

KIC 008643582

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})
008643582-01	OBS	No	2.991048	132.034942	2.1	22.297	7.1	4.4	4.53	8570	0.67	31767.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008643582-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_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.

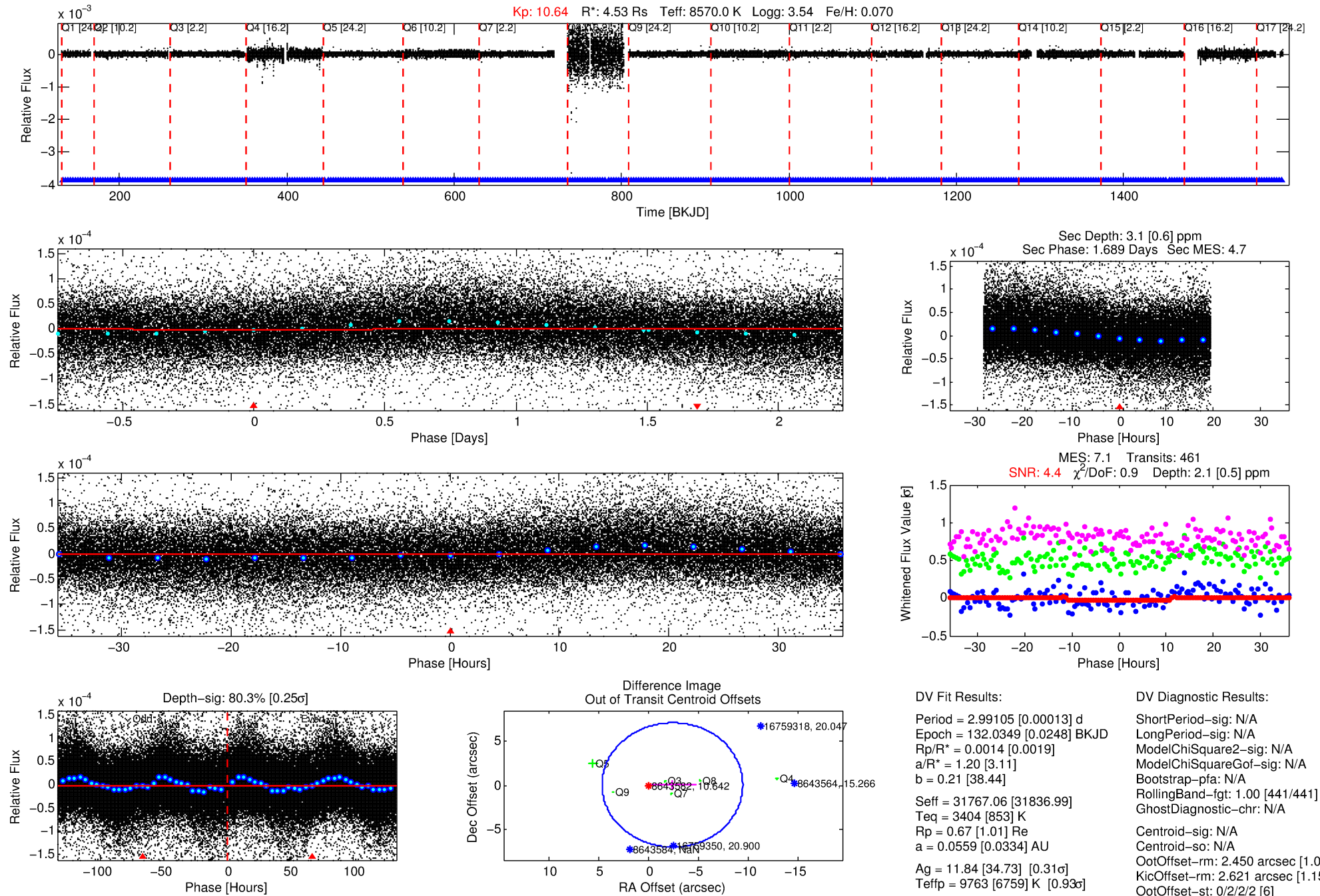
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008643582-01

No Significant Match Found

DV One-Page Summary

KIC: 8643582 Candidate: 1 of 1 Period: 2.991 d



DV Fit Results:

Period = 2.99105 [0.00013] d
Epoch = 132.0349 [0.0248] BKJD
Rp/R* = 0.0014 [0.0019]
a/R* = 1.20 [3.11]
b = 0.21 [38.44]
Seff = 31767.06 [31836.99]
Teq = 3404 [853] K
Rp = 0.67 [1.01] Re
a = 0.0559 [0.0334] AU
Ag = 11.84 [34.73] [0.31σ]
Teffp = 9763 [6759] K [0.93σ]

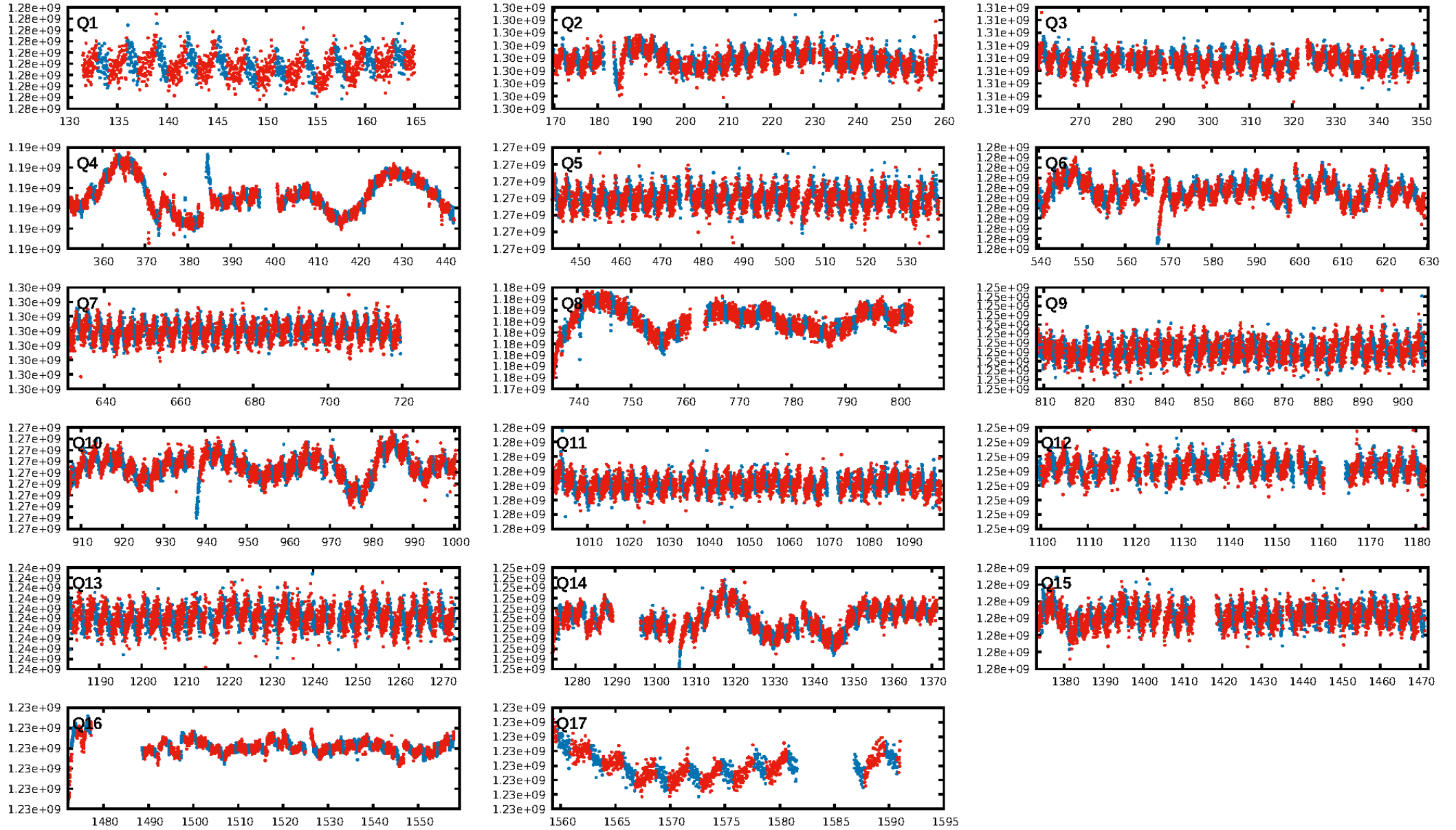
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [441/441]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.450 arcsec [1.04σ]
KicOffset-rm: 2.621 arcsec [1.15σ]
OotOffset-st: 0/2/2/2 [6]
KicOffset-st: 0/2/2/2 [6]
DiffImageQuality-fgm: 0.00 [0/6]
DiffImageOverlap-fno: 1.00 [17/17]

