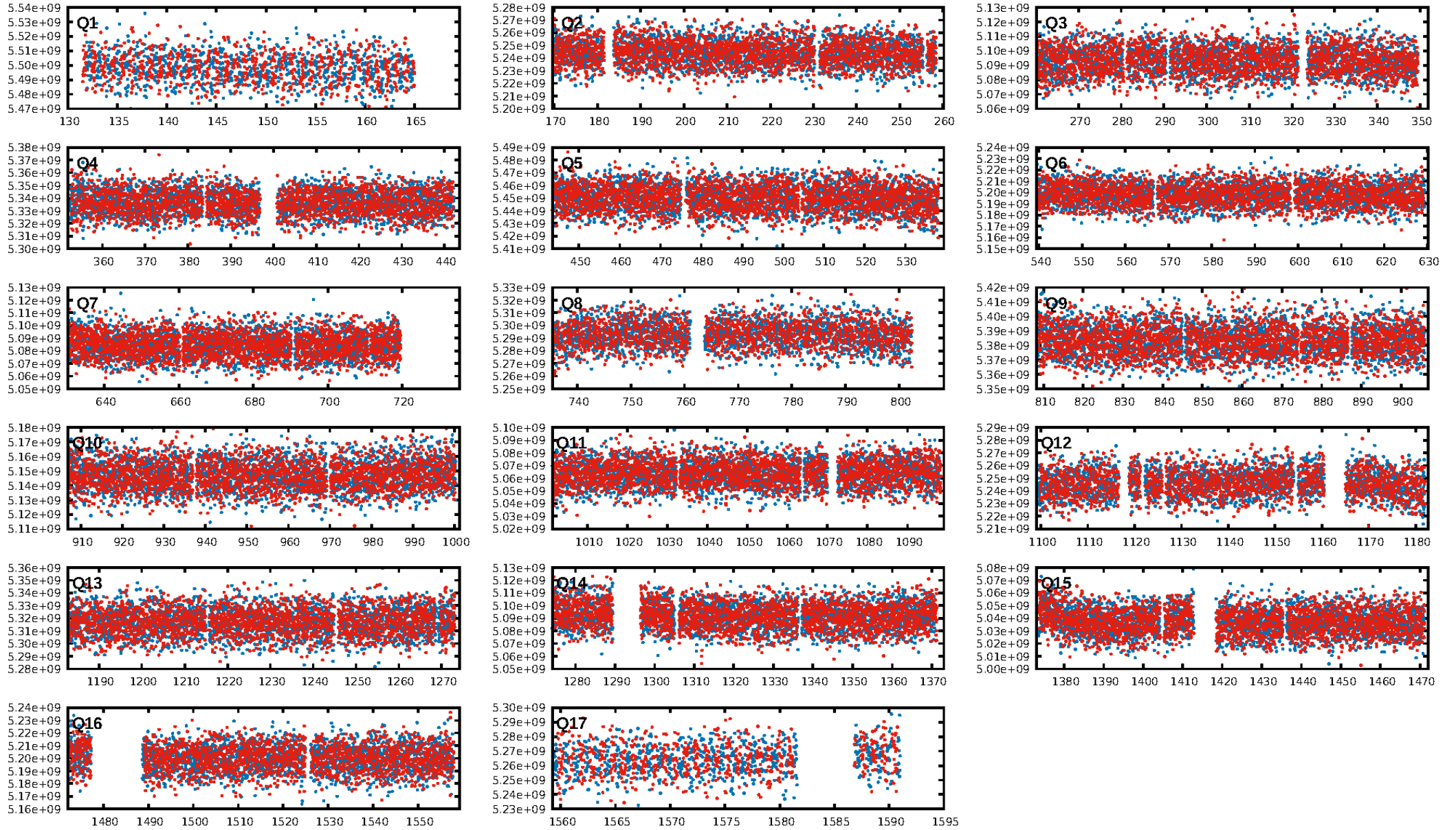
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.02e-16
RollingBand-fgt: 1.00 [1346/1350]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.1%
Centroid-so: 0.463 arcsec [2.30 σ]
OotOffset-rm: 1.019 arcsec [1.00 σ]
KicOffset-rm: 1.169 arcsec [1.29 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

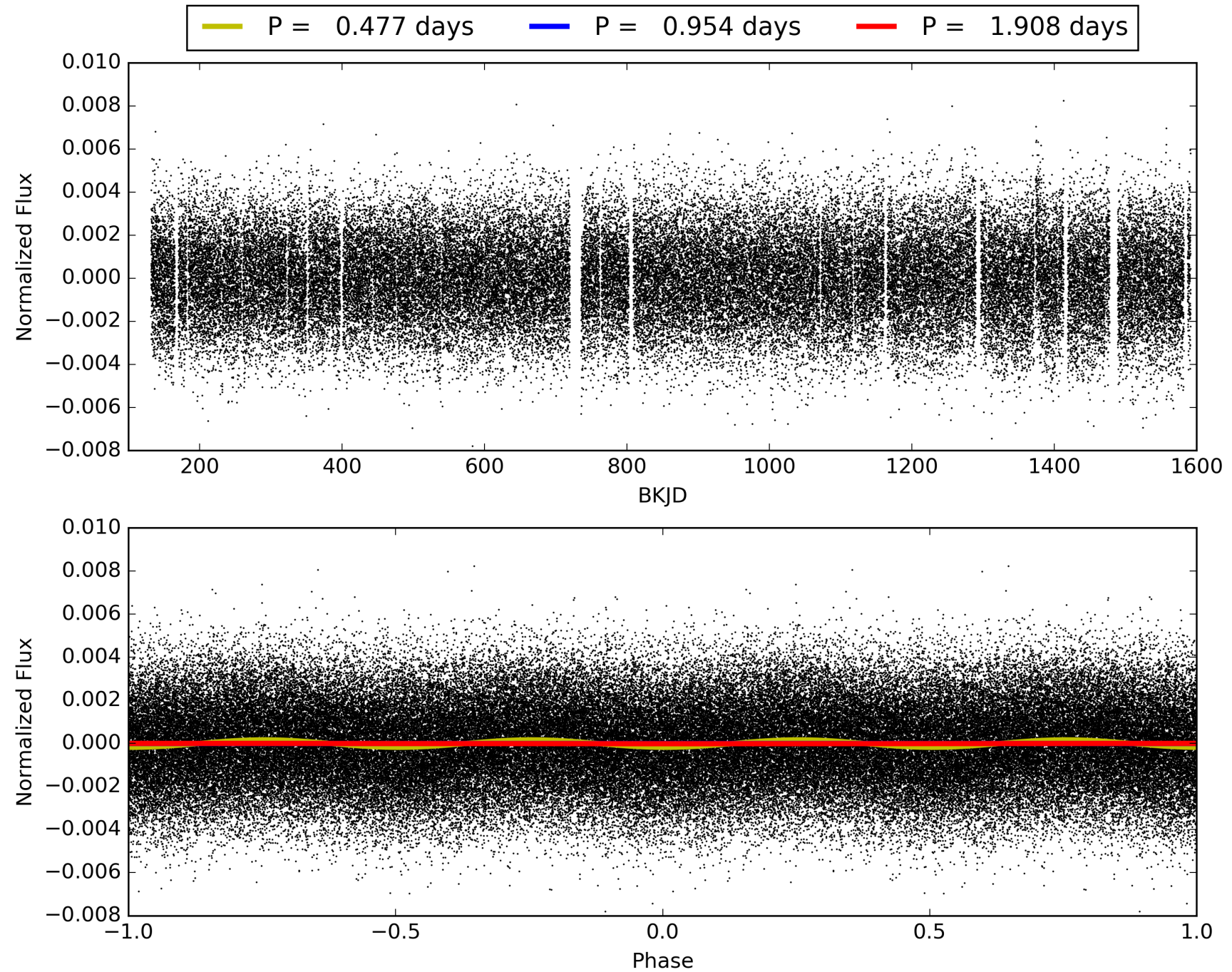
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:59:53 Z

