

KIC 003553413

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})
003553413-01	OBS	No	0.673581	132.067675	23.9	6.845	8.9	9.7	1.07	6367	0.59	7234.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003553413-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_KIC_POS—CENT_UNCERTAIN—HALO_GHOST

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

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

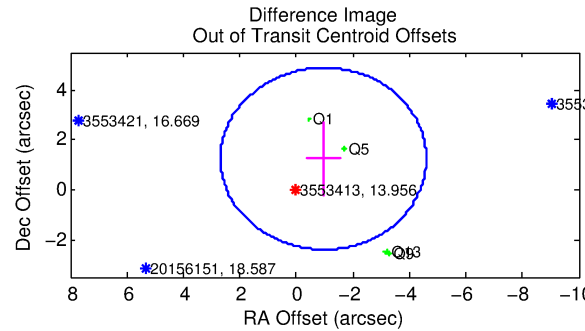
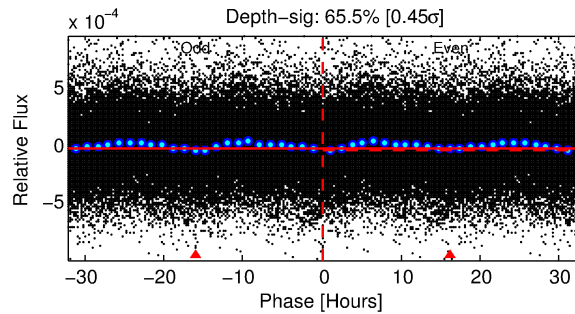
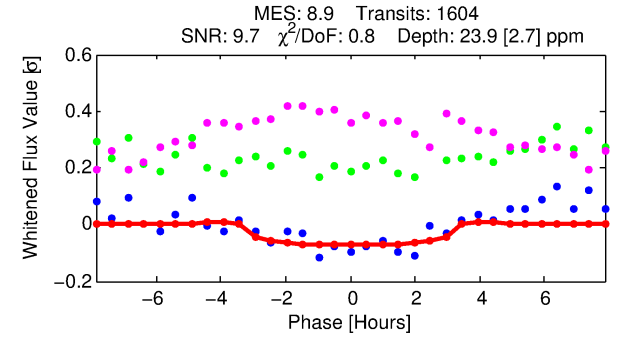
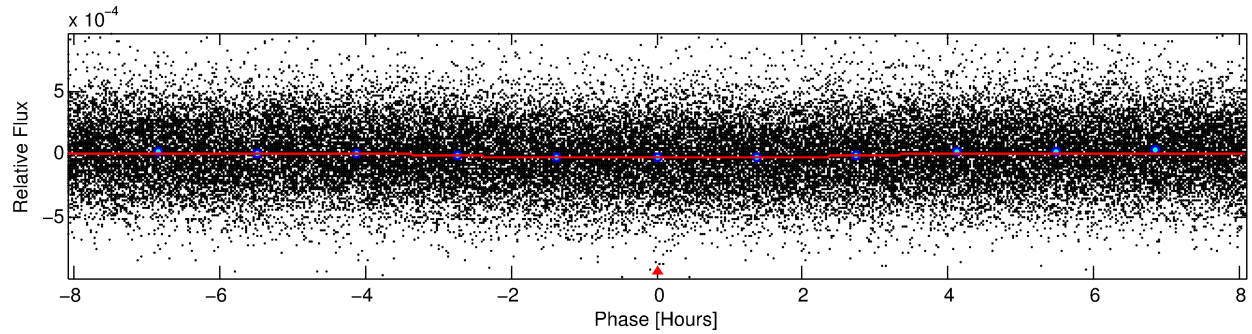
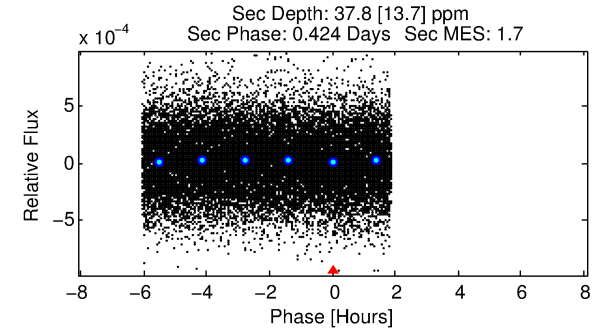
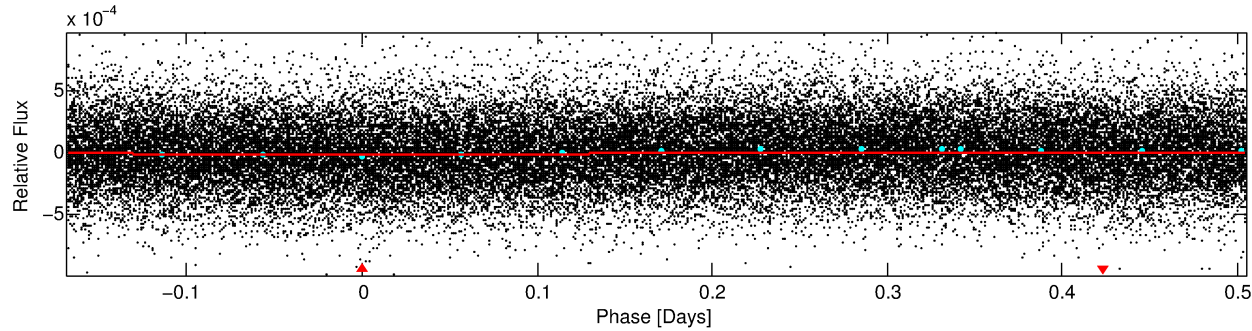
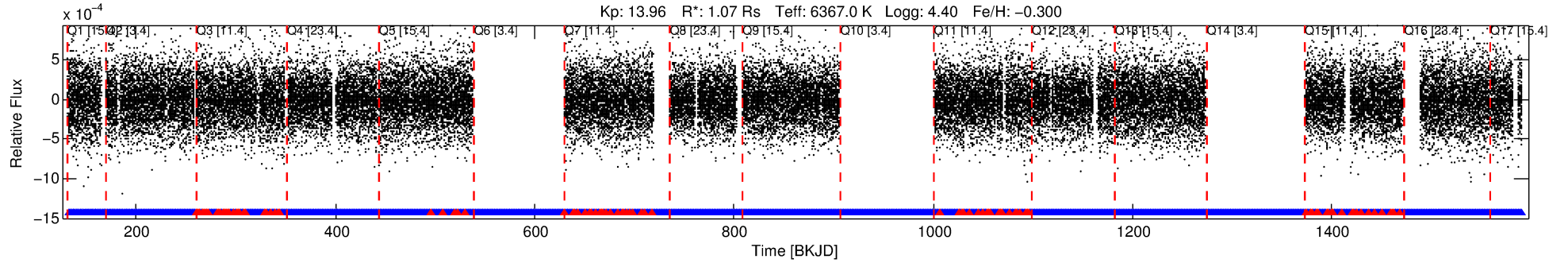
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003553413-01

No Significant Match Found

DV One-Page Summary

KIC: 3553413 Candidate: 1 of 1 Period: 0.674 d



DV Fit Results:

Period = 0.67358 [0.00001] d
Epoch = 132.0677 [0.0066] BKJD
Rp/R* = 0.0050 [0.0030]
a/R* = 1.01 [0.09]
b = 0.84 [1.17]
Seff = 7234.89 [2819.45]
Teq = 2352 [229] K
Rp = 0.59 [0.39] Re
a = 0.0153 [0.0039] AU
Ag = 13.98 [18.03] [0.72σ]
Teffp = 7031 [2185] K [2.13σ]

