

KIC 008282846

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})
008282846-01	OBS	4015.01	133.303618	167.758265	1069.2	7.442	18.2	19.4	0.86	5064	2.90	1.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008282846-01	OBS	PC	1.00	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 008282846-01

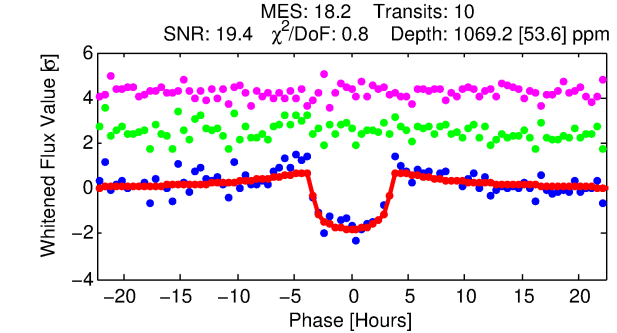
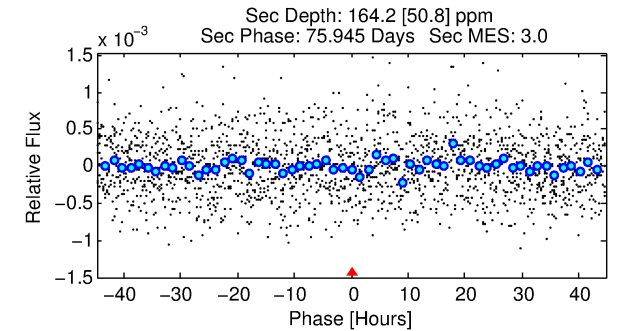
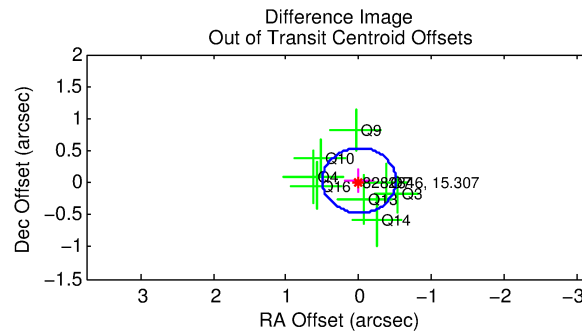
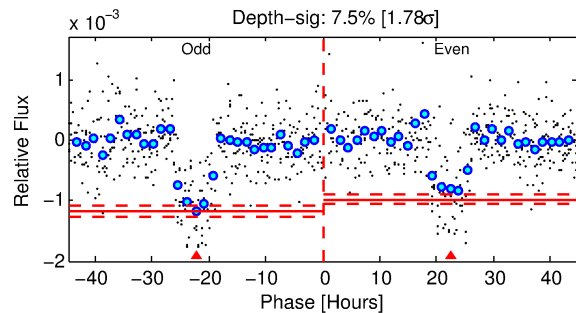
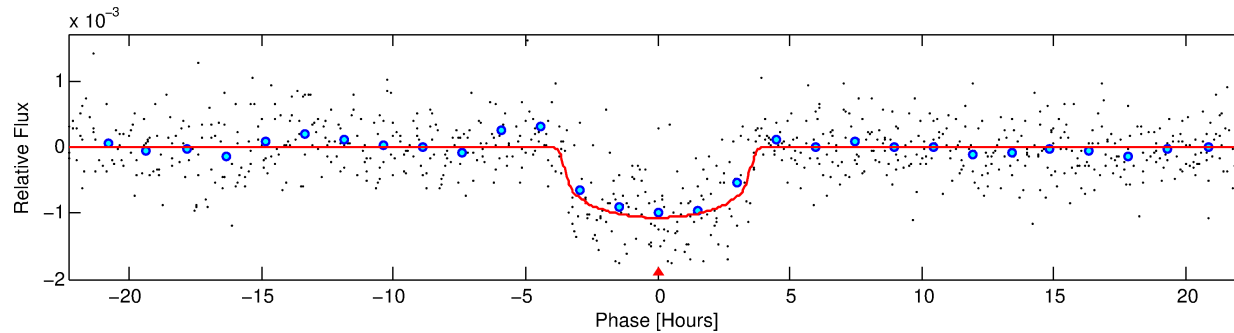
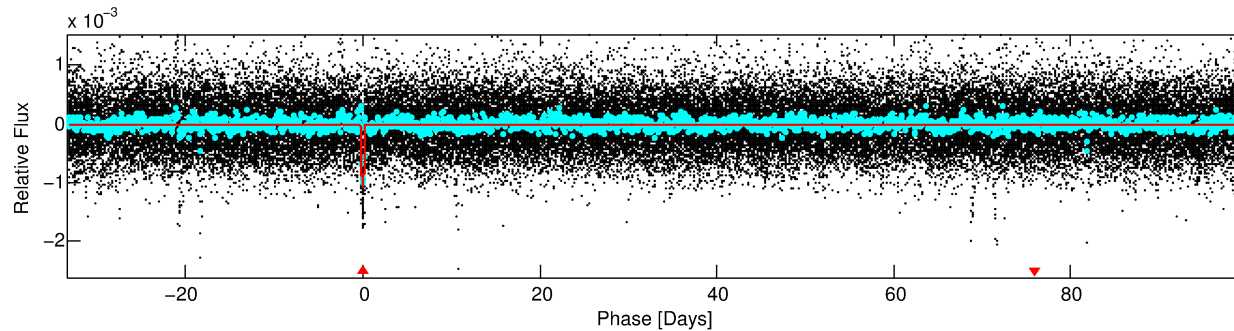
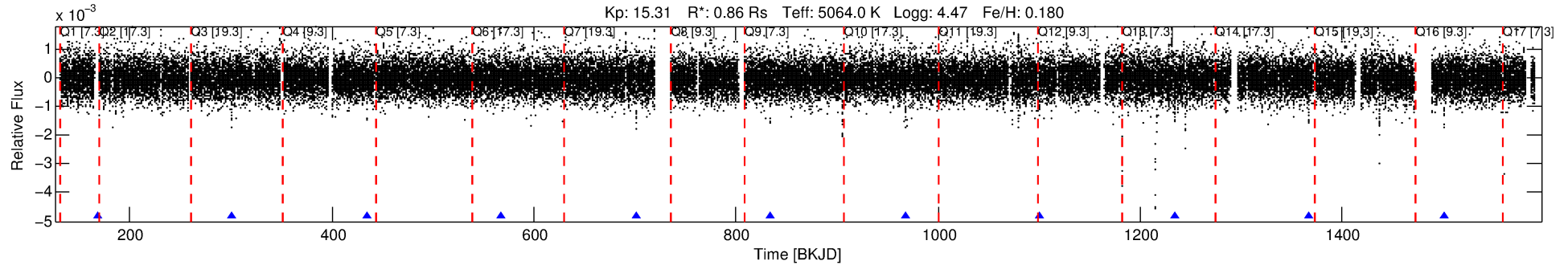
No Significant Match Found

DV One-Page Summary

KIC: 8282846 Candidate: 1 of 1 Period: 133.304 d

KOI: K04015.01 Corr: 0.997

Kp: 15.31 R*: 0.86 Rs Teff: 5064.0 K Logg: 4.47 Fe/H: 0.180



DV Fit Results:

Period = 133.30362 [0.00100] d
Epoch = 167.7583 [0.0062] BKJD
Rp/R* = 0.0307 [0.0125]
a/R* = 116.87 [161.49]
b = 0.58 [1.63]
Seff = 1.94 [0.30]
Teq = 301 [12] K
Rp = 2.90 [1.21] Re
a = 0.4764 [0.0418] AU
Ag = 2440.05 [2153.07] [1.13σ]
Teffp = 3269 [714] K [4.16σ]

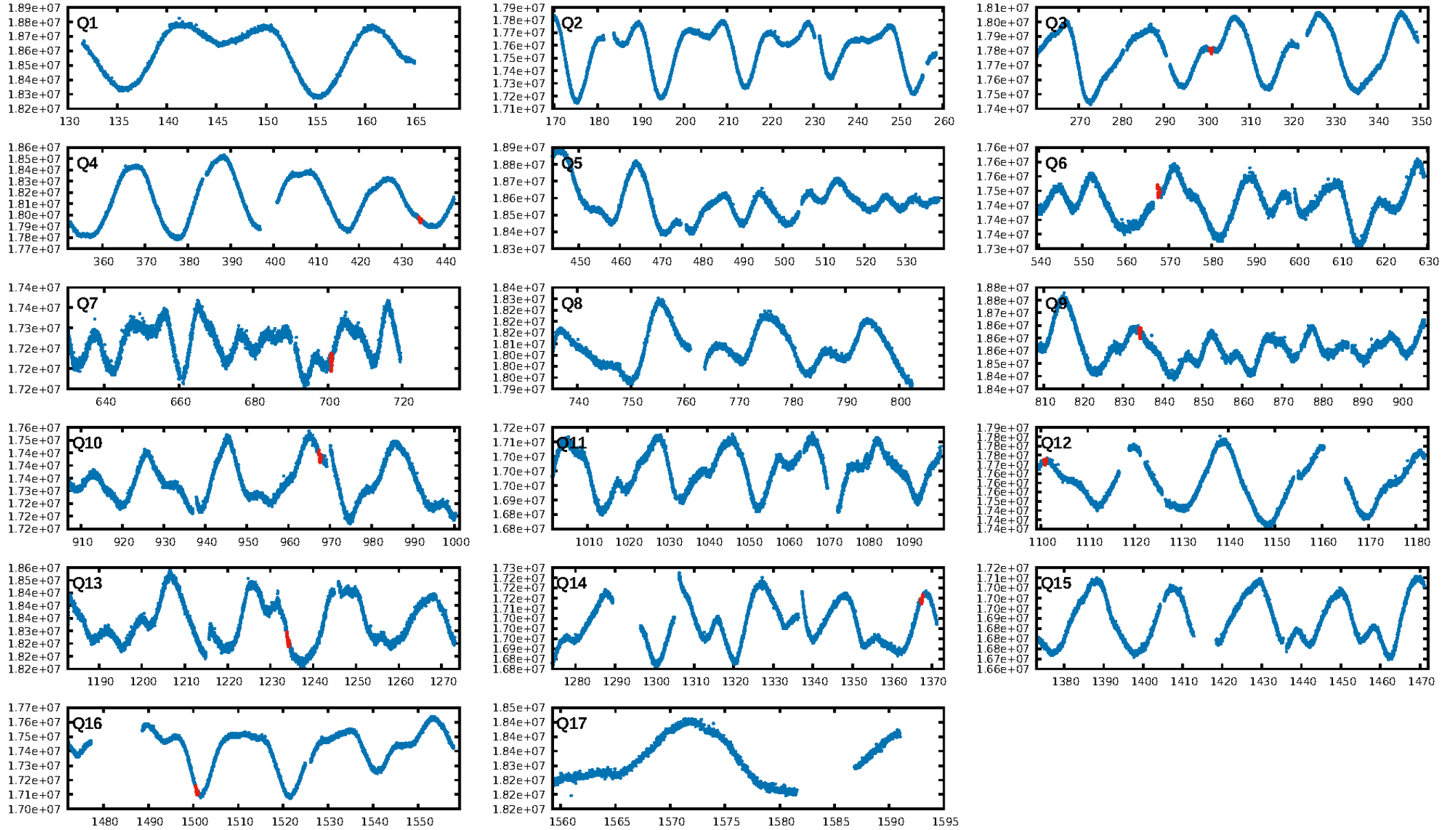
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.35e-52
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 1.205
Centroid-sig: 44.3%
Centroid-so: 0.477 arcsec [0.99σ]
OotOffset-rm: 0.034 arcsec [0.20σ]
KicOffset-rm: 0.141 arcsec [0.76σ]
OotOffset-st: 2/2/2/2 [8]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

