

KIC 008521128

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})
008521128-01	OBS	No	1.171511	132.211974	16.8	5.538	9.0	6.6	1.42	6654	0.58	6193.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008521128-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

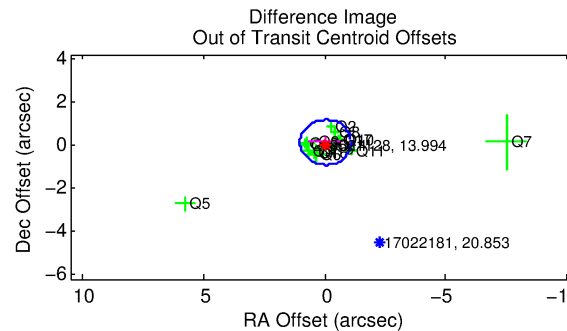
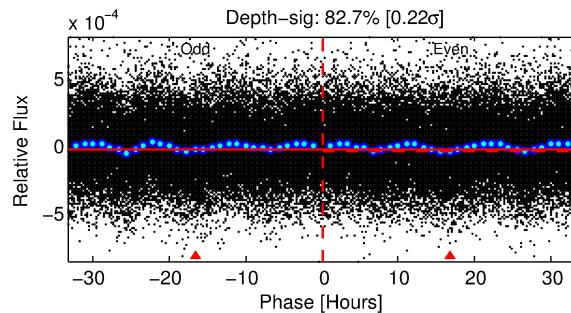
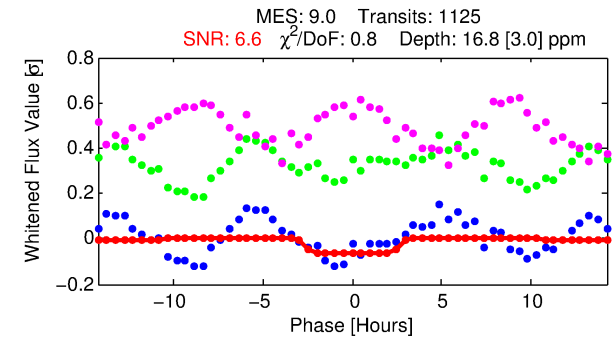
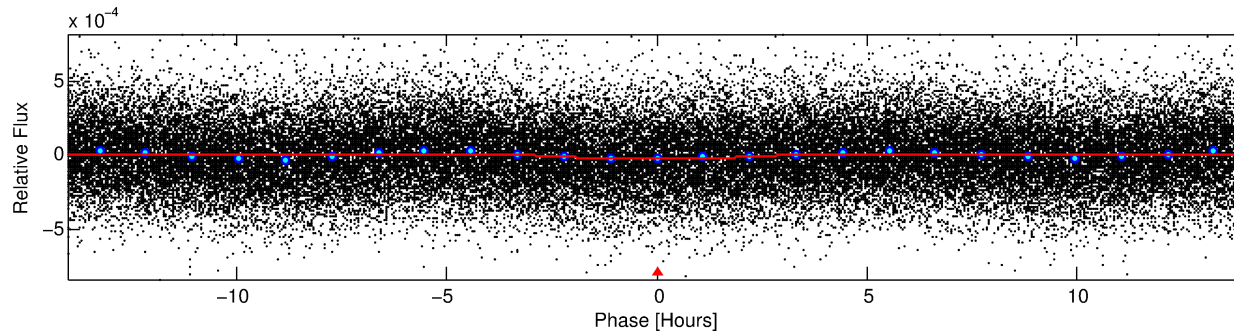
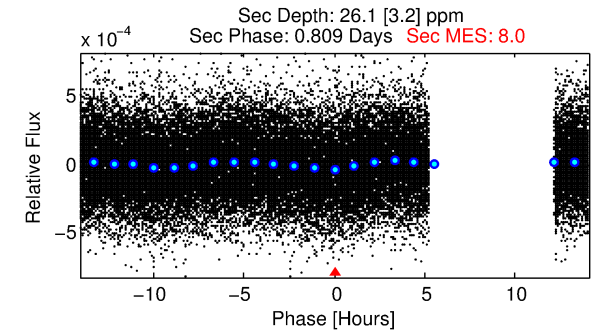
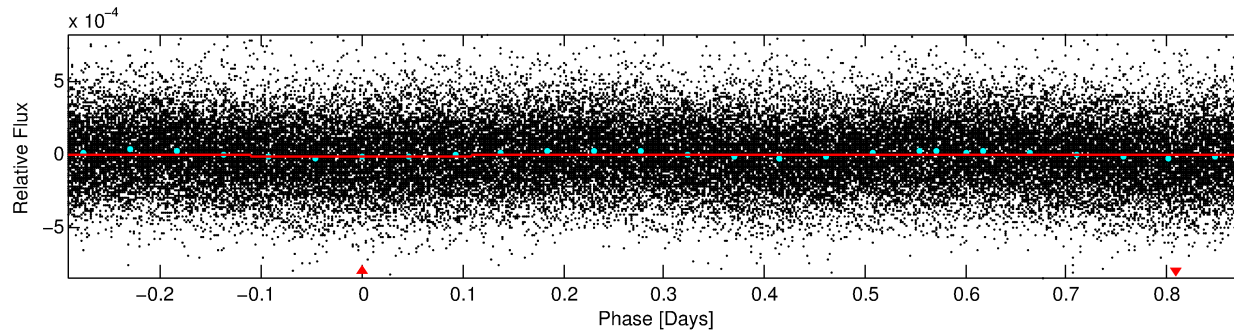
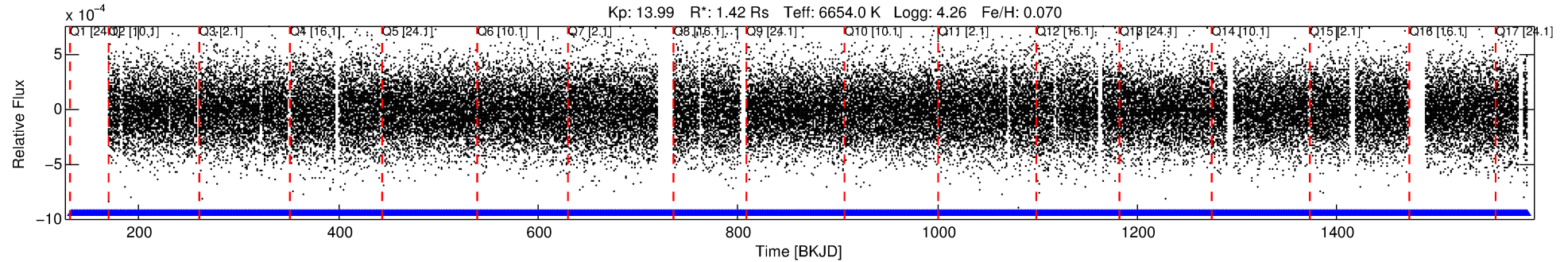
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008521128-01

No Significant Match Found

DV One-Page Summary

KIC: 8521128 Candidate: 1 of 1 Period: 1.172 d



DV Fit Results:

Period = 1.17151 [0.00002] d
Epoch = 132.2120 [0.0083] BKJD
Rp/R* = 0.0038 [0.0063]
a/R* = 1.73 [10.30]
b = 0.01 [822.10]
Seff = 6193.84 [2640.09]
Teff = 2262 [241] K
Rp = 0.59 [1.00] Re
a = 0.0239 [0.0068] AU
Ag = 23.97 [80.70] [0.28σ]
Teffp = 7738 [6476] K [0.85σ]

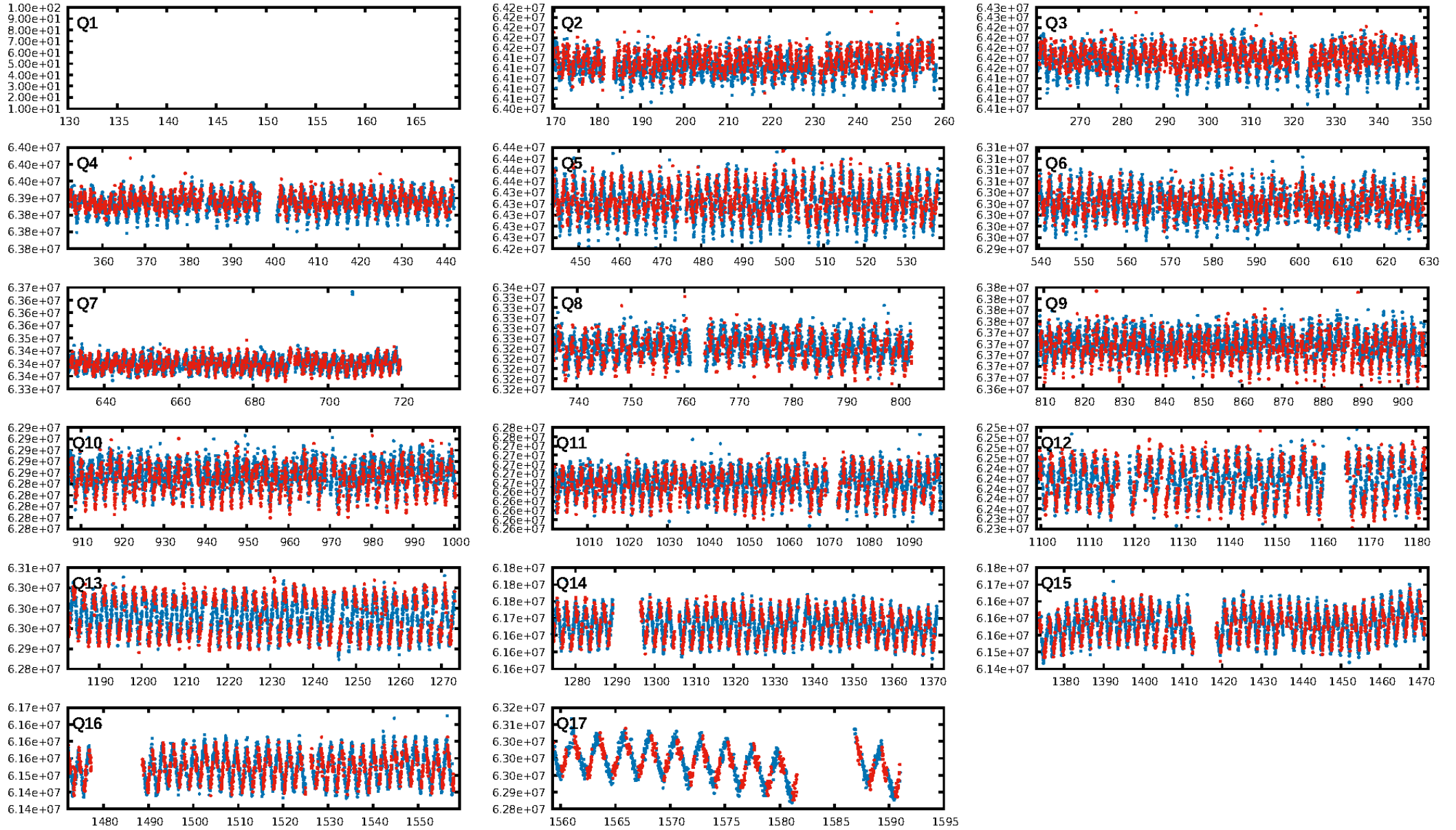
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.08e-15
RollingBand-fgt: 1.00 [1102/1102]
GhostDiagnostic-chr: 3.234
Centroid-sig: 0.0%
Centroid-so: 4.463 arcsec [2.16σ]
OotOffset-rm: 0.142 arcsec [0.40σ]
KicOffset-rm: 0.122 arcsec [0.61σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.60 [9/15]
DiffImageOverlap-fno: 1.00 [16/16]