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

TCE 006153233-01, PDC Light Curves

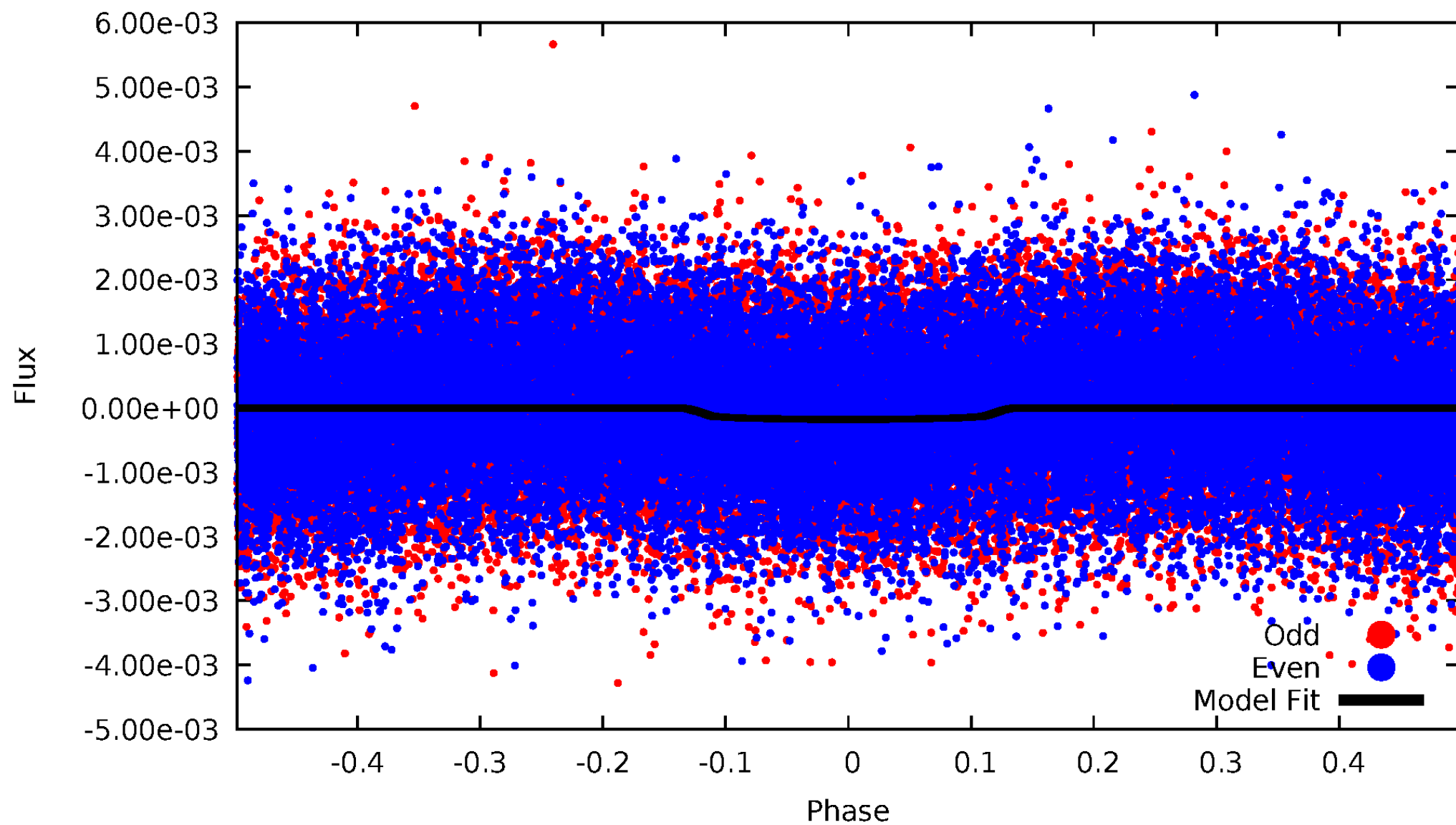


TCE 006153233-01



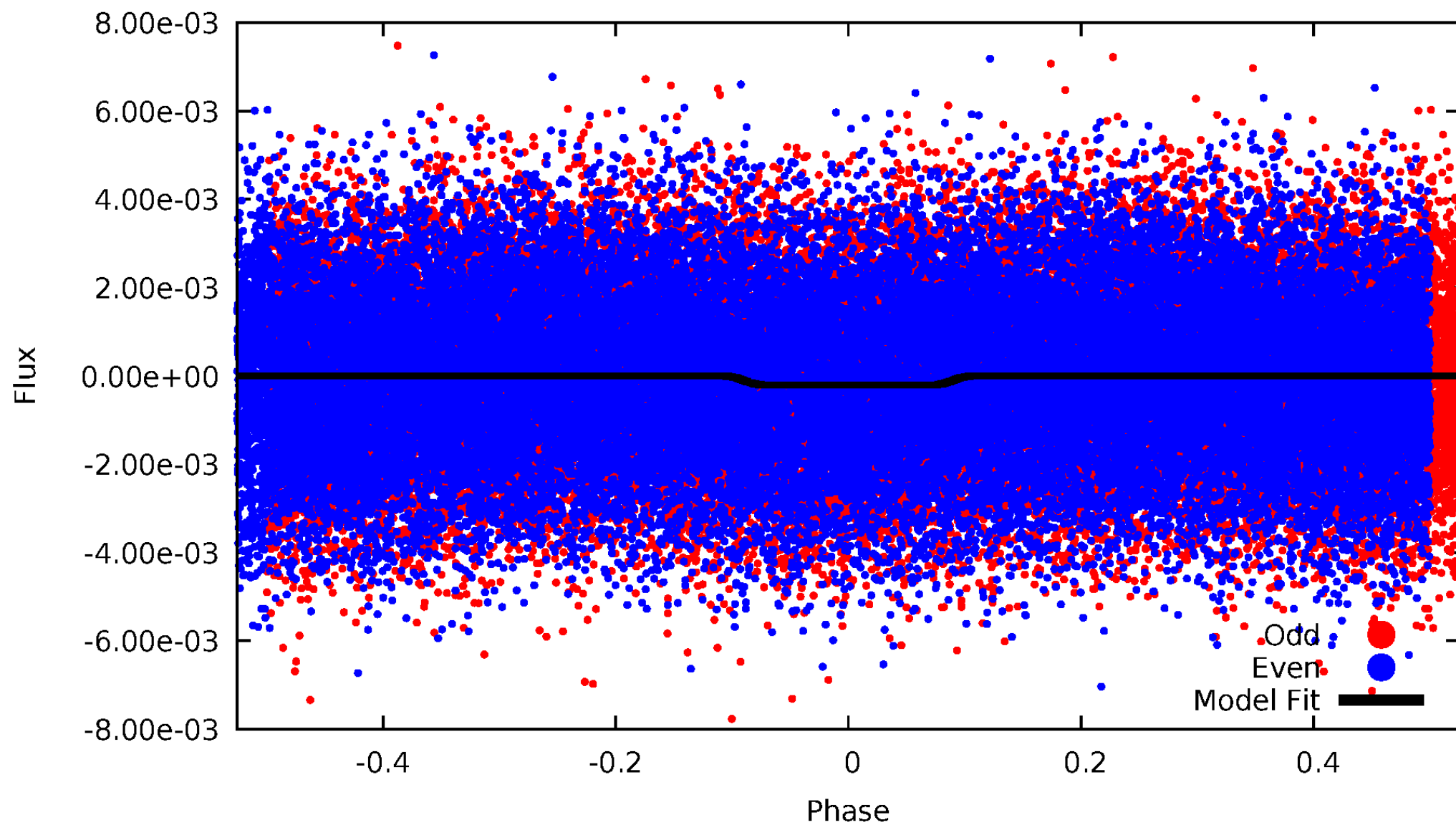
DV Odd/Even

TCE 006153233-01

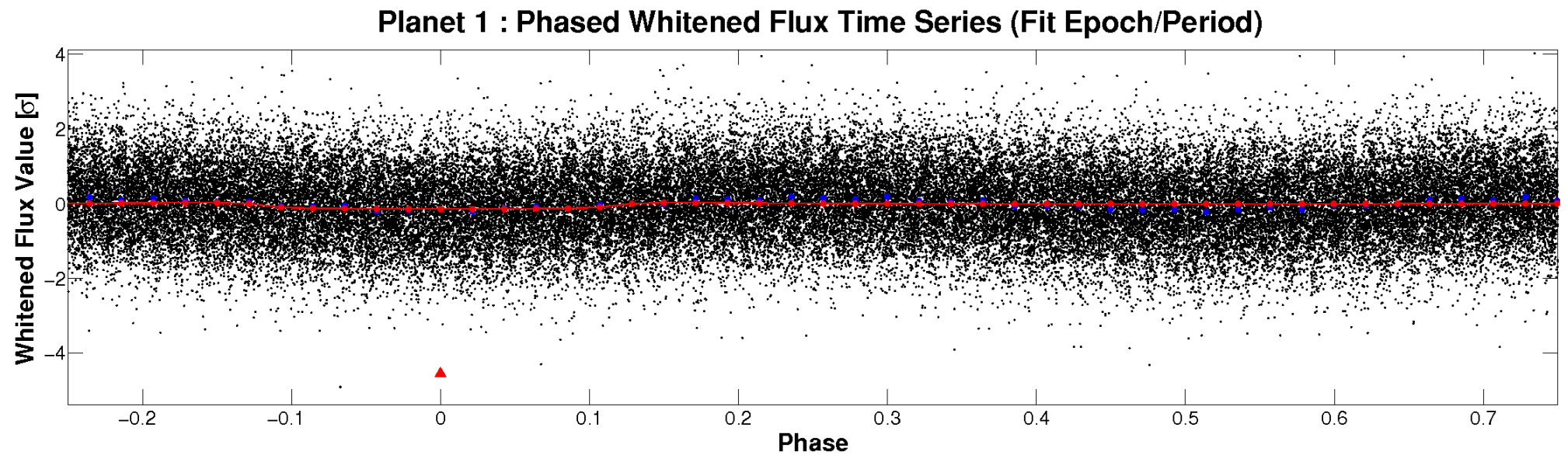
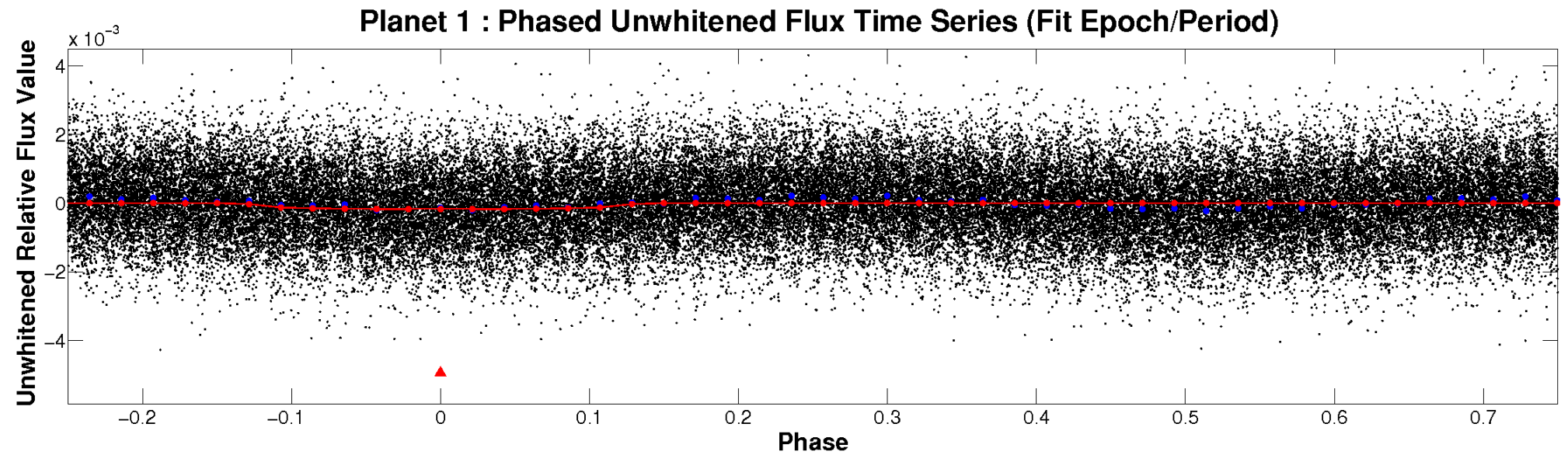