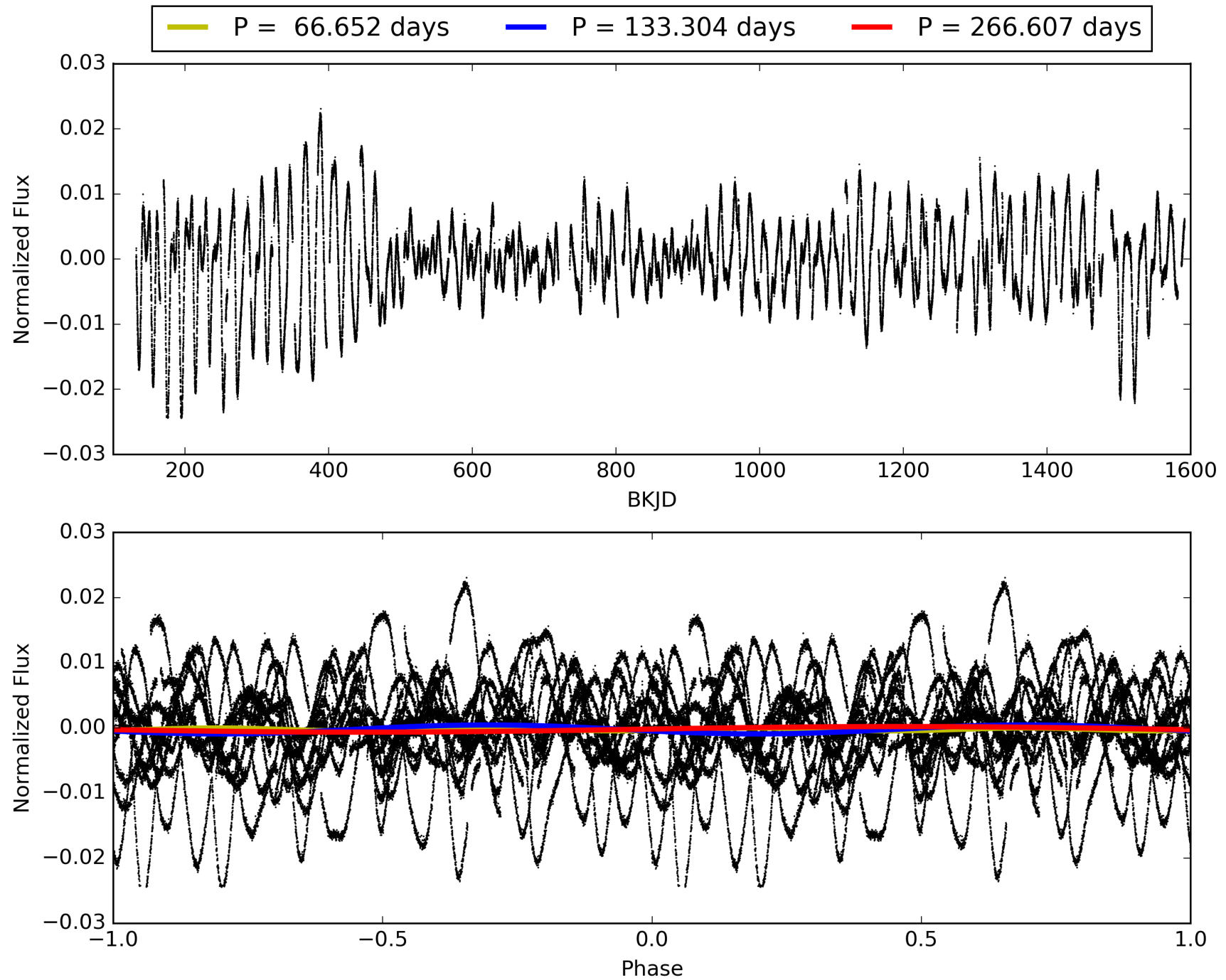
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:08:58 Z