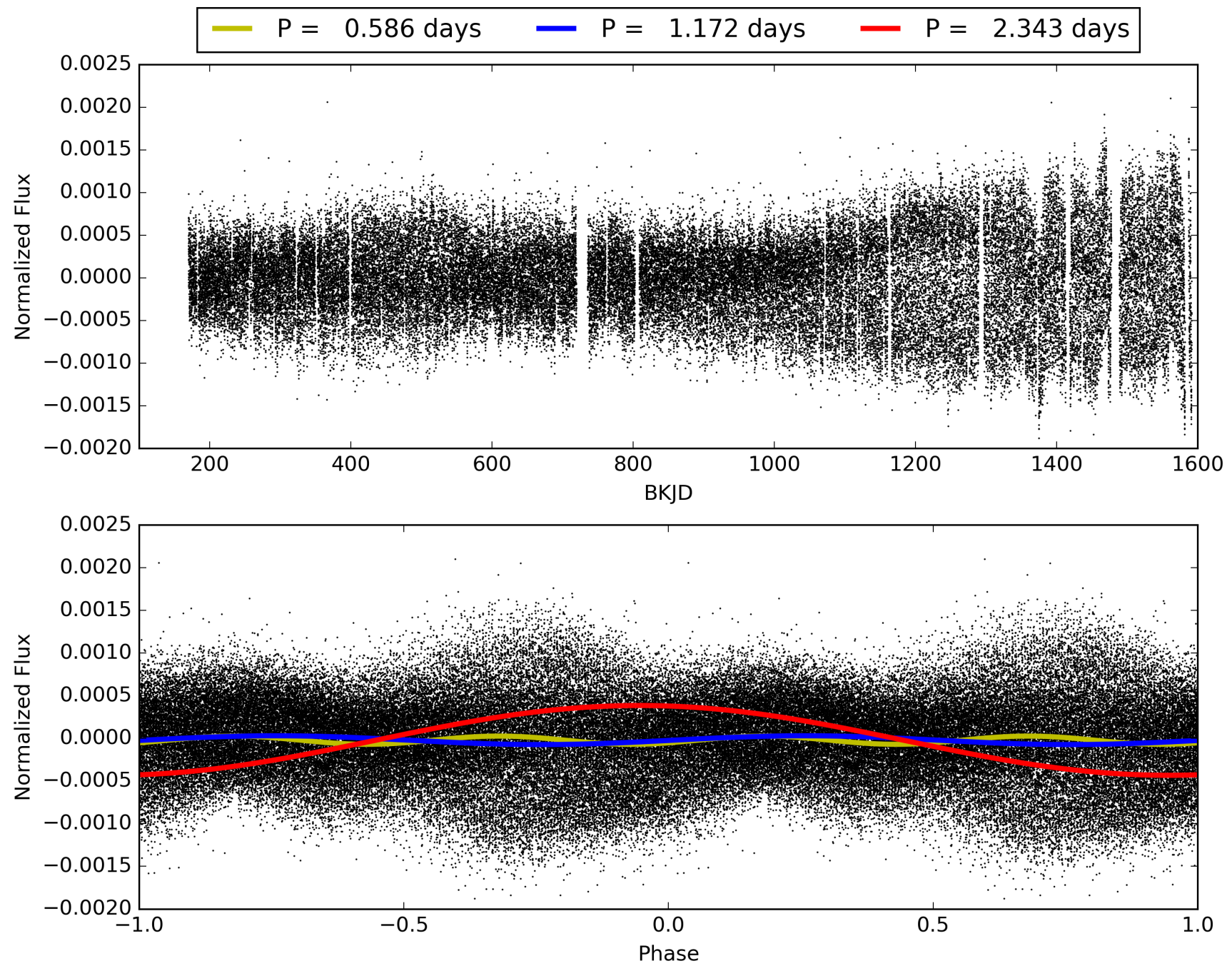
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:18:51 Z