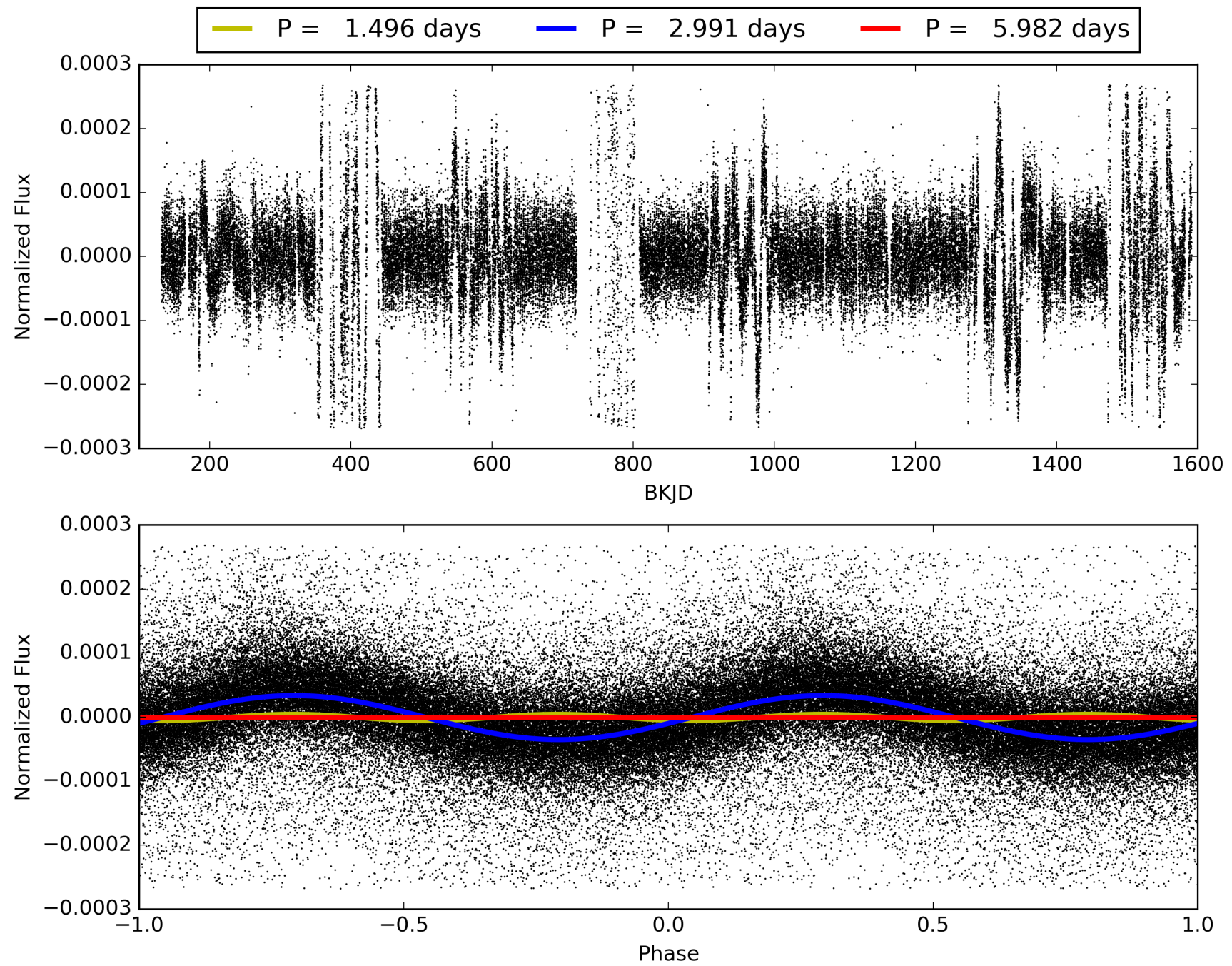
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:52:46 Z