ALT Odd/Even

TCE 006153233-01

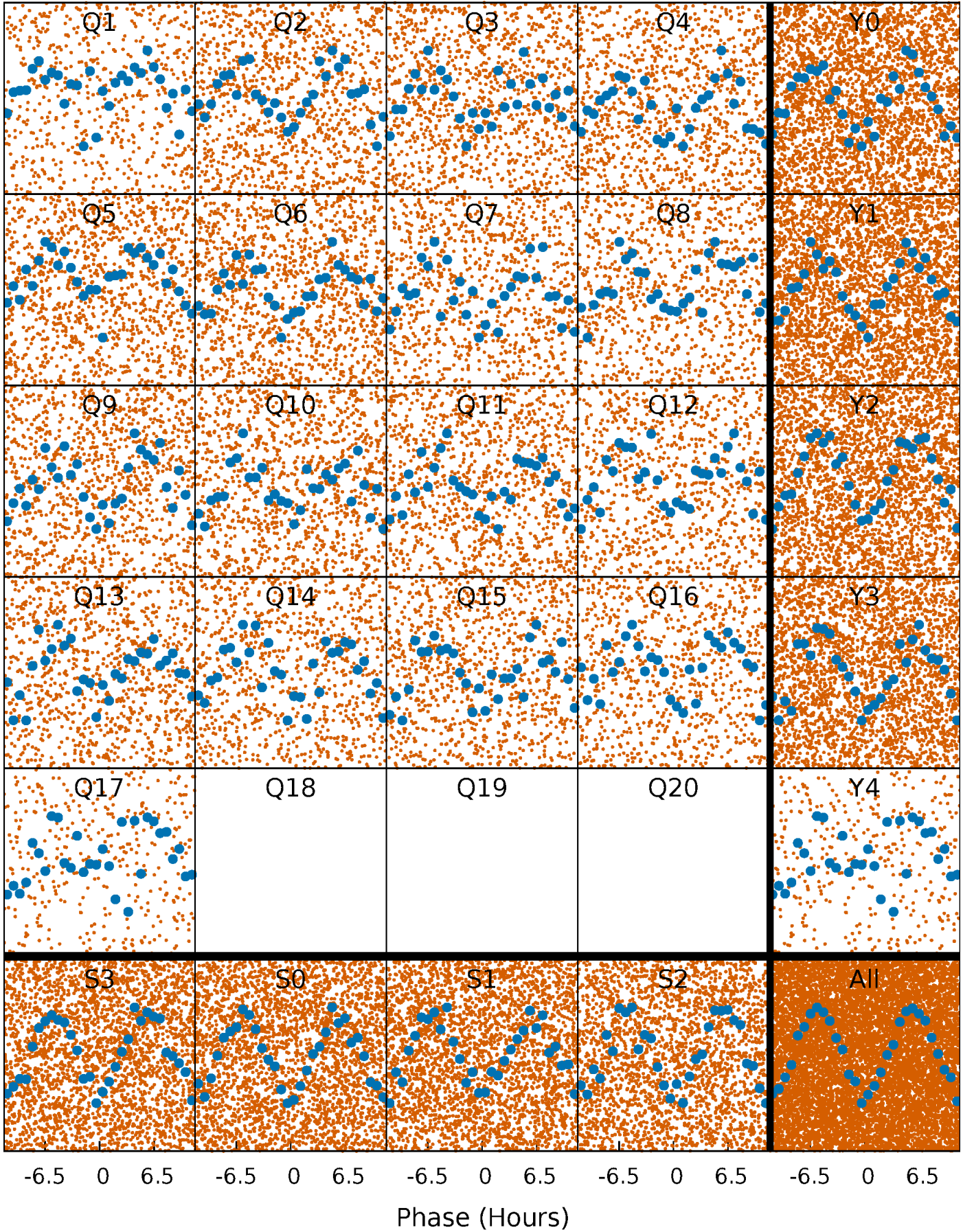


Non-Whitened Vs. Whitened Light Curve



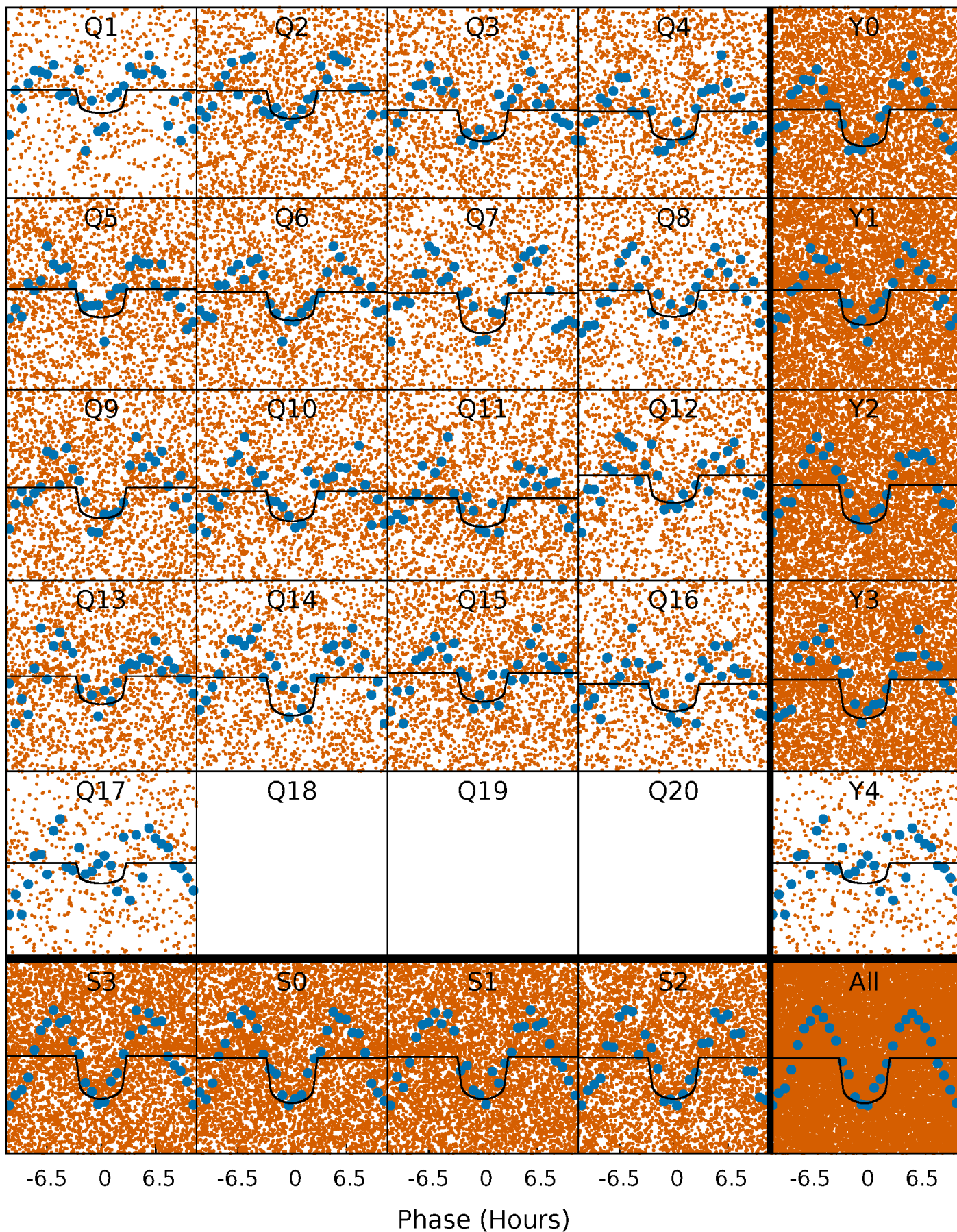
PDC Quarter-Phased Transit Curves

TCE 006153233-01 P= 0.954117 Days $T_0=131.657094$ (BKJD)



