

KIC 005817533

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})
005817533-01	OBS	4293.01	4.206112	132.248872	142.1	9.099	12.2	12.9	0.80	5480	1.92	235.66
005817533-02	OBS	No	1.099316	131.793277	58.8	6.449	8.3	10.0	0.80	5480	0.63	1410.27
005817533-03	OBS	No	40.158335	147.755883	1161.3	1.884	8.9	9.0	0.80	5480	5.43	11.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817533-01	OBS	FP	0.00	0	0	1	1	CENT_UNRESOLVED_OFFSET—EPHEM_MATCH
005817533-02	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_UNRESOLVED_OFFSET
005817533-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—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 005817533-01

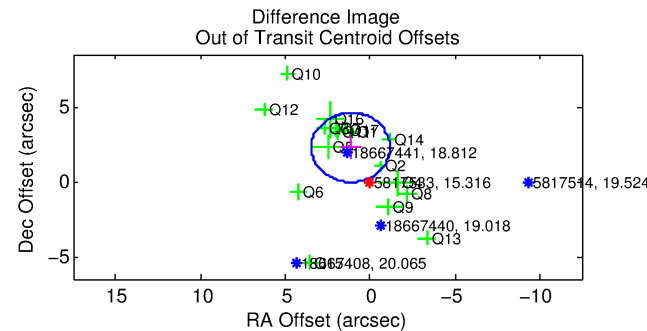
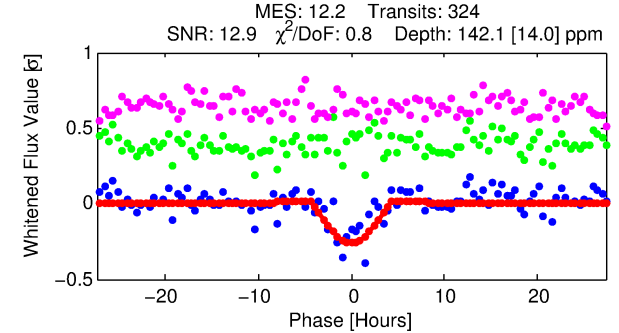
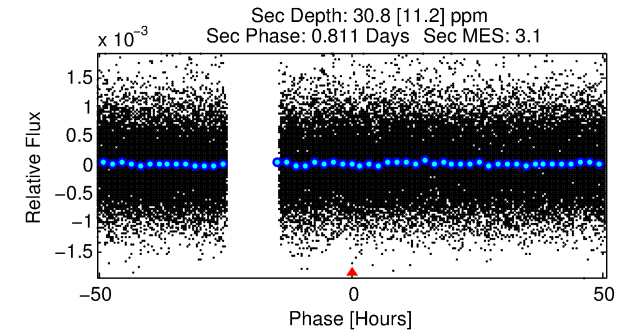
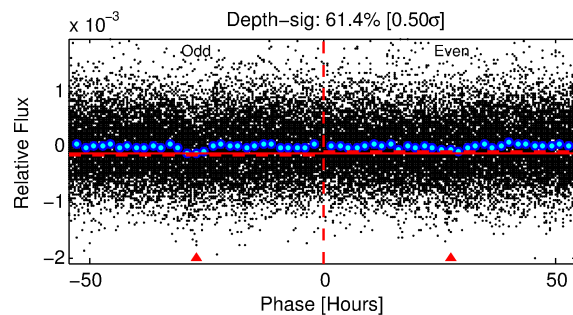
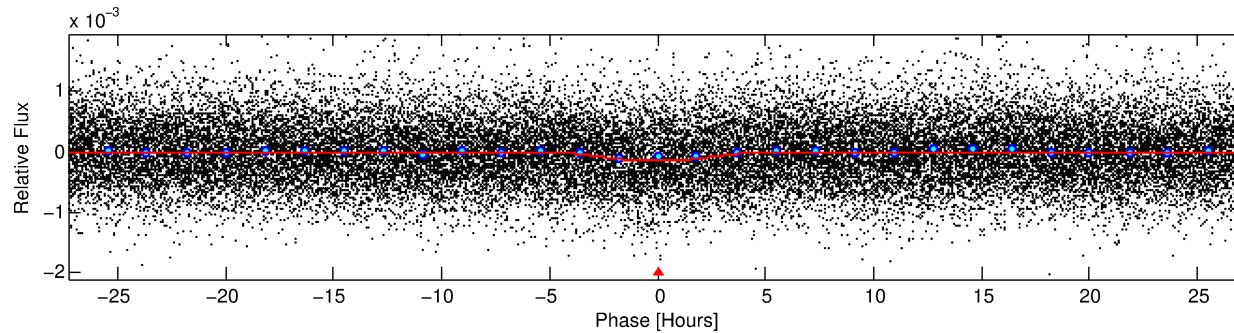
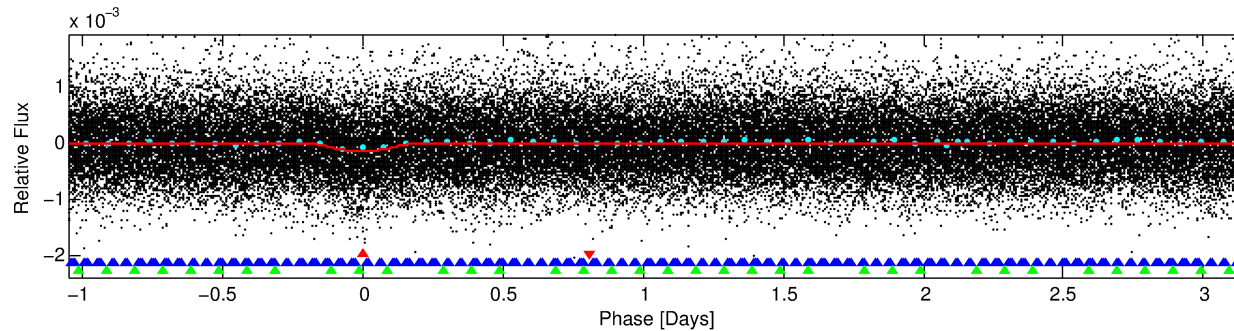
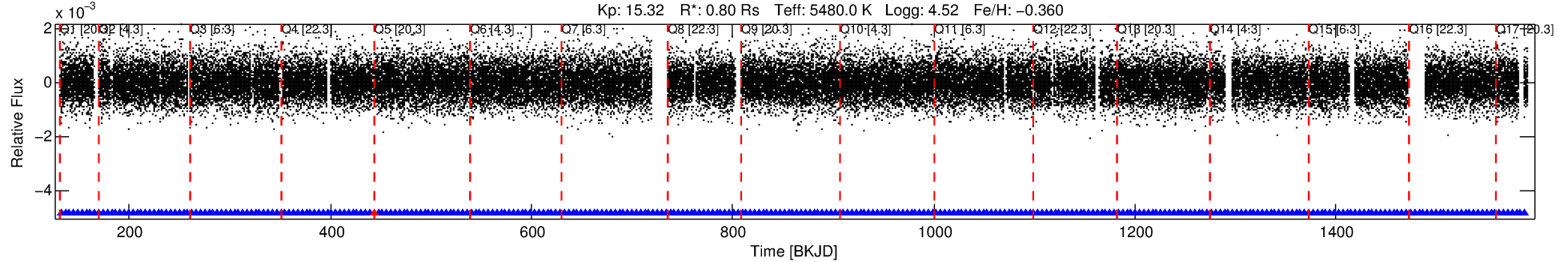
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
005817533-01	5817533	005817566-sec	5817566	1:2	51.4	-9	9	11.68	15.31	1097.20	Direct-PRF	0	0.33	0.84

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 5817533 Candidate: 1 of 3 Period: 4.206 d
KOI: K04293 Corr: No Ephemeris Match

Kp: 15.32 R*: 0.80 Rs Teff: 5480.0 K Logg: 4.52 Fe/H: -0.360



DV Fit Results:

Period = 4.20611 [0.00009] d
Epoch = 132.2489 [0.0163] BKJD
Rp/R* = 0.0219 [0.0514]
a/R* = 1.27 [0.26]
b = 1.00 [0.08]
Seff = 235.66 [59.43]
Teq = 999 [63] K
Rp = 1.92 [4.51] Re
a = 0.0470 [0.0072] AU
Ag = 10.14 [47.67] [0.19σ]
Teffp = 2757 [3237] K [0.54σ]

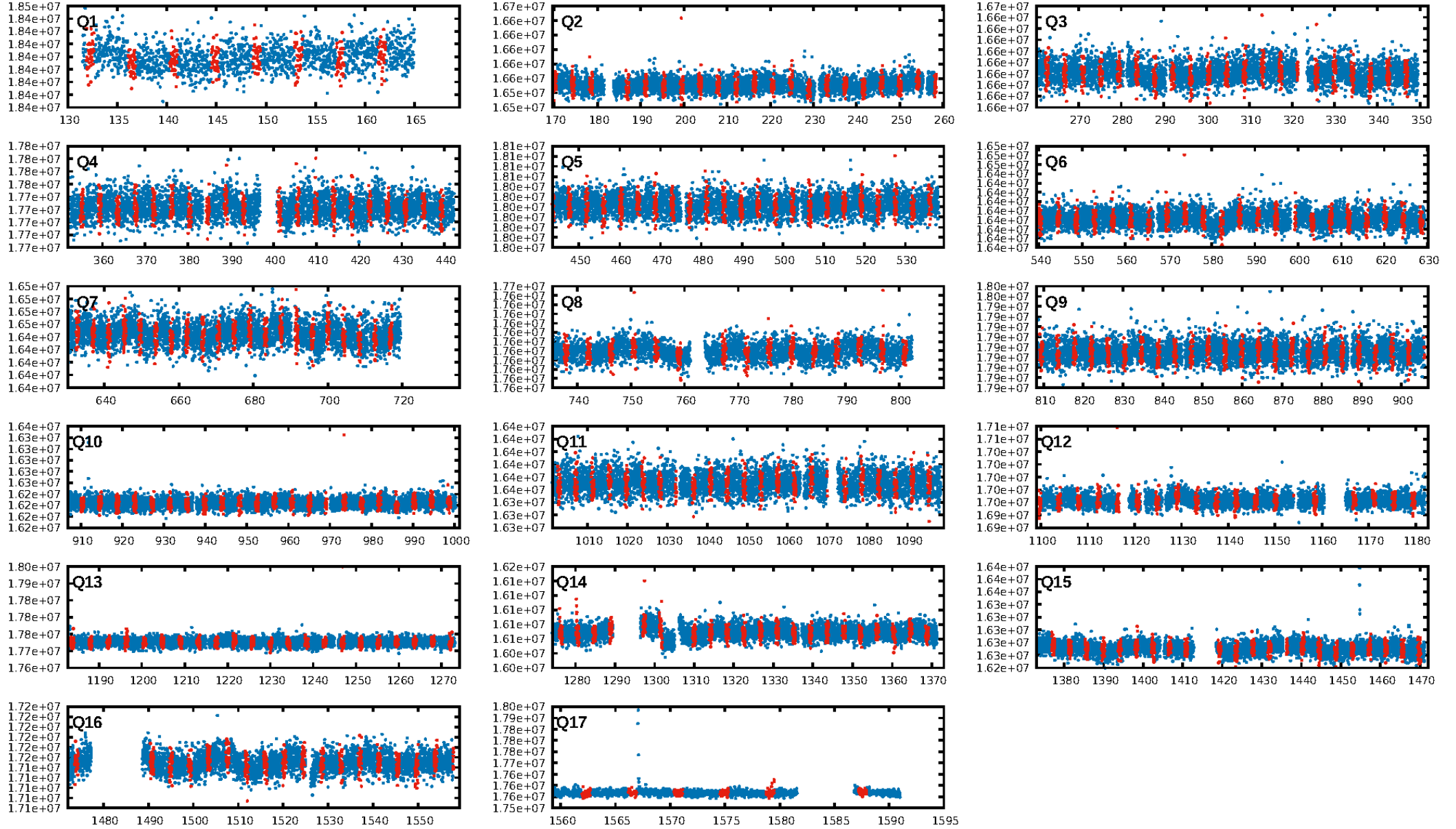
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.69σ]
LongPeriod-sig: 100.0% [92.86σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.02e-27
RollingBand-fgt: 1.00 [309/310]
GhostDiagnostic-chr: 0.3438
Centroid-sig: 4.8%
Centroid-so: 1.022 arcsec [0.84σ]
OotOffset-rm: 2.554 arcsec [3.31σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 2.367 arcsec [2.70σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.18 [3/17]
DiffImageOverlap-fno: 0.00 [0/17]