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

TCE 00521128-01, PDC Light Curves

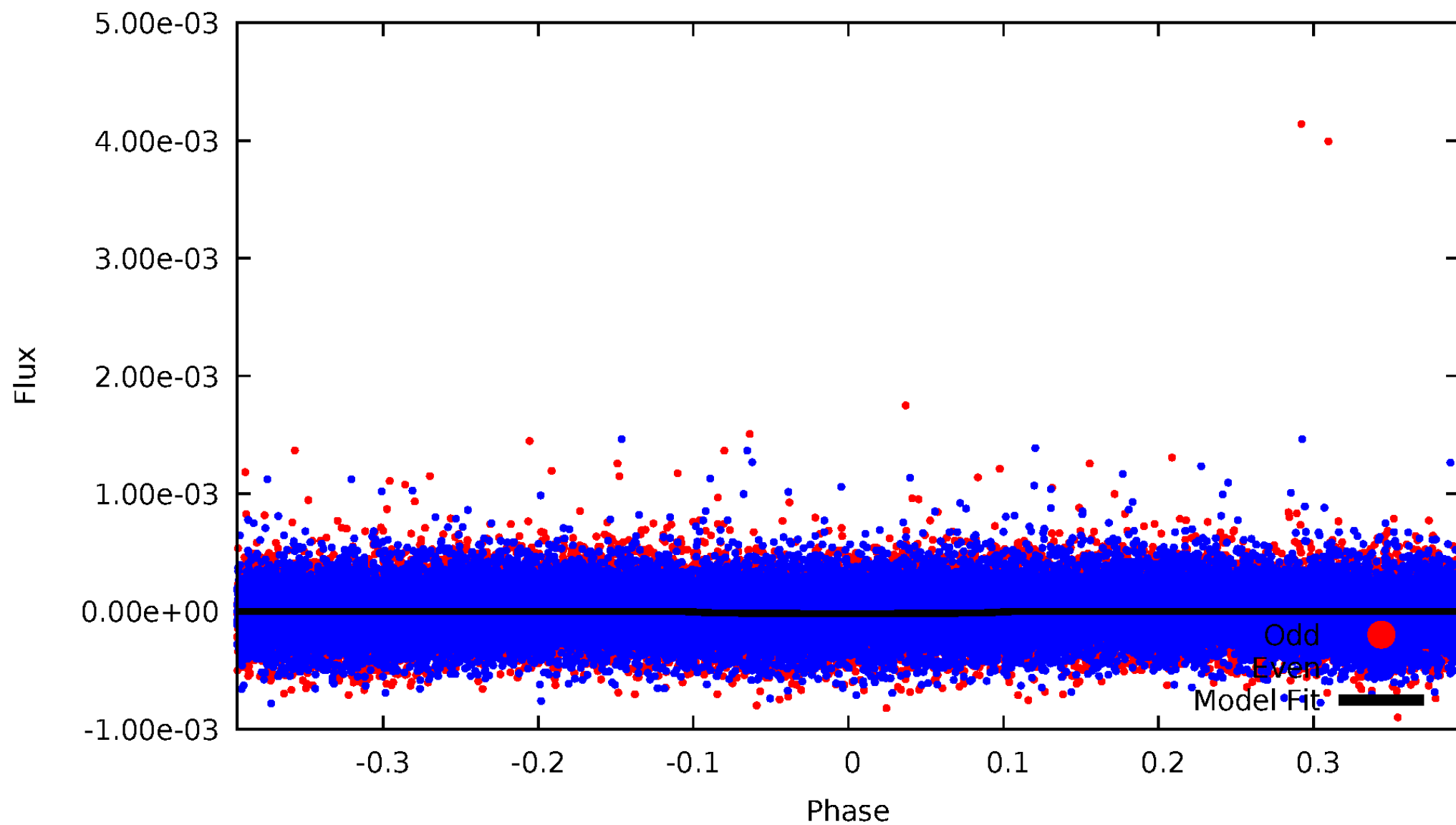


TCE 008521128-01



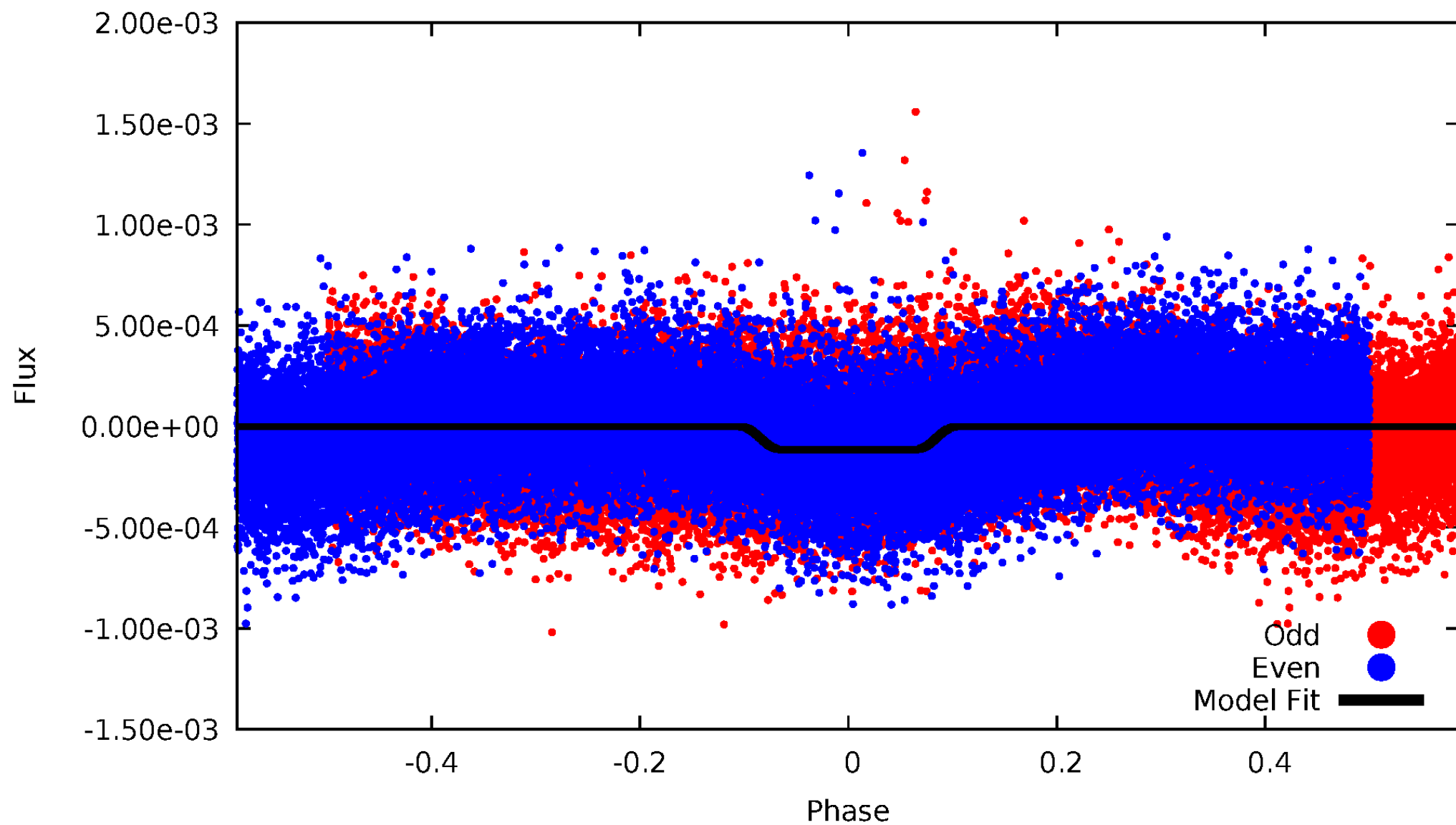
DV Odd/Even

TCE 008521128-01

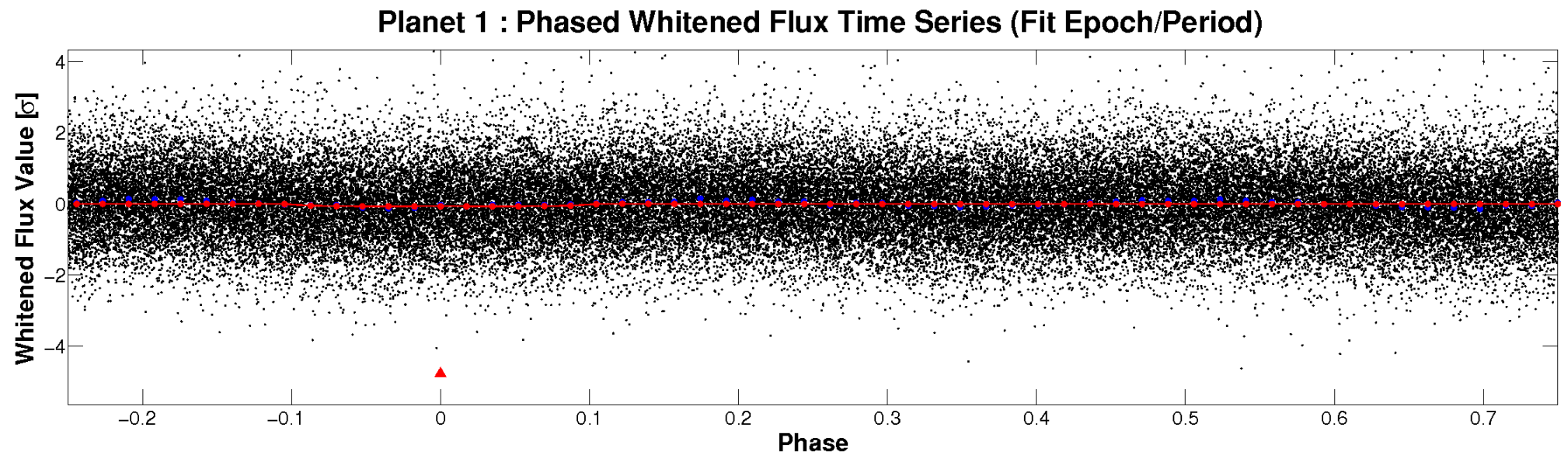
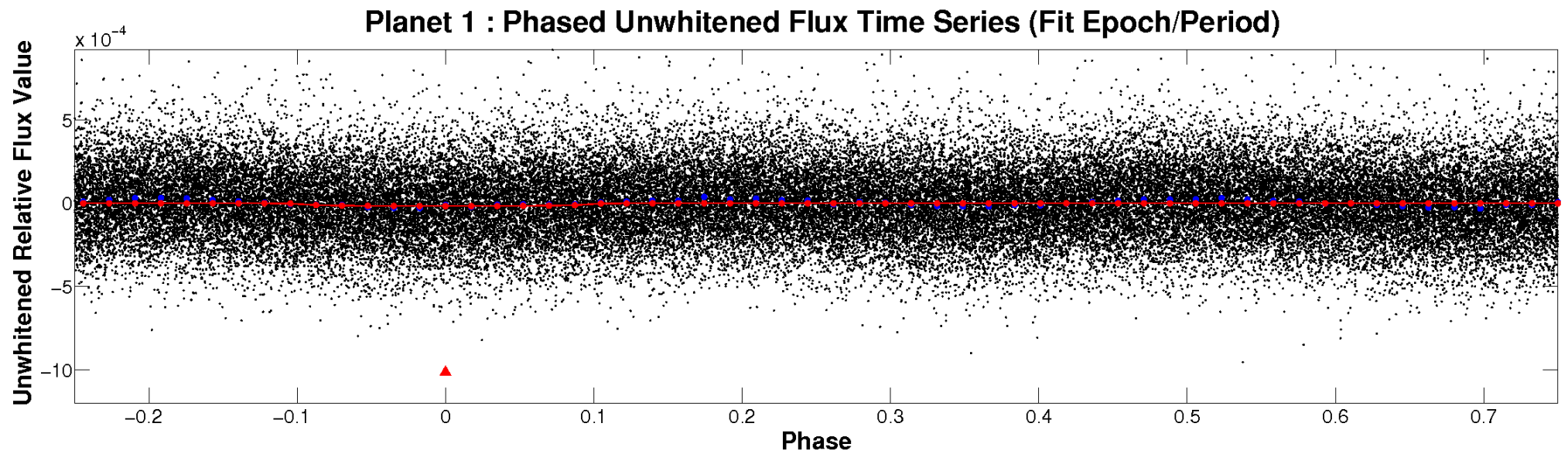


