

KIC 006875342

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})
006875342-01	OBS	5332.01	22.238256	148.355225	85.4	7.088	8.1	7.7	1.05	6192	1.05	57.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006875342-01	OBS	PC	0.89	0	0	0	0	NO_COMMENT

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

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

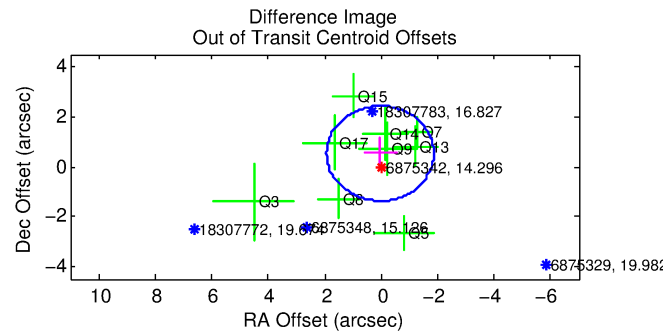
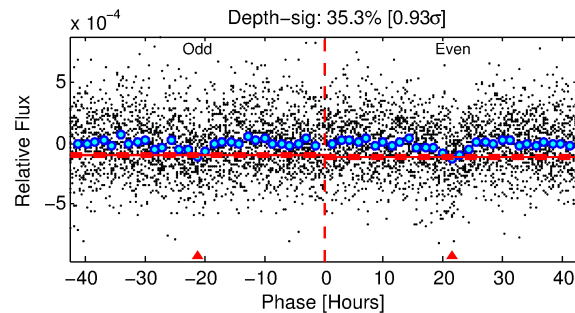
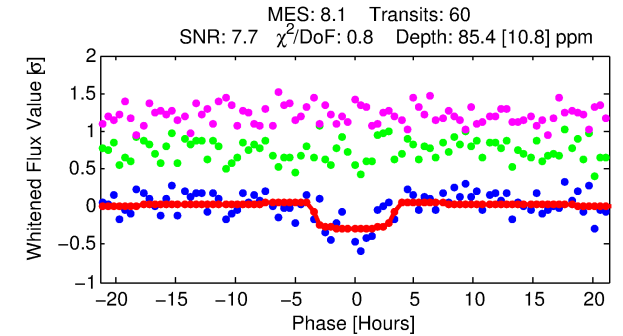
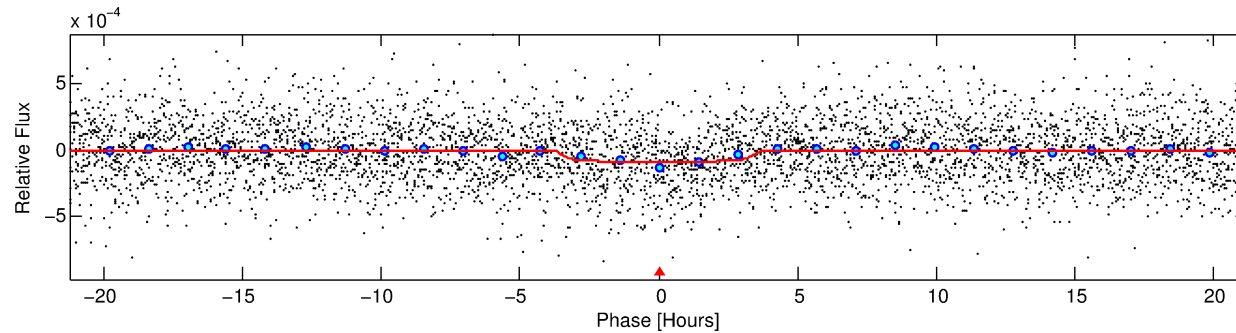
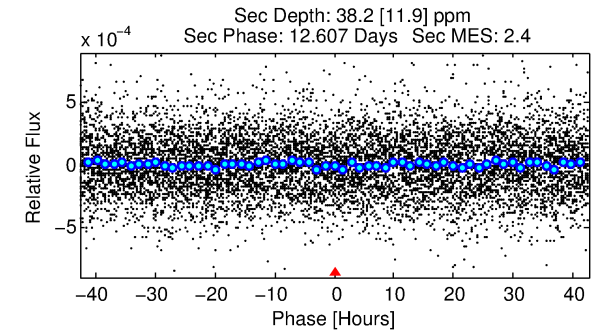
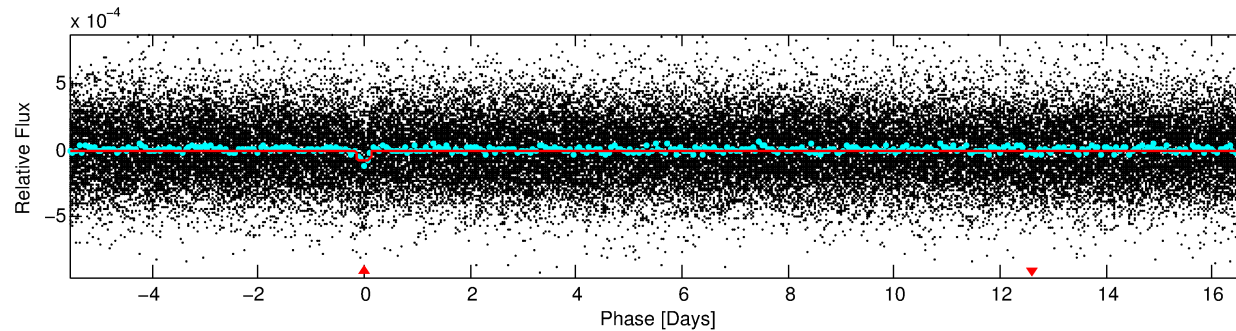
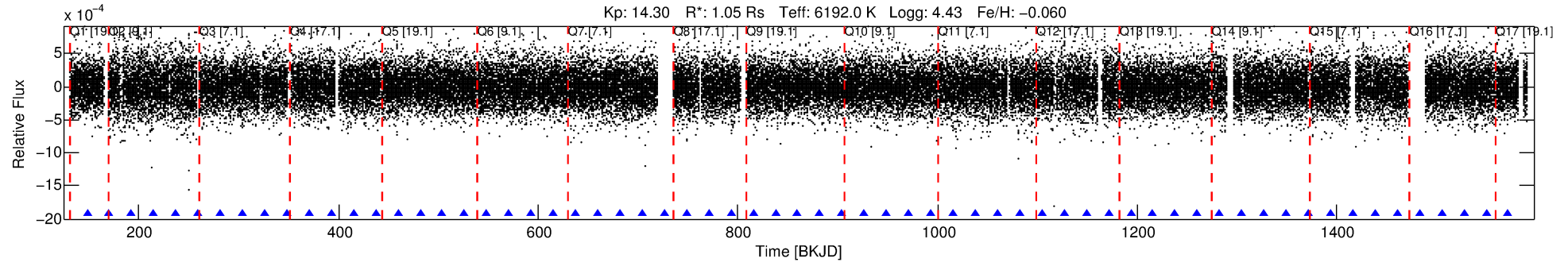
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006875342-01

No Significant Match Found

DV One-Page Summary

KIC: 6875342 Candidate: 1 of 1 Period: 22.238 d
KOI: K05332.01 Corr: 0.812



DV Fit Results:

Period = 22.23826 [0.00040] d
Epoch = 148.3552 [0.0146] BKJD
Rp/R* = 0.0092 [0.0069]
a/R* = 16.51 [62.82]
b = 0.74 [2.38]
Seff = 57.40 [25.91]
Teq = 702 [79] K
Rp = 1.05 [0.87] Re
a = 0.1598 [0.0466] AU
Ag = 483.33 [771.32] [0.63σ]
Teff = 5088 [1966] K [2.23σ]