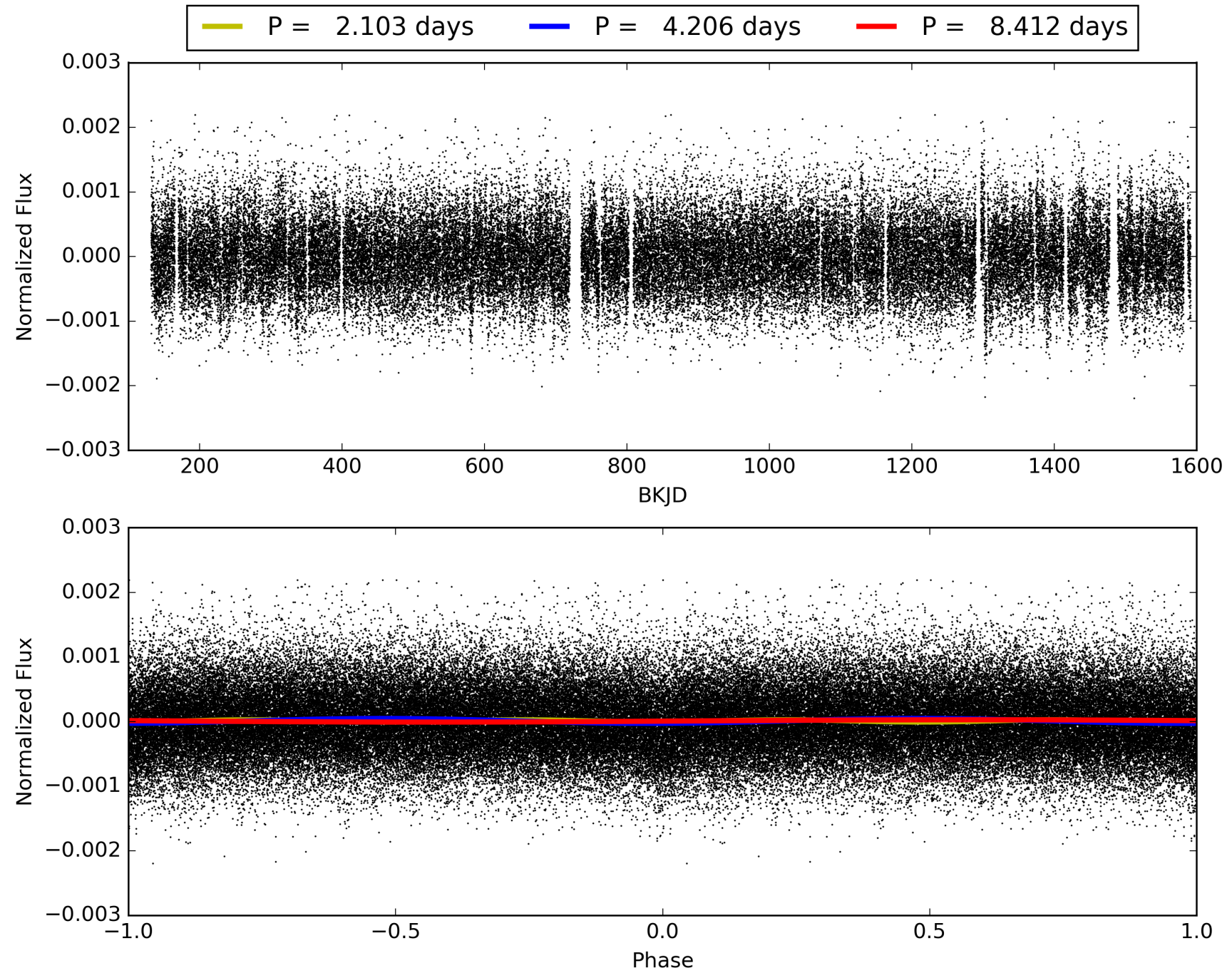
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:33:48 Z

