

KIC 007374160

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})
007374160-01	OBS	No	1.189825	132.156113	14.0	9.552	10.1	6.5	2.28	6643	0.91	13980.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007374160-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

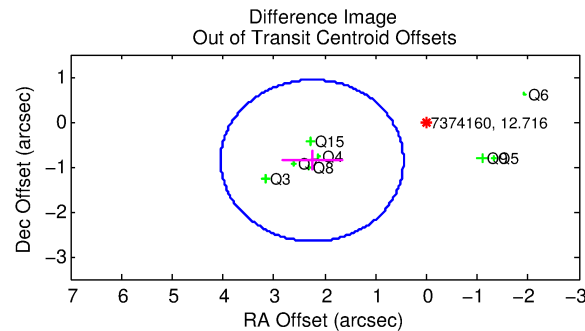
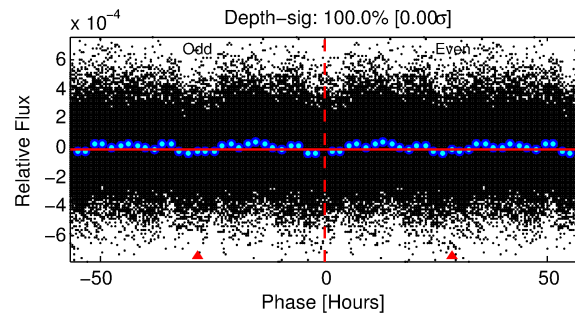
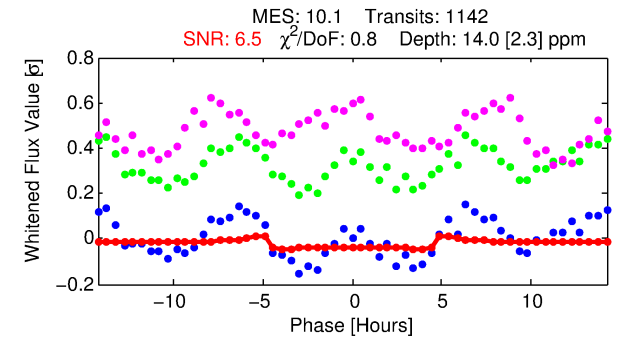
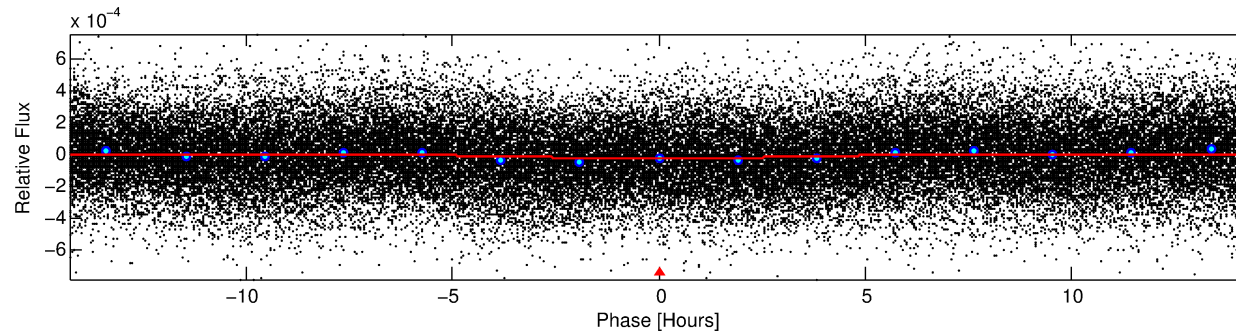
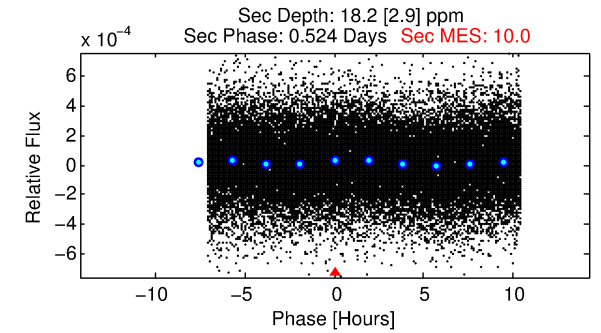
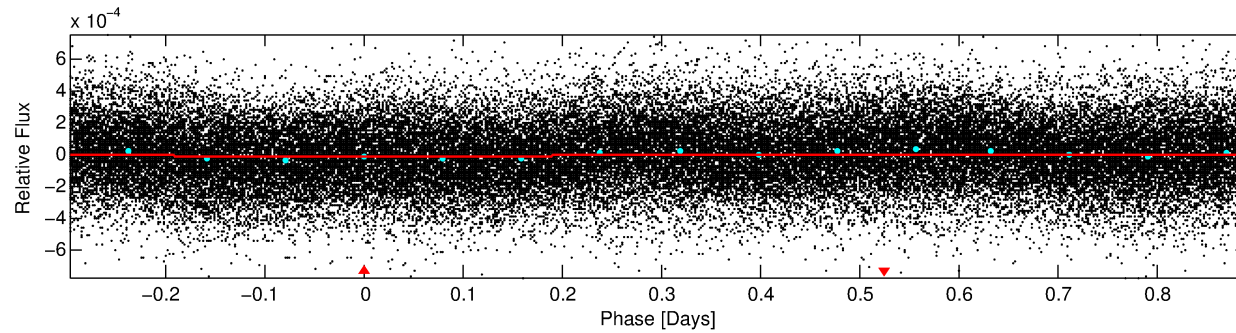
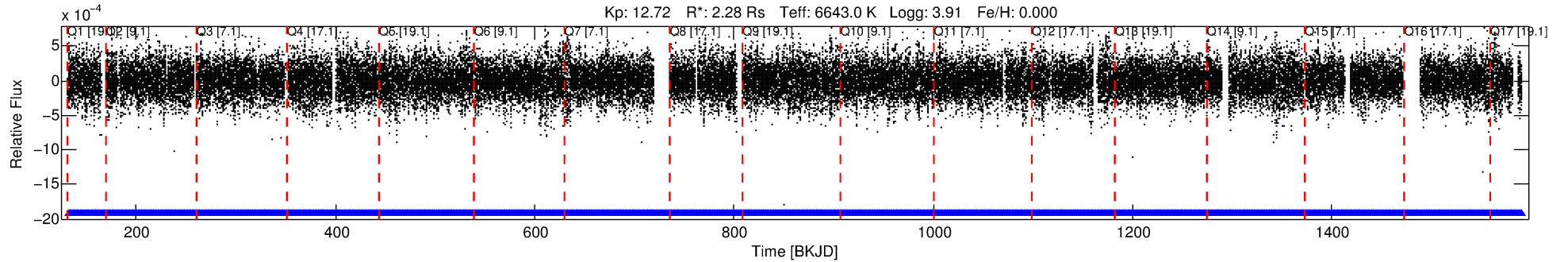
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007374160-01

No Significant Match Found

DV One-Page Summary

KIC: 7374160 Candidate: 1 of 1 Period: 1.190 d



DV Fit Results:

Period = 1.18983 [0.00003] d
Epoch = 132.1561 [0.0069] BKJD
Rp/R* = 0.0037 [0.0033]
a/R* = 1.08 [0.83]
b = 0.70 [3.77]
Seff = 13980.95 [8672.92]
Teq = 2773 [430] K
Rp = 0.91 [0.90] Re
a = 0.0255 [0.0097] AU
Ag = 7.78 [14.80] [0.46σ]
Teffp = 7160 [3242] K [1.34σ]

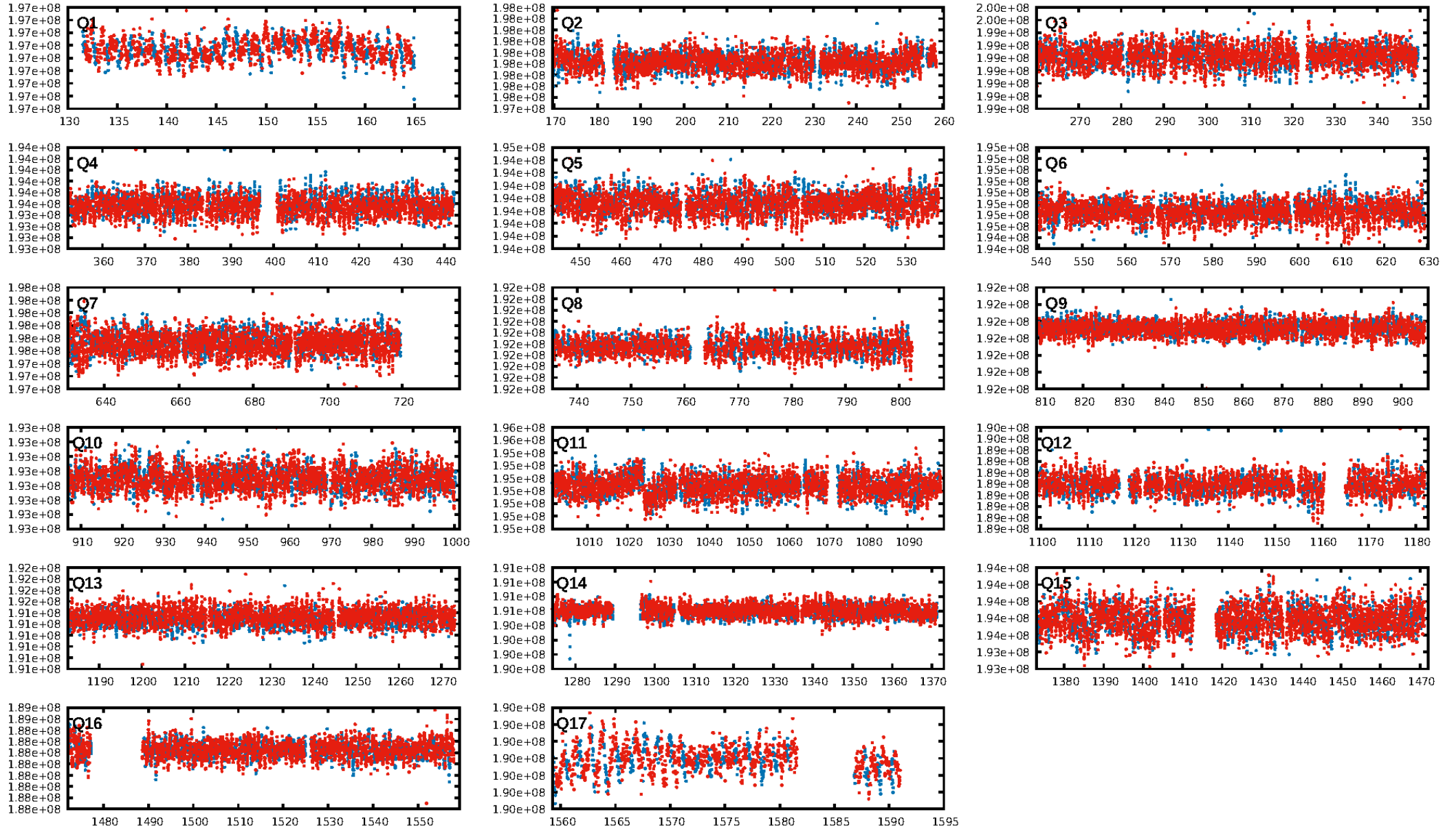
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1091/1091]
GhostDiagnostic-chr: 2.482
Centroid-sig: 32.4%
Centroid-so: 0.348 arcsec [0.54σ]
OotOffset-rm: 2.406 arcsec [4.02σ]
KicOffset-rm: 2.430 arcsec [3.02σ]
OotOffset-st: 1/3/2/2 [8]
KicOffset-st: 1/3/2/2 [8]
DiffImageQuality-fgm: 0.88 [7/8]
DiffImageOverlap-fno: 1.00 [17/17]