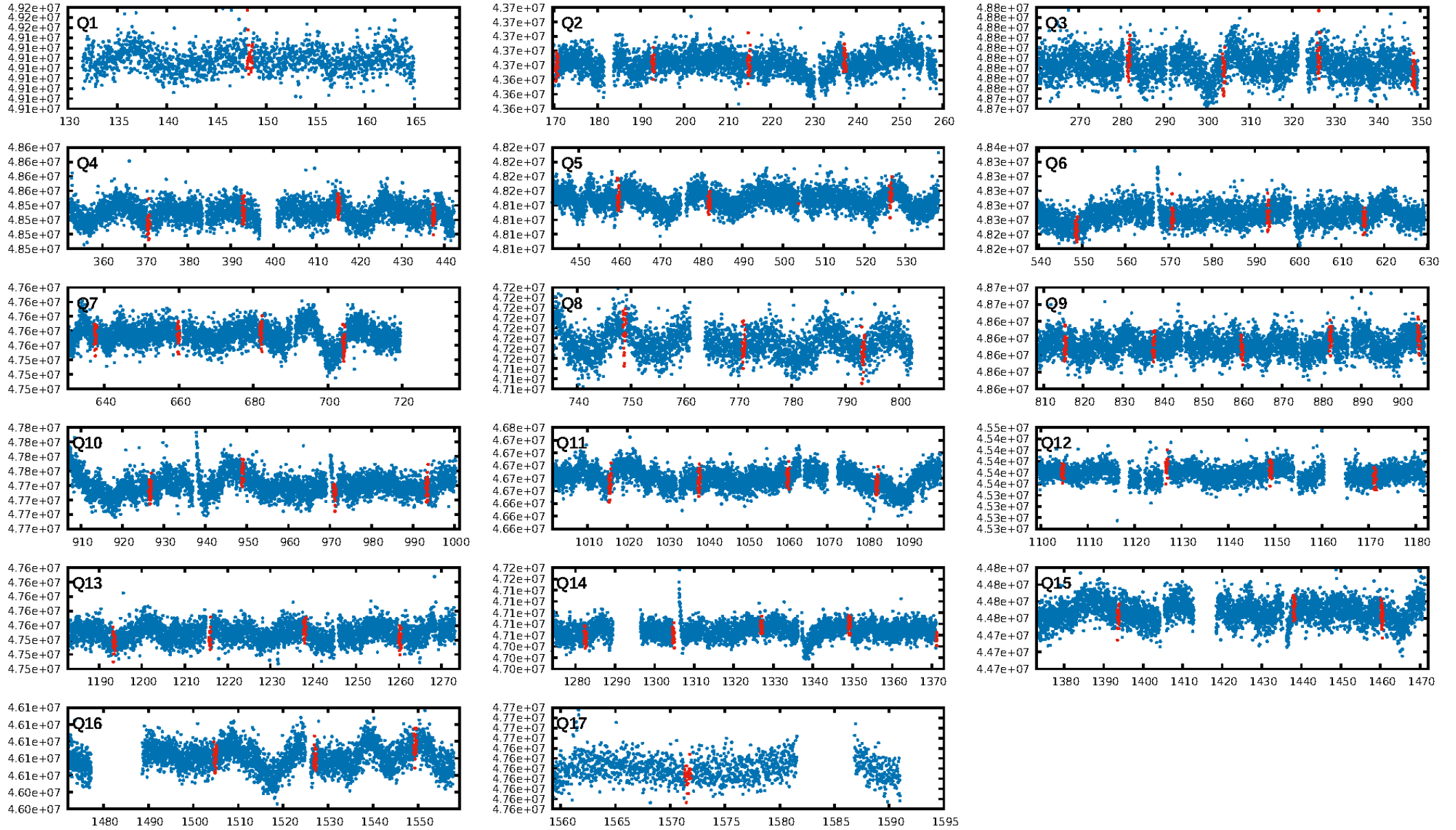
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.50e-16
RollingBand-fgt: 1.00 [58/58]
GhostDiagnostic-chr: -18.18
Centroid-sig: 12.6%
Centroid-so: 0.445 arcsec [0.42σ]
OotOffset-rm: 0.528 arcsec [0.83σ]
OotOffset-st: 1/3/1/4 [9]
KicOffset-rm: 0.601 arcsec [1.05σ]
KicOffset-st: 1/3/1/4 [9]
DiffImageQuality-fgm: 0.67 [6/9]
DiffImageOverlap-fno: 1.00 [17/17]

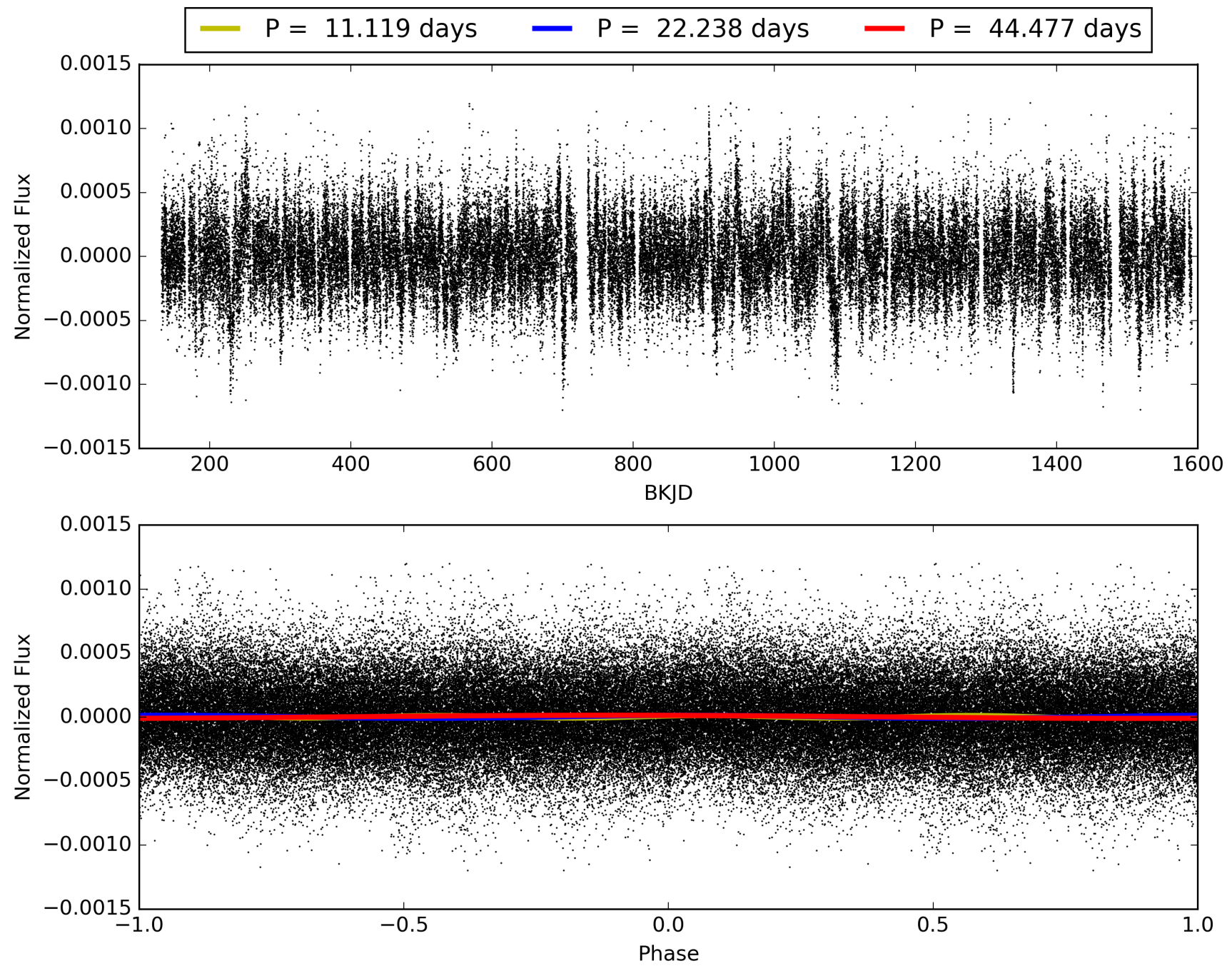
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:33:08 Z