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

TCE 005817533-01, PDC Light Curves

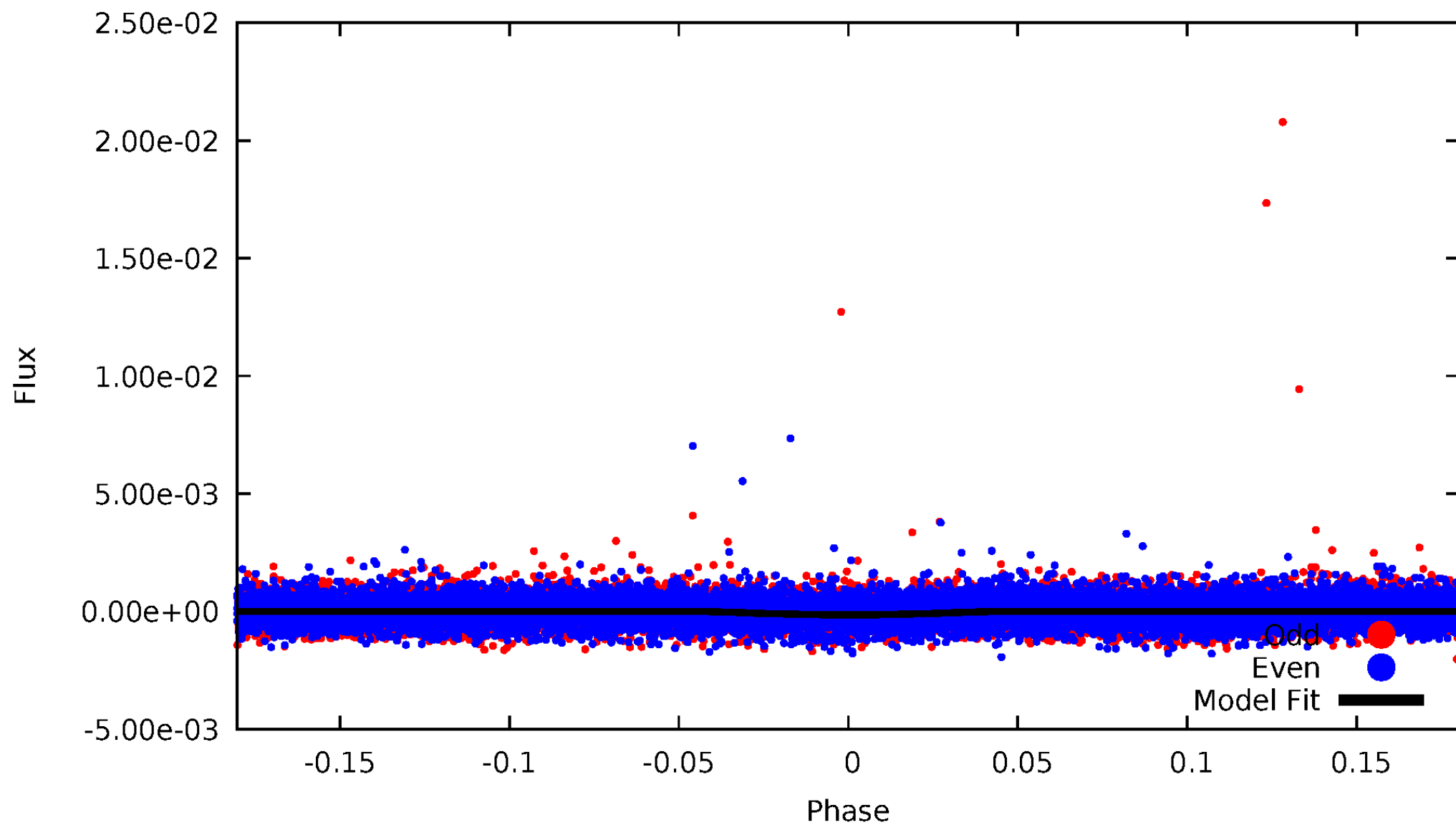


TCE 005817533-01



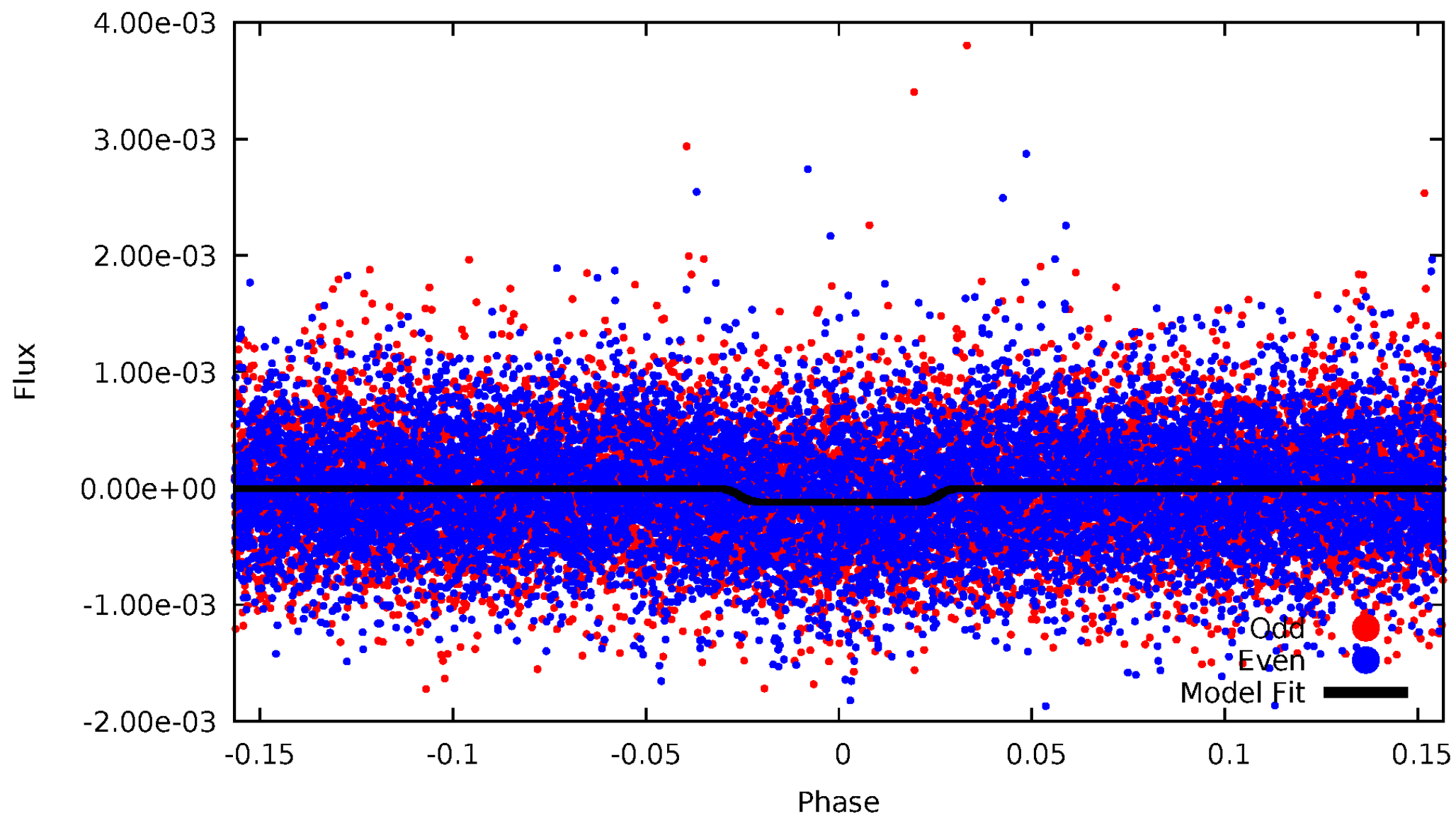
DV Odd/Even

TCE 005817533-01



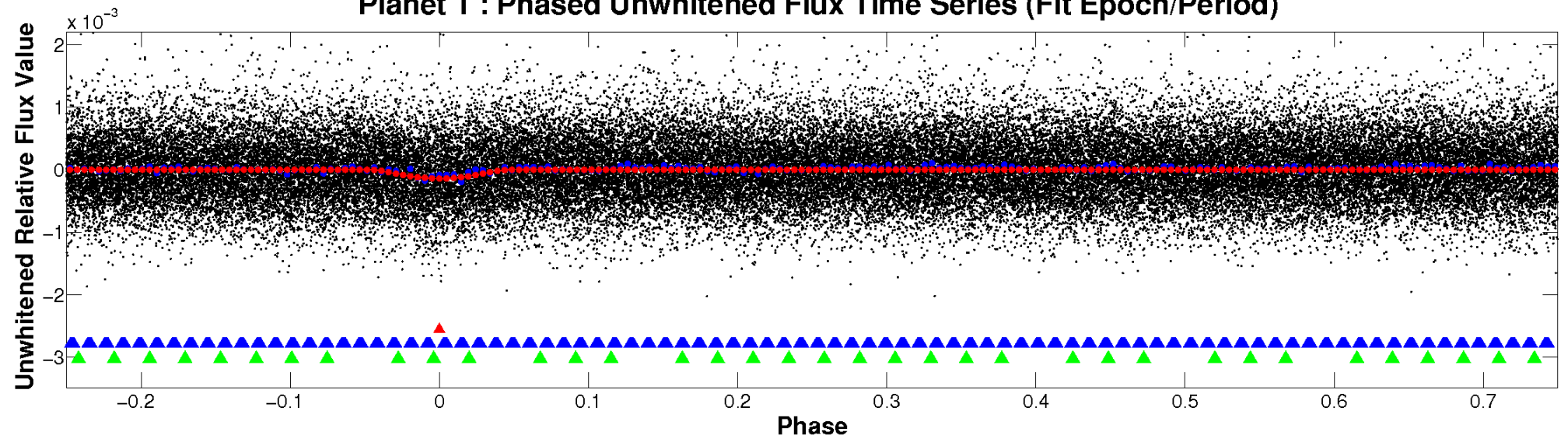
ALT Odd/Even

TCE 005817533-01

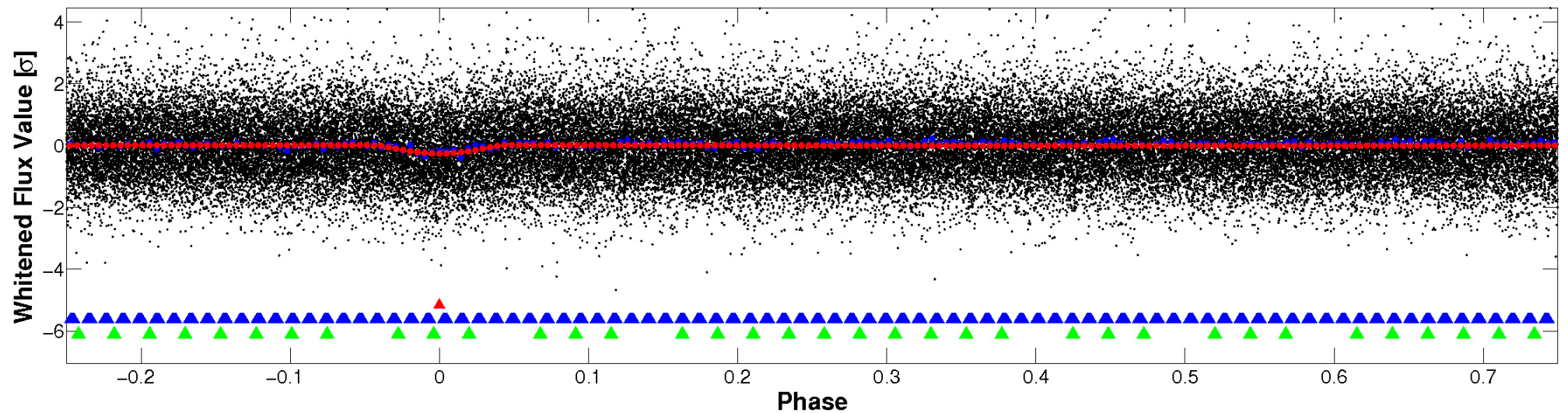


Non-Whitened Vs. Whitened Light Curve

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

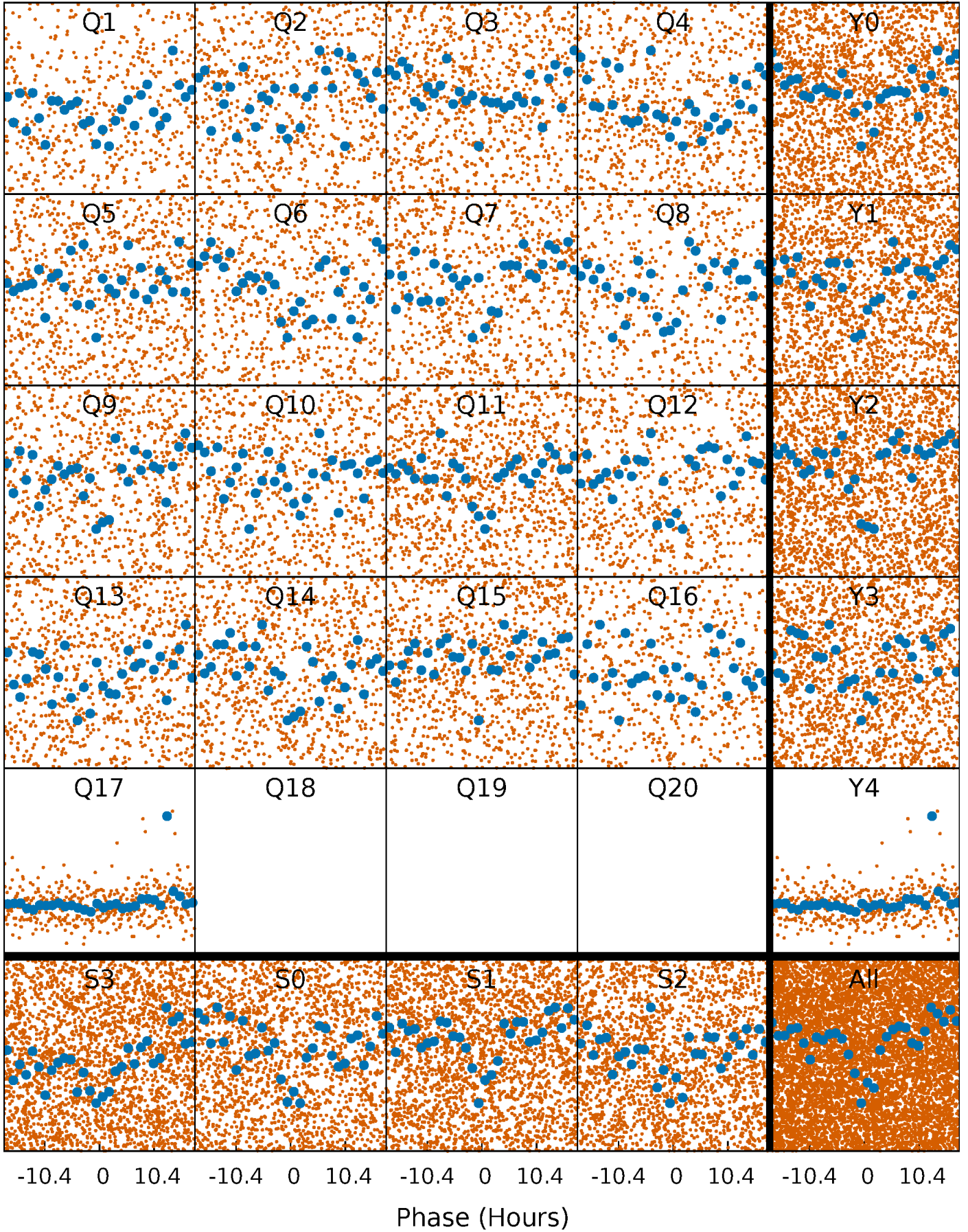


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



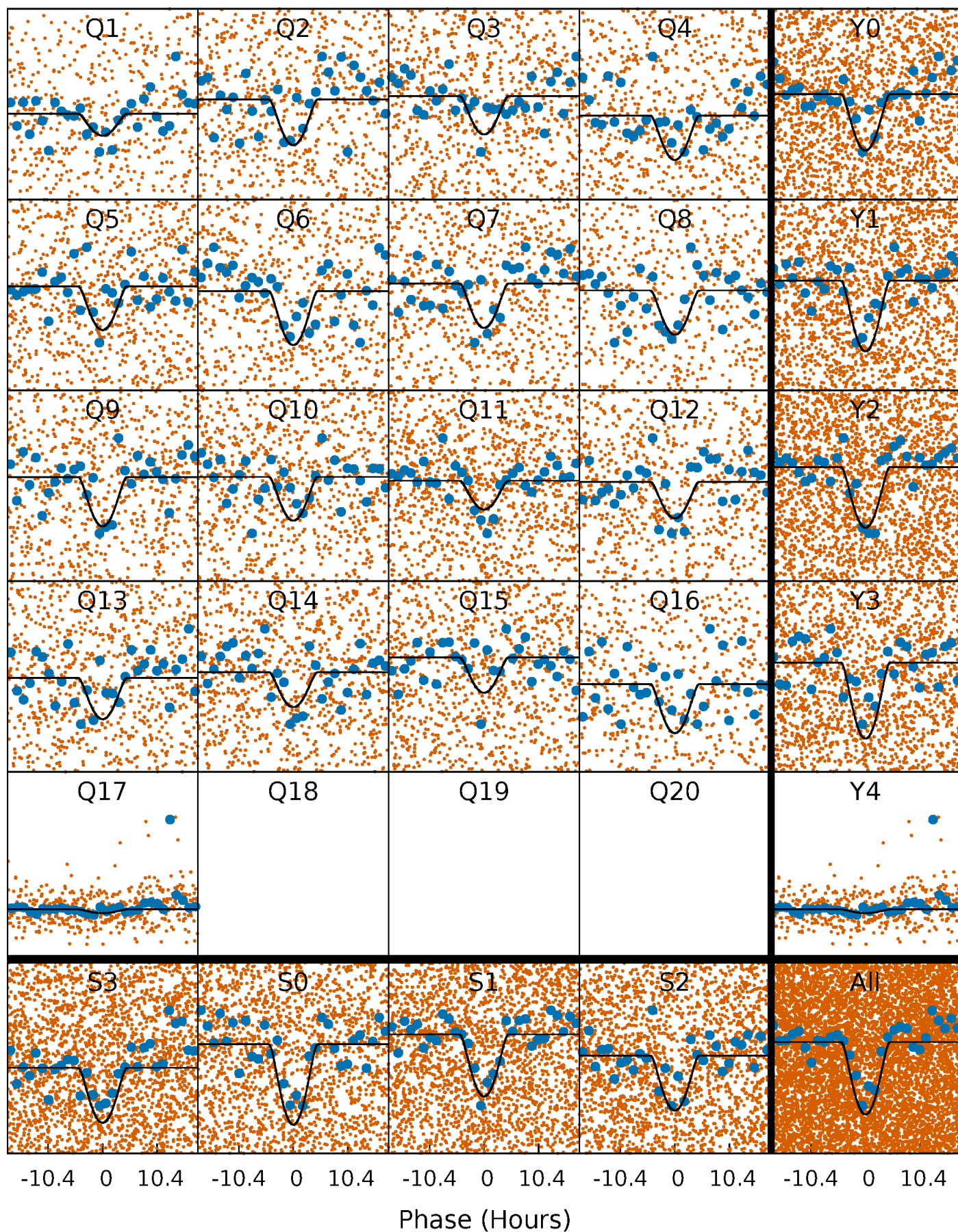
PDC Quarter-Phased Transit Curves

TCE 005817533-01 P= 4.206112 Days $T_0=132.248872$ (BKJD)



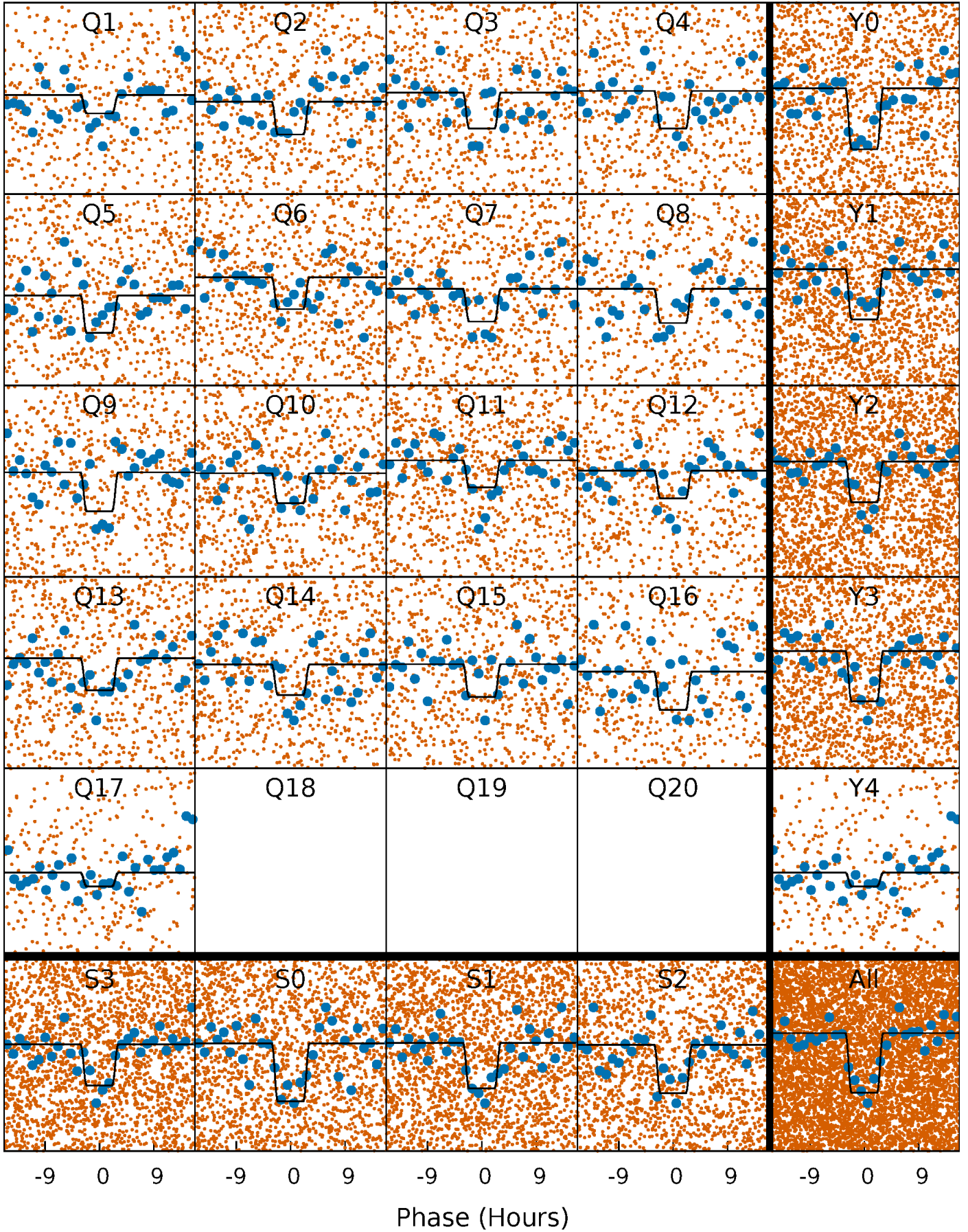
DV Quarter-Phased Transit Curves

TCE 005817533-01 P= 4.206112 Days $T_0=132.248872$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