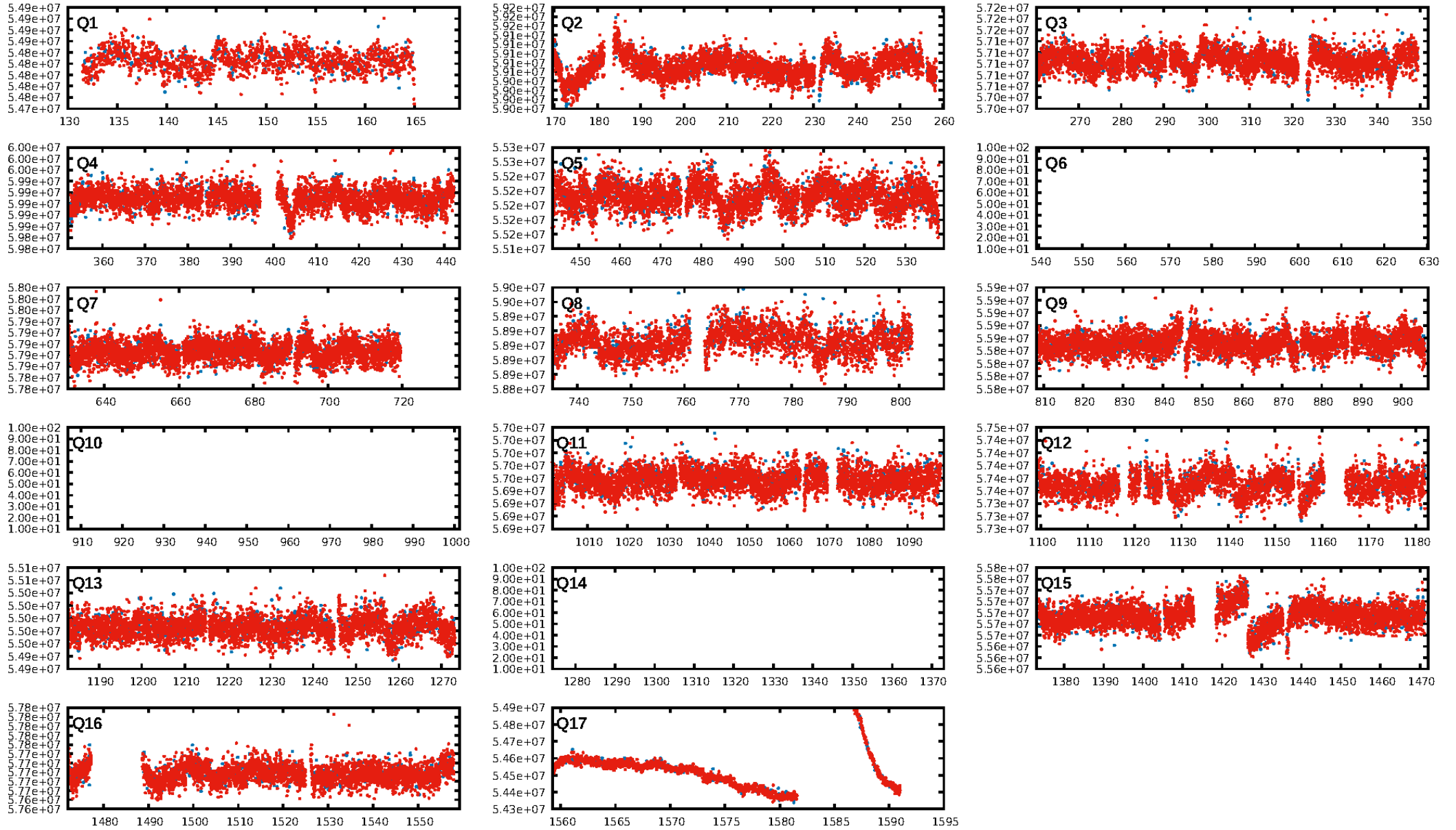
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.93 [1402/1512]
GhostDiagnostic-chr: 0.1929
Centroid-sig: 0.0%
Centroid-so: 8.108 arcsec [9.01σ]
OotOffset-rm: 1.566 arcsec [1.29σ]
KicOffset-rm: 1.195 arcsec [1.71σ]
OotOffset-st: 0/0/0/4 [4]
KicOffset-st: 0/0/0/4 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [14/14]

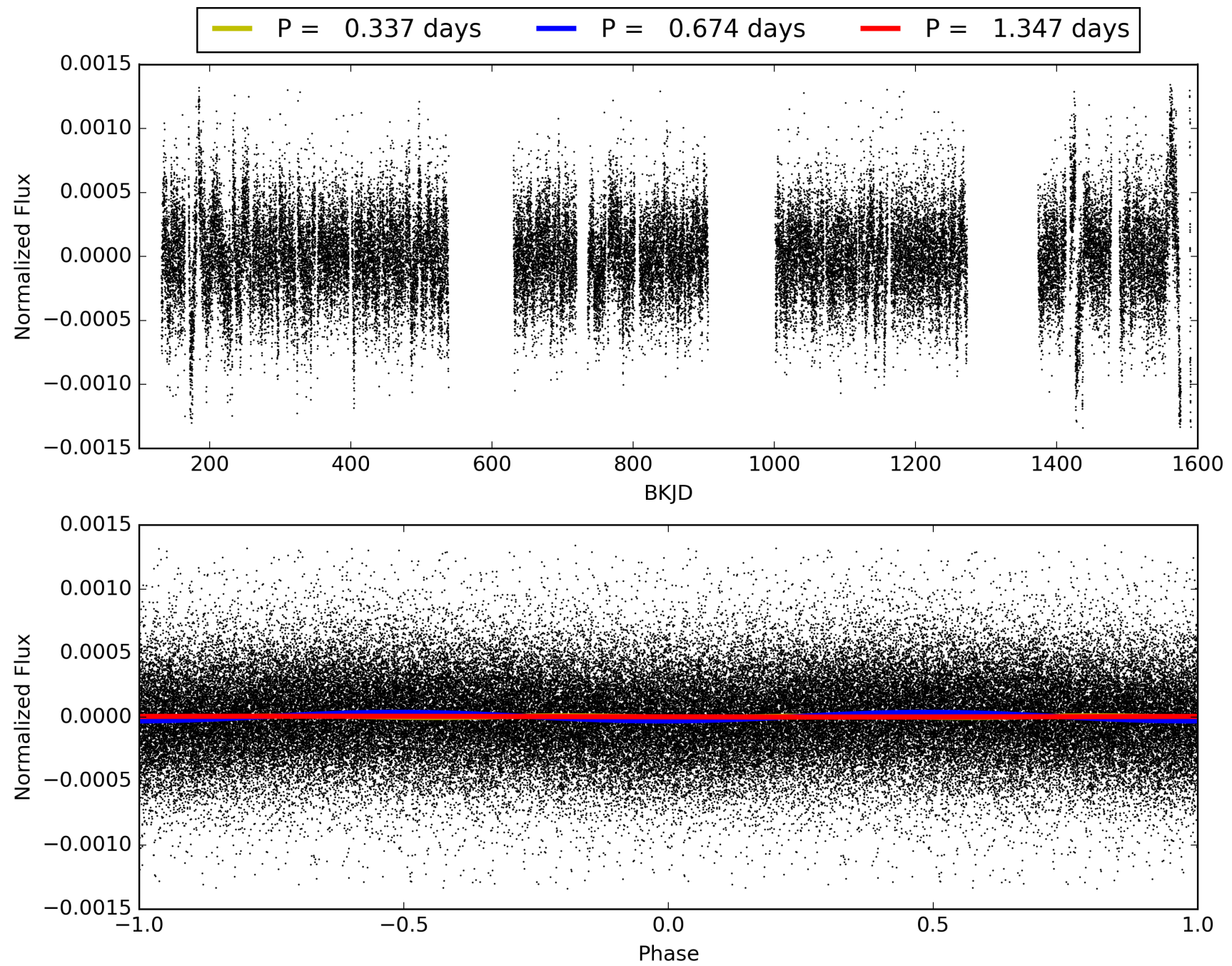
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:22:41 Z