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

TCE 006875342-01, PDC Light Curves

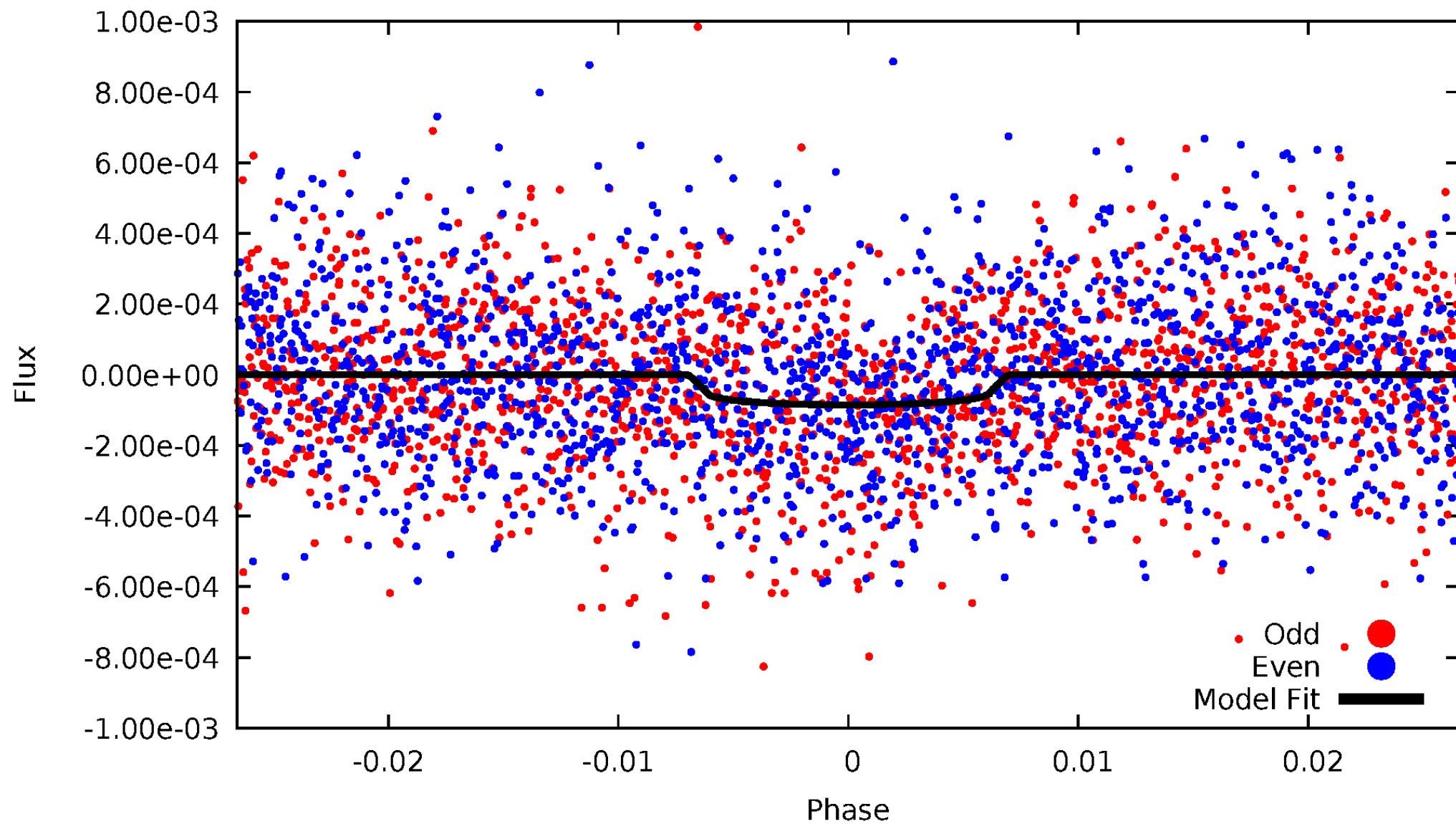


TCE 006875342-01



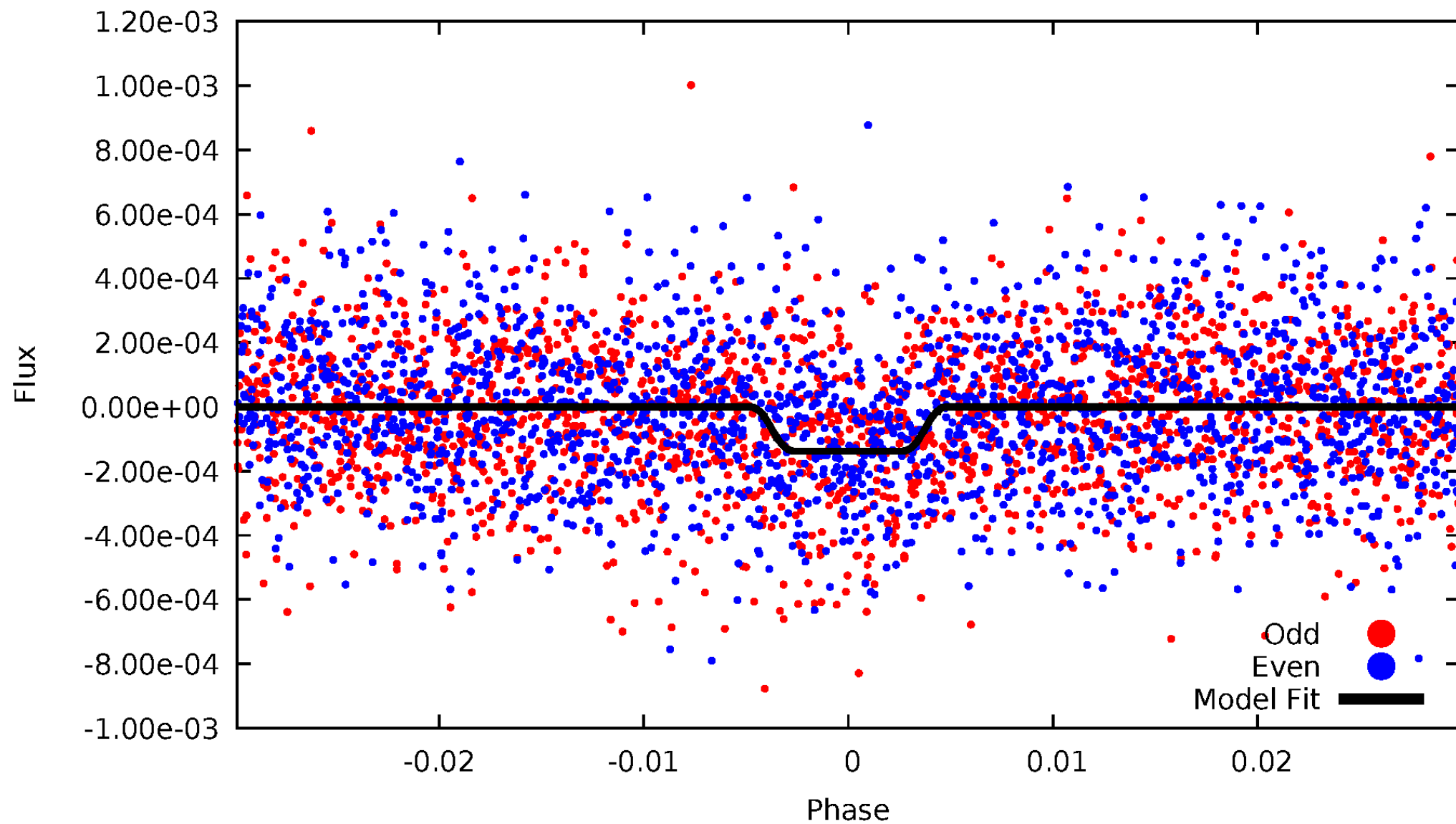
DV Odd/Even

TCE 006875342-01



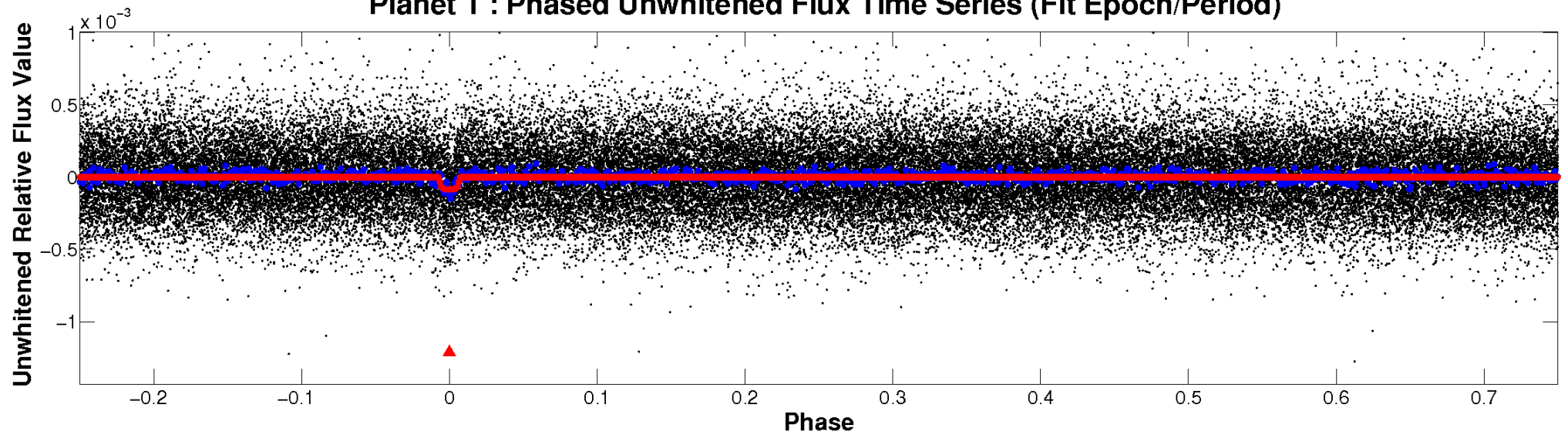
ALT Odd/Even

TCE 006875342-01

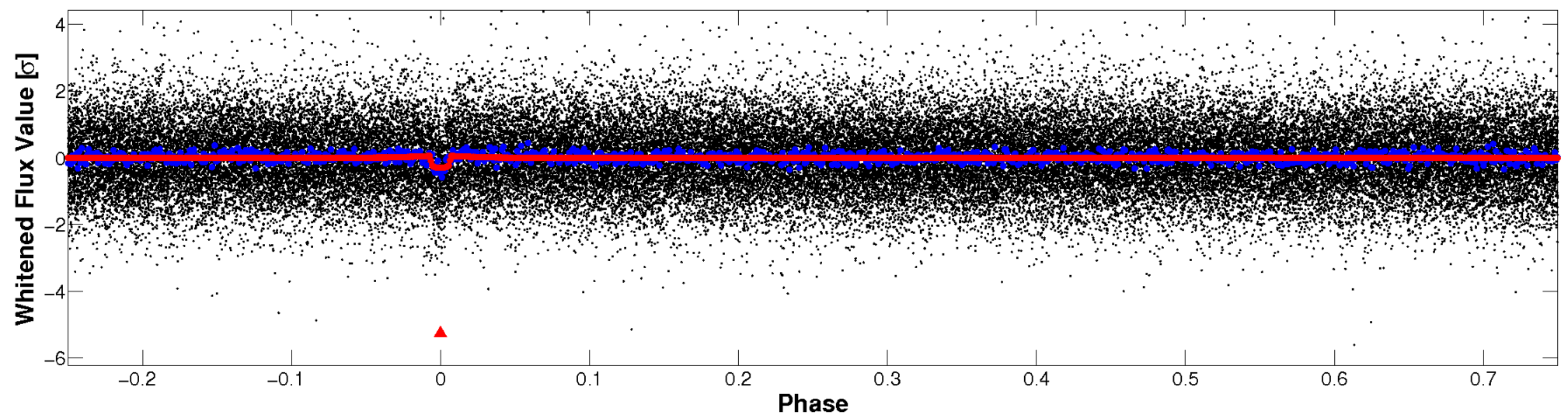


Non-Whitened Vs. Whitened Light Curve

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

