

KIC 005219708

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})
005219708-01	OBS	No	1.520314	132.581001	67.6	7.764	10.7	12.0	1.00	5780	0.85	1492.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005219708-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_KIC_POS

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

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

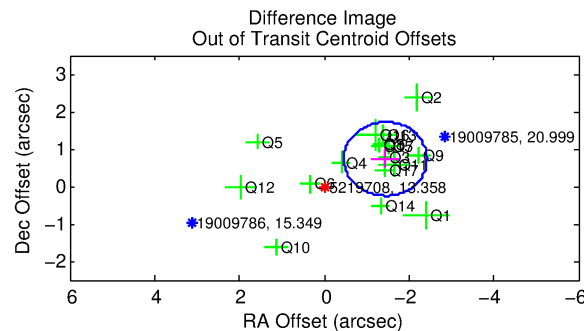
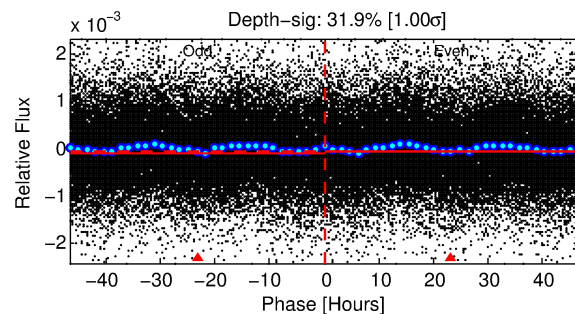
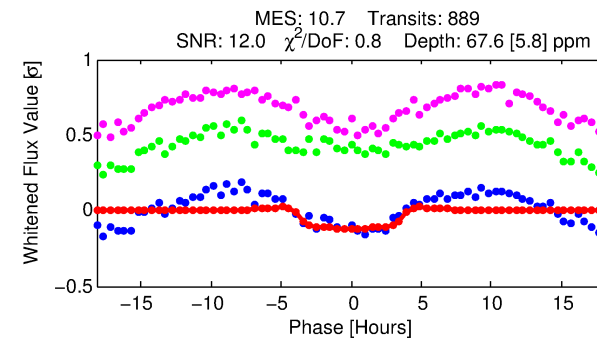
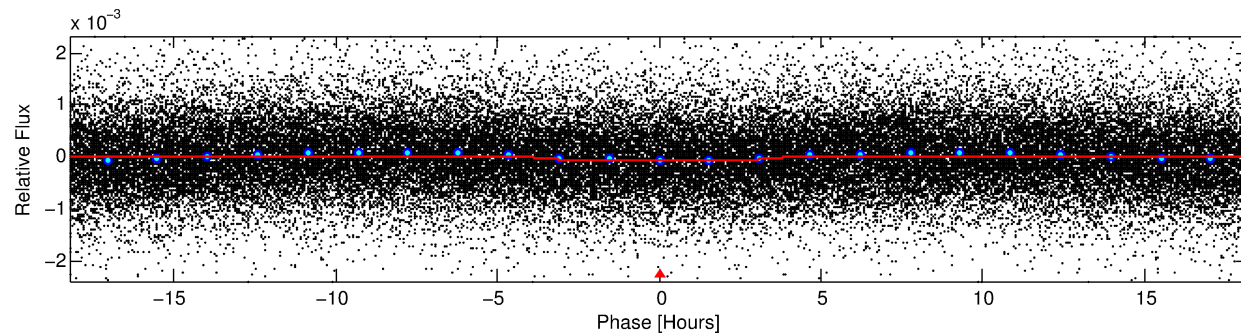
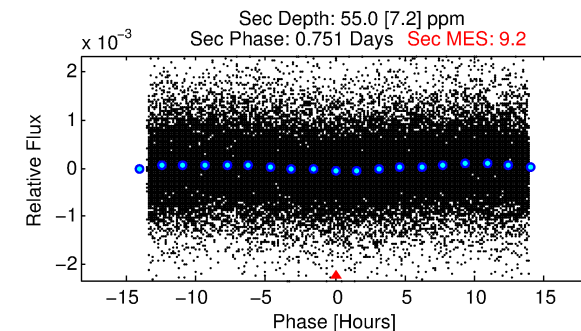
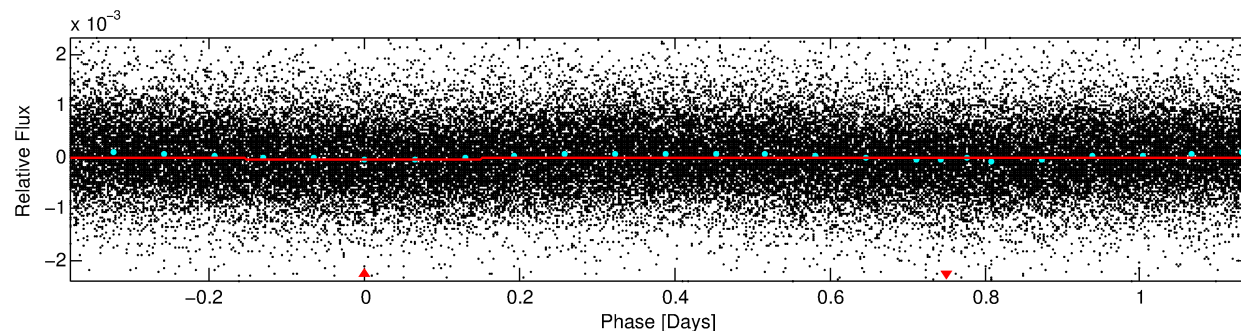
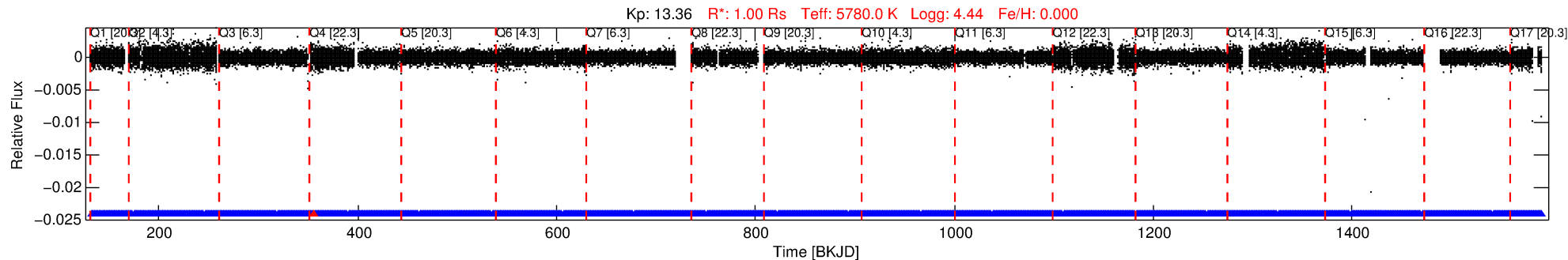
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005219708-01

No Significant Match Found

DV One-Page Summary

KIC: 5219708 Candidate: 1 of 1 Period: 1.520 d



DV Fit Results:

Period = 1.52031 [0.00002] d
Epoch = 132.5810 [0.0071] BKJD
Rp/R* = 0.0078 [0.0079]
a/R* = 1.46 [3.47]
b = 0.56 [5.57]
Seff = 1492.89 [0.02]
Teq = 1585 [0] K
Rp = 0.85 [0.86] Re
a = 0.0259 [0.0000] AU
Ag = 28.16 [57.30] [0.47σ]
Teff = 5645 [2871] K [1.41σ]

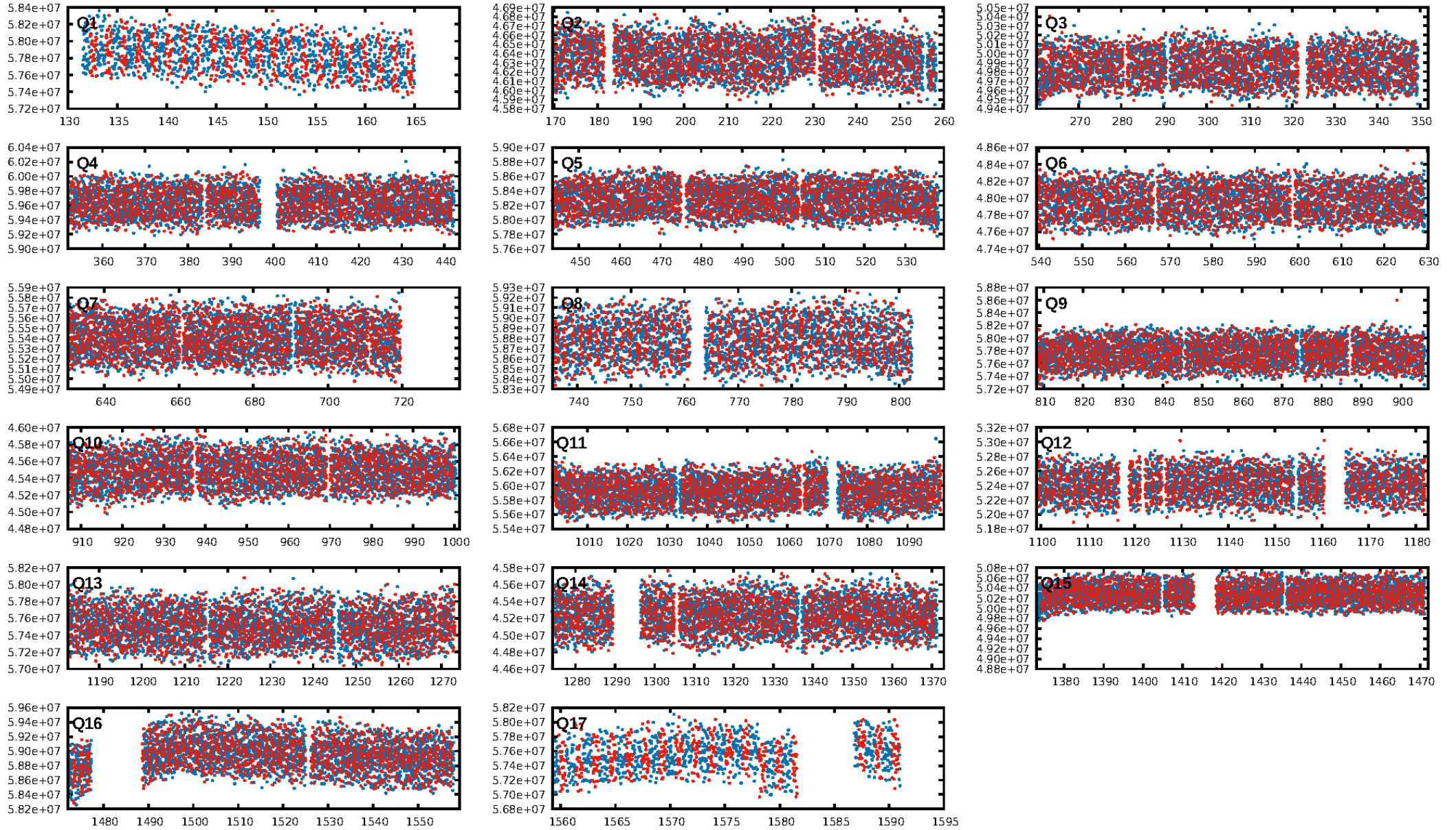
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.49e-20
RollingBand-fgt: 1.00 [848/849]
GhostDiagnostic-chr: -59.79
Centroid-sig: 27.3%
Centroid-so: 0.953 arcsec [1.86σ]
OotOffset-rm: 1.618 arcsec [4.93σ]
KicOffset-rm: 0.673 arcsec [2.10σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