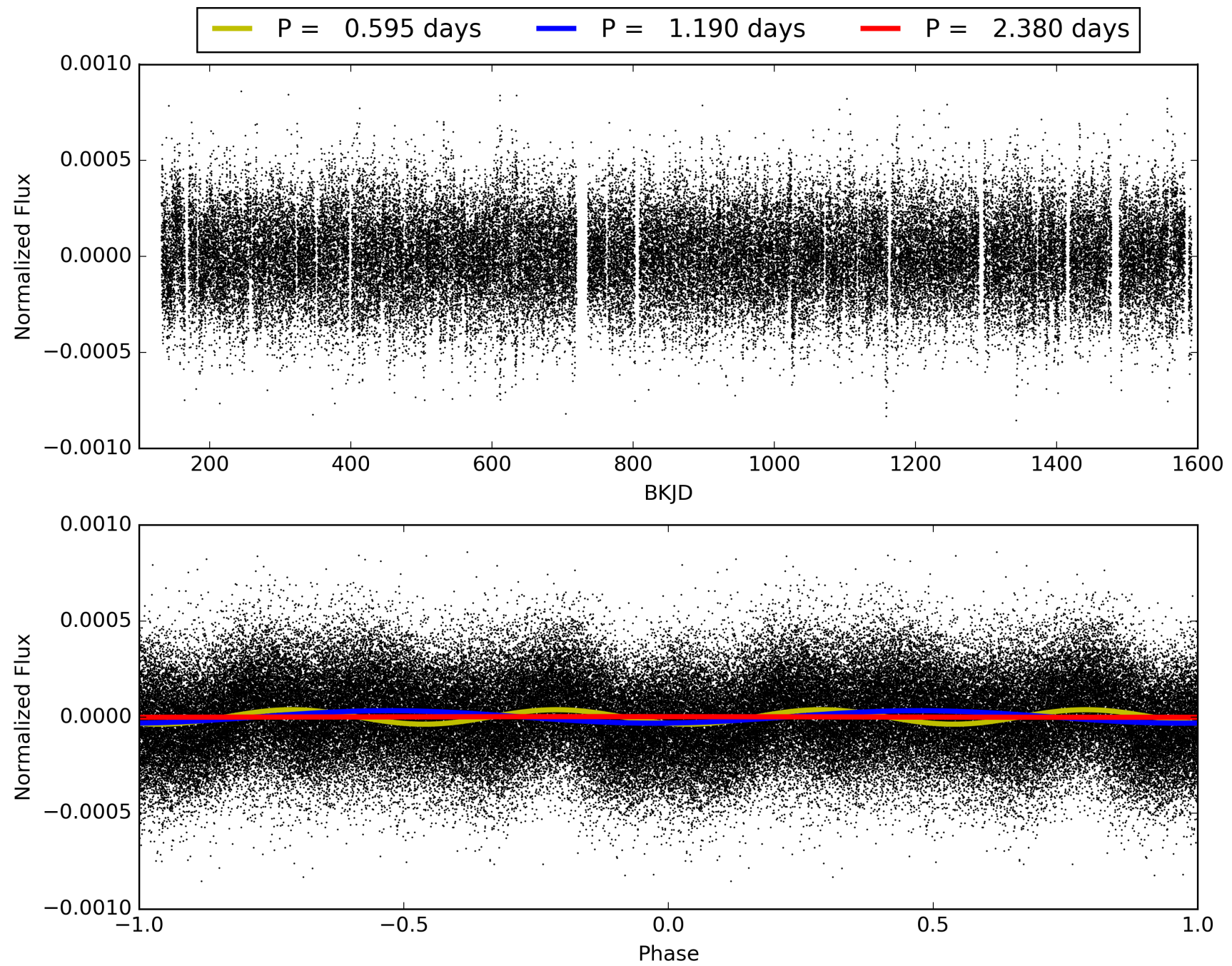
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:58:49 Z

