

KIC 012217283

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})
012217283-01	OBS	No	5.886121	132.193528	18.2	27.344	8.0	5.5	1.24	6901	0.60	684.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012217283-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_UNRESOLVED_OFFSET

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

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

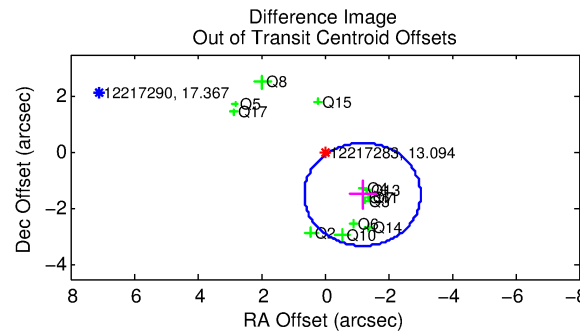
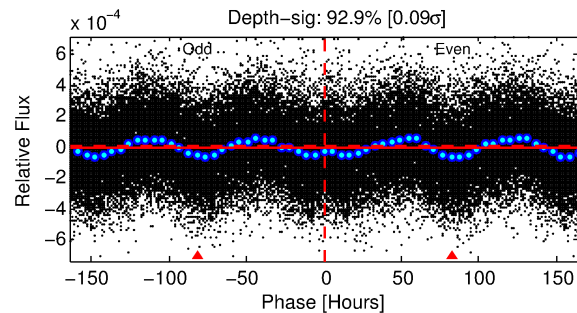
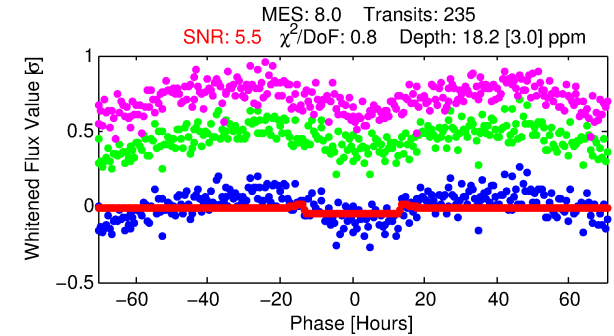
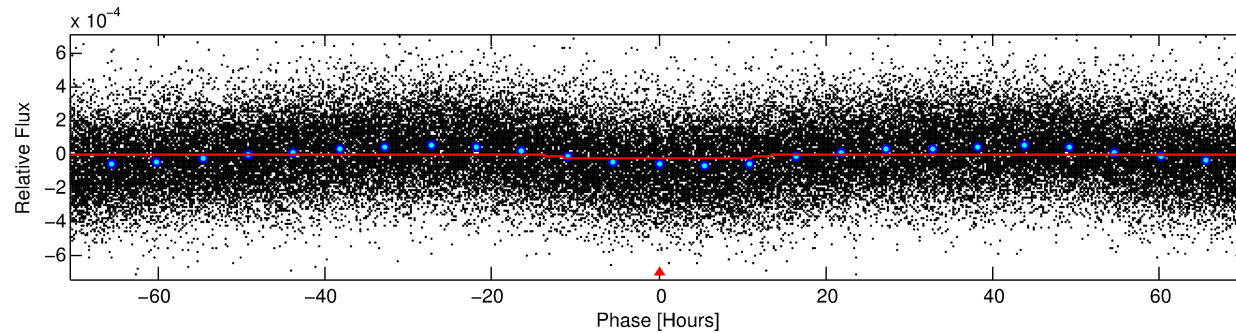
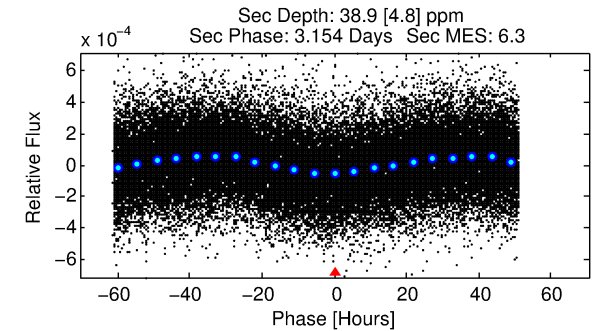
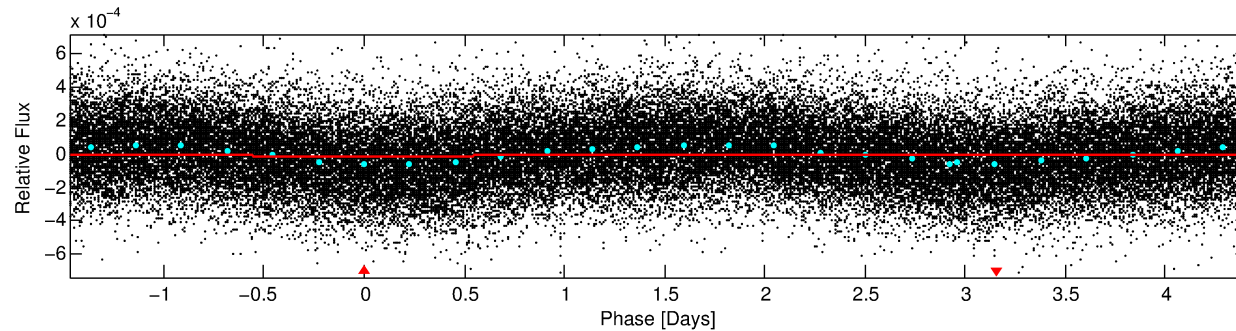
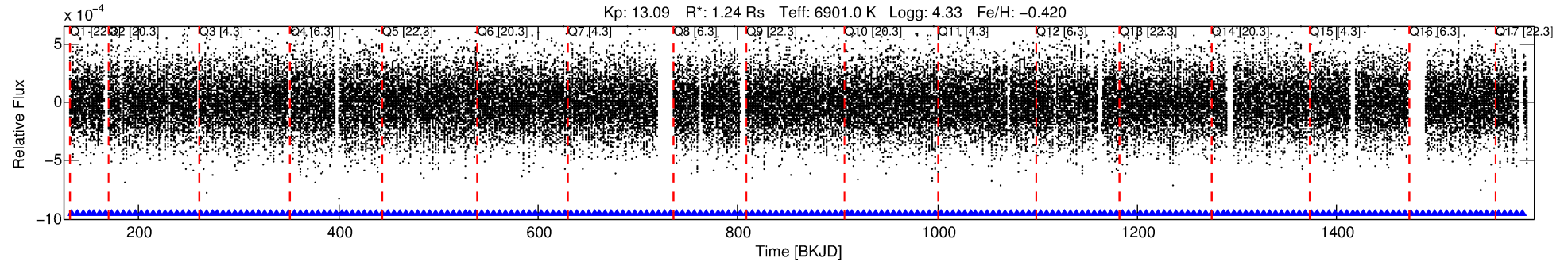
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012217283-01

No Significant Match Found

DV One-Page Summary

KIC: 12217283 Candidate: 1 of 1 Period: 5.886 d



DV Fit Results:

Period = 5.88612 [0.00022] d
Epoch = 132.1935 [0.0275] BKJD
Rp/R* = 0.0045 [0.0008]
a/R* = 1.23 [0.38]
b = 0.88 [0.24]
Seff = 684.36 [281.10]
Teff = 1304 [134] K
Rp = 0.61 [0.22] Re
a = 0.0676 [0.0176] AU
Ag = 266.97 [138.26] [1.92σ]
Teffp = 8151 [827] K [8.17σ]

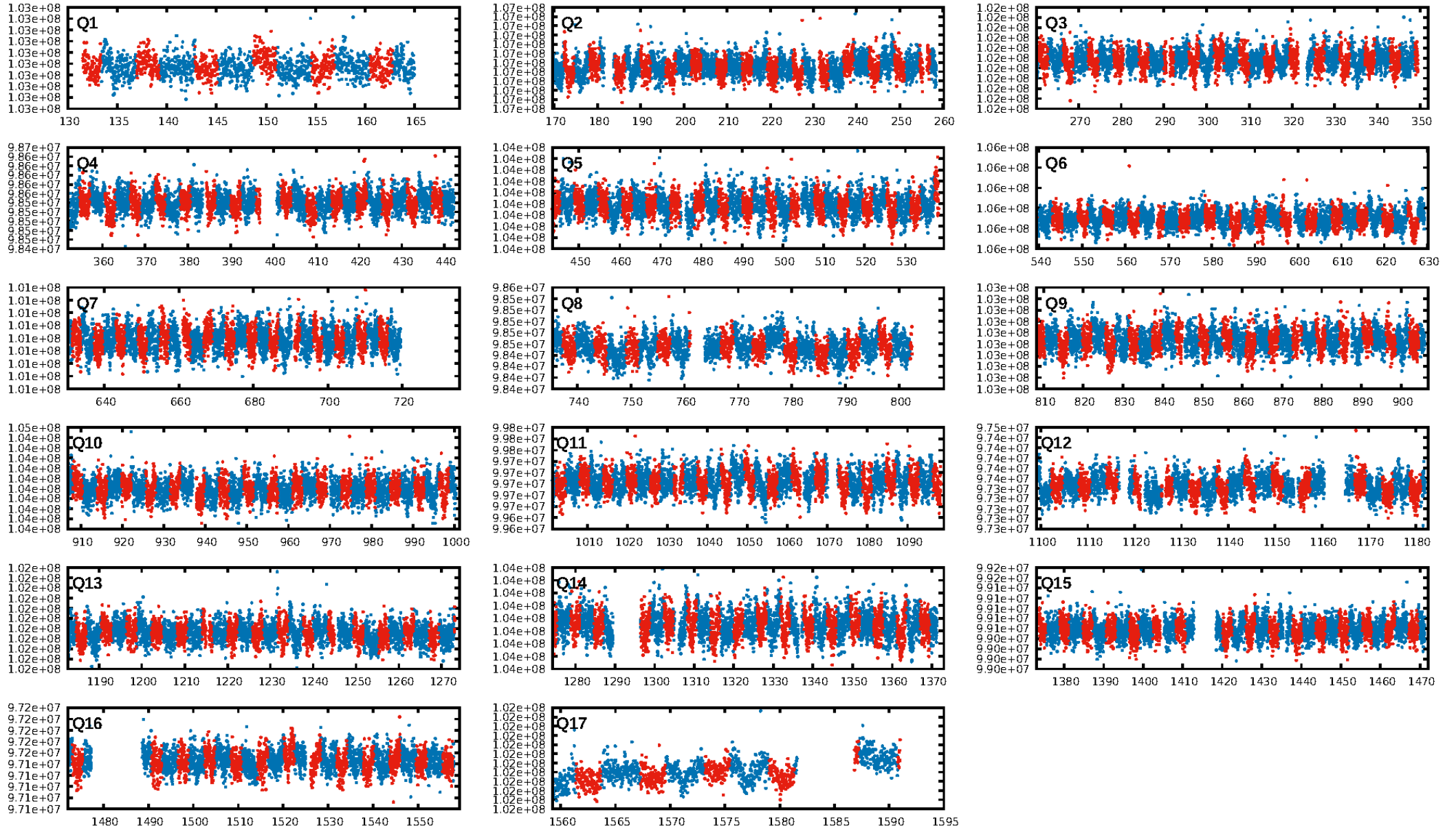
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.36e-15
RollingBand-fgt: 1.00 [225/225]
GhostDiagnostic-chr: 1.844
Centroid-sig: 36.2%
Centroid-so: 1.353 arcsec [1.05σ]
OotOffset-rm: 1.903 arcsec [3.12σ]
KicOffset-rm: 1.992 arcsec [2.99σ]
OotOffset-st: 4/4/2/3 [13]
KicOffset-st: 4/4/2/3 [13]
DiffImageQuality-fgm: 0.62 [8/13]
DiffImageOverlap-fno: 1.00 [17/17]