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

TCE 003553413-01, PDC Light Curves

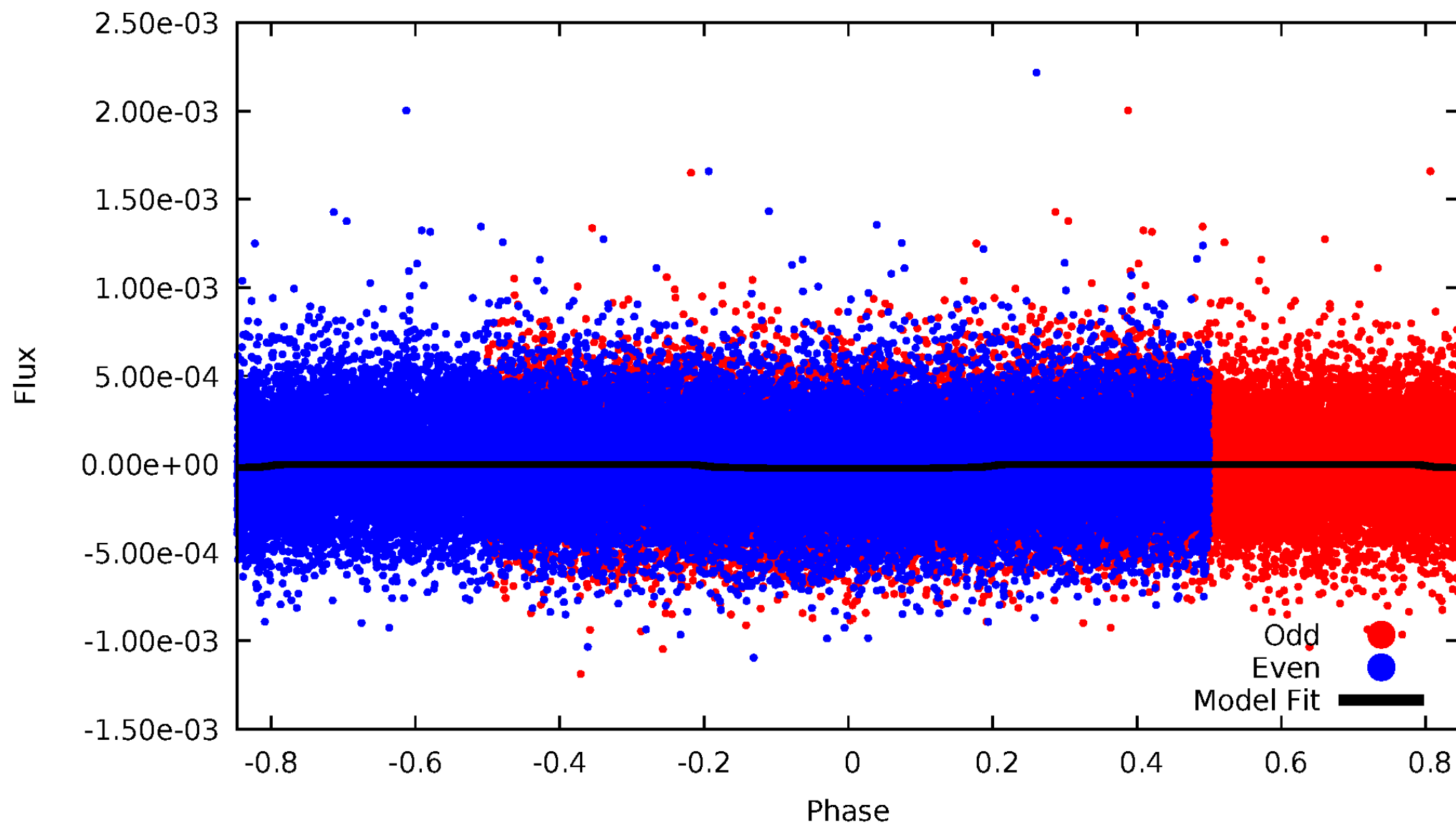


TCE 003553413-01



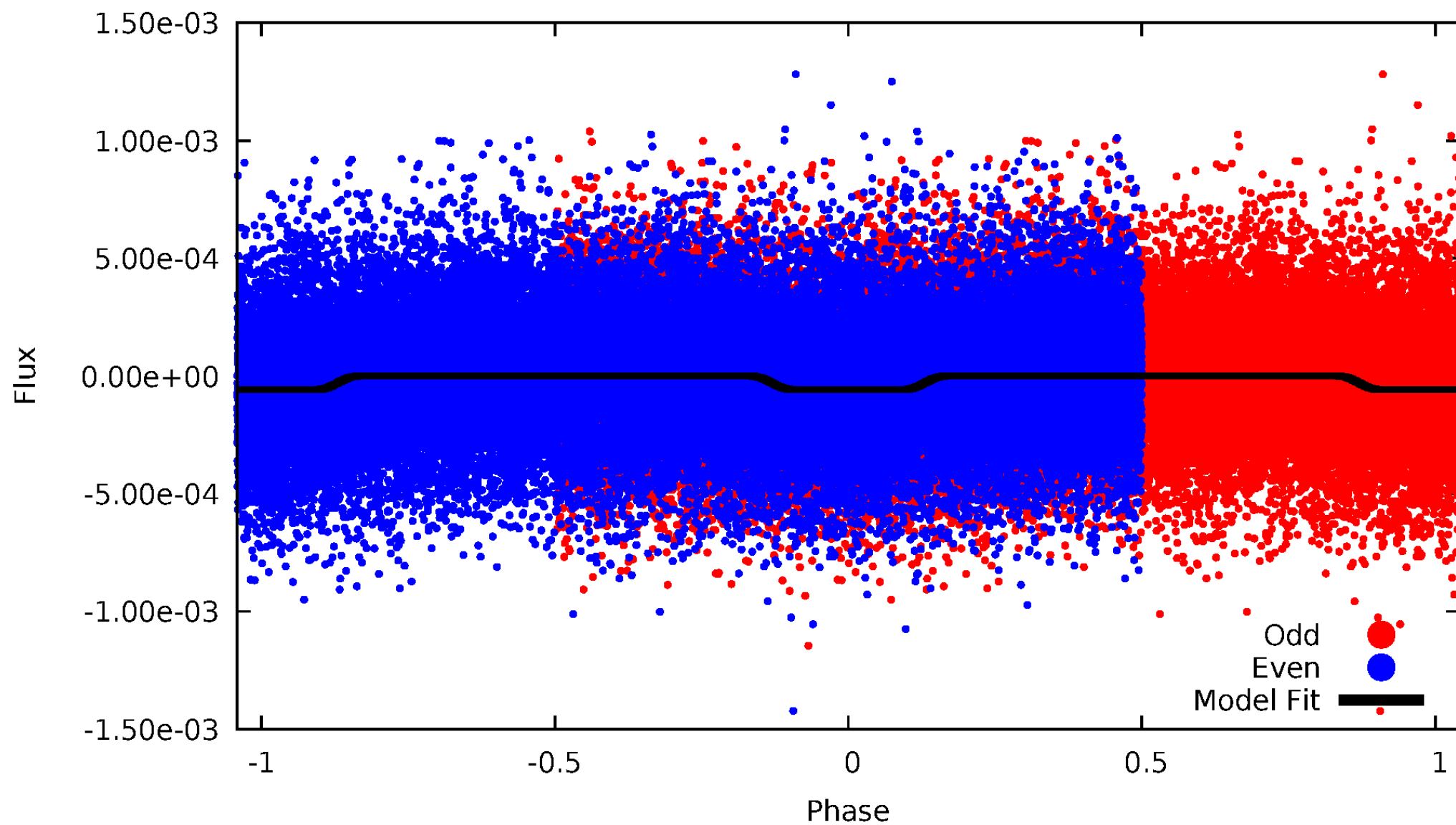
DV Odd/Even

TCE 003553413-01

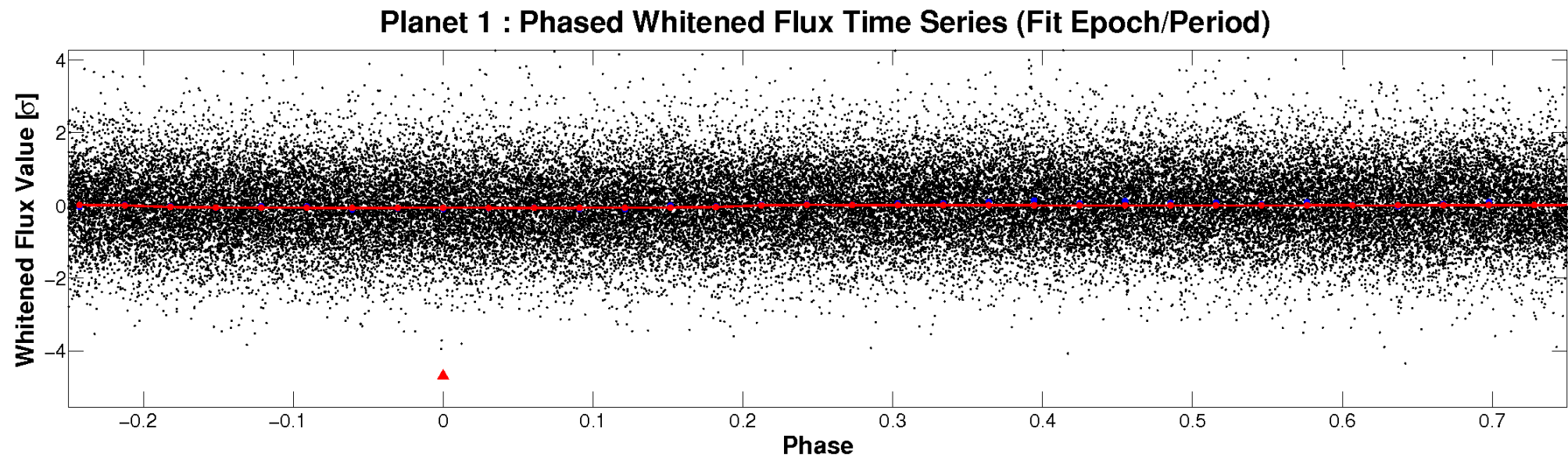
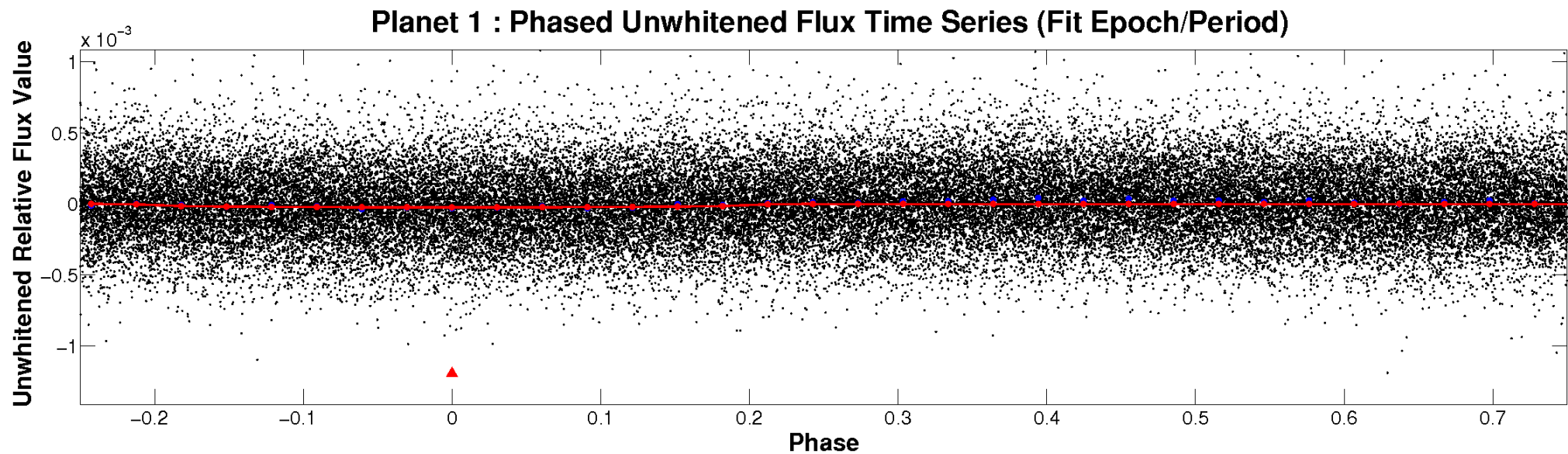