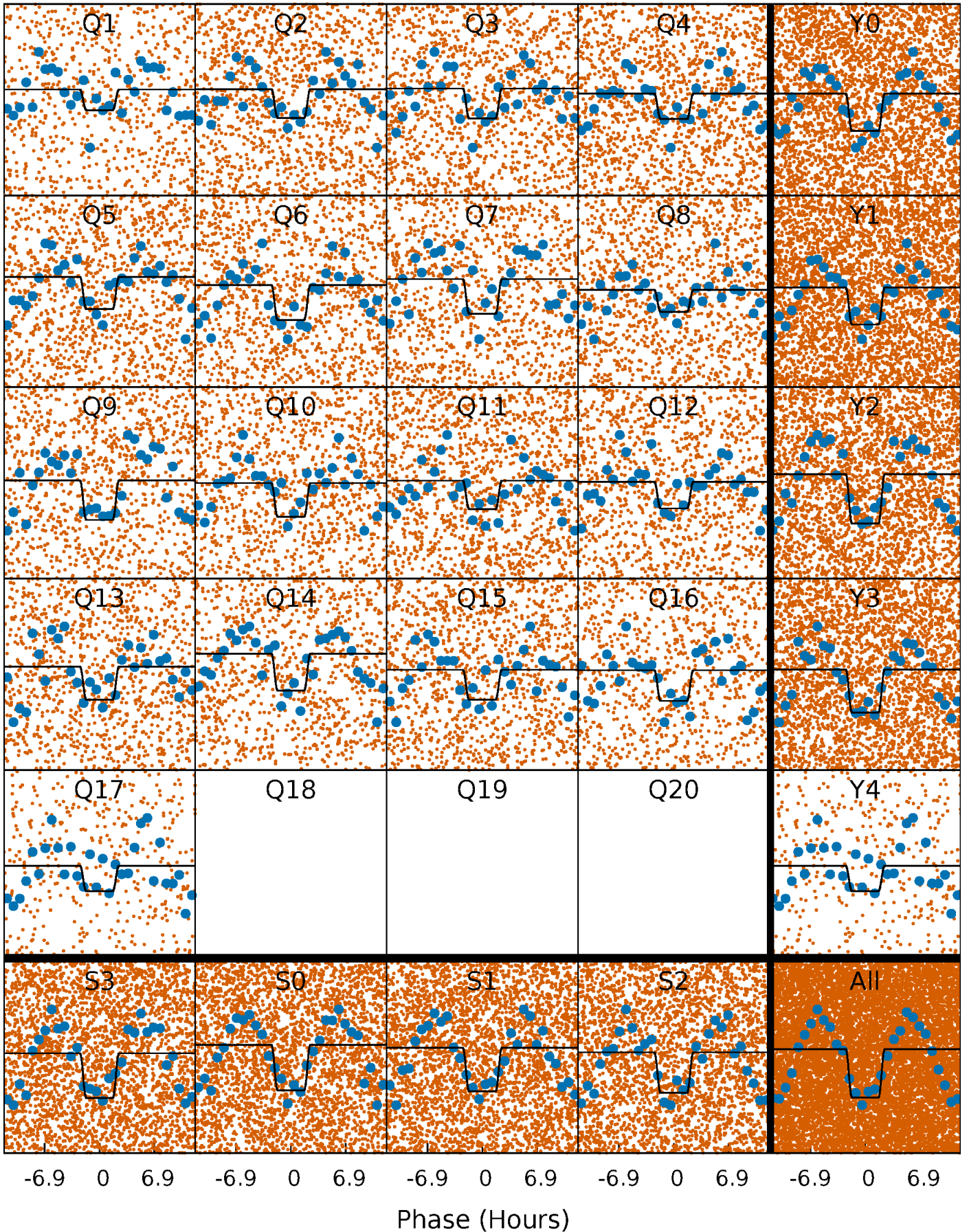
DV Quarter-Phased Transit Curves

TCE 006153233-01 P= 0.954117 Days $T_0=131.657094$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

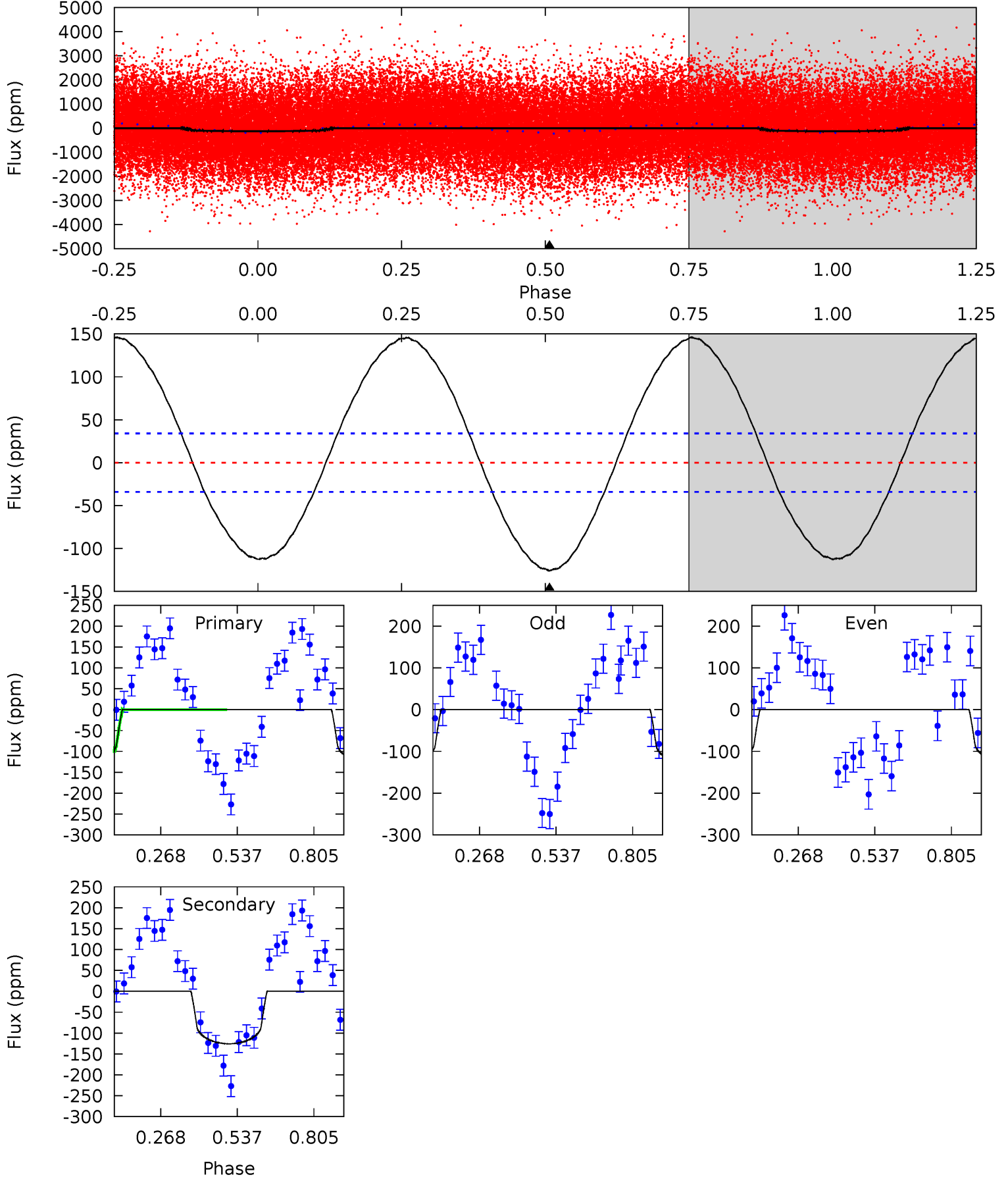
TCE 006153233-01 P= 0.954162 Days $T_0=131.628728$ (BKJD)