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

TCE 008643582-01, PDC Light Curves

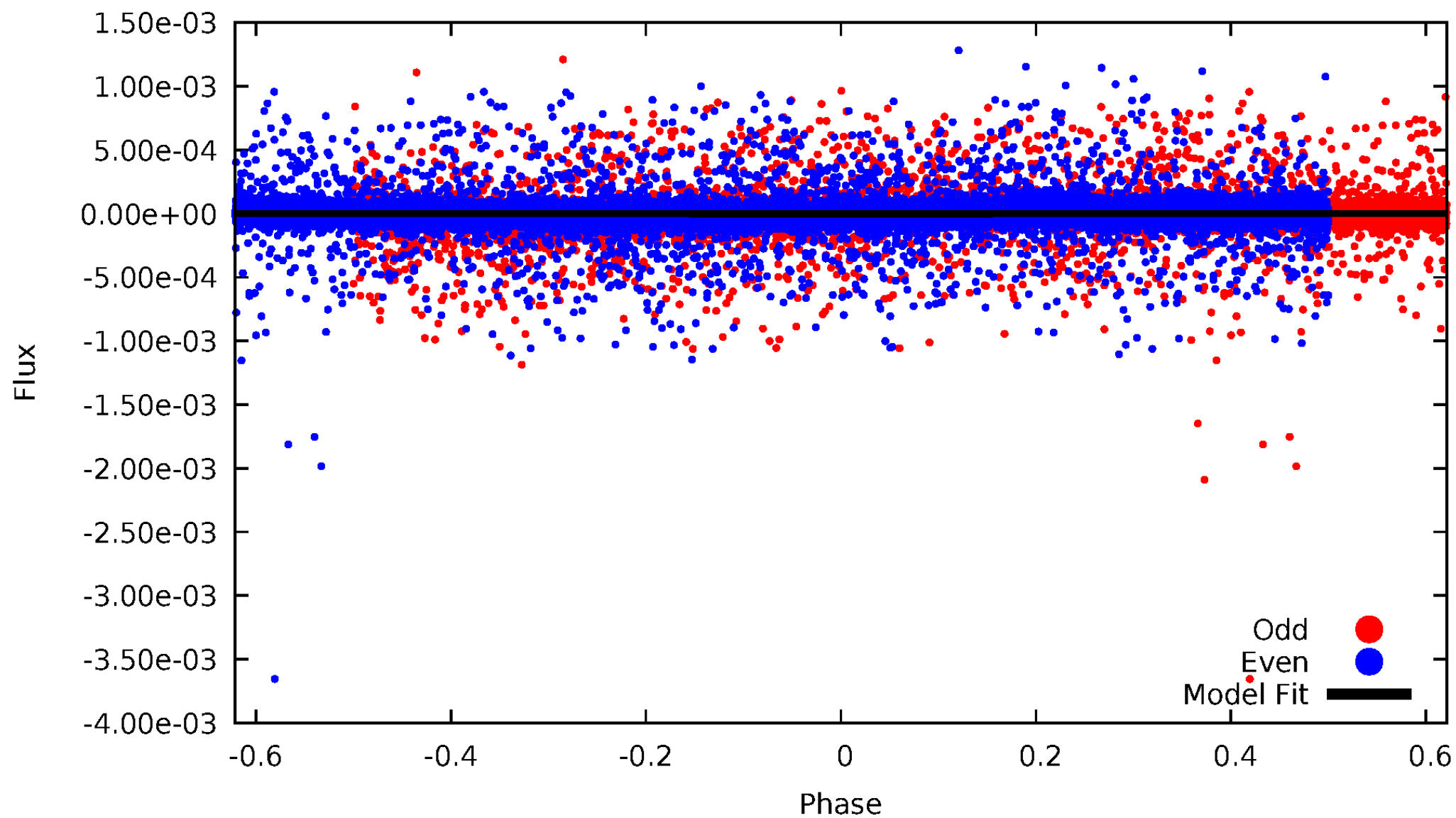


TCE 008643582-01



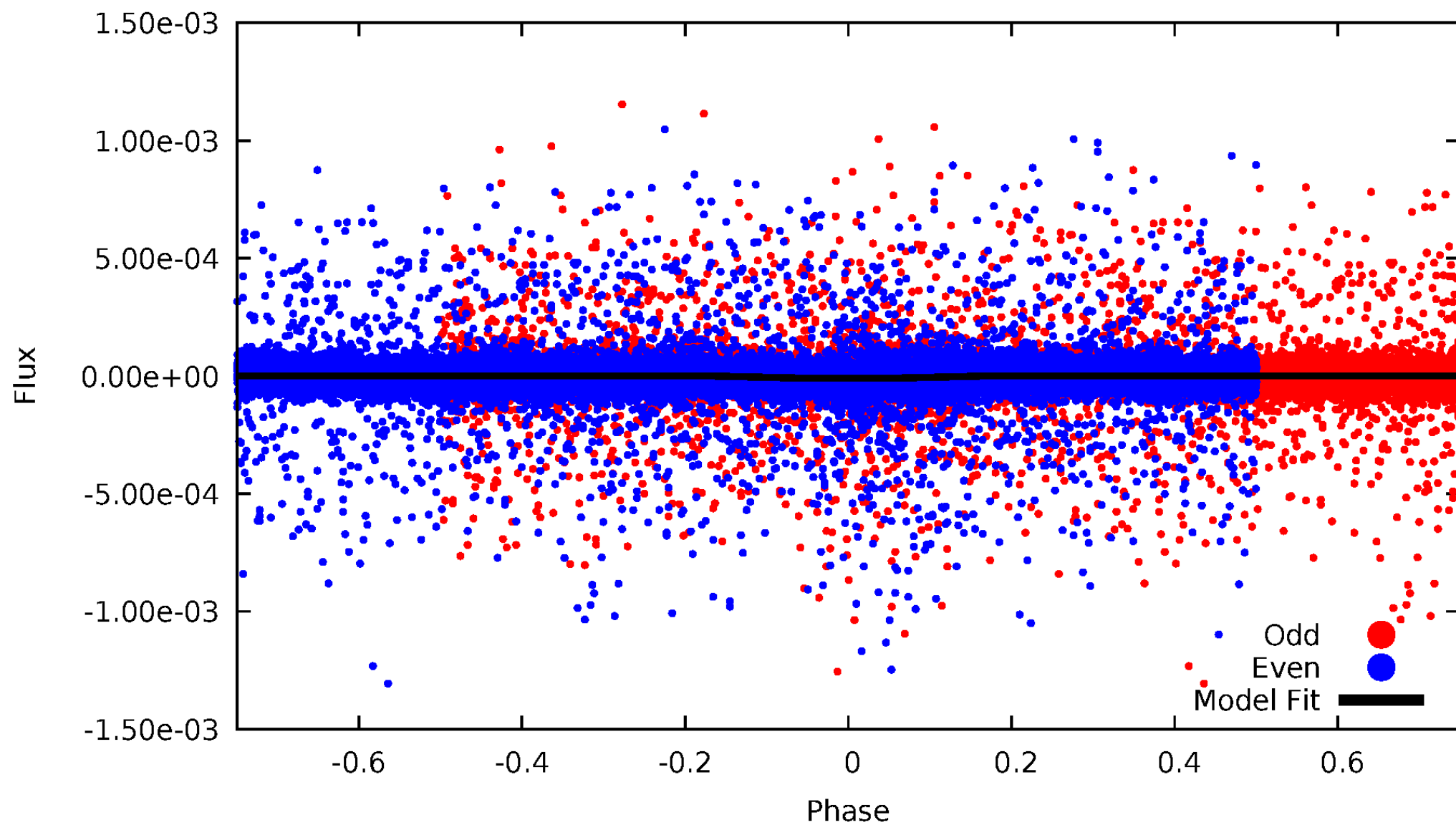
DV Odd/Even

TCE 008643582-01

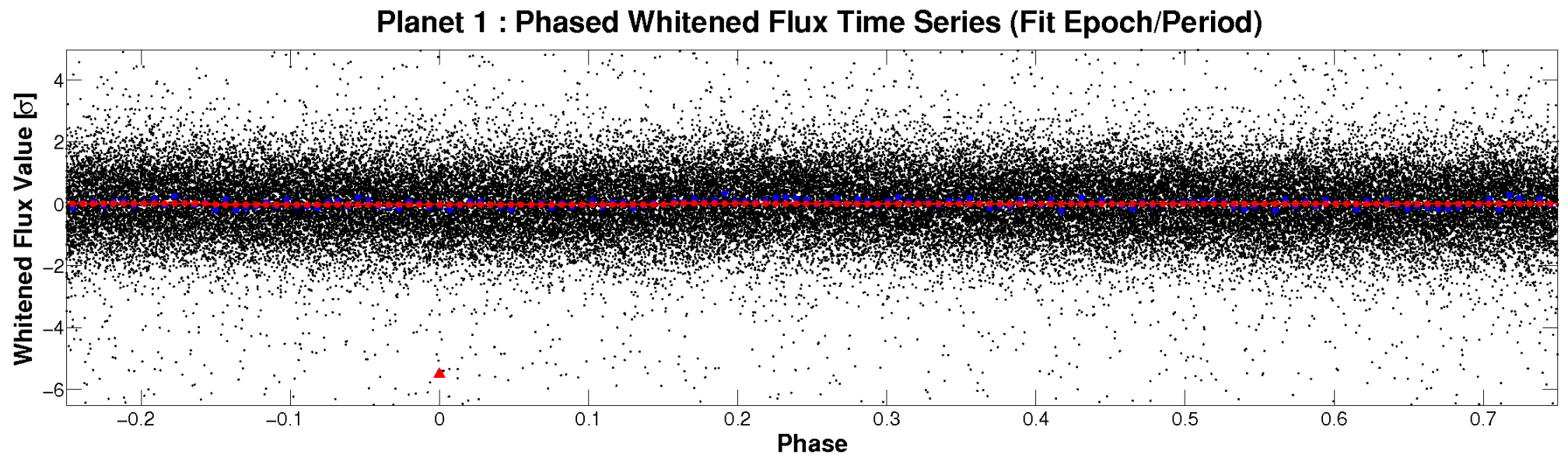
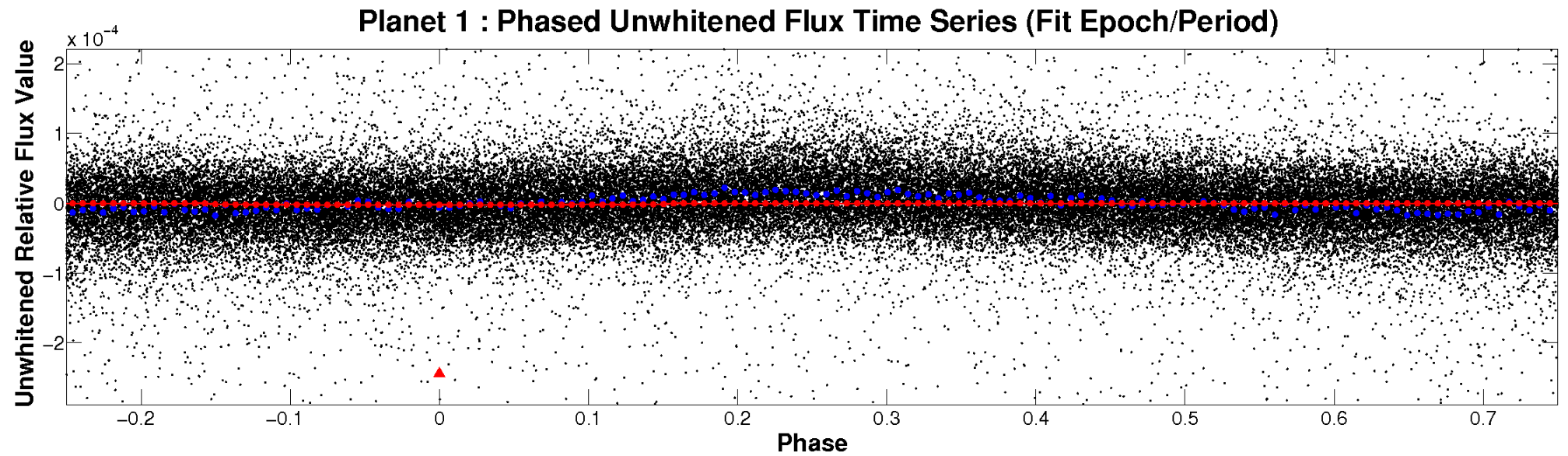