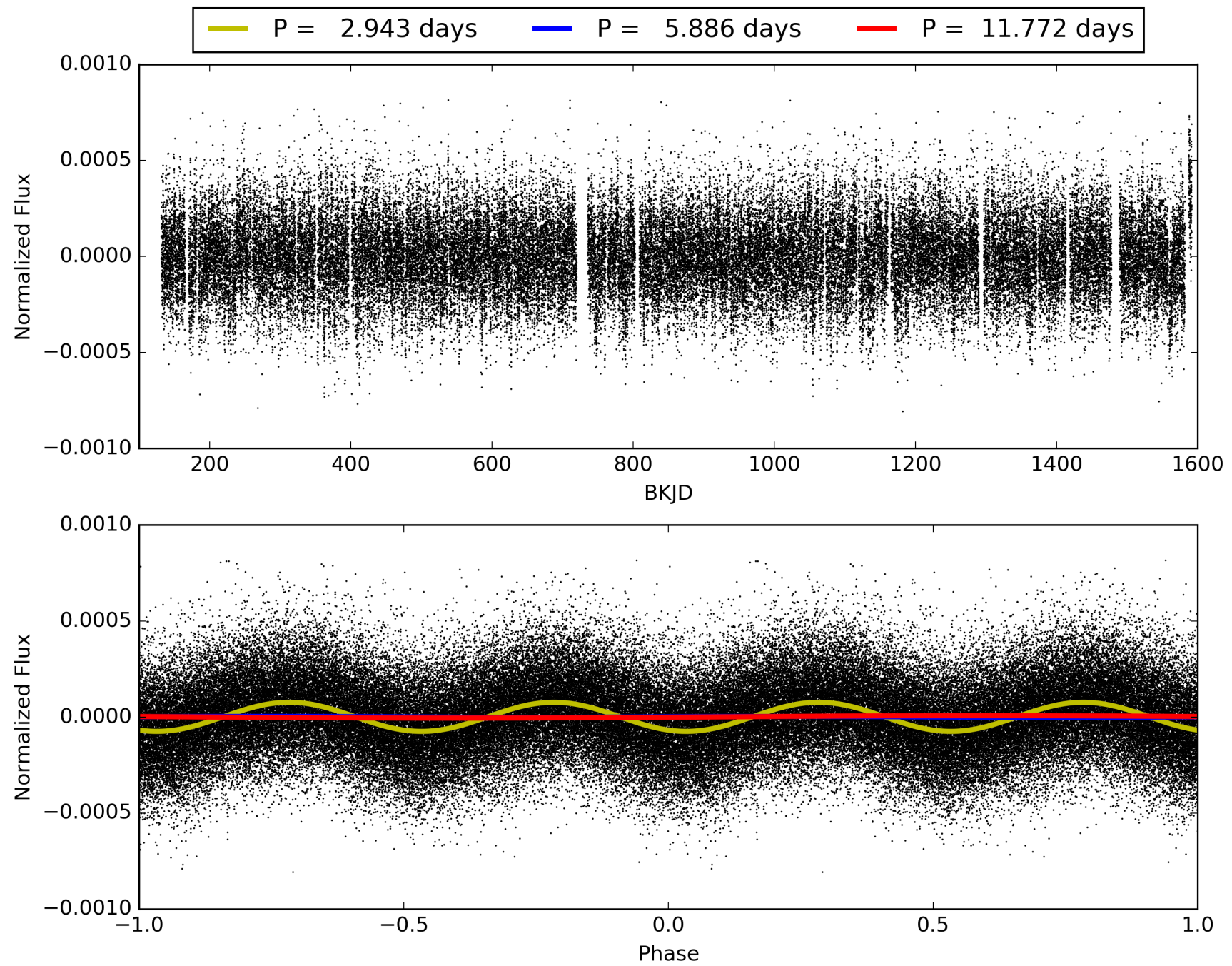
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:06:25 Z