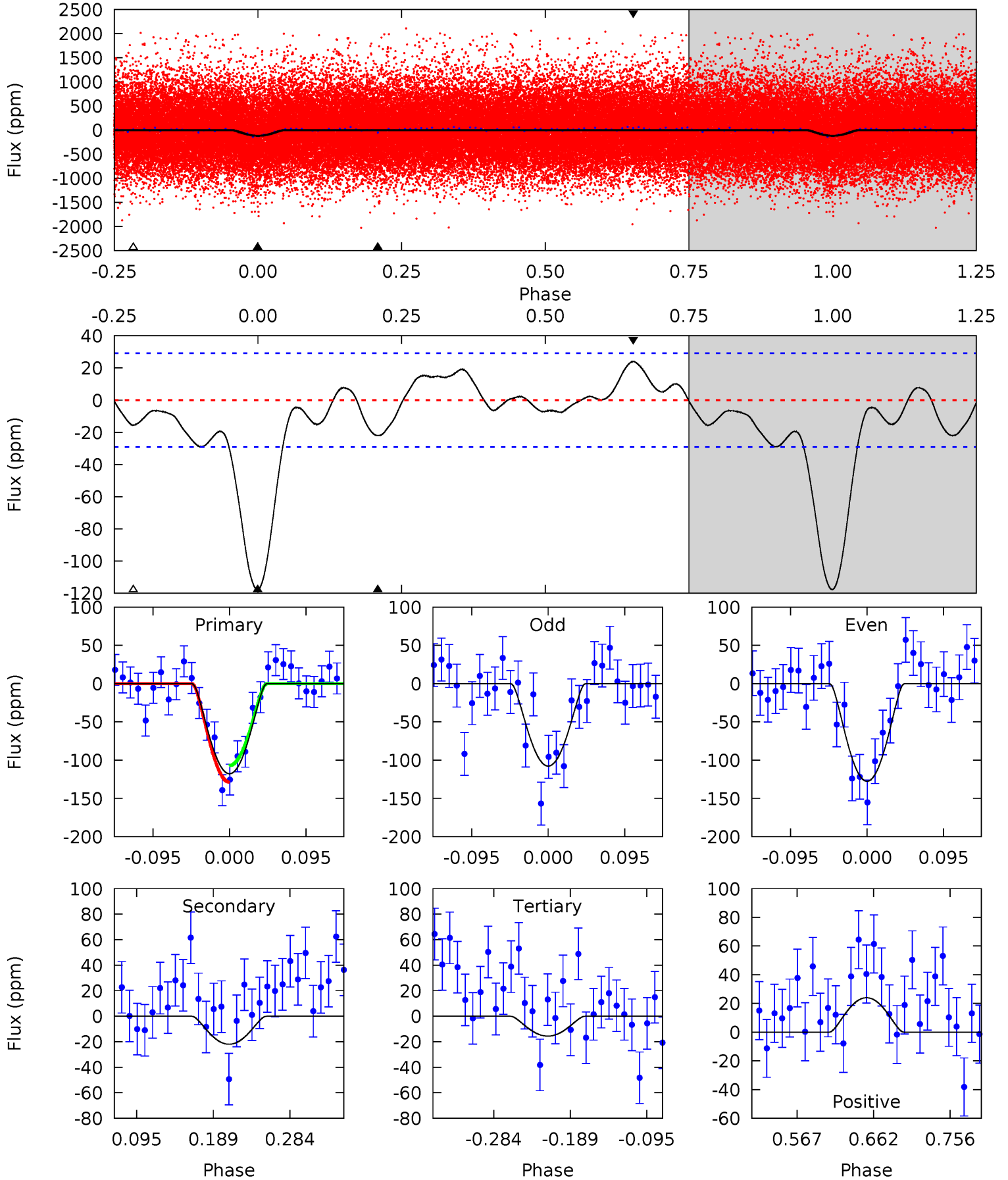
TCE 005817533-01 P= 4.205930 Days $T_0=132.273140$ (BKJD)



DV Model-Shift Uniqueness Test

005817533-01, P = 4.206112 Days, E = 128.042760 Days

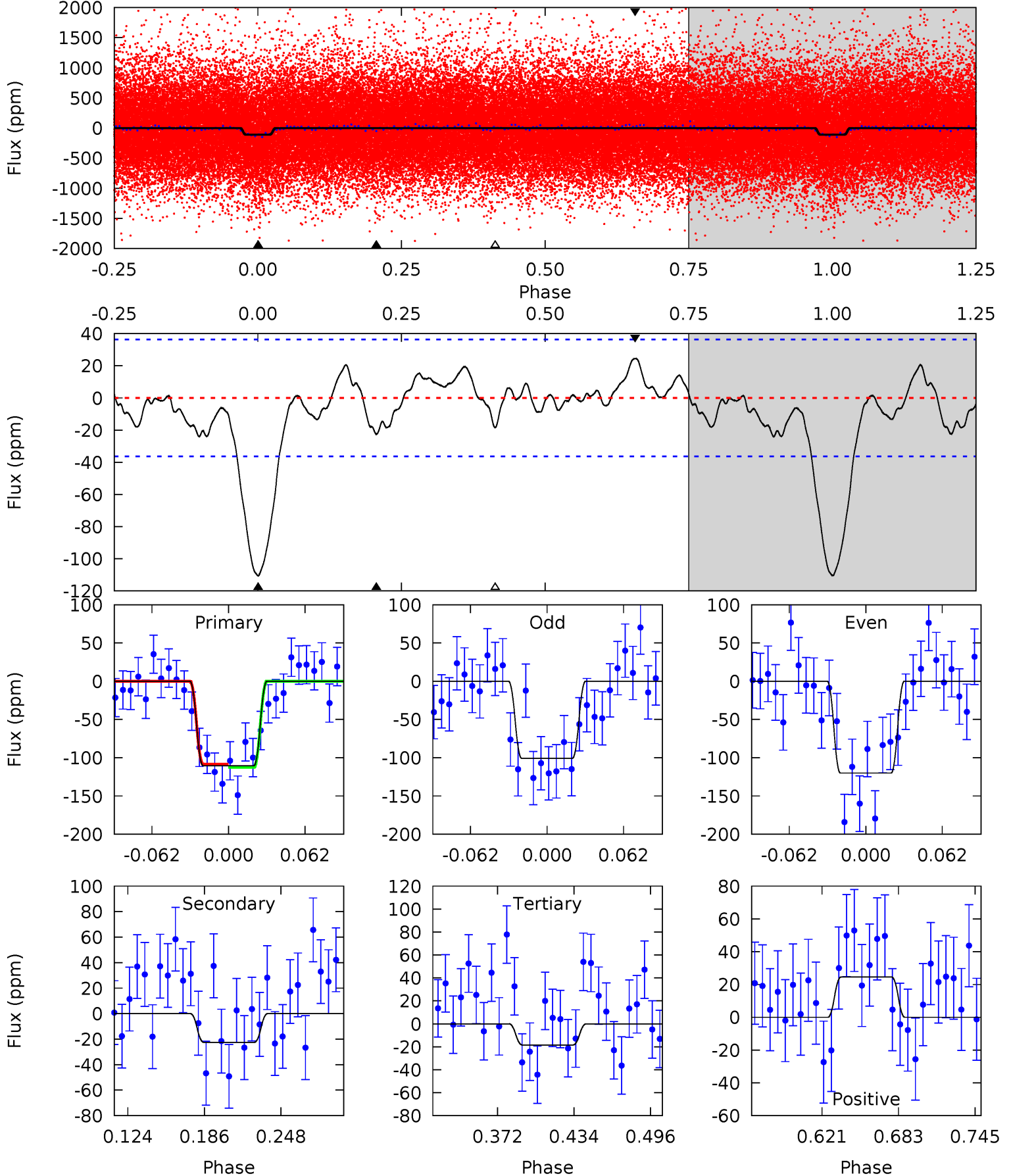
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	3.45	2.45	3.77	4.58	1.67	1.88	16.0	14.7	1.00	-0.31	1.55	0.98	0.17	1.71



Alt Model-Shift Uniqueness Test

005817533-01, P = 4.205930 Days, E = 128.067210 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	2.89	2.37	3.15	4.66	1.87	1.31	11.8	11.0	0.52	-0.26	1.24	0.98	0.18	0.27



Stellar Parameters For KIC 005817533

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5480^{+164}_{-164}	$4.522^{+0.080}_{-0.120}$	$-0.360^{+0.350}_{-0.300}$	$0.802^{+0.149}_{-0.092}$	$0.780^{+0.106}_{-0.062}$	$2.132^{+0.798}_{-0.734}$
	+3%/-3%	+2%/-3%	+97%/-83%	+19%/-11%	+14%/-8%	+37%/-34%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005817533-01 / KOI 4293.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-22 ± 6	$4.02^{+4.01}_{-2.73}$	1402^{+78}_{-60}	2505^{+1038}_{-634}	$1.640^{+13.932}_{-1.250}$
Alt.	-23 ± 8	$3.40^{+3.59}_{-2.43}$	1407^{+69}_{-66}	2602^{+1333}_{-587}	$2.194^{+27.661}_{-1.699}$

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 $A_{obs} \gg 1.0$

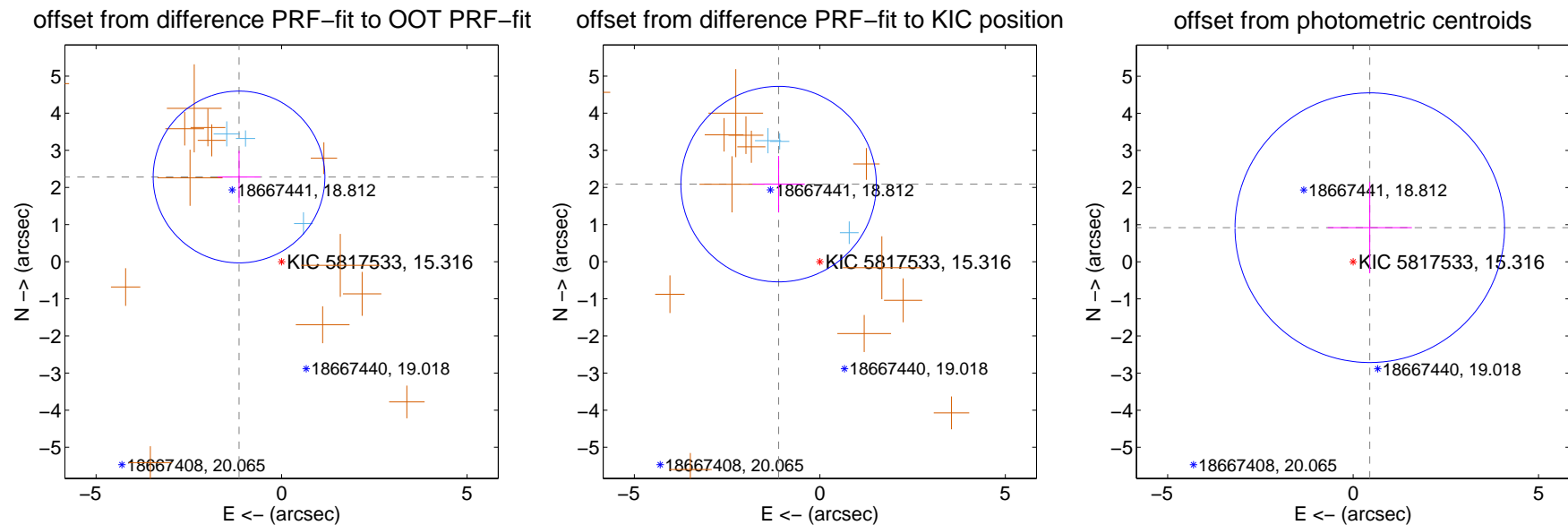
DV Centroid Data

Supplemental centroid analysis for 005817533-01. Kepler magnitude: 15.32. Transit SNR 12.88