ALT Odd/Even

TCE 008643582-01

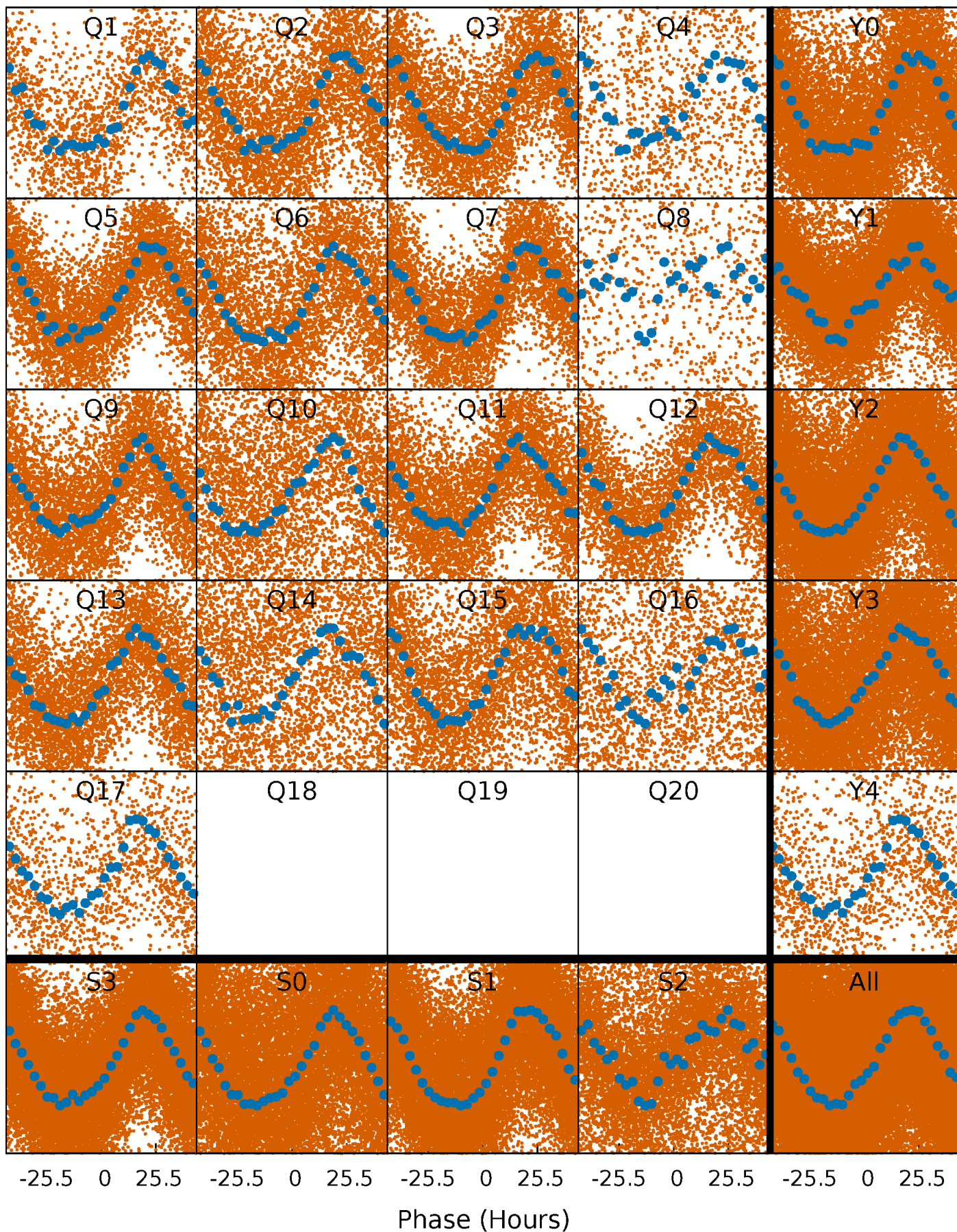


Non-Whitened Vs. Whitened Light Curve



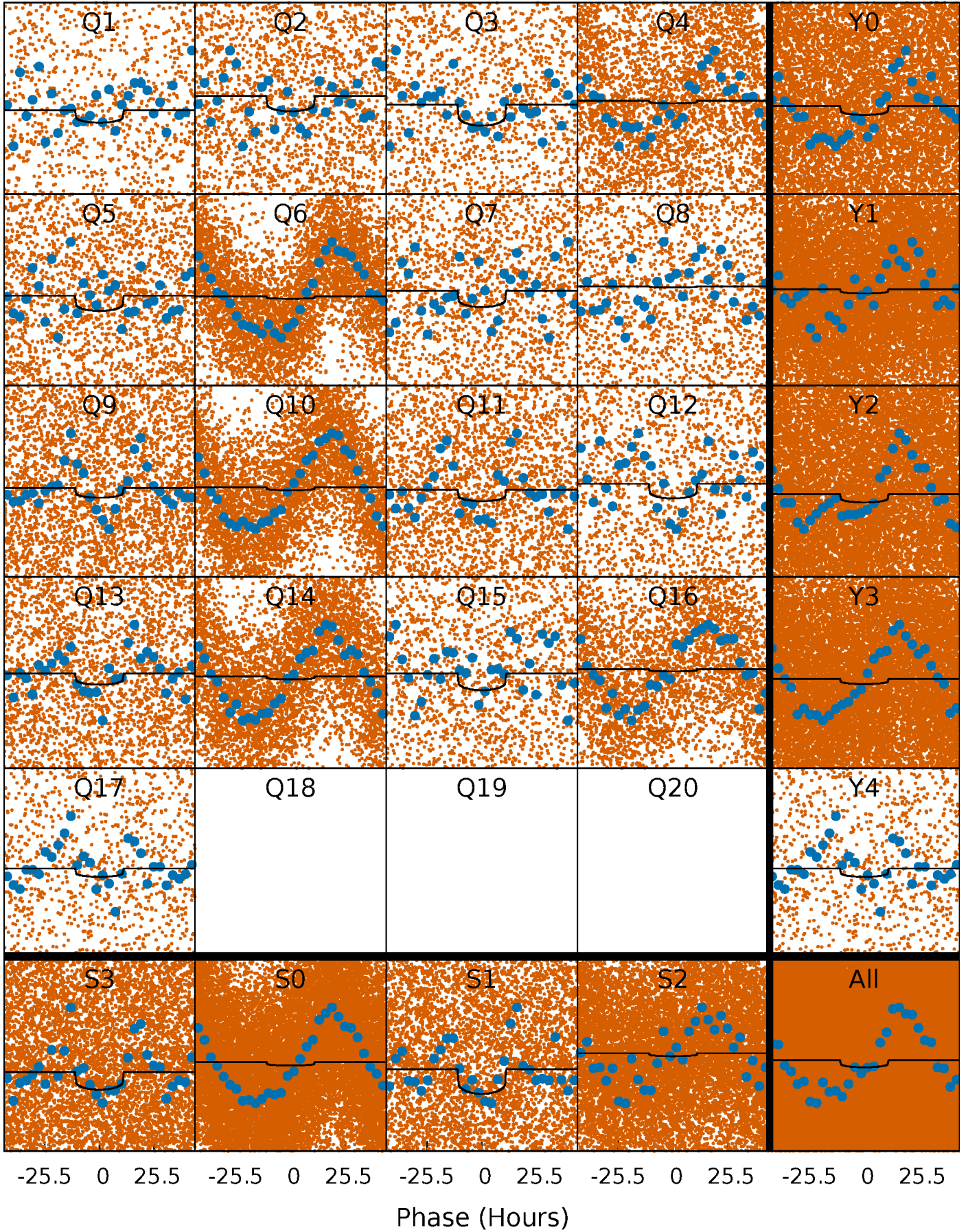
PDC Quarter-Phased Transit Curves

TCE 008643582-01 P= 2.991048 Days $T_0=132.034942$ (BKJD)



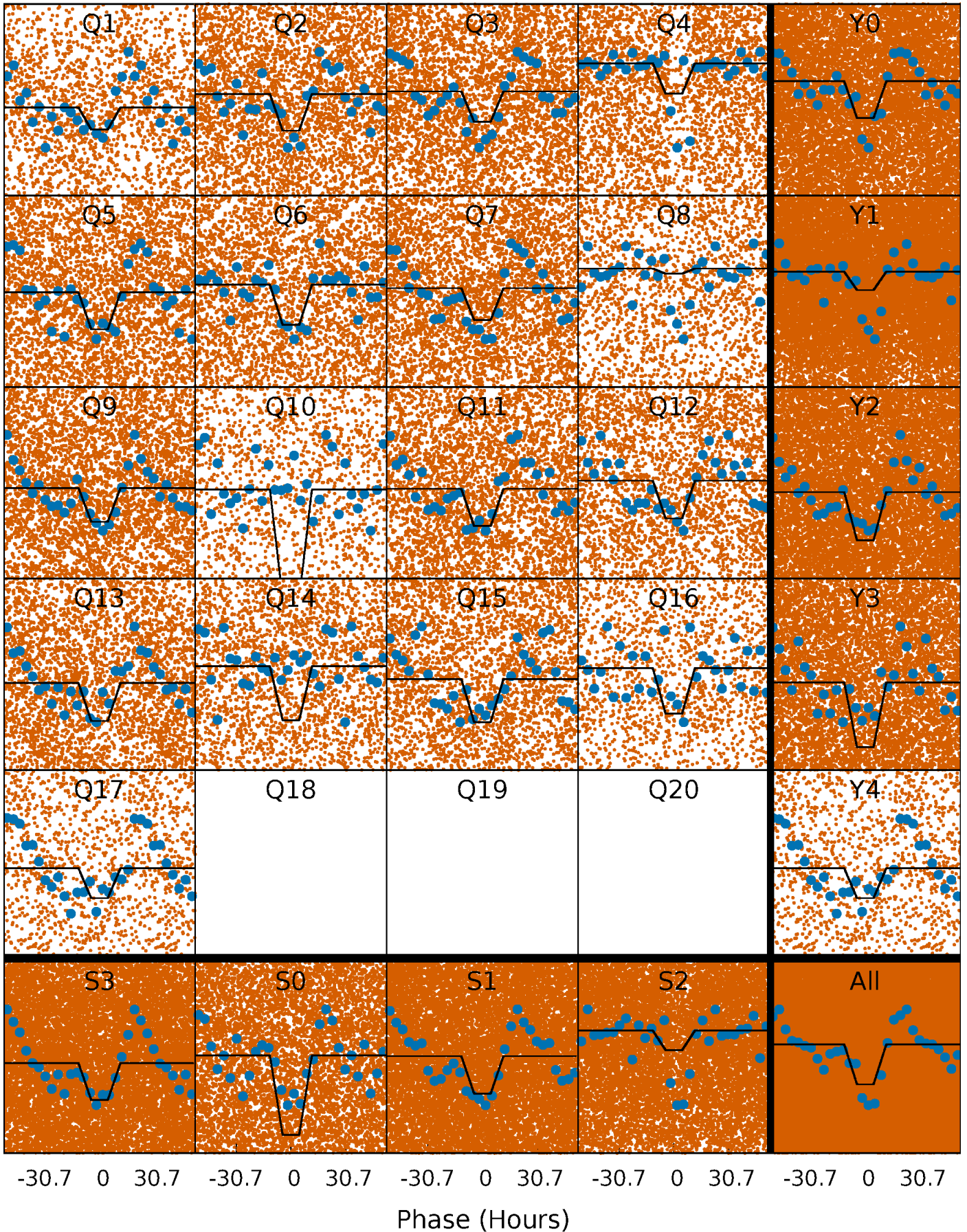
DV Quarter-Phased Transit Curves

TCE 008643582-01 P= 2.991048 Days $T_0=132.034942$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