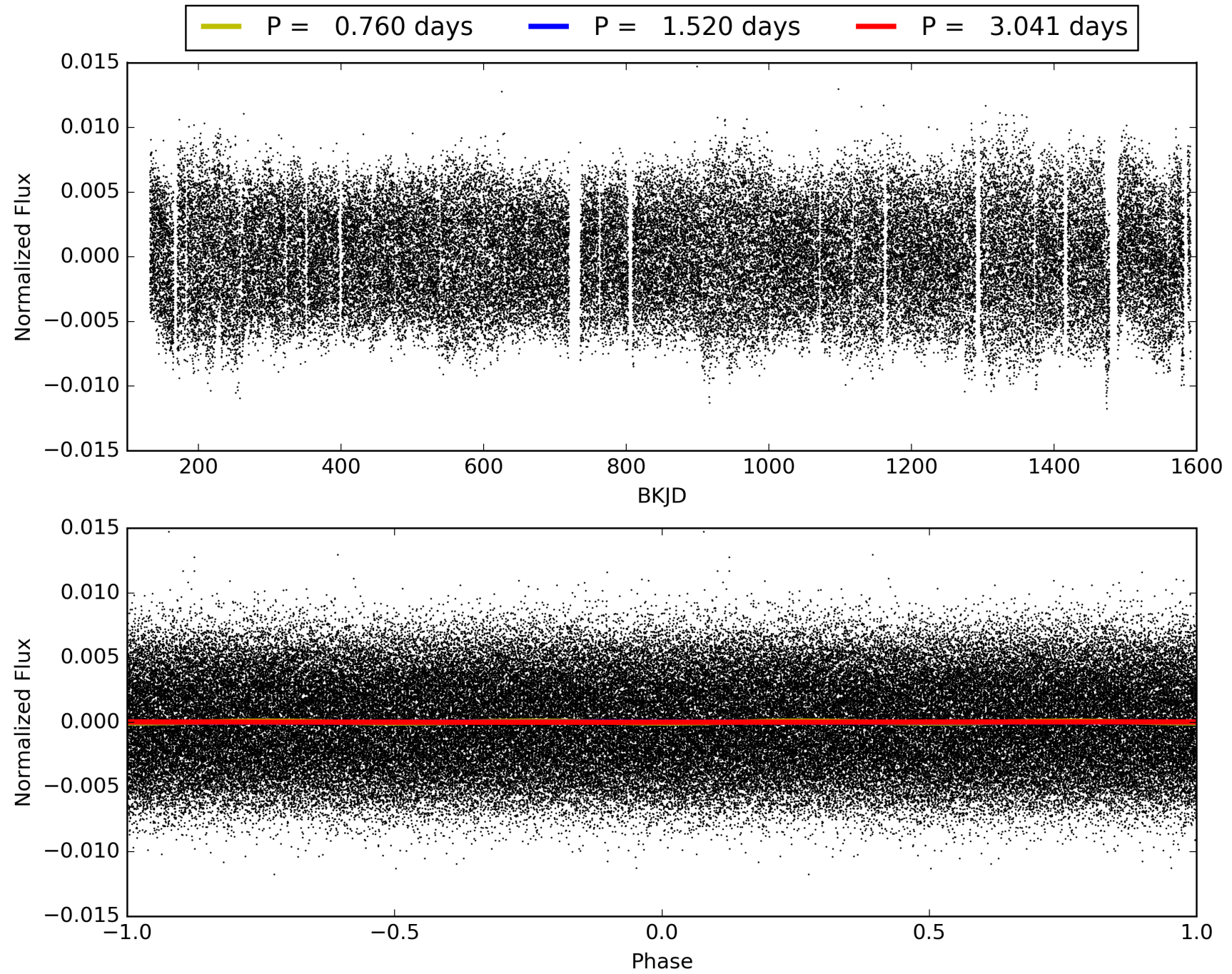
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:35:40 Z