ALT Odd/Even

TCE 008521128-01

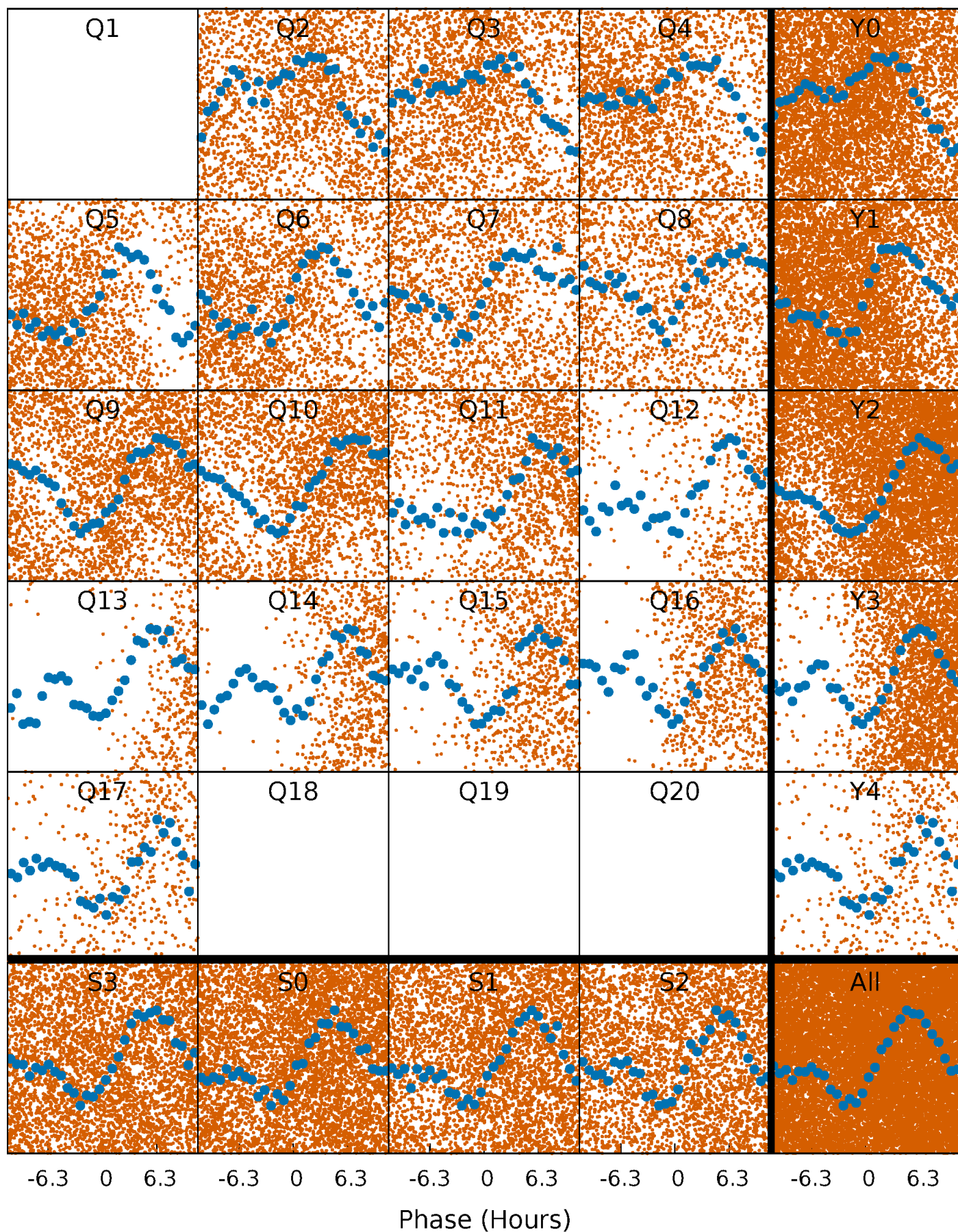


Non-Whitened Vs. Whitened Light Curve



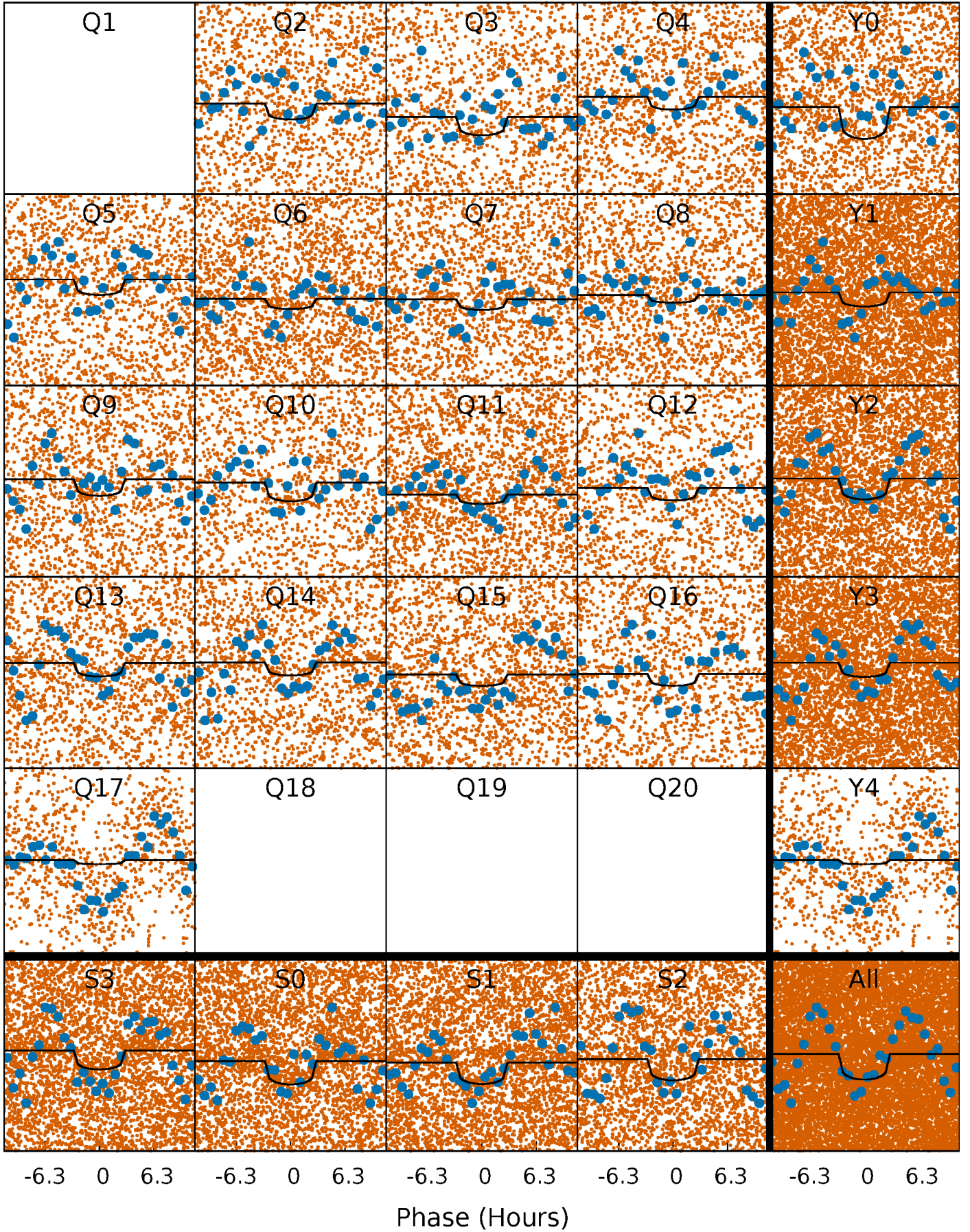
PDC Quarter-Phased Transit Curves

TCE 008521128-01 P= 1.171511 Days $T_0=132.211974$ (BKJD)



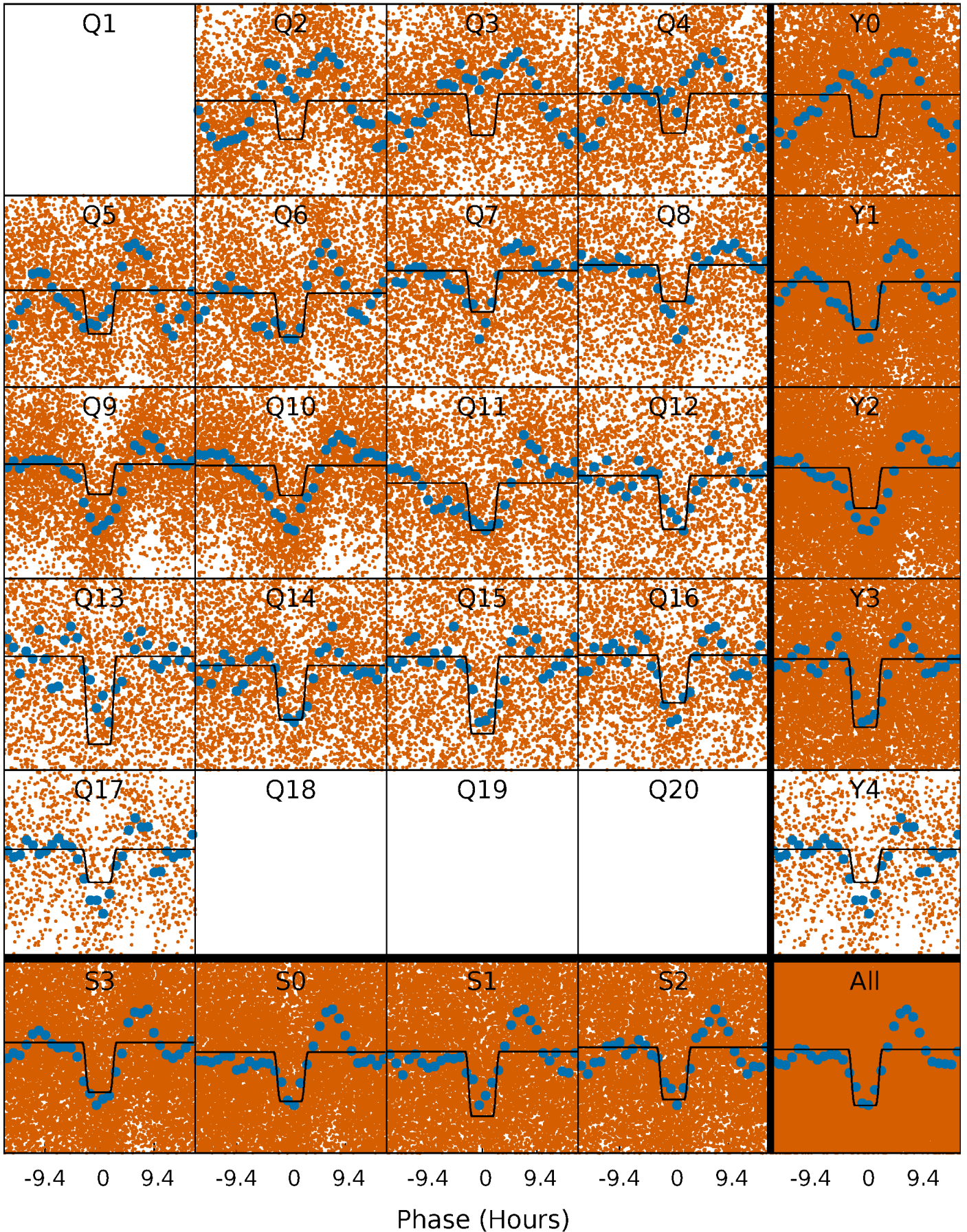
DV Quarter-Phased Transit Curves

TCE 008521128-01 P= 1.171511 Days $T_0=132.211974$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

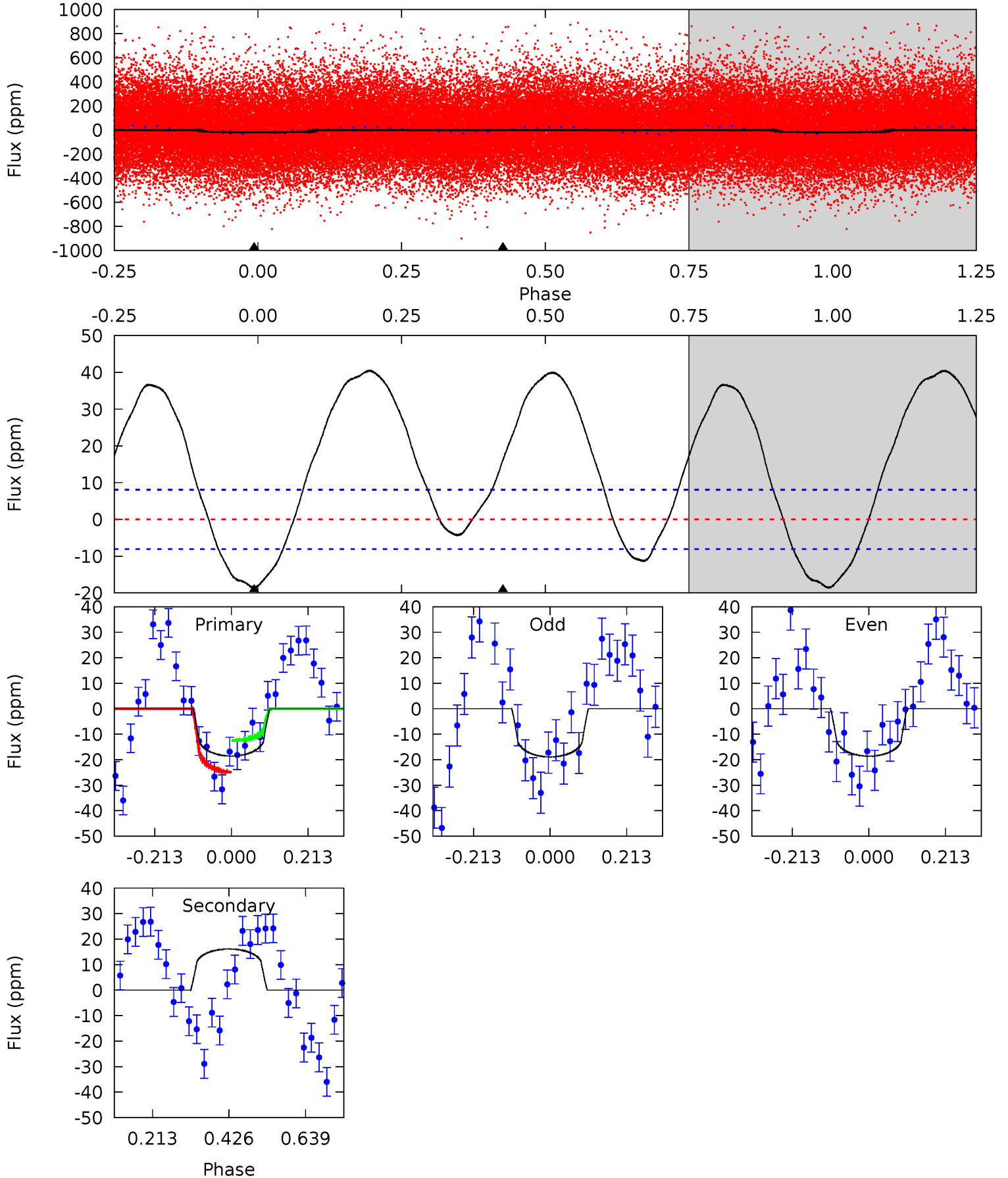
TCE 008521128-01 P= 1.171650 Days $T_0=132.046645$ (BKJD)