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

TCE 008282846-01, PDC Light Curves

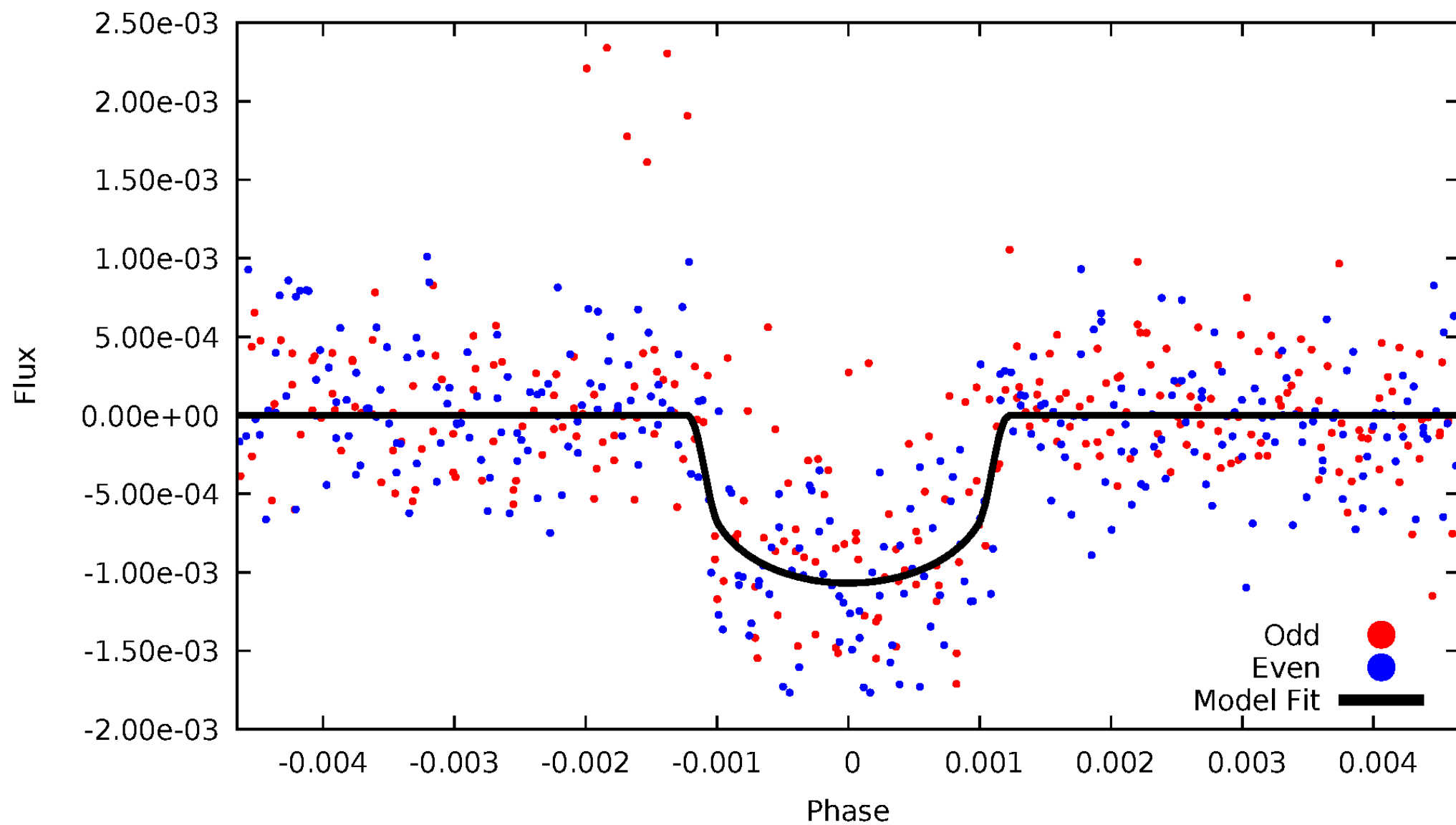


TCE 008282846-01



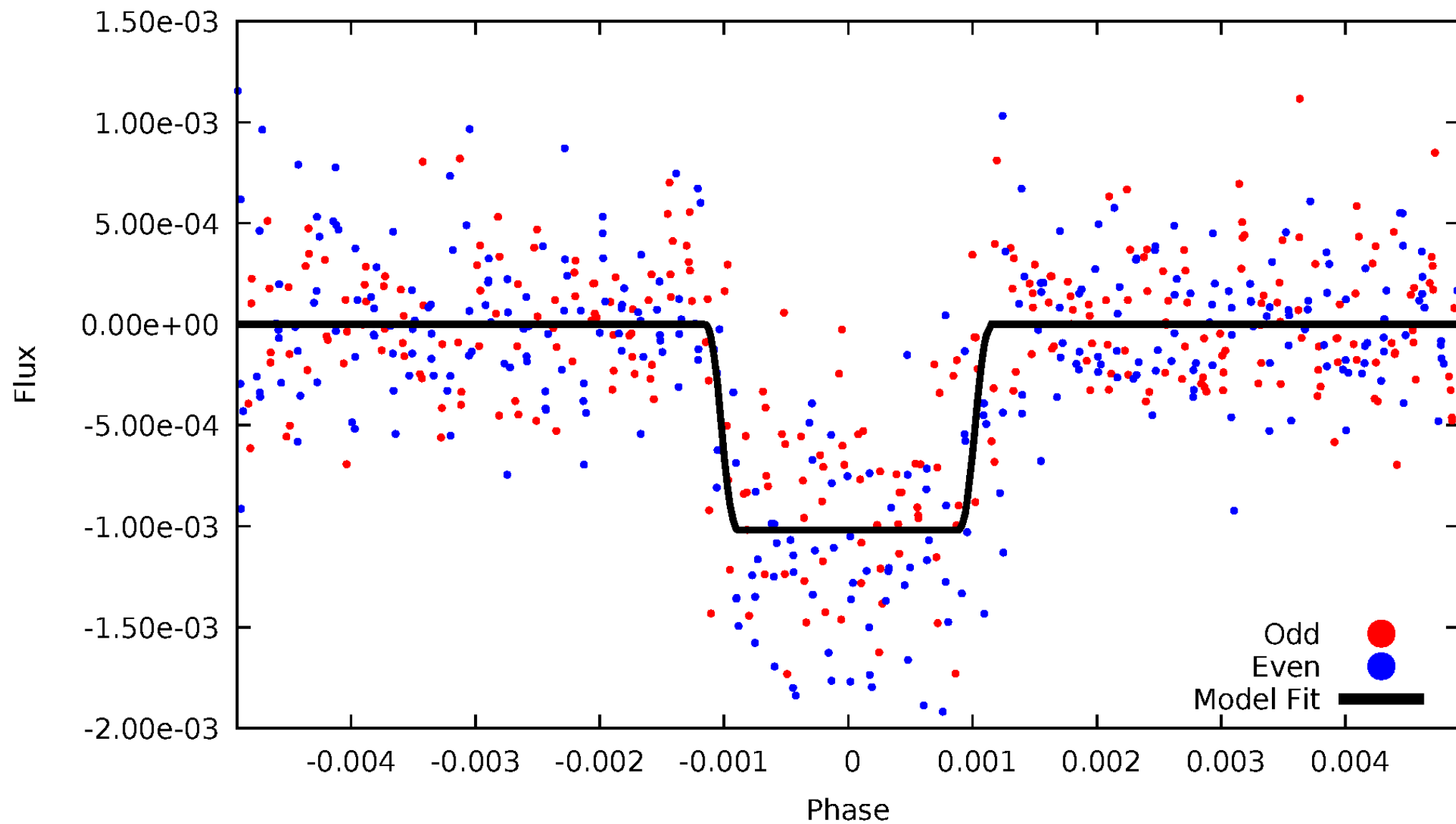
DV Odd/Even

TCE 008282846-01



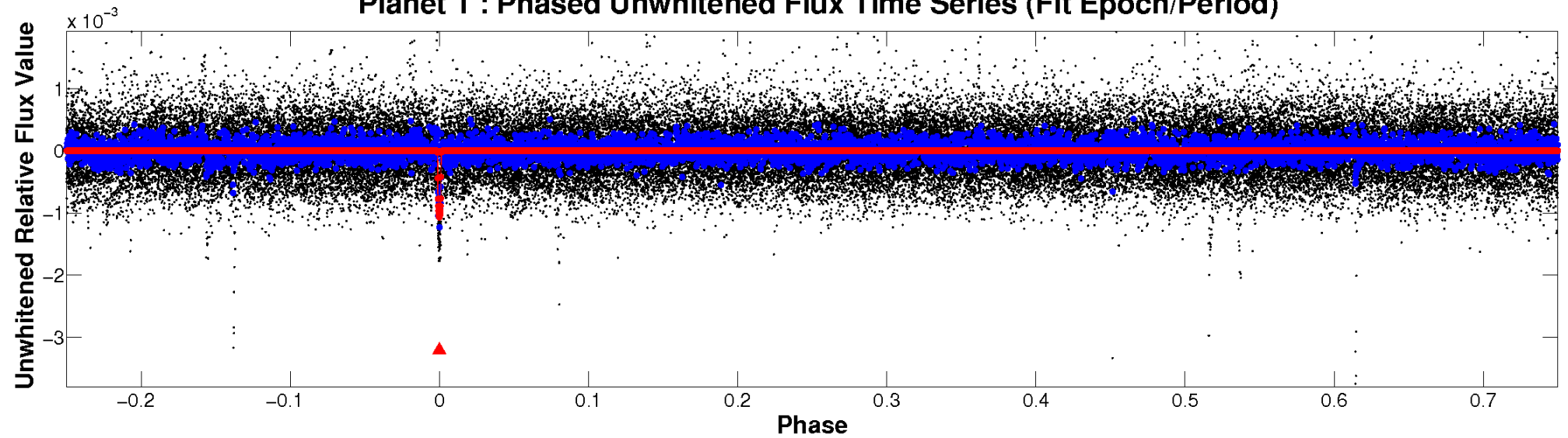
ALT Odd/Even

TCE 008282846-01

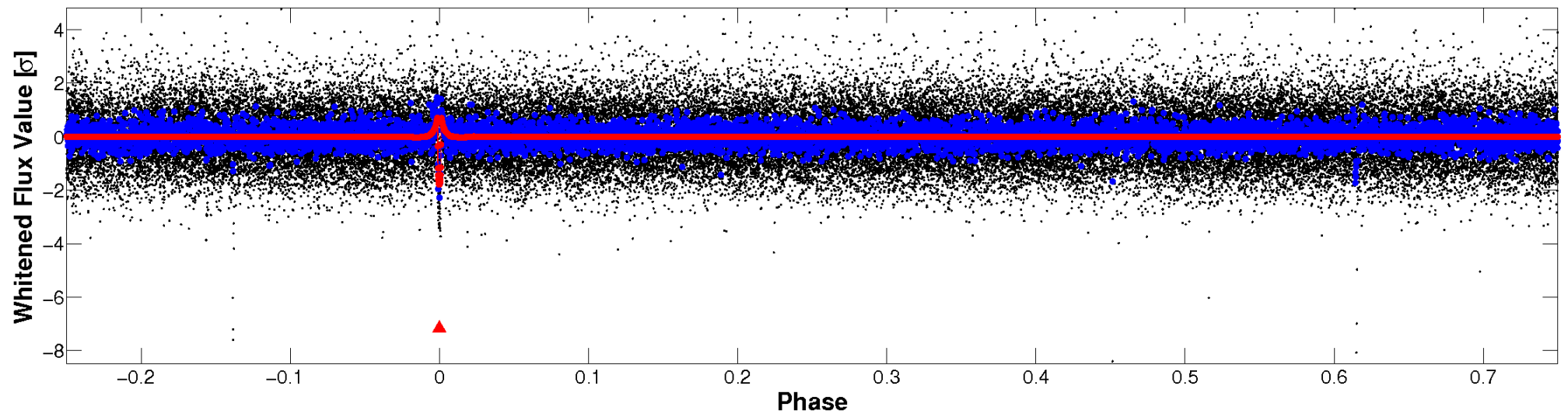


Non-Whitened Vs. Whitened Light Curve

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

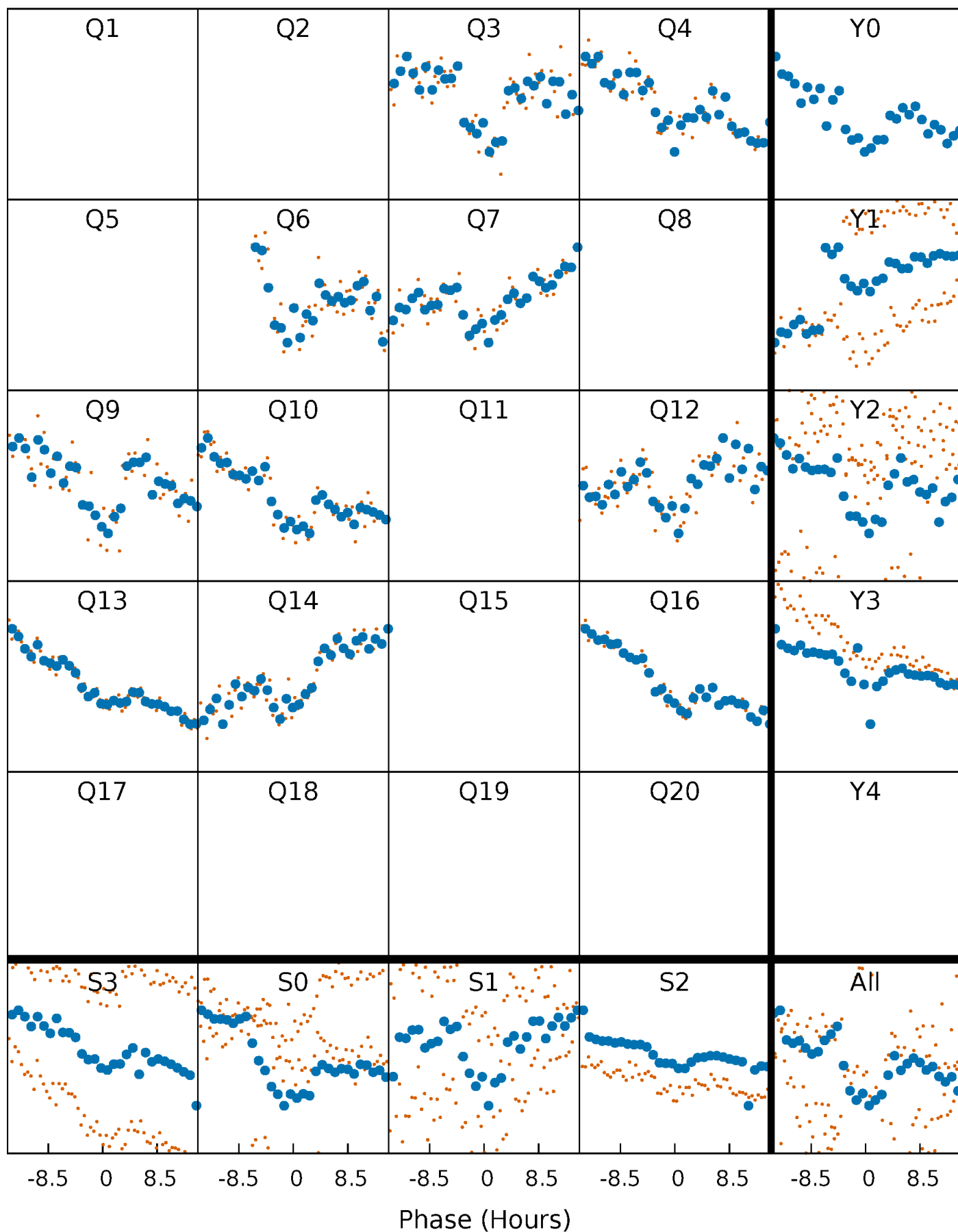