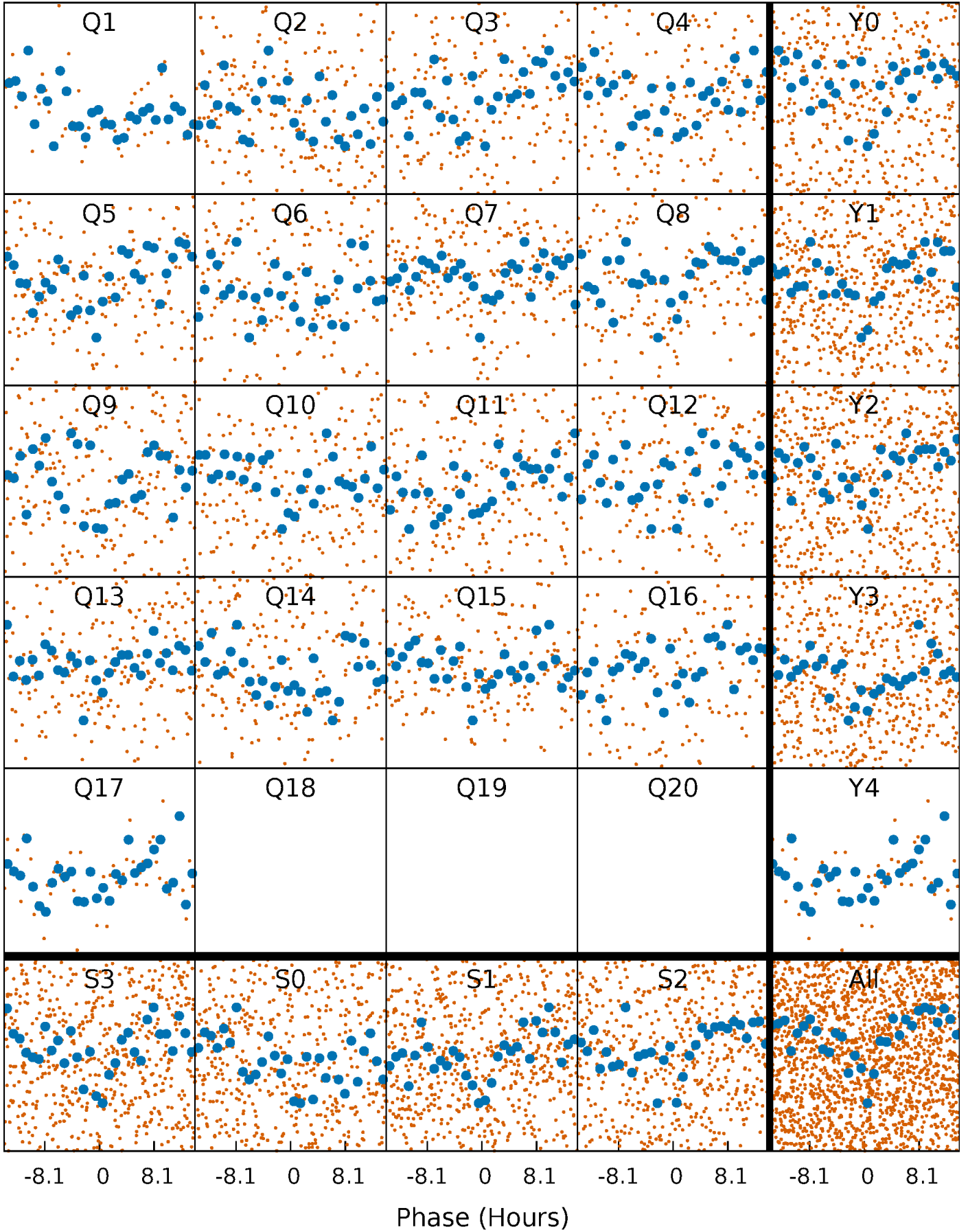


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



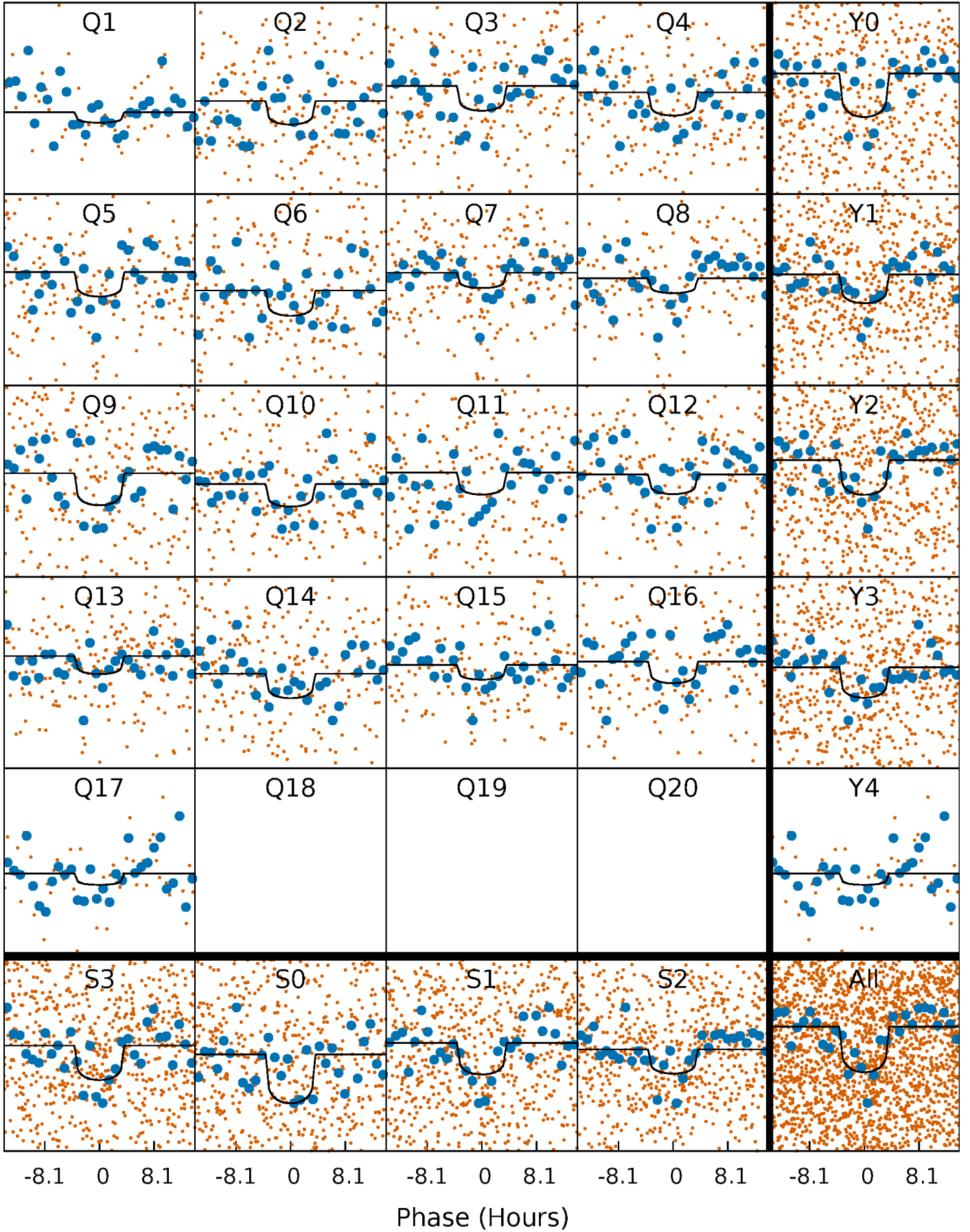
PDC Quarter-Phased Transit Curves

TCE 006875342-01 P= 22.238256 Days $T_0=148.355225$ (BKJD)



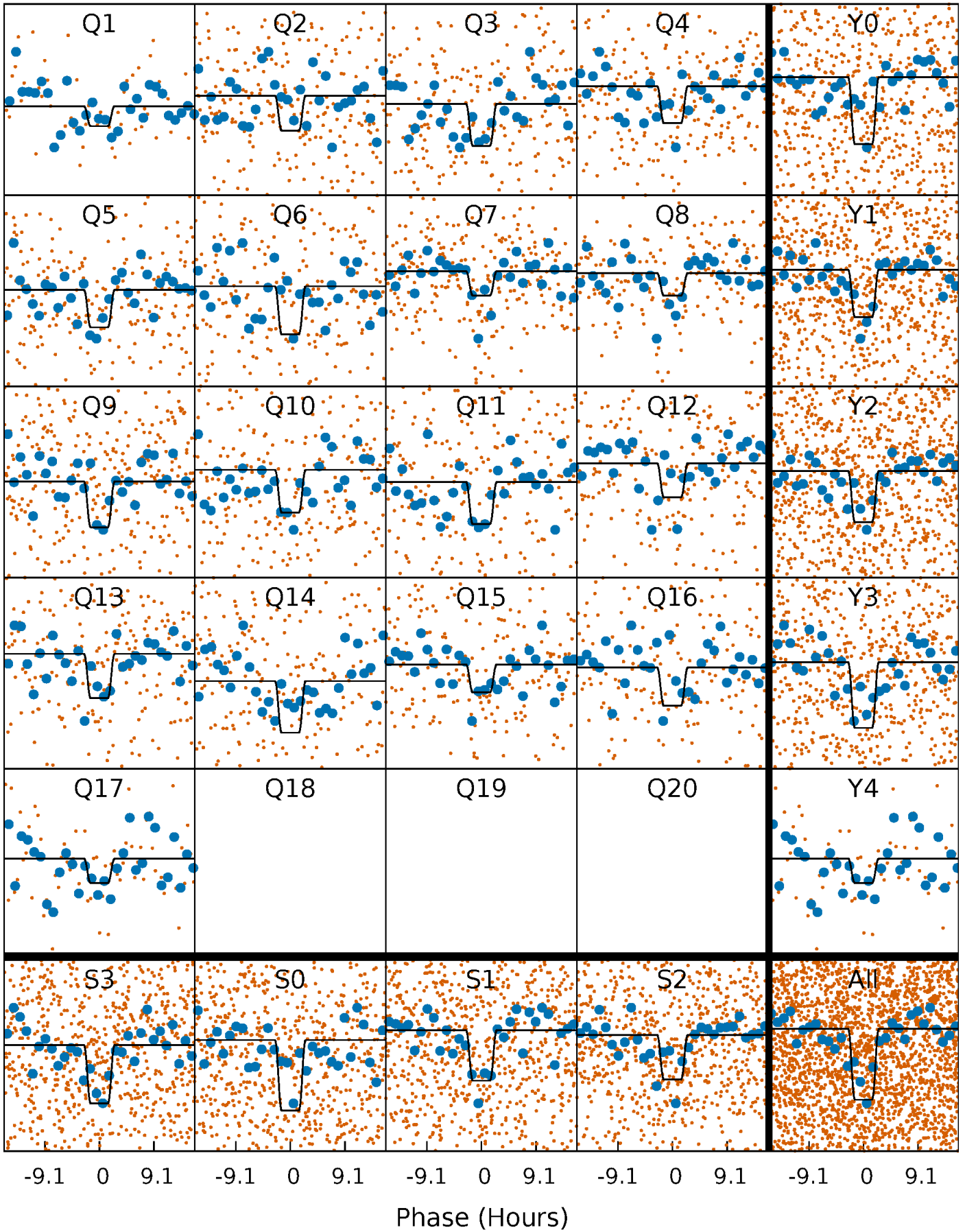
DV Quarter-Phased Transit Curves

TCE 006875342-01 P= 22.238256 Days $T_0=148.355225$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