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

TCE 012217283-01, PDC Light Curves

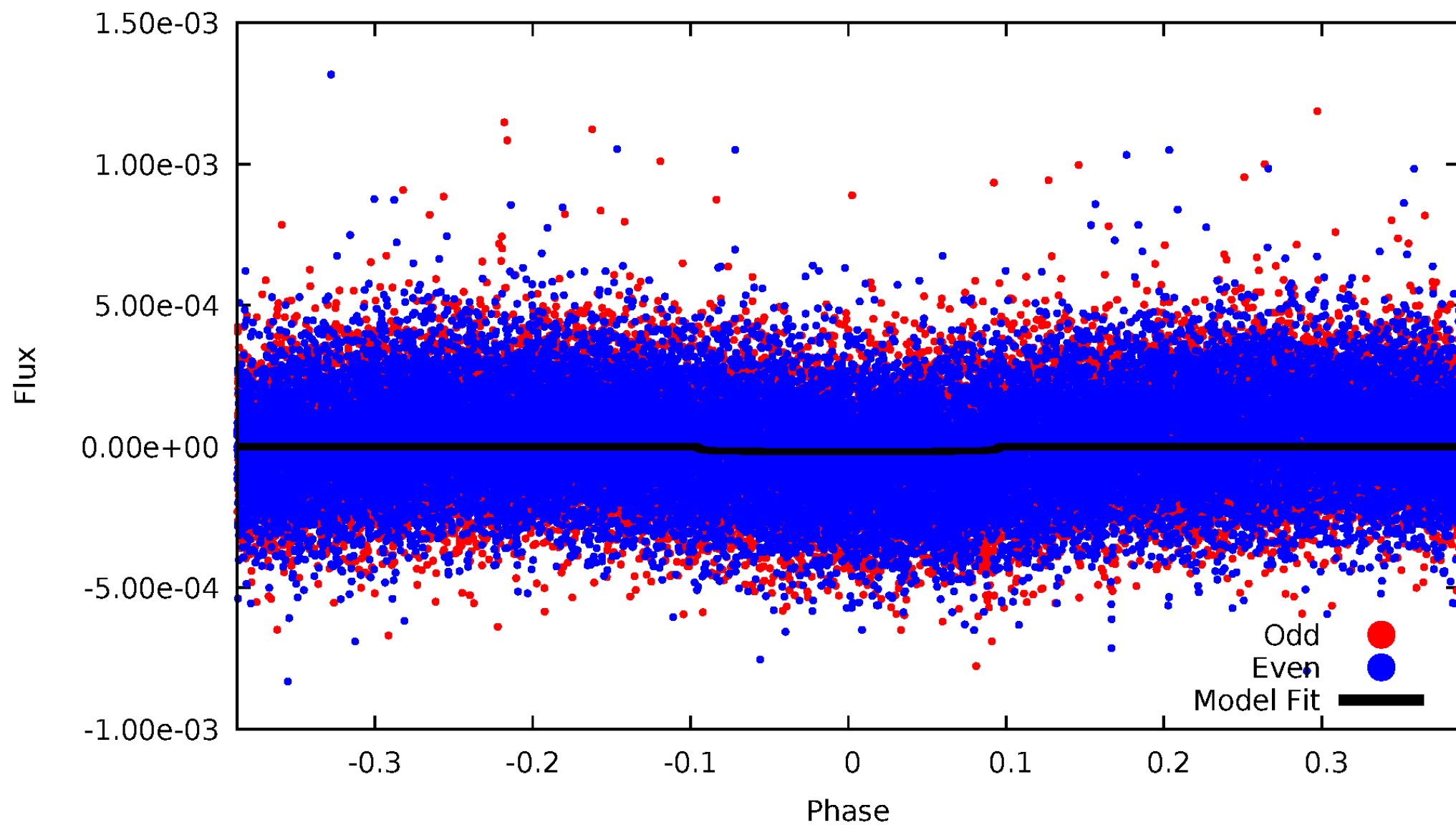


TCE 012217283-01



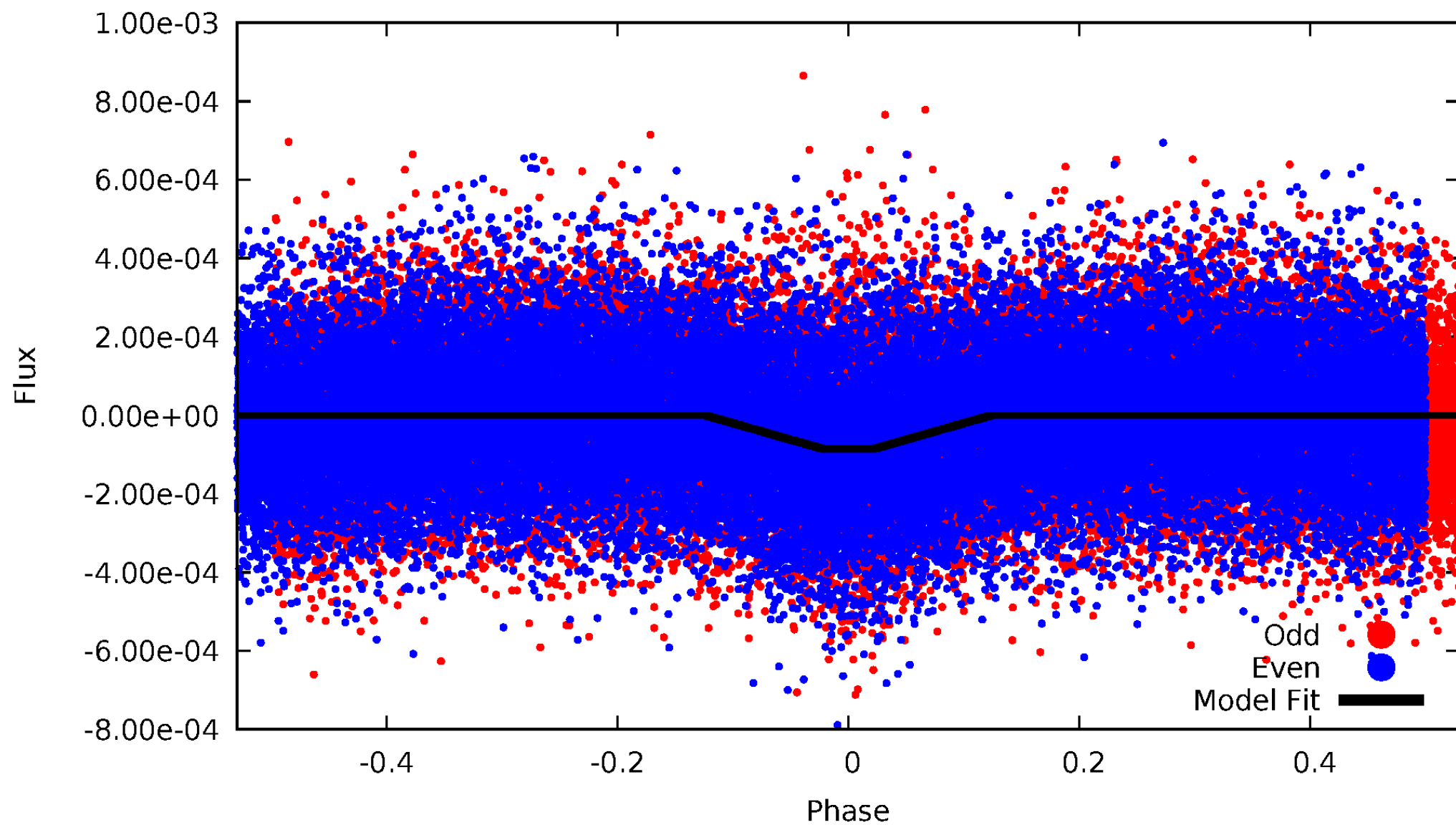
DV Odd/Even

TCE 012217283-01

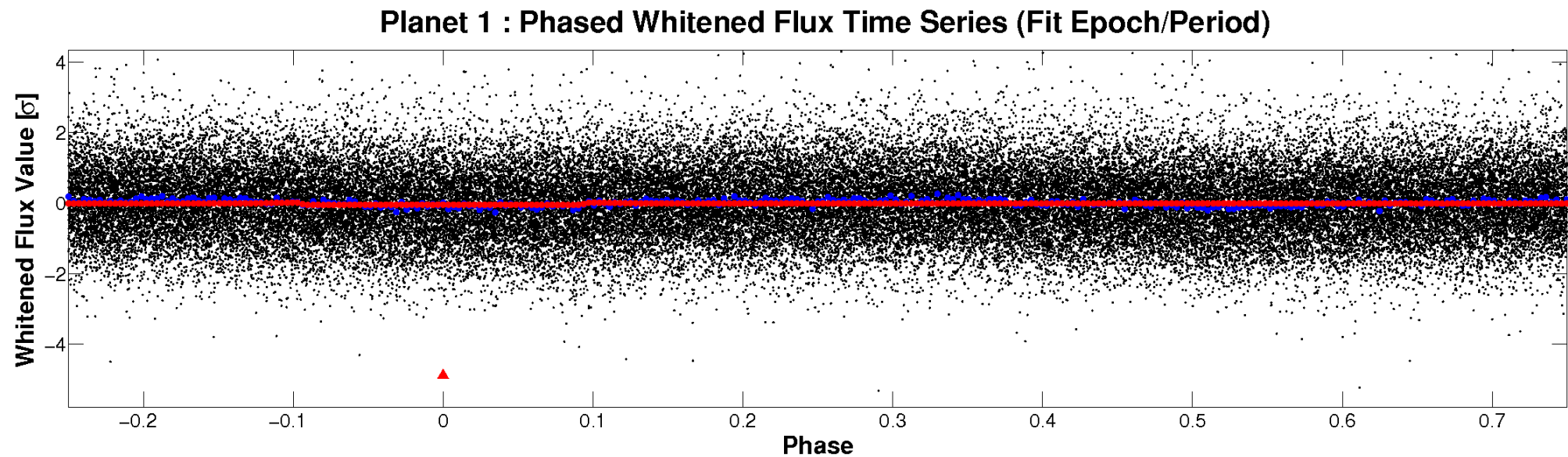
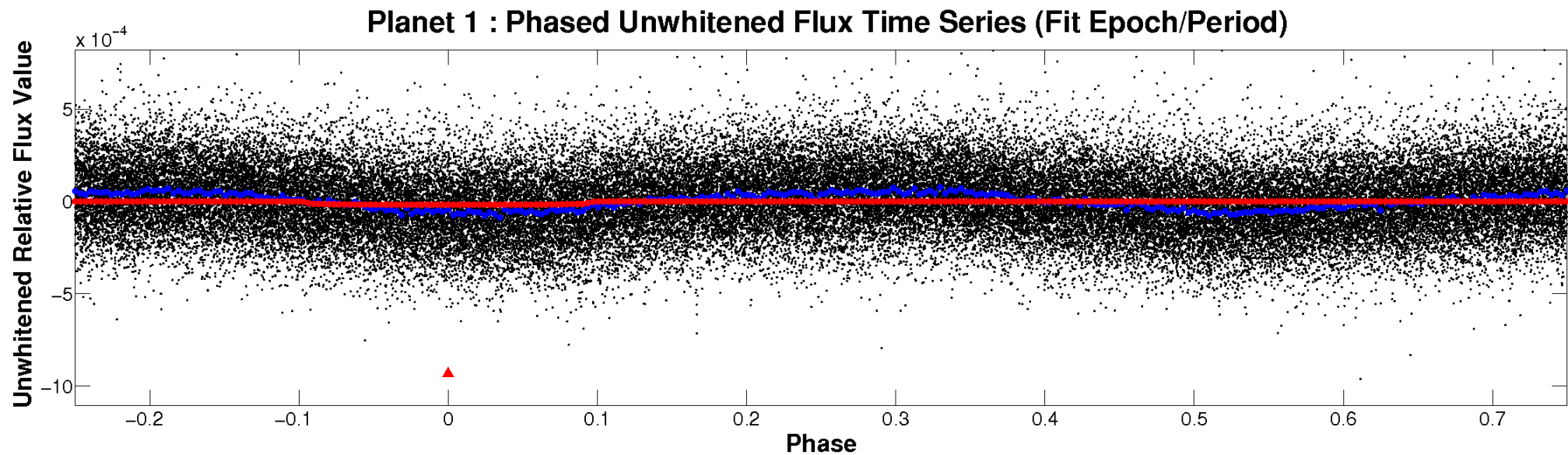


