

KIC 011661993

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})
011661993-01	OBS	No	0.544930	132.016292	79.6	2.777	12.1	9.7	2.96	7382	3.06	86164.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011661993-01	OBS	FP	0.00	1	0	0	0	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.

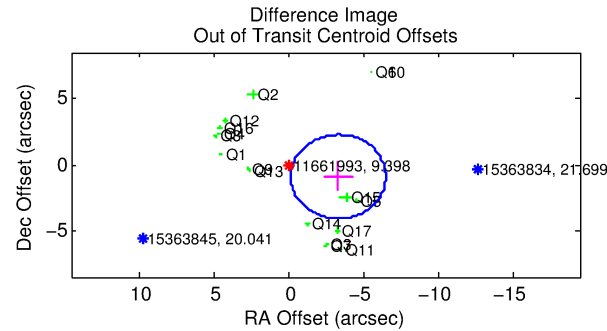
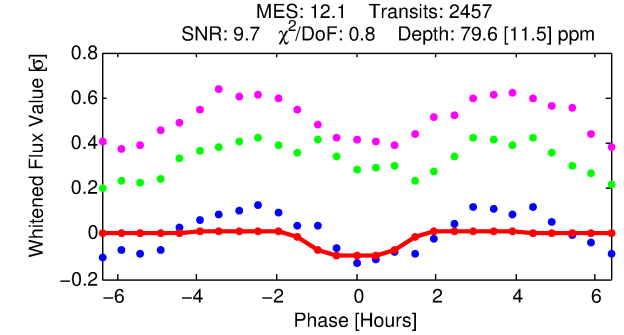
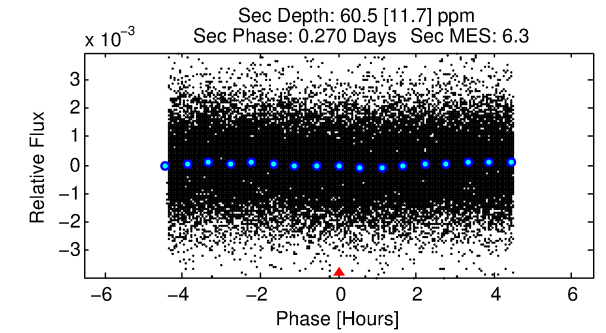
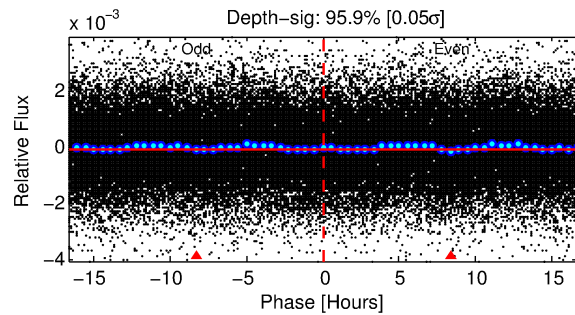
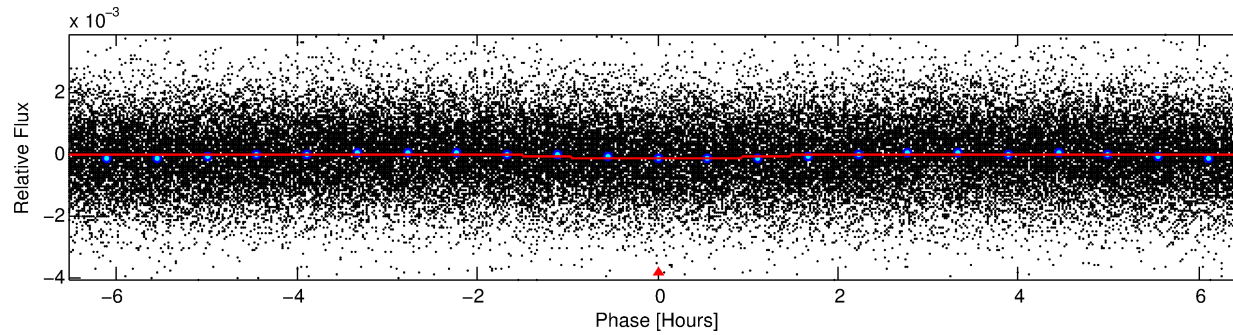
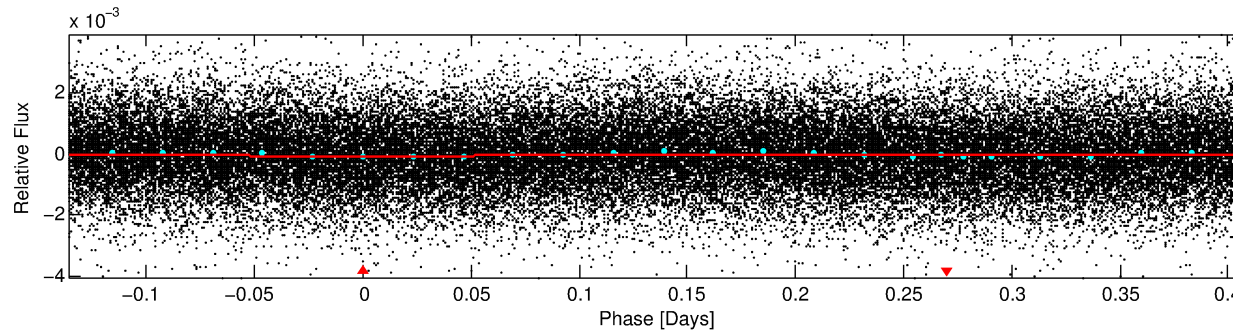
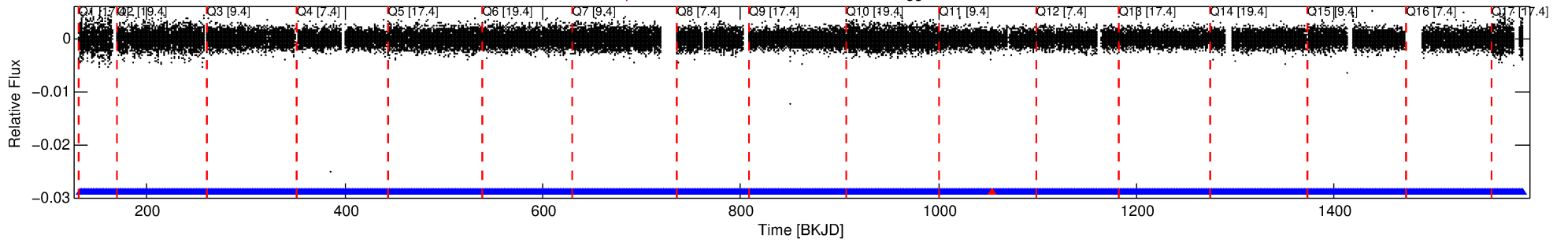
Ephemeris Match Information For 011661993-01

No Significant Match Found

DV One-Page Summary

KIC: 11661993 Candidate: 1 of 1 Period: 0.545 d

Kp: 9.40 R*: 2.96 Rs Teff: 7382.0 K Logg: 3.80 Fe/H: 0.120



DV Fit Results:

Period = 0.54493 [0.00001] d
Epoch = 132.0163 [0.0038] BKJD
Rp/R* = 0.0095 [0.0076]
a/R* = 1.17 [1.60]
b = 0.90 [1.13]
Seff = 86164.87 [34263.96]
Teq = 4369 [434] K
Rp = 3.06 [2.60] Re
a = 0.0164 [0.0042] AU
Ag = 0.96 [1.60] [-0.02σ]
Teffp = 6690 [2701] K [0.85σ]

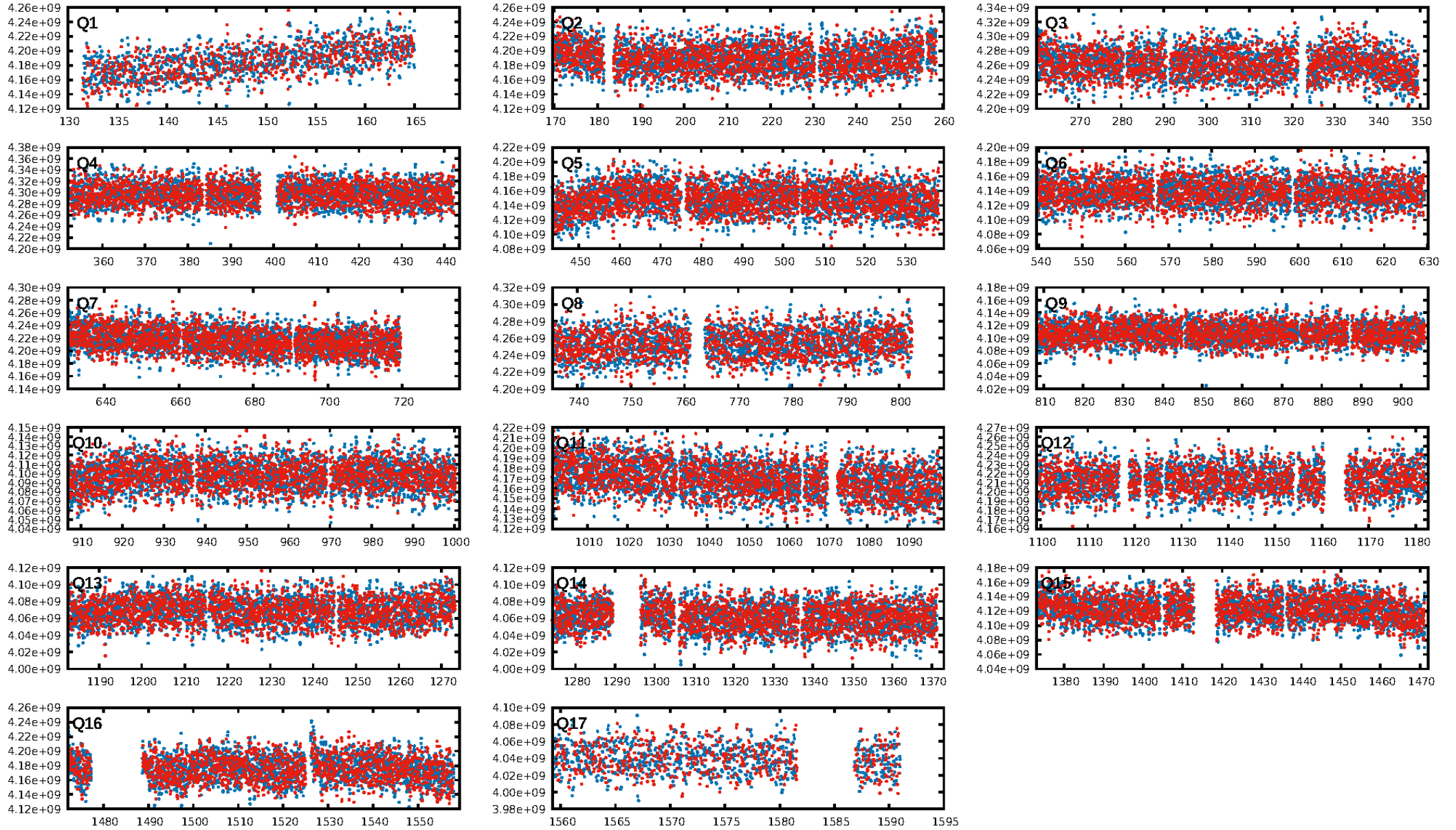
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.30e-27
RollingBand-fgt: 1.00 [2344/2345]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.2%
Centroid-so: 0.695 arcsec [2.02σ]
OotOffset-rm: 3.462 arcsec [3.27σ]
KicOffset-rm: 2.784 arcsec [3.03σ]
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]