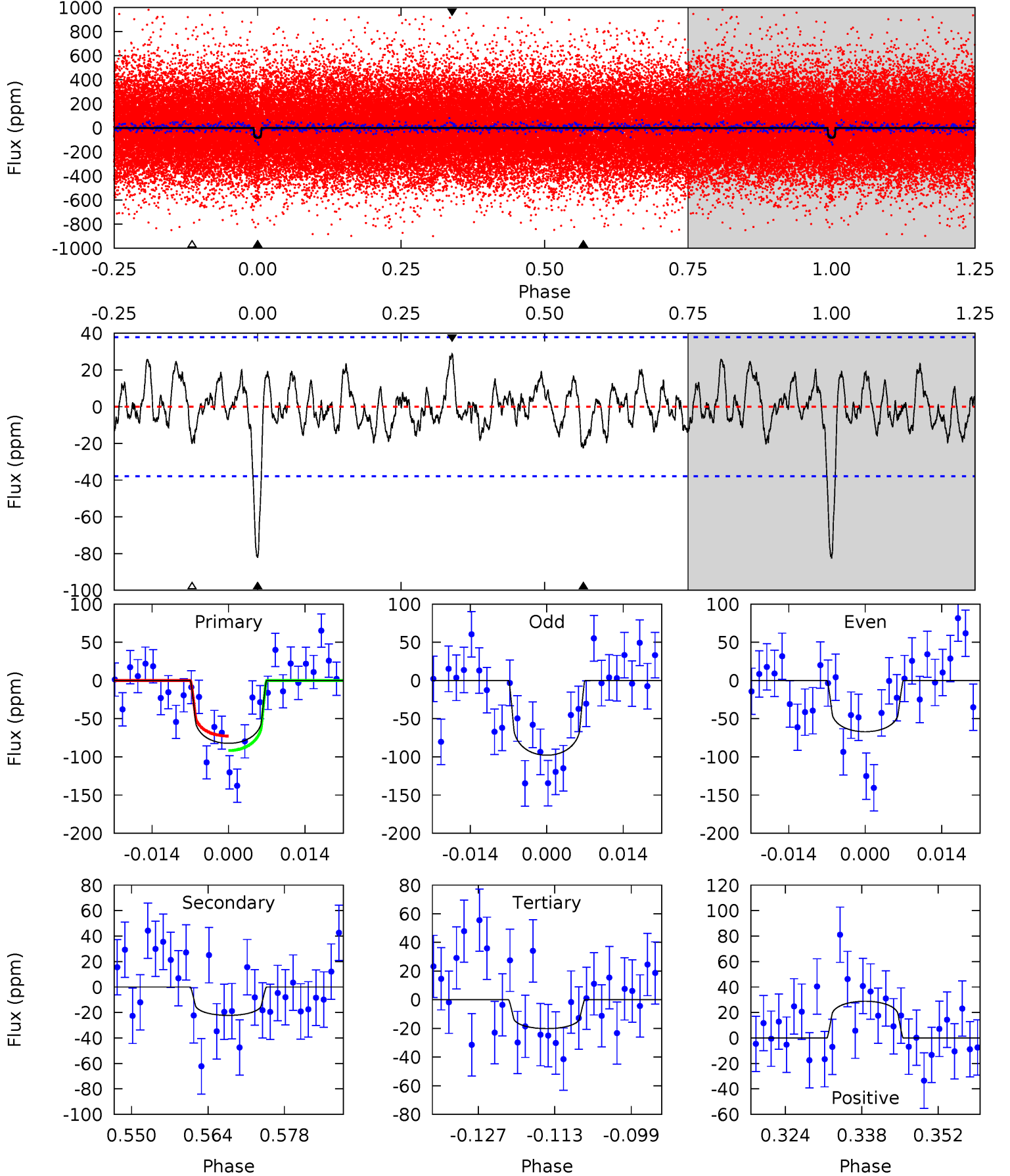
TCE 006875342-01 P= 22.237560 Days $T_0=148.382713$ (BKJD)



DV Model-Shift Uniqueness Test

006875342-01, P = 22.238256 Days, E = 126.116969 Days

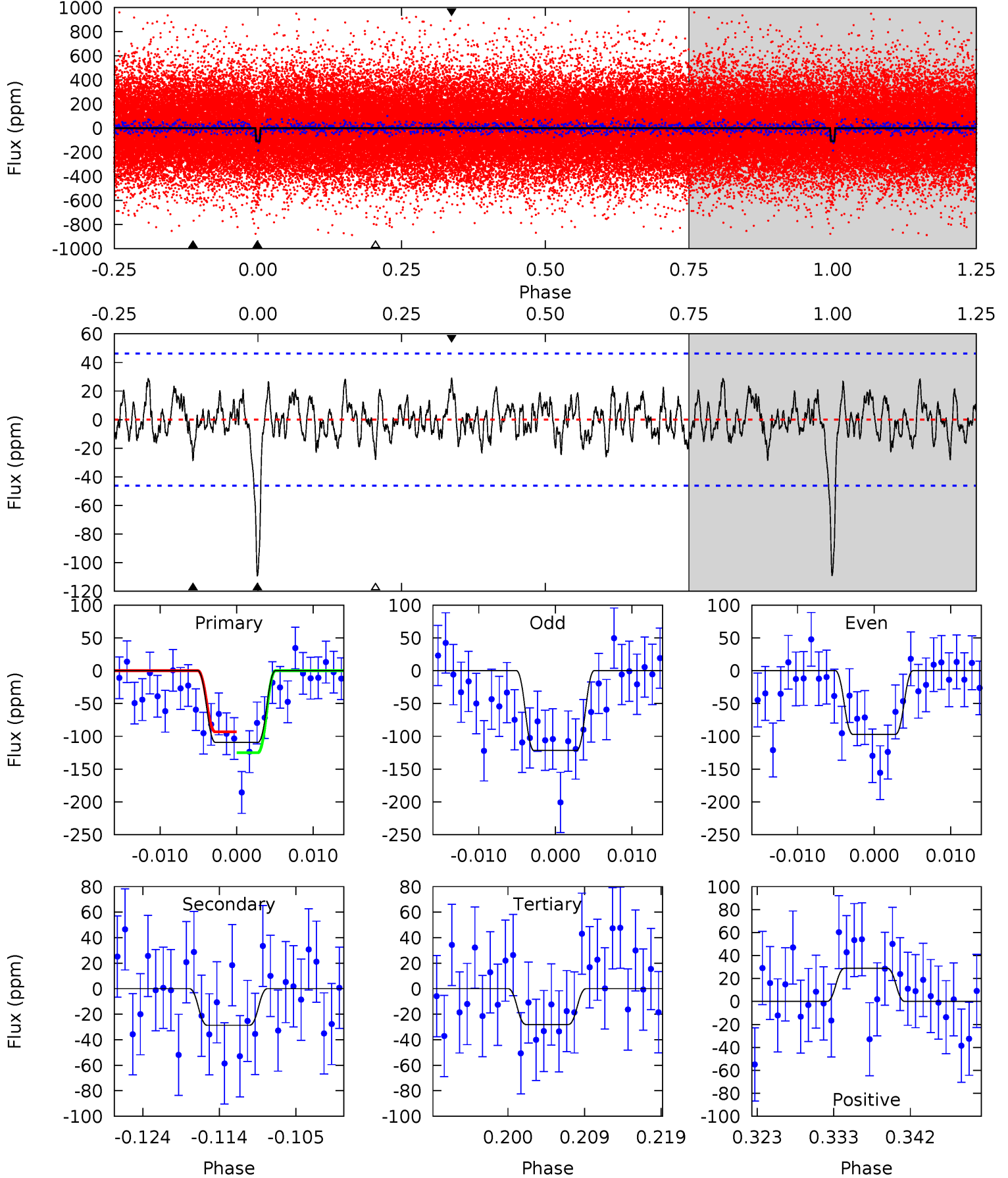
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	2.92	2.64	3.77	4.96	2.45	1.24	8.14	7.00	0.28	-0.86	2.02	0.98	0.26	1.24



Alt Model-Shift Uniqueness Test

006875342-01, P = 22.237560 Days, E = 126.145153 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	3.12	3.05	3.15	5.04	2.59	1.13	8.85	8.75	0.07	-0.03	1.35	1.07	0.21	1.73



Stellar Parameters For KIC 006875342

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6192^{+172}_{-237}	$4.433^{+0.058}_{-0.232}$	$-0.060^{+0.250}_{-0.300}$	$1.055^{+0.366}_{-0.122}$	$1.097^{+0.153}_{-0.153}$	$1.317^{+0.400}_{-0.715}$
	+3%/-4%	+1%/-5%	+417%/-500%	+35%/-12%	+14%/-14%	+30%/-54%
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 006875342-01 / KOI 5332.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-22 ± 8	$1.25^{+0.83}_{-0.70}$	1002^{+76}_{-56}	4343^{+2005}_{-762}	196^{+789}_{-133}
Alt.	-29 ± 9	$1.44^{+0.89}_{-0.79}$	998^{+87}_{-48}	4323^{+1716}_{-699}	183^{+712}_{-118}