DV Model-Shift Uniqueness Test

006153233-01, P = 0.954117 Days, E = 130.702977 Days

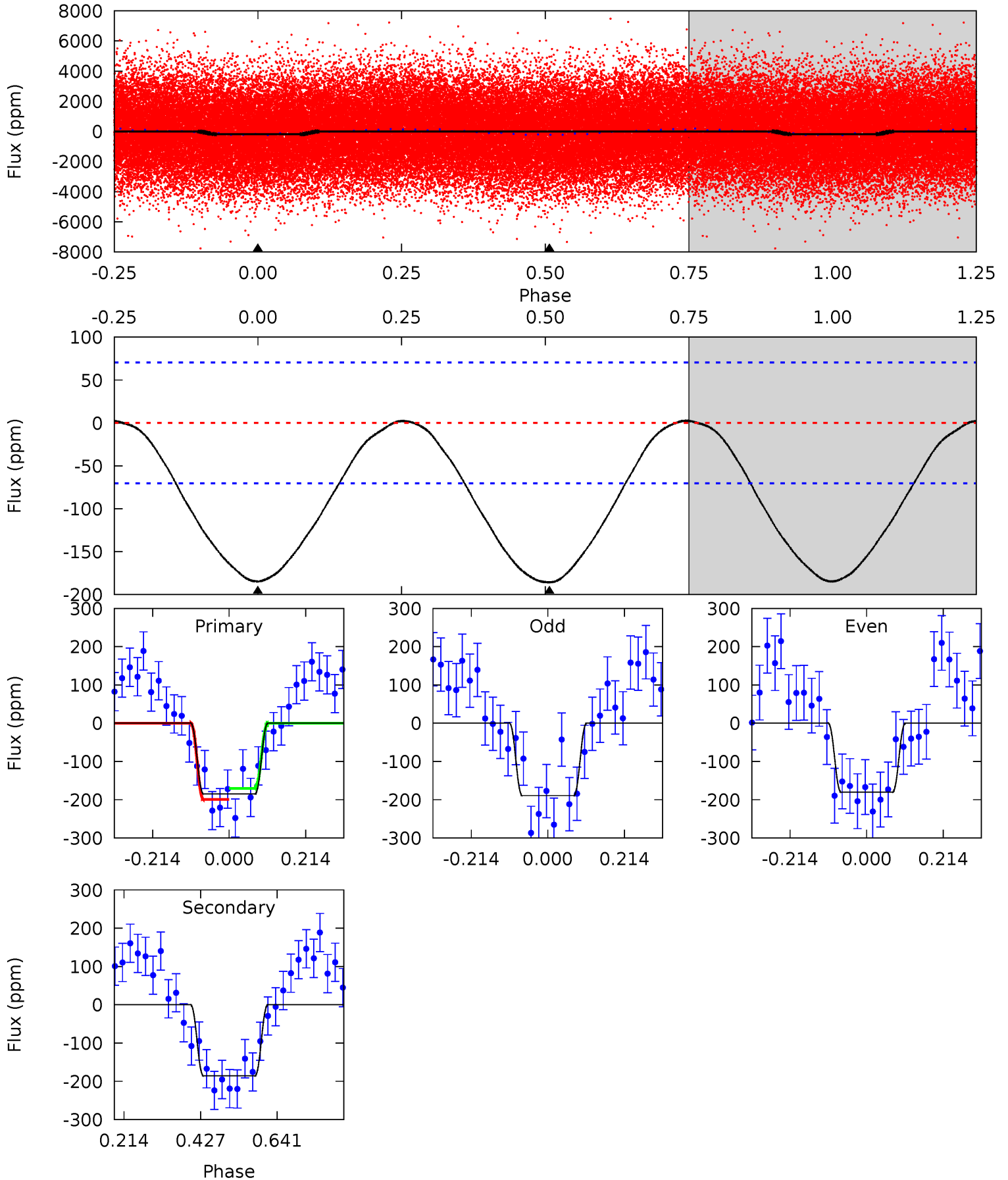
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	16.1	0	0	4.35	1.11	11.1	16.1	16.1	16.1	16.1	0.24	1.20	0.54	0.13



Alt Model-Shift Uniqueness Test

006153233-01, P = 0.954162 Days, E = 130.674566 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	11.6	0	0	4.40	1.24	0.19	11.5	11.5	11.6	11.6	0.28	1.20	0.01	0.89



Stellar Parameters For KIC 006153233

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7088^{+197}_{-338}	$4.269^{+0.075}_{-0.225}$	$0.070^{+0.200}_{-0.350}$	$1.474^{+0.529}_{-0.189}$	$1.472^{+0.214}_{-0.214}$	$0.648^{+0.255}_{-0.361}$
	+3%/-5%	+2%/-5%	+286%/-500%	+36%/-13%	+15%/-15%	+39%/-56%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006153233-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-126 ± 8	$2.21^{+1.51}_{-1.27}$	3658^{+287}_{-219}	6405^{+4580}_{-1530}	$6.371^{+29.267}_{-4.085}$
Alt.	-186 ± 16	$2.57^{+1.63}_{-1.44}$	3672^{+299}_{-219}	6547^{+4419}_{-1386}	$7.005^{+28.487}_{-4.350}$

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 $A_{obs} \gg 1.0$

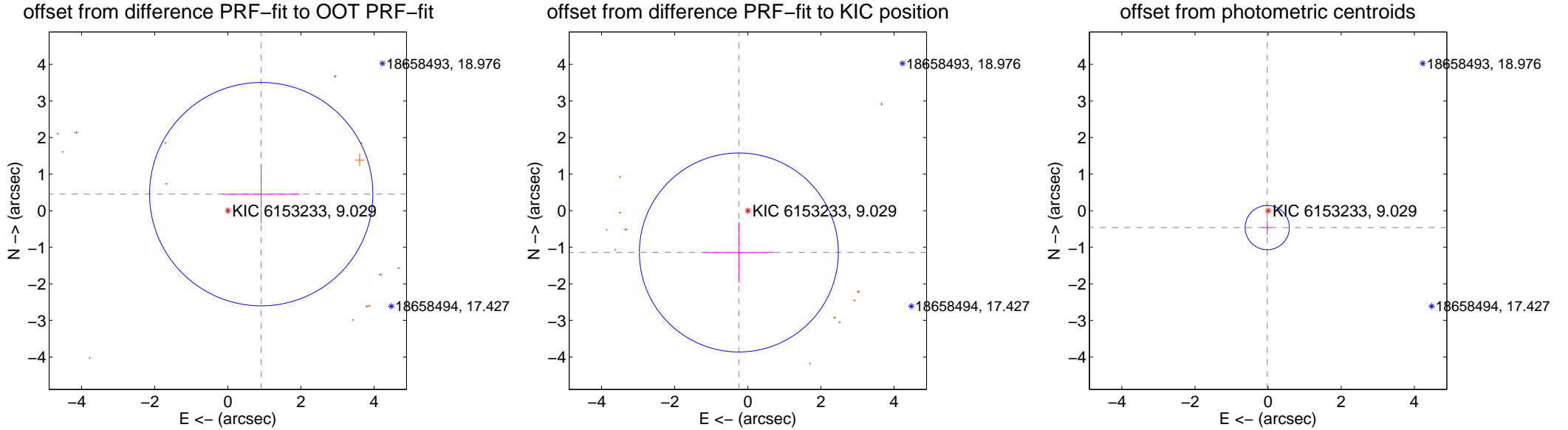
DV Centroid Data

Supplemental centroid analysis for 006153233-01. **Kepler magnitude: 9.03.** Transit SNR 16.58