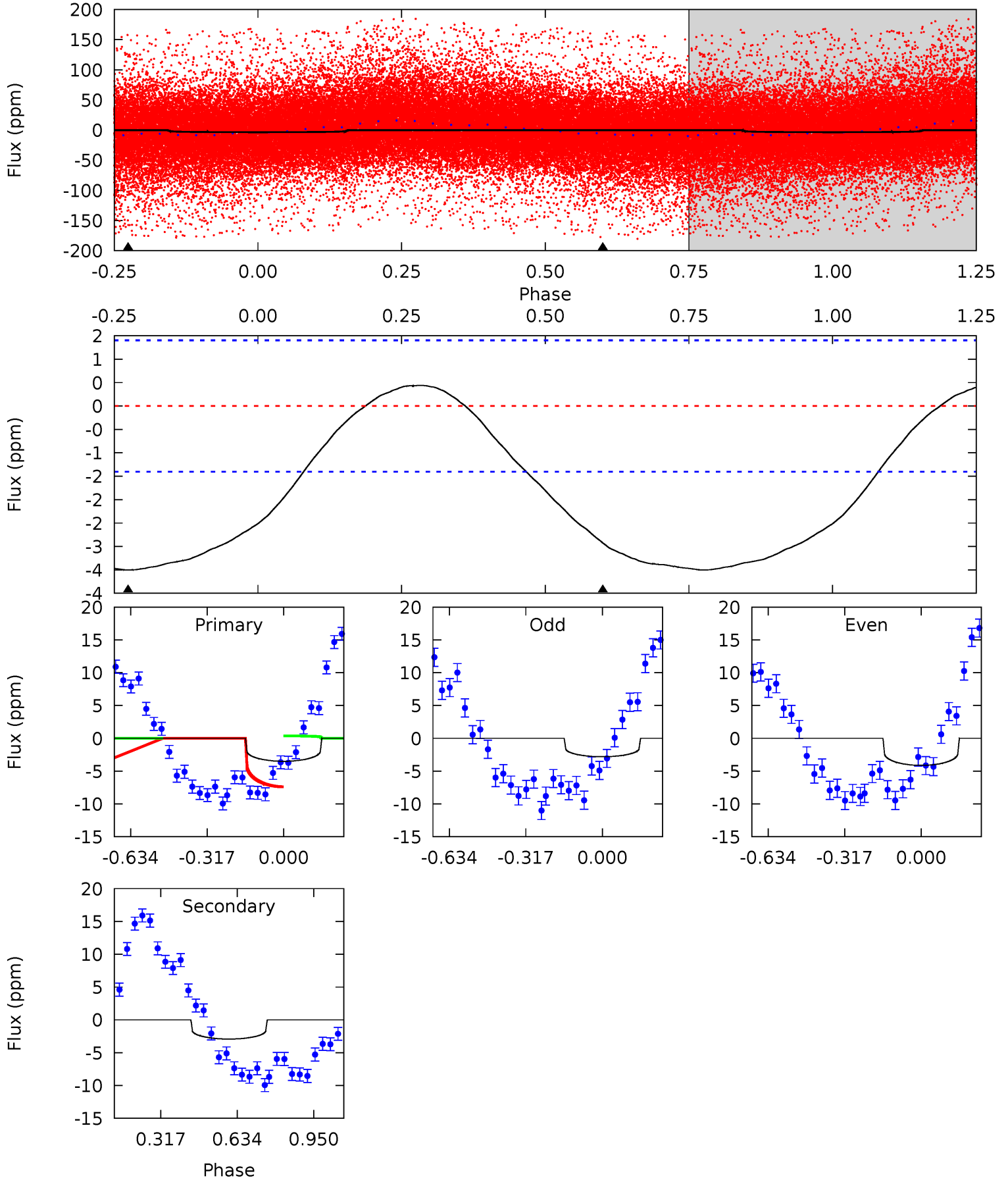
TCE 008643582-01 P= 2.990095 Days $T_0=132.220633$ (BKJD)



DV Model-Shift Uniqueness Test

008643582-01, P = 2.991048 Days, E = 129.043894 Days

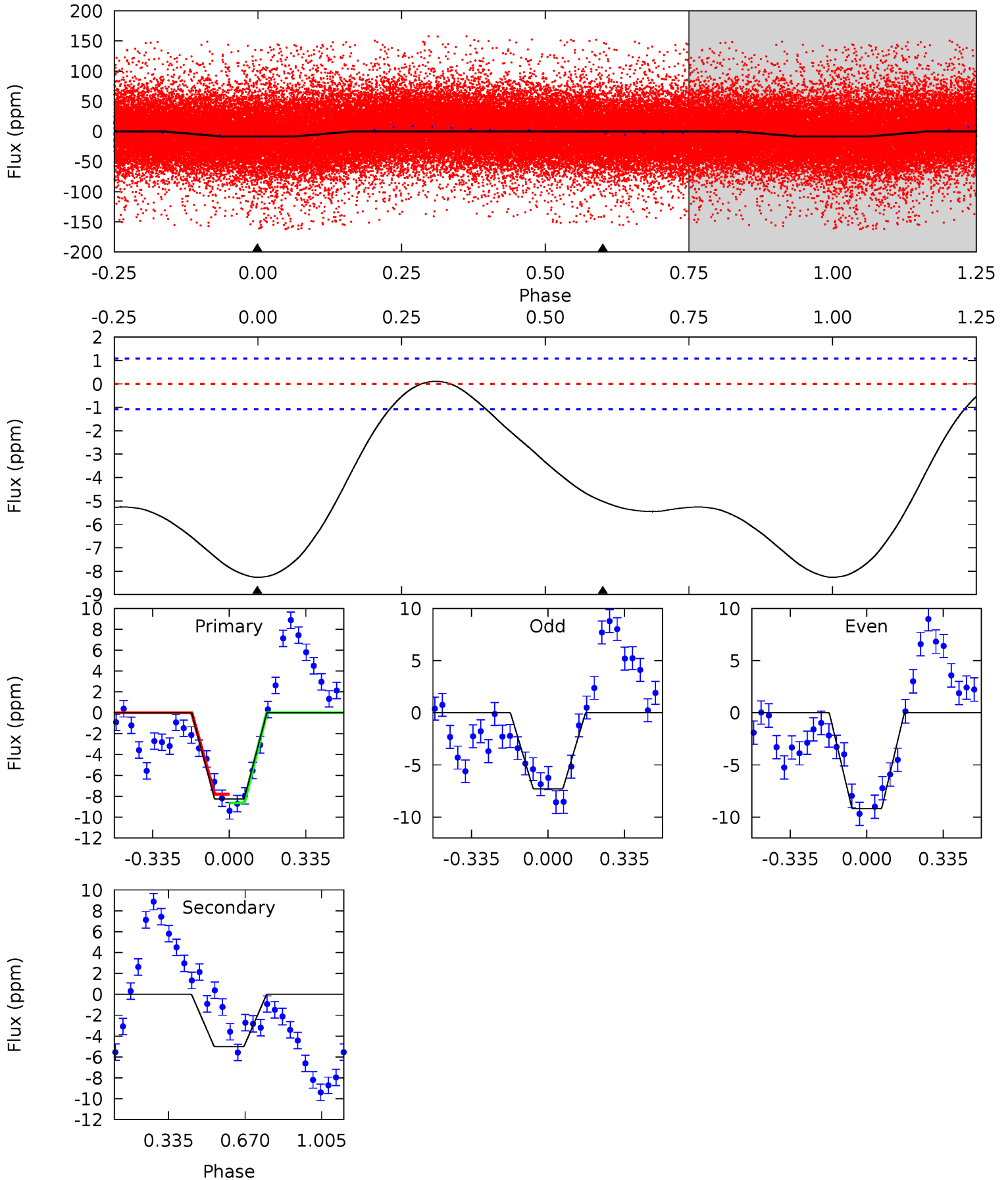
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	9.00	0	0	4.32	1.00	1.54	10.8	10.8	9.00	9.00	2.04	0.91	0.11	11.8



Alt Model-Shift Uniqueness Test

008643582-01, P = 2.990095 Days, E = 129.230538 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.9	20.0	0	0	4.30	0.96	0.71	32.9	32.9	20.0	20.0	3.79	1.32	0.01	1.56



Stellar Parameters For KIC 008643582

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8570^{+233}_{-401}	$3.541^{+0.589}_{-0.031}$	$0.070^{+0.250}_{-0.550}$	$4.533^{+0.468}_{-2.650}$	$2.606^{+0.301}_{-0.903}$	$0.039^{+0.311}_{-0.009}$
	+3%/-5%	+17%/-1%	+357%/-786%	+10%/-58%	+12%/-35%	+789%/-22%
Source	KIC0	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 008643582-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 0	$0.76^{+0.83}_{-0.51}$	4452^{+338}_{-659}	7918^{+10529}_{-2519}	$8.647^{+71.657}_{-6.664}$
Alt.	-5 ± 0	$1.28^{+0.89}_{-0.71}$	4522^{+309}_{-674}	6774^{+4318}_{-1469}	$5.107^{+19.692}_{-3.291}$