ALT Odd/Even

TCE 003553413-01

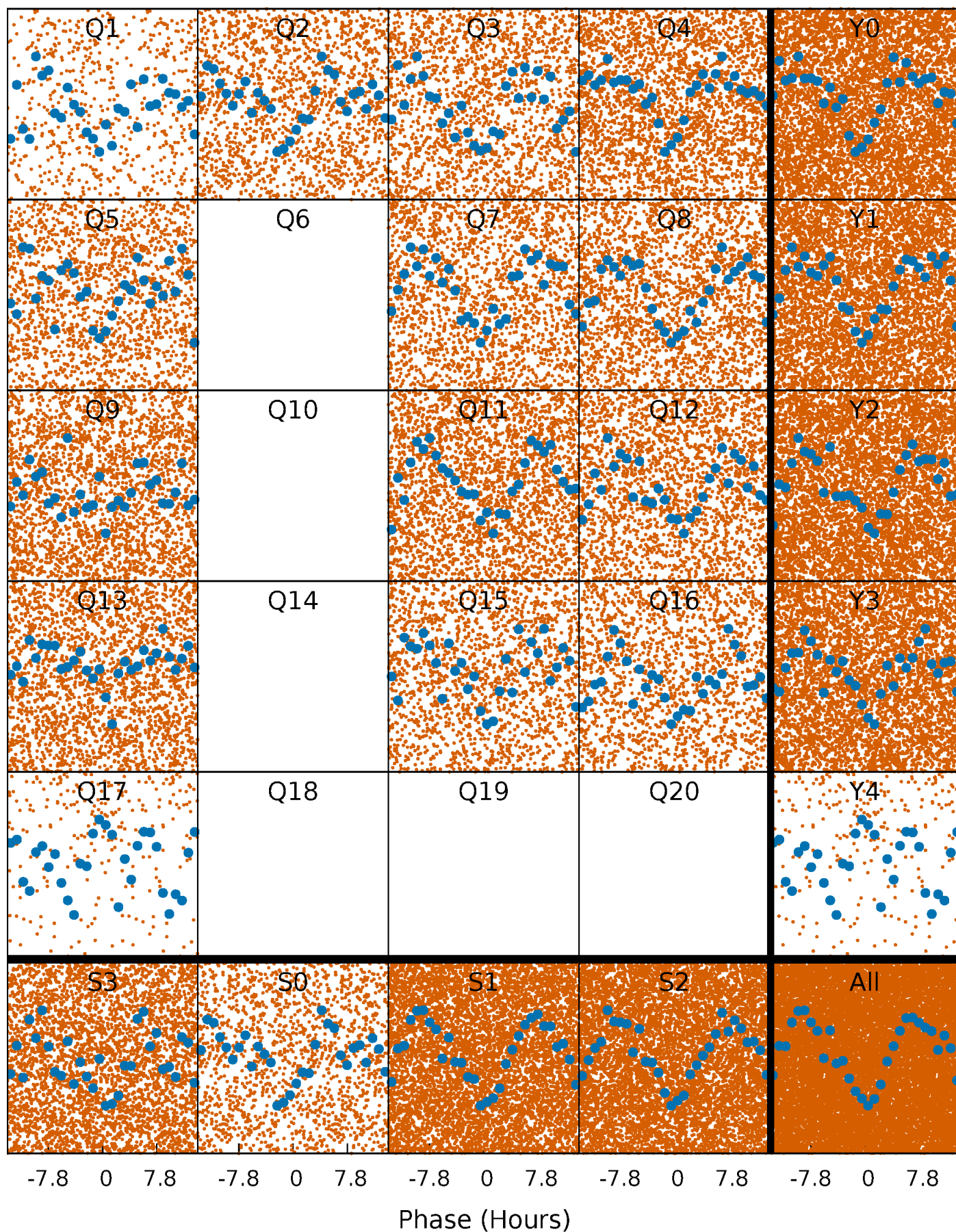


Non-Whitened Vs. Whitened Light Curve



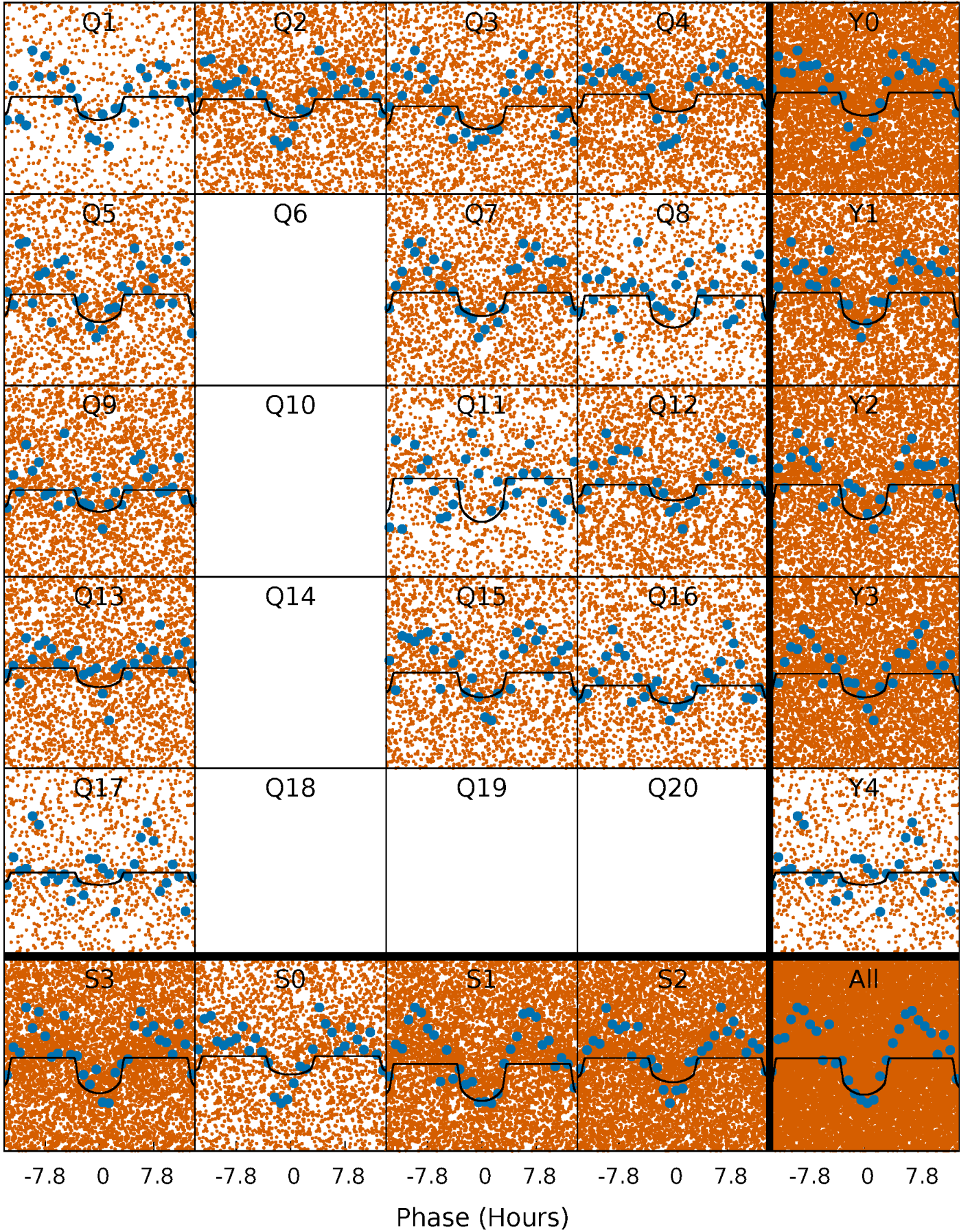
PDC Quarter-Phased Transit Curves

TCE 003553413-01 P= 0.673581 Days $T_0=132.067675$ (BKJD)