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



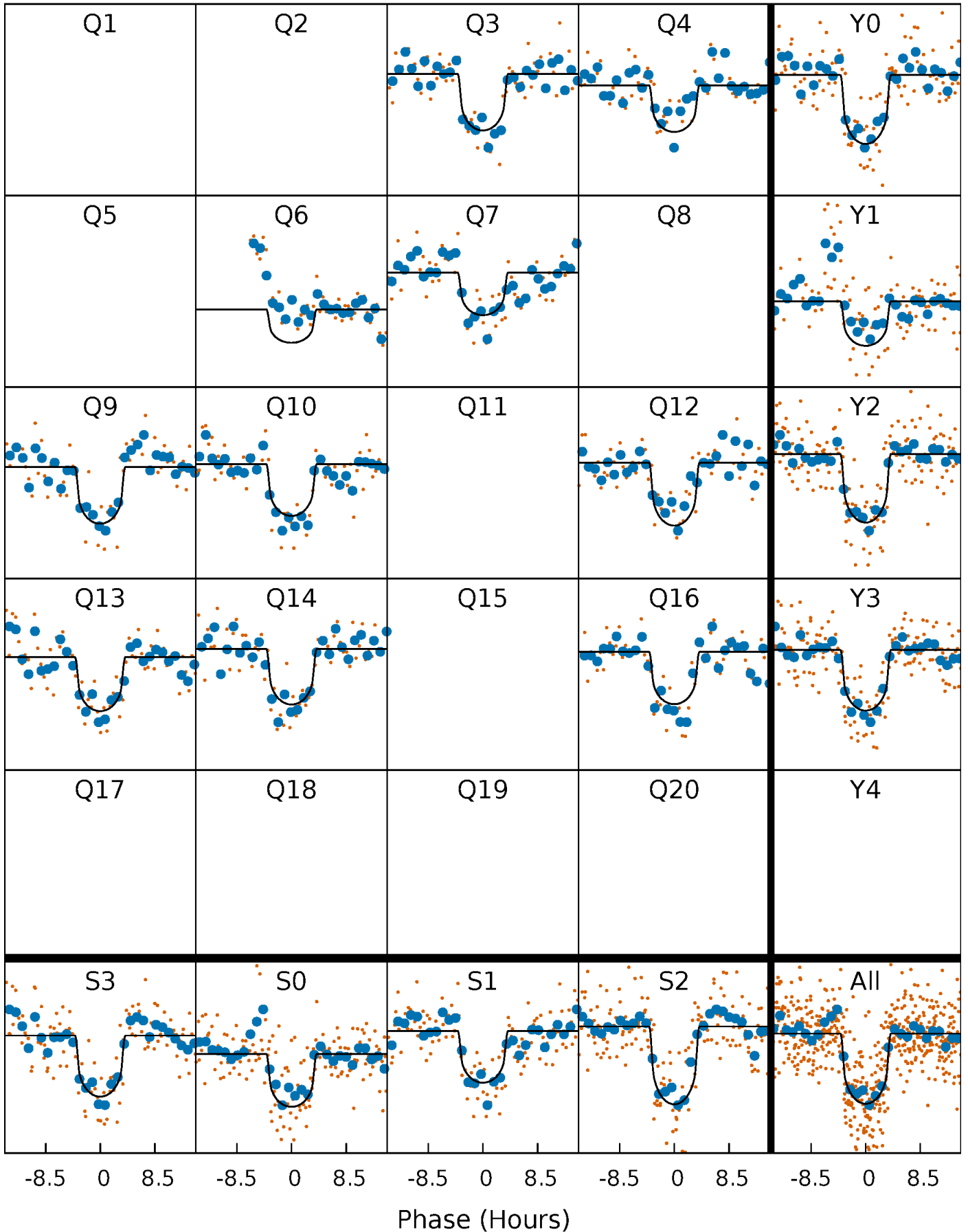
PDC Quarter-Phased Transit Curves

TCE 008282846-01 P=133.303618 Days $T_0=167.758265$ (BKJD)



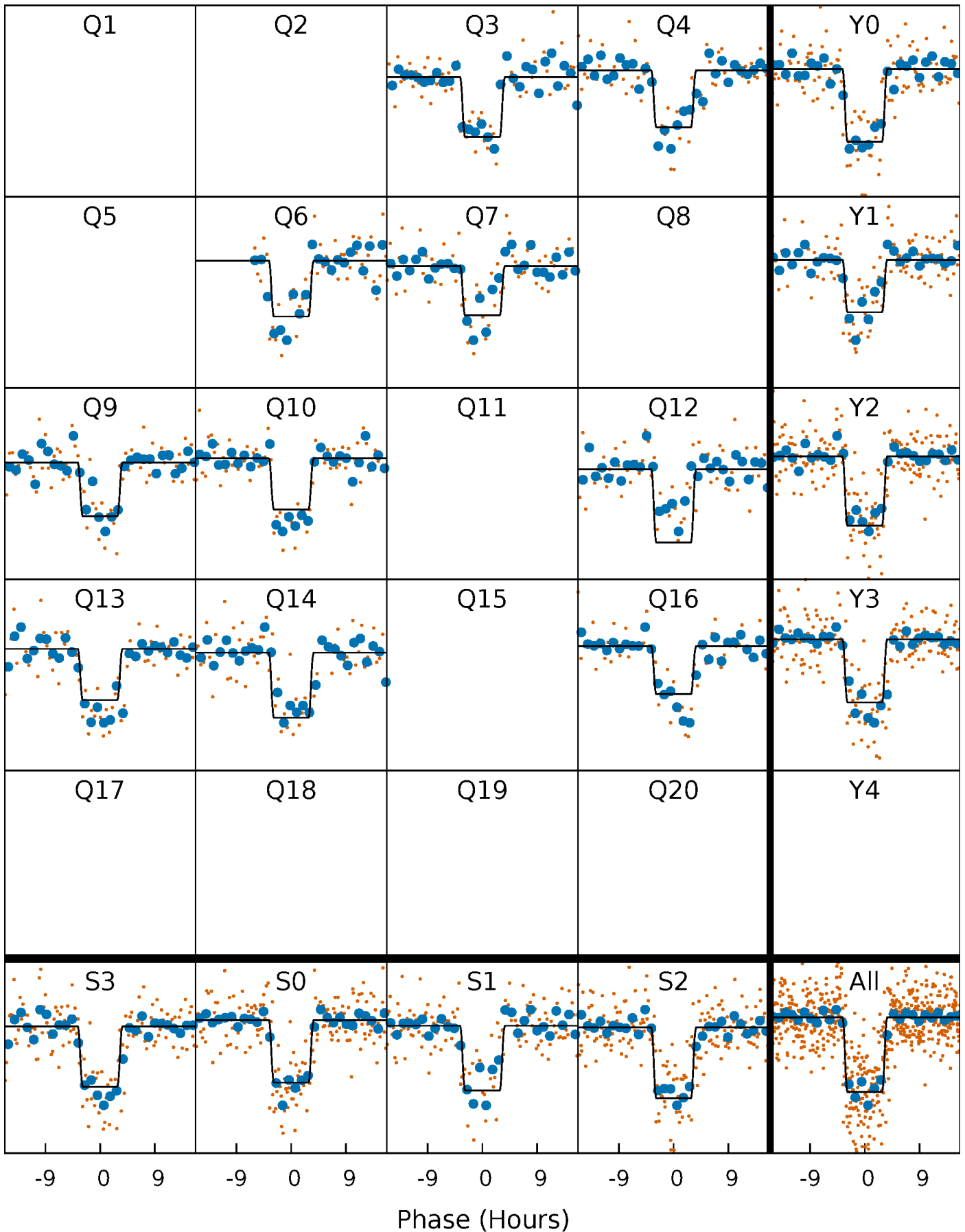
DV Quarter-Phased Transit Curves

TCE 008282846-01 P=133.303618 Days $T_0=167.758265$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

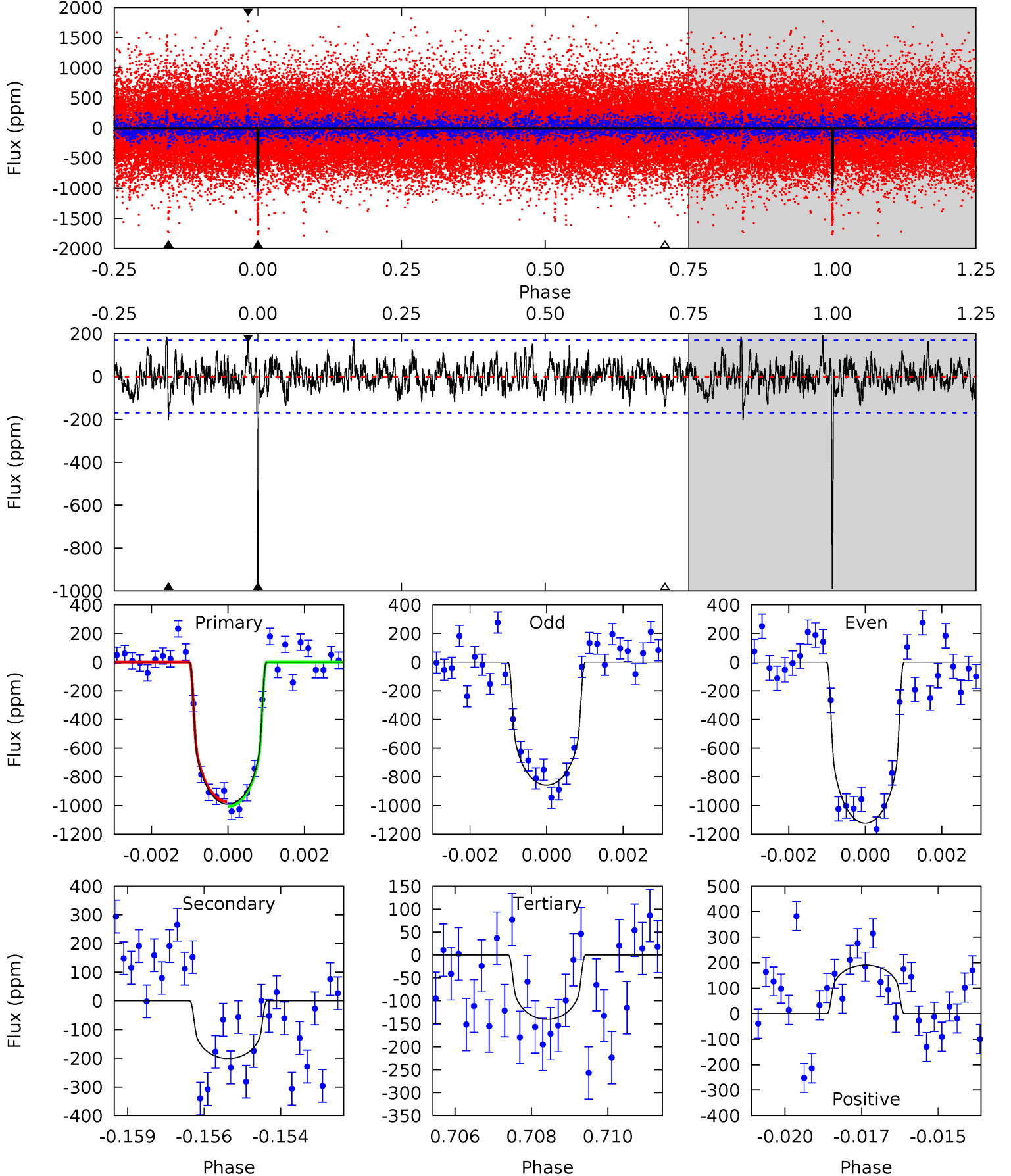
TCE 008282846-01 P=133.298867 Days $T_0=167.777008$ (BKJD)