There are 3 quarters with good PRF difference image offsets

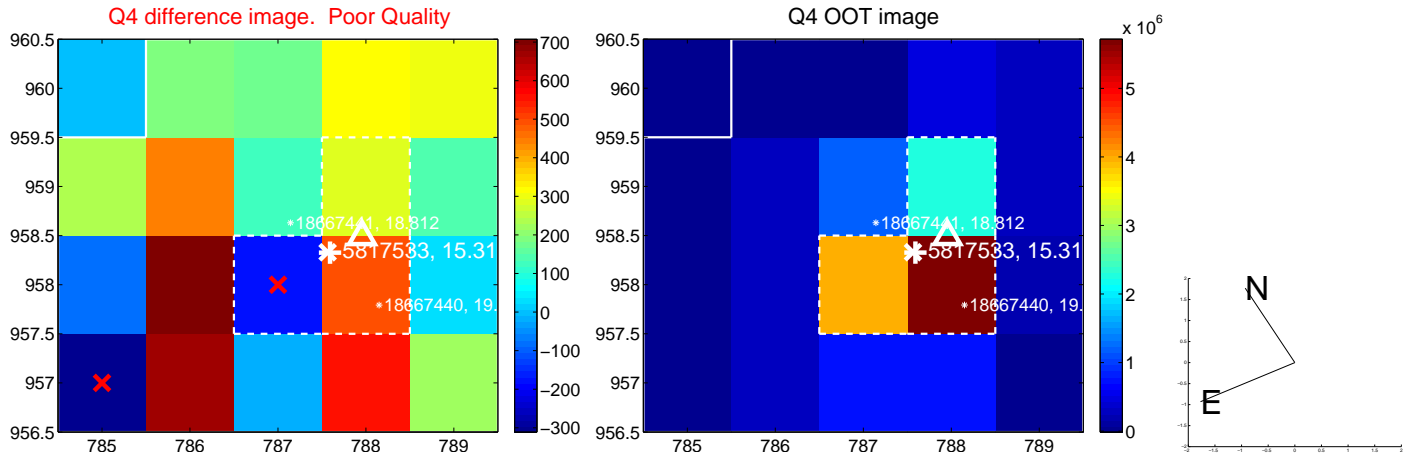
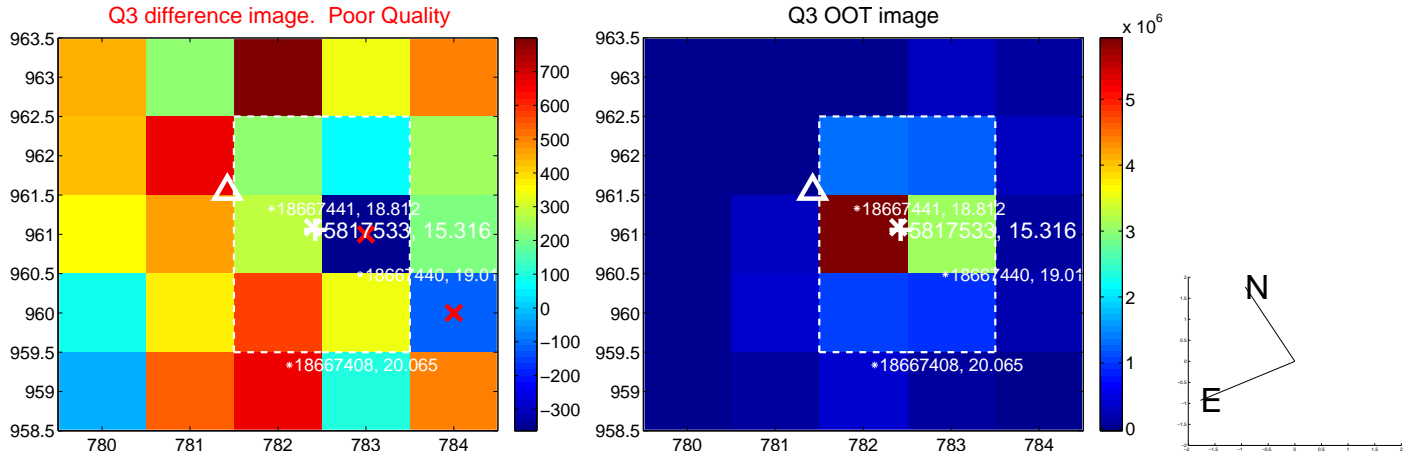
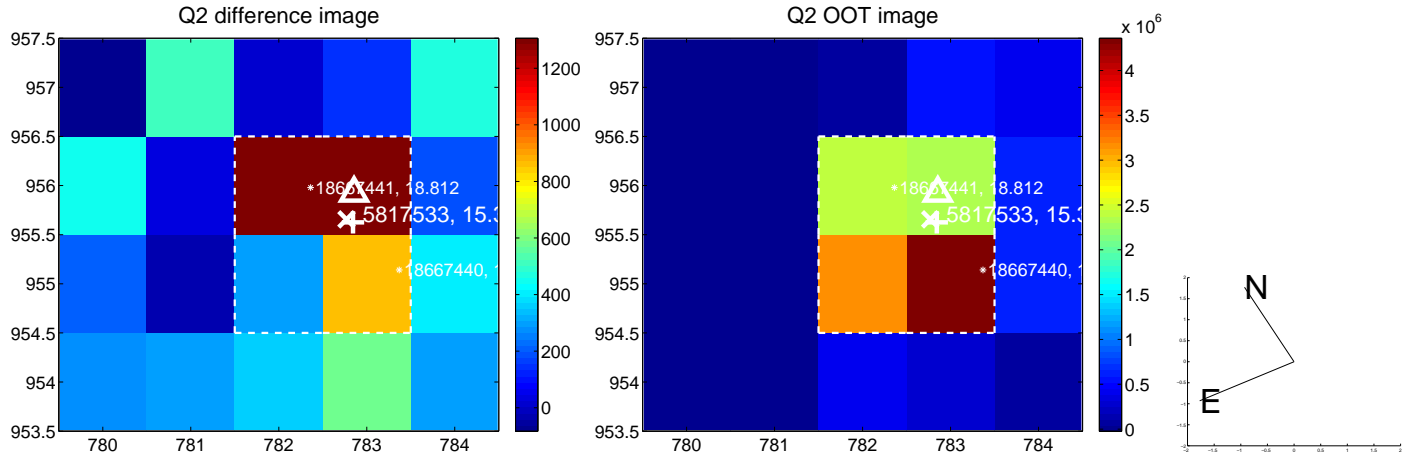
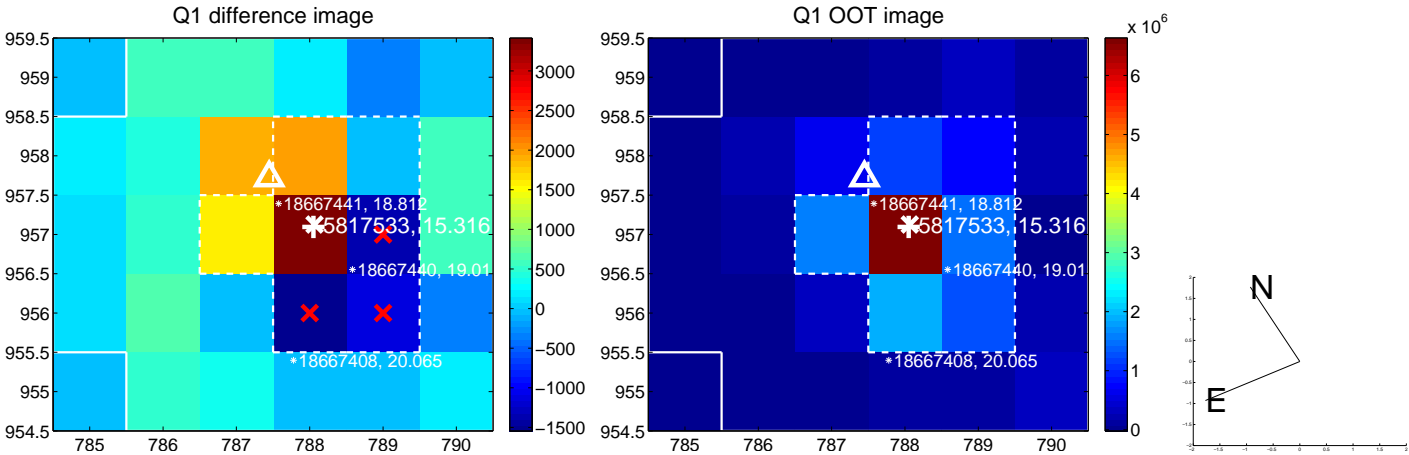
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.554 ± 0.771	3.31	1.146 ± 0.576	2.282 ± 0.705
PRF-fit source offset from KIC position	2.367 ± 0.878	2.70	1.111 ± 0.703	2.090 ± 0.758
photometric centroid source offset	1.02 ± 1.21	0.84	-0.45 ± 1.13	0.92 ± 1.23

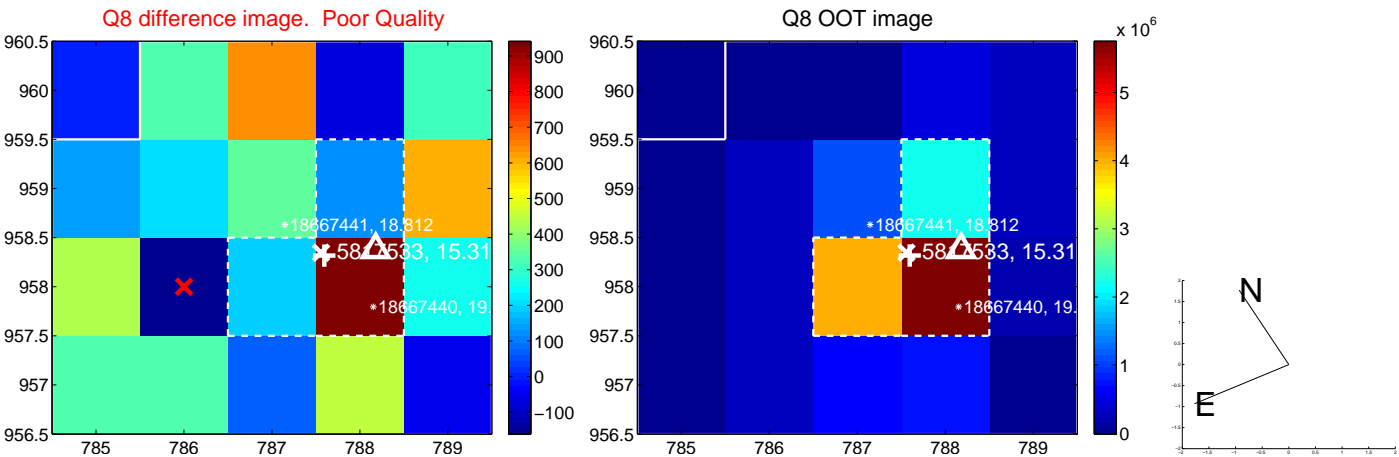
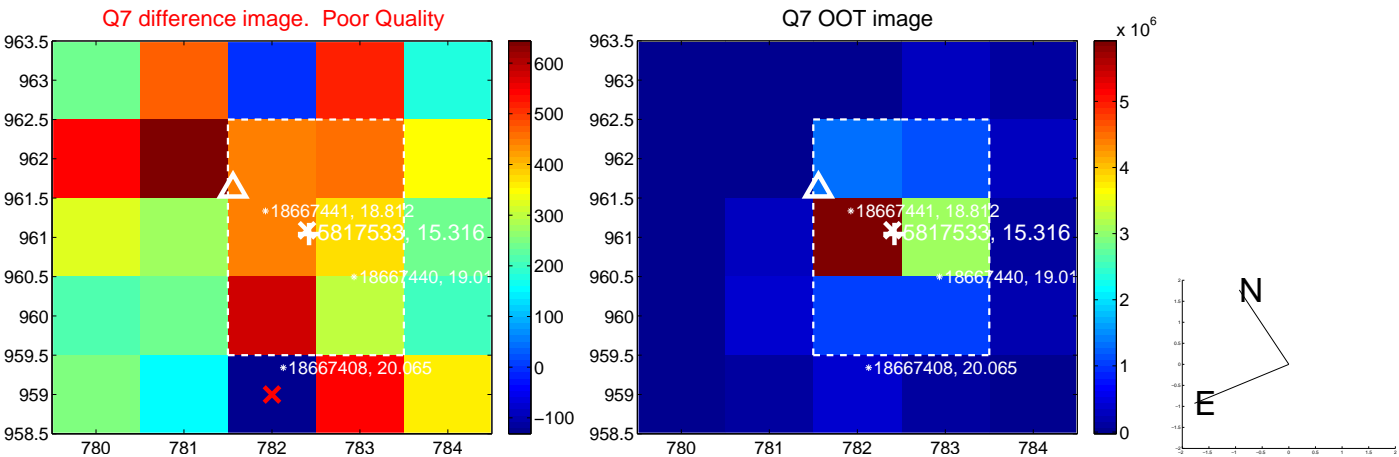
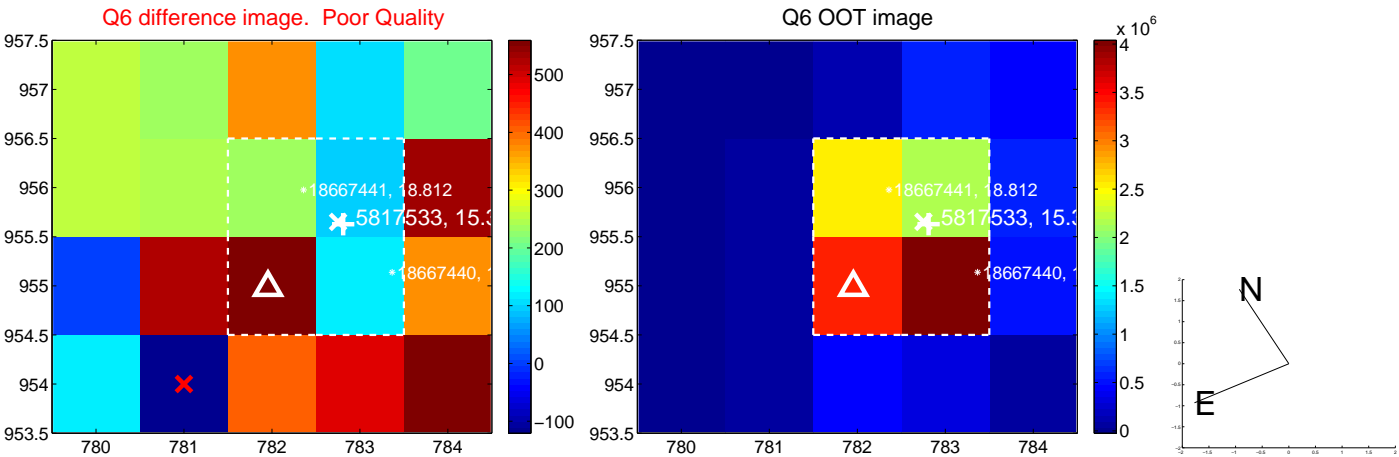
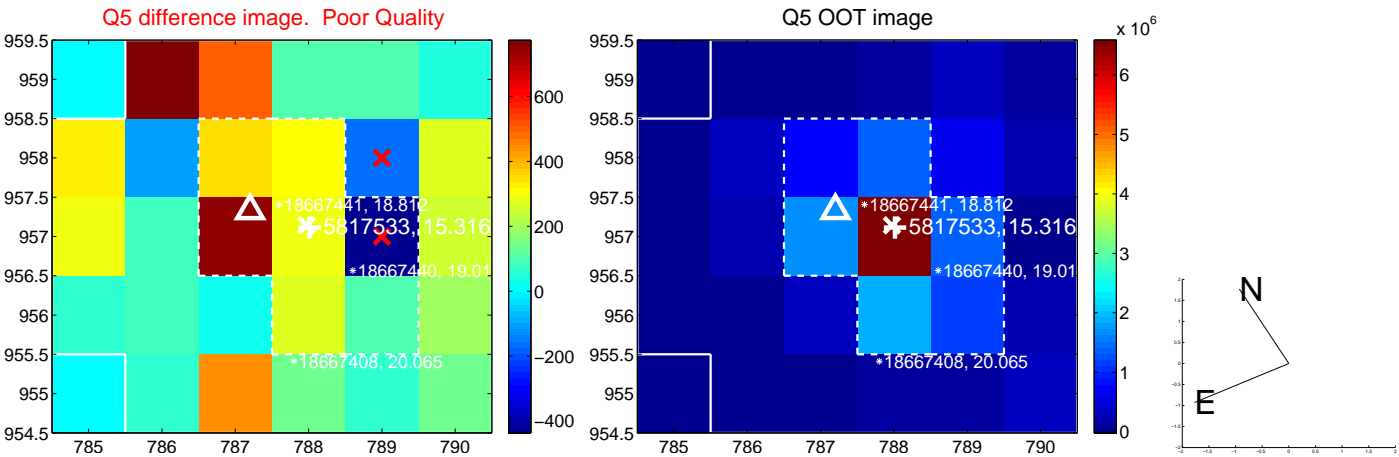