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

TCE 007374160-01, PDC Light Curves

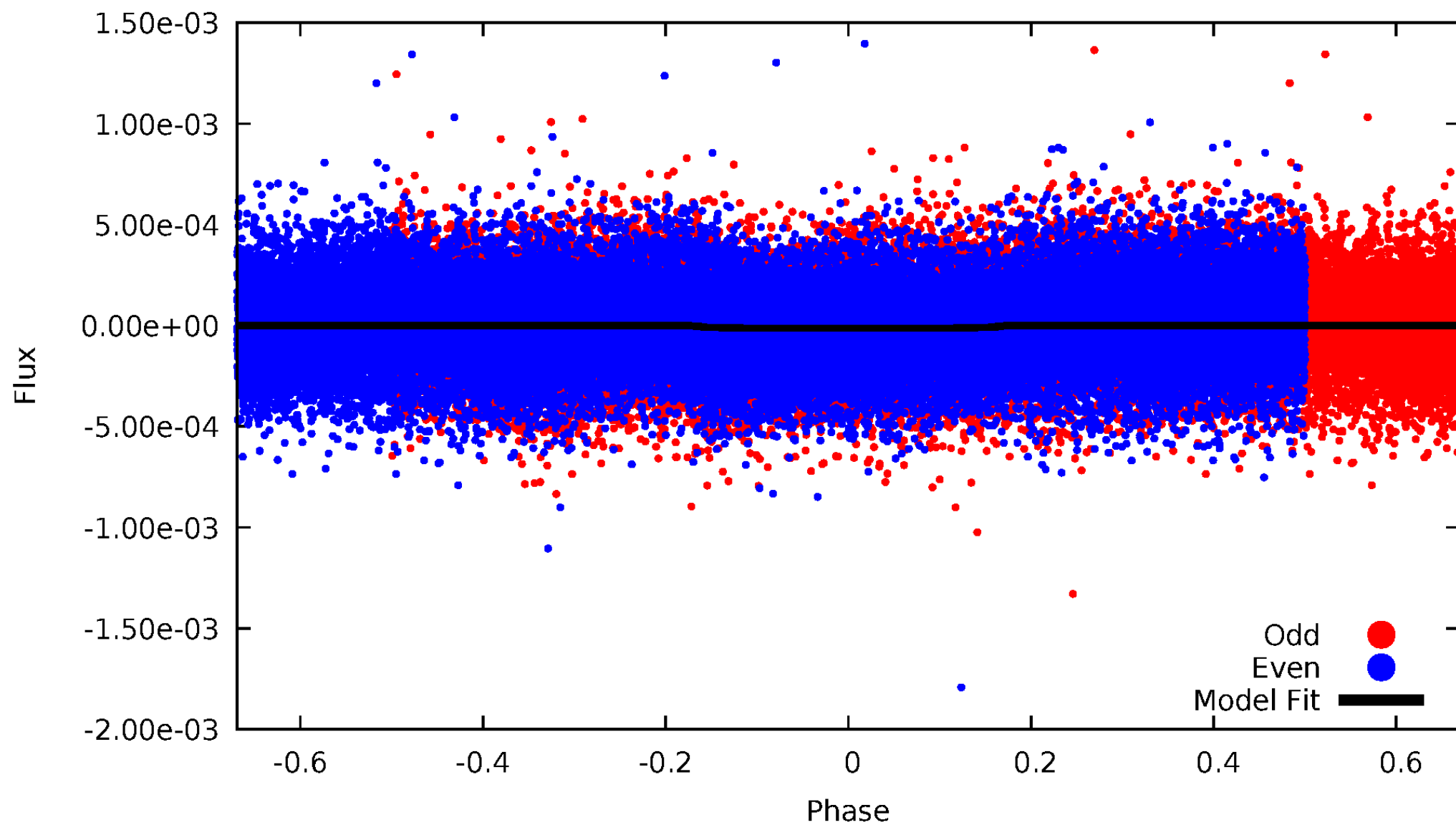


TCE 007374160-01



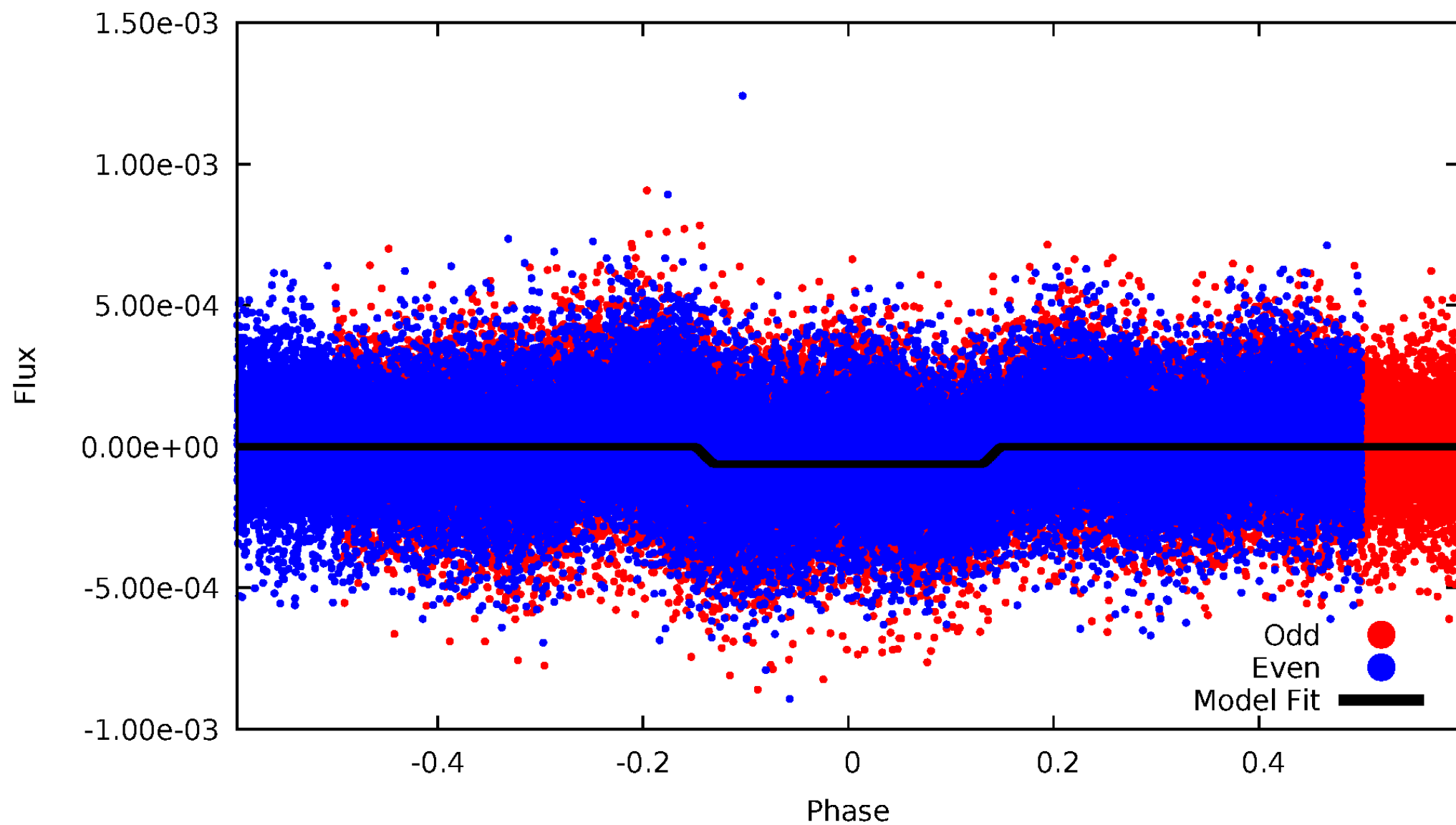
DV Odd/Even

TCE 007374160-01

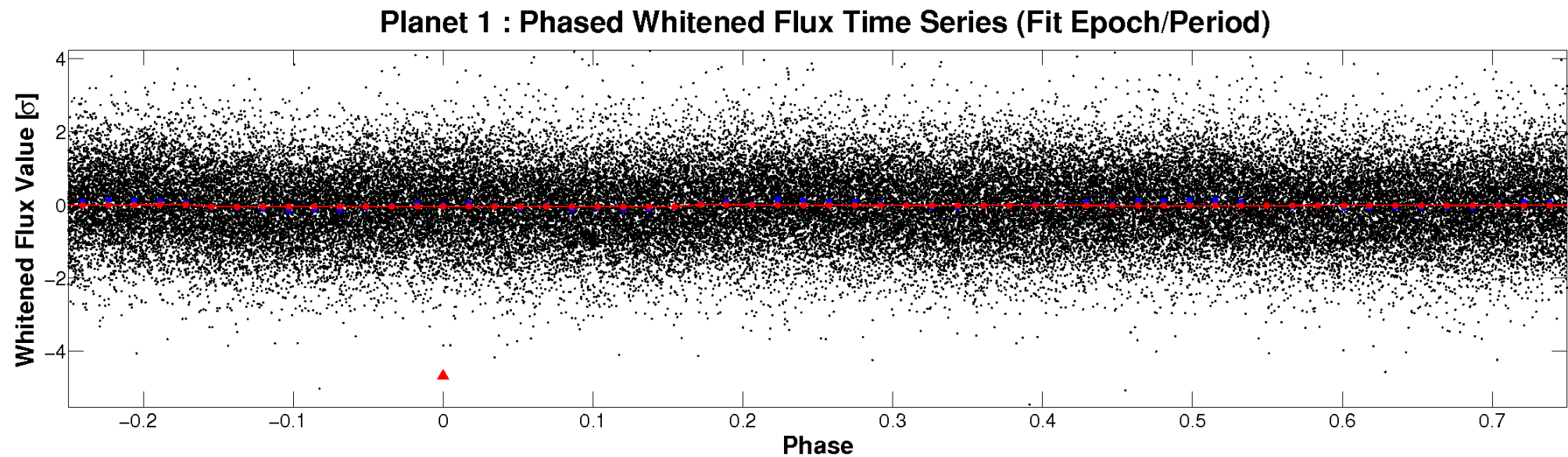
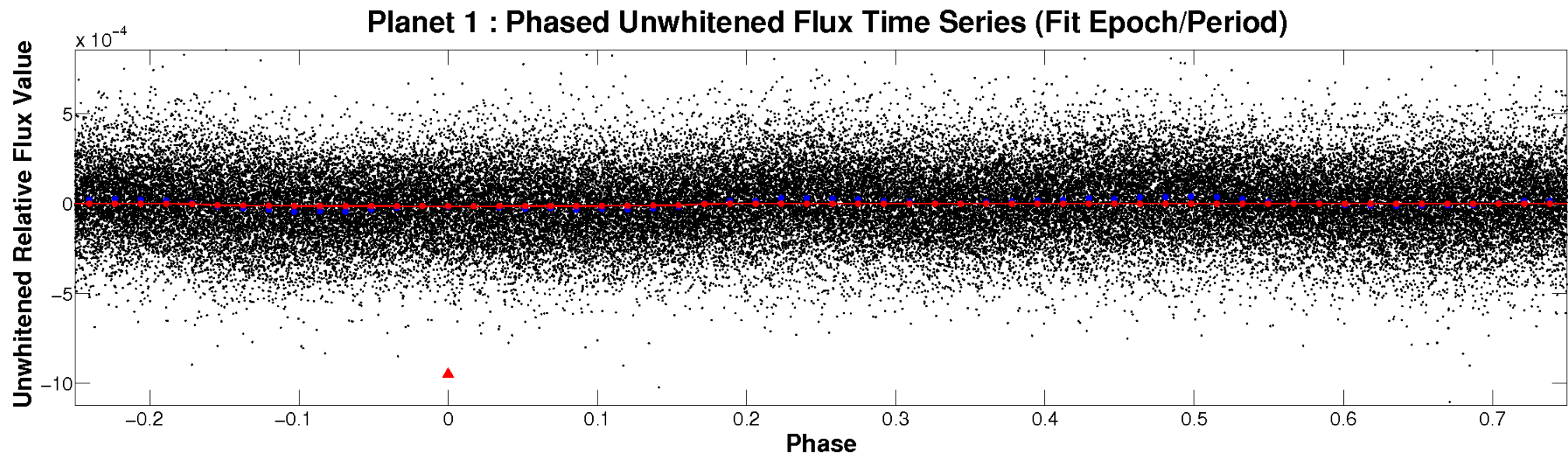