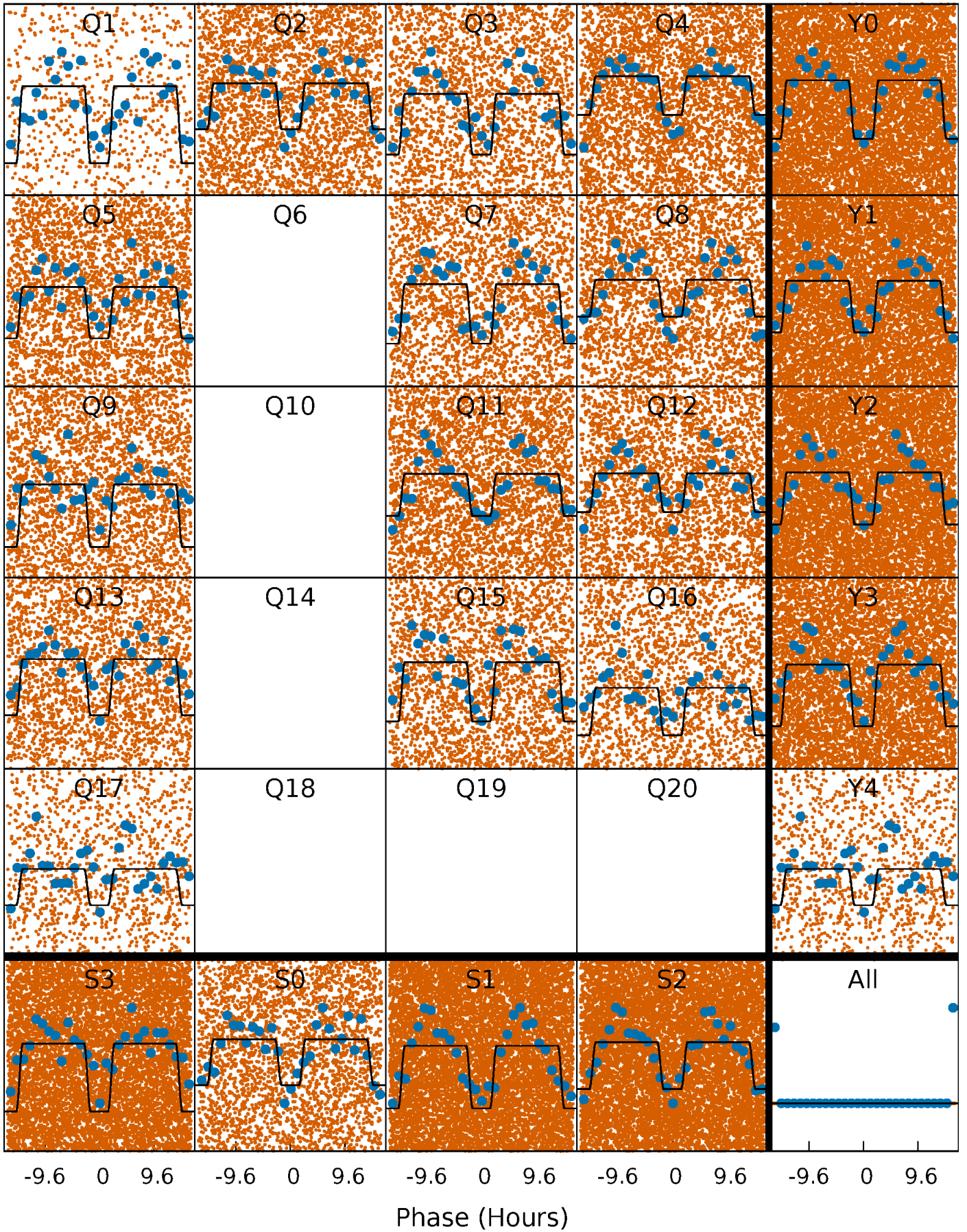
DV Quarter-Phased Transit Curves

TCE 003553413-01 P= 0.673581 Days $T_0=132.067675$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

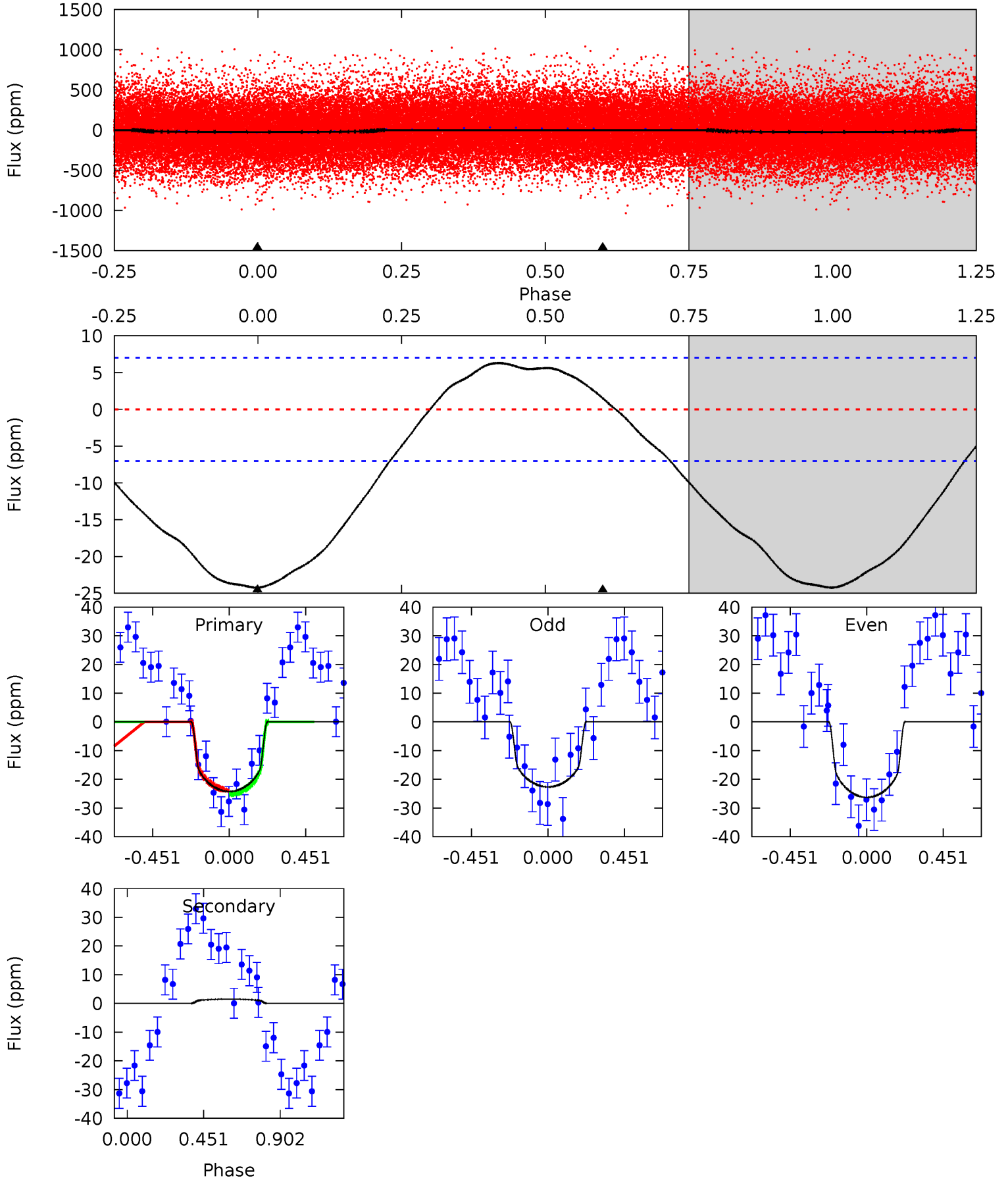
TCE 003553413-01 P= 0.673640 Days $T_0=132.018538$ (BKJD)