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

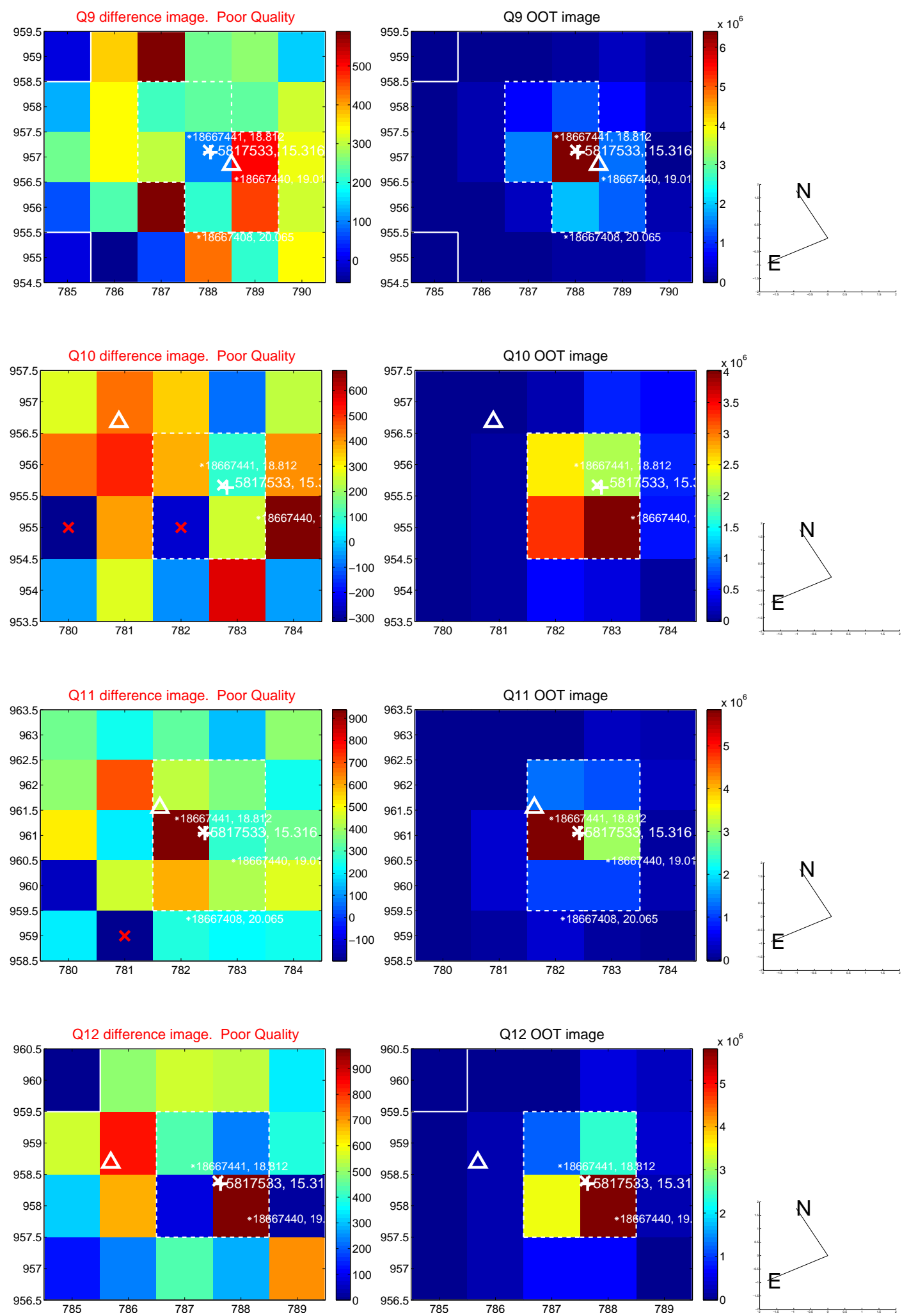
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



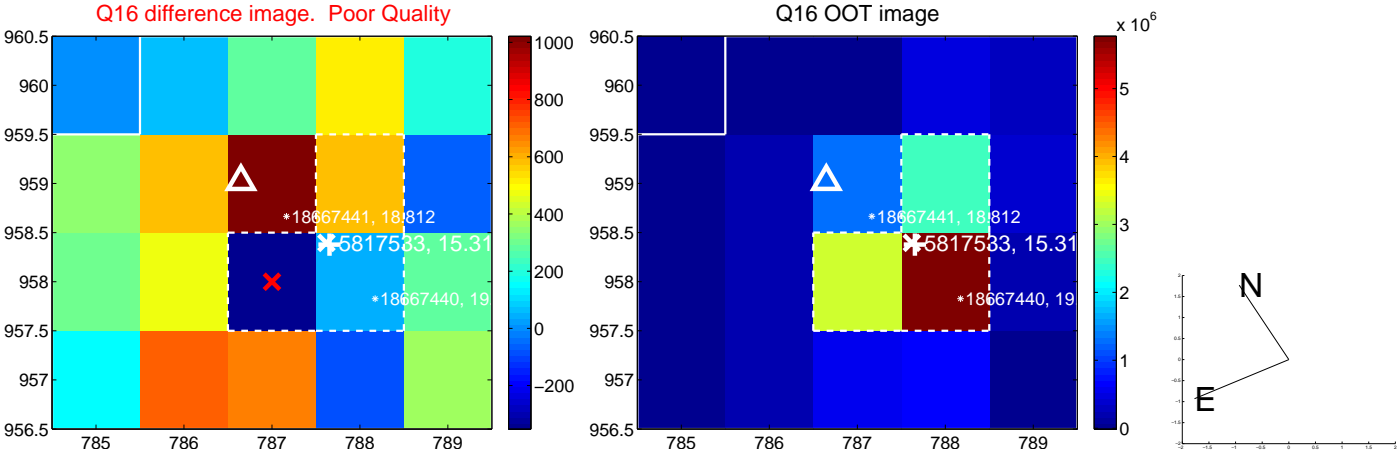
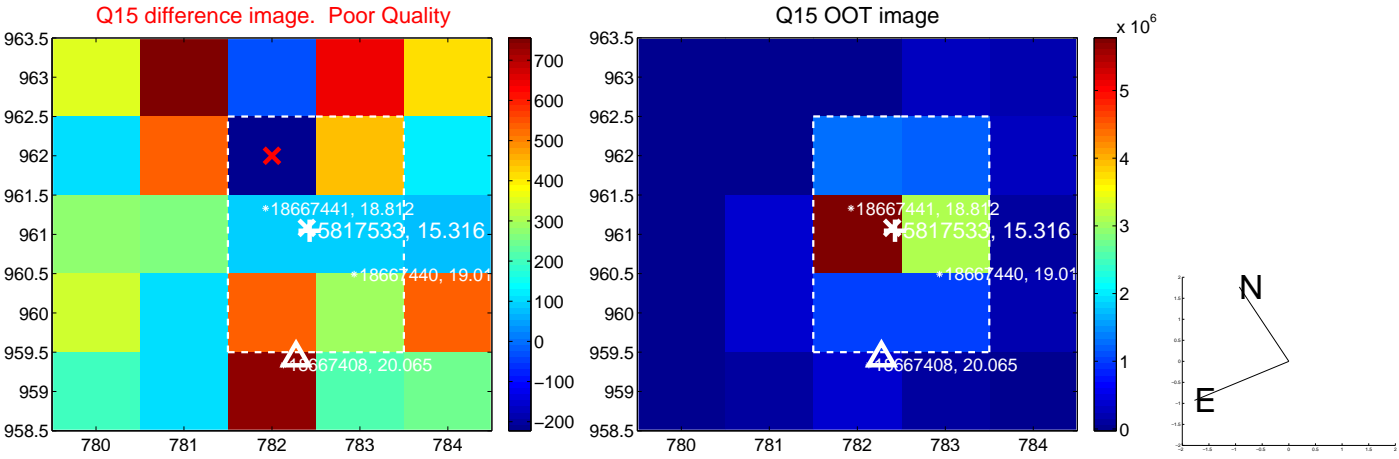
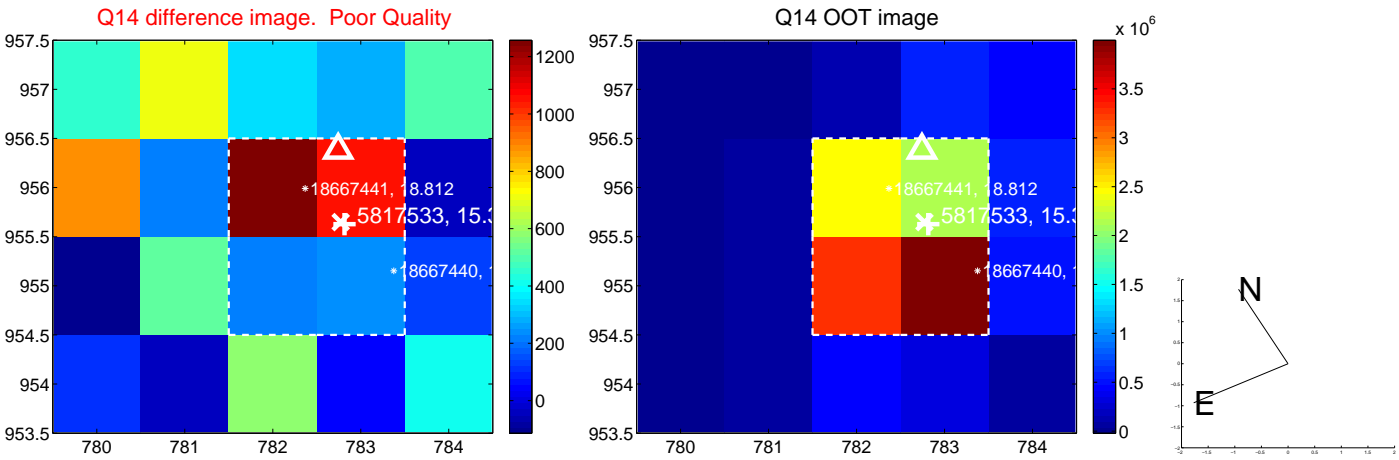
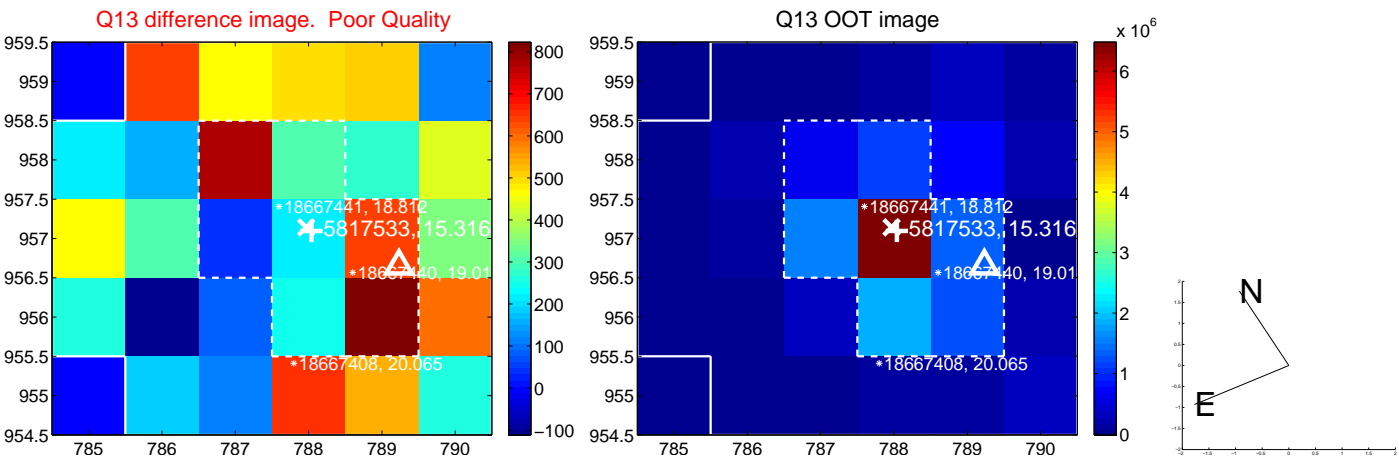
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