ALT Odd/Even

TCE 012217283-01

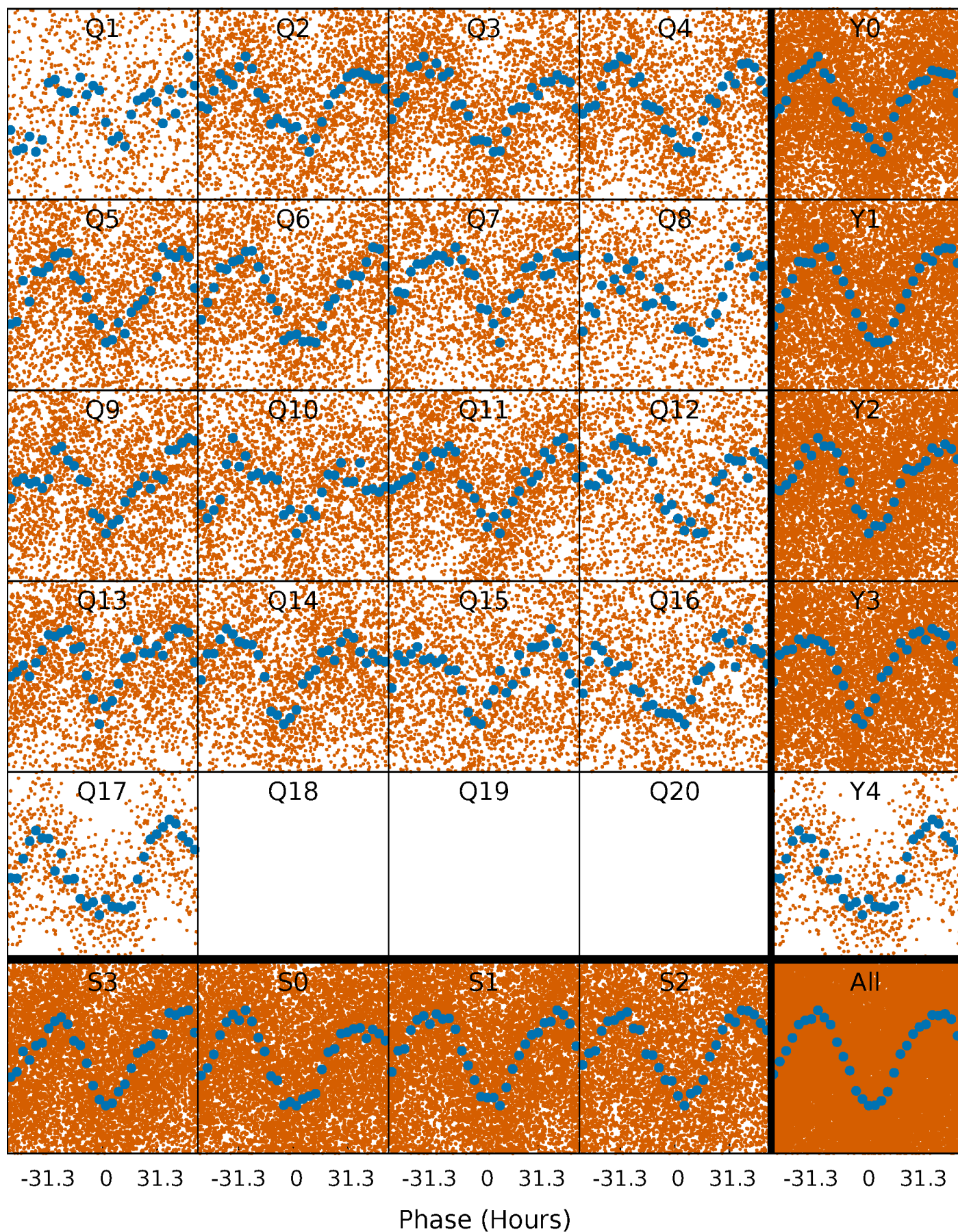


Non-Whitened Vs. Whitened Light Curve



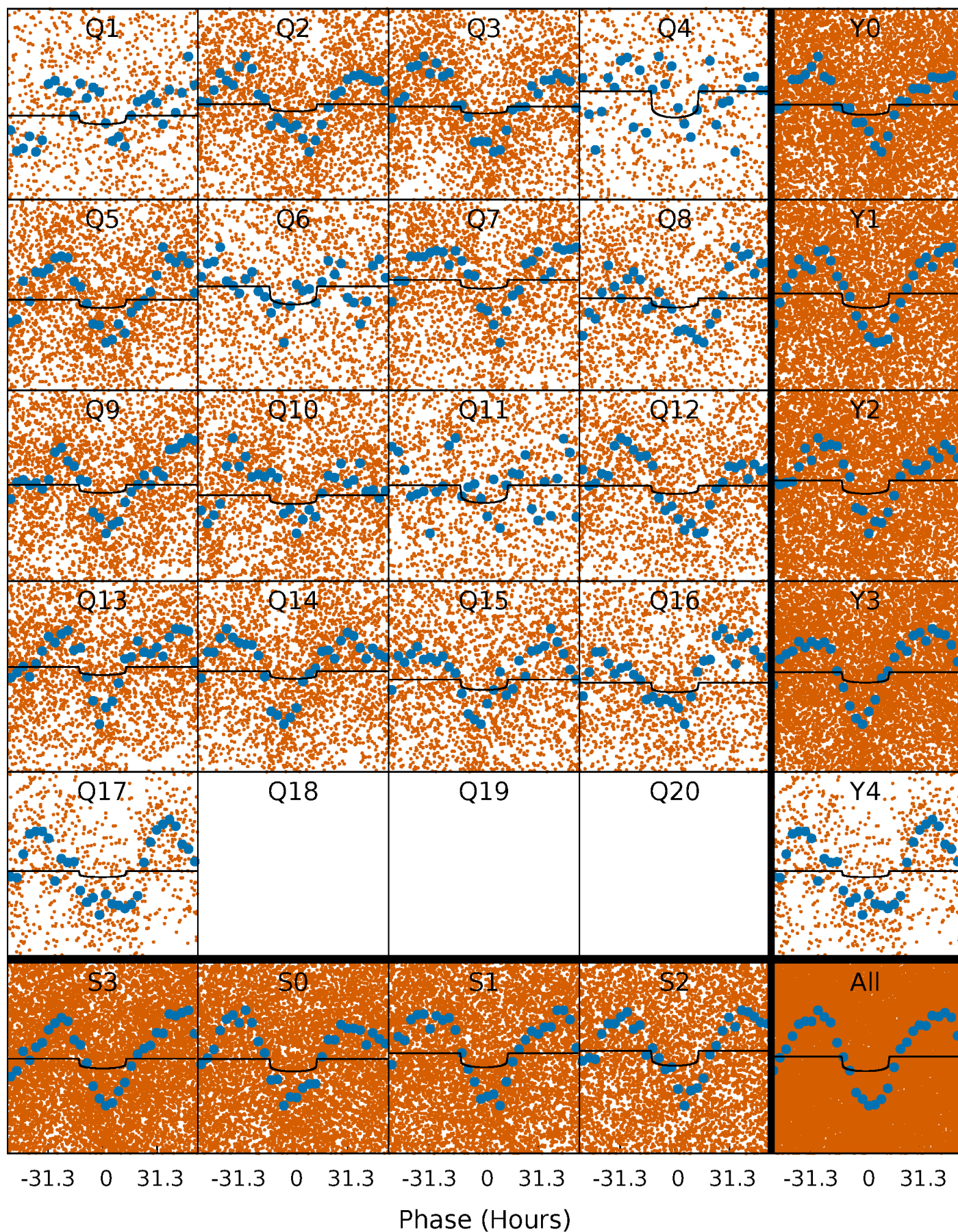
PDC Quarter-Phased Transit Curves

TCE 012217283-01 P= 5.886121 Days $T_0=132.193528$ (BKJD)



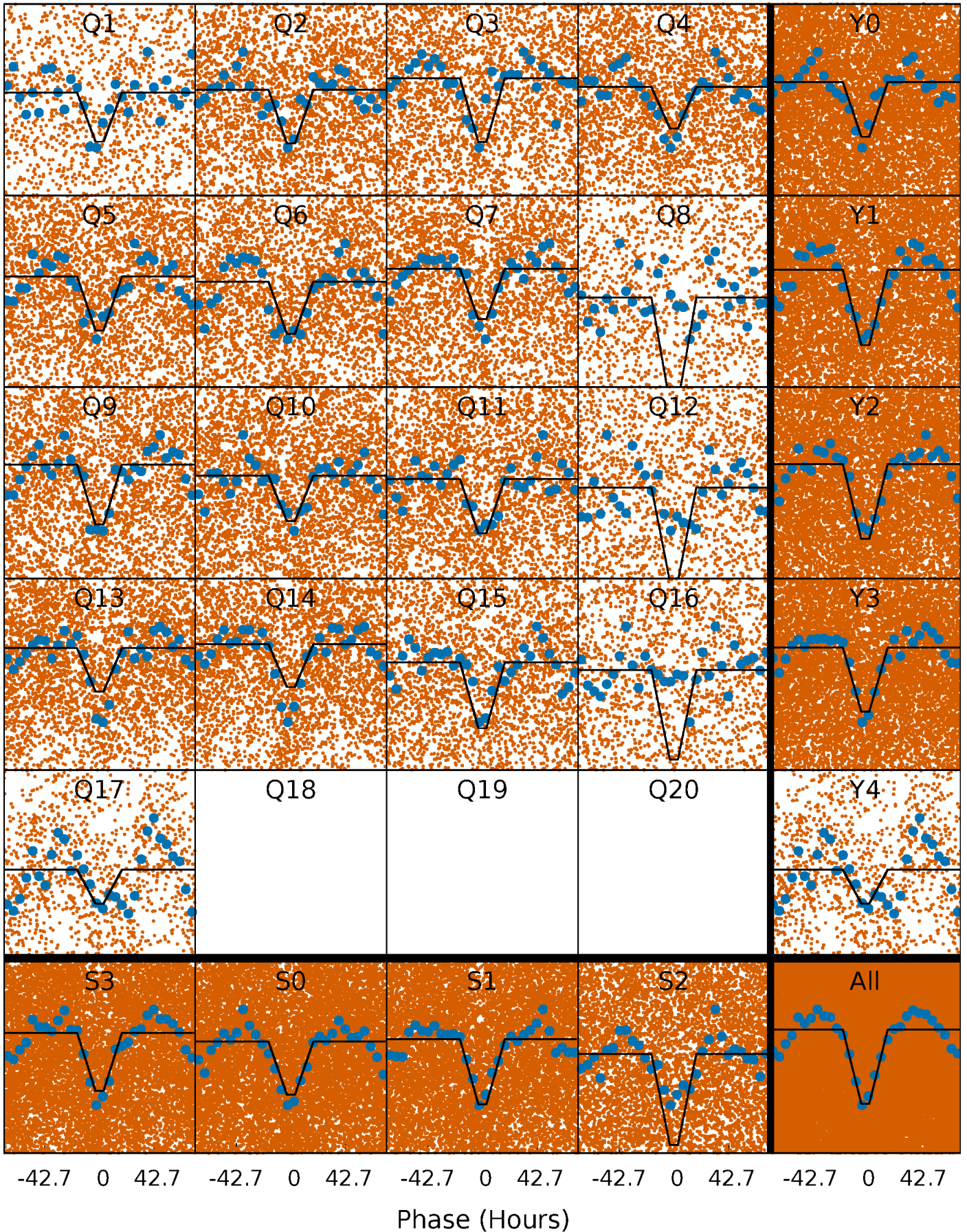
DV Quarter-Phased Transit Curves

TCE 012217283-01 P= 5.886121 Days $T_0=132.193528$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