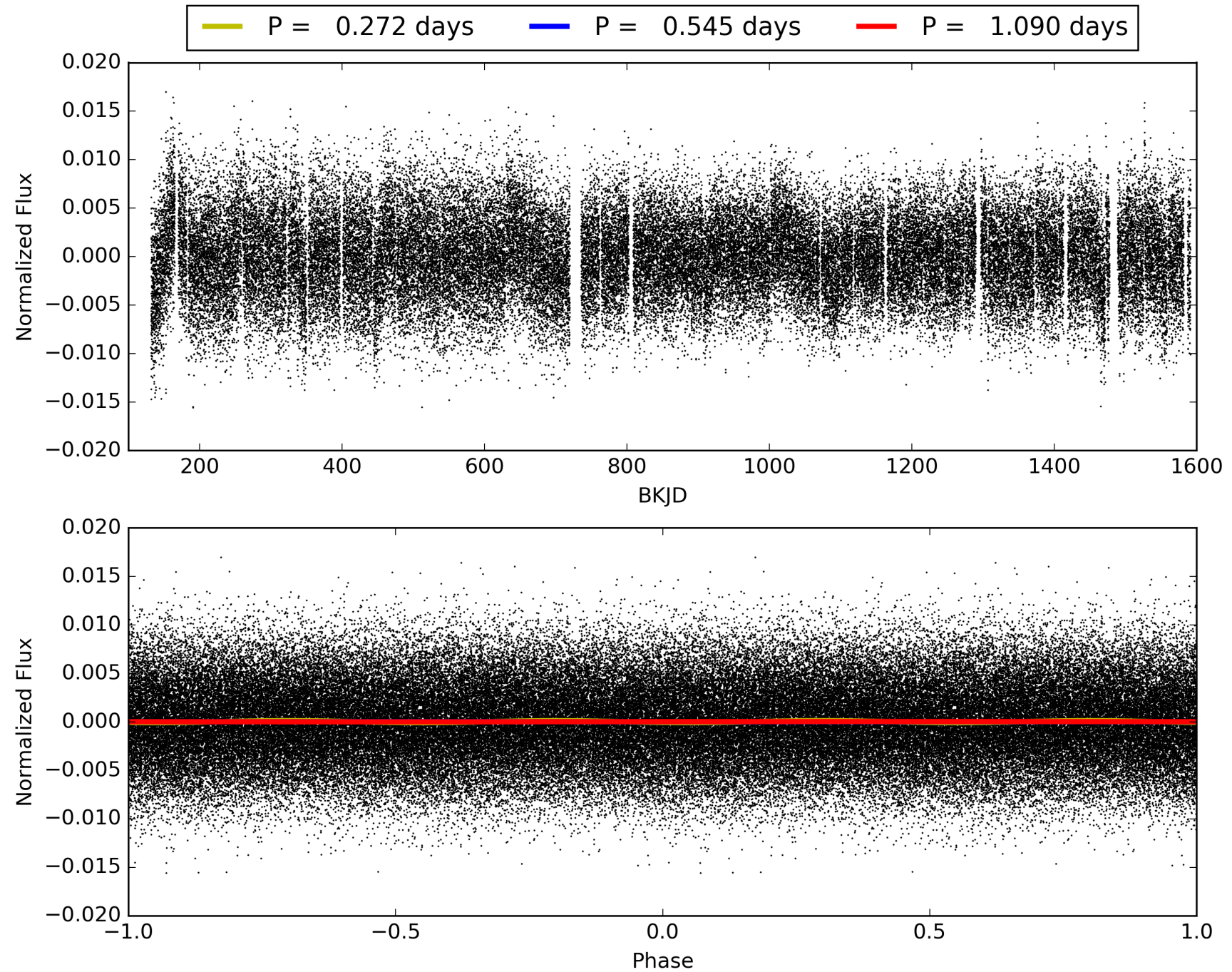
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:01:21 Z