There are 0 quarters with good PRF difference image offsets

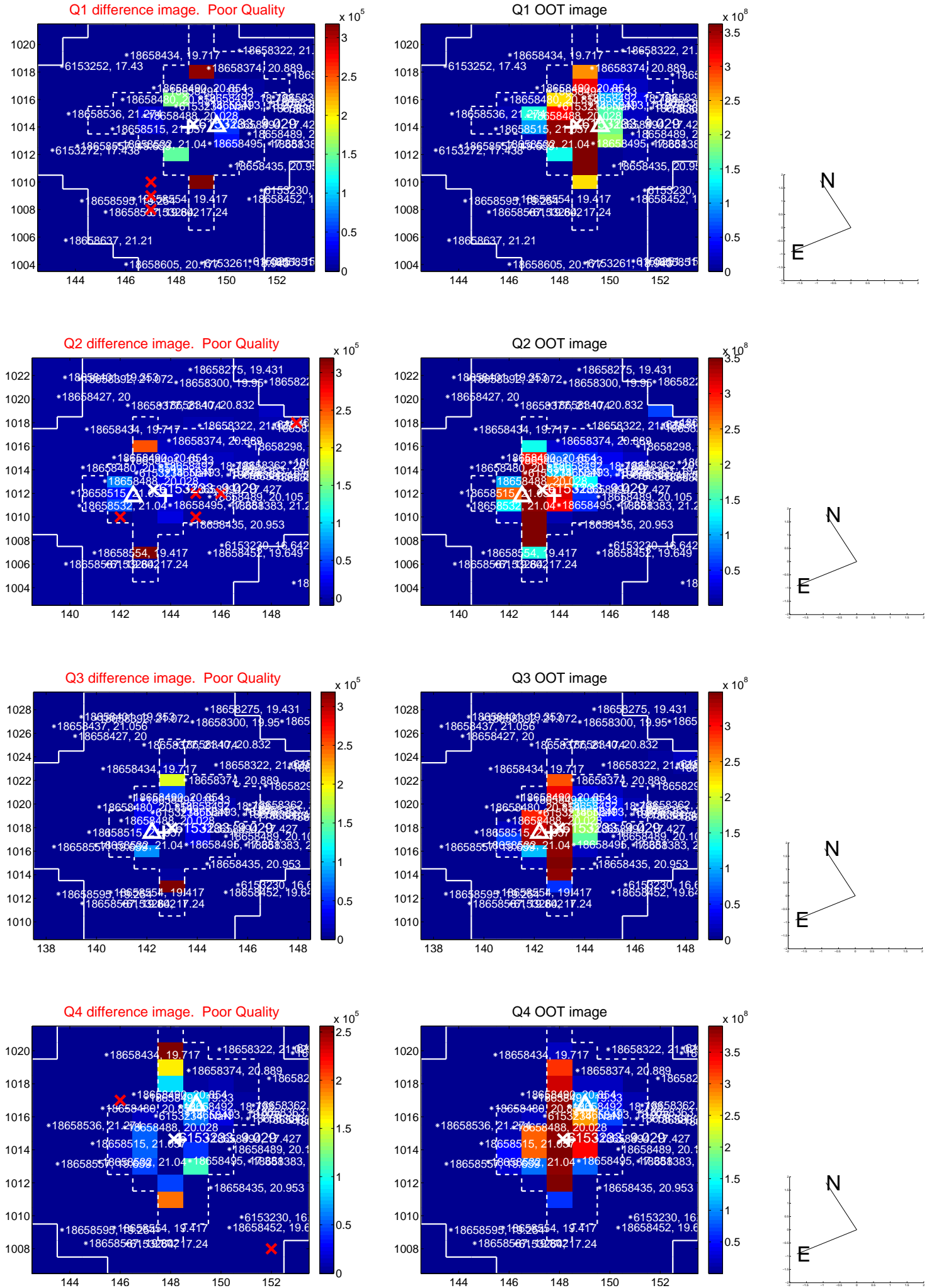
The direct PRF centroid is offset from the target star catalog position by about 1.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.019 ± 1.018	1.00	-0.914 ± 1.066	0.452 ± 0.790
PRF-fit source offset from KIC position	1.169 ± 0.907	1.29	0.246 ± 0.969	-1.142 ± 0.829
photometric centroid source offset	0.46 ± 0.20	2.30	0.02 ± 0.12	-0.46 ± 0.20