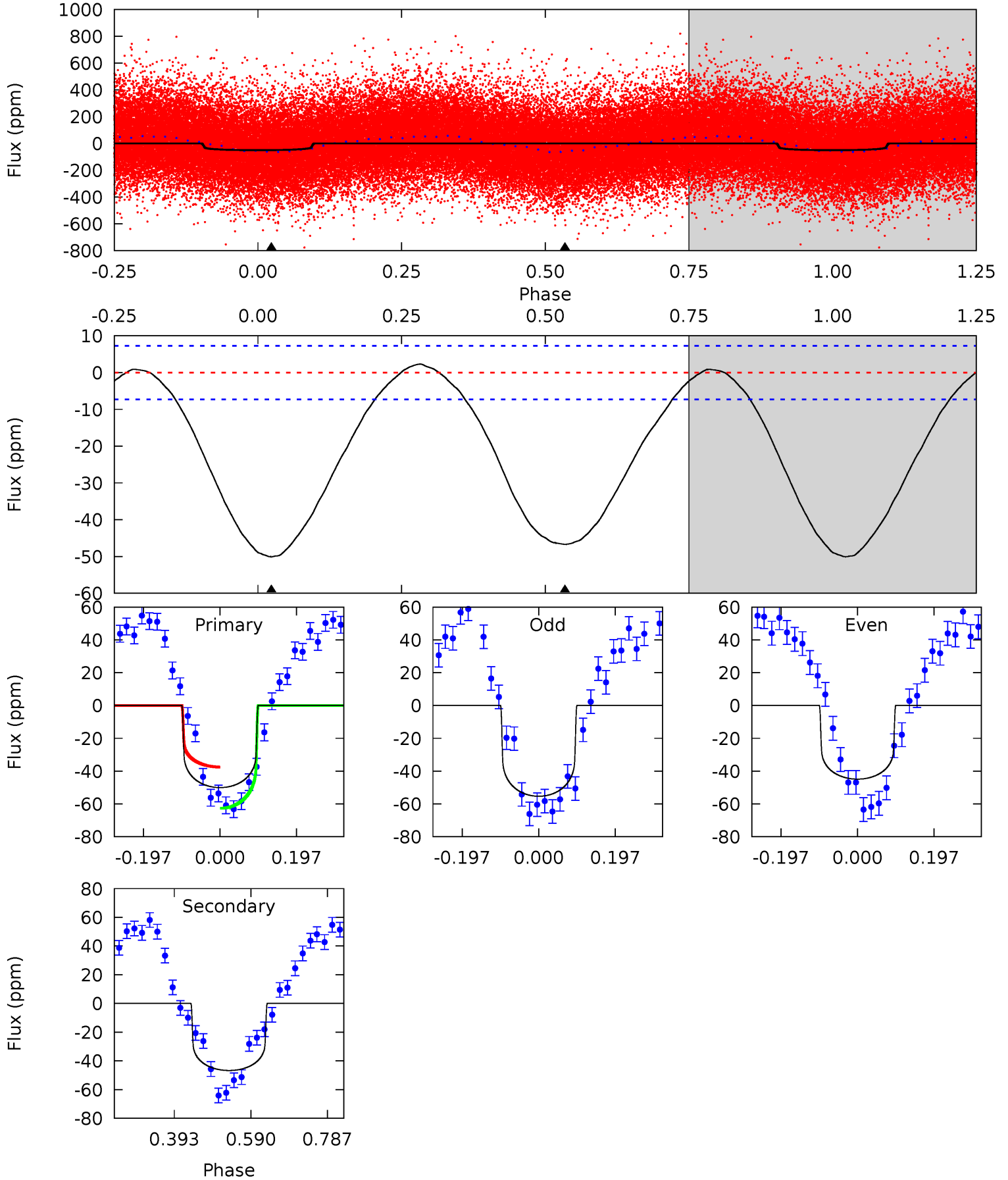
TCE 012217283-01 P= 5.882828 Days $T_0=132.709464$ (BKJD)



DV Model-Shift Uniqueness Test

012217283-01, P = 5.886121 Days, E = 126.307407 Days

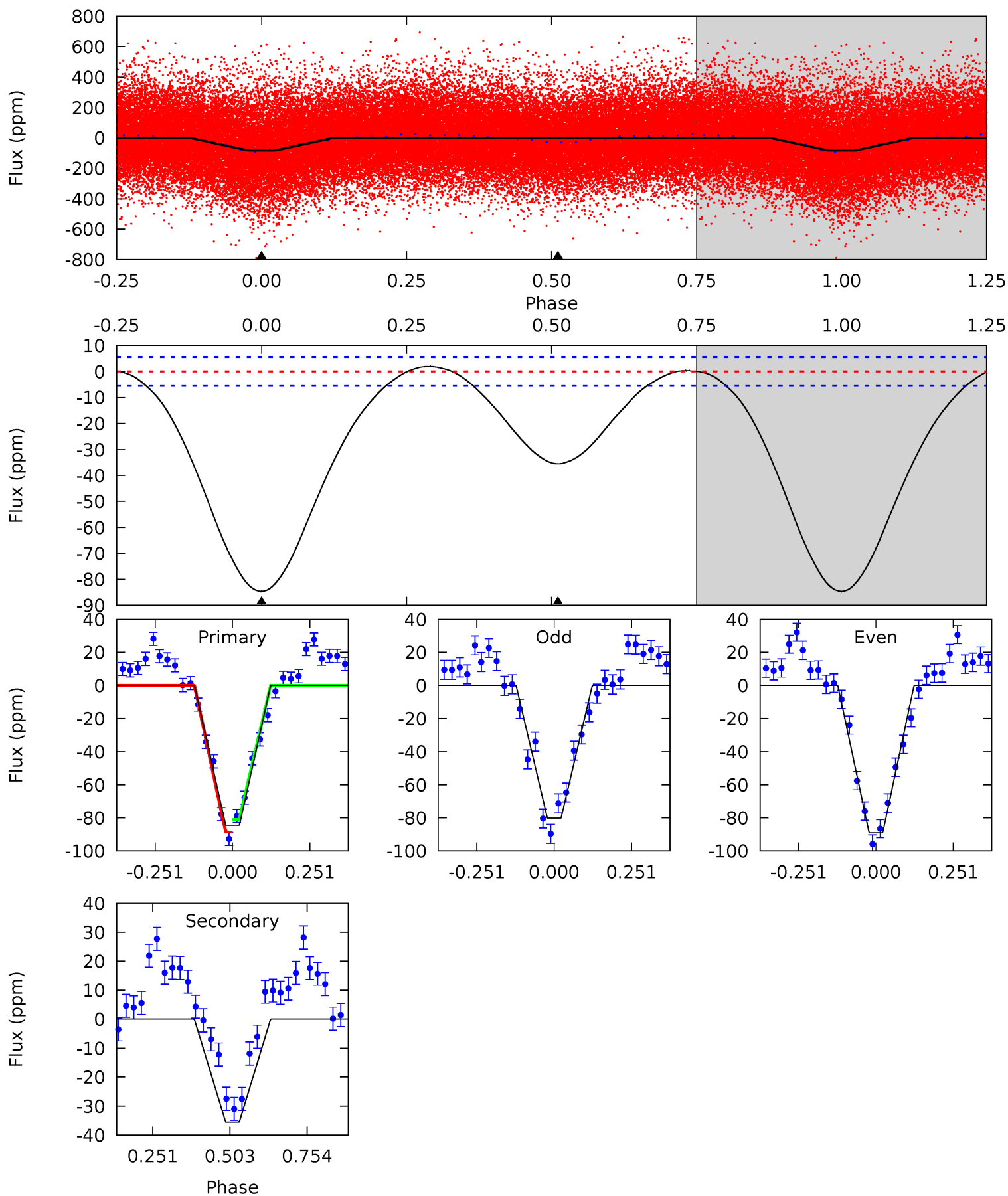
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.4	28.4	0	0	4.42	1.29	1.11	30.4	30.4	28.4	28.4	3.18	1.02	0.04	7.68



Alt Model-Shift Uniqueness Test

012217283-01, P = 5.882828 Days, E = 126.826636 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
66.1	27.8	0	0	4.37	1.15	1.11	66.1	66.1	27.8	27.8	3.47	0.99	0.02	2.94



Stellar Parameters For KIC 012217283

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6901^{+216}_{-312}	$4.326^{+0.084}_{-0.196}$	$-0.420^{+0.250}_{-0.300}$	$1.241^{+0.397}_{-0.170}$	$1.196^{+0.185}_{-0.166}$	$0.881^{+0.333}_{-0.439}$
	+3%/-5%	+2%/-5%	+60%/-71%	+32%/-14%	+15%/-14%	+38%/-50%
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 012217283-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-47 ± 2	$0.62^{+0.14}_{-0.12}$	1843^{+126}_{-105}	8906^{+1392}_{-989}	301^{+157}_{-95}
Alt.	-36 ± 1	$1.29^{+0.23}_{-0.17}$	1846^{+134}_{-111}	5507^{+300}_{-267}	53^{+16}_{-14}