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

TCE 005219708-01, PDC Light Curves

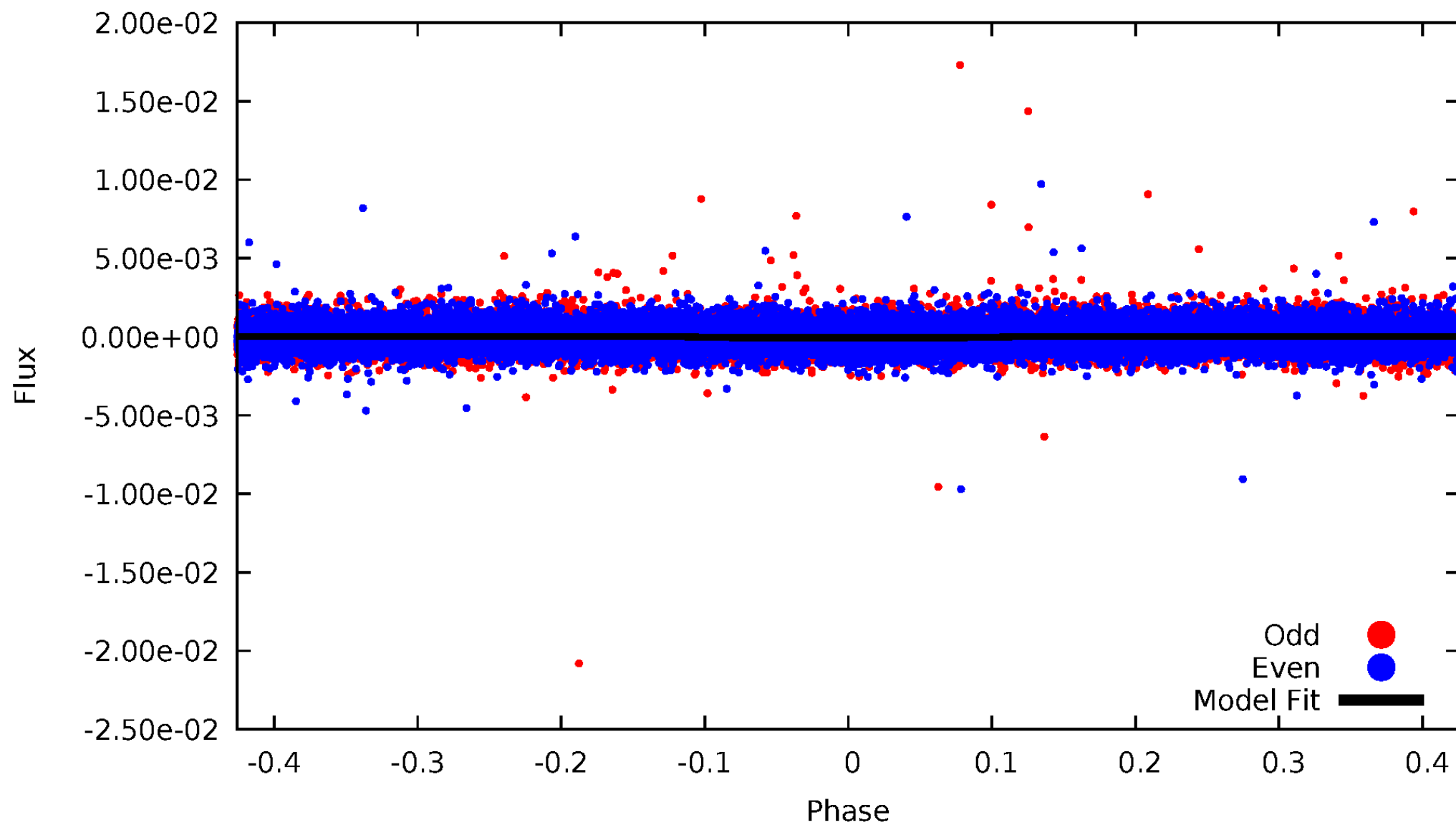


TCE 005219708-01



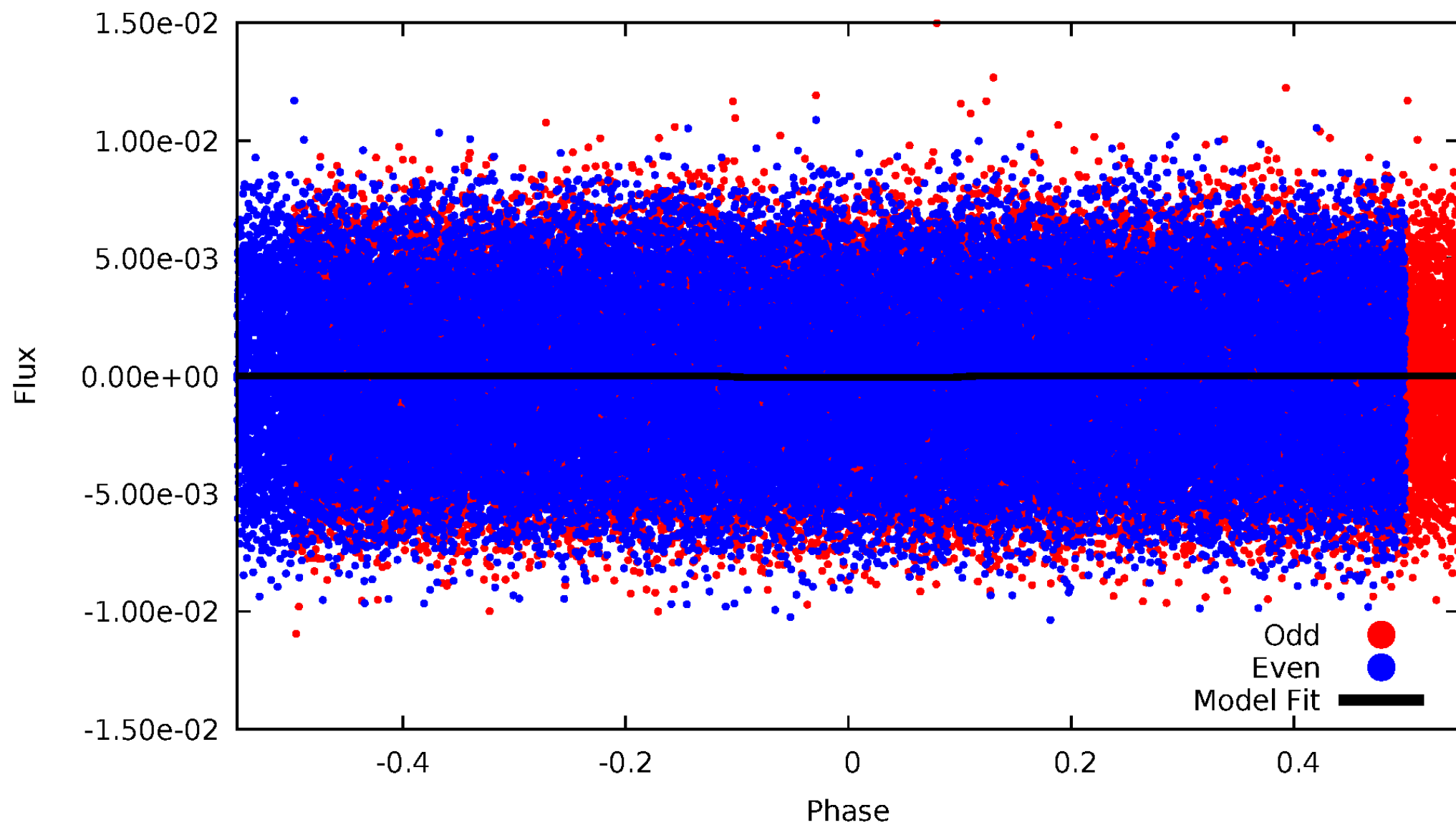
DV Odd/Even

TCE 005219708-01

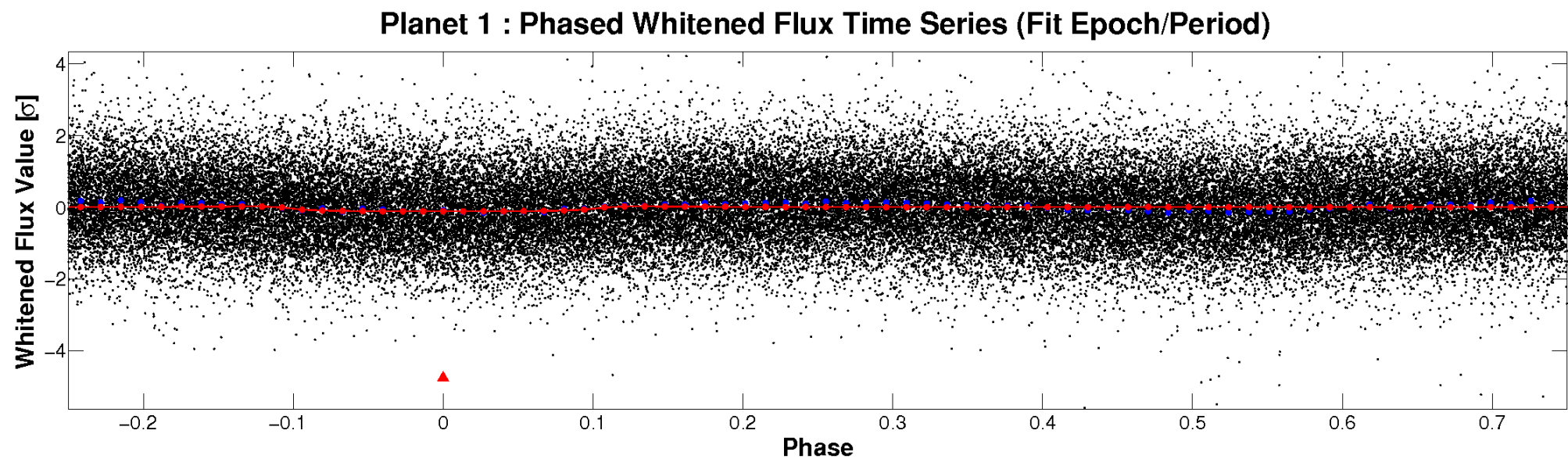
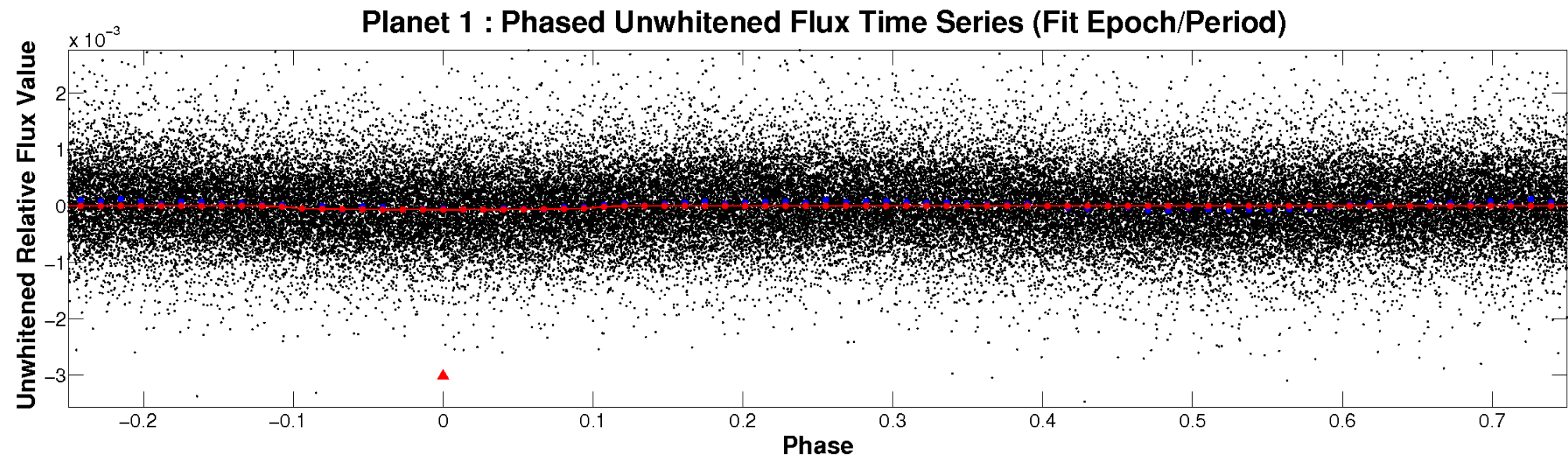