ALT Odd/Even

TCE 007374160-01

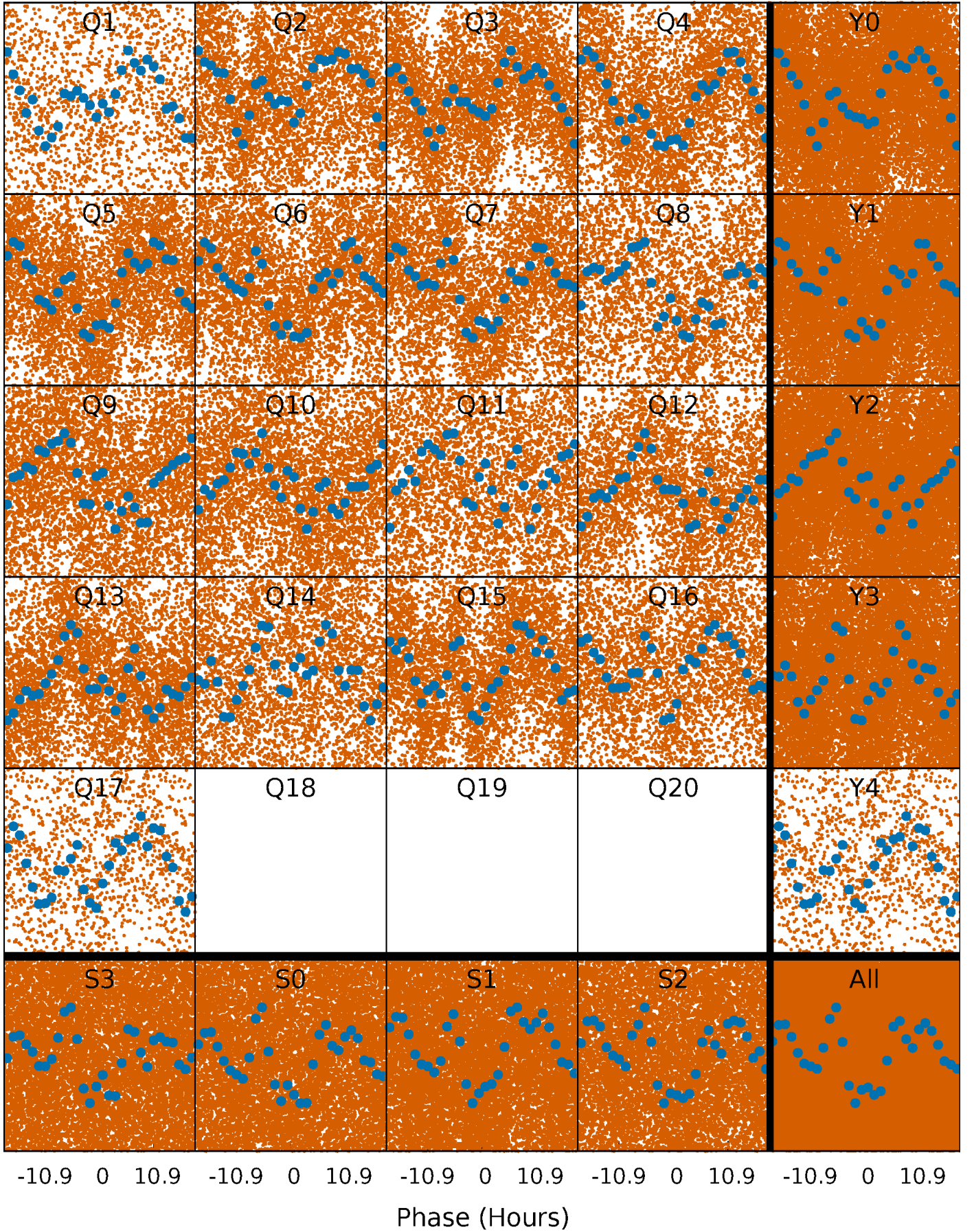


Non-Whitened Vs. Whitened Light Curve



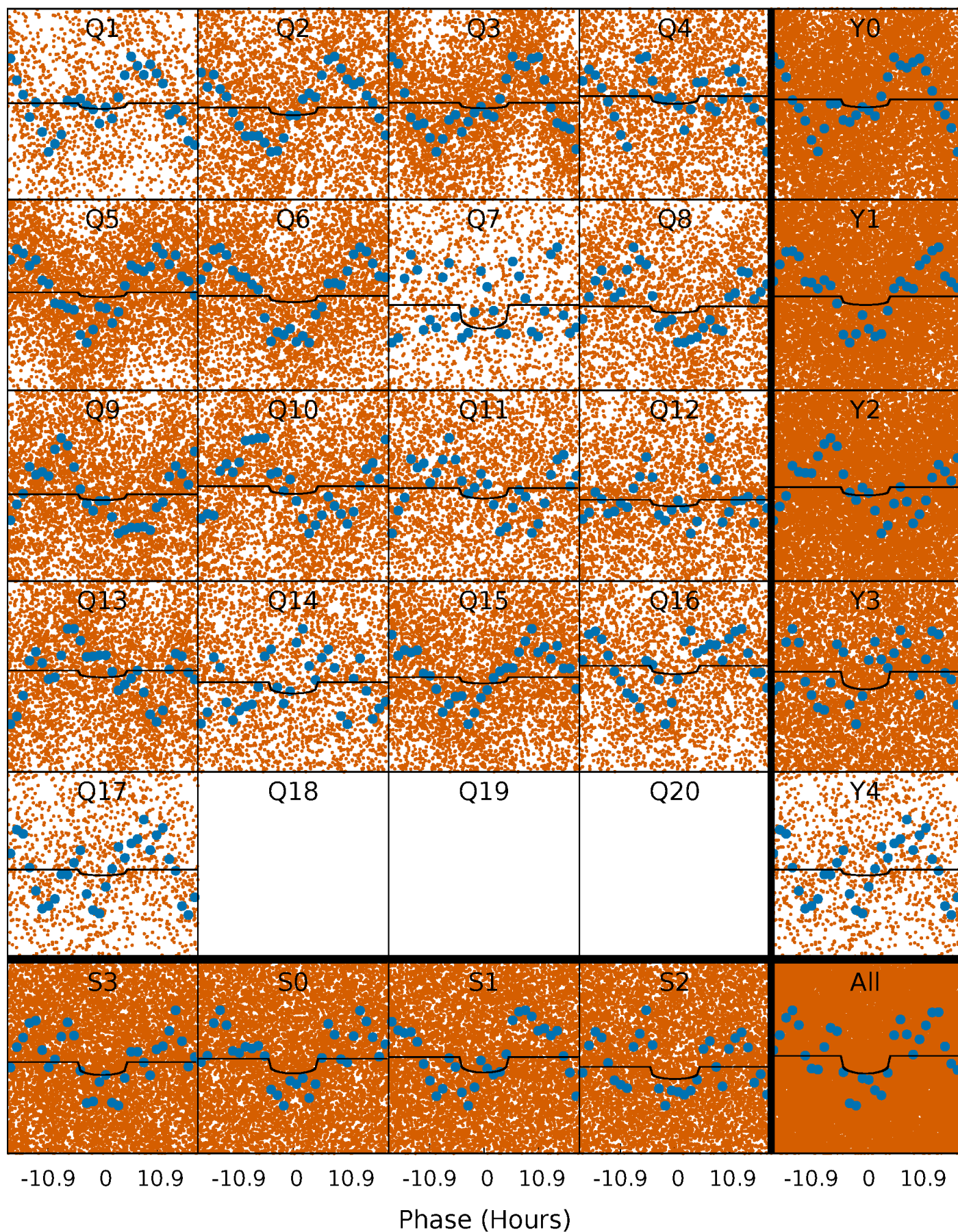
PDC Quarter-Phased Transit Curves

TCE 007374160-01 P= 1.189825 Days $T_0=132.156113$ (BKJD)



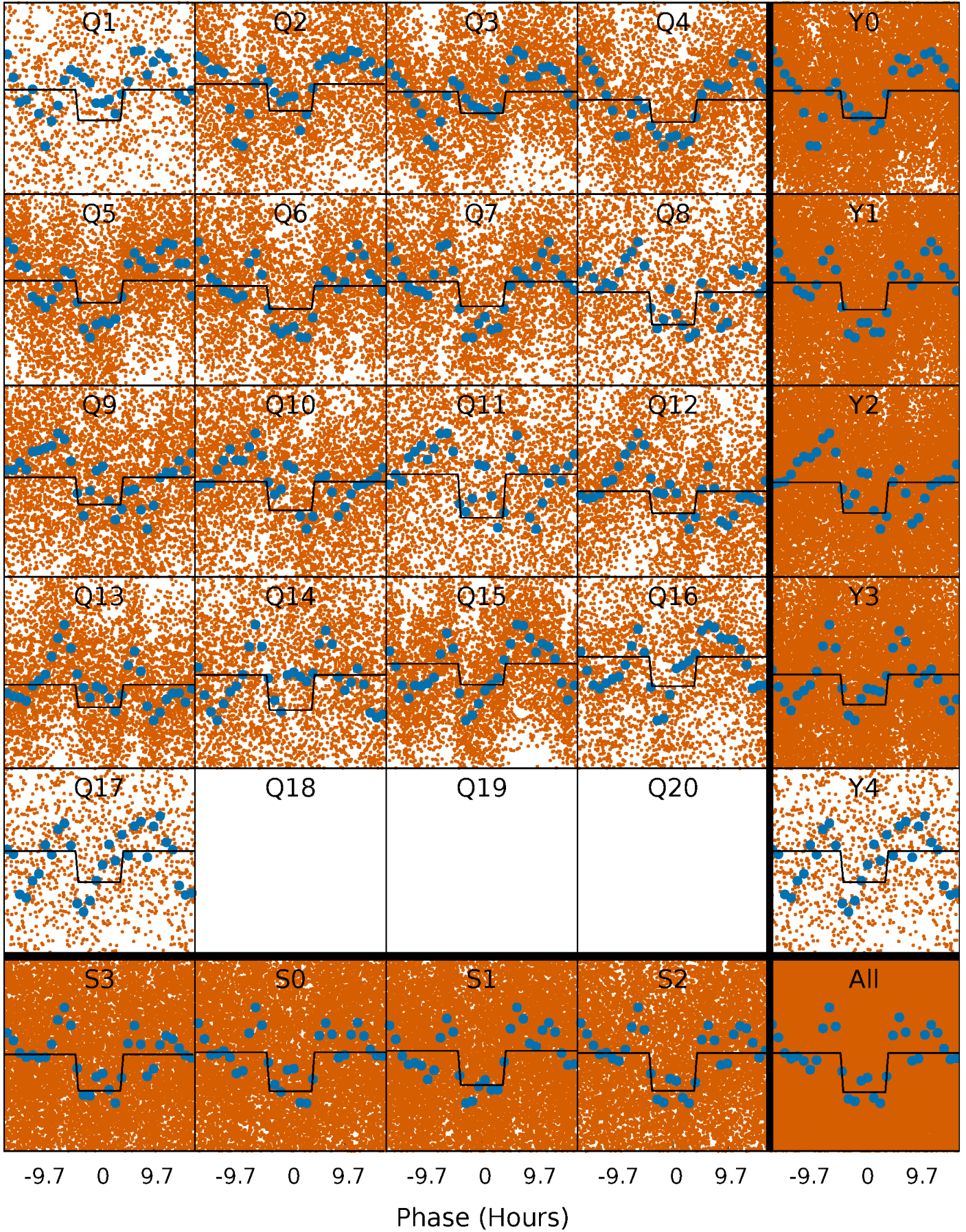
DV Quarter-Phased Transit Curves

TCE 007374160-01 P= 1.189825 Days $T_0=132.156113$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