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

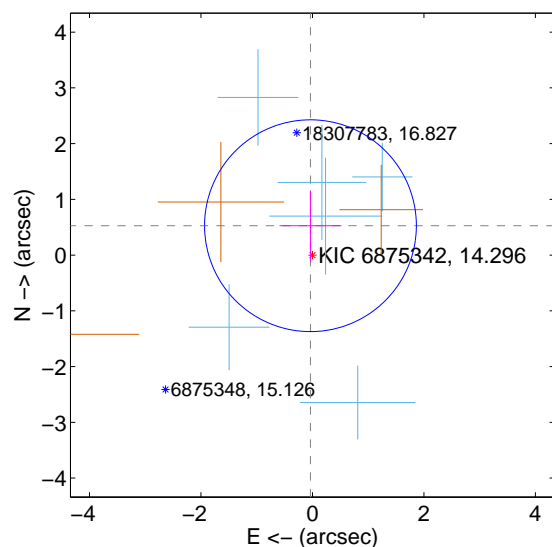
Supplemental centroid analysis for 006875342-01. Kepler magnitude: 14.30. Transit SNR 7.68

There are 6 quarters with good PRF difference image offsets

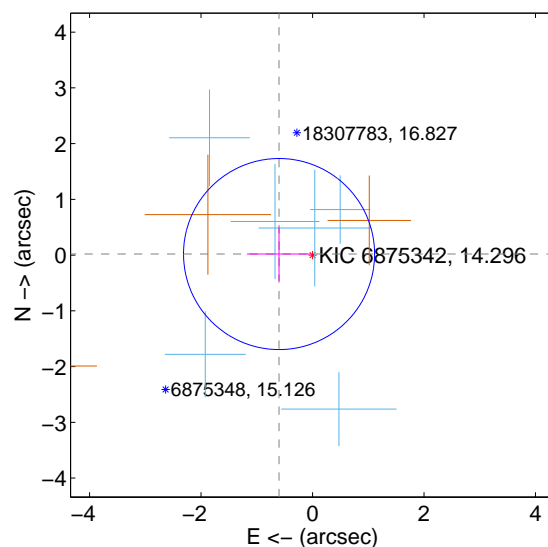
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.528 ± 0.633	0.83	0.036 ± 0.555	0.527 ± 0.634
PRF-fit source offset from KIC position	0.601 ± 0.571	1.05	0.600 ± 0.575	0.019 ± 0.482
photometric centroid source offset	0.44 ± 1.06	0.42	-0.01 ± 1.08	0.44 ± 1.06

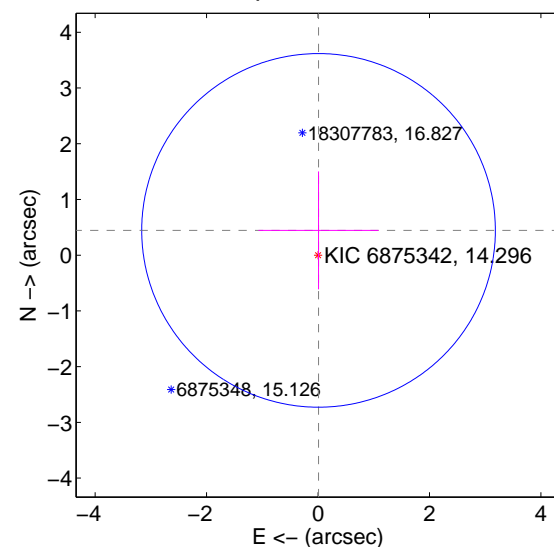
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

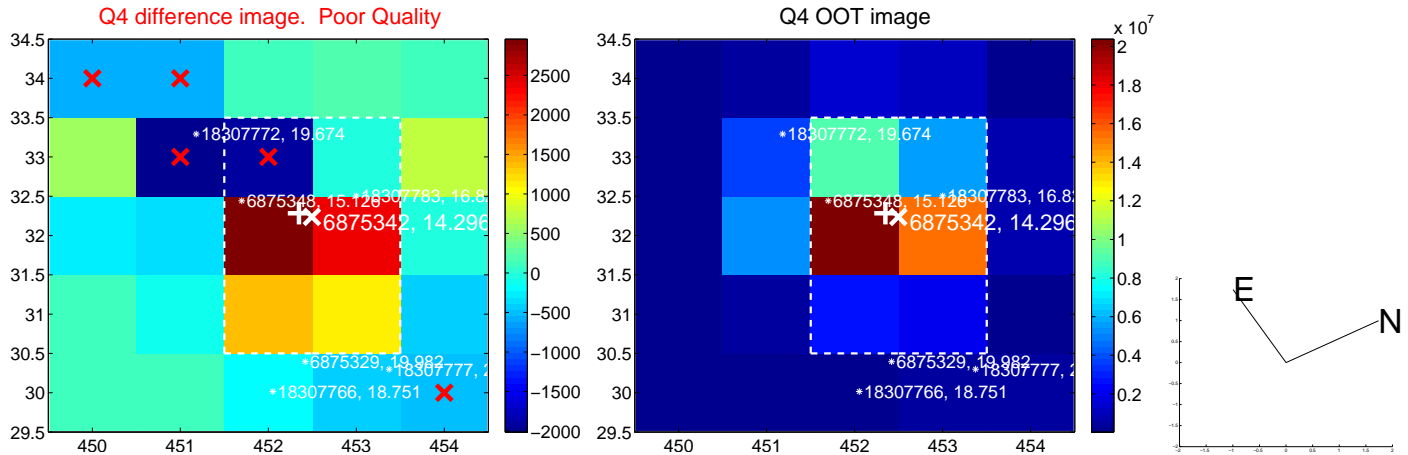
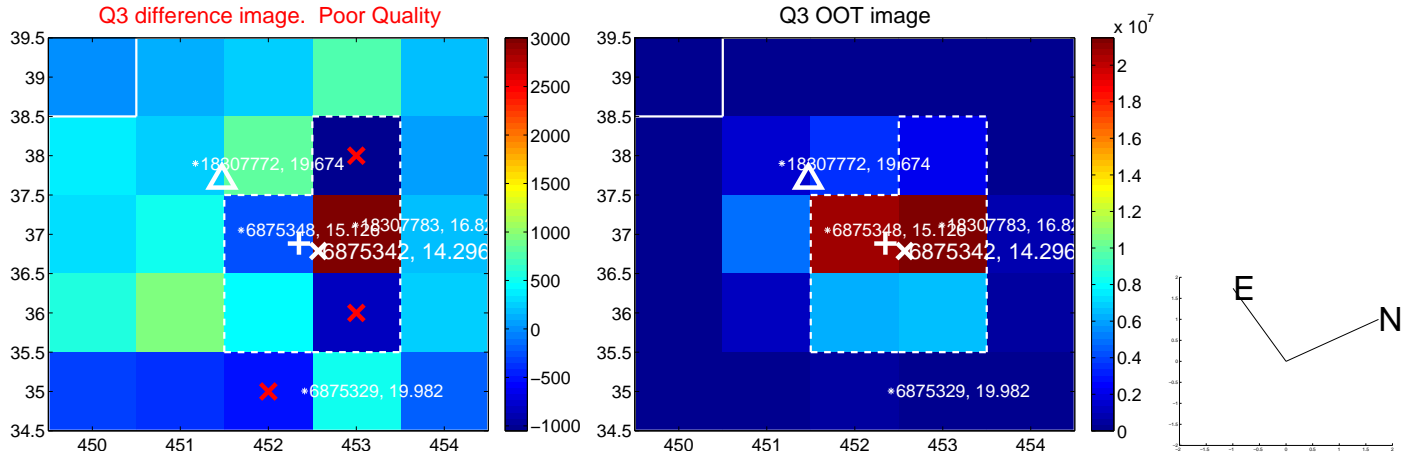
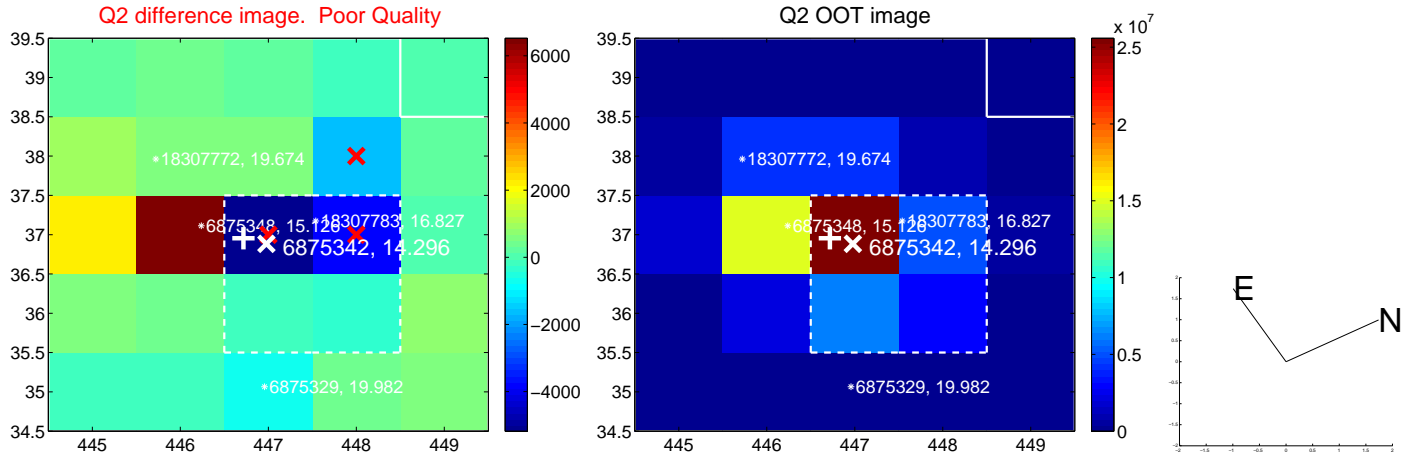
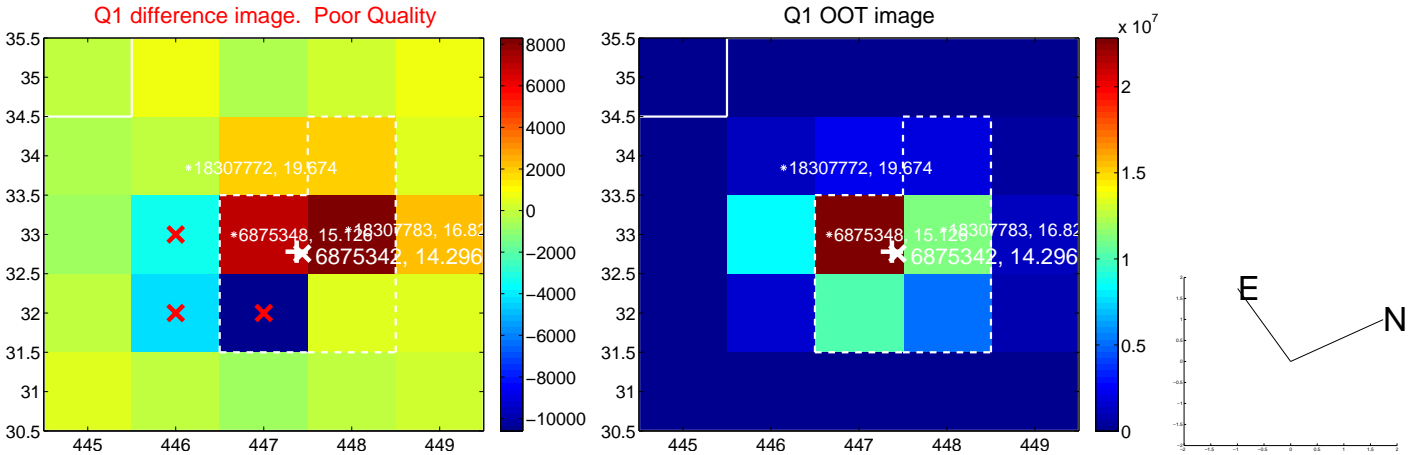