DV Model-Shift Uniqueness Test

008282846-01, P = 133.303618 Days, E = 34.454647 Days

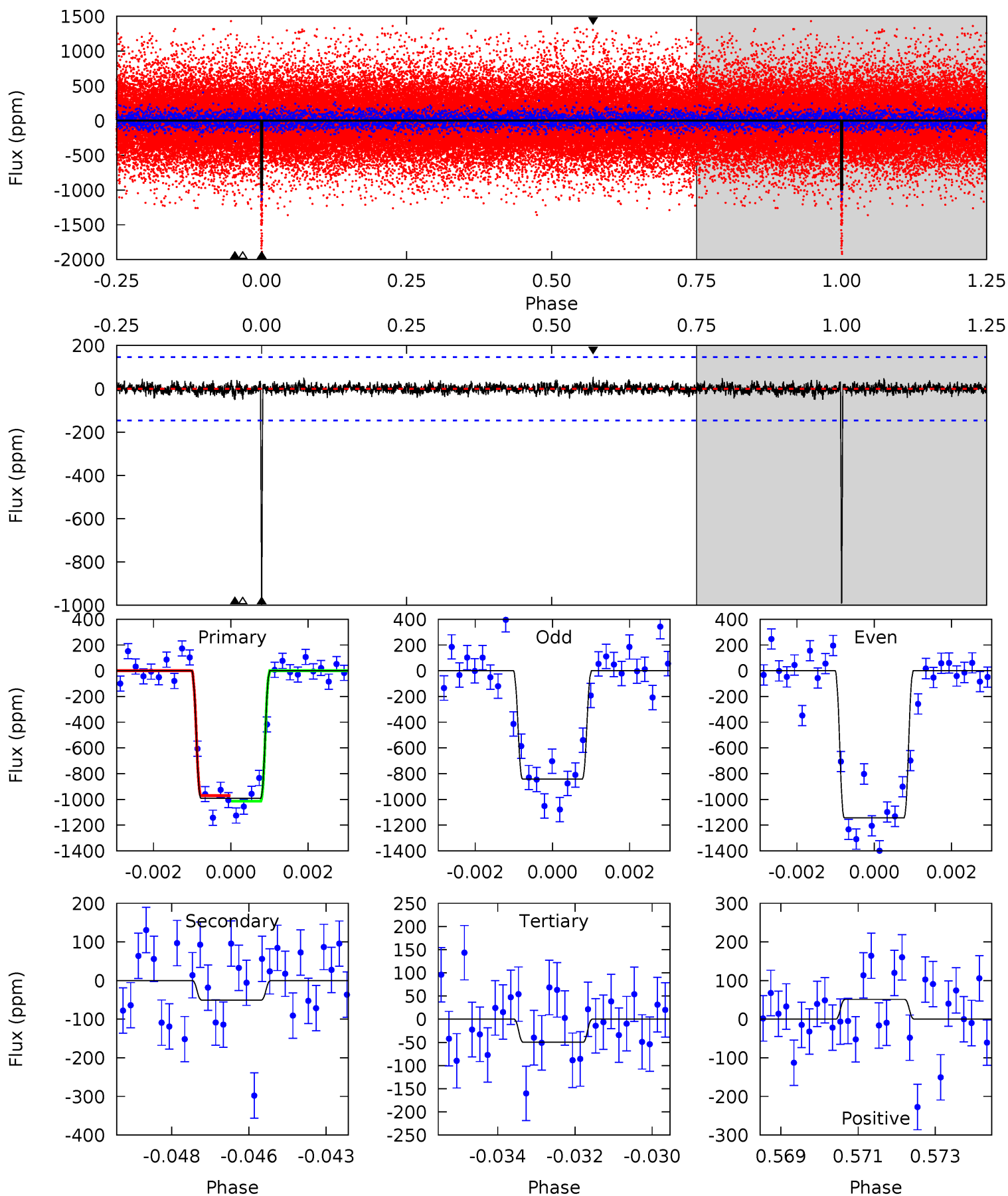
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.1	6.31	4.40	5.98	5.29	3.03	1.58	26.7	25.1	1.91	0.33	4.19	0.87	0.16	0.52



Alt Model-Shift Uniqueness Test

008282846-01, P = 133.298867 Days, E = 34.478141 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.0	1.83	1.81	1.86	5.30	3.05	0.45	34.2	34.2	0.02	-0.03	5.50	0.99	0.05	0.78



Stellar Parameters For KIC 008282846

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5064^{+75}_{-83}	$4.474^{+0.084}_{-0.030}$	$0.180^{+0.150}_{-0.150}$	$0.864^{+0.039}_{-0.077}$	$0.811^{+0.052}_{-0.030}$	$1.769^{+0.556}_{-0.195}$
	+1%/-2%	+2%/-1%	+83%/-83%	+5%/-9%	+6%/-4%	+31%/-11%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 008282846-01 / KOI 4015.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-201 ± 32	$2.94^{+1.10}_{-1.10}$	418^{+10}_{-12}	3736^{+708}_{-379}	2928^{+4869}_{-1443}
Alt.	-50 ± 28	$2.96^{+1.10}_{-1.13}$	418^{+10}_{-11}	2979^{+567}_{-359}	662^{+1409}_{-414}

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

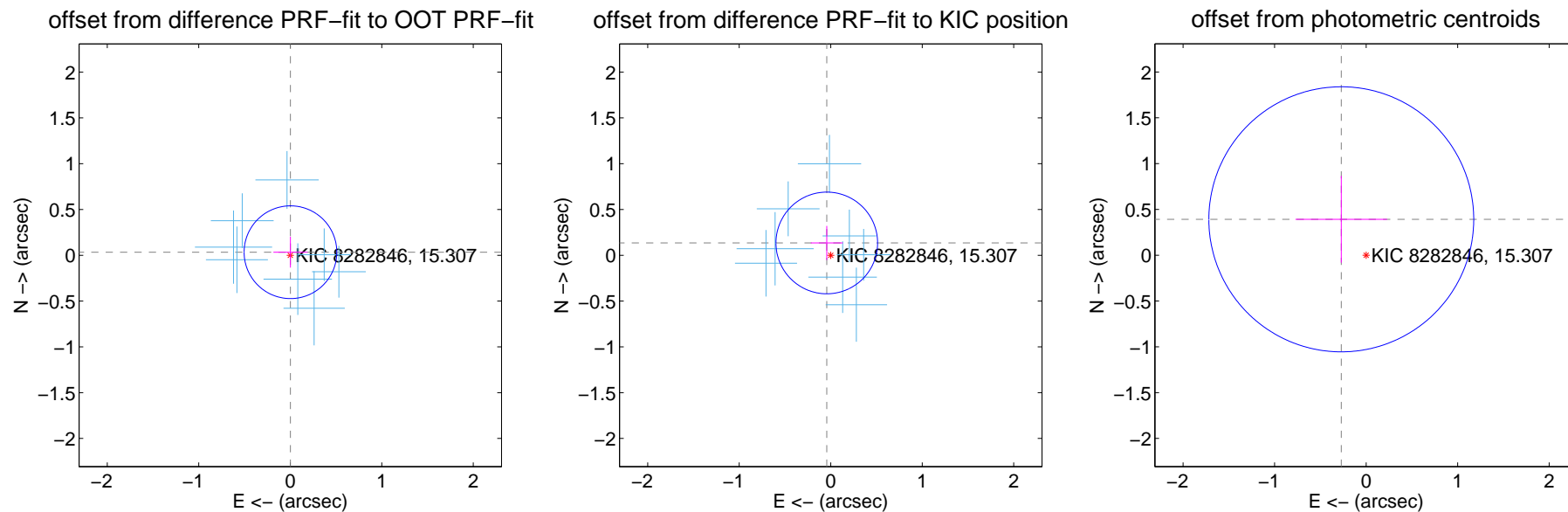
DV Centroid Data

Supplemental centroid analysis for 008282846-01. Kepler magnitude: 15.31. Transit SNR 19.43

There are 8 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

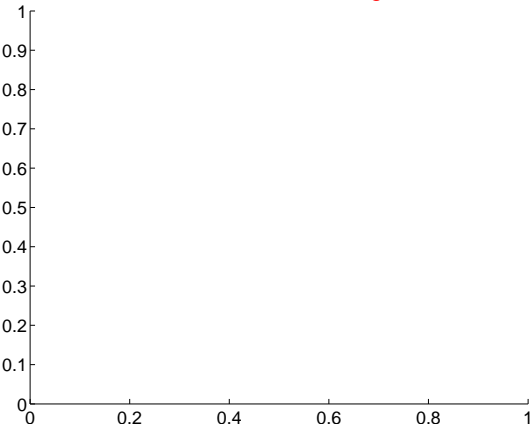
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.034 ± 0.169	0.20	-0.002 ± 0.187	0.033 ± 0.169
PRF-fit source offset from KIC position	0.141 ± 0.185	0.76	0.043 ± 0.175	0.135 ± 0.186
photometric centroid source offset	0.48 ± 0.48	0.99	0.27 ± 0.50	0.39 ± 0.47