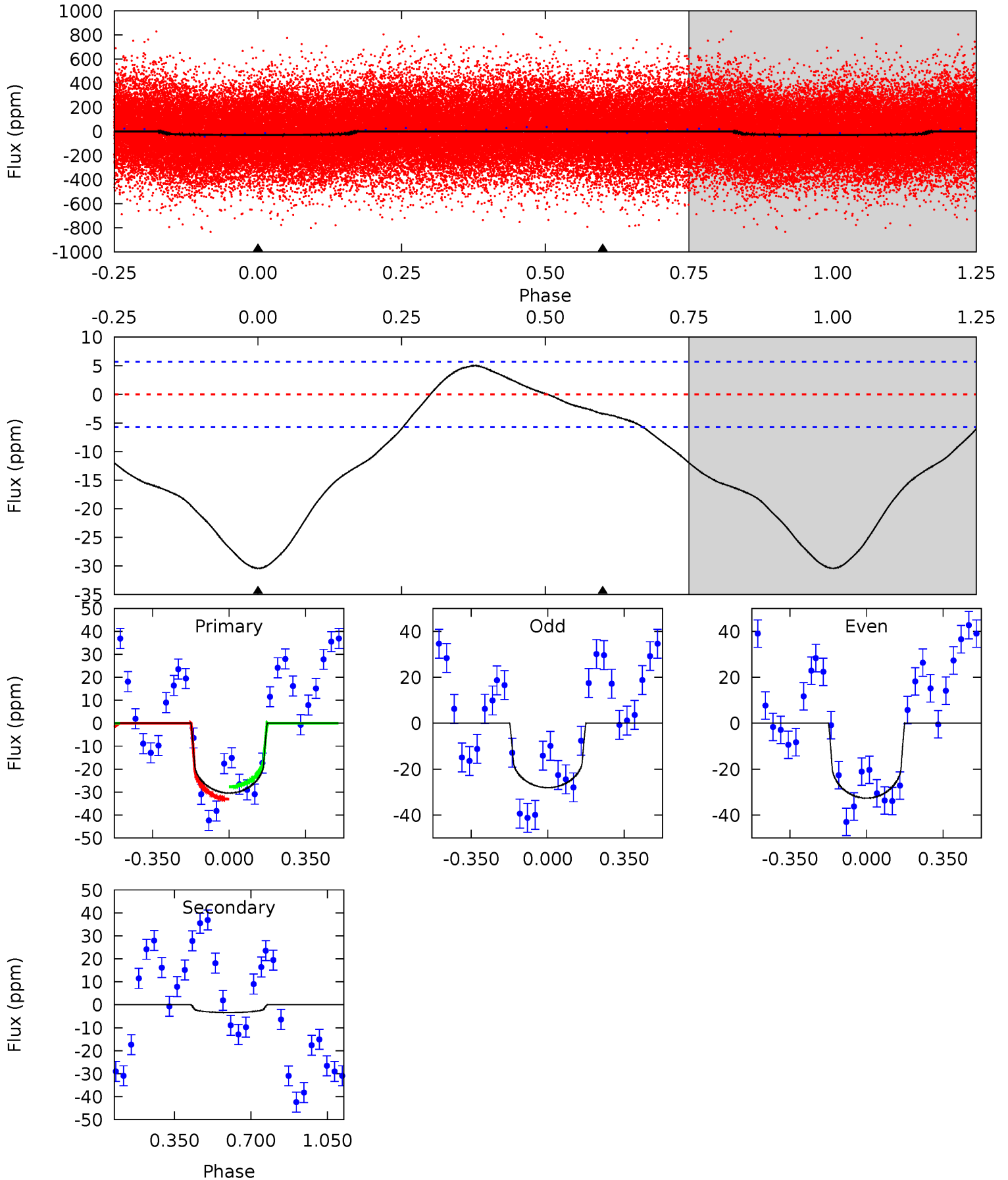
TCE 007374160-01 P= 1.189910 Days $T_0=132.110391$ (BKJD)



DV Model-Shift Uniqueness Test

007374160-01, P = 1.189825 Days, E = 130.966288 Days

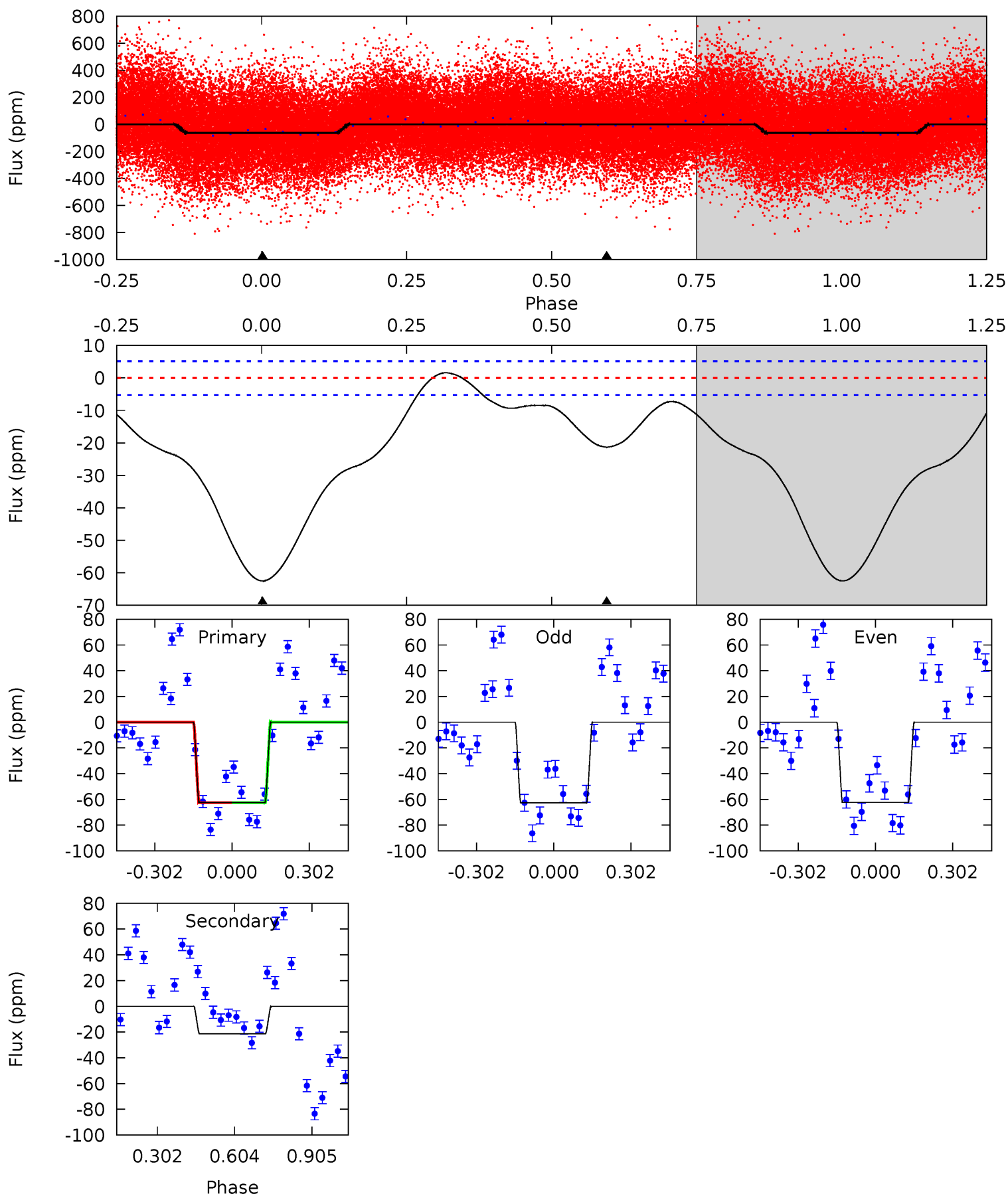
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	2.56	0	0	4.29	0.93	2.41	22.9	22.9	2.56	2.56	1.73	1.11	0.14	2.01



Alt Model-Shift Uniqueness Test

007374160-01, P = 1.189910 Days, E = 130.920481 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.9	17.7	0	0	4.33	1.03	3.16	51.9	51.9	17.7	17.7	0.16	1.00	0.03	0.02



Stellar Parameters For KIC 007374160

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6643^{+186}_{-255}	$3.914^{+0.350}_{-0.150}$	$0.000^{+0.250}_{-0.300}$	$2.279^{+0.614}_{-0.921}$	$1.553^{+0.200}_{-0.371}$	$0.185^{+0.553}_{-0.077}$
	+3%/-4%	+9%/-4%	+inf%/-inf%	+27%/-40%	+13%/-24%	+299%/-41%
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 007374160-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 1	$0.96^{+0.83}_{-0.61}$	3791^{+318}_{-383}	4190^{+2860}_{-1449}	$1.197^{+7.400}_{-0.848}$
Alt.	-21 ± 1	$1.89^{+0.85}_{-0.84}$	3778^{+325}_{-379}	4893^{+1460}_{-778}	$2.132^{+4.521}_{-1.144}$

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 $A_{obs} \gg 1.0$

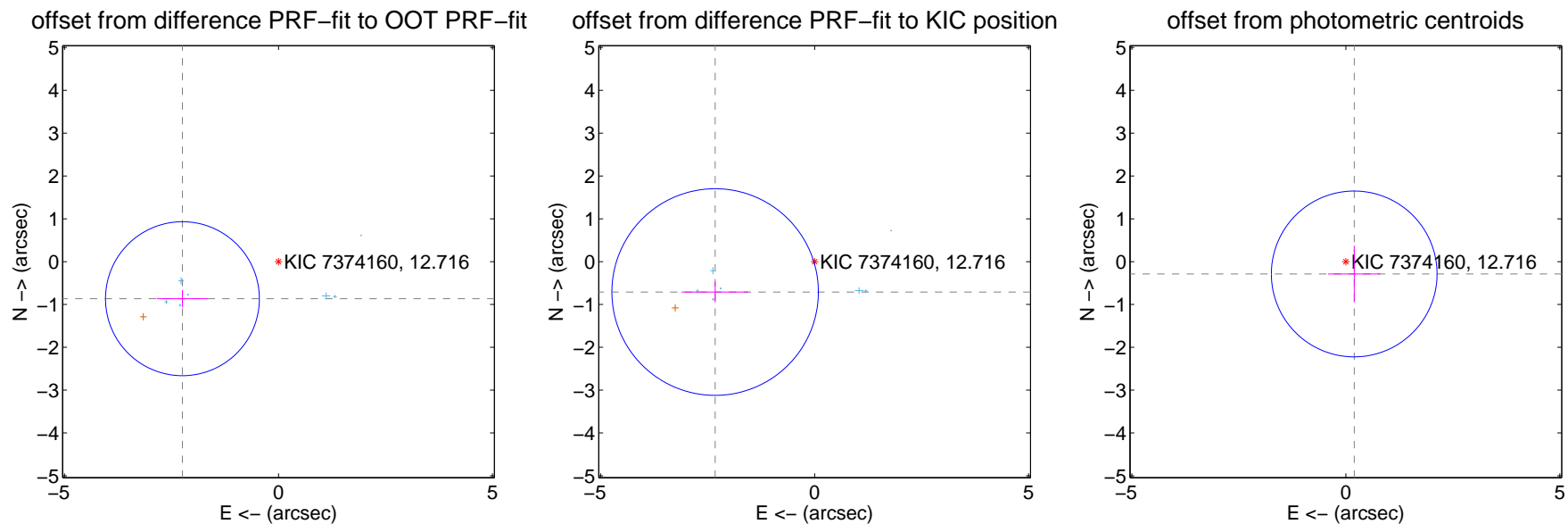
DV Centroid Data

Supplemental centroid analysis for 007374160-01. Kepler magnitude: 12.72. Transit SNR 6.53