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

TCE 011661993-01, PDC Light Curves

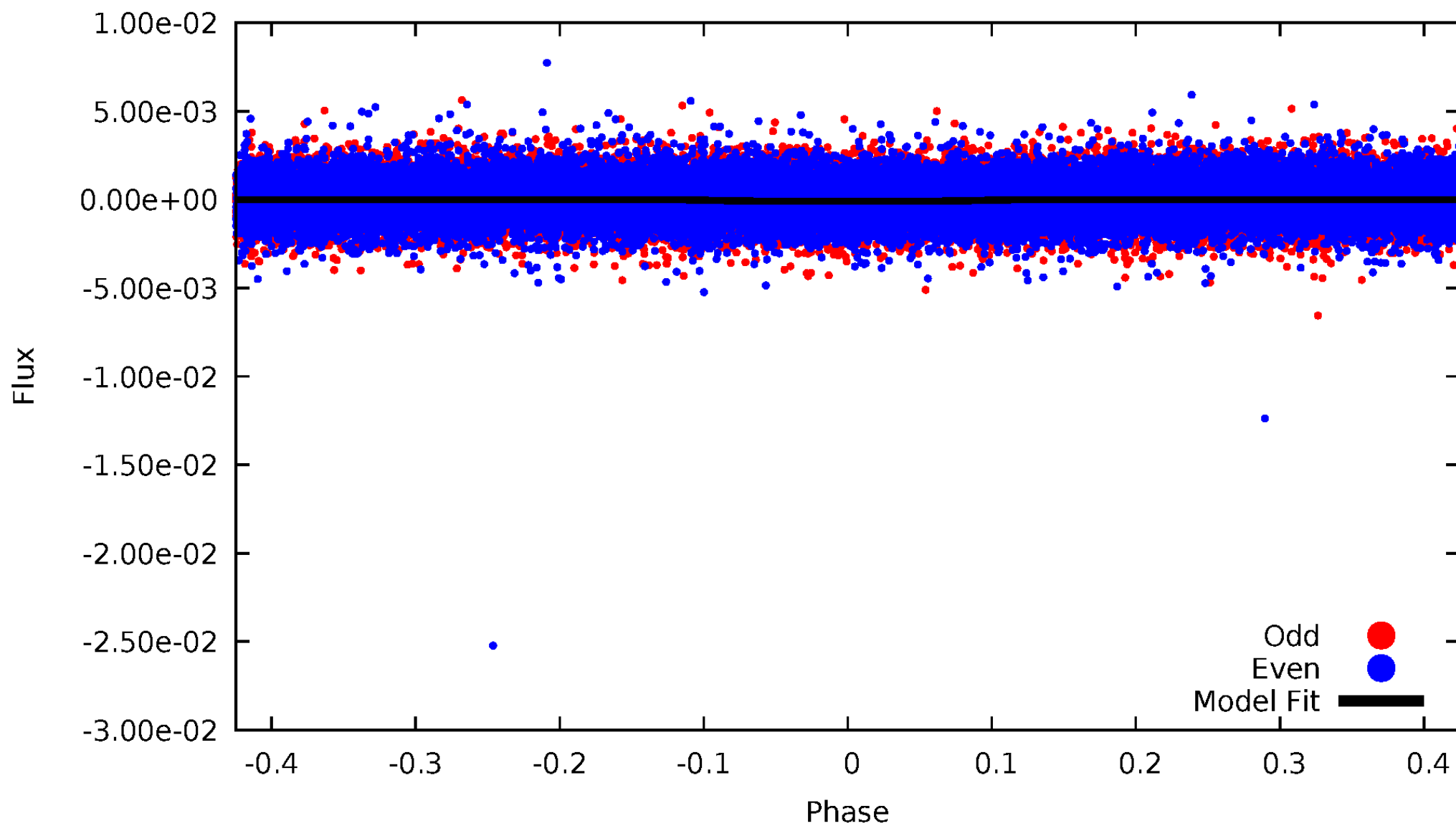


TCE 011661993-01



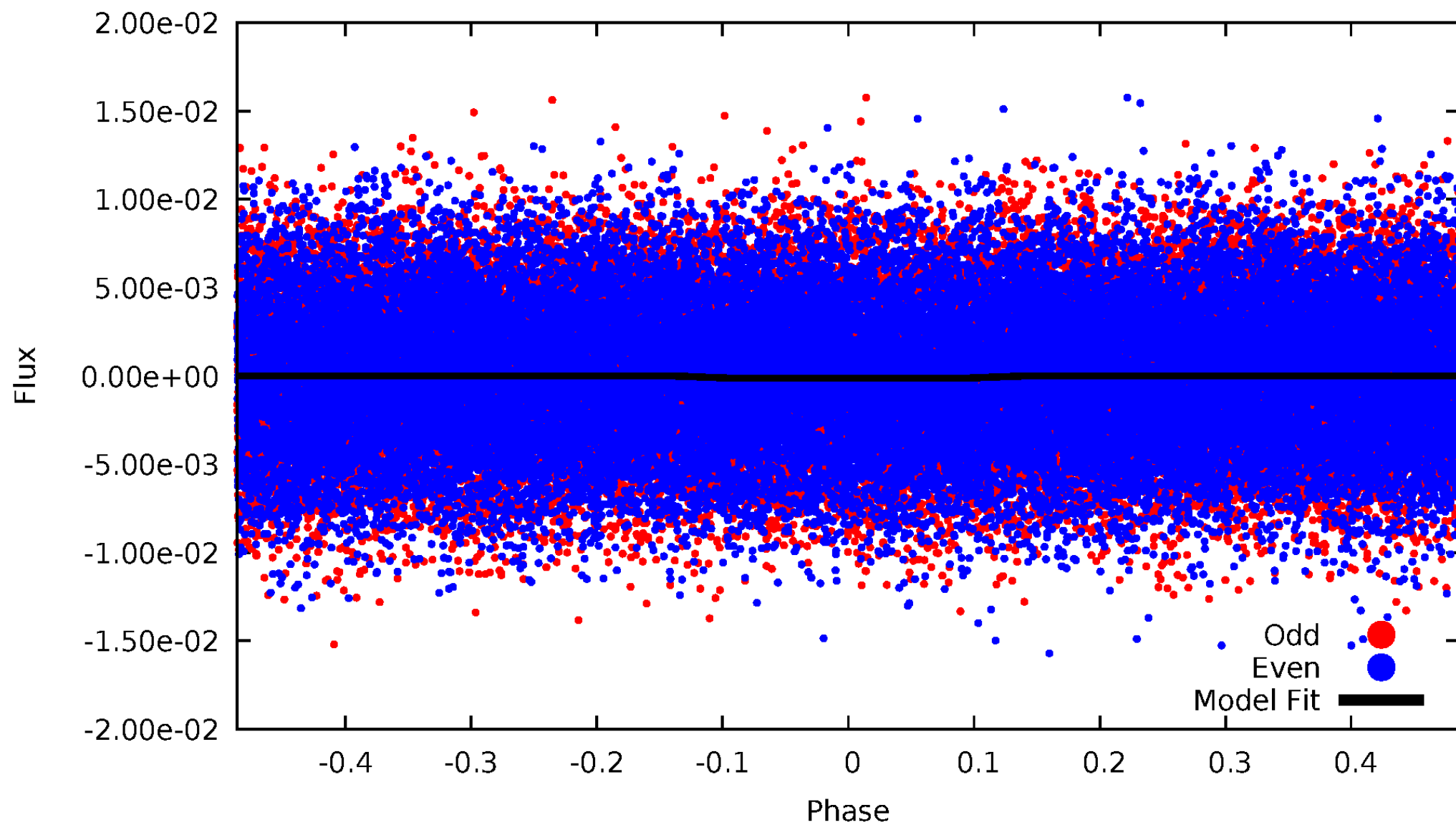
DV Odd/Even

TCE 011661993-01



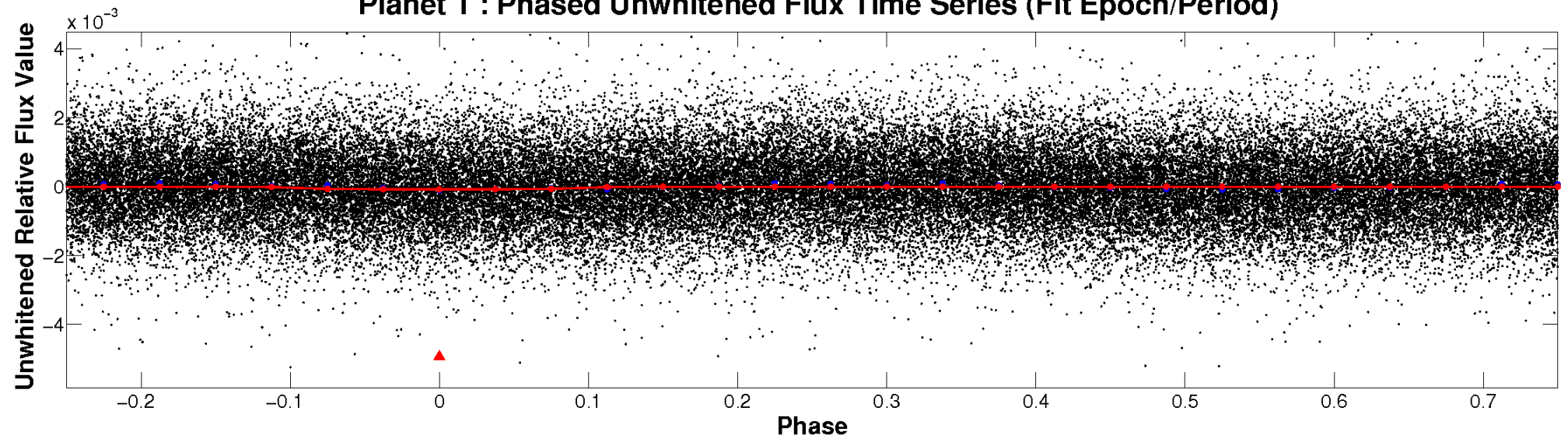
ALT Odd/Even

TCE 011661993-01

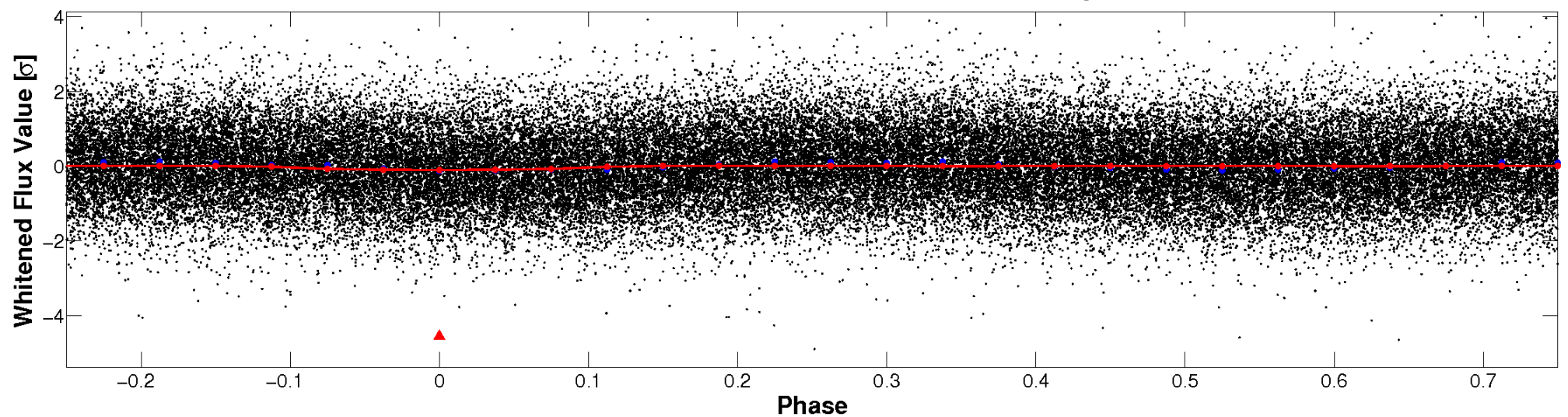


Non-Whitened Vs. Whitened Light Curve

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