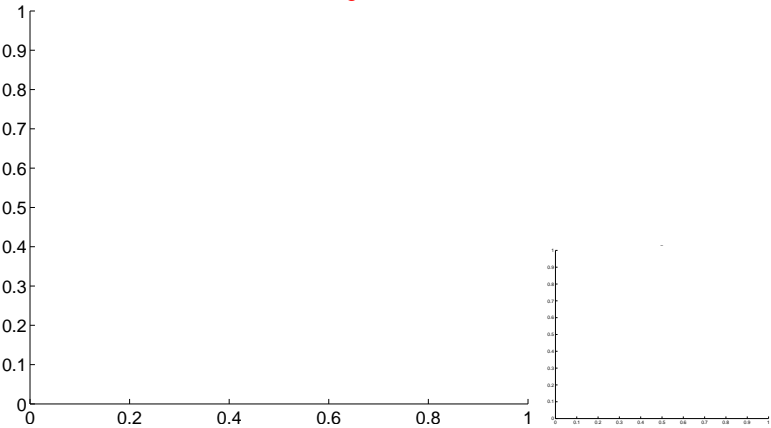
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

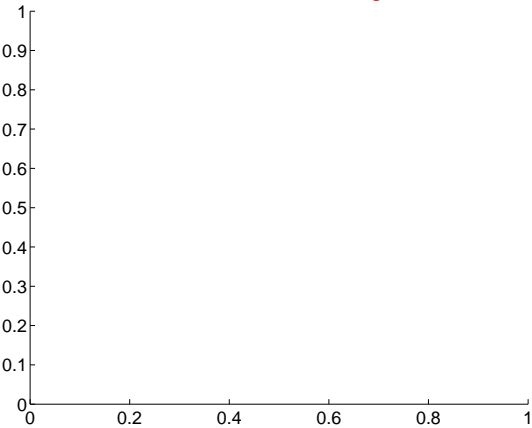
Q1 no difference image



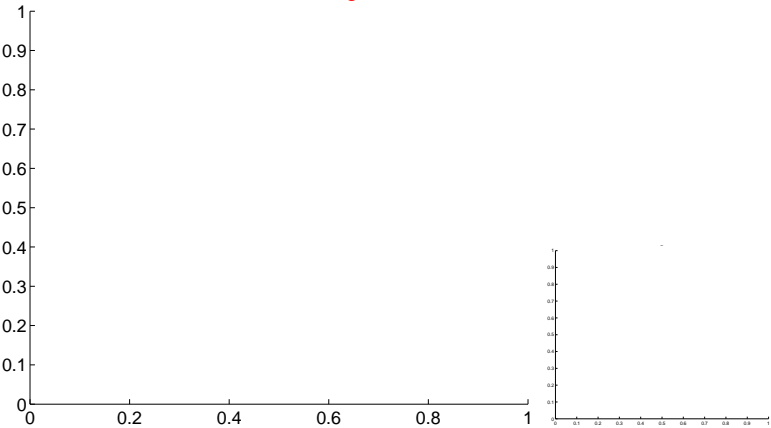
Q1 no OOT image



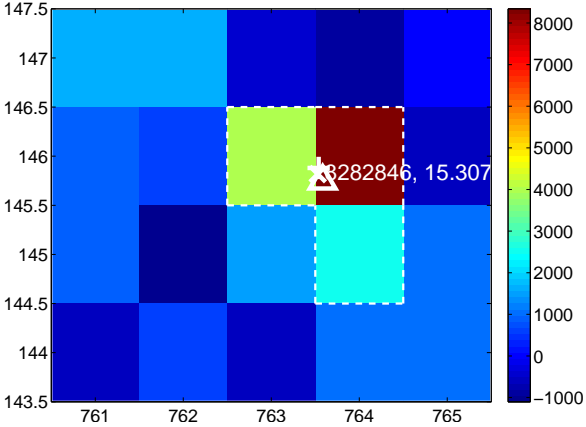
Q2 no difference image



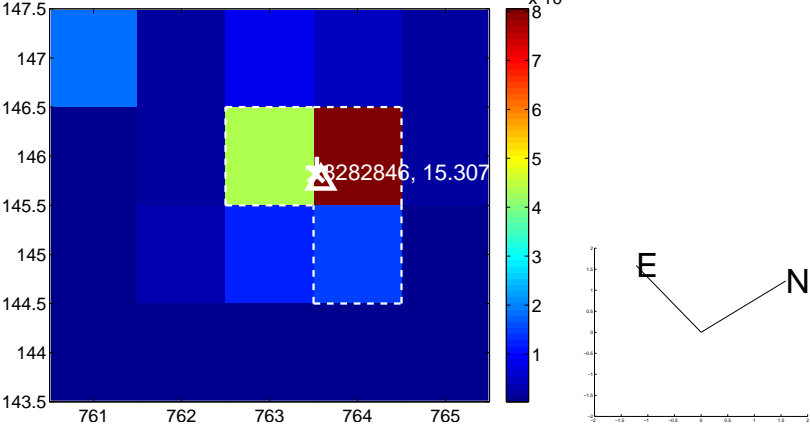
Q2 no OOT image