DV Model-Shift Uniqueness Test

008521128-01, P = 1.171511 Days, E = 132.211974 Days

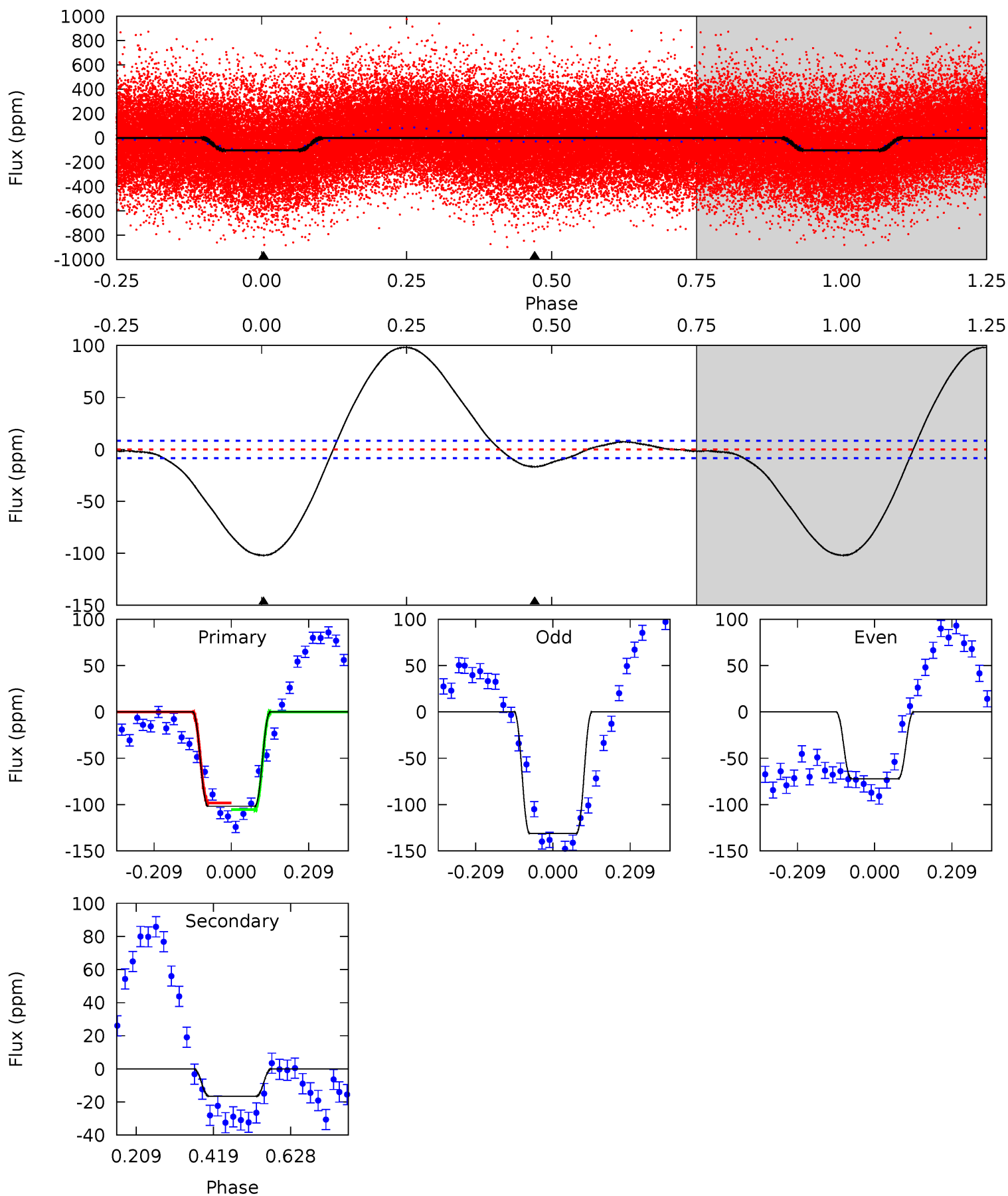
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	-8.79	0	0	4.40	1.25	8.19	10.1	10.1	-8.79	-8.79	0.08	0.99	0.69	3.38



Alt Model-Shift Uniqueness Test

008521128-01, P = 1.171650 Days, E = 132.046645 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.8	8.78	0	0	4.41	1.26	23.5	53.8	53.8	8.78	8.78	14.8	0.91	0.49	1.85



Stellar Parameters For KIC 008521128

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6654^{+187}_{-258}	$4.257^{+0.090}_{-0.210}$	$0.070^{+0.250}_{-0.350}$	$1.421^{+0.494}_{-0.247}$	$1.335^{+0.200}_{-0.220}$	$0.655^{+0.324}_{-0.341}$
	+3%/-4%	+2%/-5%	+357%/-500%	+35%/-17%	+15%/-16%	+50%/-52%
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 008521128-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	16 ± 2	$1.00^{+0.87}_{-0.67}$	3214^{+240}_{-186}	-5421^{+1085}_{-4596}	$-4.971^{+3.516}_{-39.878}$
Alt.	-17 ± 2	$1.72^{+1.04}_{-0.92}$	3214^{+262}_{-218}	4165^{+1638}_{-833}	$1.780^{+6.388}_{-1.109}$

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

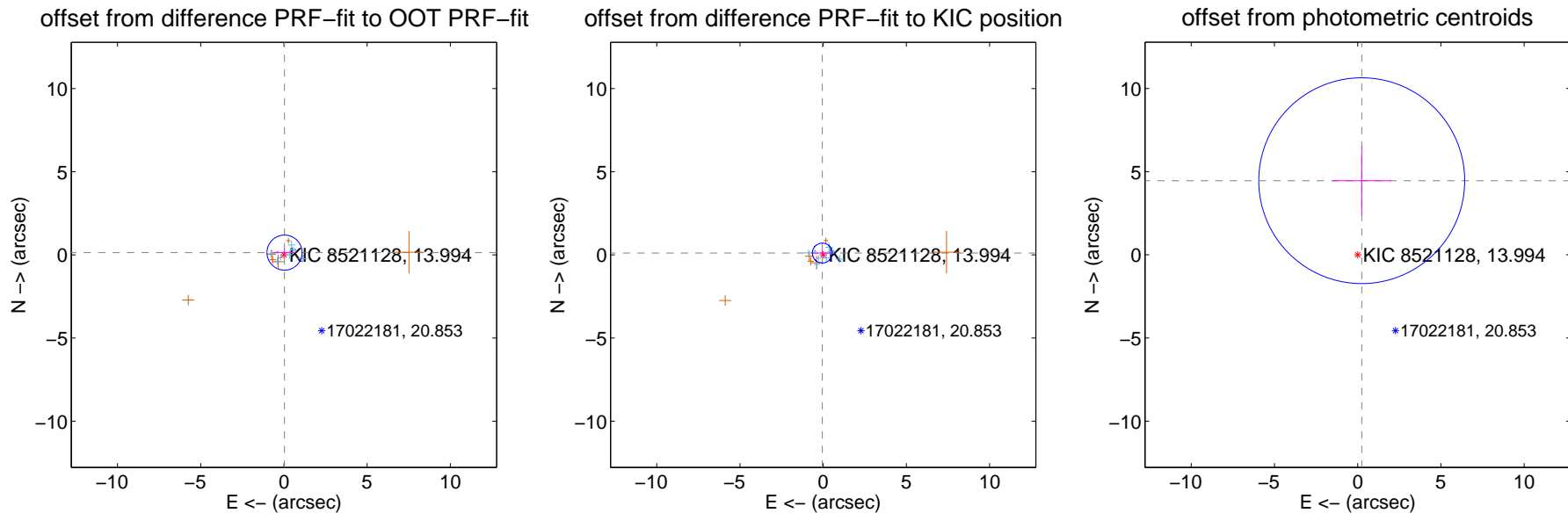
DV Centroid Data

Supplemental centroid analysis for 008521128-01. Kepler magnitude: 13.99. Transit SNR 6.61

There are 9 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

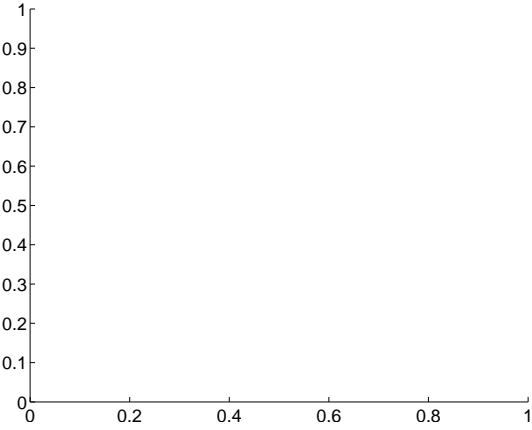
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.142 ± 0.352	0.40	-0.036 ± 0.674	0.138 ± 0.226
PRF-fit source offset from KIC position	0.122 ± 0.199	0.61	0.050 ± 0.625	0.111 ± 0.199
photometric centroid source offset	4.46 ± 2.06	2.16	-0.24 ± 1.77	4.46 ± 2.06



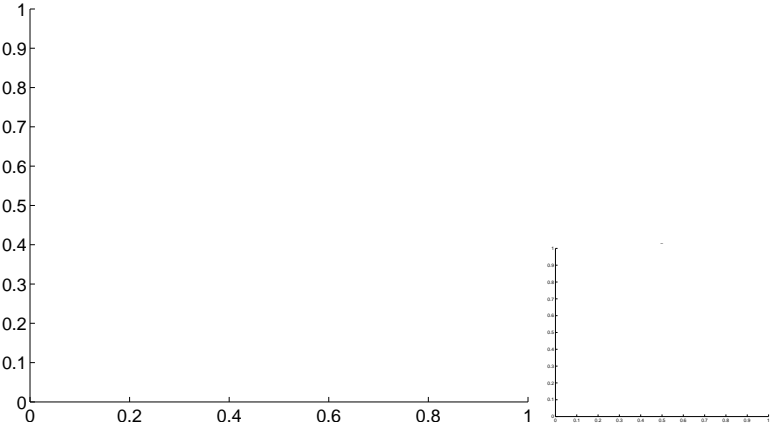
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

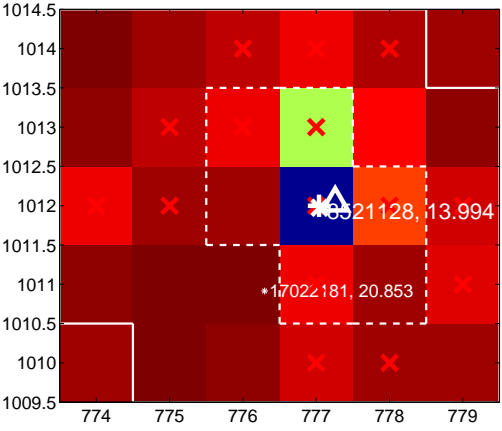
Q1 no difference image



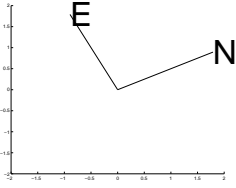
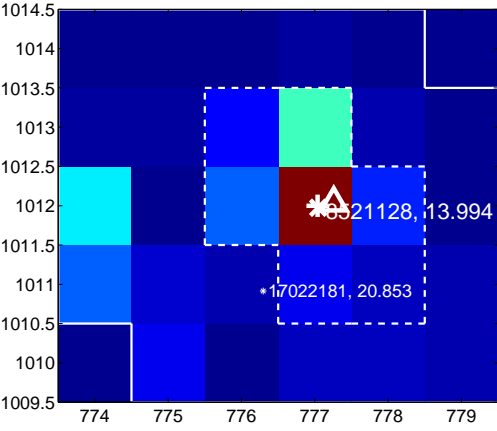
Q1 no OOT image



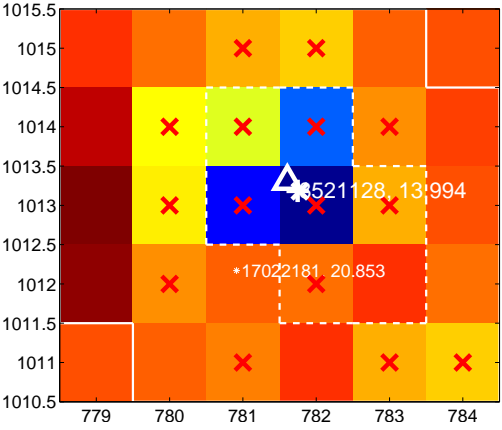
Q2 difference image. Poor Quality



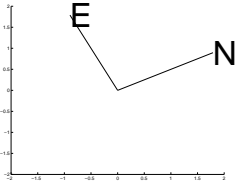
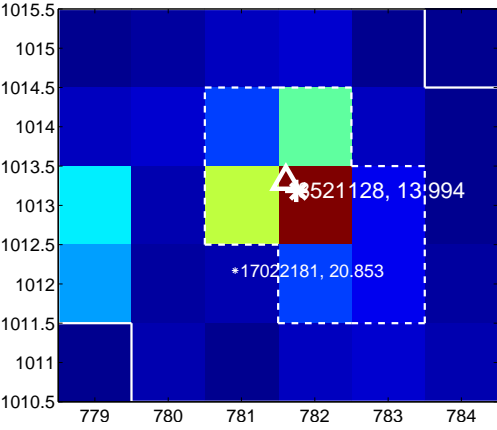
Q2 OOT image