offset from photometric centroids

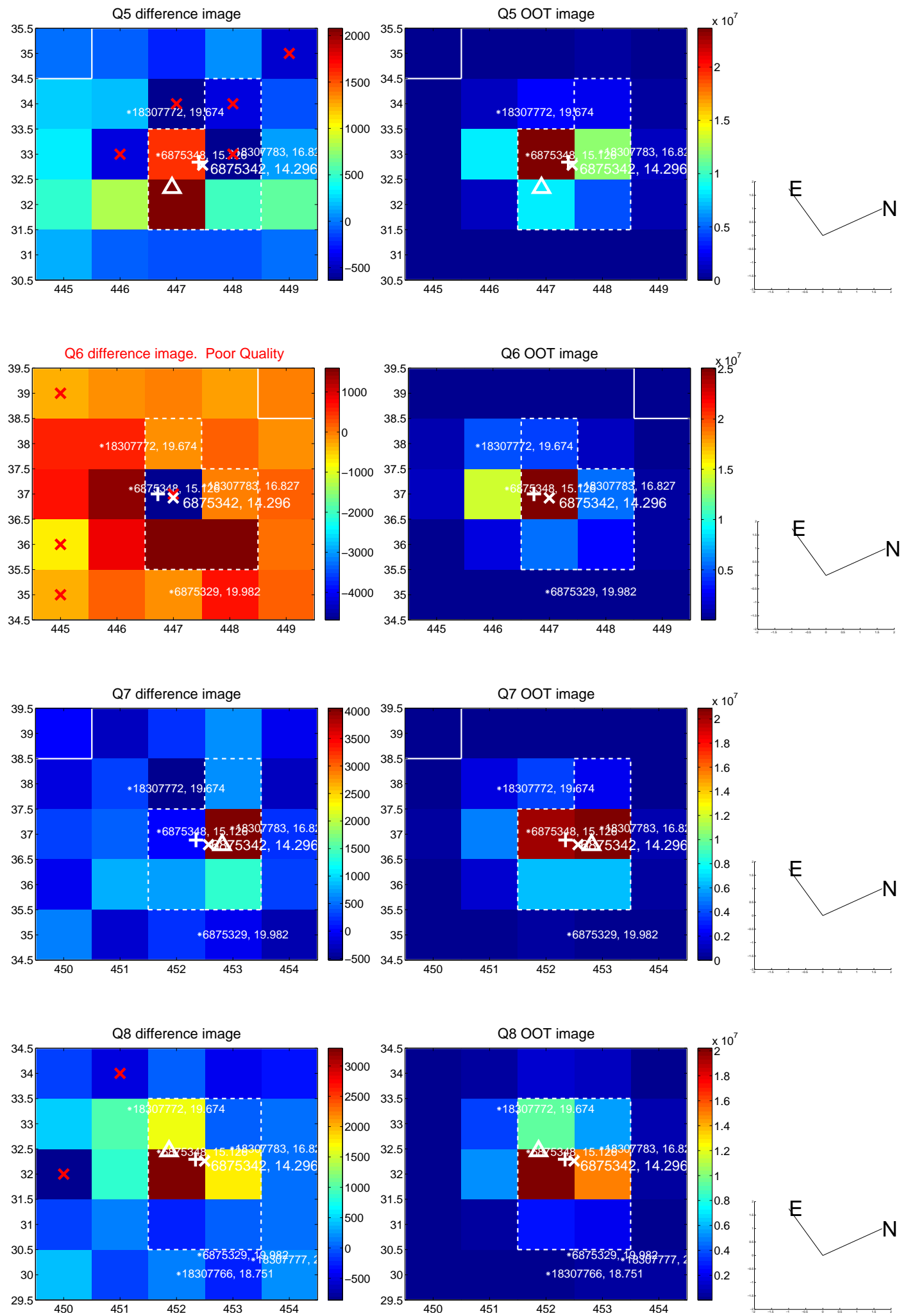


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

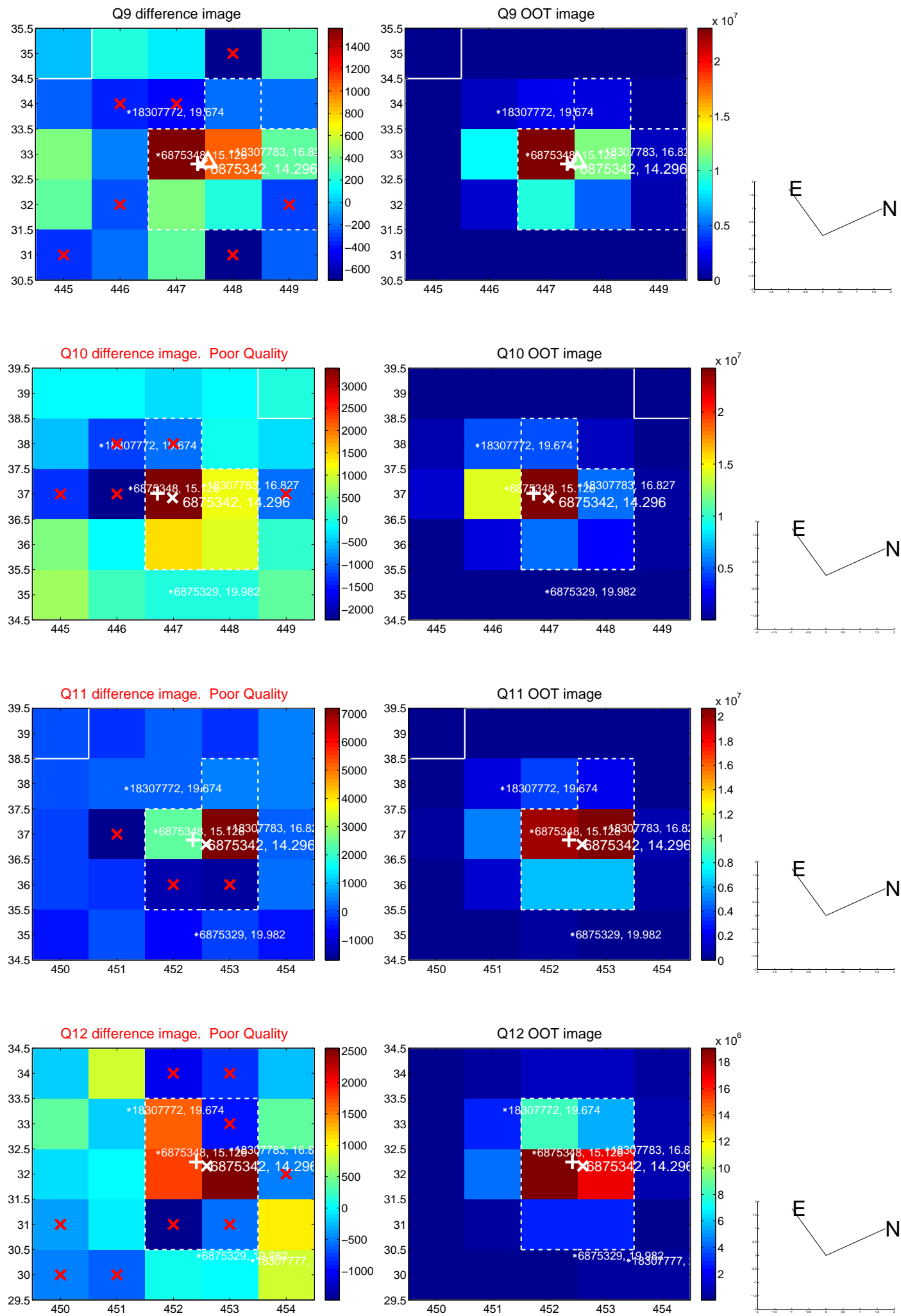
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