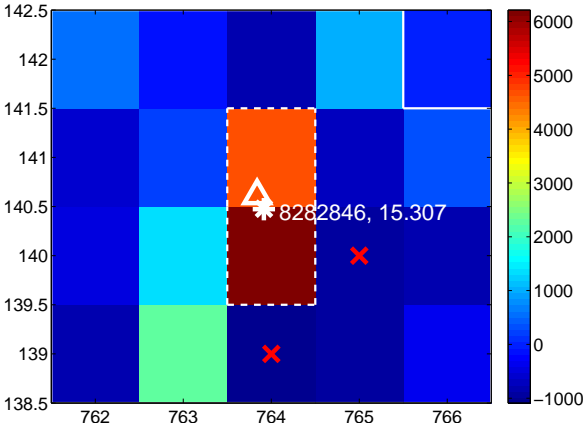
Q3 difference image



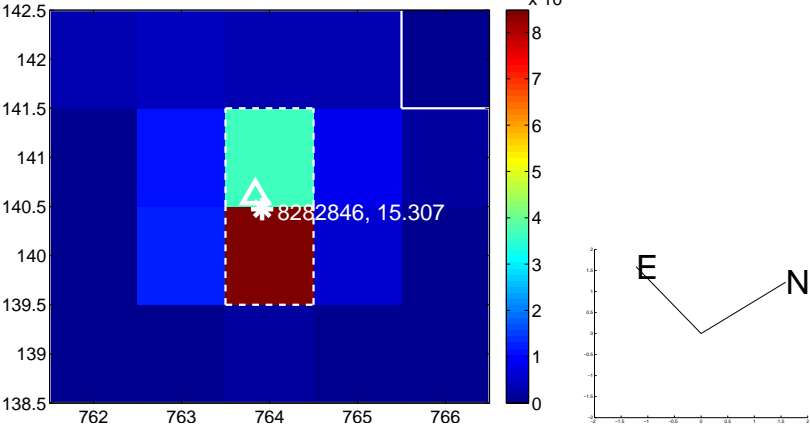
Q3 OOT image



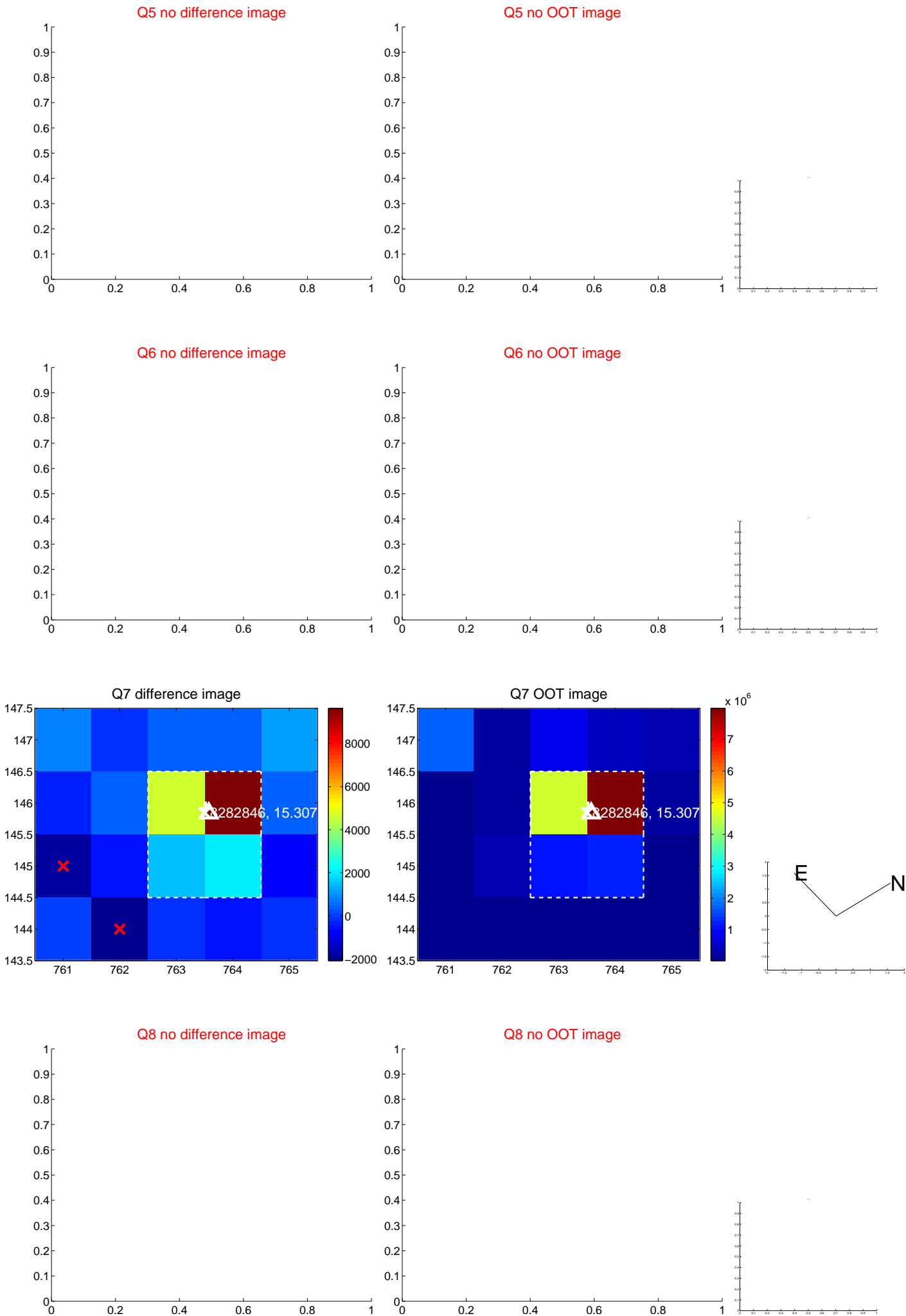
Q4 difference image



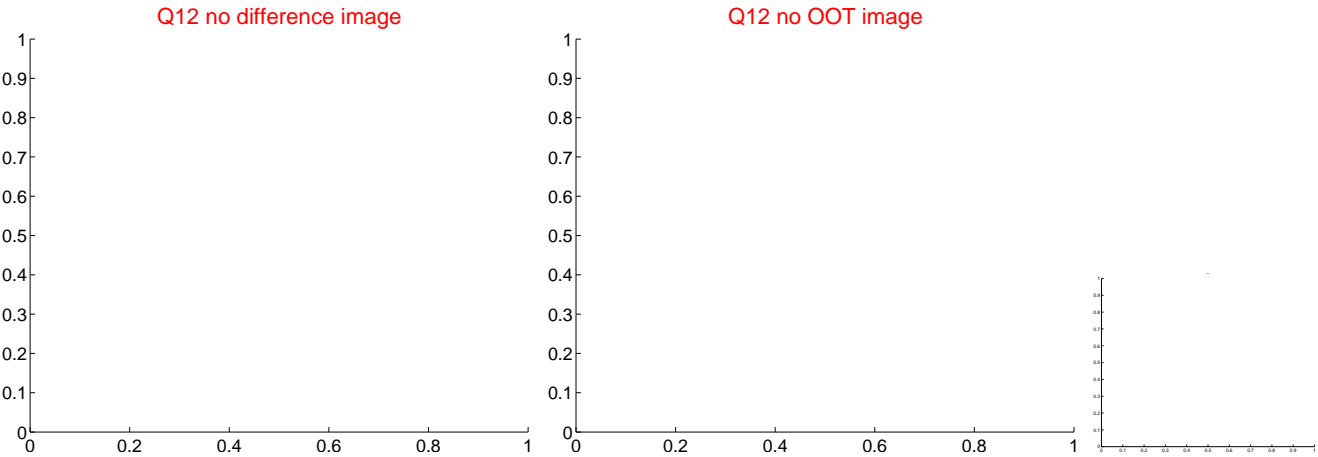
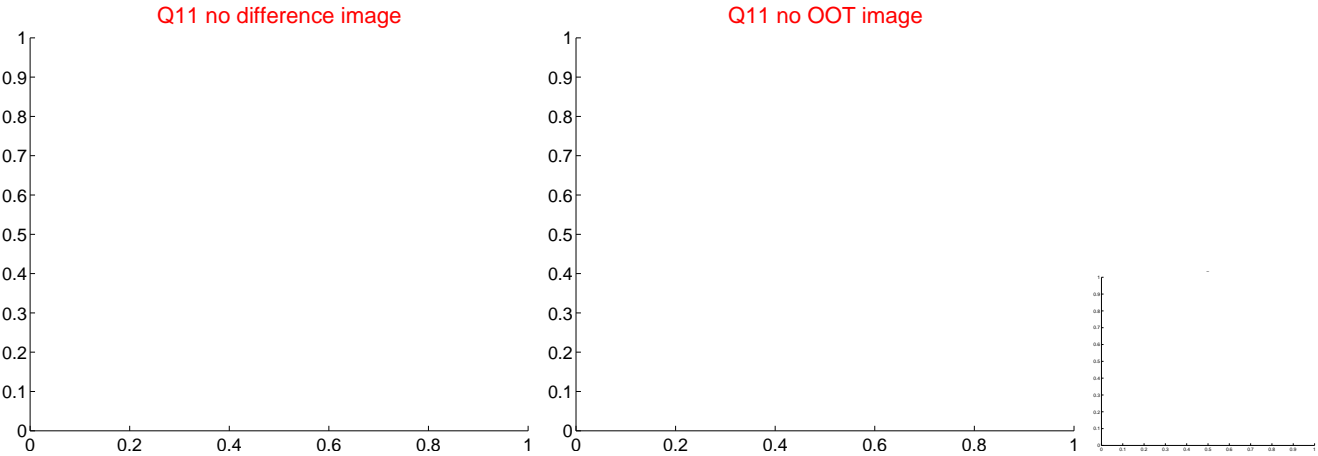
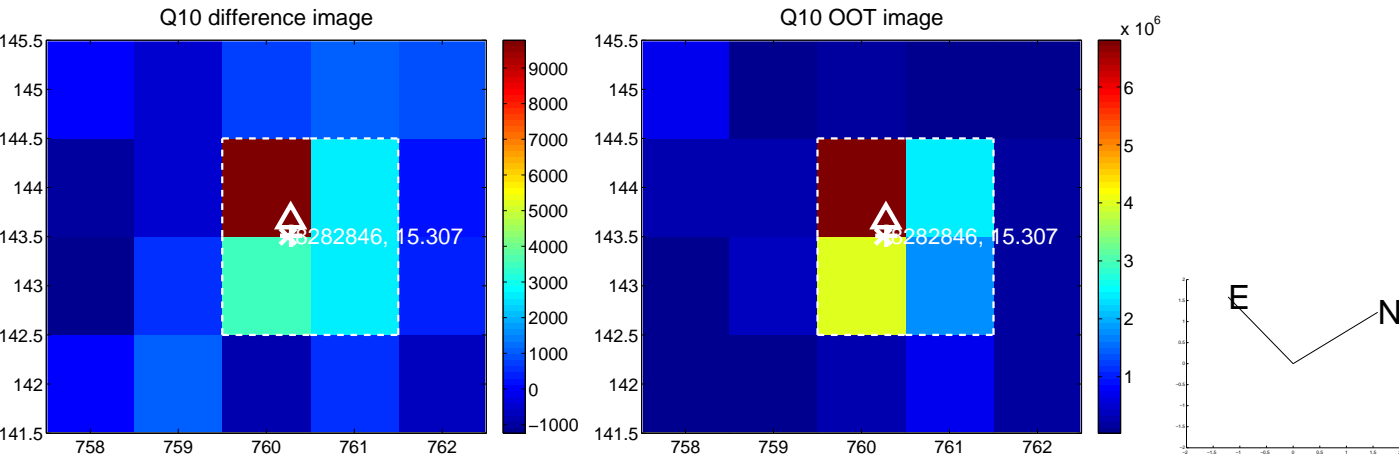
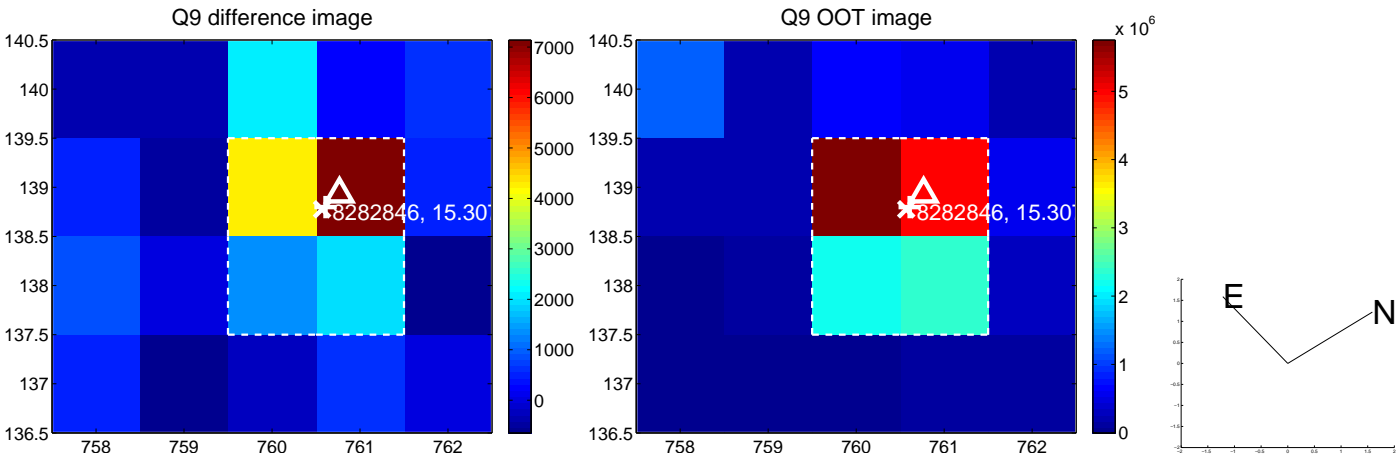
Q4 OOT image