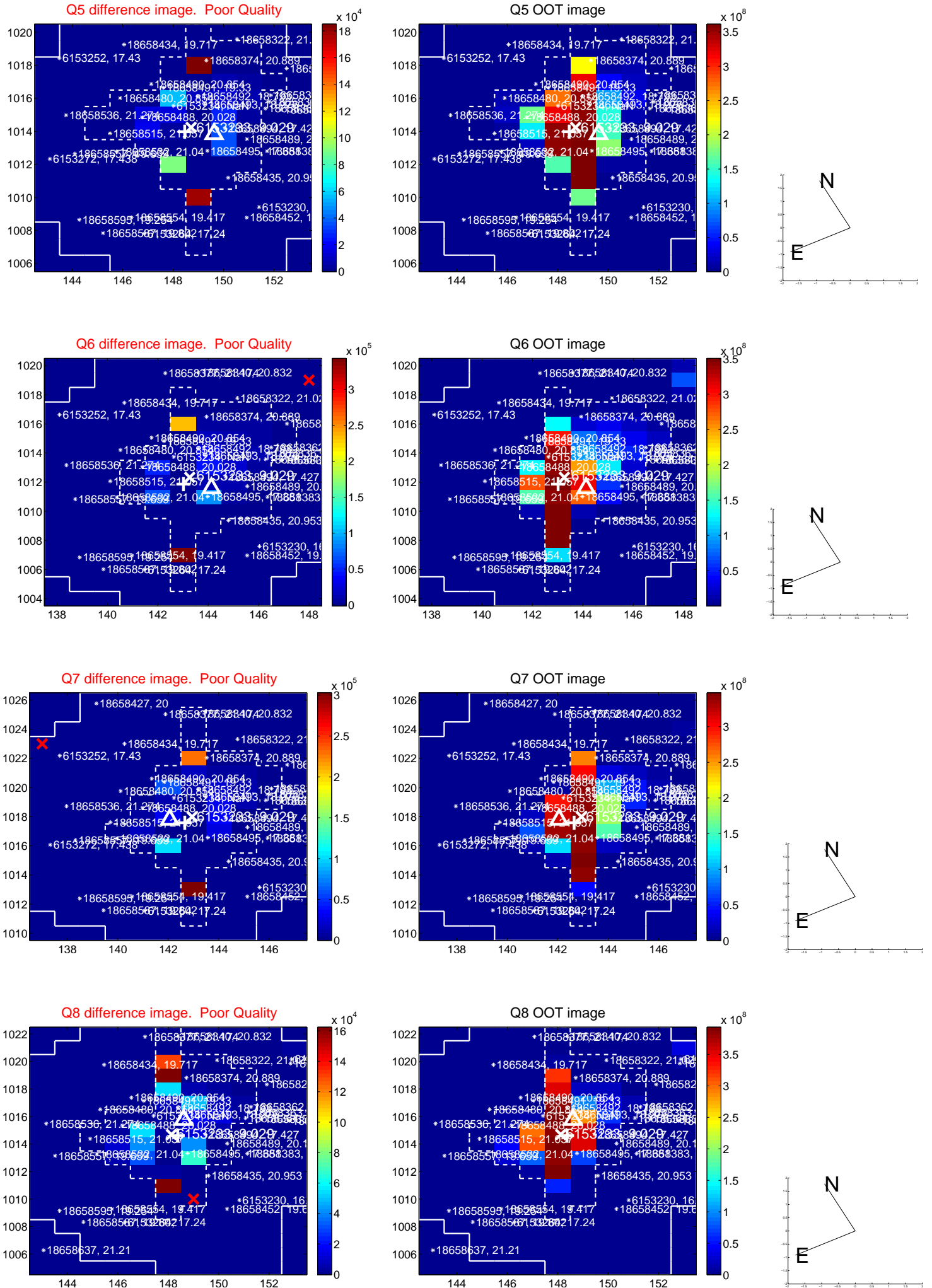


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

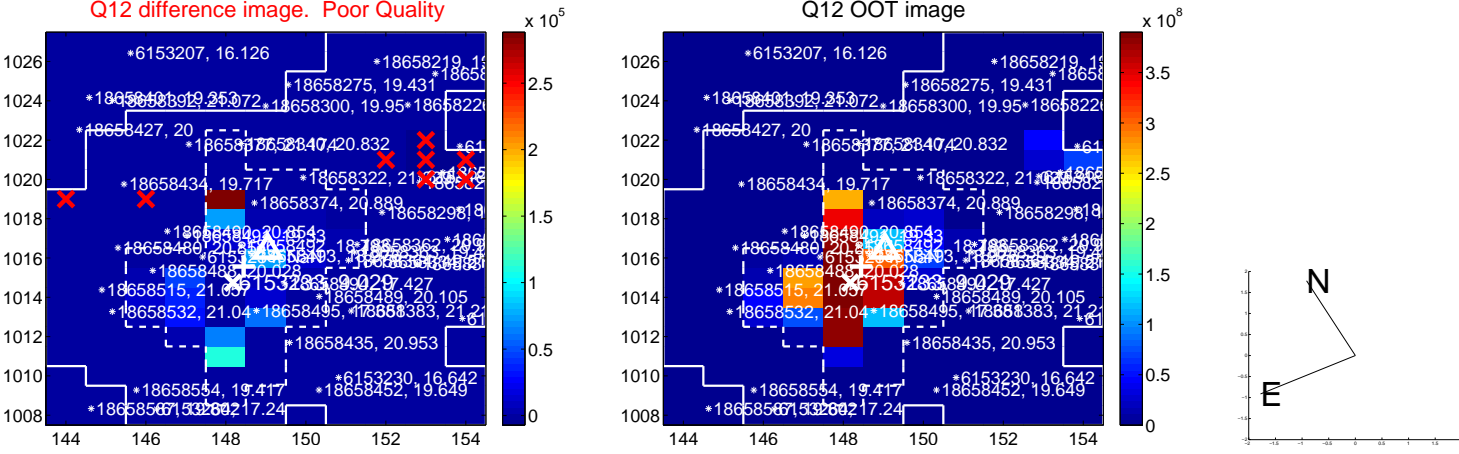
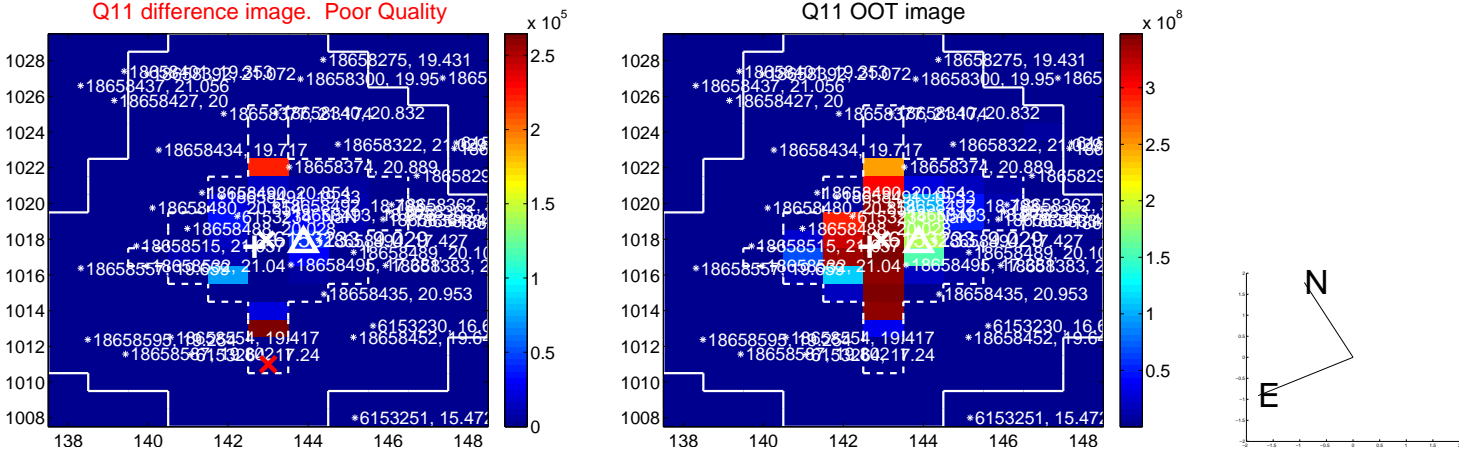
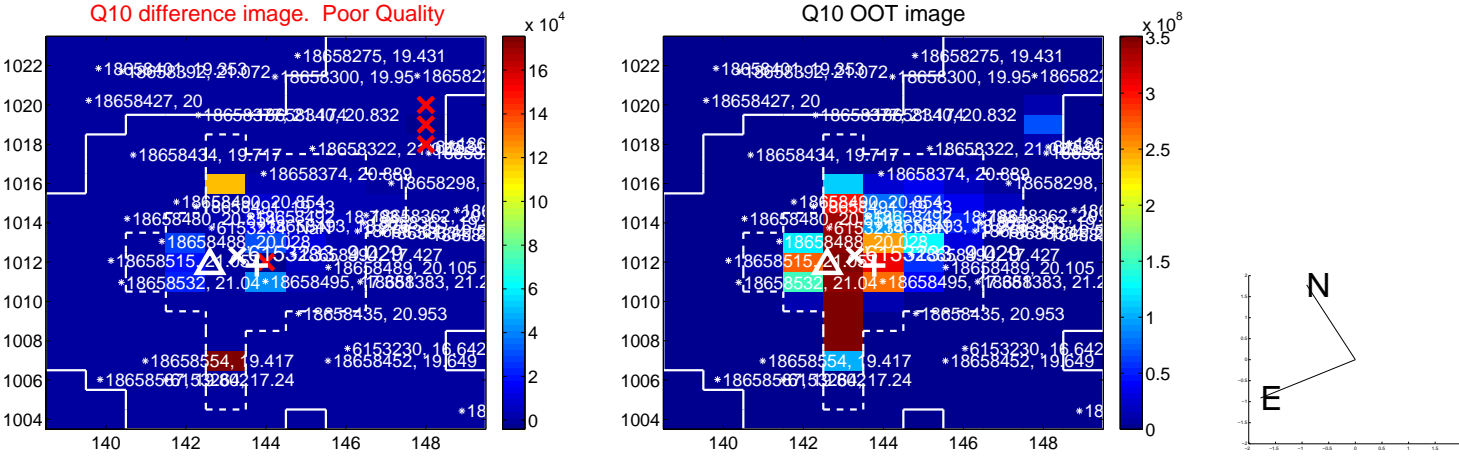
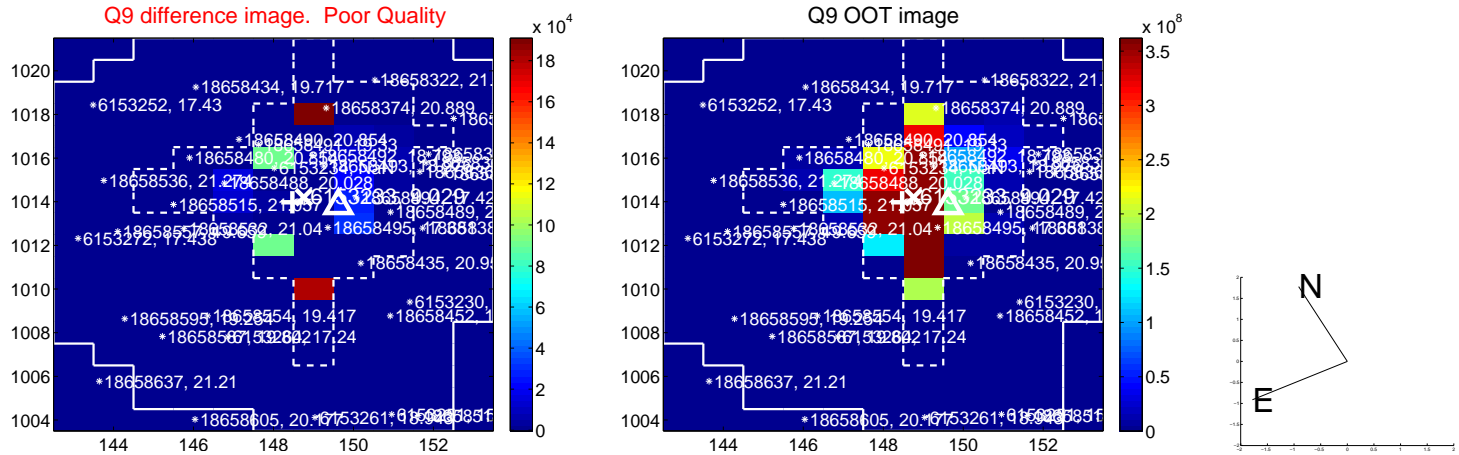
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