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

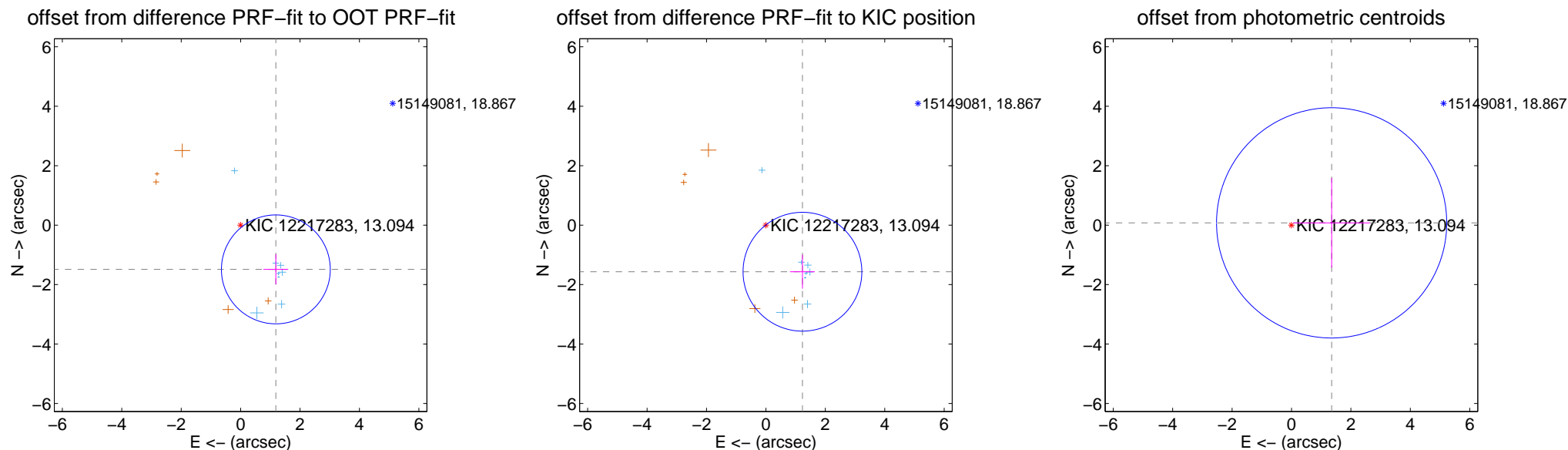
DV Centroid Data

Supplemental centroid analysis for 012217283-01. Kepler magnitude: 13.09. Transit SNR 5.46

There are 8 quarters with good PRF difference image offsets

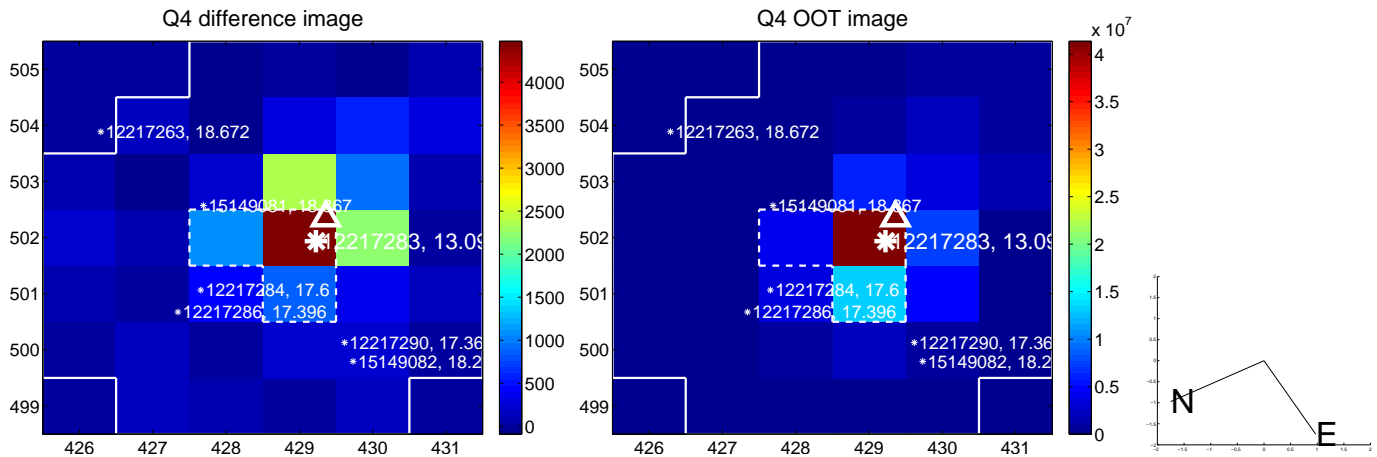
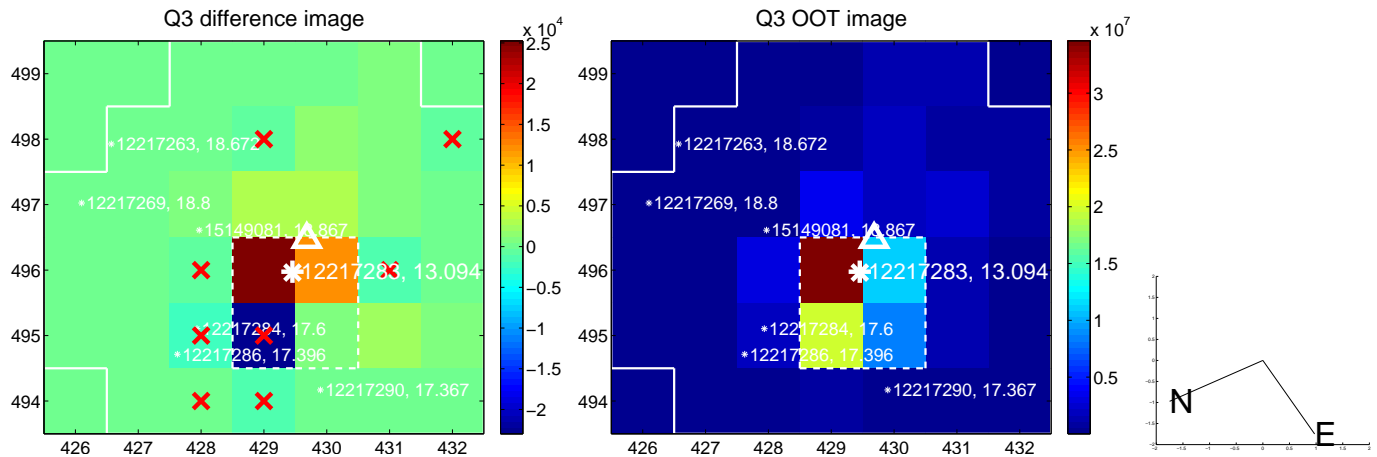
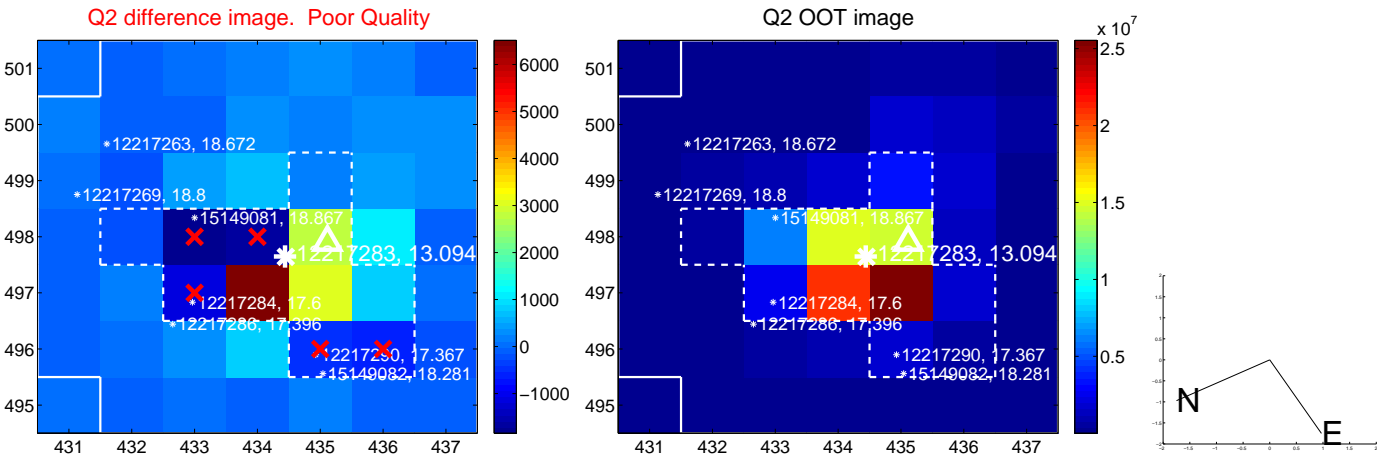
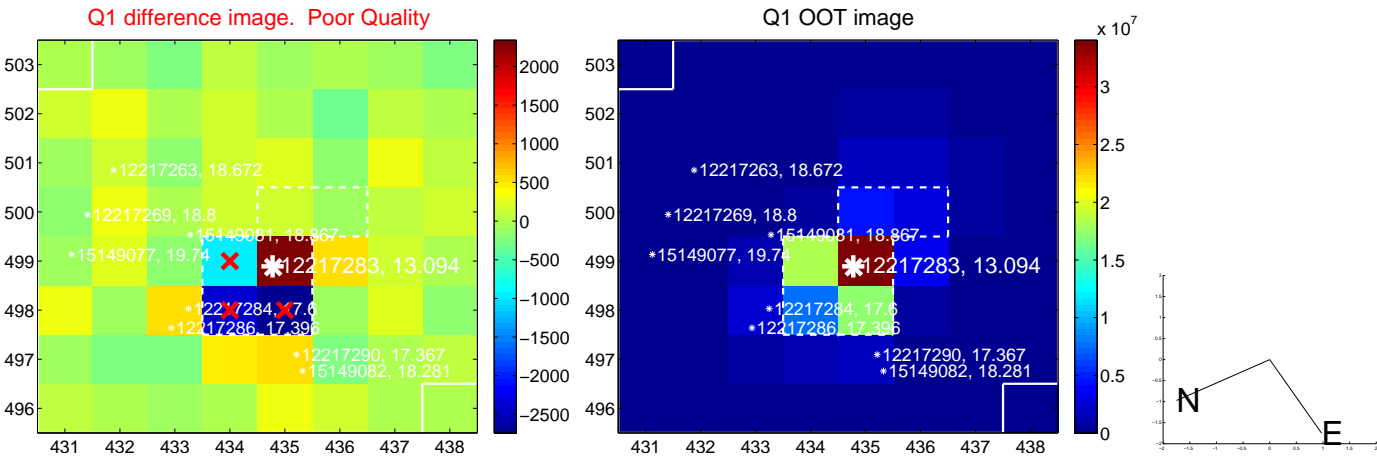
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.903 ± 0.611	3.12	-1.186 ± 0.415	-1.488 ± 0.507
PRF-fit source offset from KIC position	1.992 ± 0.666	2.99	-1.229 ± 0.417	-1.567 ± 0.568
photometric centroid source offset	1.35 ± 1.29	1.05	-1.35 ± 1.29	0.08 ± 1.51