There are 7 quarters with good PRF difference image offsets

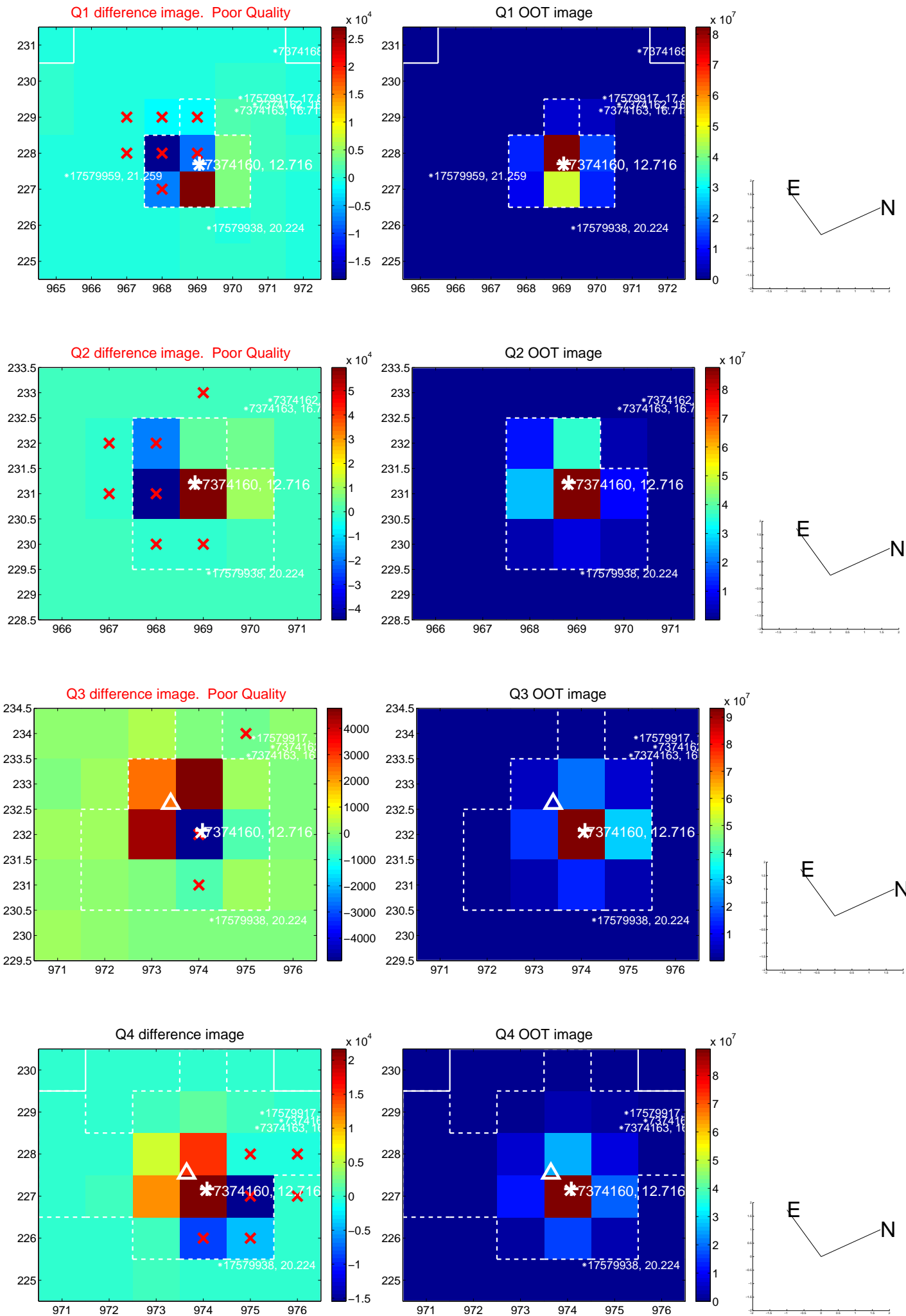
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.406 ± 0.599	4.02	2.245 ± 0.599	-0.865 ± 0.200
PRF-fit source offset from KIC position	2.430 ± 0.804	3.02	2.325 ± 0.783	-0.710 ± 0.243
photometric centroid source offset	0.35 ± 0.65	0.54	-0.20 ± 0.61	-0.29 ± 0.66

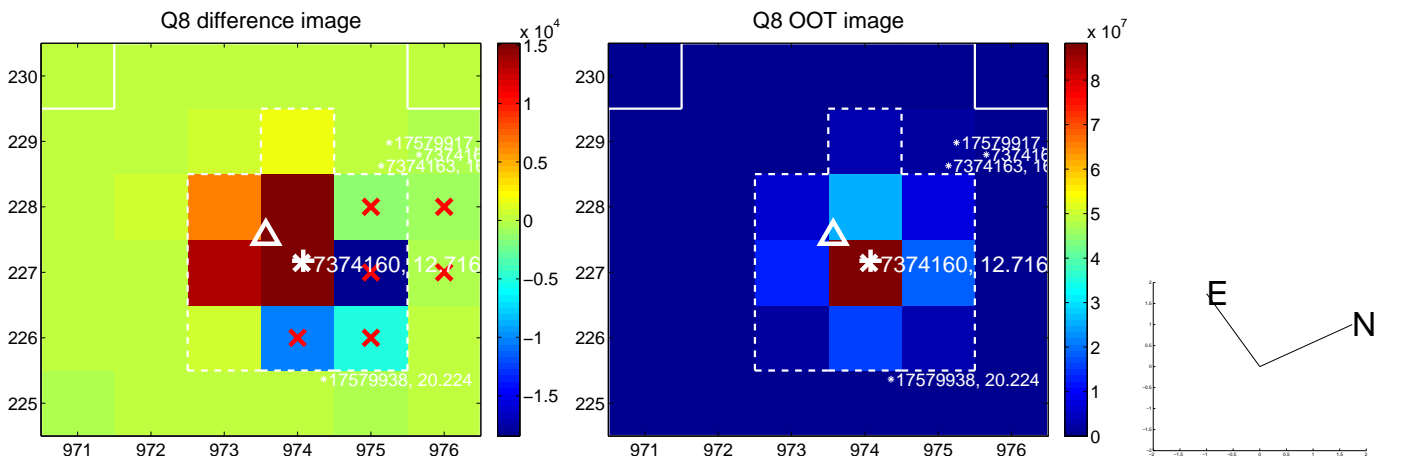
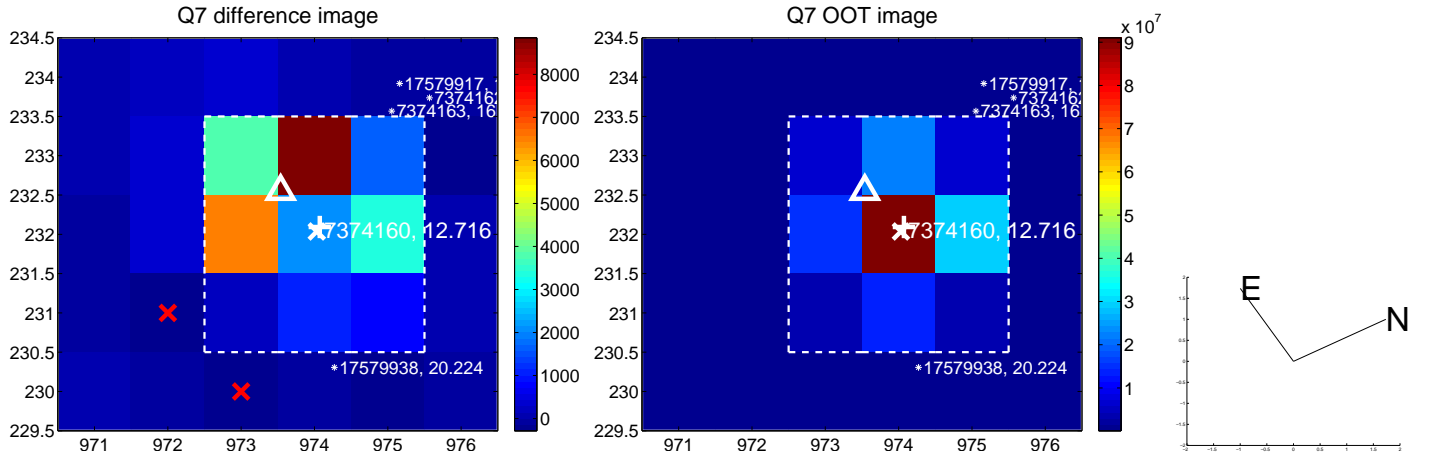
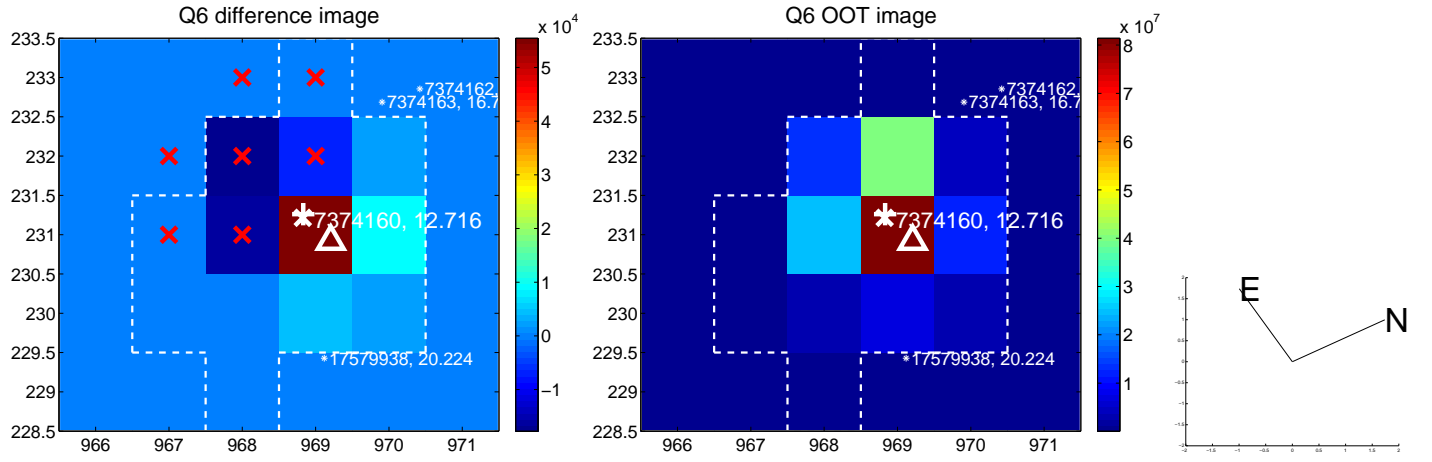
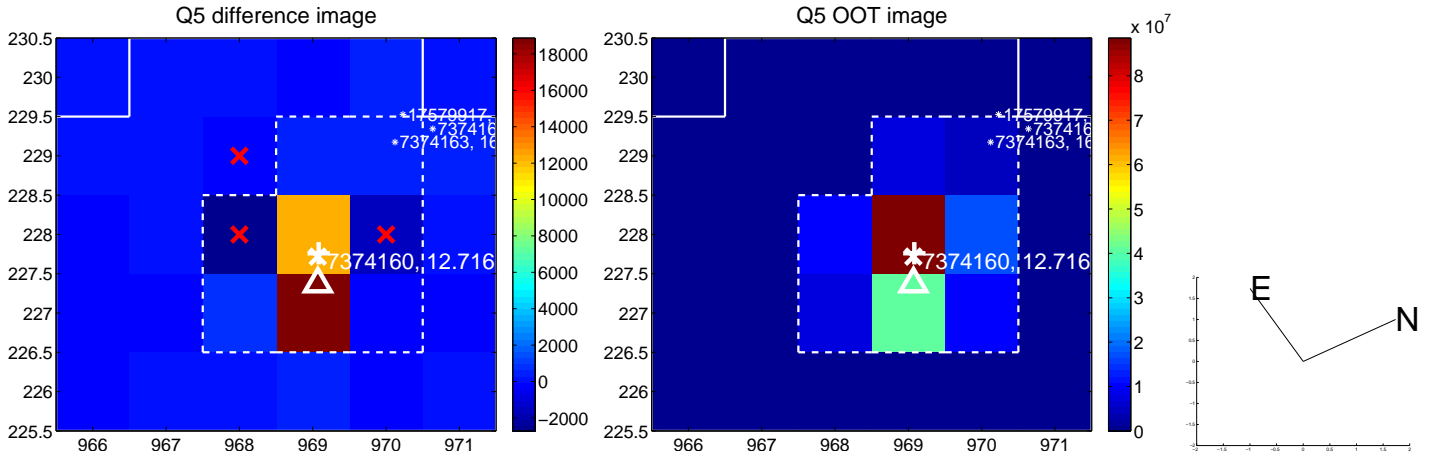