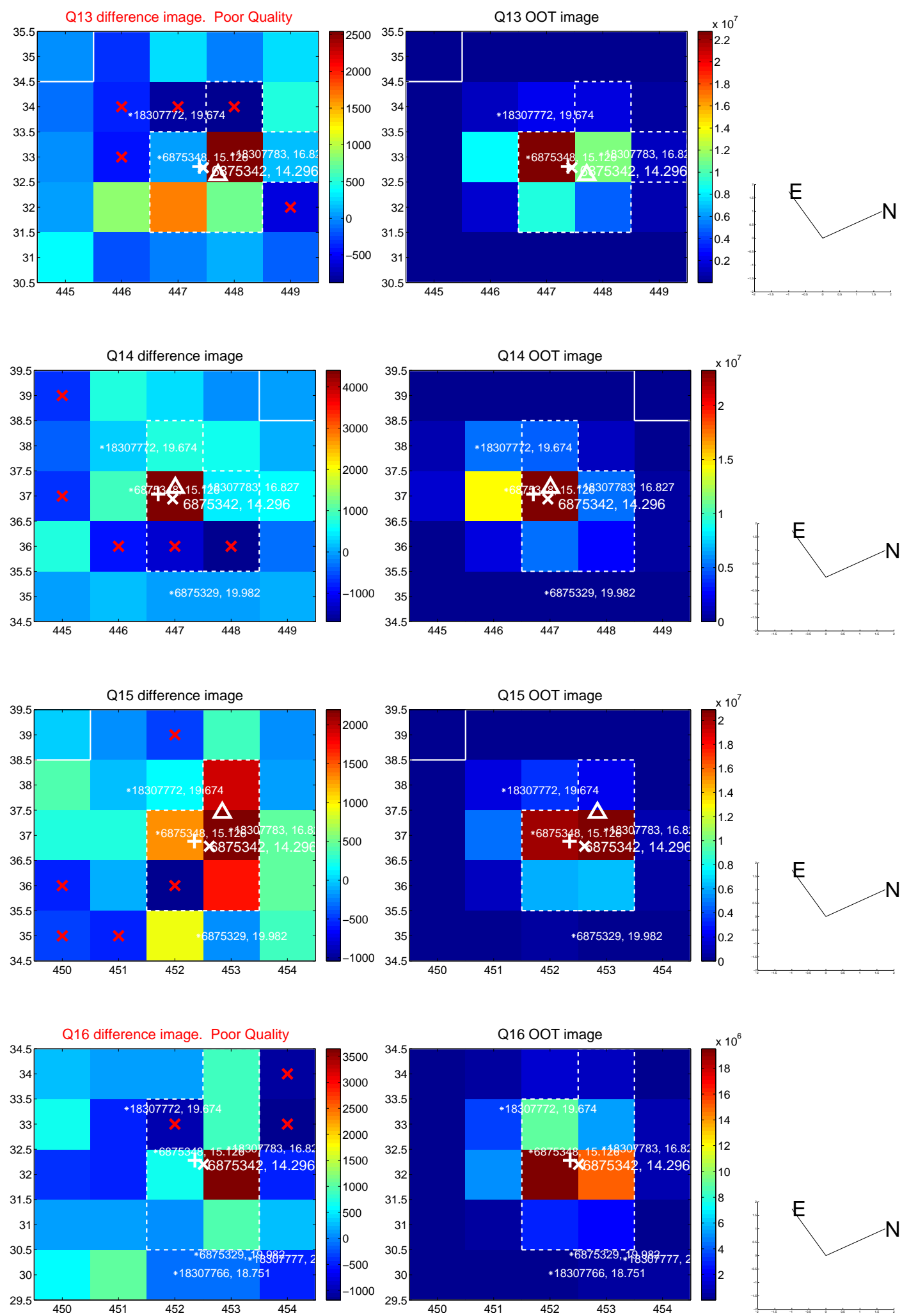
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



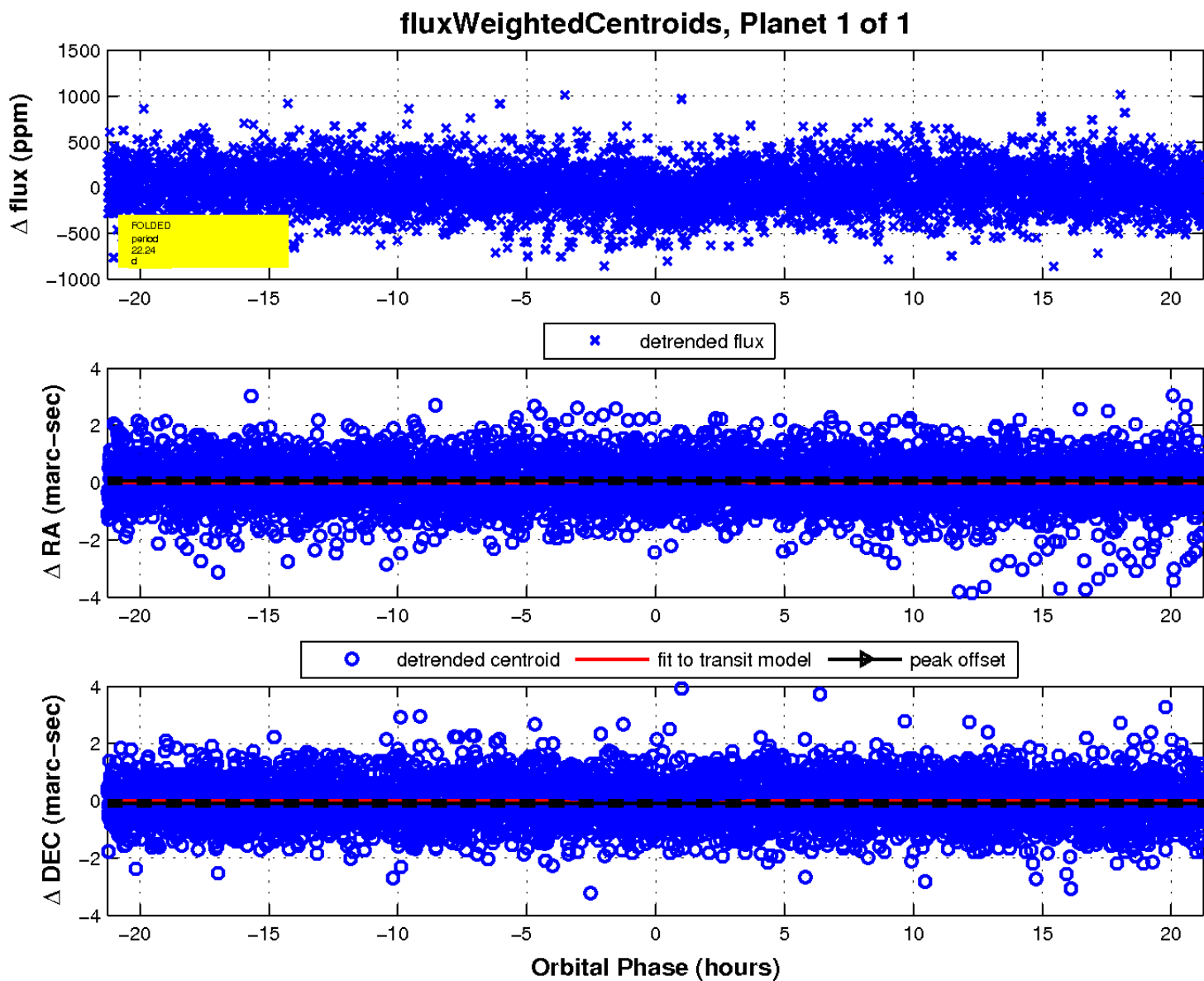
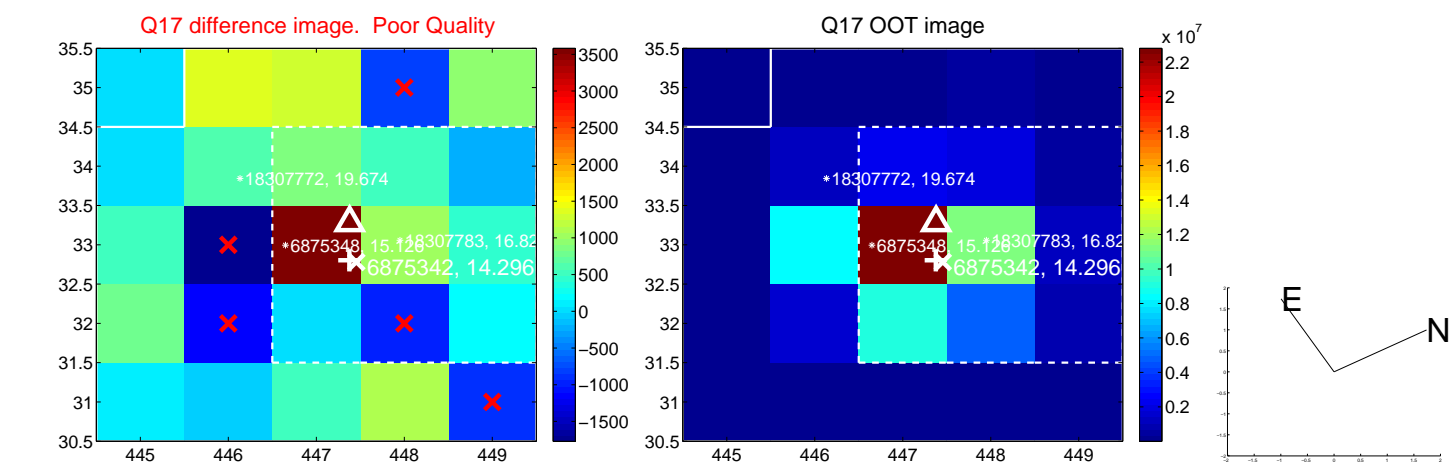
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