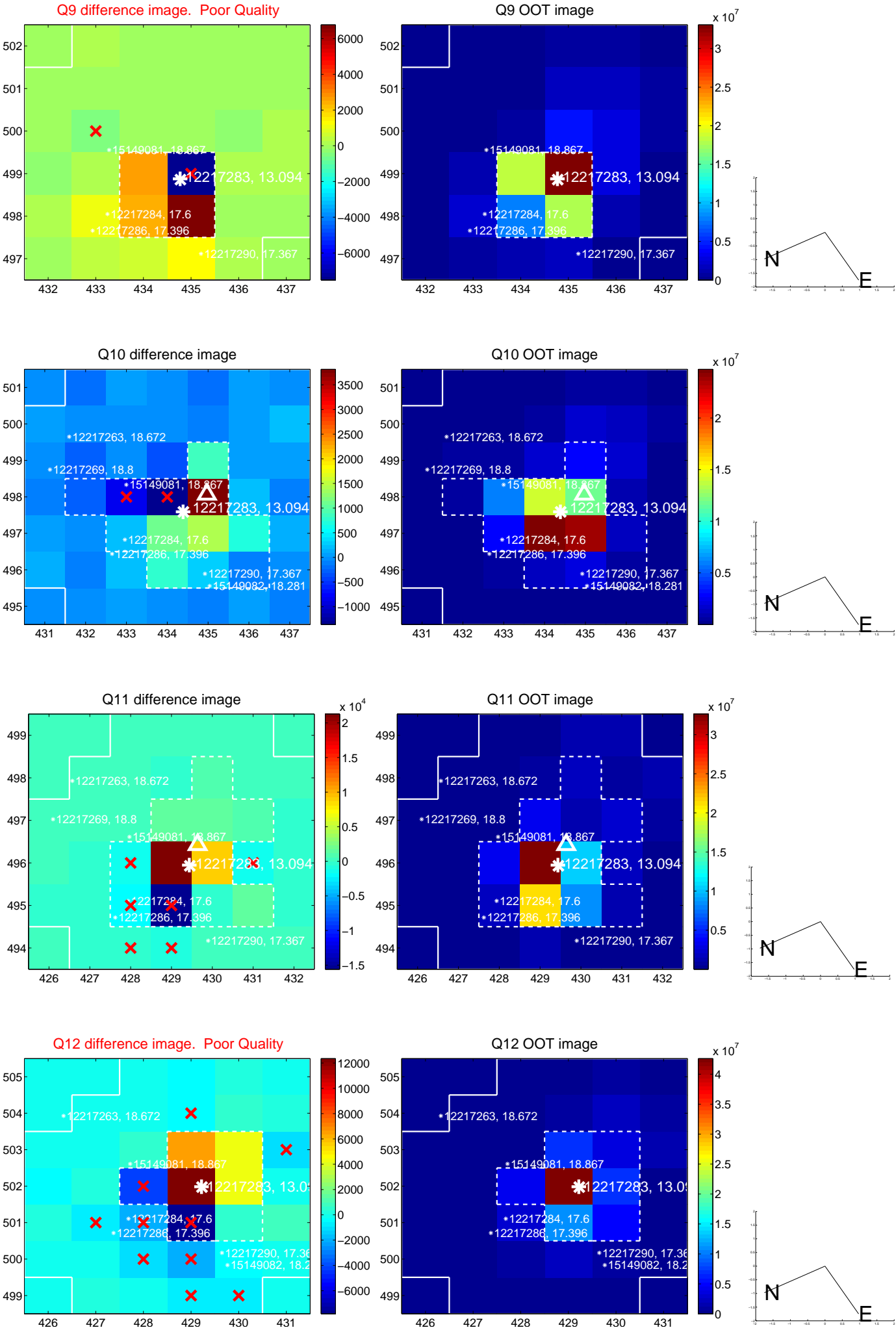


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

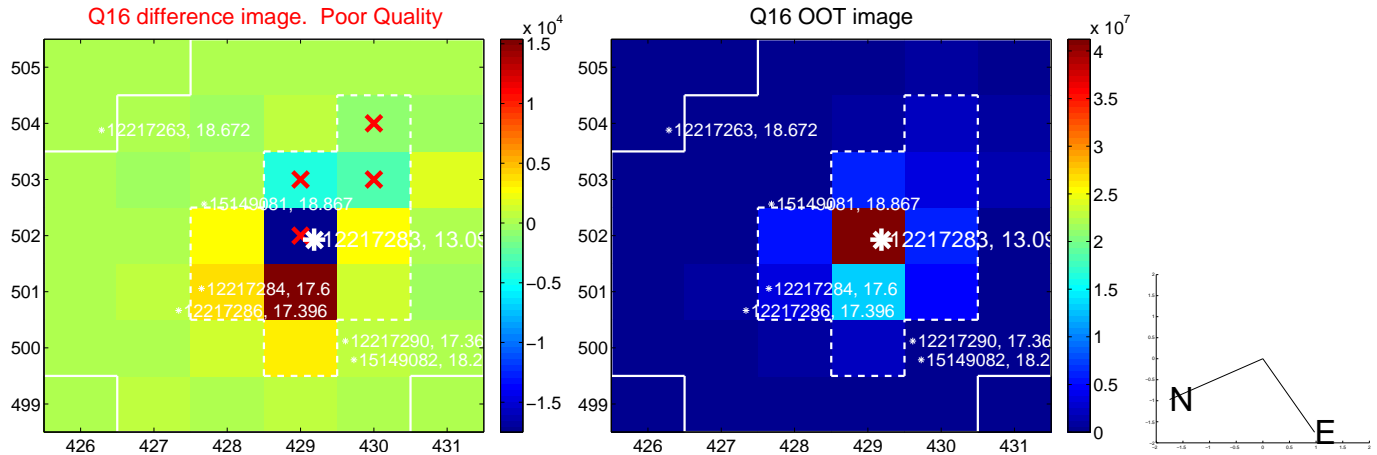
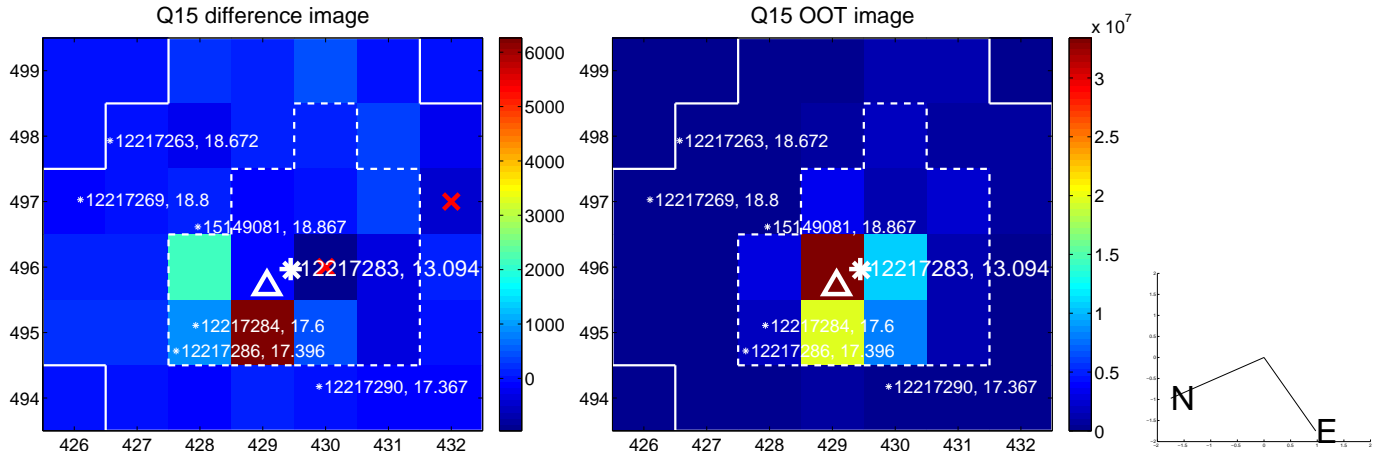
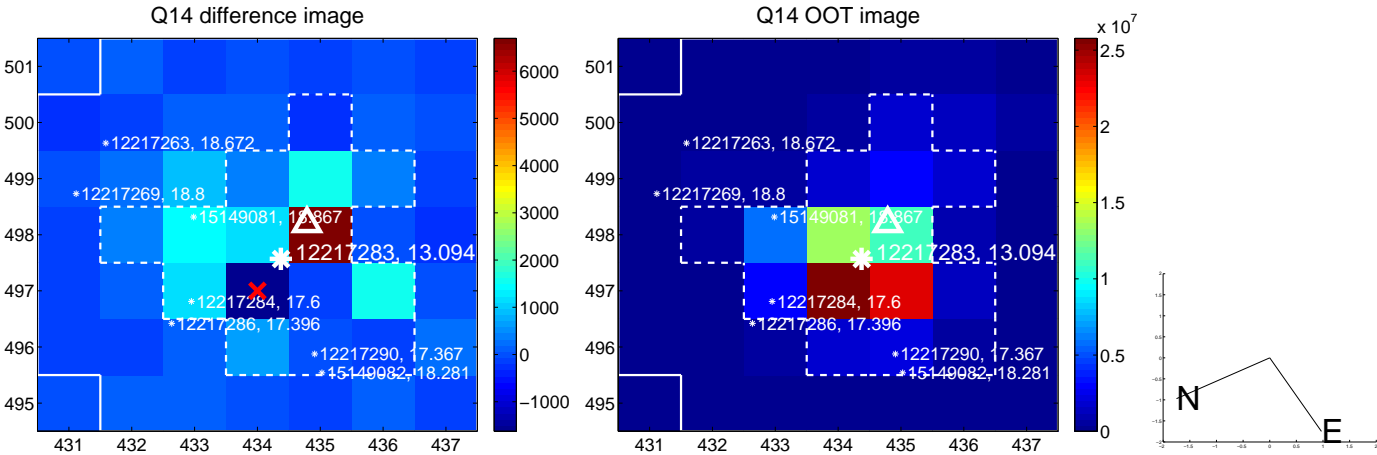
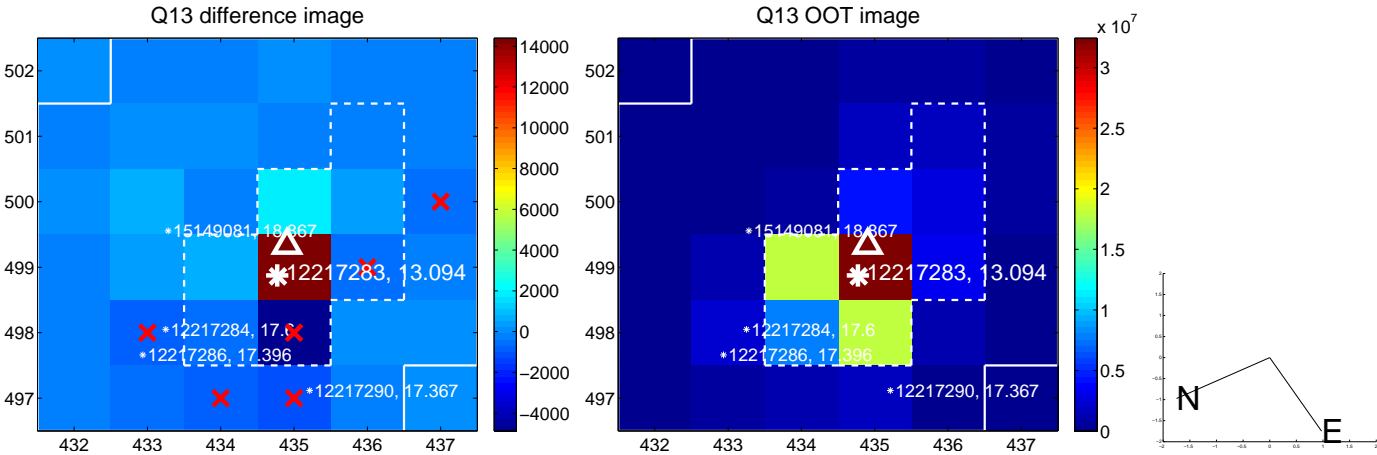
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