ALT Odd/Even

TCE 005219708-01

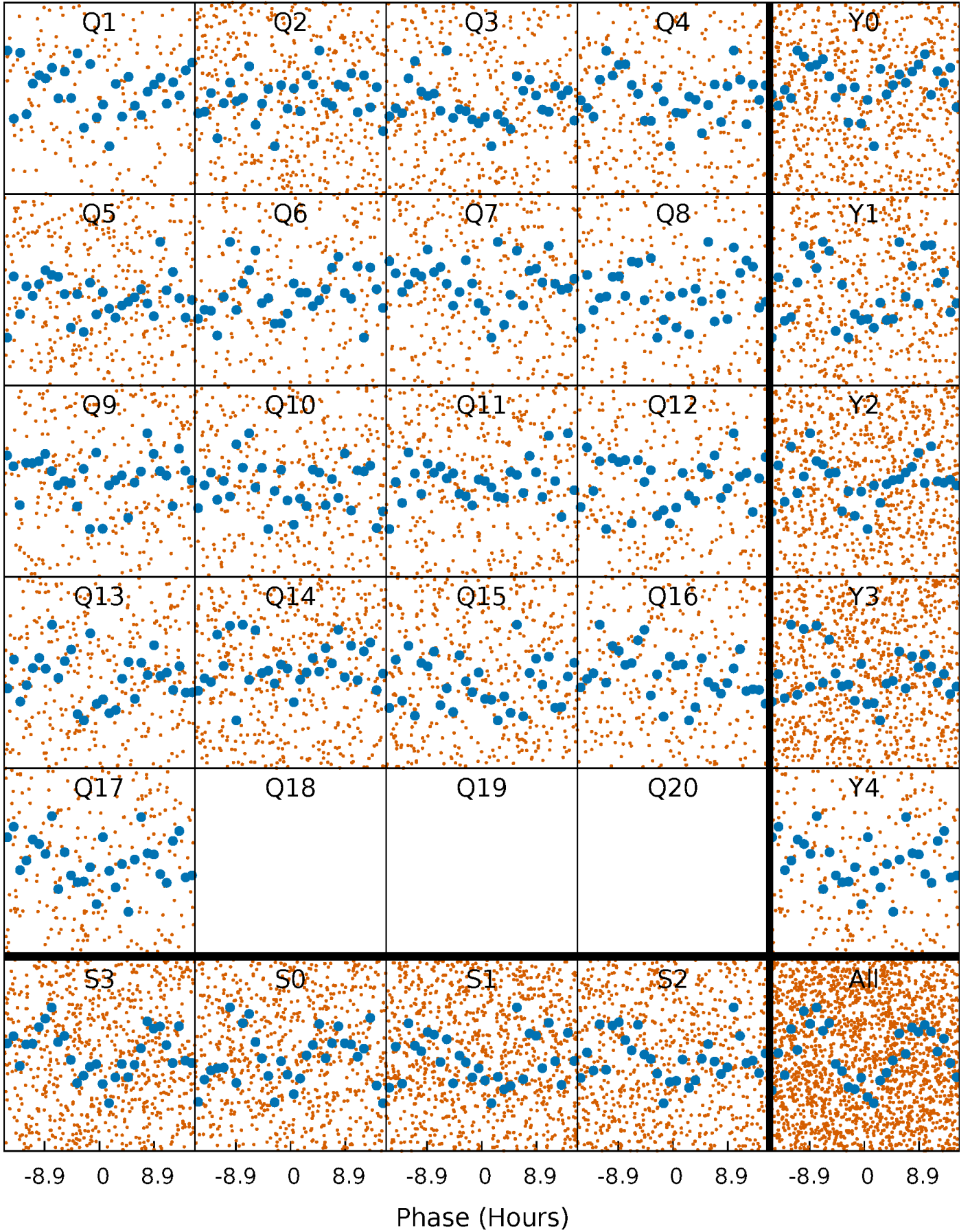


Non-Whitened Vs. Whitened Light Curve



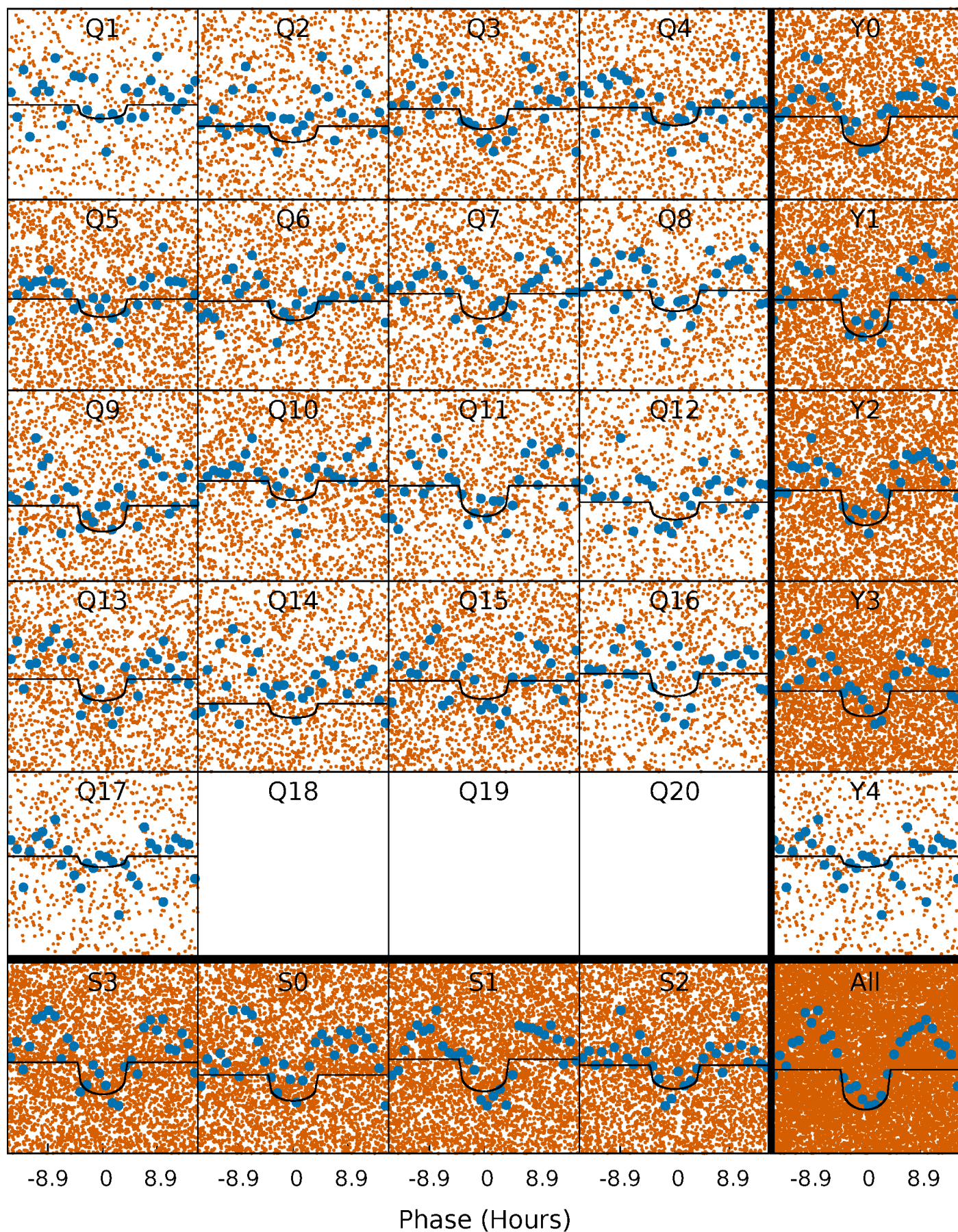
PDC Quarter-Phased Transit Curves

TCE 005219708-01 P= 1.520314 Days $T_0=132.581001$ (BKJD)



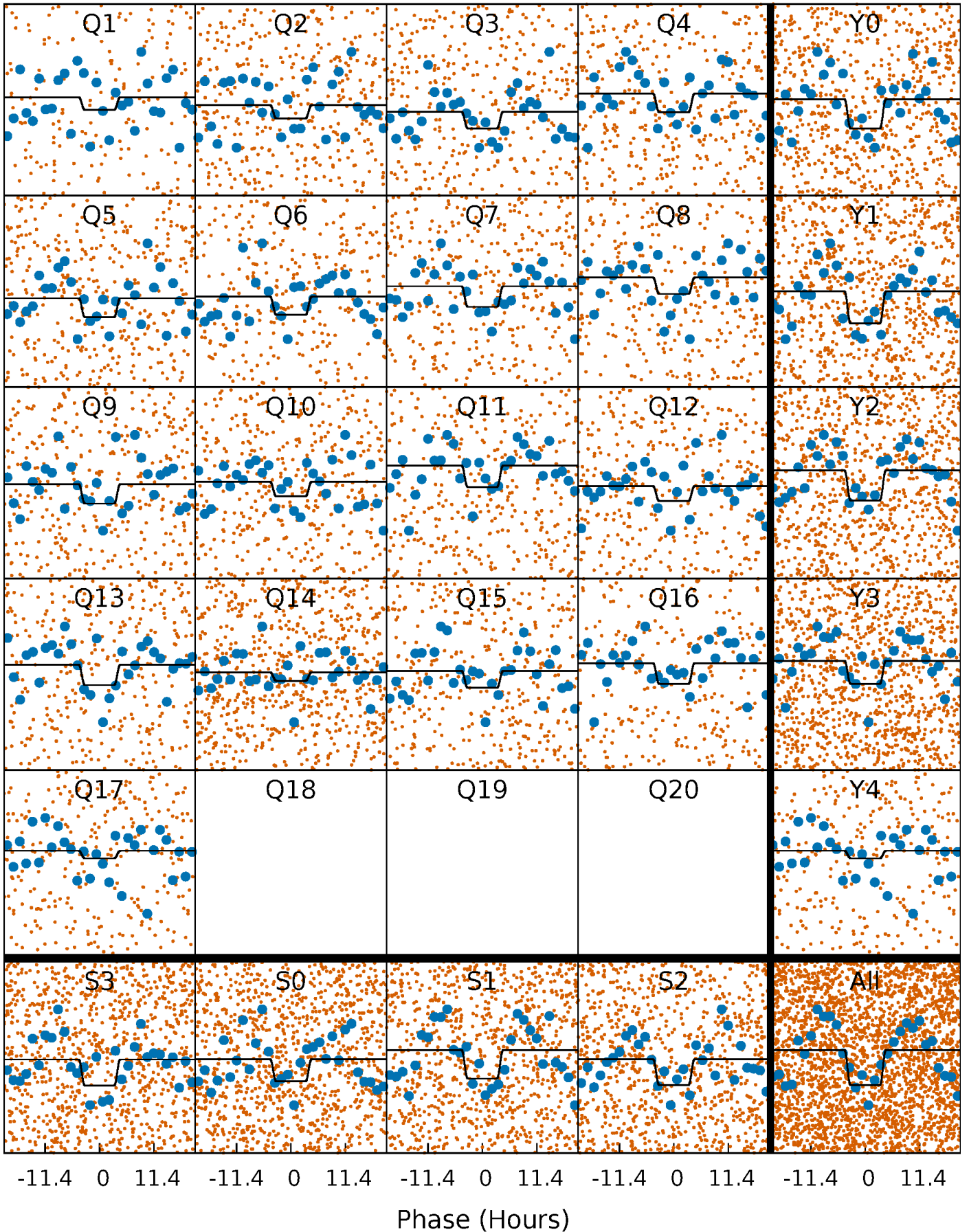
DV Quarter-Phased Transit Curves

TCE 005219708-01 P= 1.520314 Days $T_0=132.581001$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