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

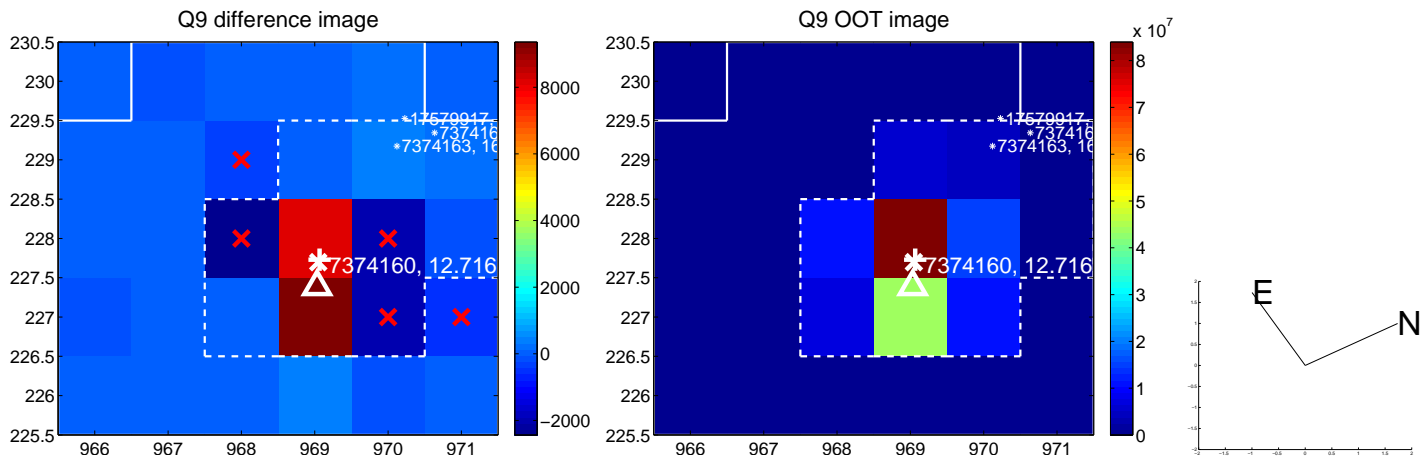
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



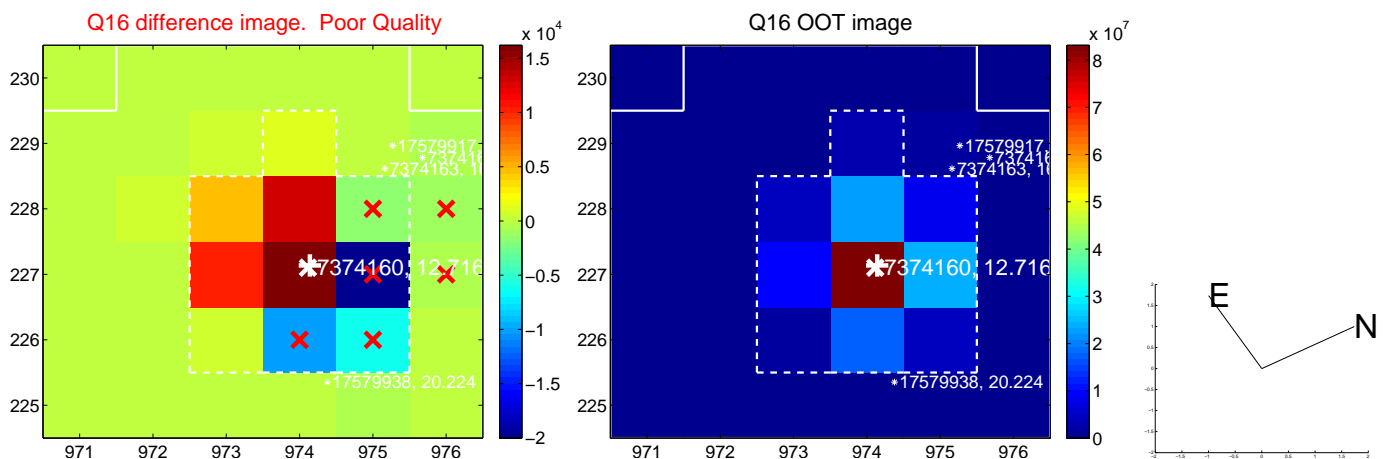
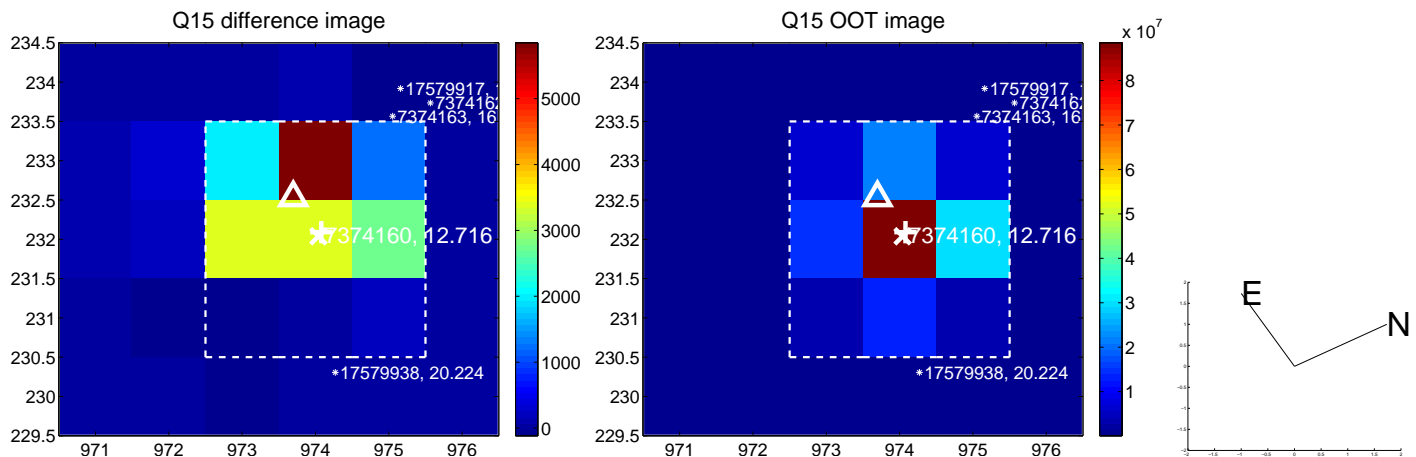
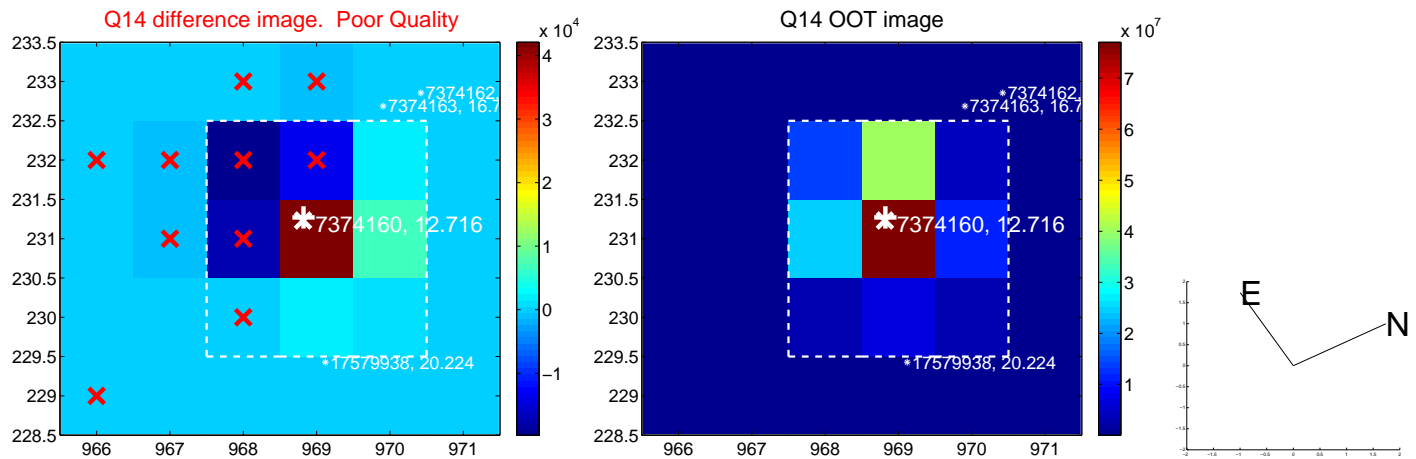
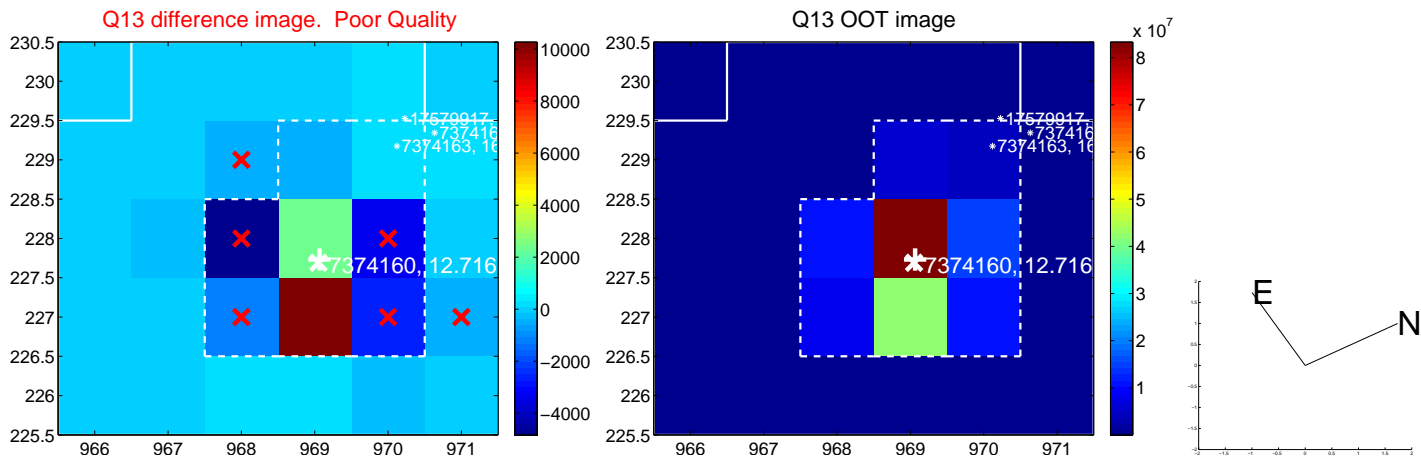
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