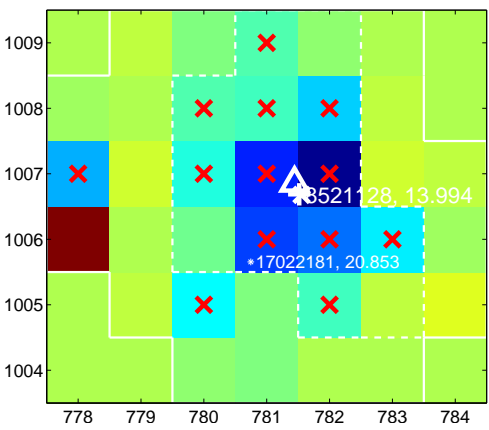
Q3 difference image. Poor Quality



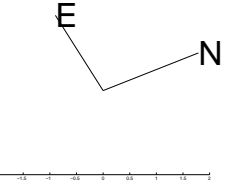
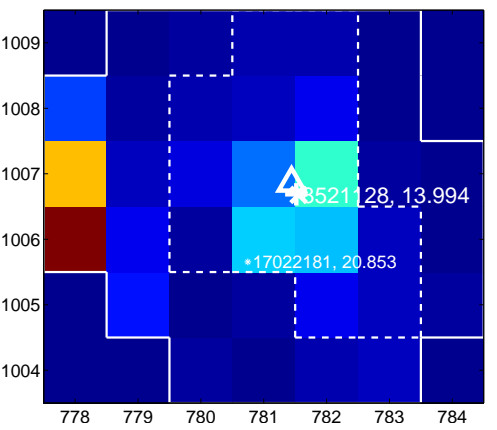
Q3 OOT image



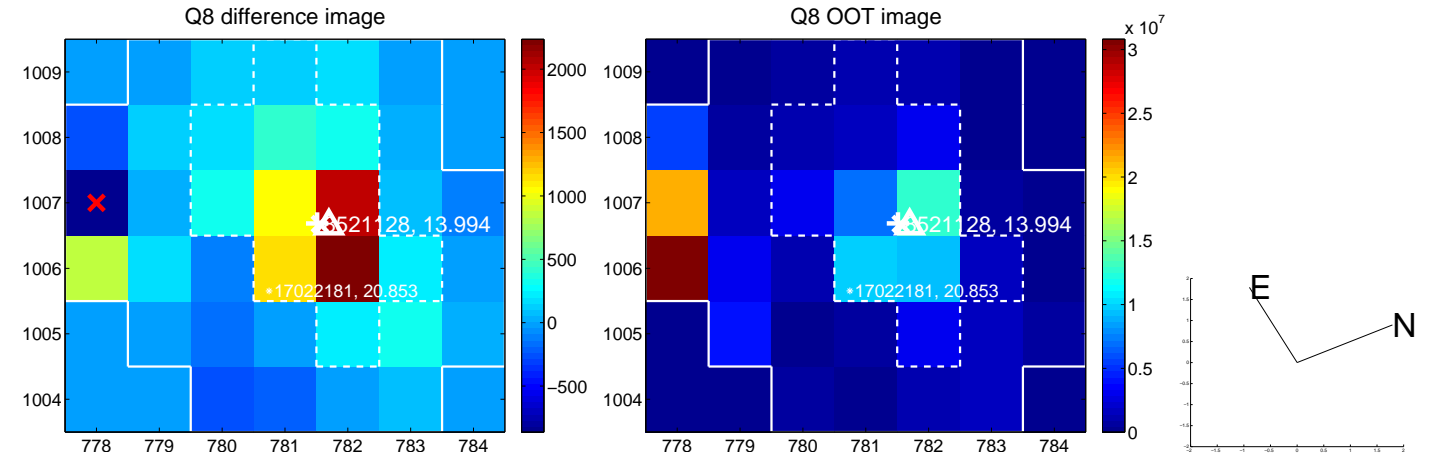
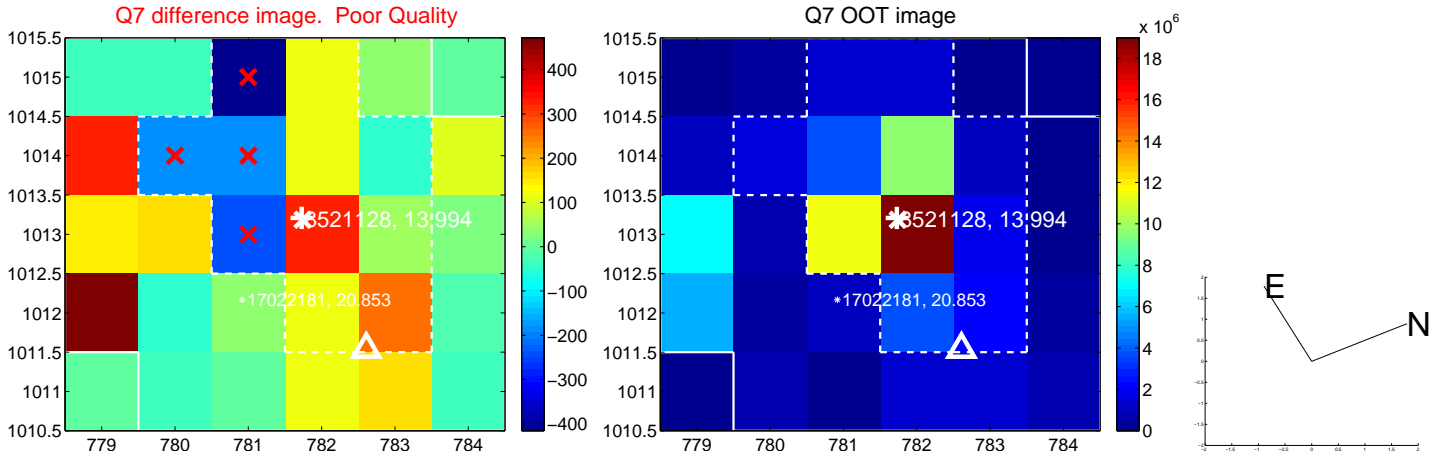
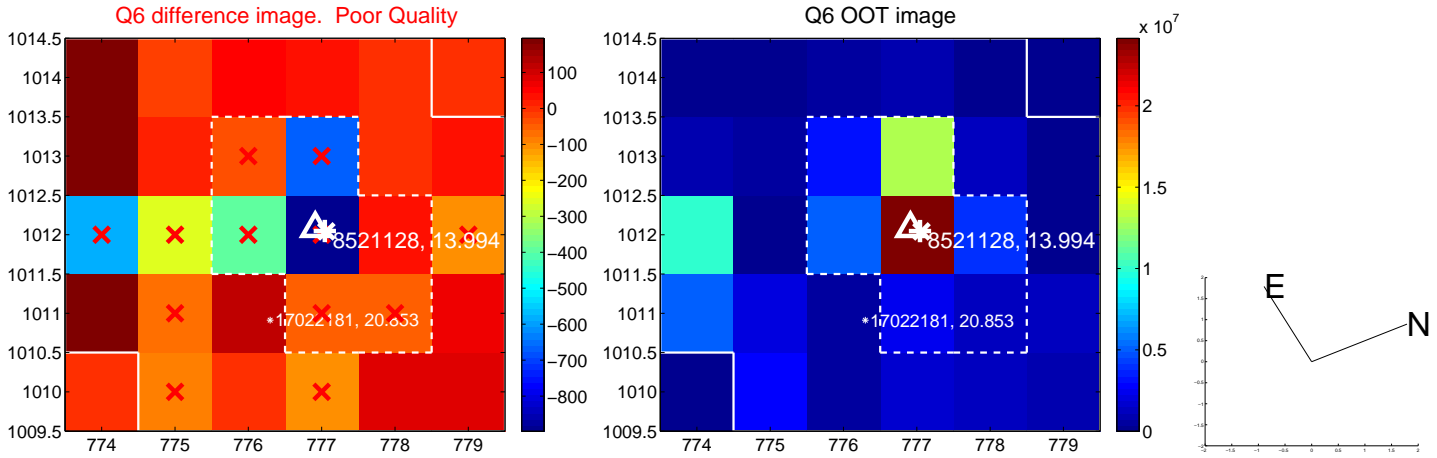
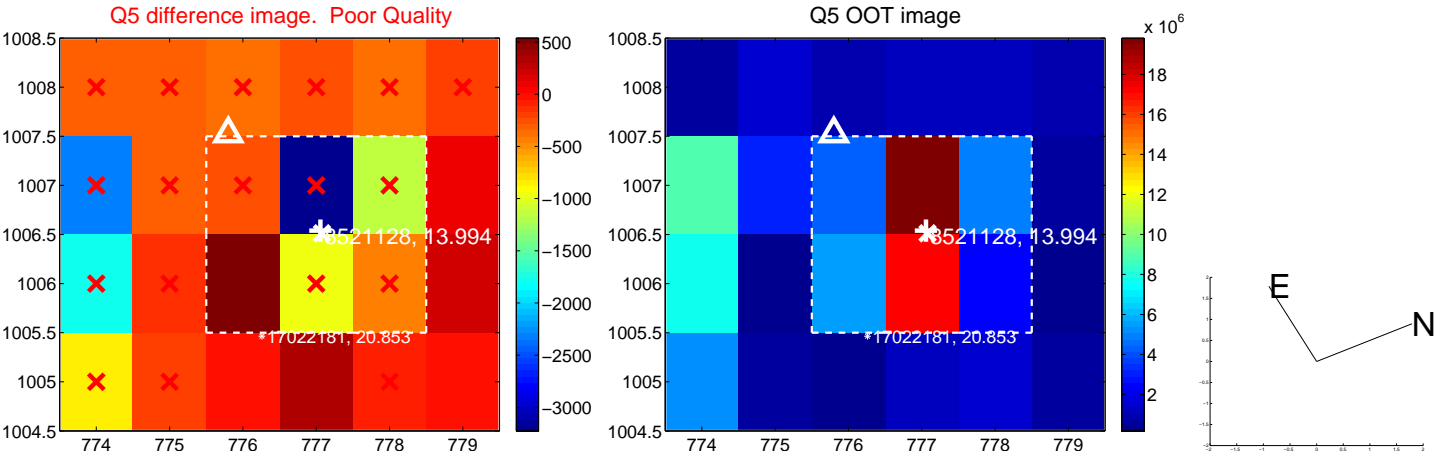
Q4 difference image. Poor Quality