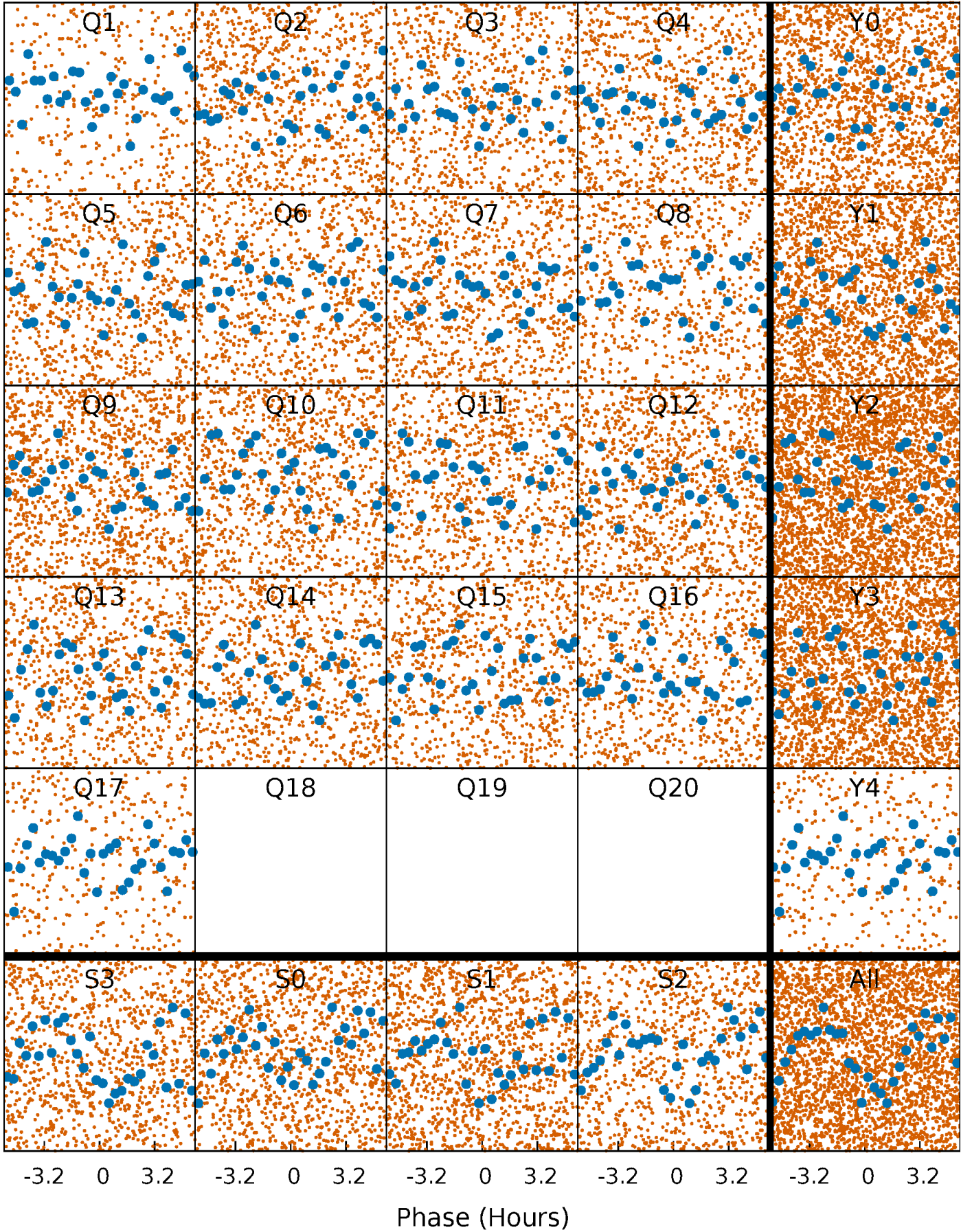


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



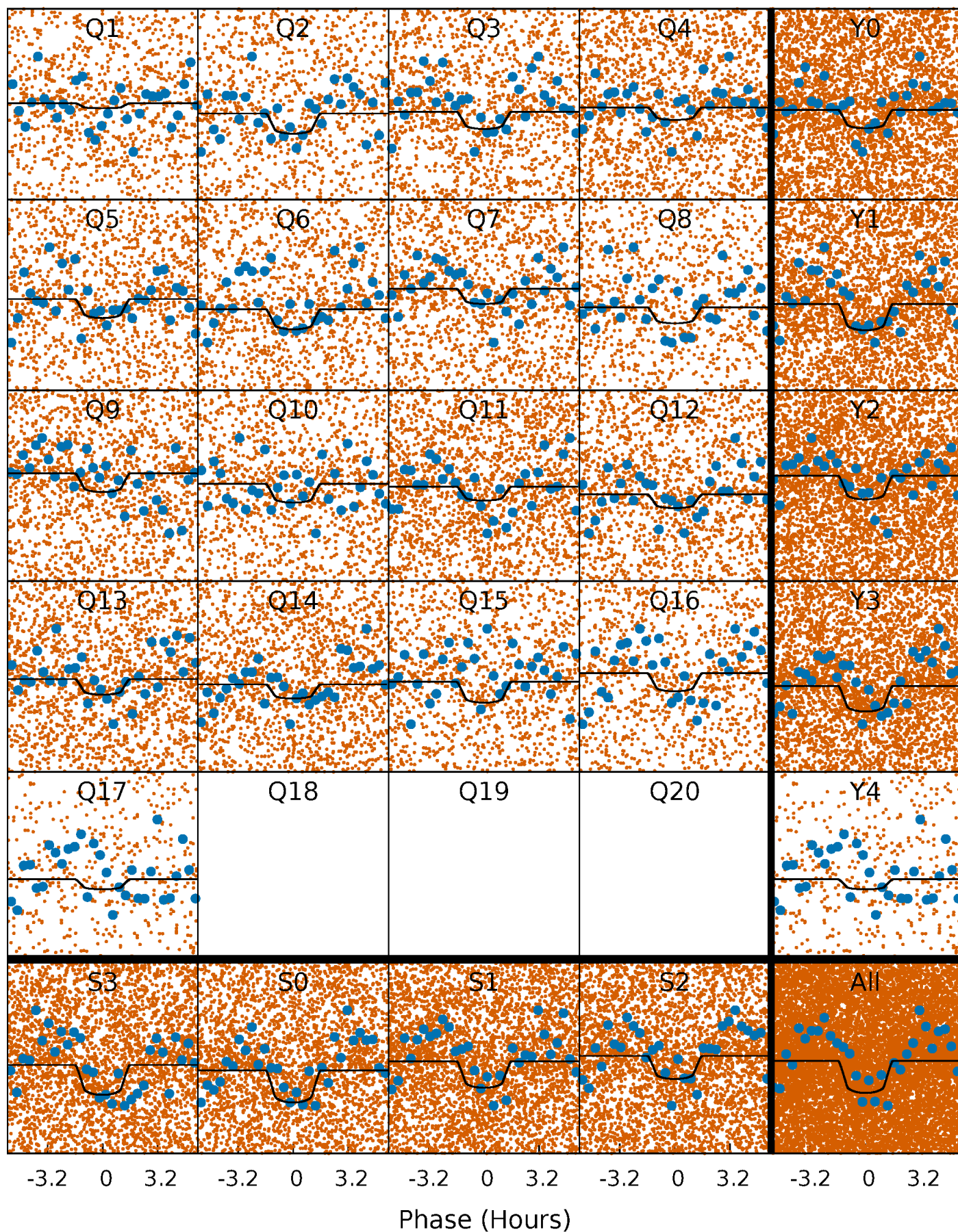
PDC Quarter-Phased Transit Curves

TCE 011661993-01 P= 0.544930 Days $T_0=132.016292$ (BKJD)



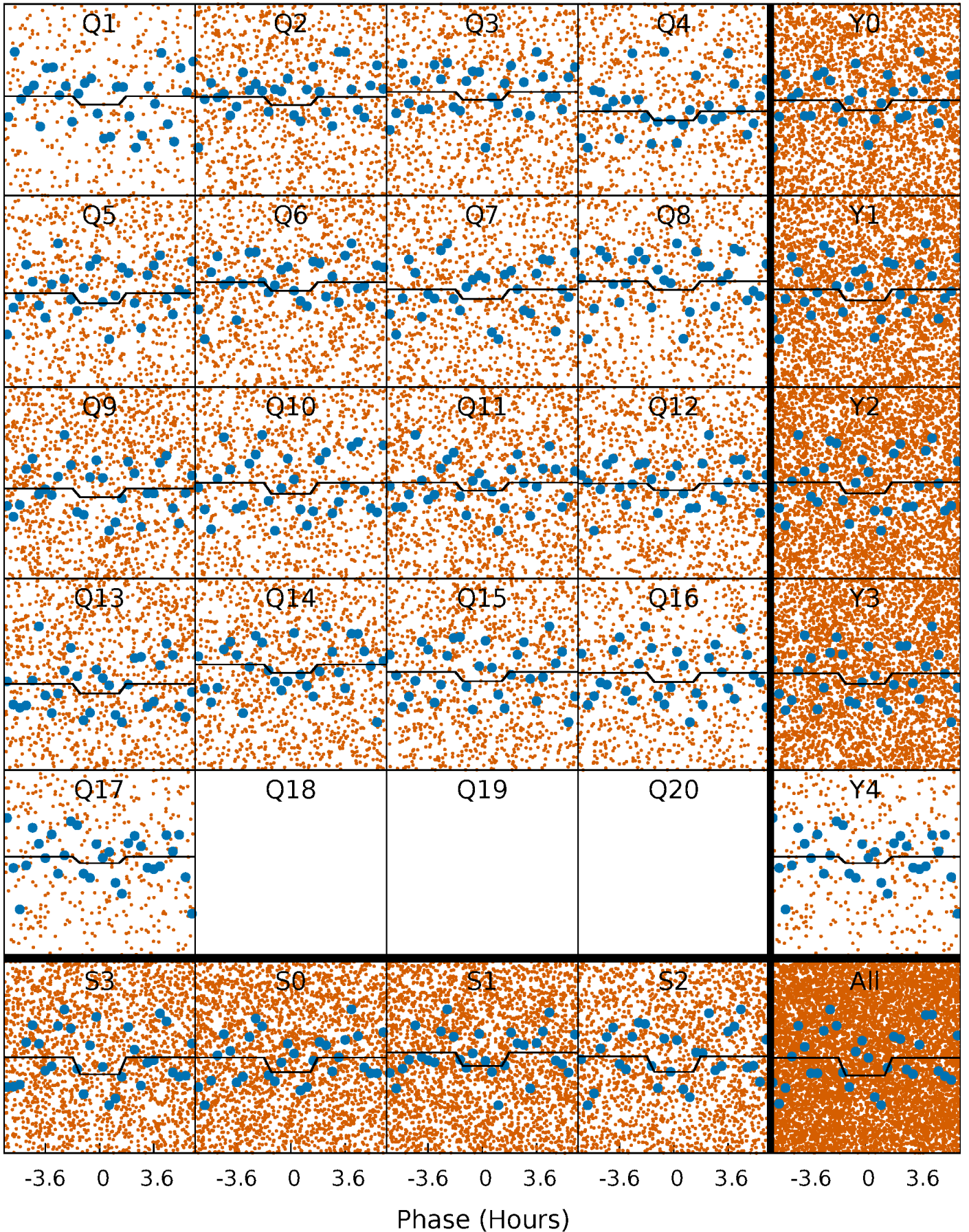
DV Quarter-Phased Transit Curves

TCE 011661993-01 P= 0.544930 Days $T_0=132.016292$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