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 $A_{obs} \gg 1.0$

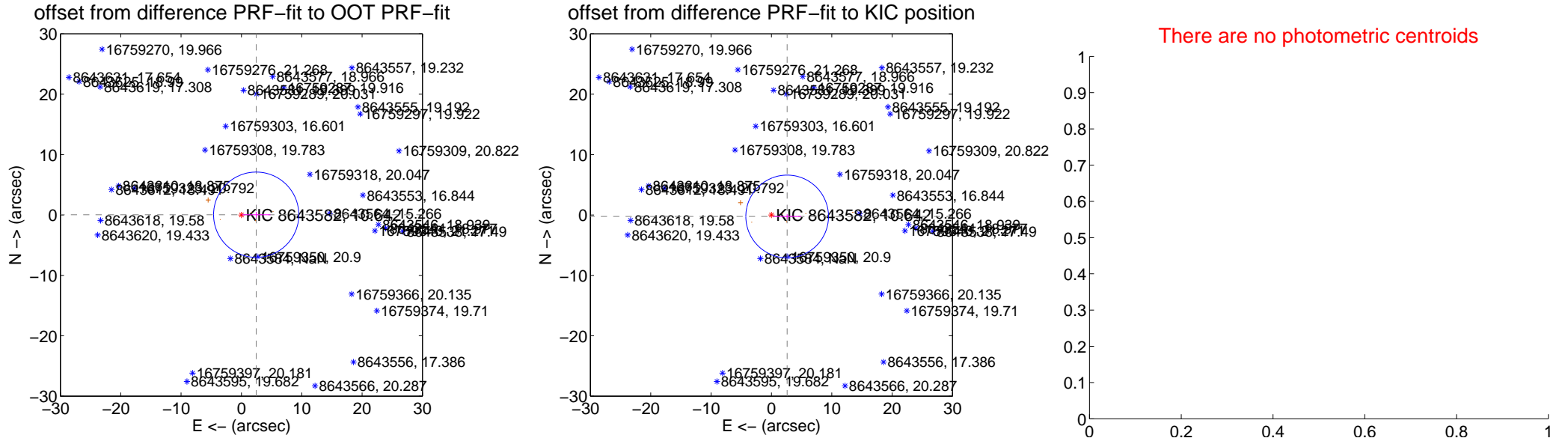
DV Centroid Data

Supplemental centroid analysis for 008643582-01. **Kepler magnitude: 10.64.** Transit SNR 4.43

There are 0 quarters with good PRF difference image offsets

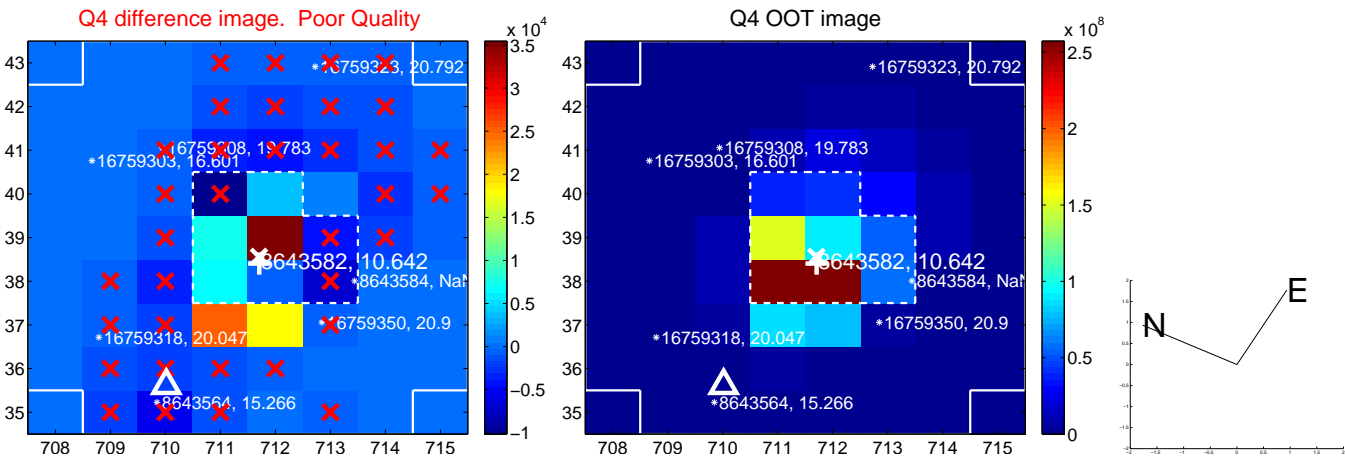
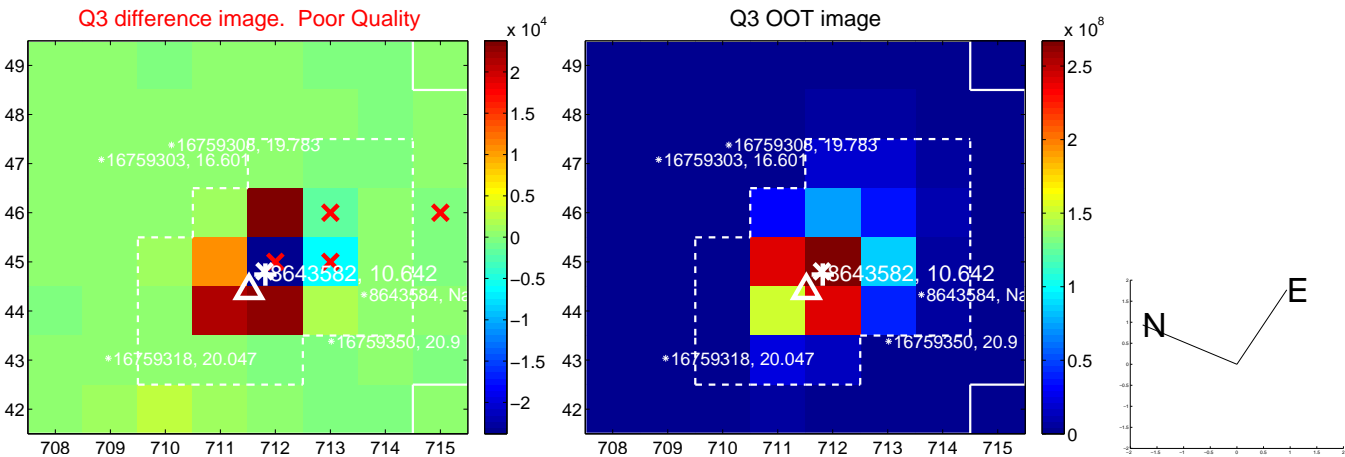
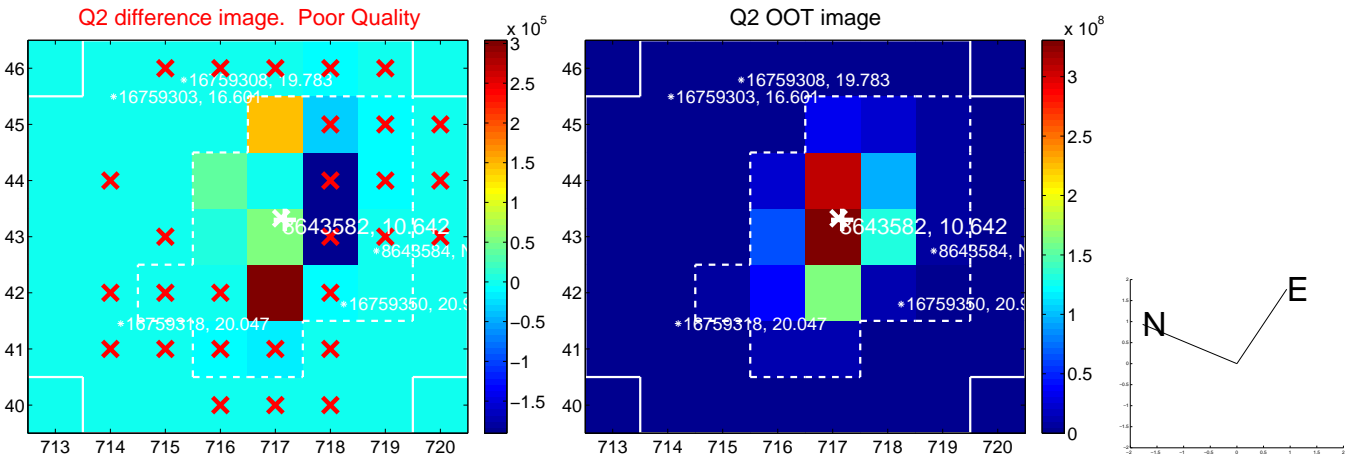
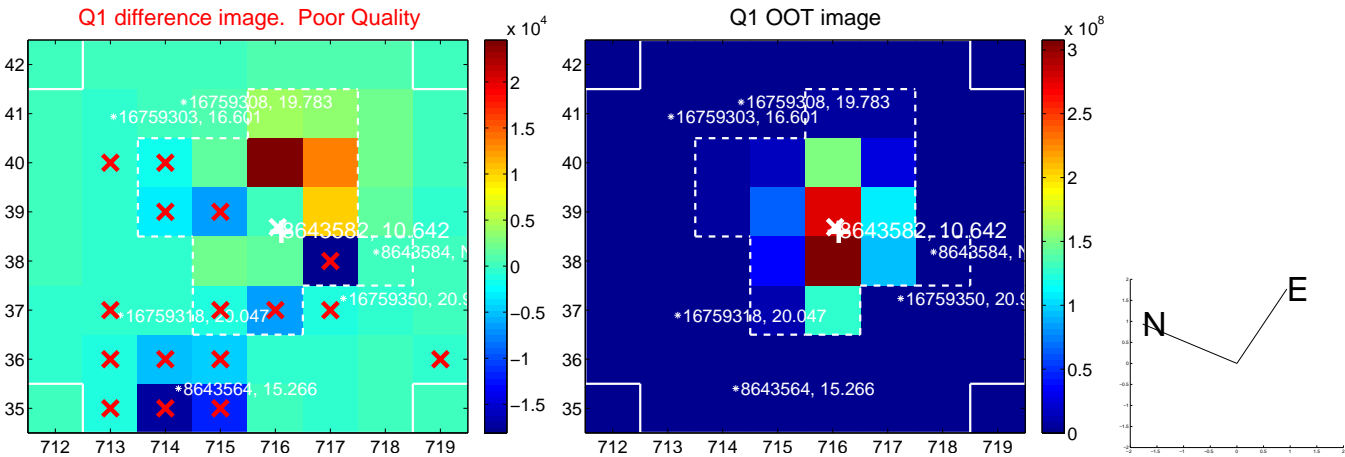
The direct PRF centroid is offset from the target star catalog position by about 0.50 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.450 ± 2.354	1.04	-2.449 ± 2.357	0.039 ± 0.485
PRF-fit source offset from KIC position	2.621 ± 2.283	1.15	-2.609 ± 2.293	-0.248 ± 0.373
photometric centroid source offset	—	—	—	—