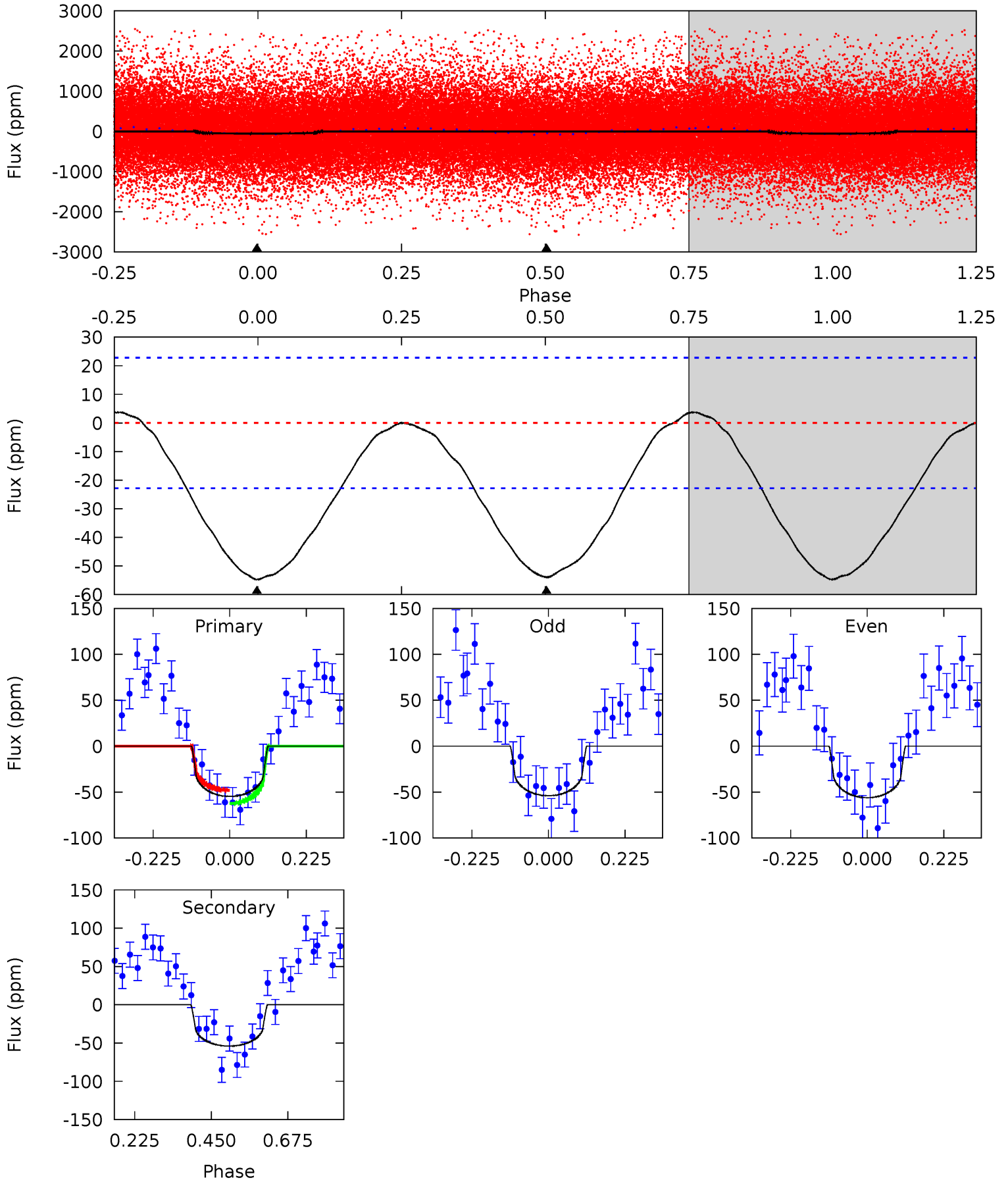
TCE 005219708-01 P= 1.520342 Days $T_0=132.564673$ (BKJD)



DV Model-Shift Uniqueness Test

005219708-01, P = 1.520314 Days, E = 131.060687 Days

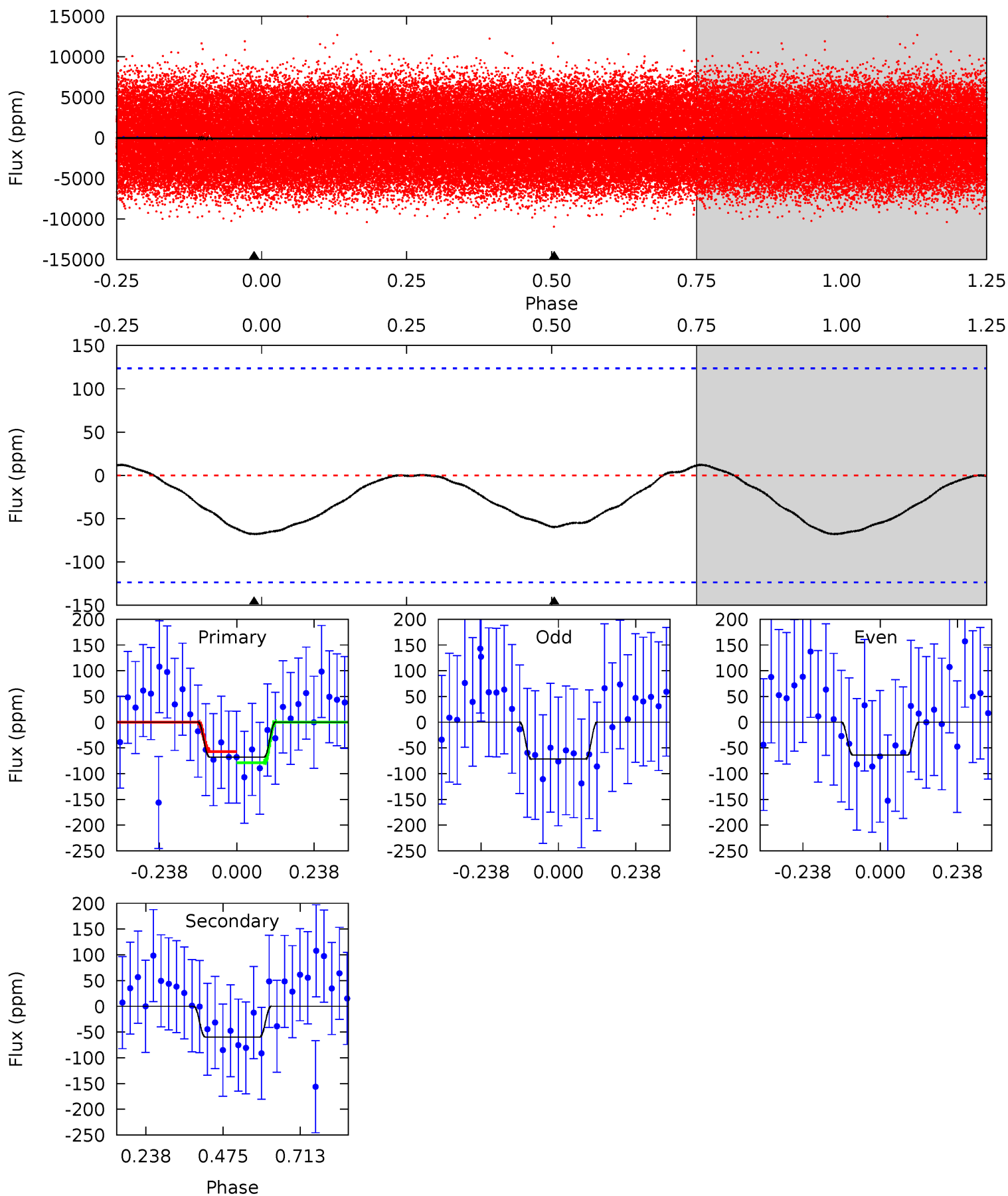
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	10.4	0	0	4.39	1.21	0.39	10.5	10.5	10.4	10.4	0.21	0.96	0.06	1.38



Alt Model-Shift Uniqueness Test

005219708-01, P = 1.520342 Days, E = 131.044331 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.40	2.11	0	0	4.38	1.18	0.18	2.40	2.40	2.11	2.11	0.14	0.98	0.15	0.38



Stellar Parameters For KIC 005219708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 005219708-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-54 ± 5	$1.01^{+0.74}_{-0.65}$	2217^{+101}_{-102}	5181^{+3893}_{-1036}	20^{+128}_{-13}
Alt.	-60 ± 28	$1.11^{+0.78}_{-0.67}$	2220^{+106}_{-103}	5024^{+3167}_{-1129}	17^{+89}_{-12}

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 $A_{obs} \gg 1.0$

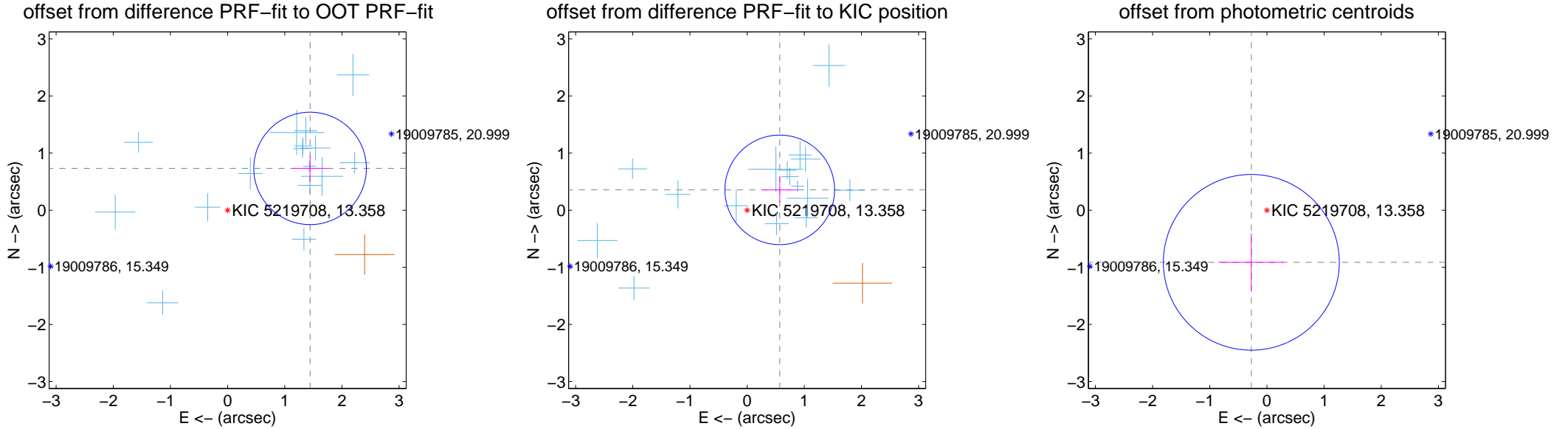
DV Centroid Data

Supplemental centroid analysis for 005219708-01. Kepler magnitude: 13.36. Transit SNR 12.00