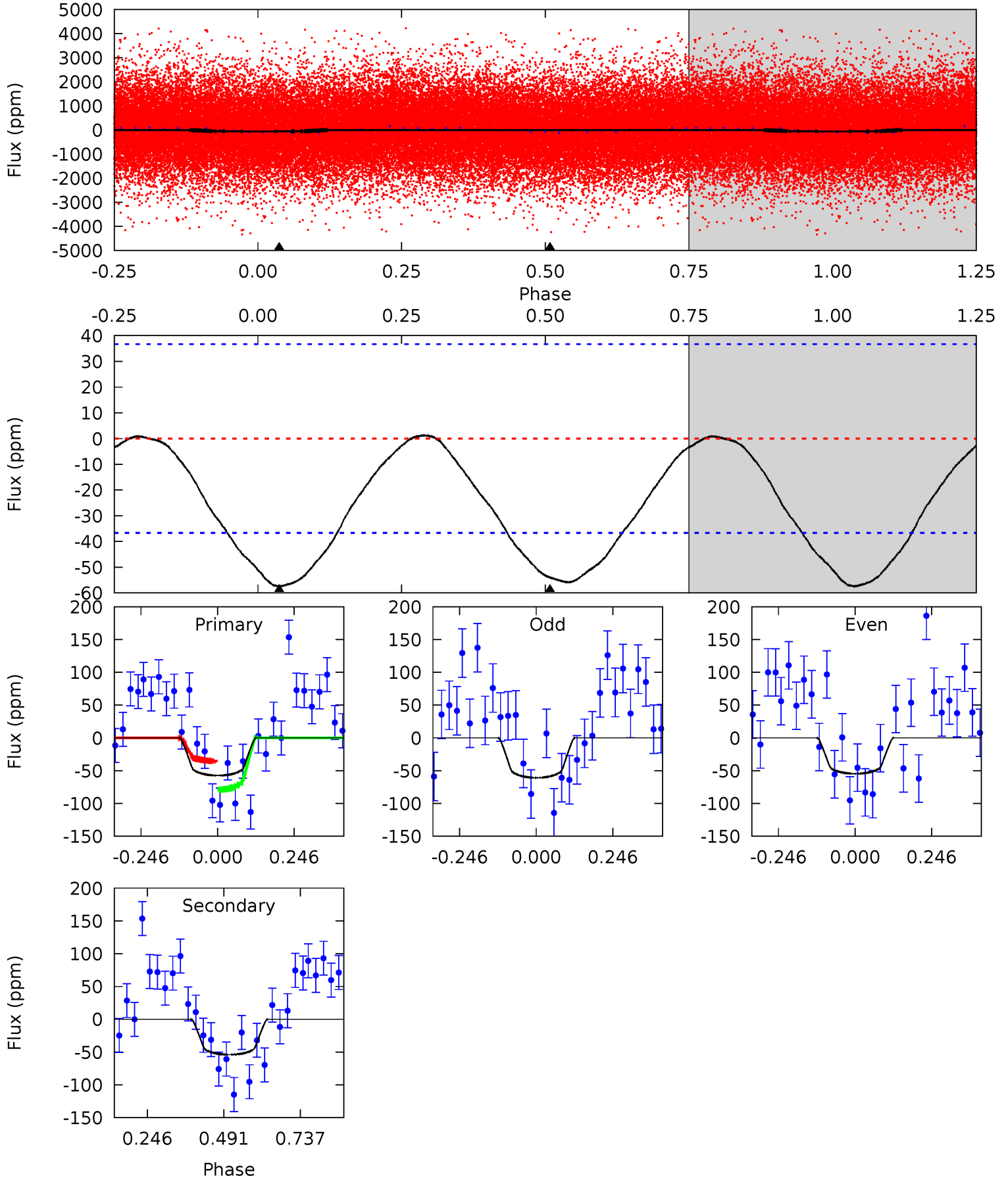
TCE 011661993-01 P= 0.544947 Days $T_0=131.989190$ (BKJD)



DV Model-Shift Uniqueness Test

011661993-01, P = 0.544930 Days, E = 131.471362 Days

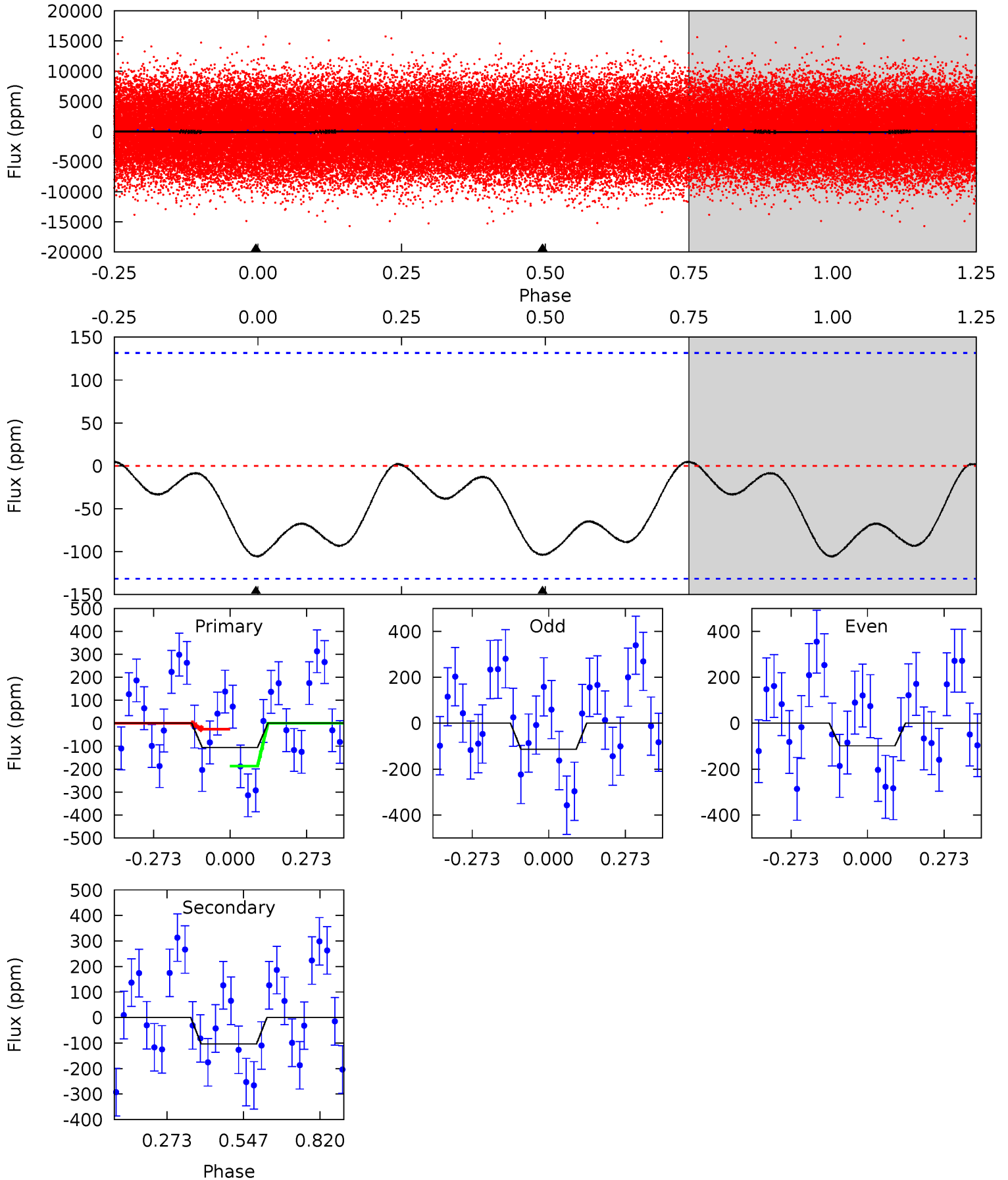
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.86	6.44	0	0	4.37	1.16	0.24	6.86	6.86	6.44	6.44	0.37	0.92	0.02	2.62



Alt Model-Shift Uniqueness Test

011661993-01, P = 0.544947 Days, E = 131.444243 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.50	3.44	0	0	4.35	1.10	0.14	3.50	3.50	3.44	3.44	0.25	0.87	0.04	2.67



Stellar Parameters For KIC 011661993

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7382^{+73}_{-88}	$3.796^{+0.225}_{-0.075}$	$0.120^{+0.100}_{-0.200}$	$2.960^{+0.283}_{-0.849}$	$1.997^{+0.016}_{-0.300}$	$0.108^{+0.153}_{-0.026}$
	+1%/-1%	+6%/-2%	+83%/-167%	+10%/-29%	+1%/-15%	+141%/-24%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 011661993-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-54 ± 8	$3.15^{+2.39}_{-1.88}$	6073^{+215}_{-452}	5480^{+4992}_{-8970}	$0.791^{+4.221}_{-0.537}$
Alt.	-104 ± 30	$3.47^{+2.23}_{-2.02}$	6059^{+230}_{-410}	6317^{+5494}_{-2136}	$1.192^{+5.227}_{-0.776}$

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 $A_{obs} \gg 1.0$

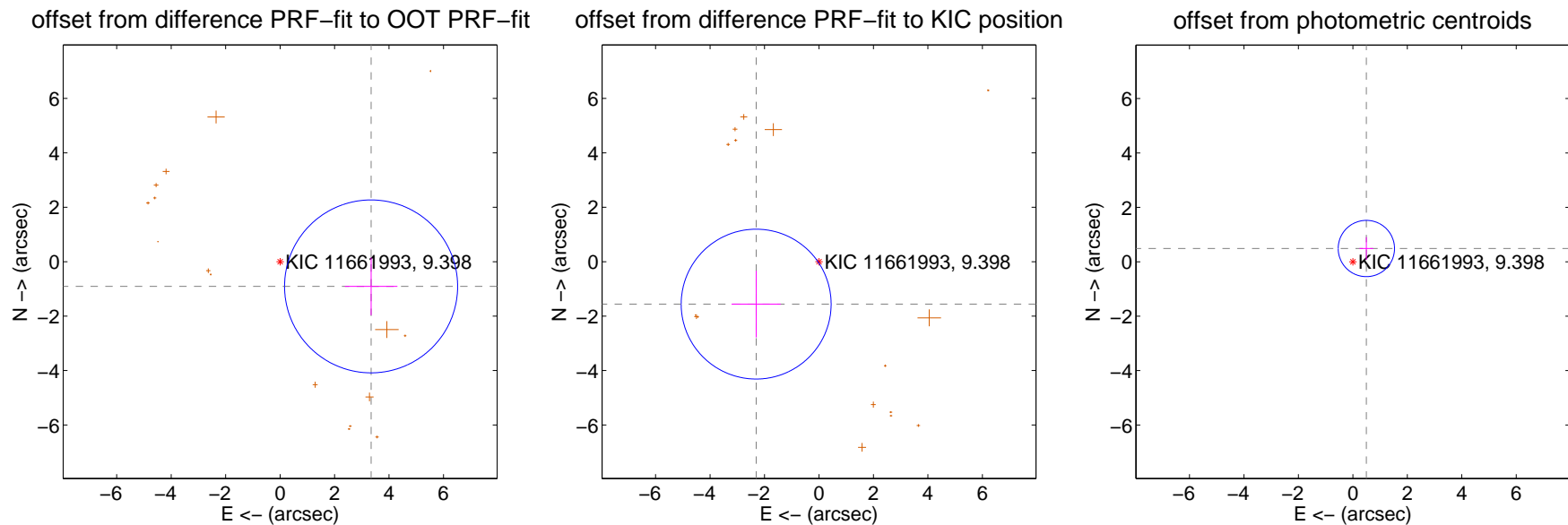
DV Centroid Data

Supplemental centroid analysis for 011661993-01. **Kepler magnitude: 9.40.** Transit SNR 9.68