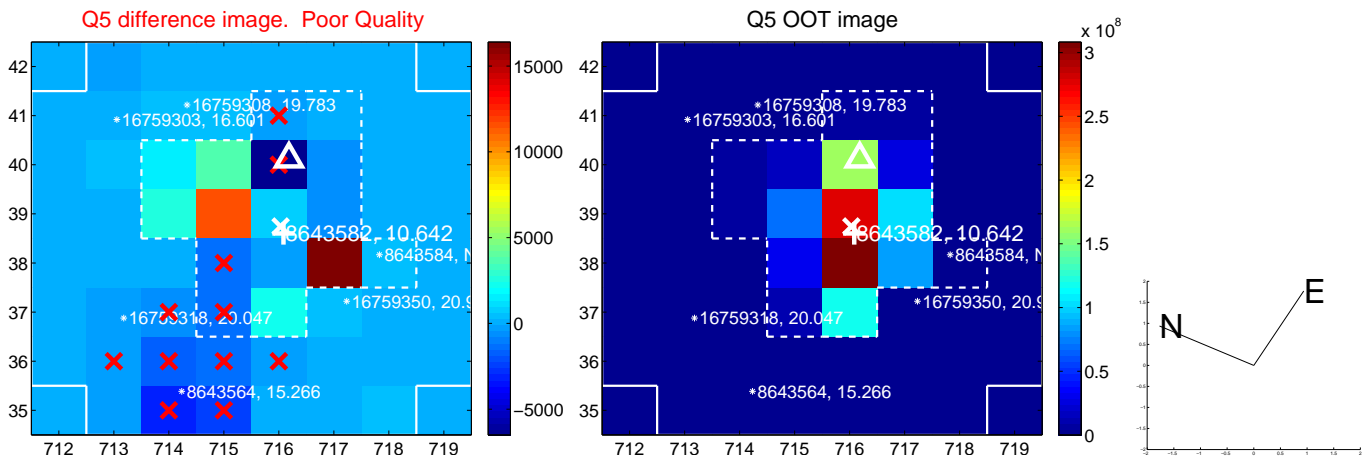


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

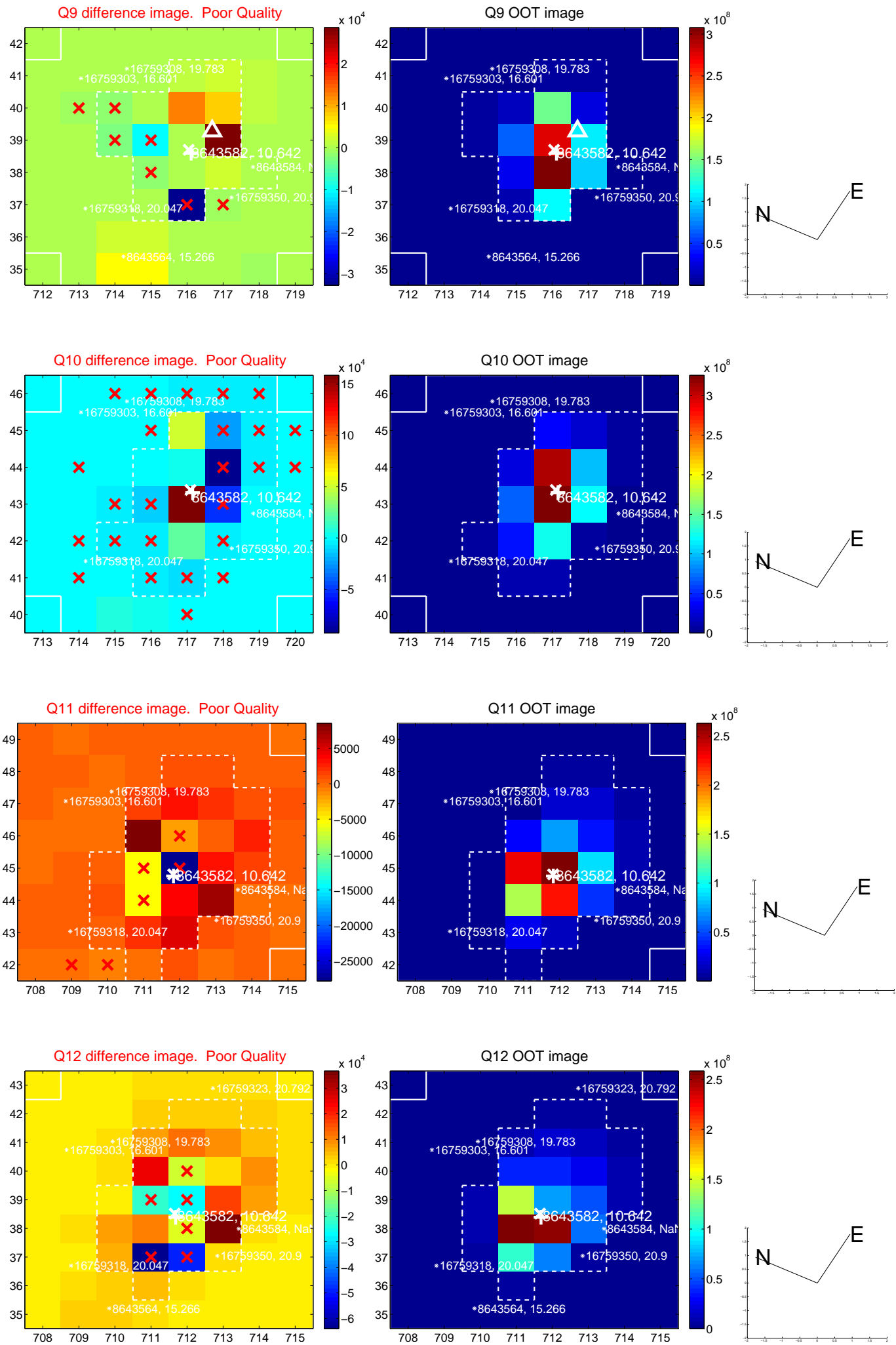
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