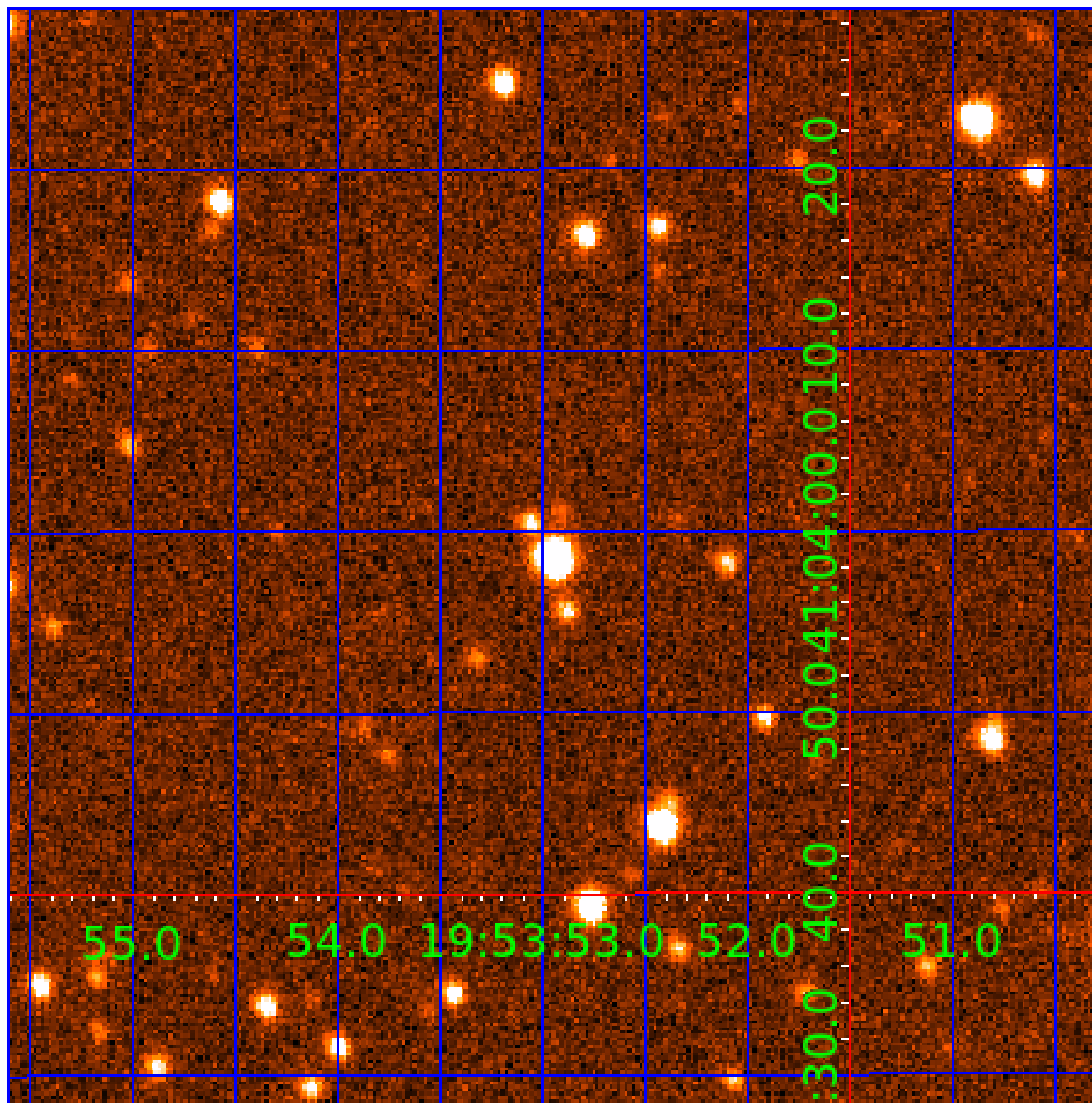


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005817533

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})
005817533-01	OBS	4293.01	4.206112	132.248872	142.1	9.099	12.2	12.9	0.80	5480	1.92	235.66
005817533-02	OBS	No	1.099316	131.793277	58.8	6.449	8.3	10.0	0.80	5480	0.63	1410.27
005817533-03	OBS	No	40.158335	147.755883	1161.3	1.884	8.9	9.0	0.80	5480	5.43	11.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817533-01	OBS	FP	0.00	0	0	1	1	CENT_UNRESOLVED_OFFSET—EPHEM_MATCH
005817533-02	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_UNRESOLVED_OFFSET
005817533-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—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.

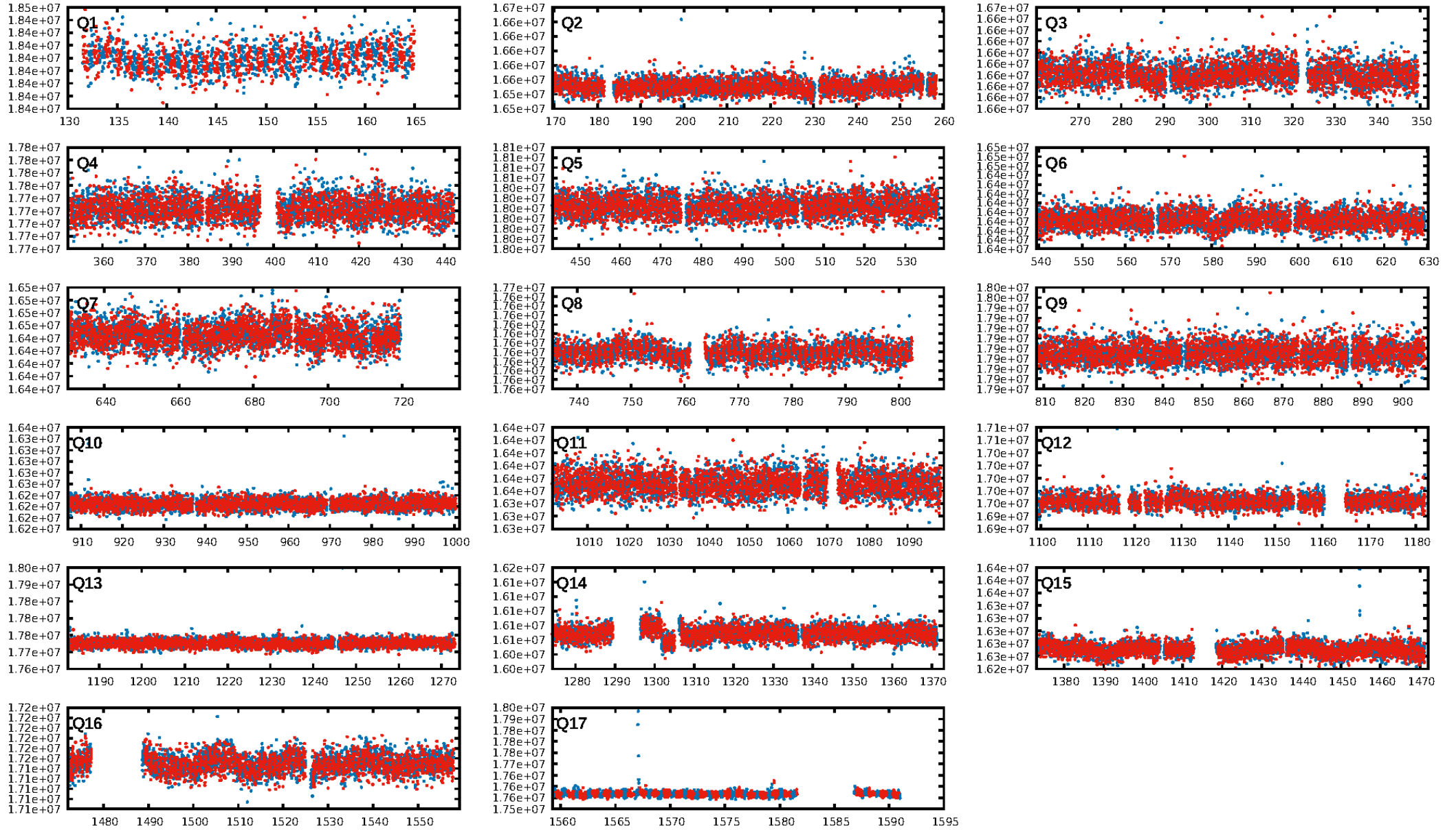
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005817533-02