There are 0 quarters with good PRF difference image offsets

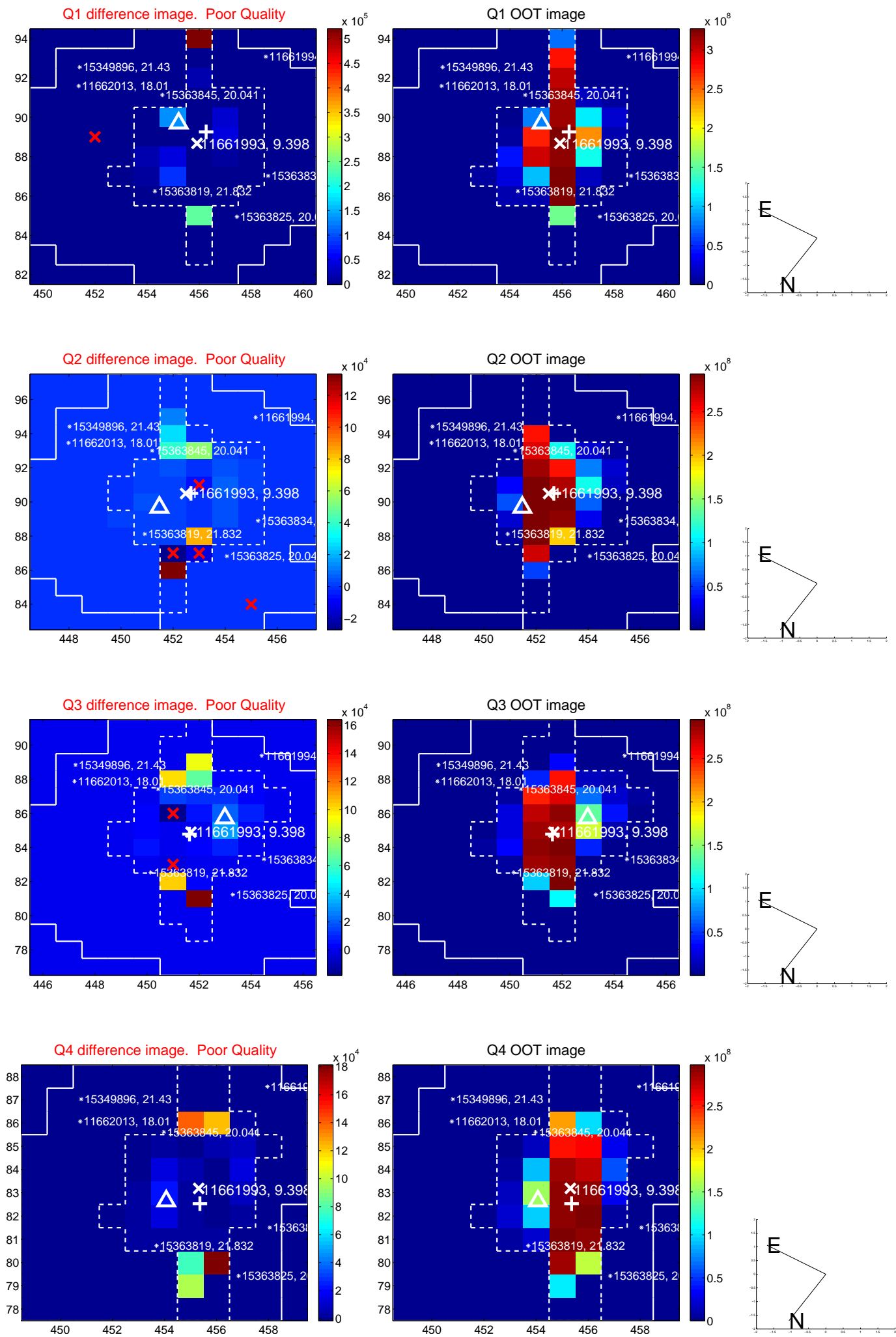
The OOT PRF centroid is offset from the target star catalog position by about 2.51 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.462 ± 1.059	3.27	-3.341 ± 0.965	-0.908 ± 1.060
PRF-fit source offset from KIC position	2.784 ± 0.918	3.03	2.307 ± 0.902	-1.559 ± 1.226
photometric centroid source offset	0.70 ± 0.34	2.02	-0.50 ± 0.25	0.49 ± 0.42

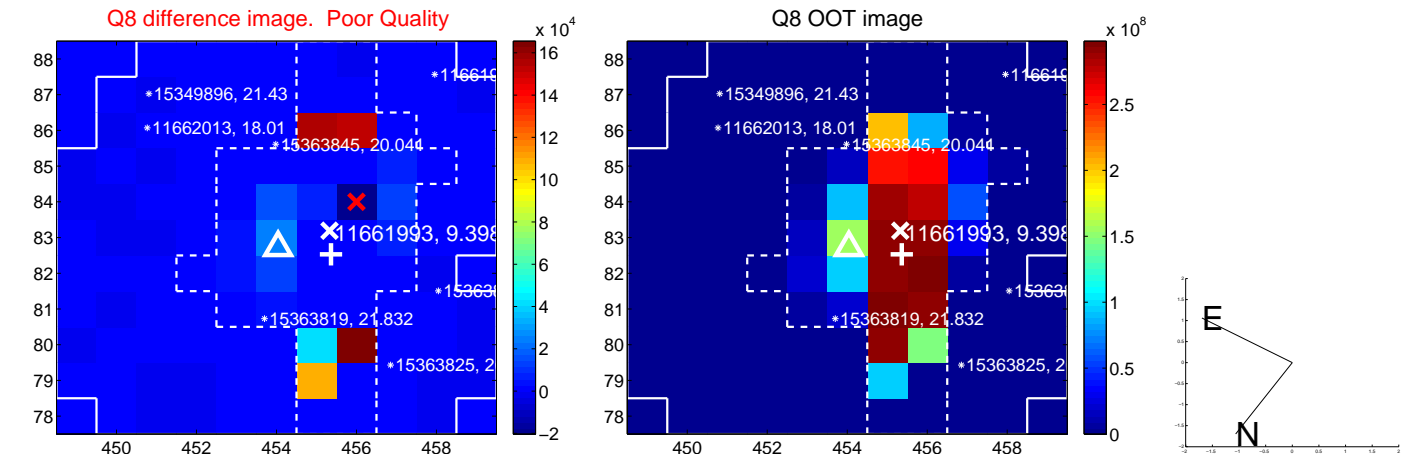
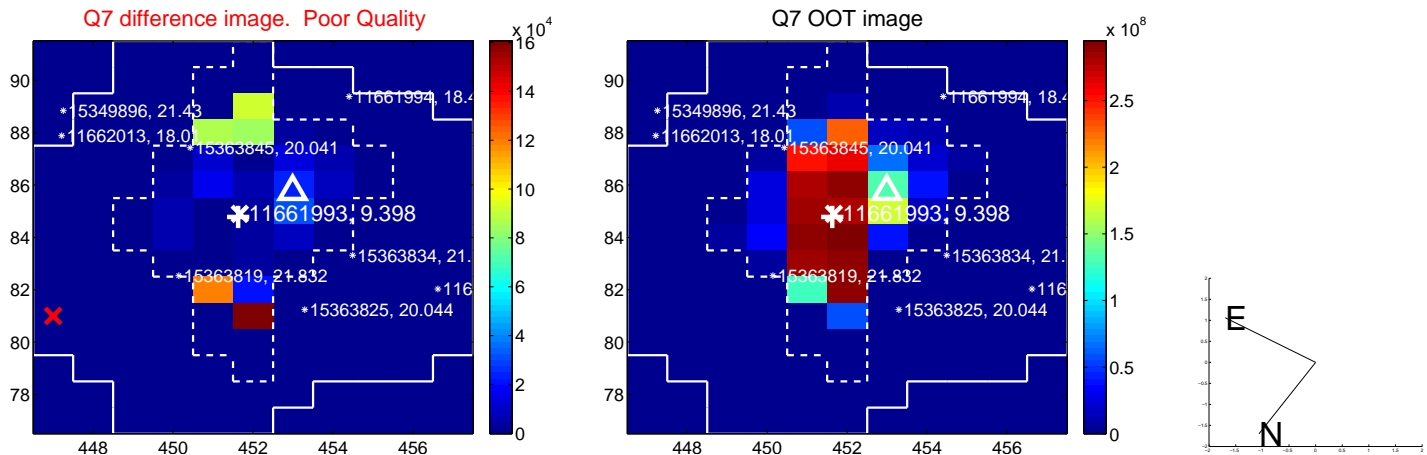
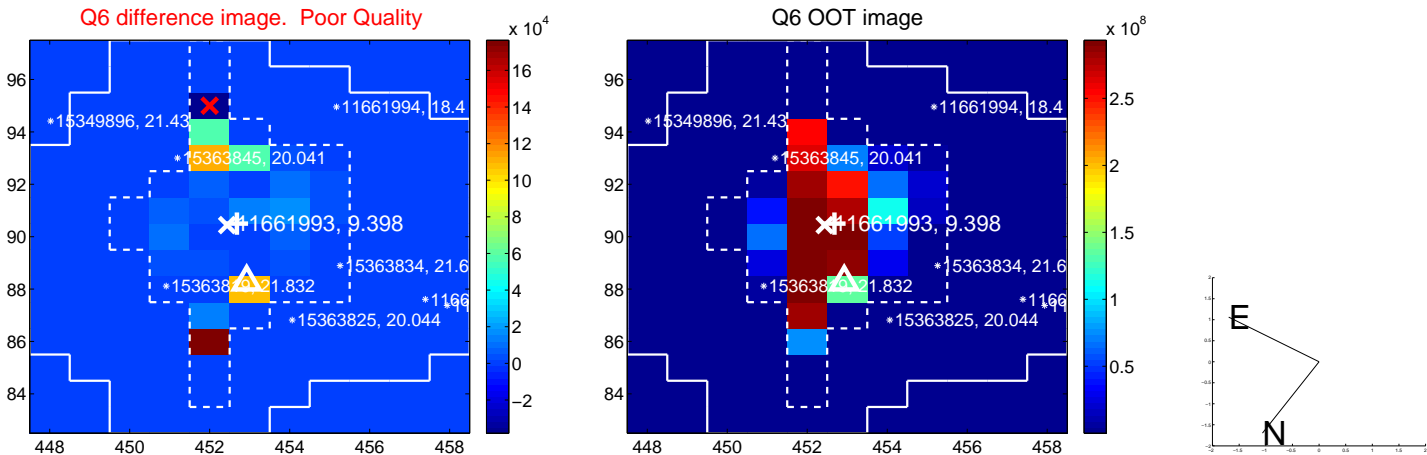
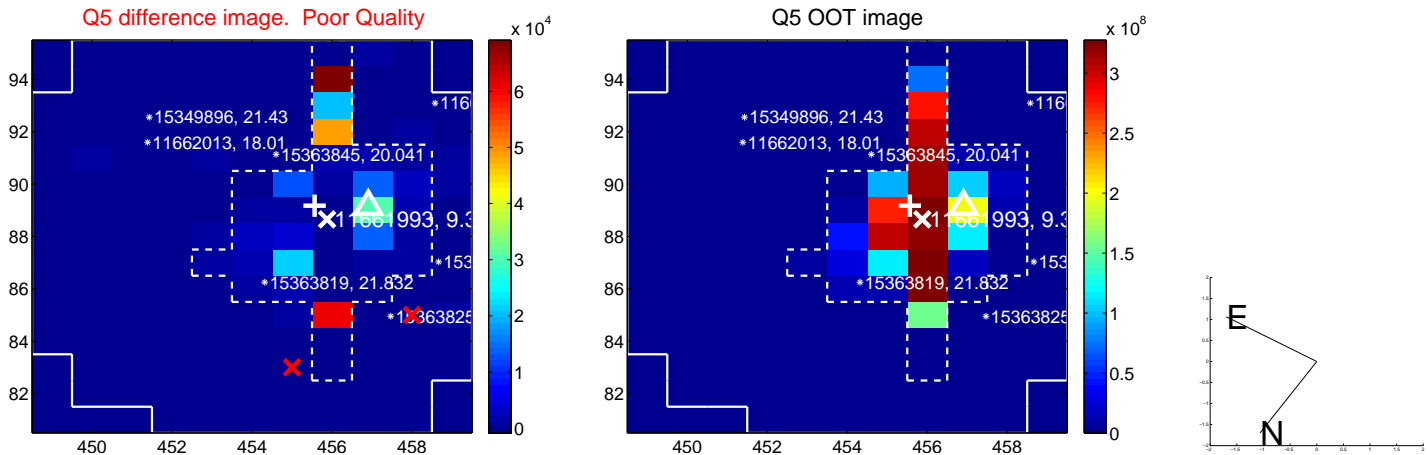