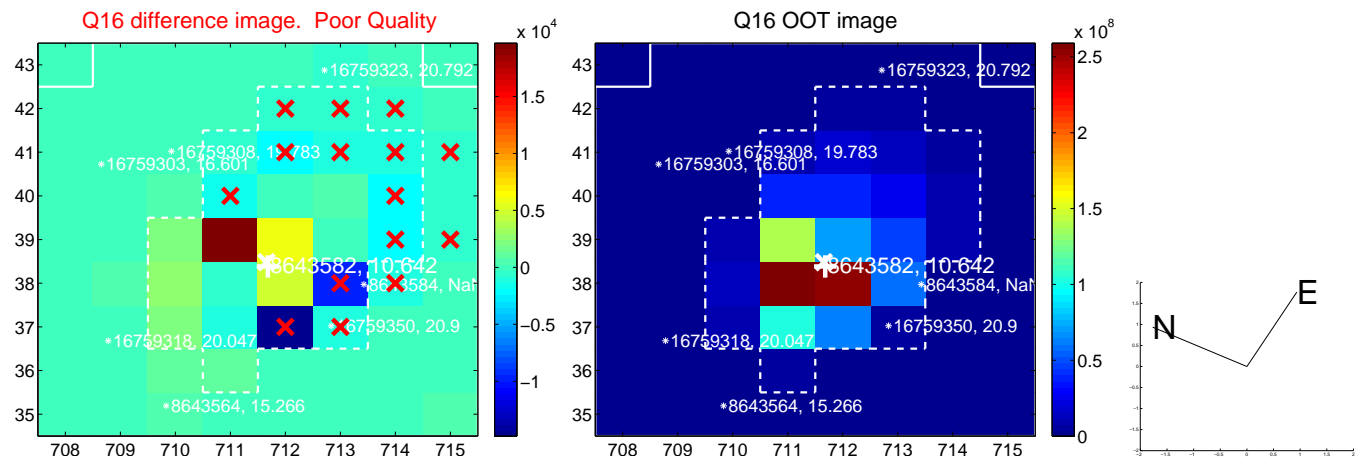
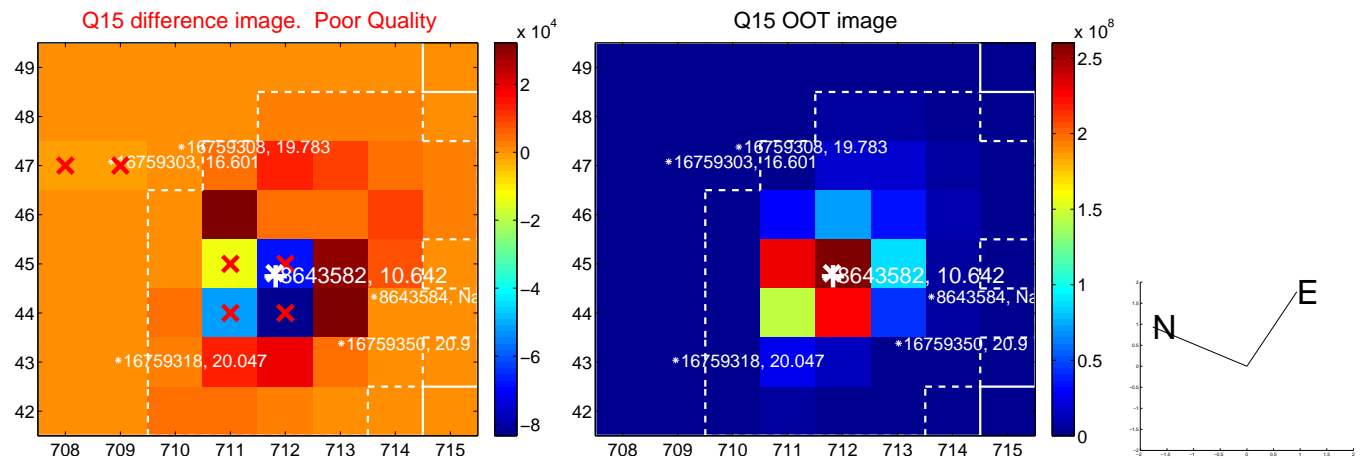
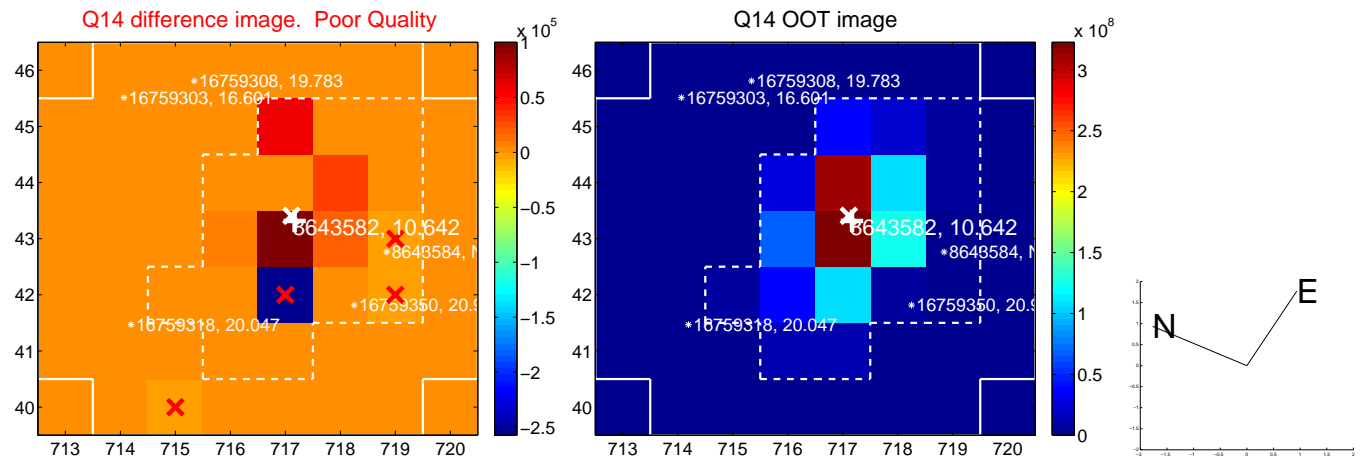
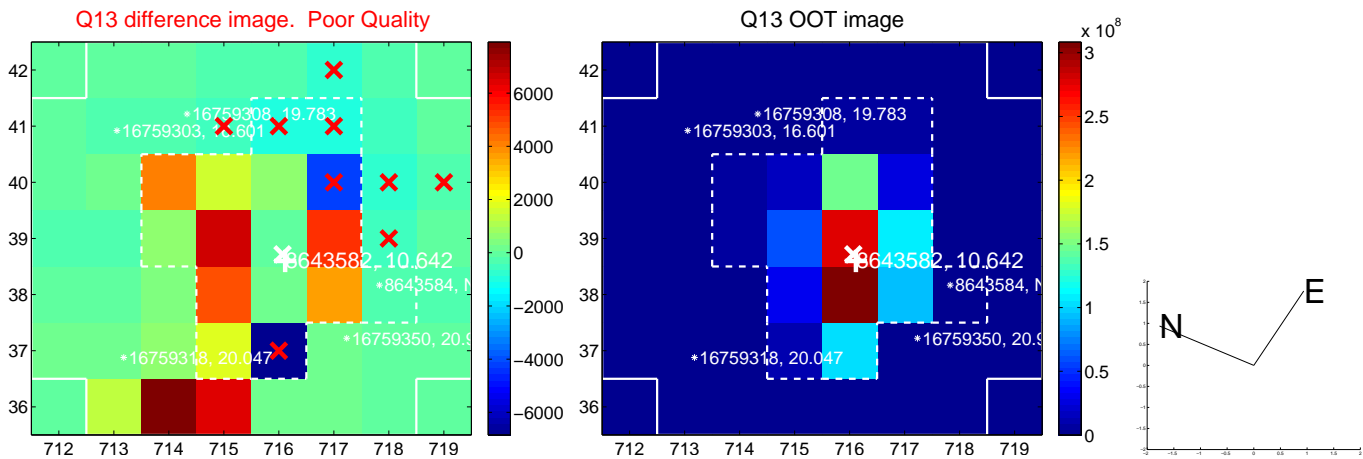
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



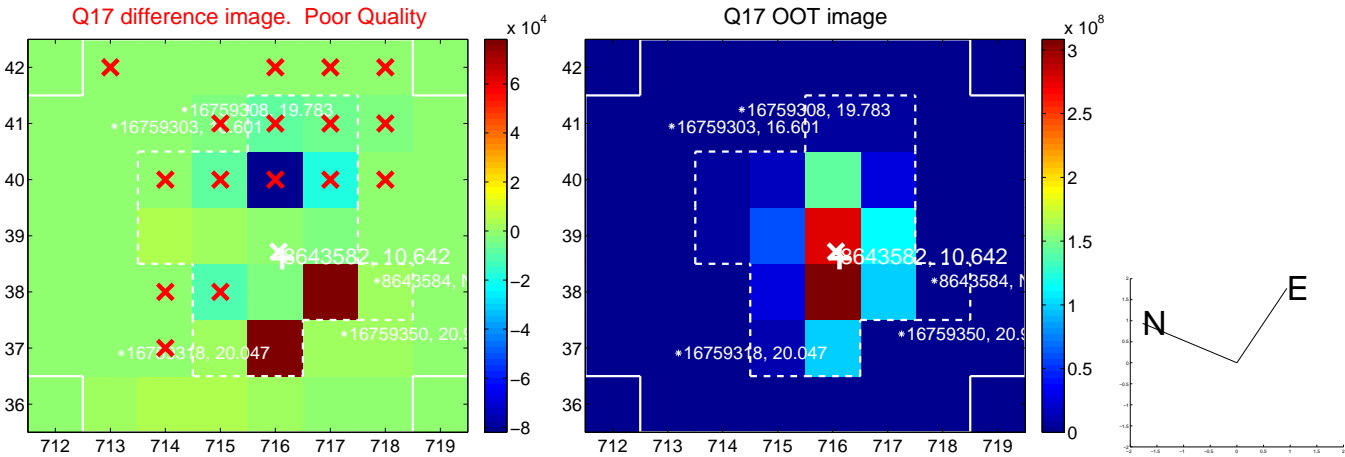
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folded centroid time series figure for this object.

UKIRT Image

Declination