DV Model-Shift Uniqueness Test

003553413-01, P = 0.673581 Days, E = 131.394094 Days

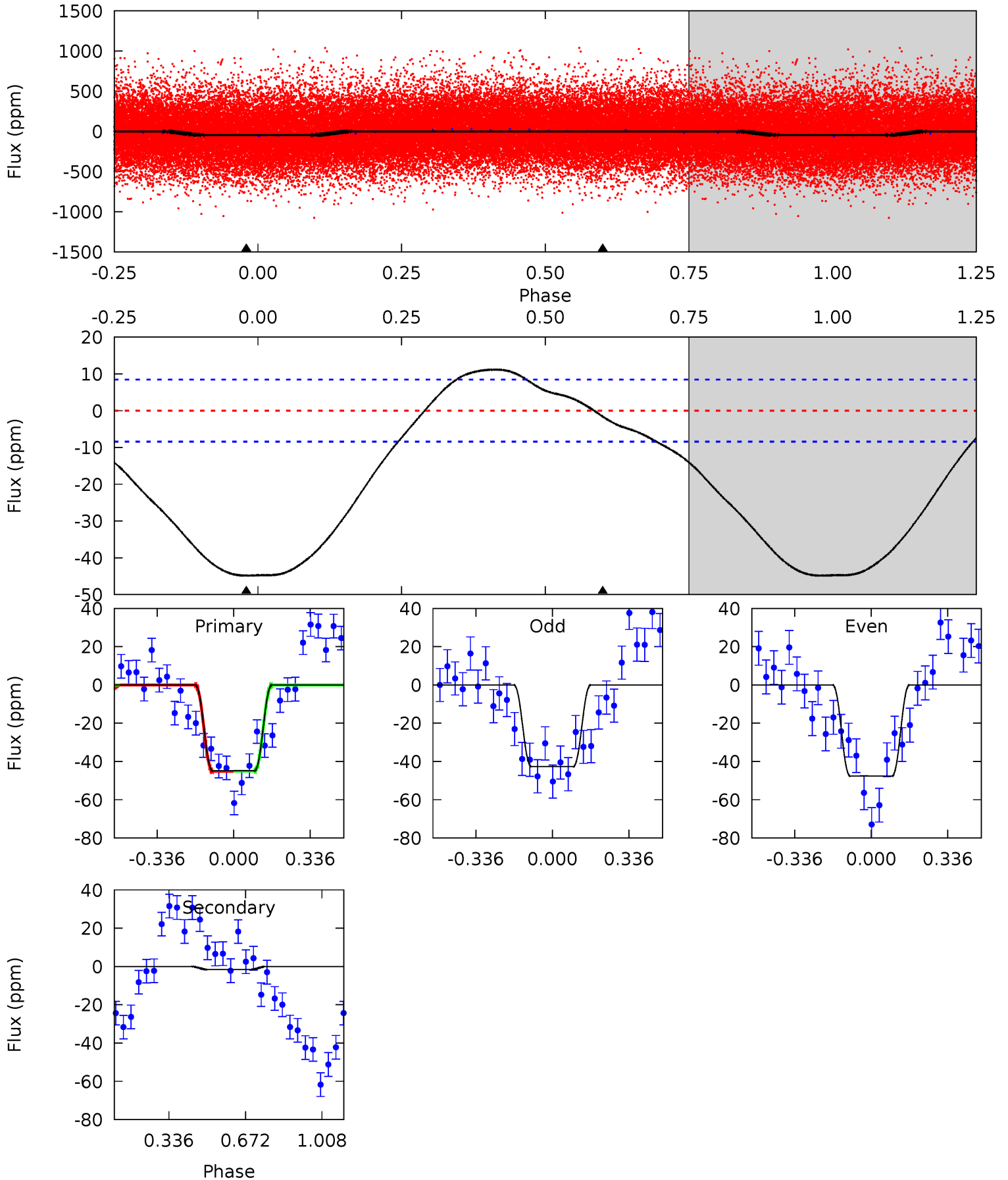
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	-0.91	0	0	4.24	0.75	1.62	14.6	14.6	-0.91	-0.91	1.10	0.97	0.21	0.41



Alt Model-Shift Uniqueness Test

003553413-01, P = 0.673640 Days, E = 131.344898 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	0.81	0	0	4.30	0.96	2.64	22.9	22.9	0.81	0.81	1.26	0.99	0.20	0.05



Stellar Parameters For KIC 003553413

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6367^{+151}_{-207}	$4.398^{+0.084}_{-0.196}$	$-0.300^{+0.250}_{-0.300}$	$1.069^{+0.338}_{-0.121}$	$1.037^{+0.157}_{-0.114}$	$1.196^{+0.449}_{-0.628}$
	+2%/-3%	+2%/-4%	+83%/-100%	+32%/-11%	+15%/-11%	+38%/-53%
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 003553413-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	2 ± 2	$0.64^{+0.36}_{-0.34}$	3325^{+224}_{-176}	-3758^{+627}_{-1006}	$-0.378^{+0.456}_{-1.862}$
Alt.	-2 ± 2	$0.93^{+0.41}_{-0.33}$	3323^{+256}_{-155}	-2872^{+6270}_{-606}	$0.180^{+0.499}_{-0.237}$

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 $A_{obs} \gg 1.0$

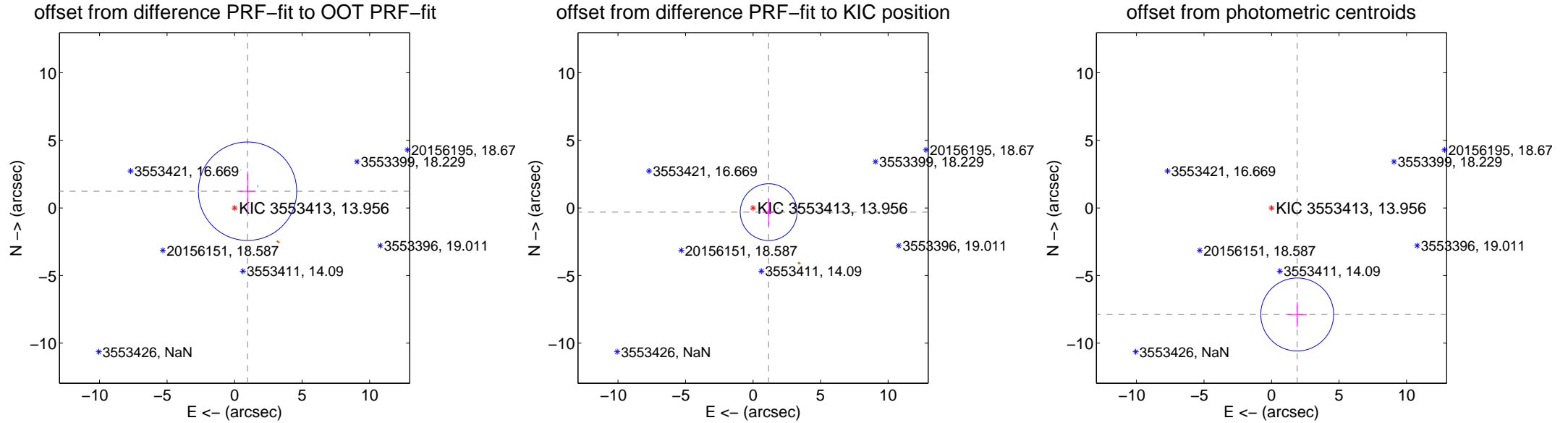
DV Centroid Data

Supplemental centroid analysis for 003553413-01. Kepler magnitude: 13.96. Transit SNR 9.73

There are 2 quarters with good PRF difference image offsets

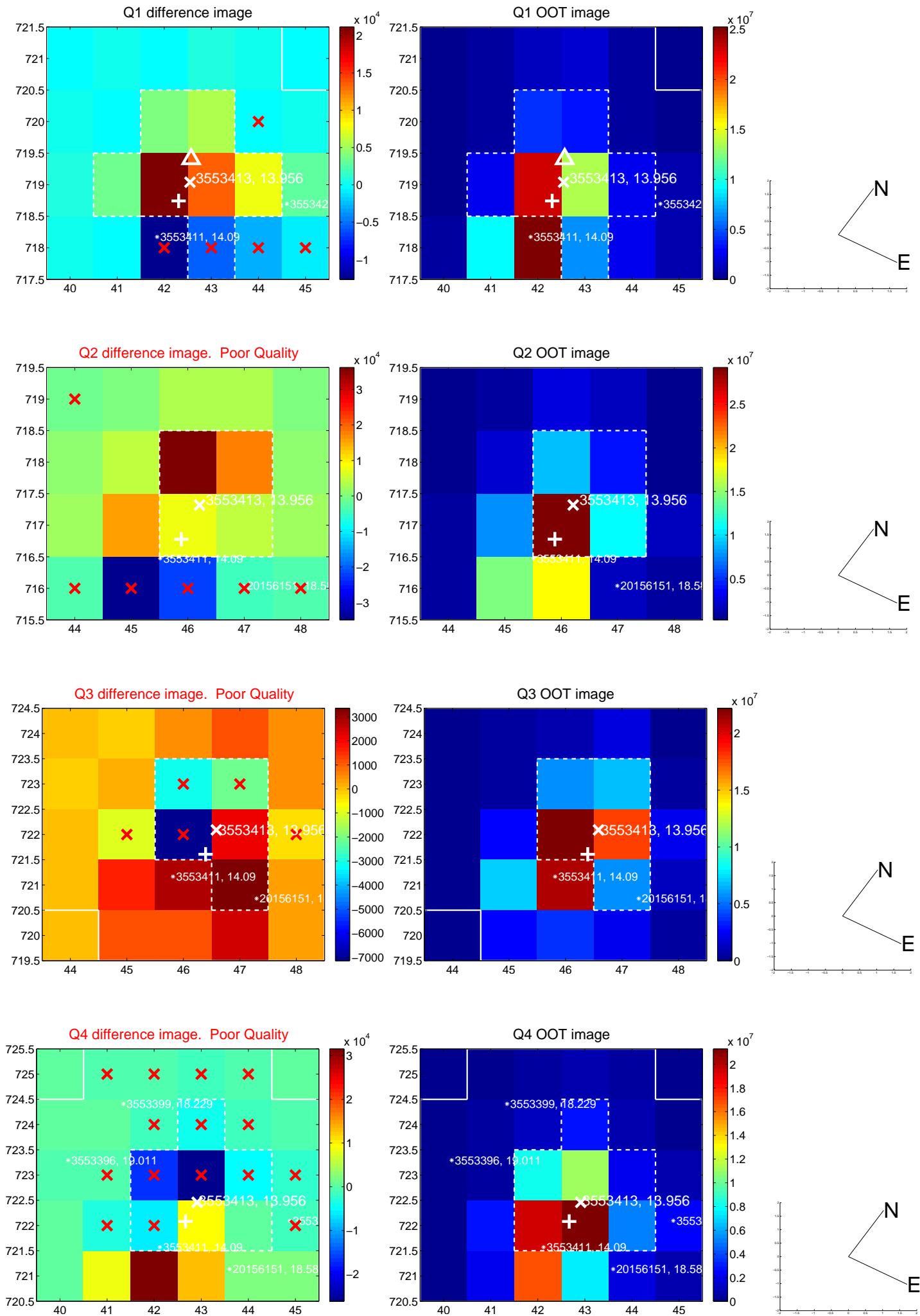
The direct PRF centroid is offset from the target star catalog position by about 1.61 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.566 ± 1.214	1.29	-0.959 ± 0.616	1.238 ± 1.459
PRF-fit source offset from KIC position	1.195 ± 0.700	1.71	-1.154 ± 0.464	-0.309 ± 1.000
photometric centroid source offset	8.11 ± 0.90	9.01	-1.90 ± 0.71	-7.88 ± 0.91