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

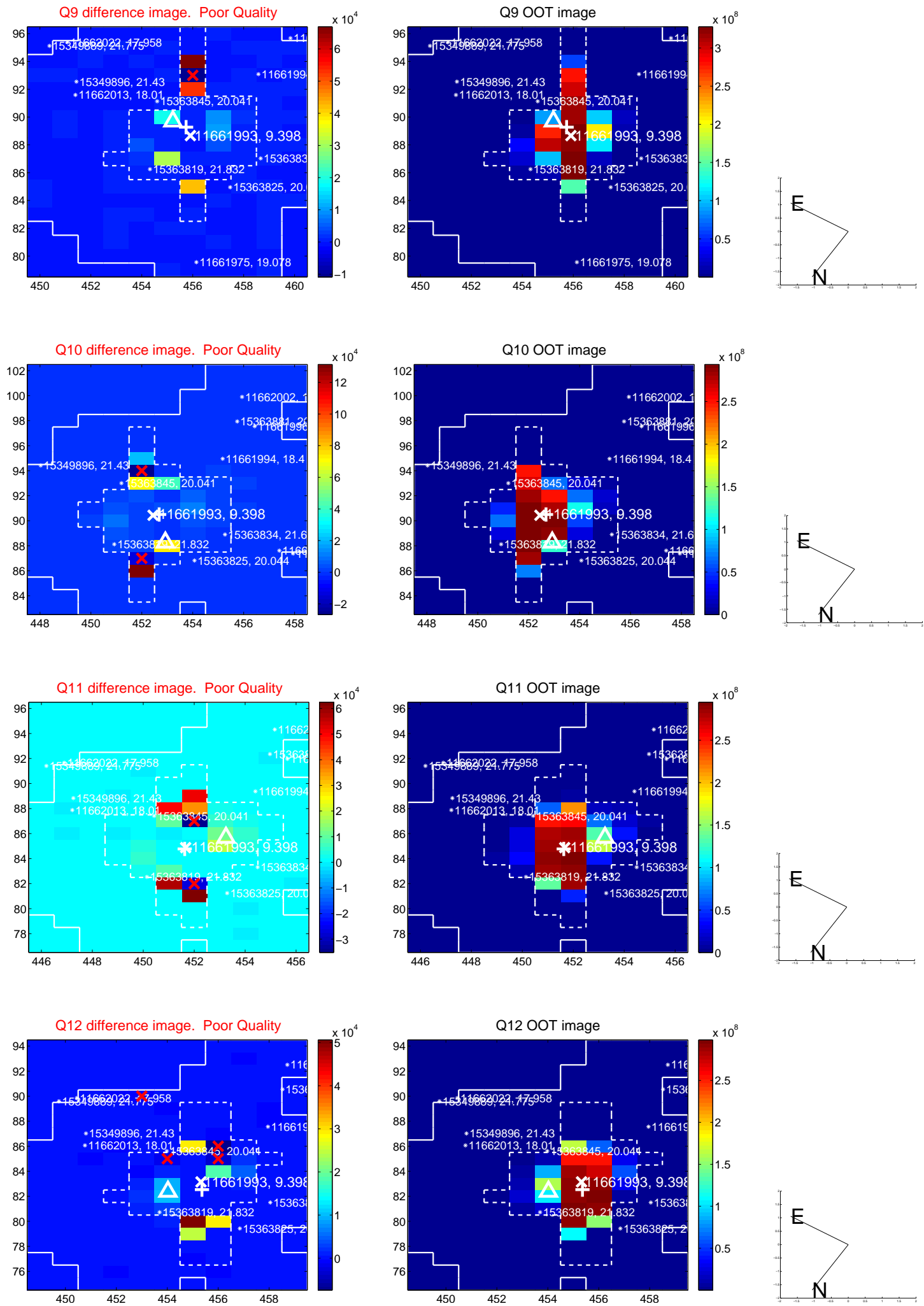
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