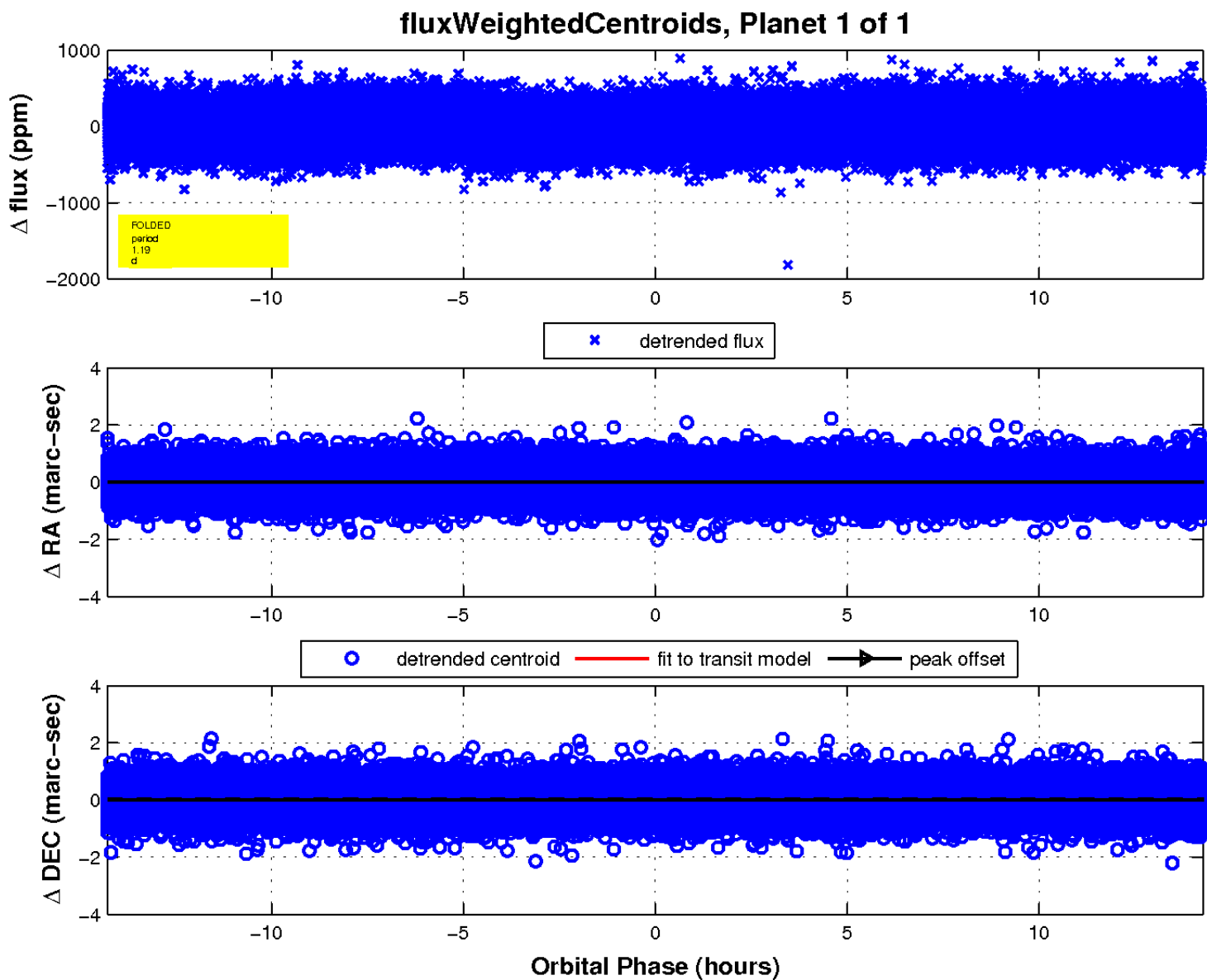
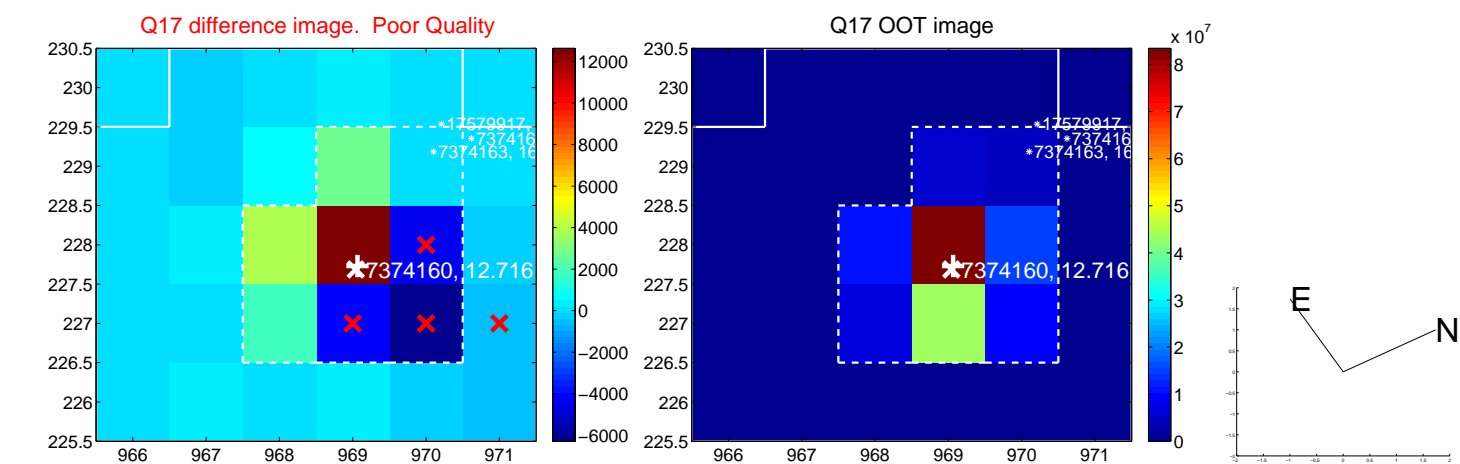
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UKIRT Image

Declination