There are 16 quarters with good PRF difference image offsets

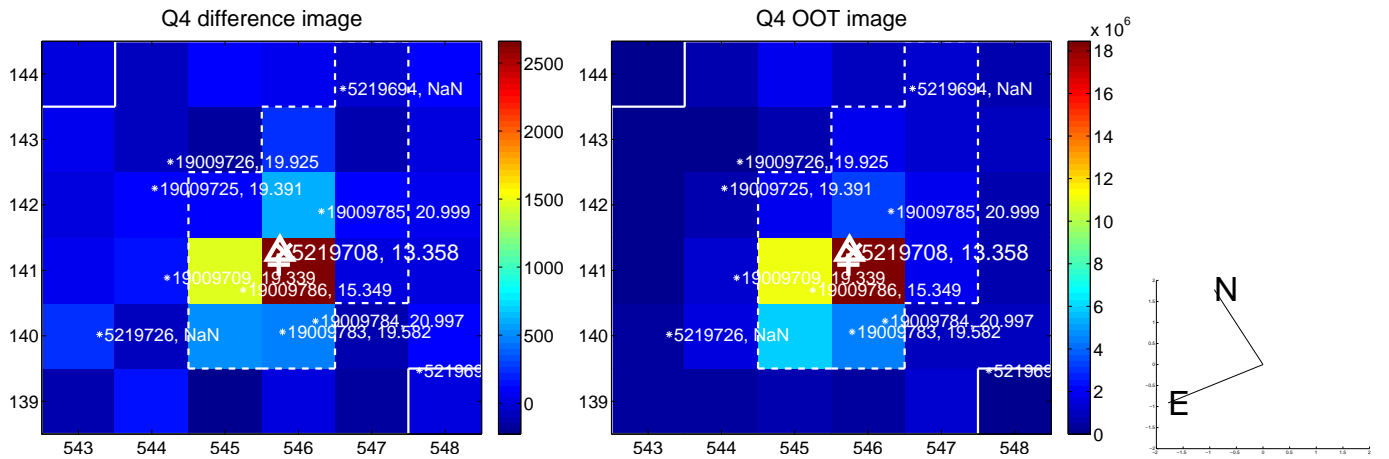
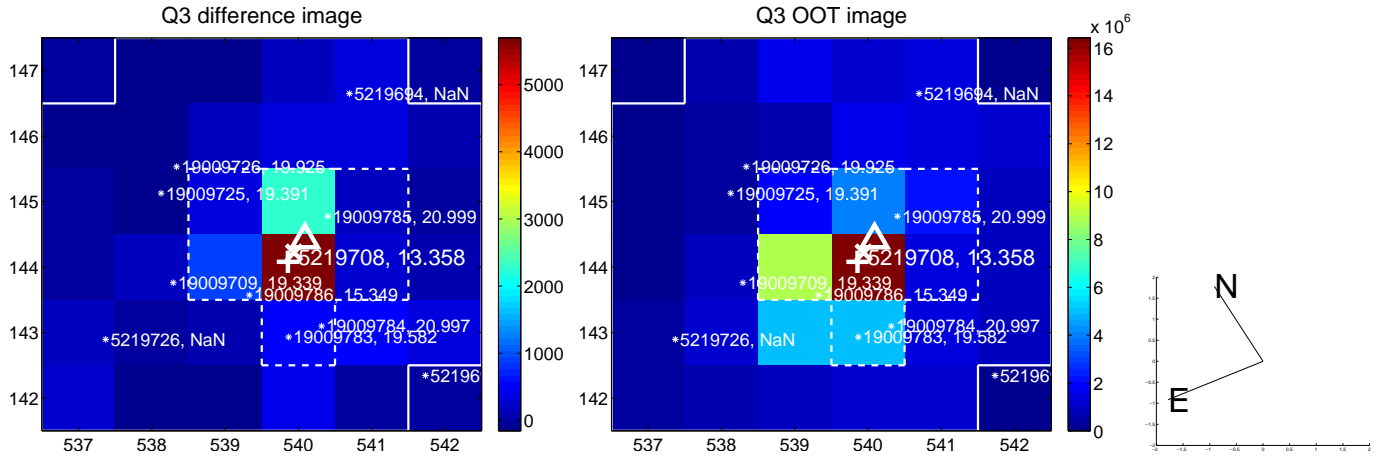
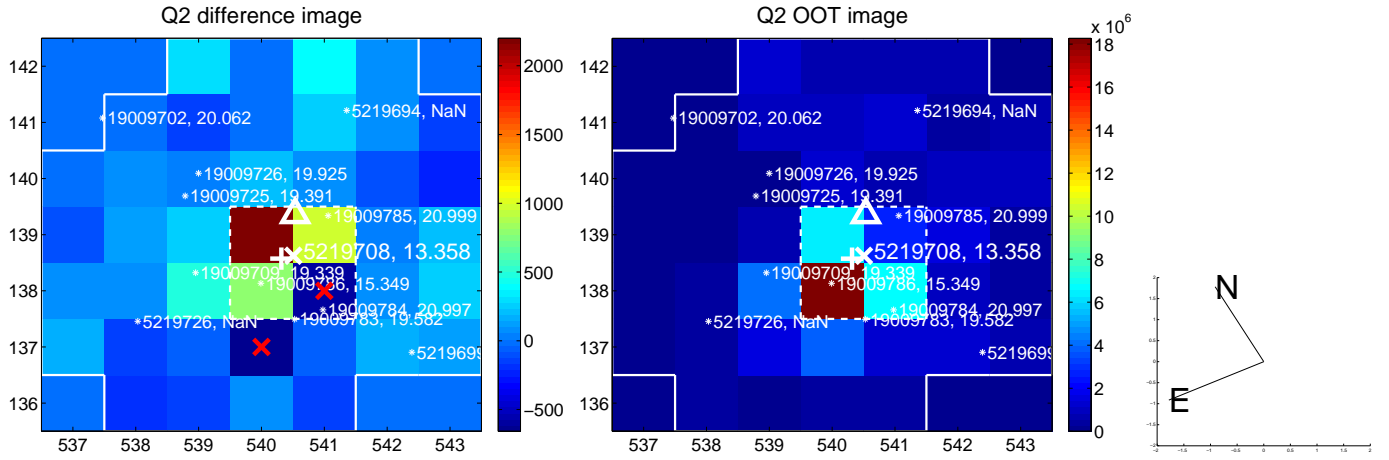
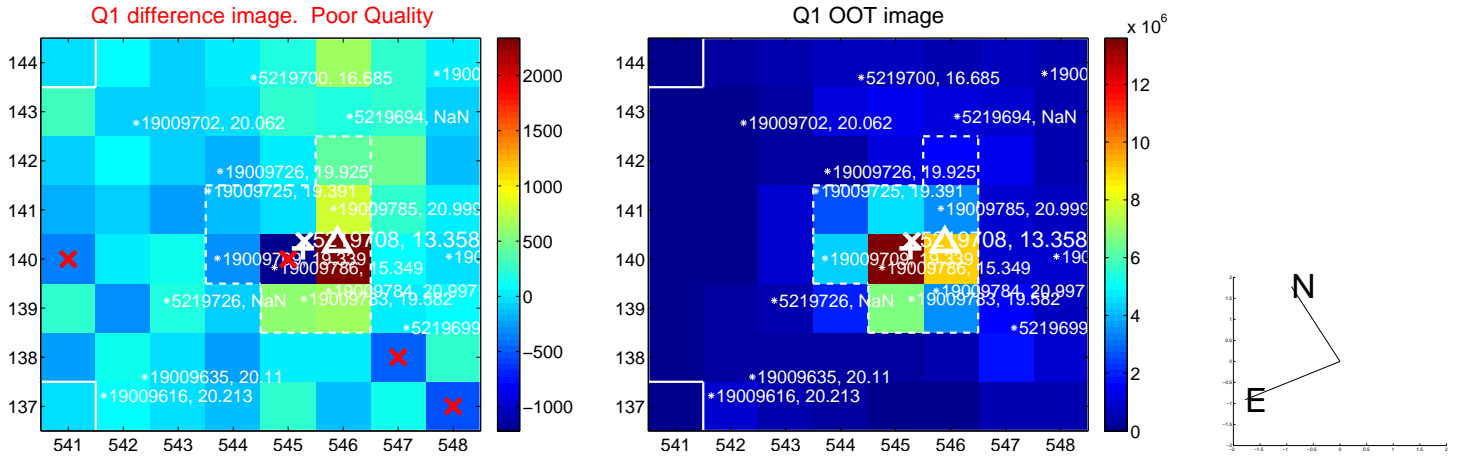
The direct PRF centroid is offset from the target star catalog position by about 0.70 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.618 ± 0.328	4.93	-1.443 ± 0.319	0.732 ± 0.225
PRF-fit source offset from KIC position	0.673 ± 0.320	2.10	-0.571 ± 0.320	0.356 ± 0.227
photometric centroid source offset	0.95 ± 0.51	1.86	0.27 ± 0.57	-0.91 ± 0.51