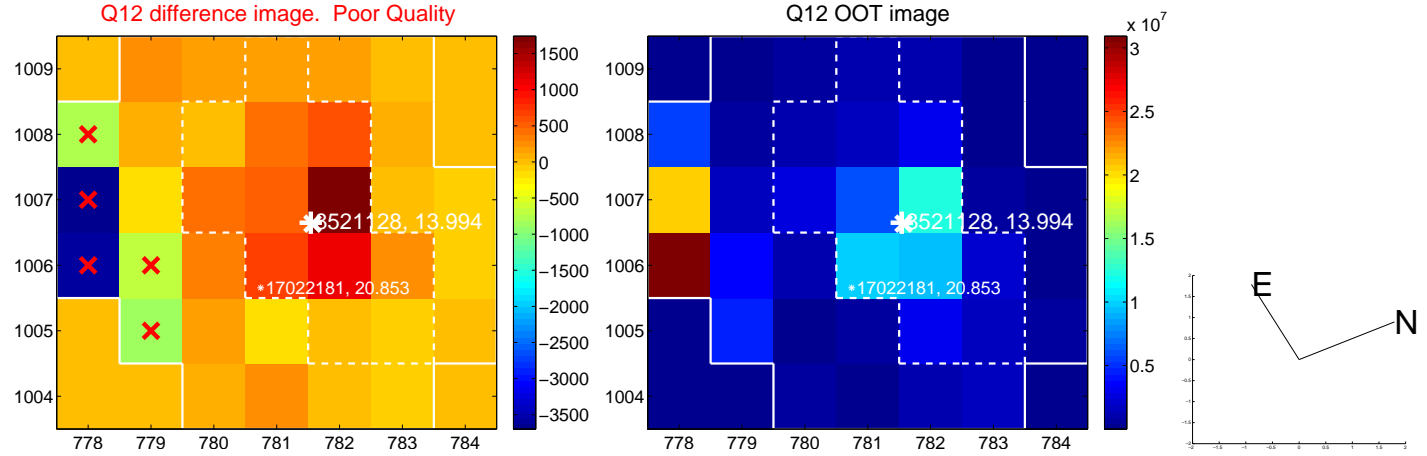
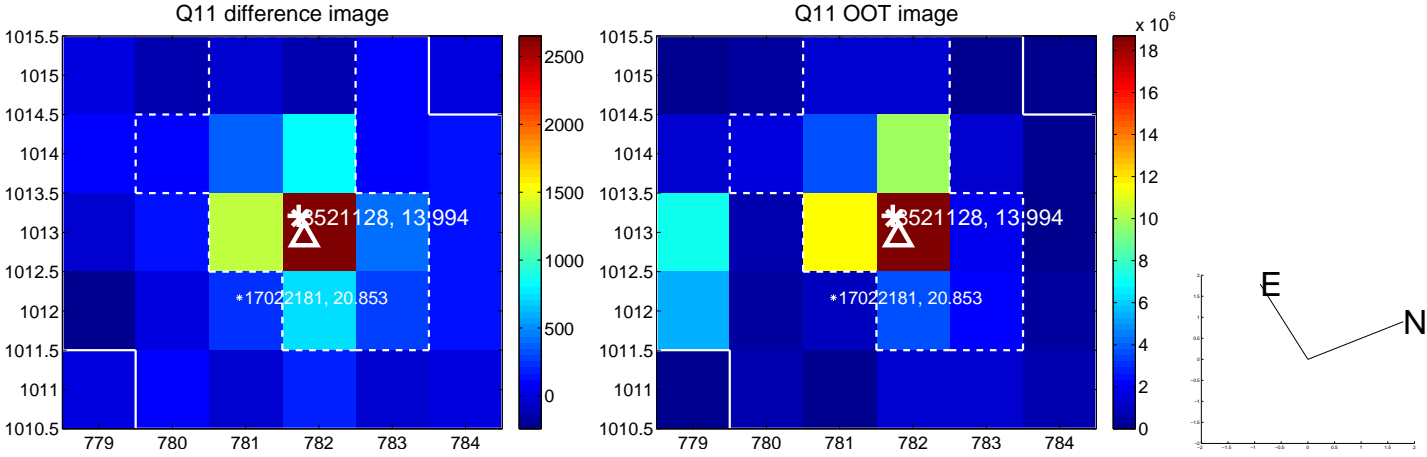
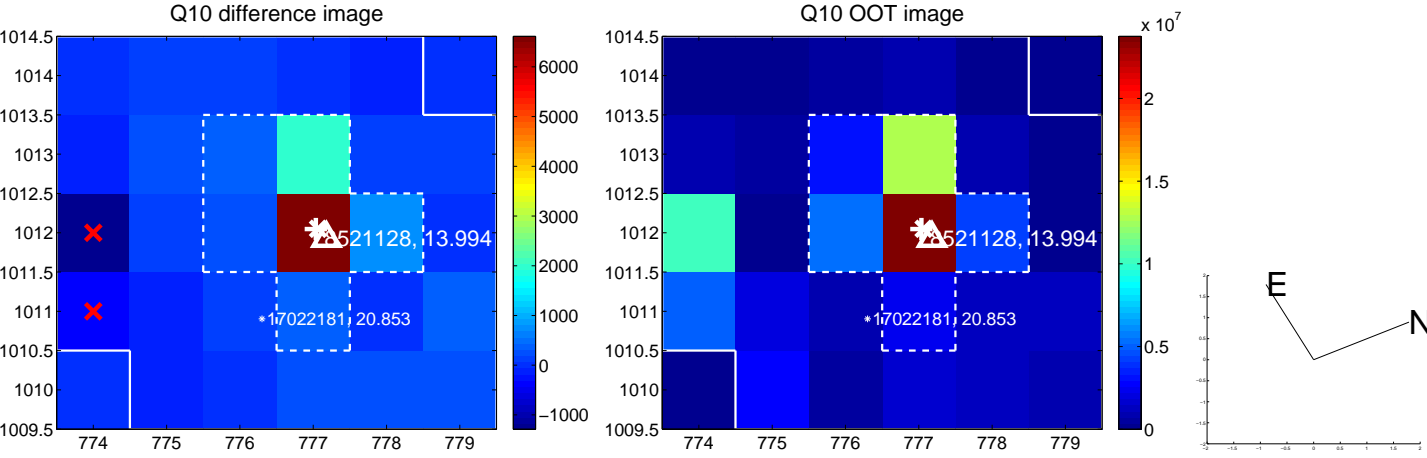
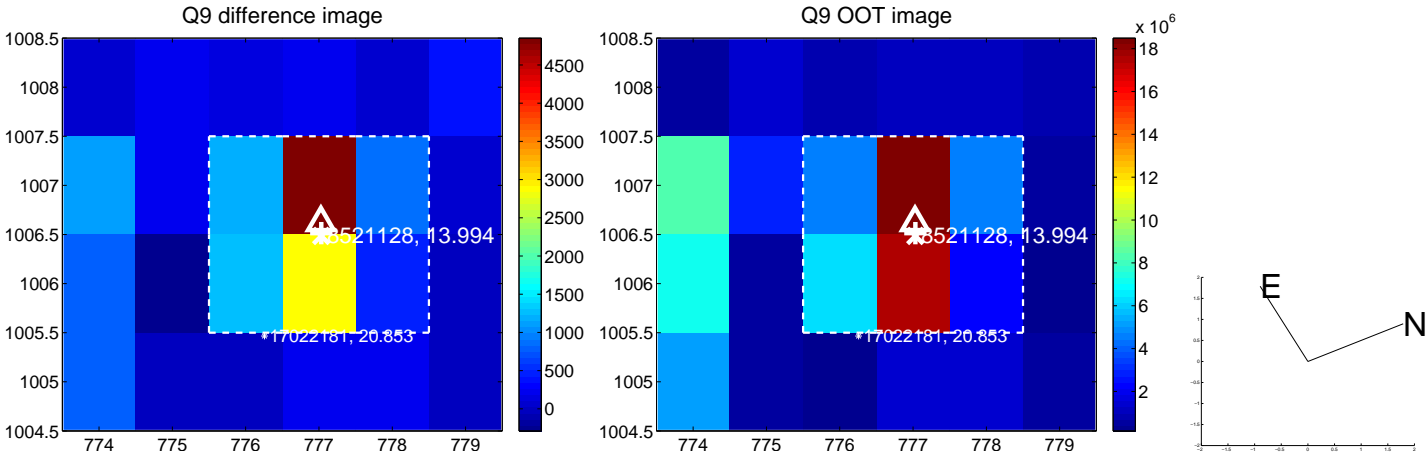
Q4 OOT image