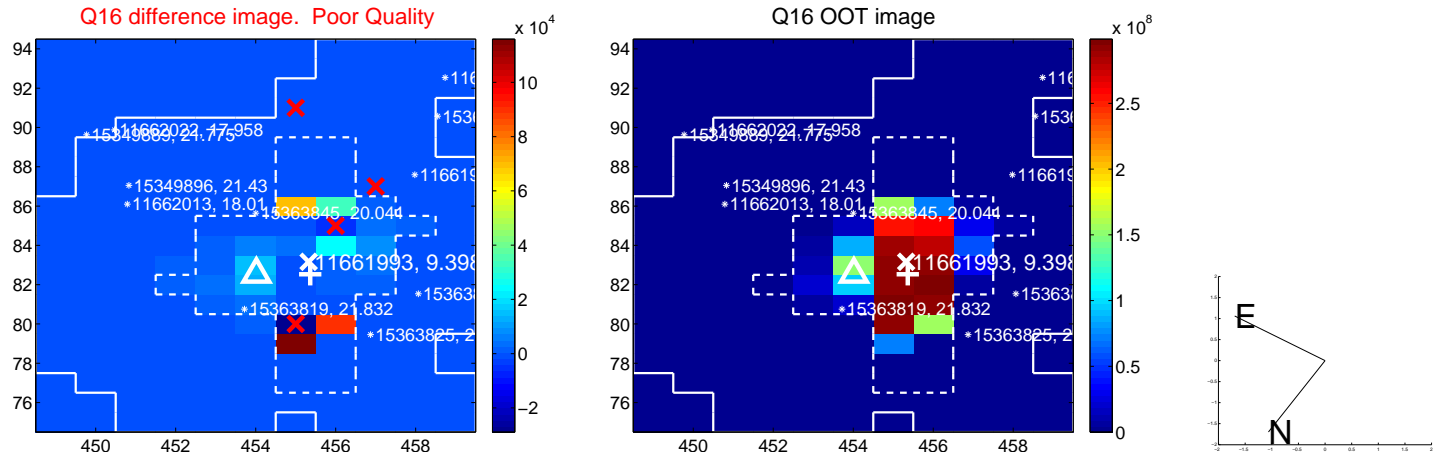
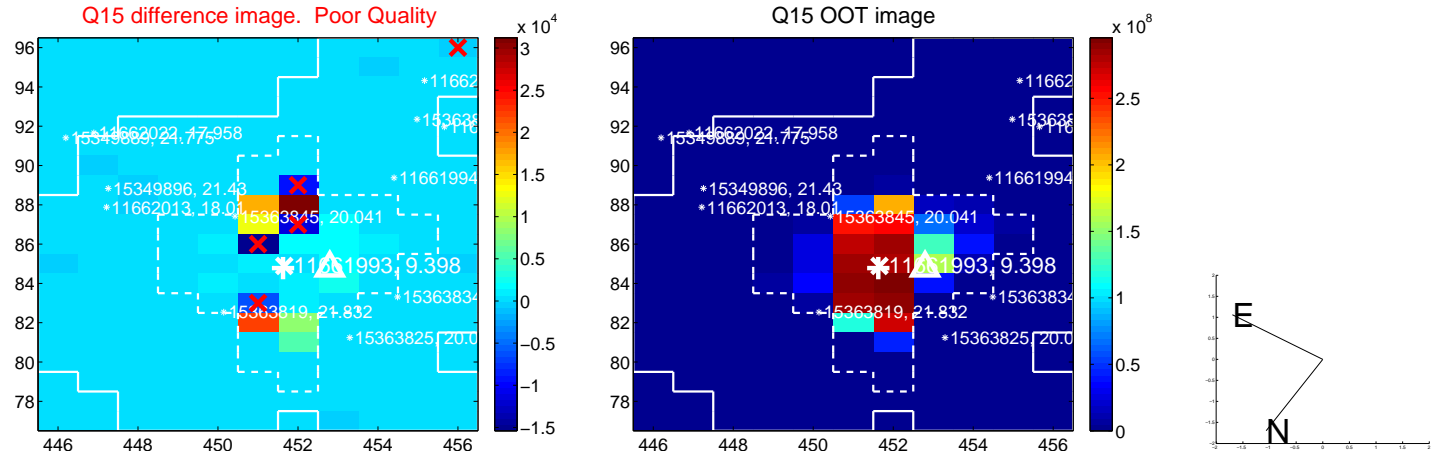
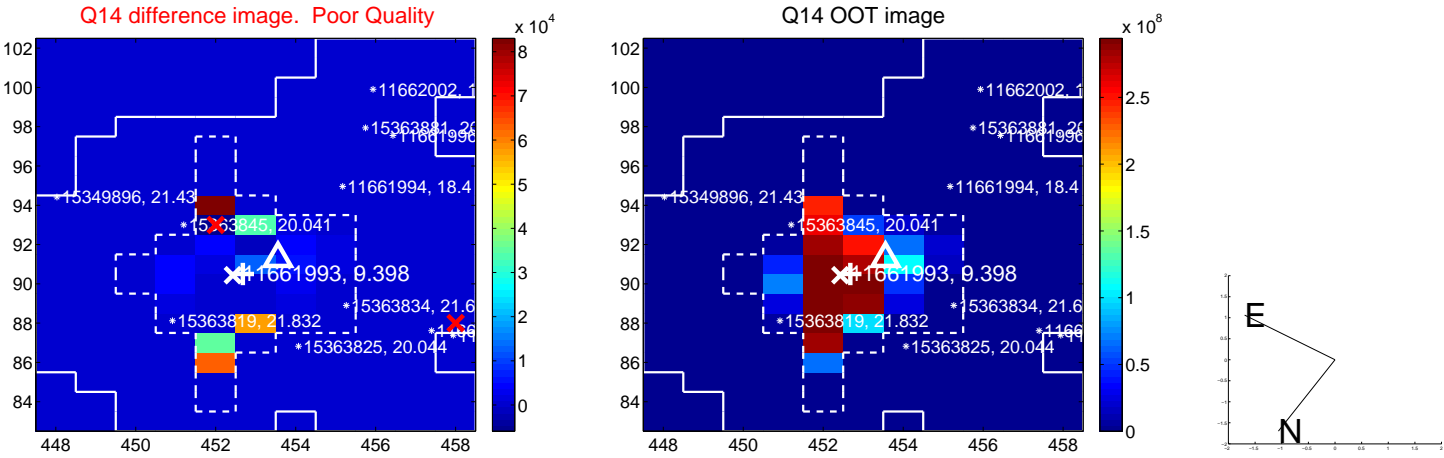
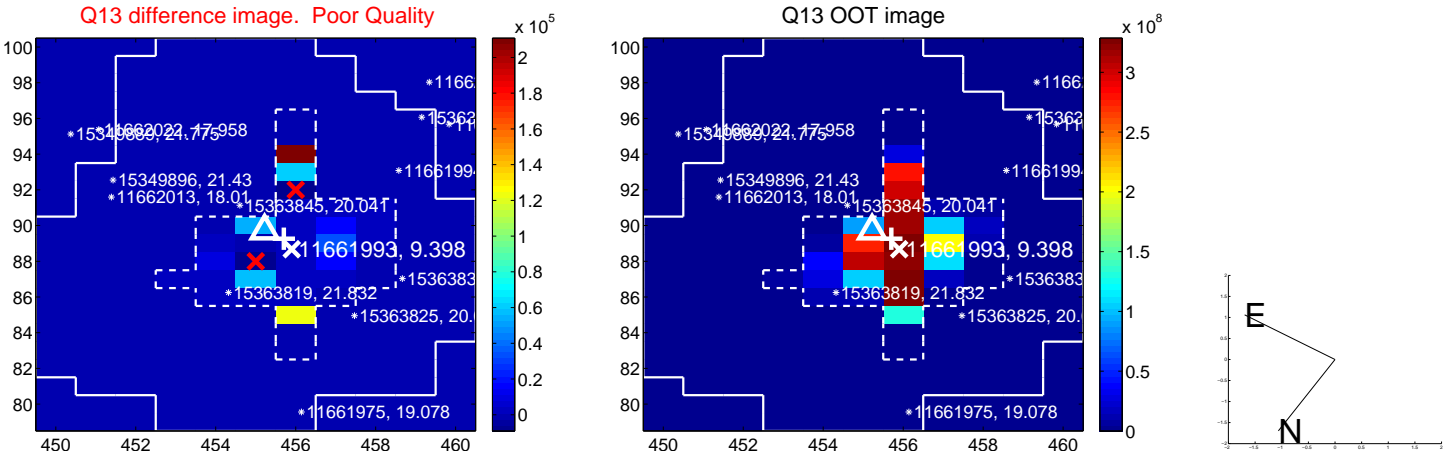
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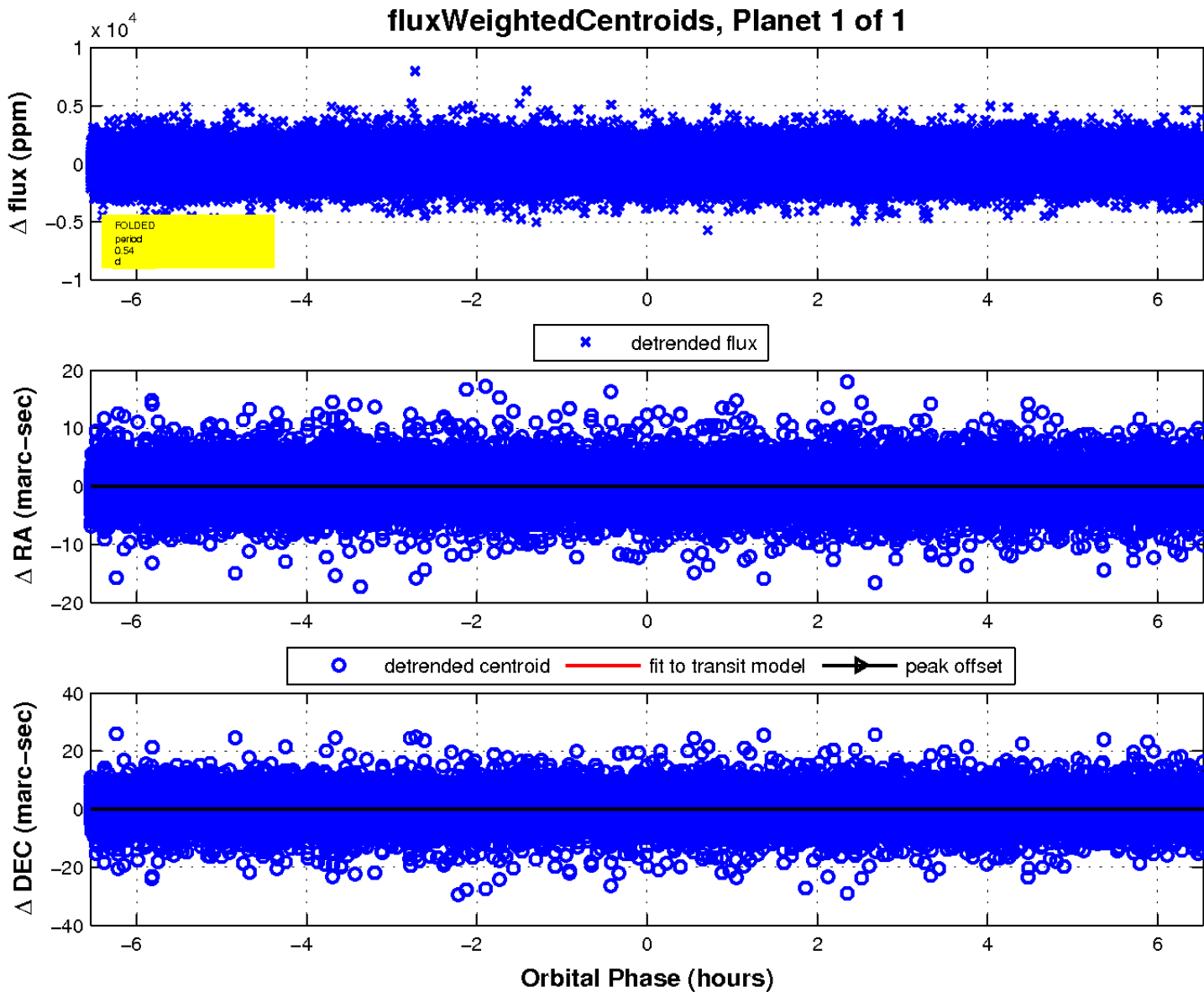
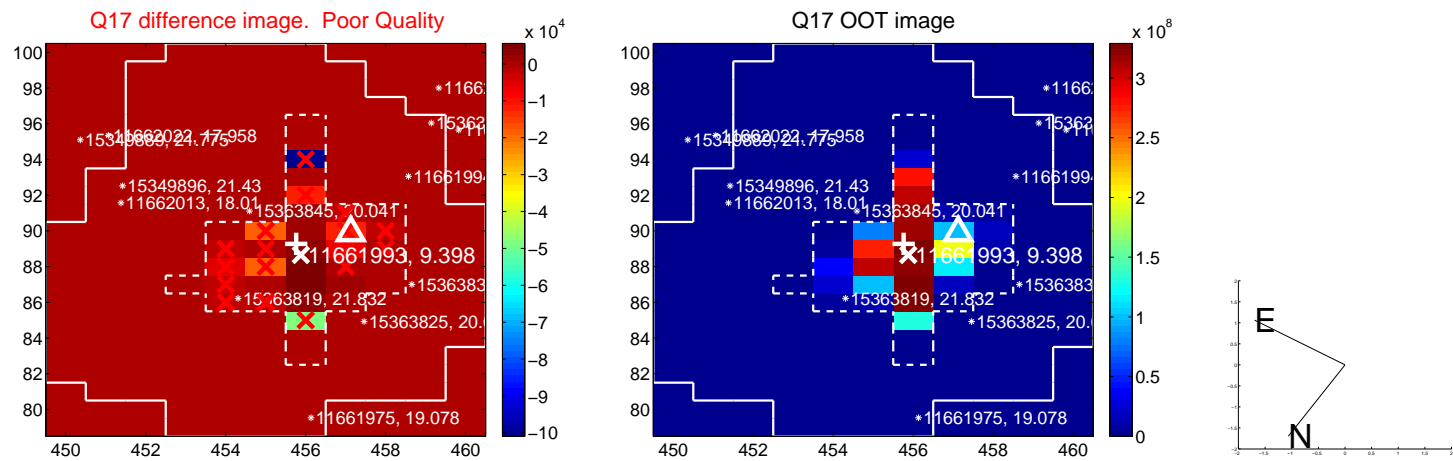
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UKIRT Image