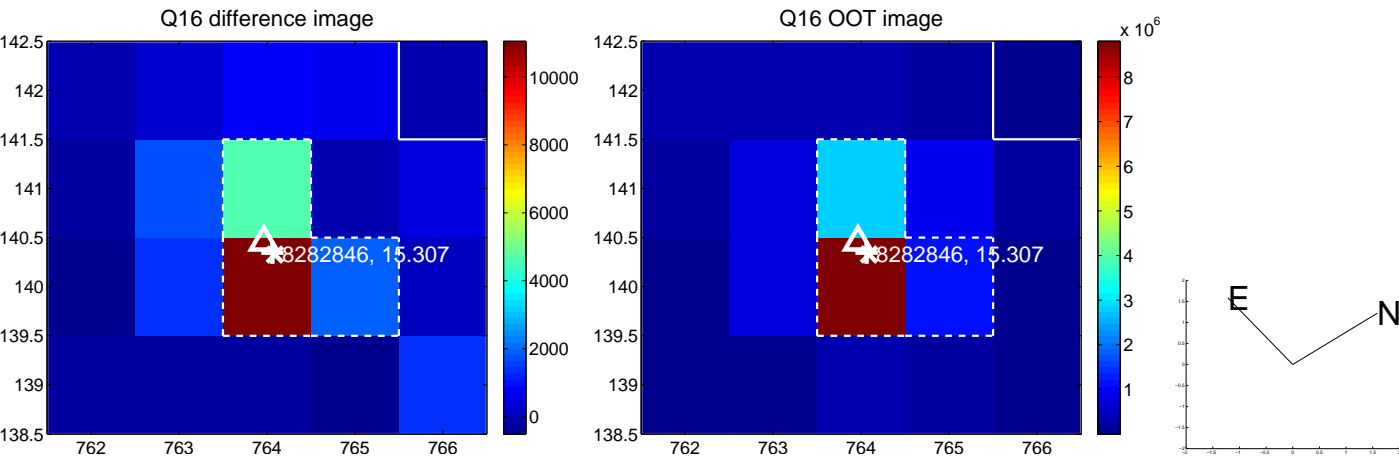
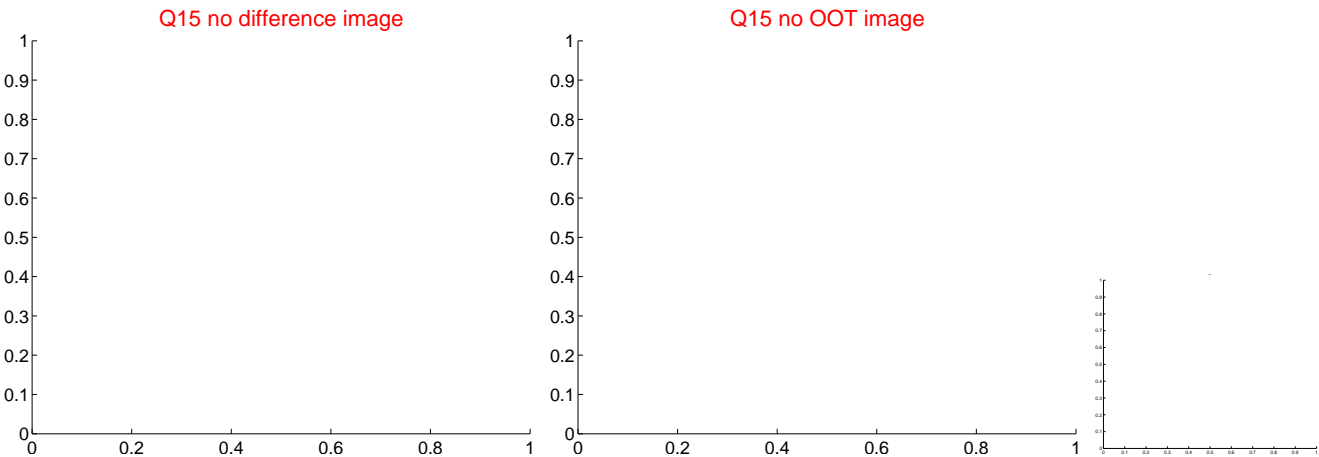
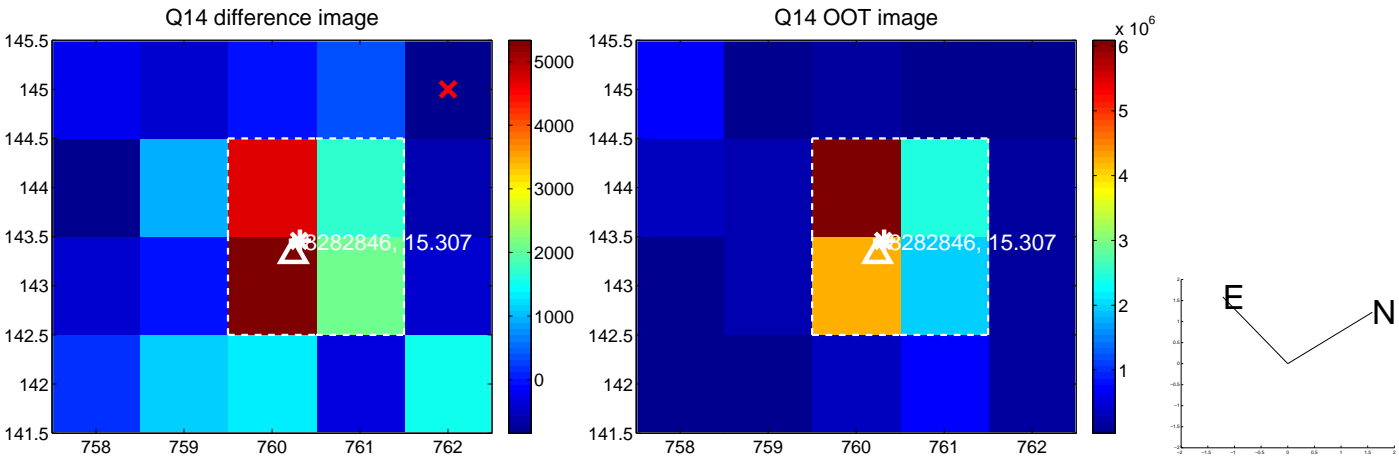
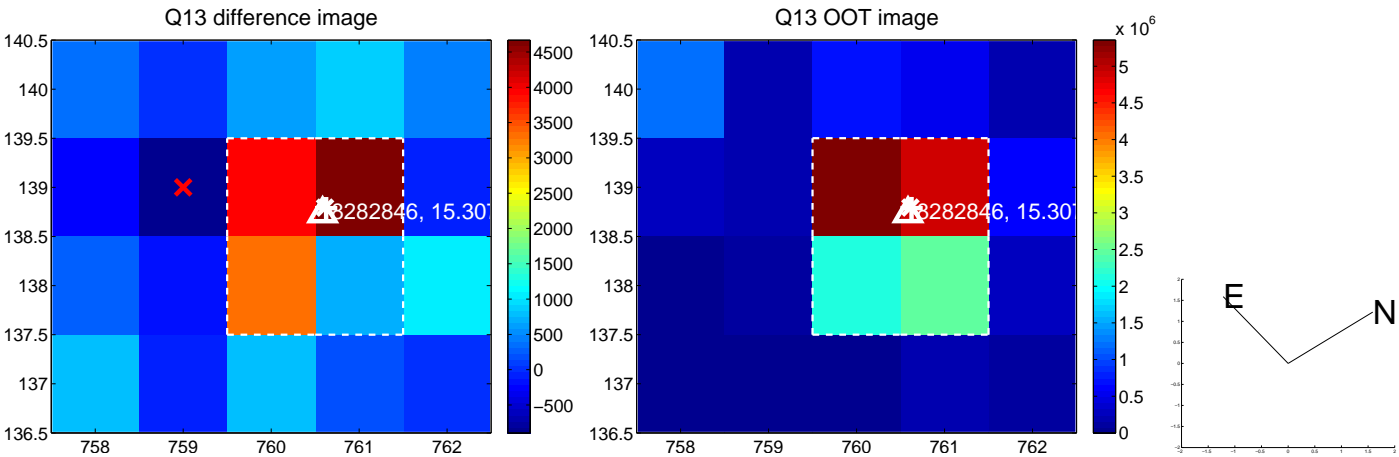
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



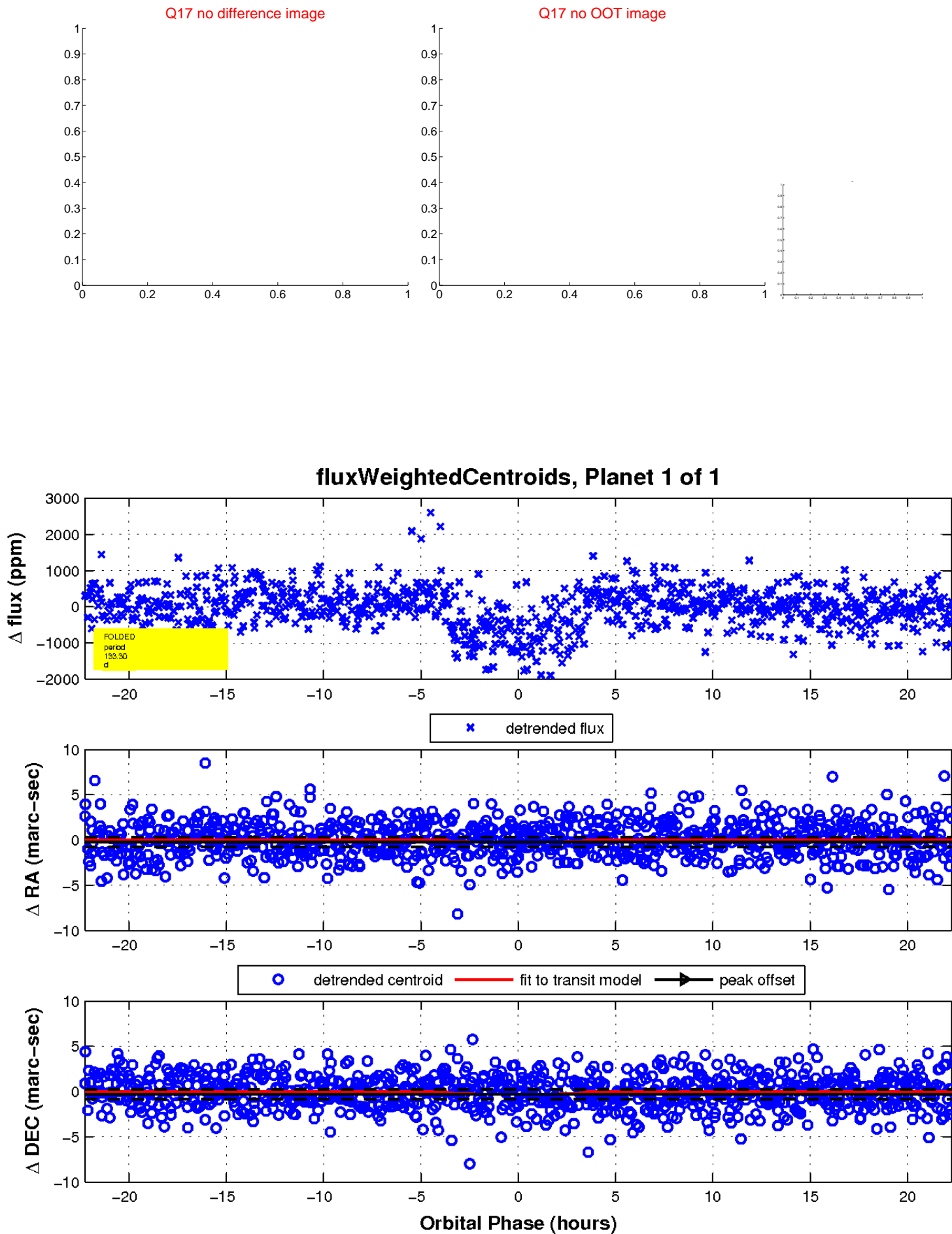
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