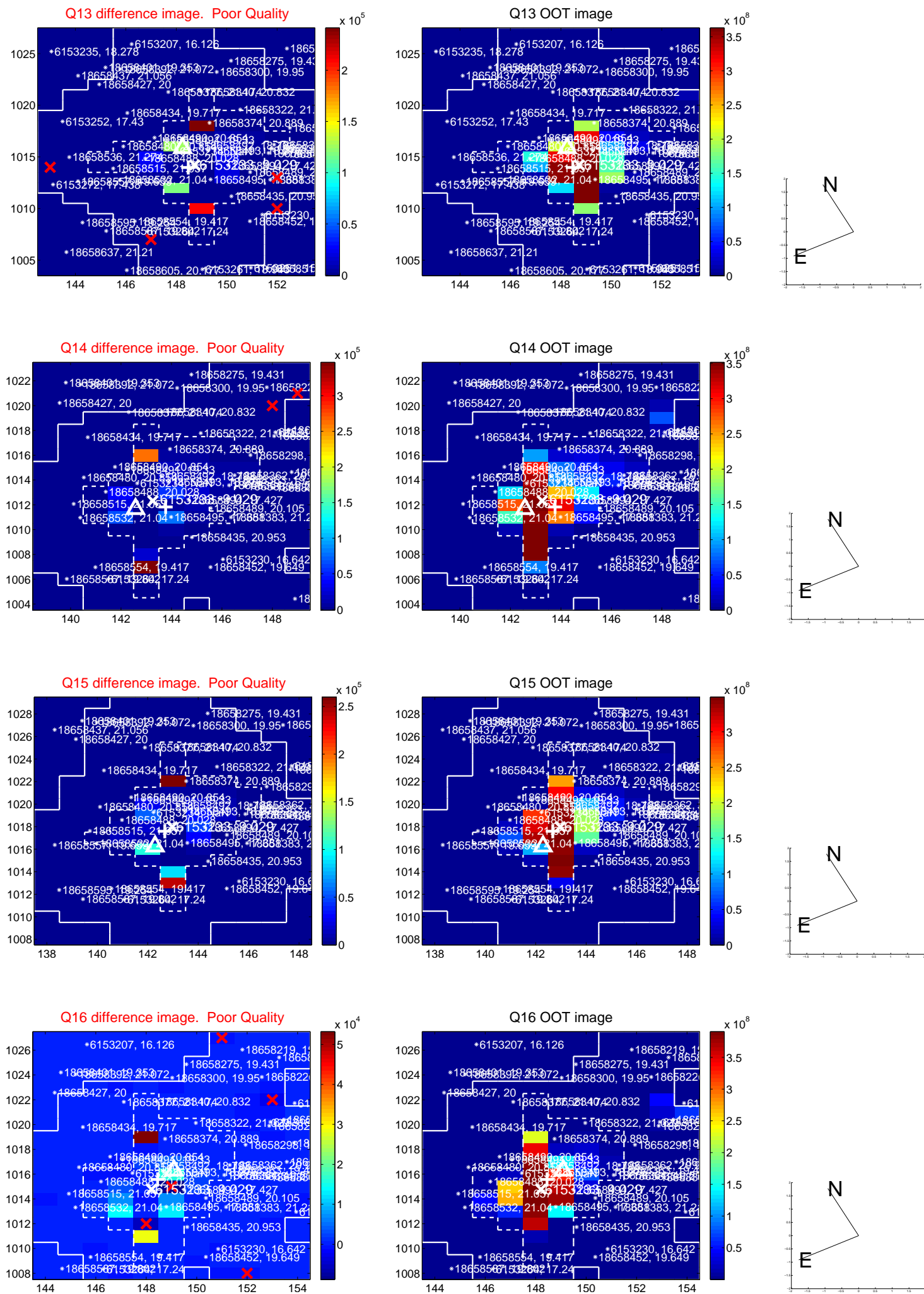
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



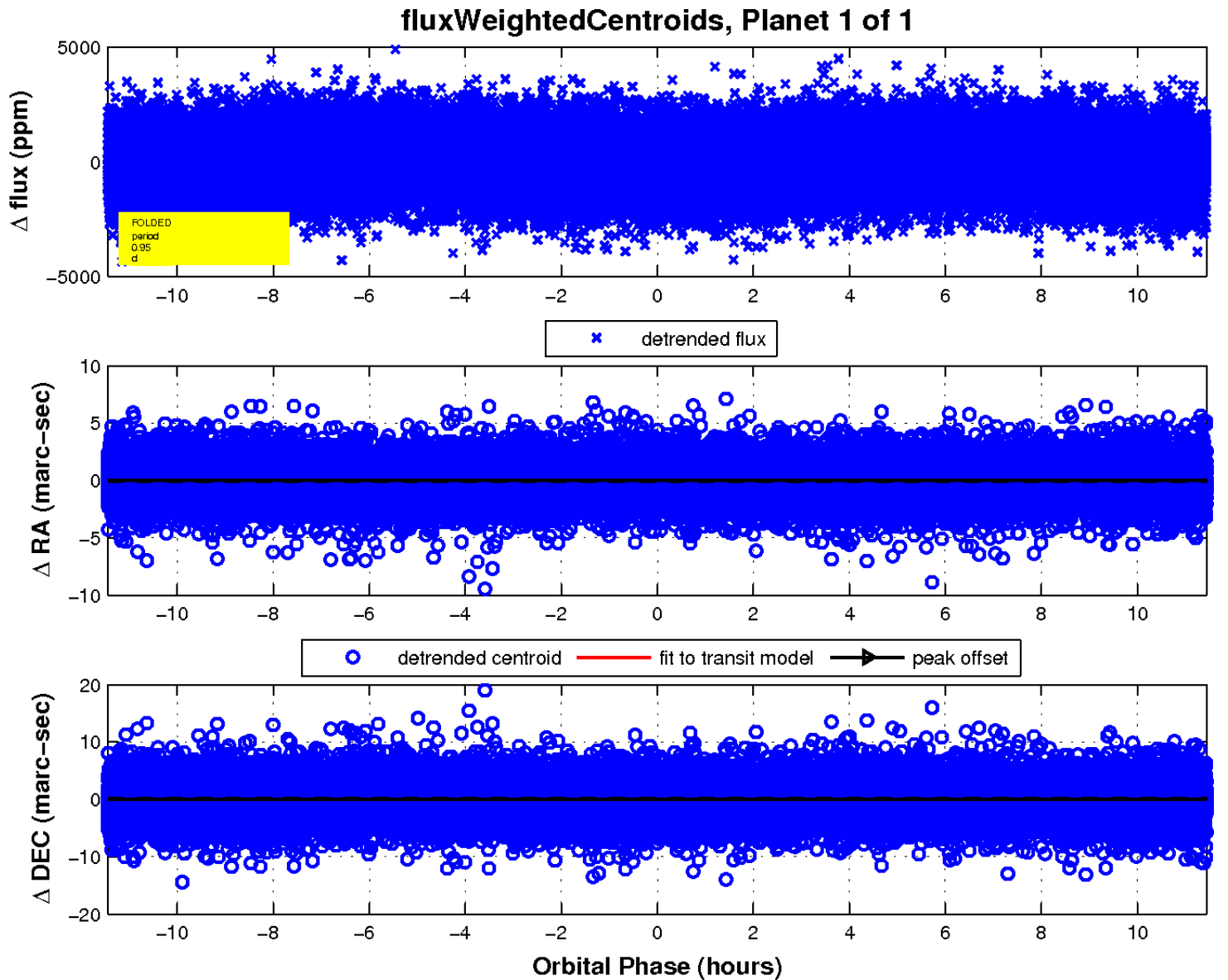
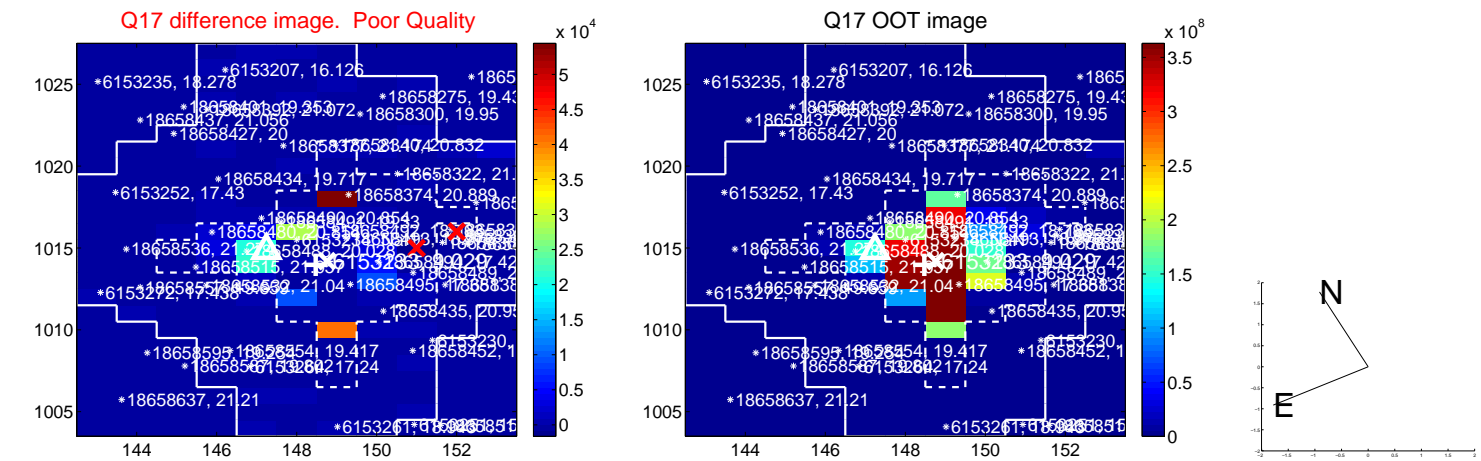
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UKIRT Image