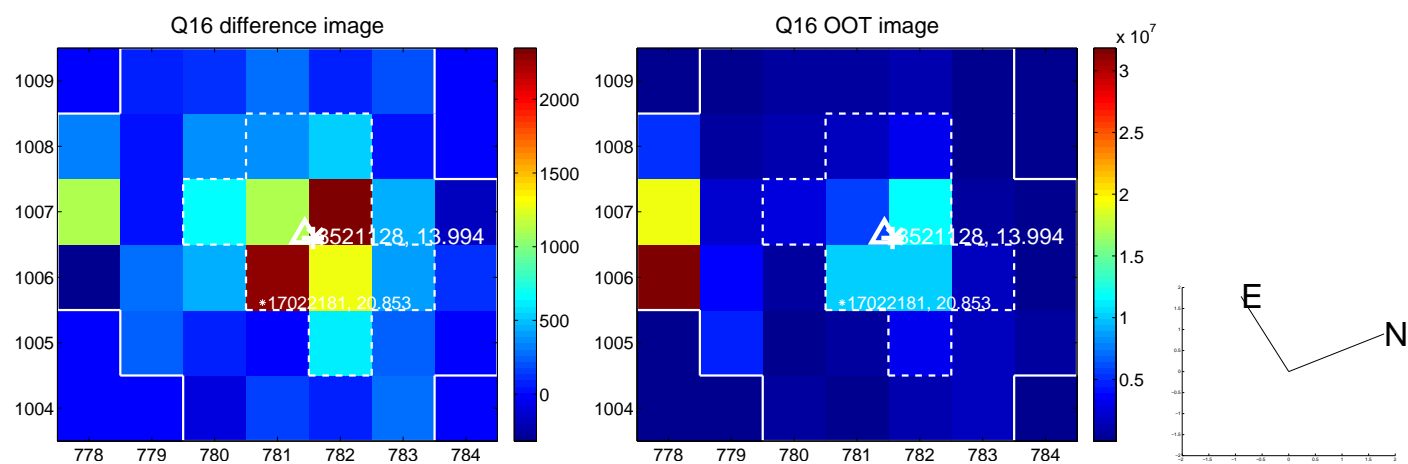
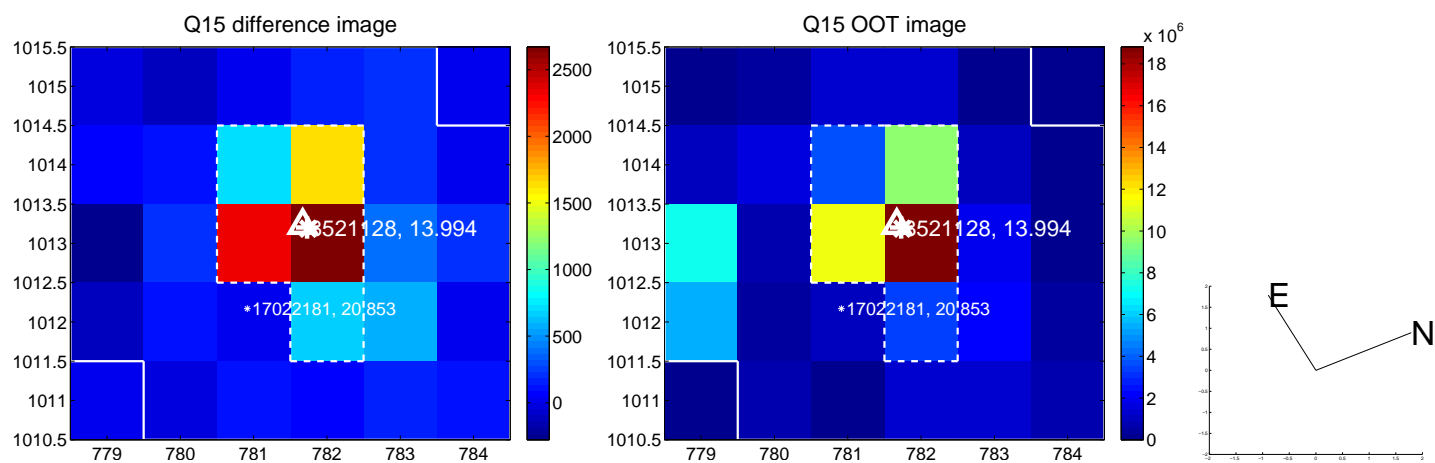
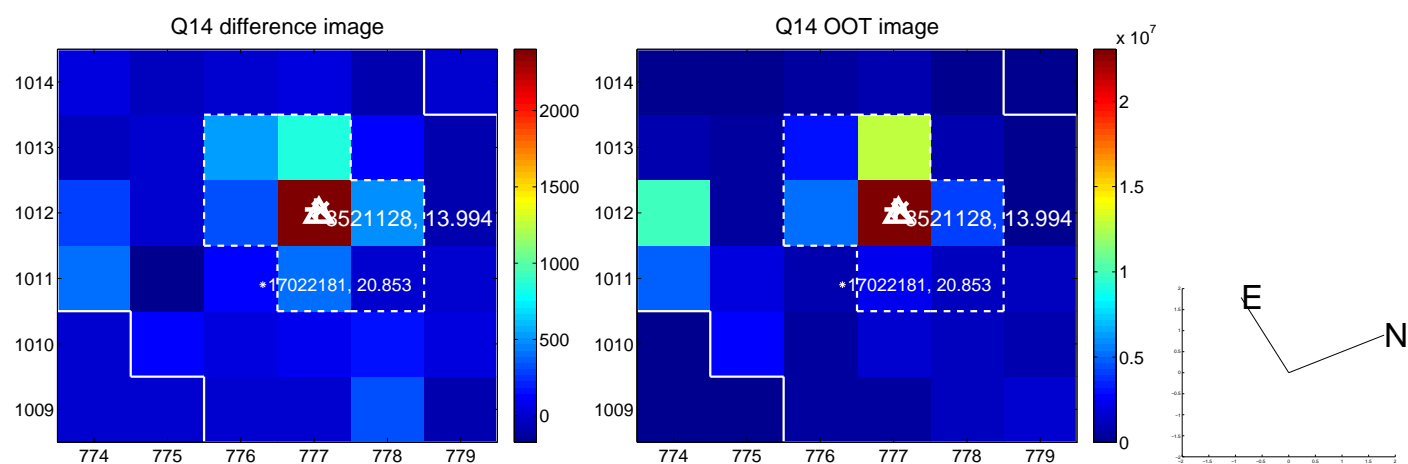
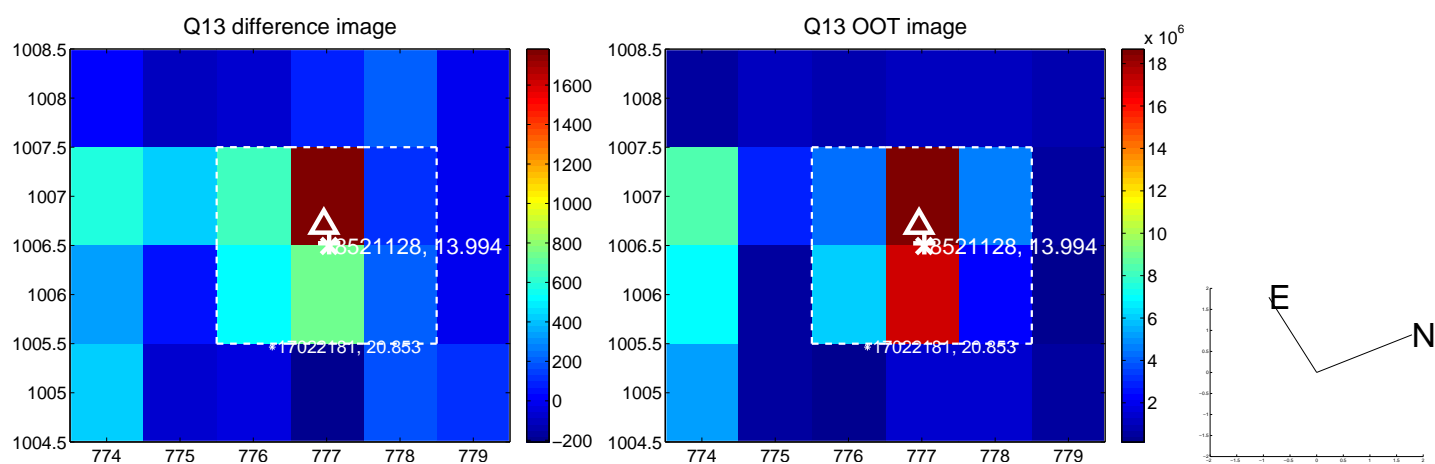
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



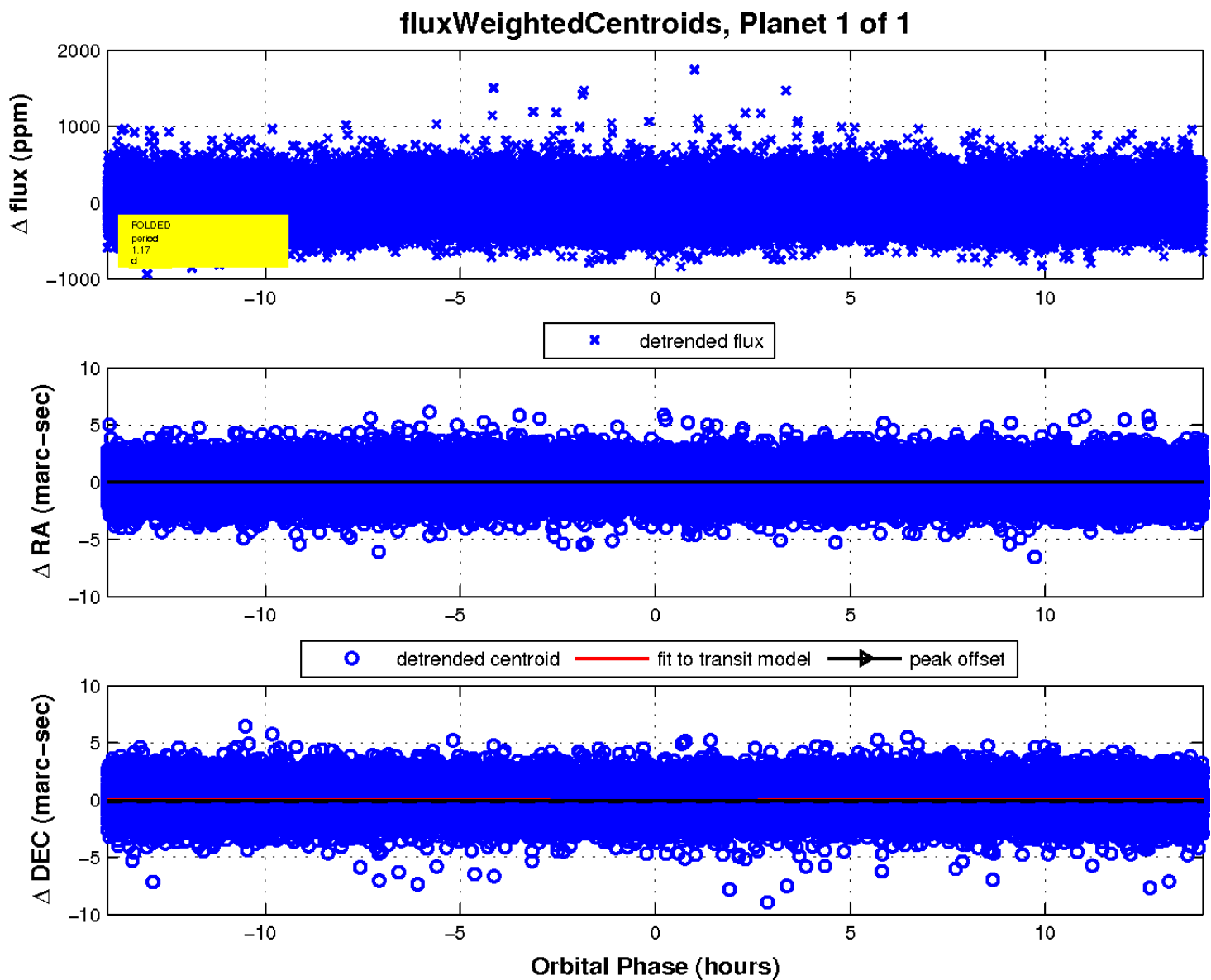
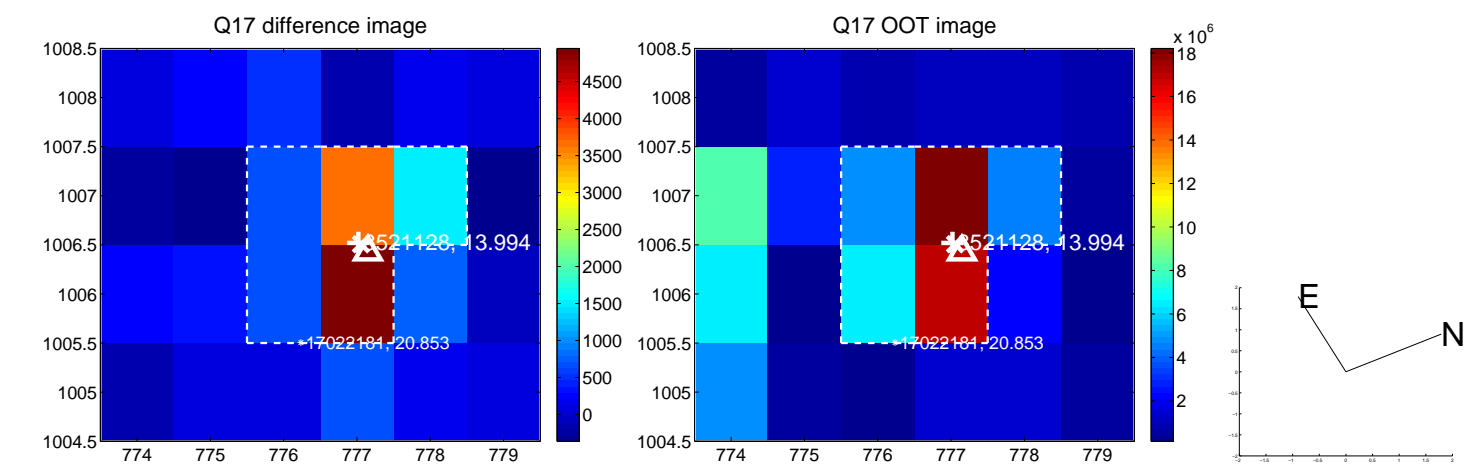
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