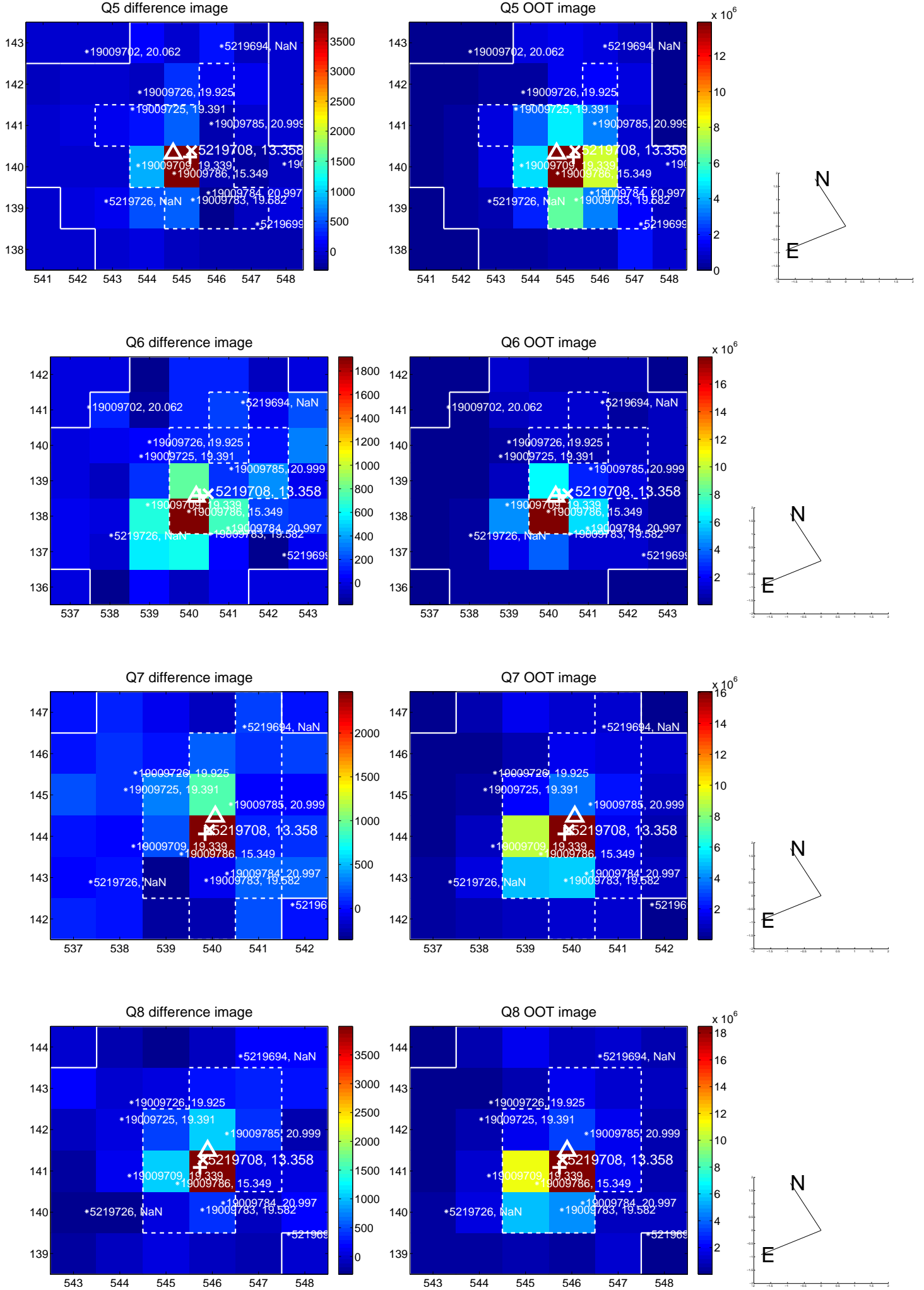


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

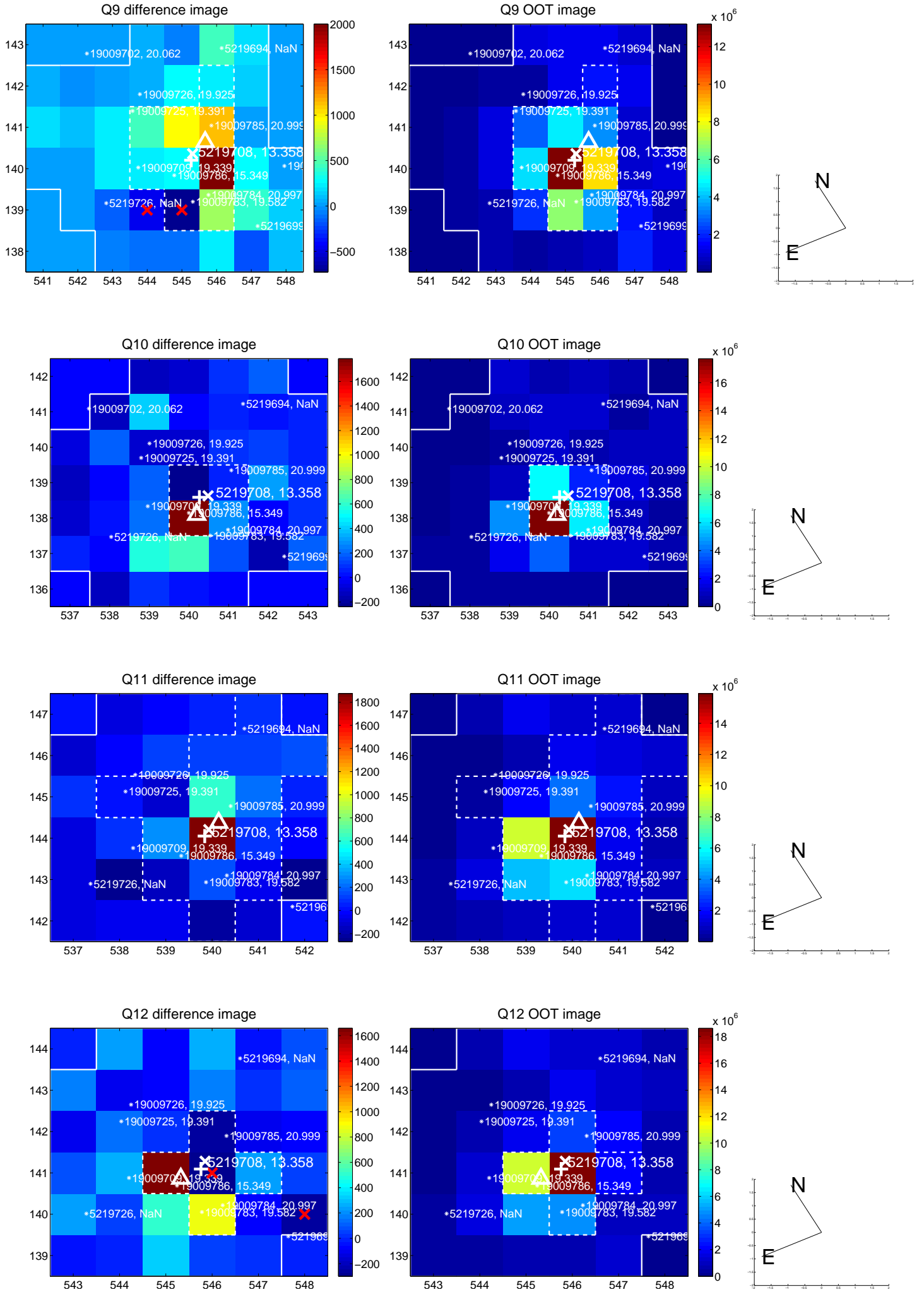
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



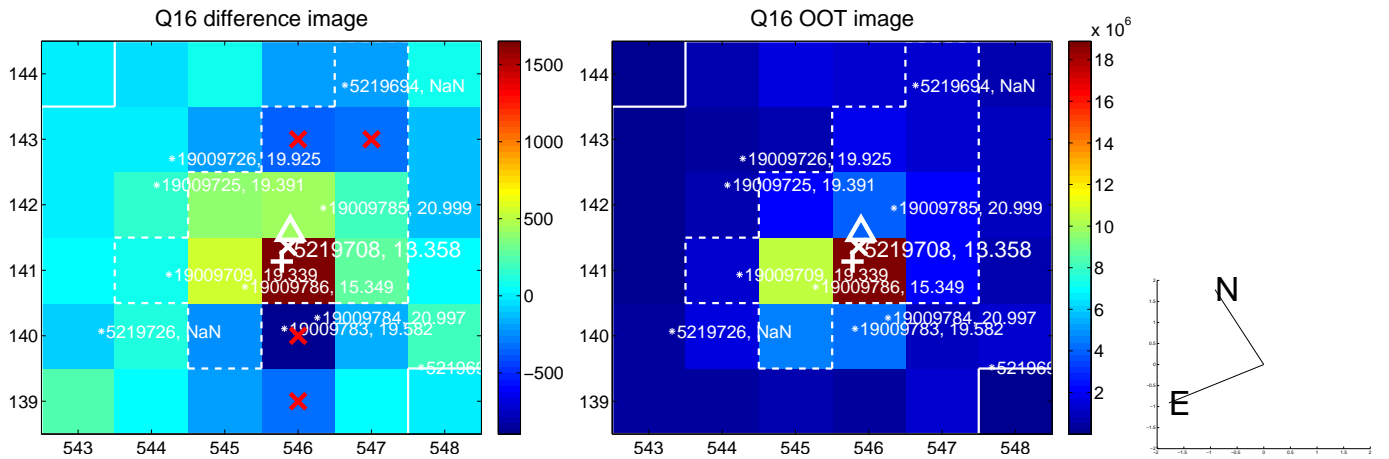
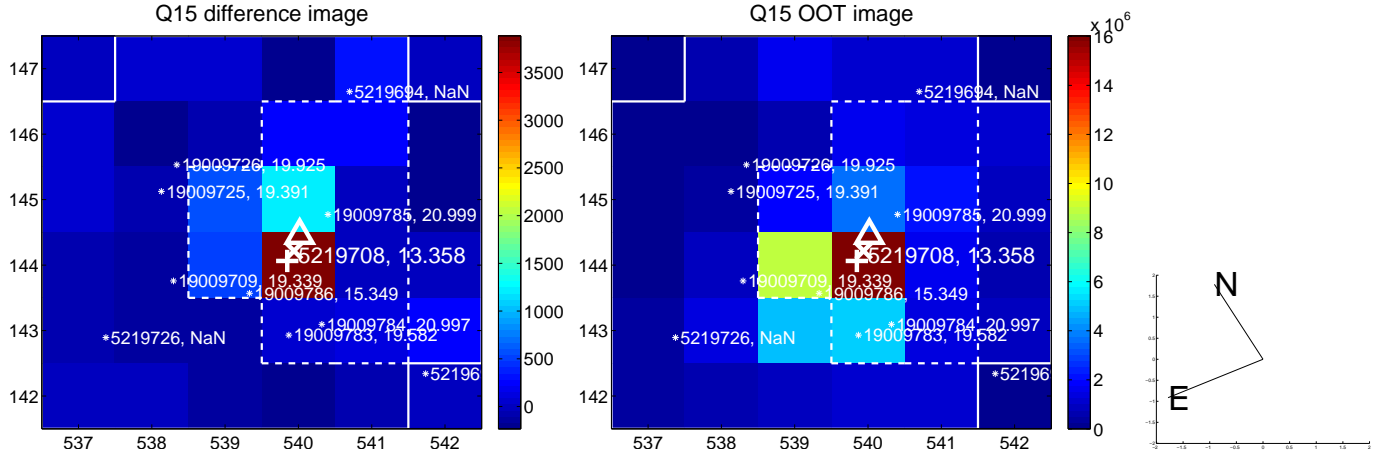
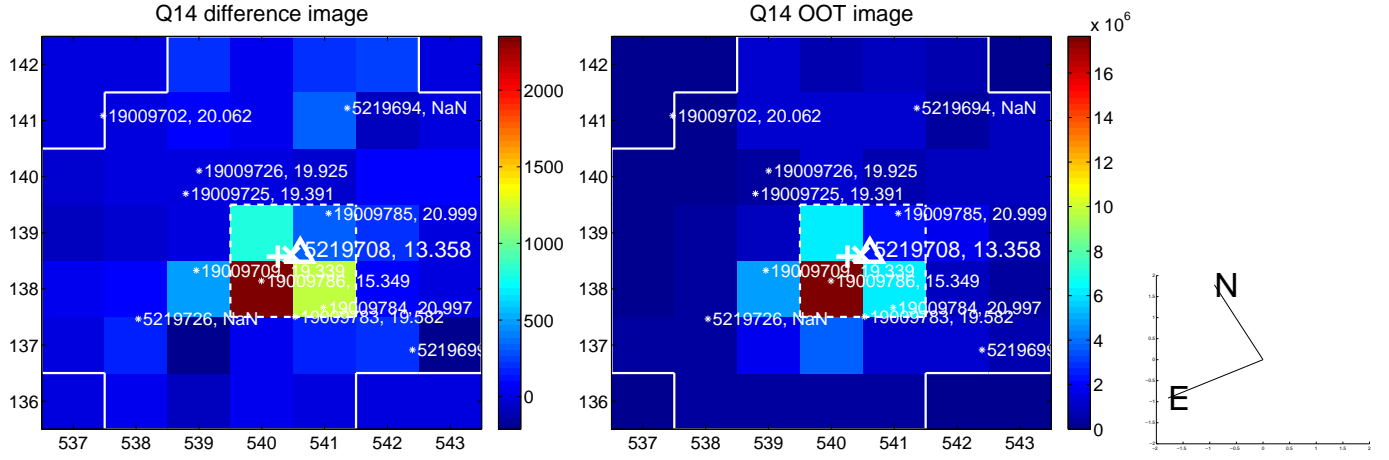
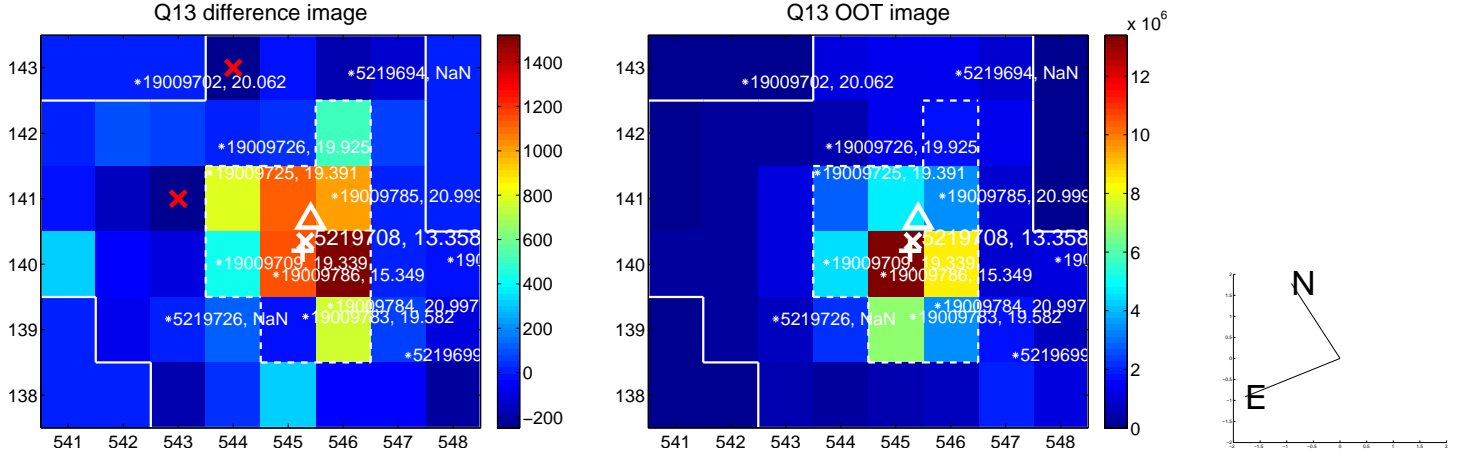
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