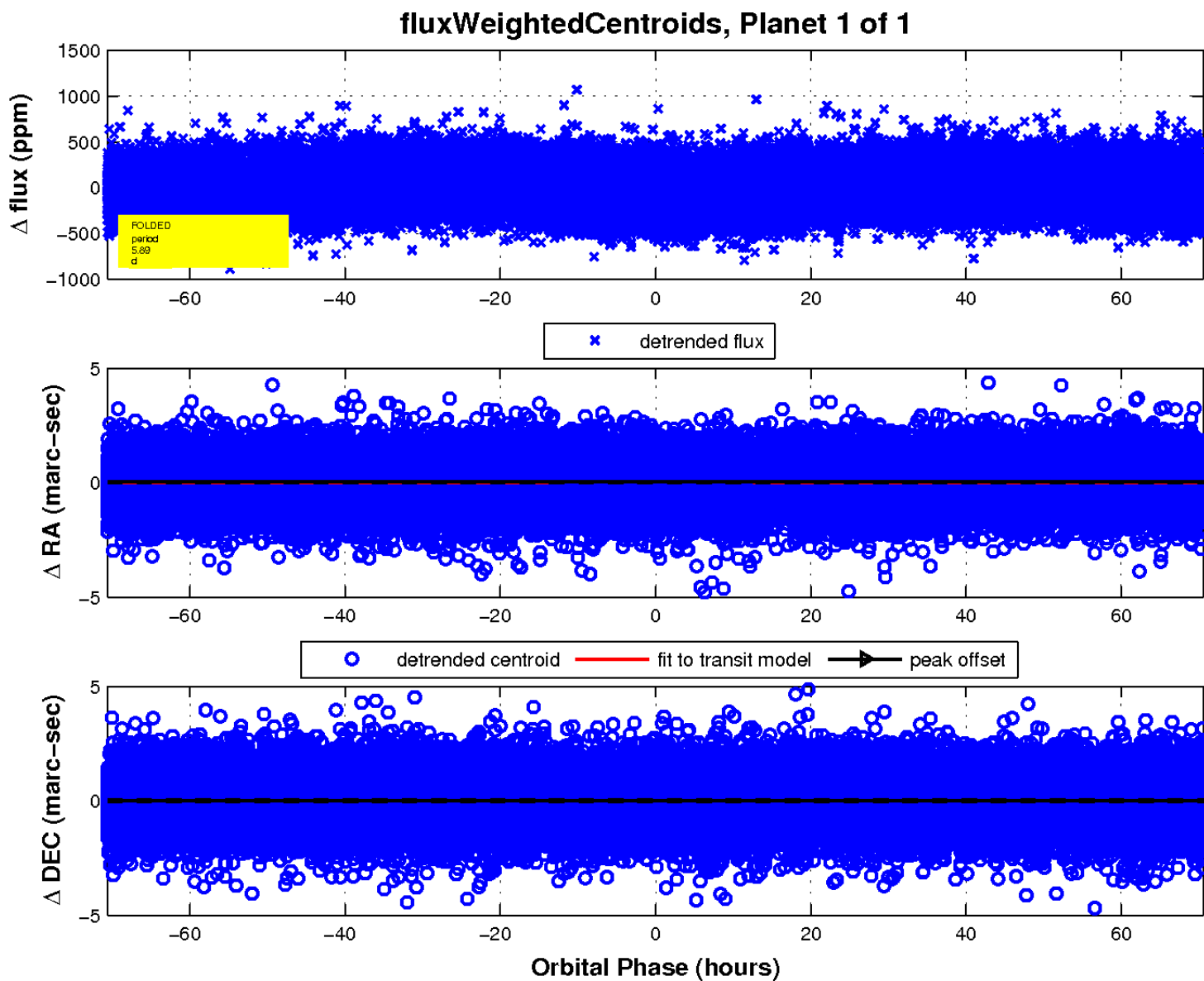
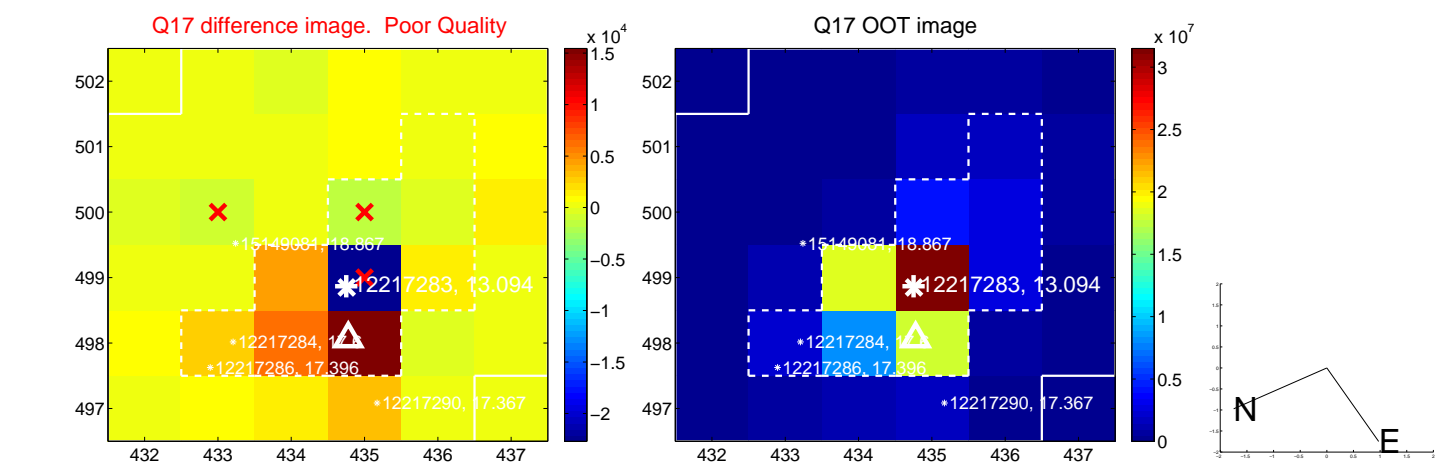
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