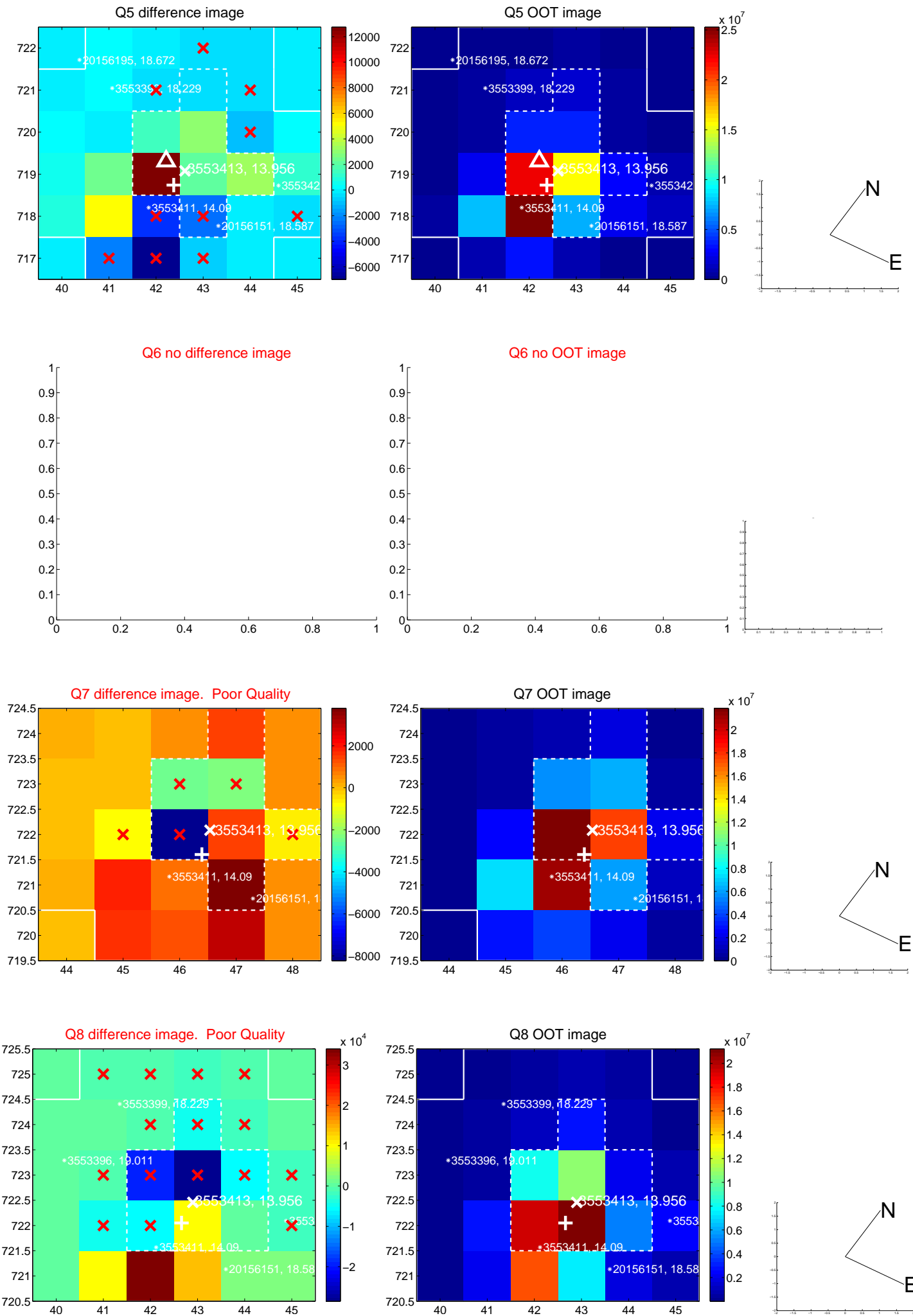


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

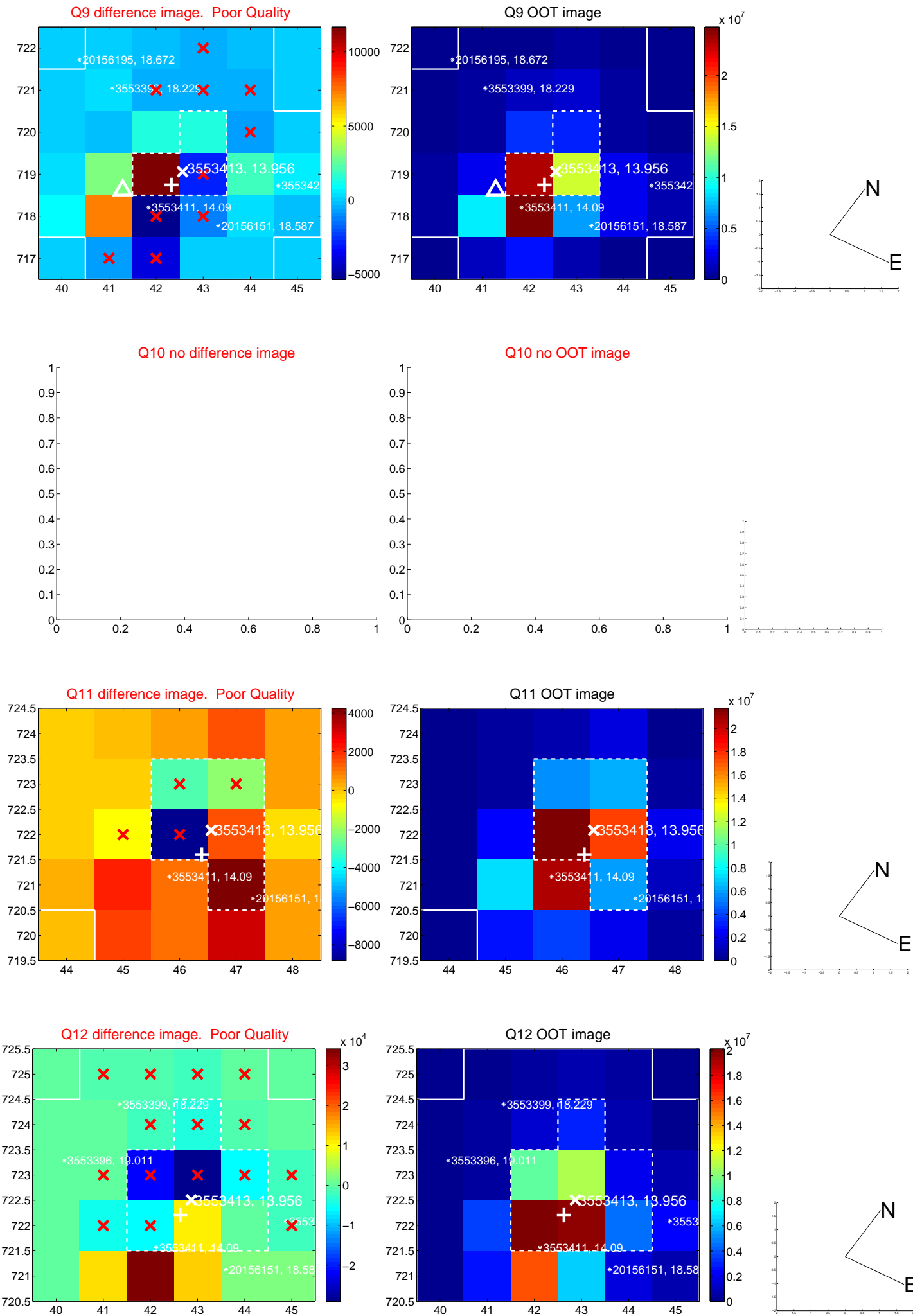
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