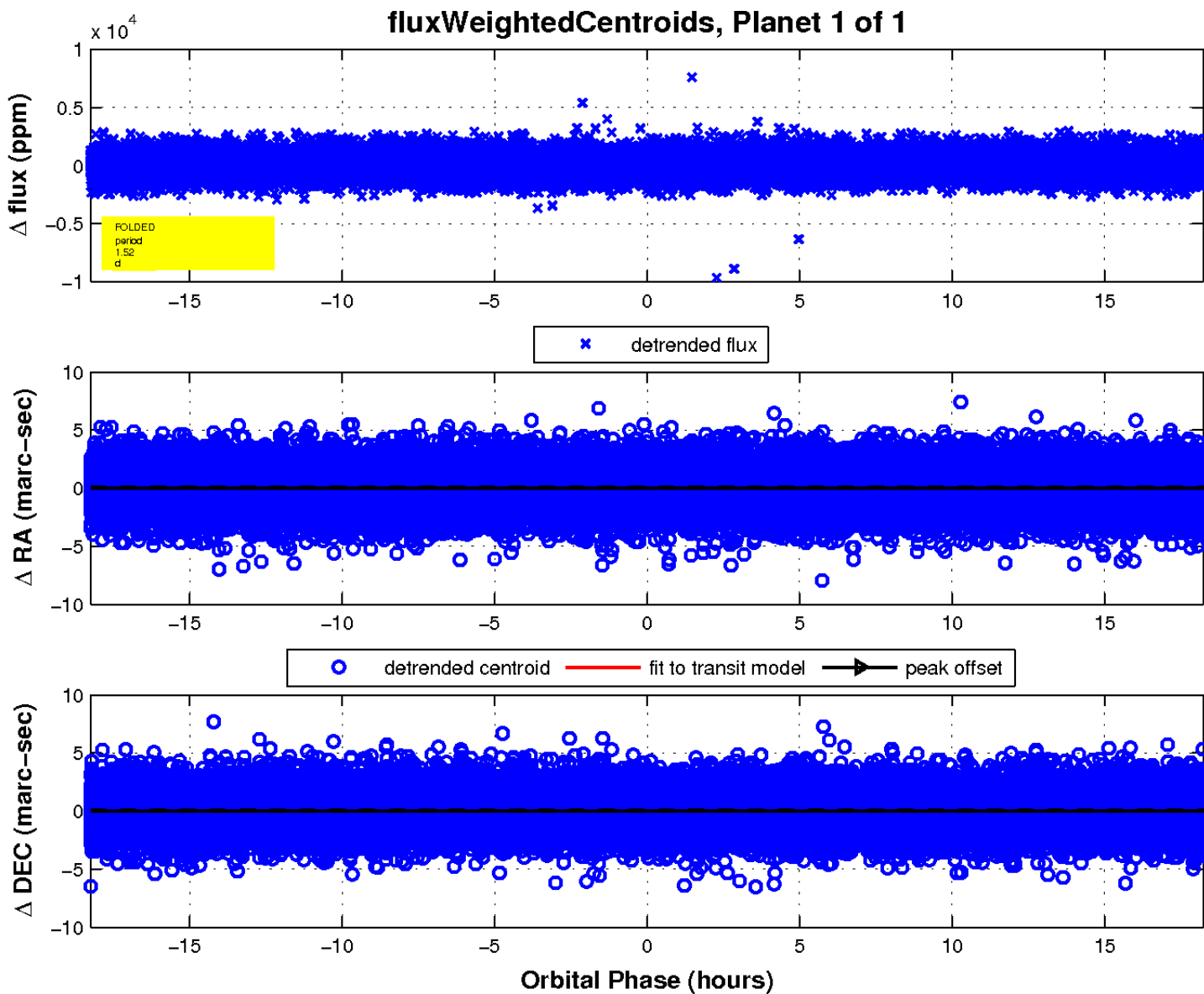
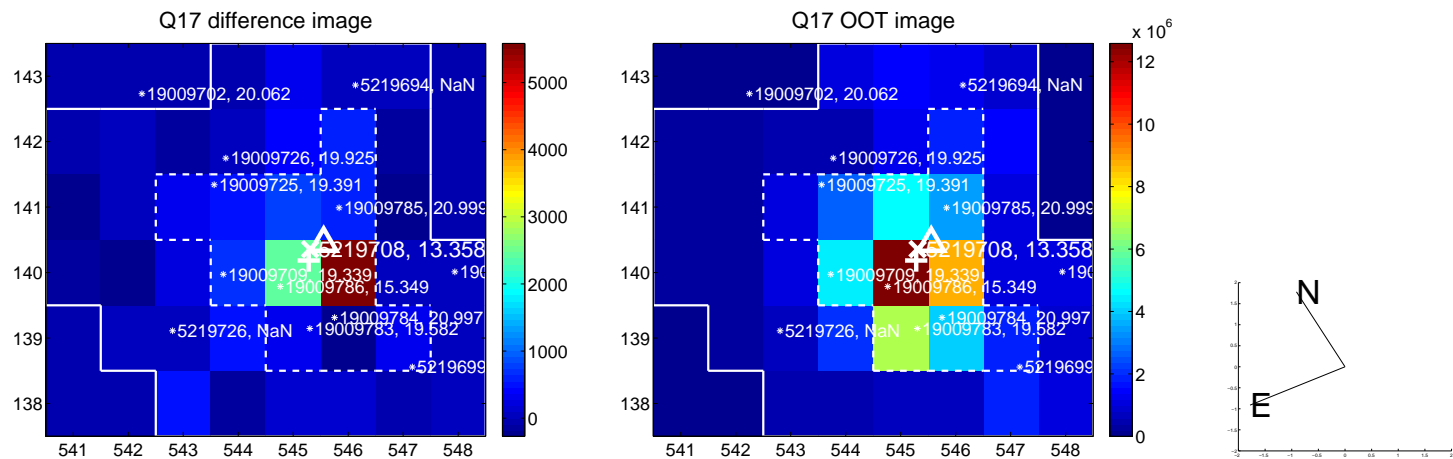
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UKIRT Image

Declination