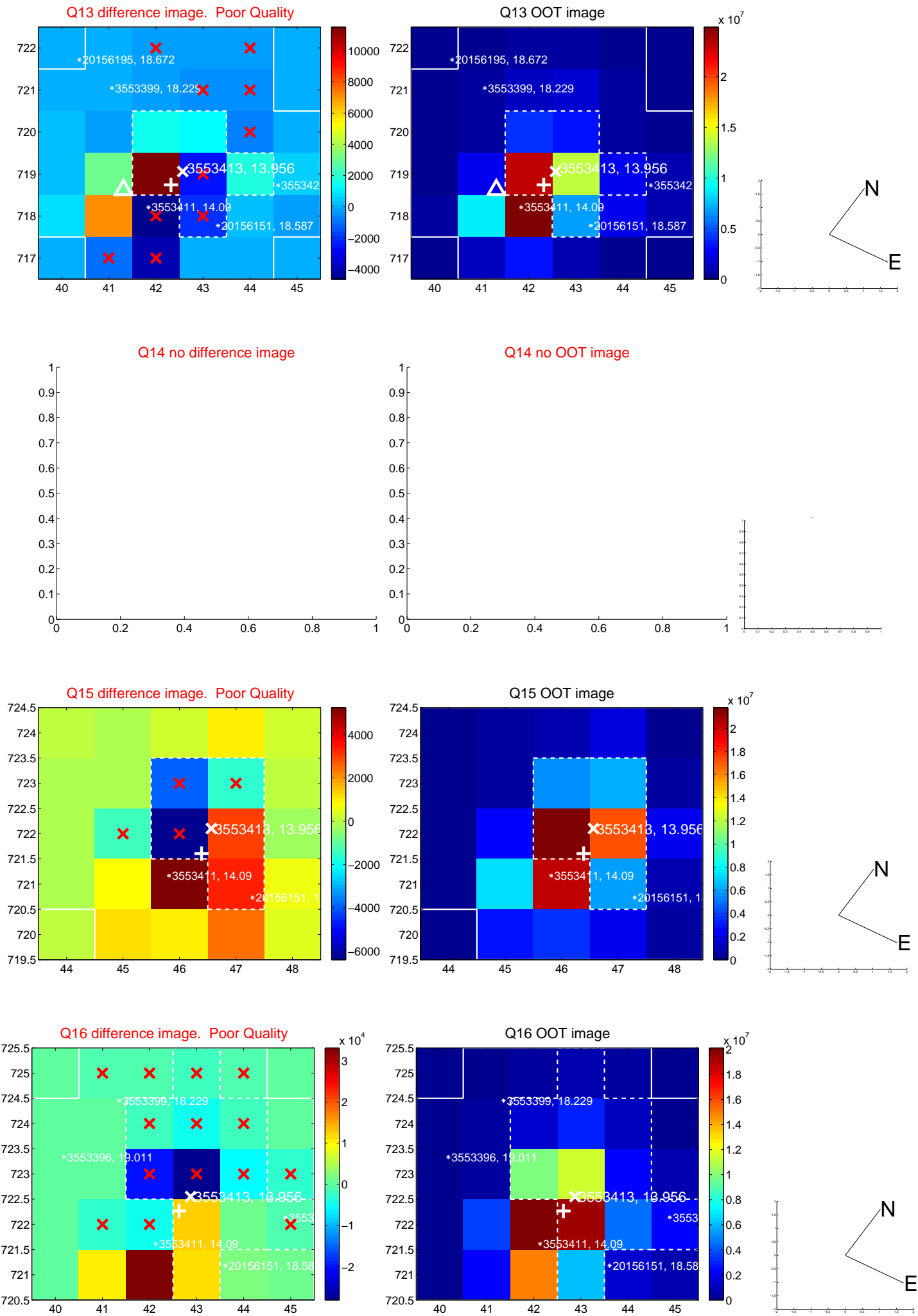
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



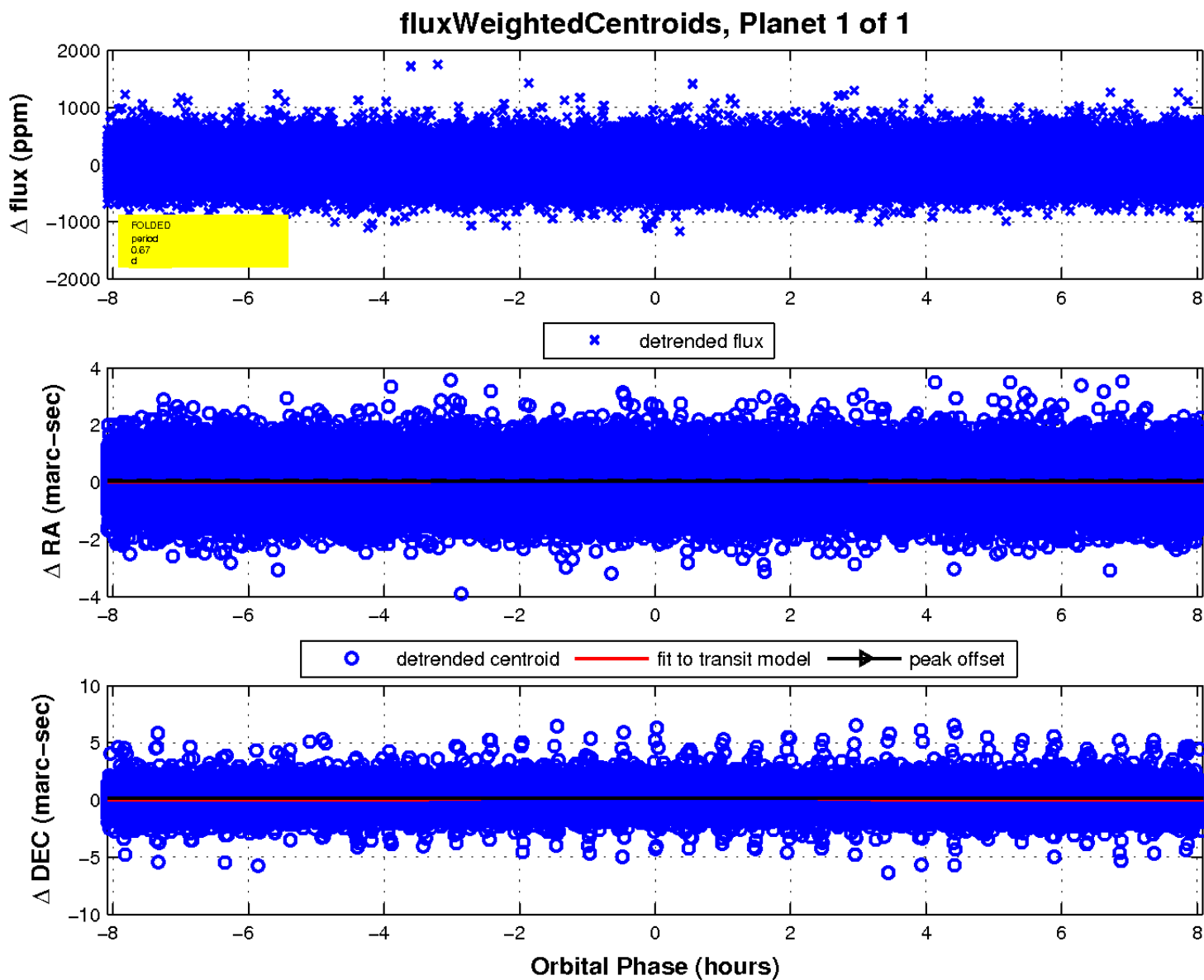
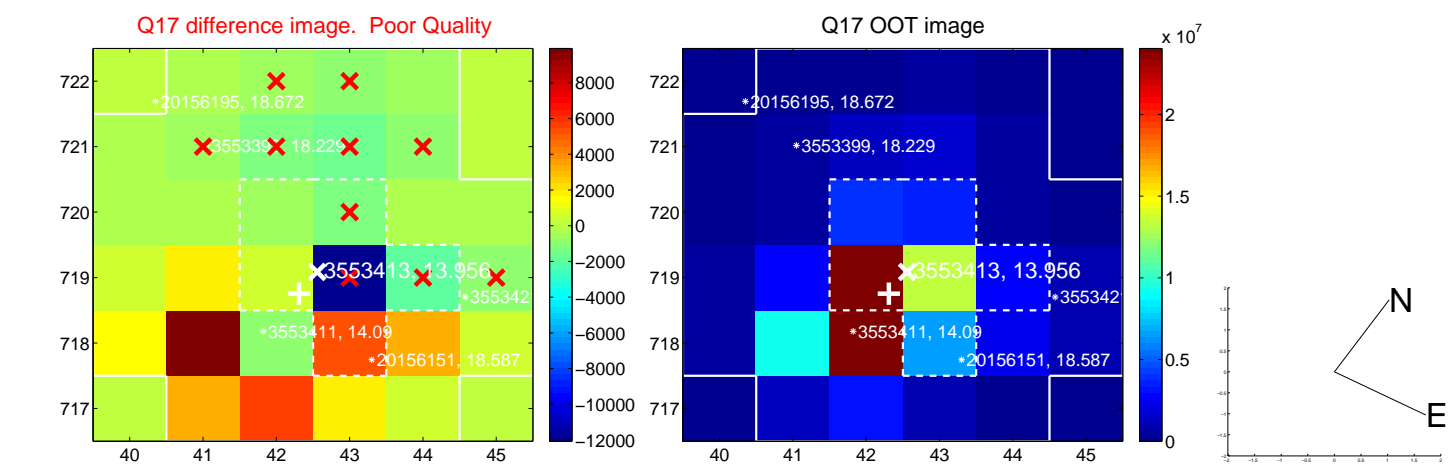
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UKIRT Image

Declination