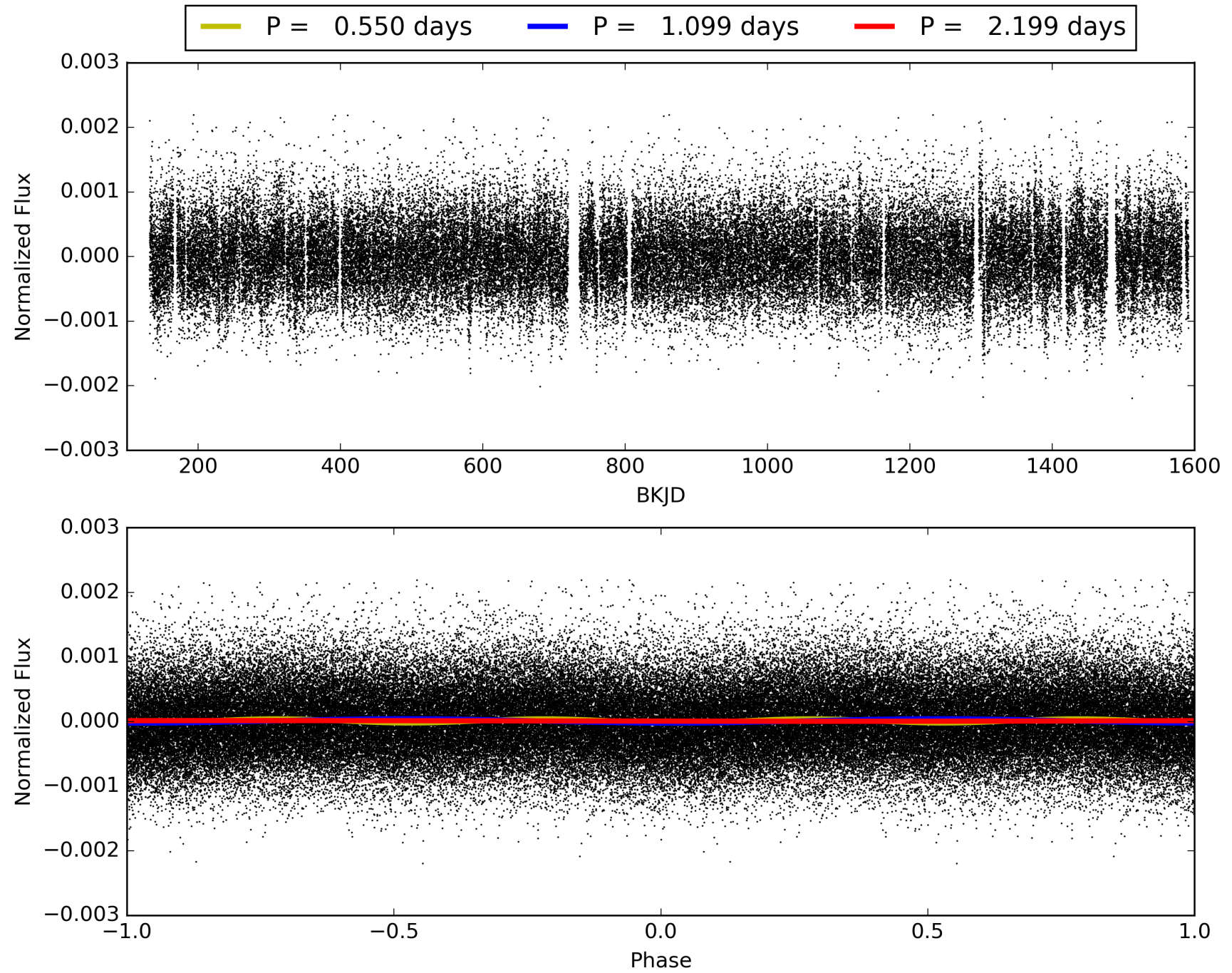
No Significant Match Found

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

TCE 005817533-02, PDC Light Curves

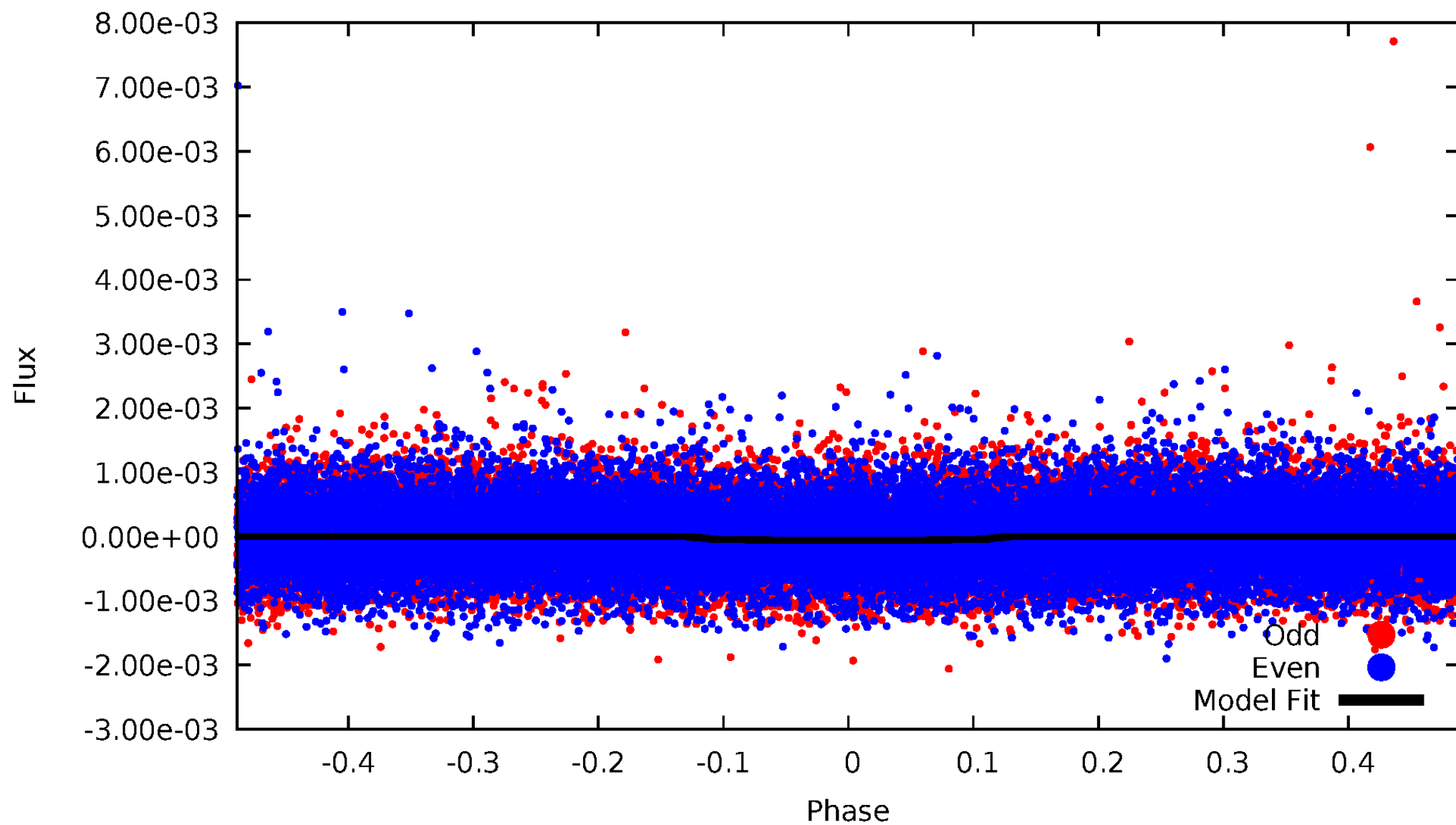


TCE 005817533-02



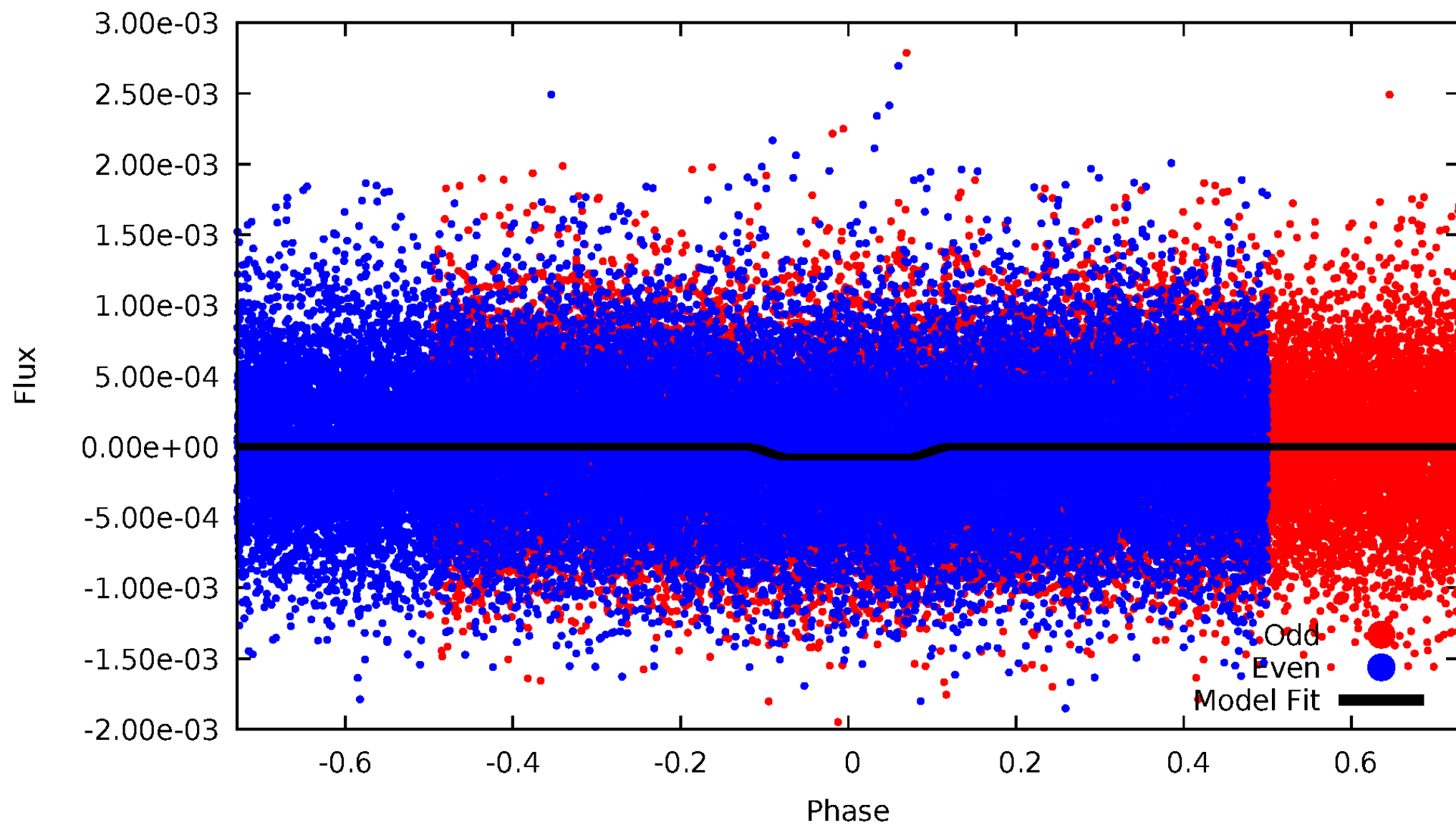
DV Odd/Even

TCE 005817533-02



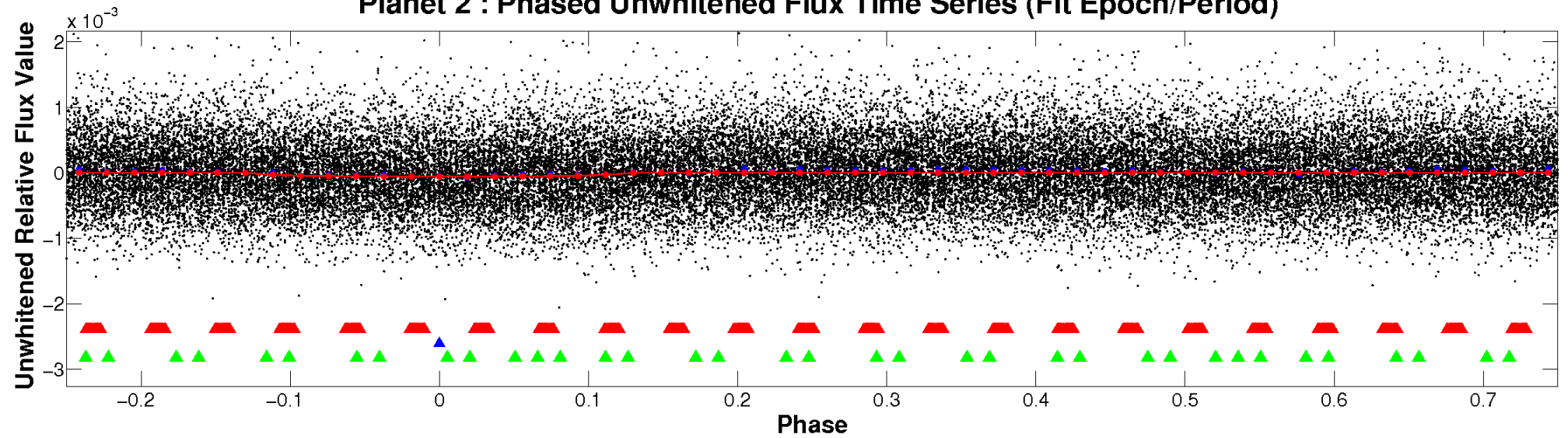
ALT Odd/Even

TCE 005817533-02

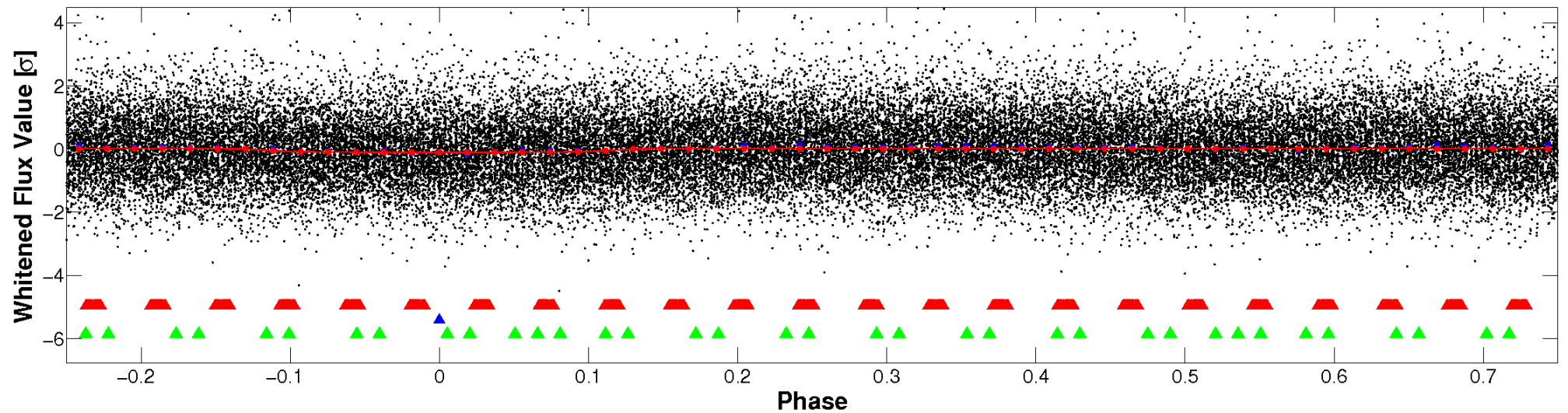


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

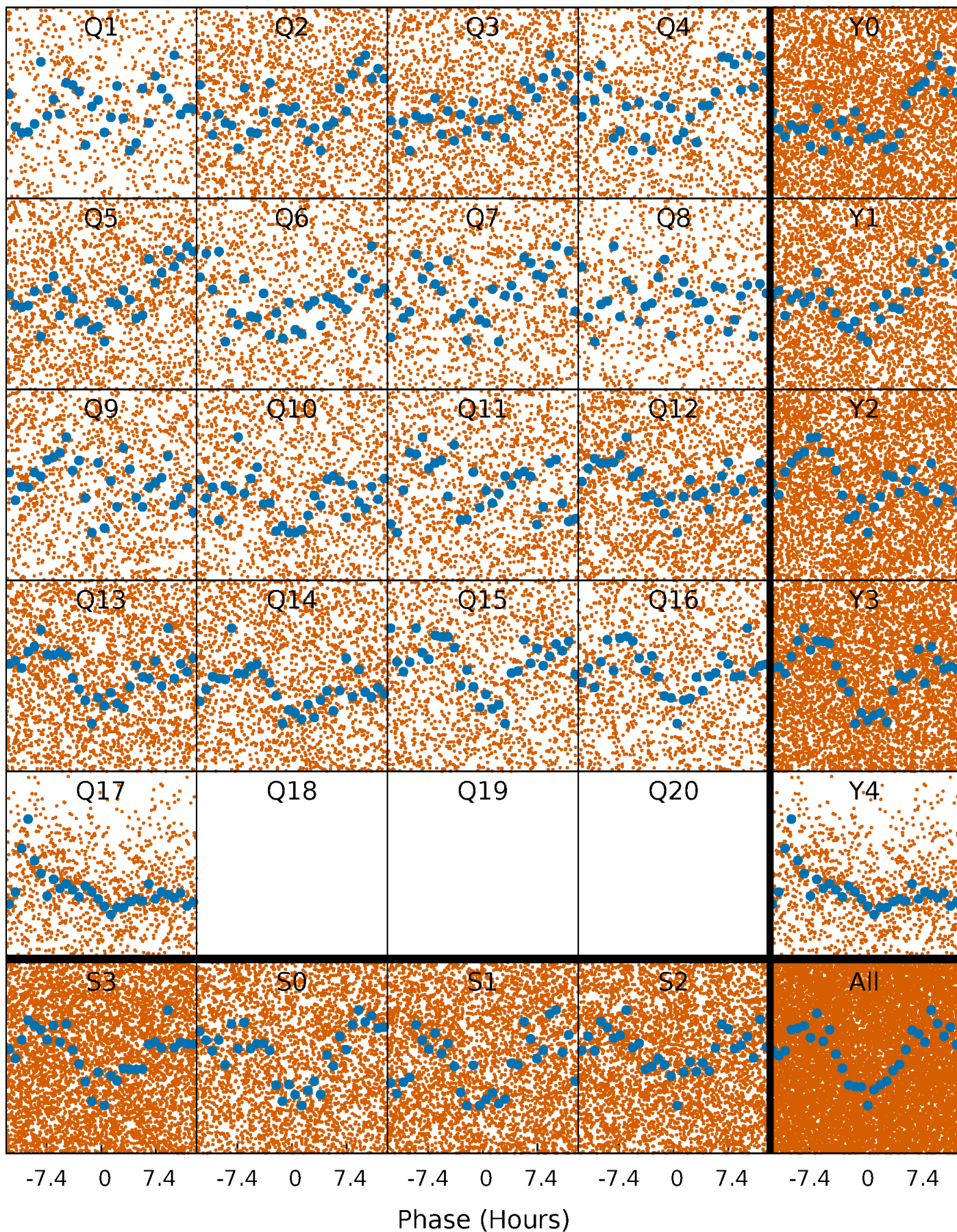


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



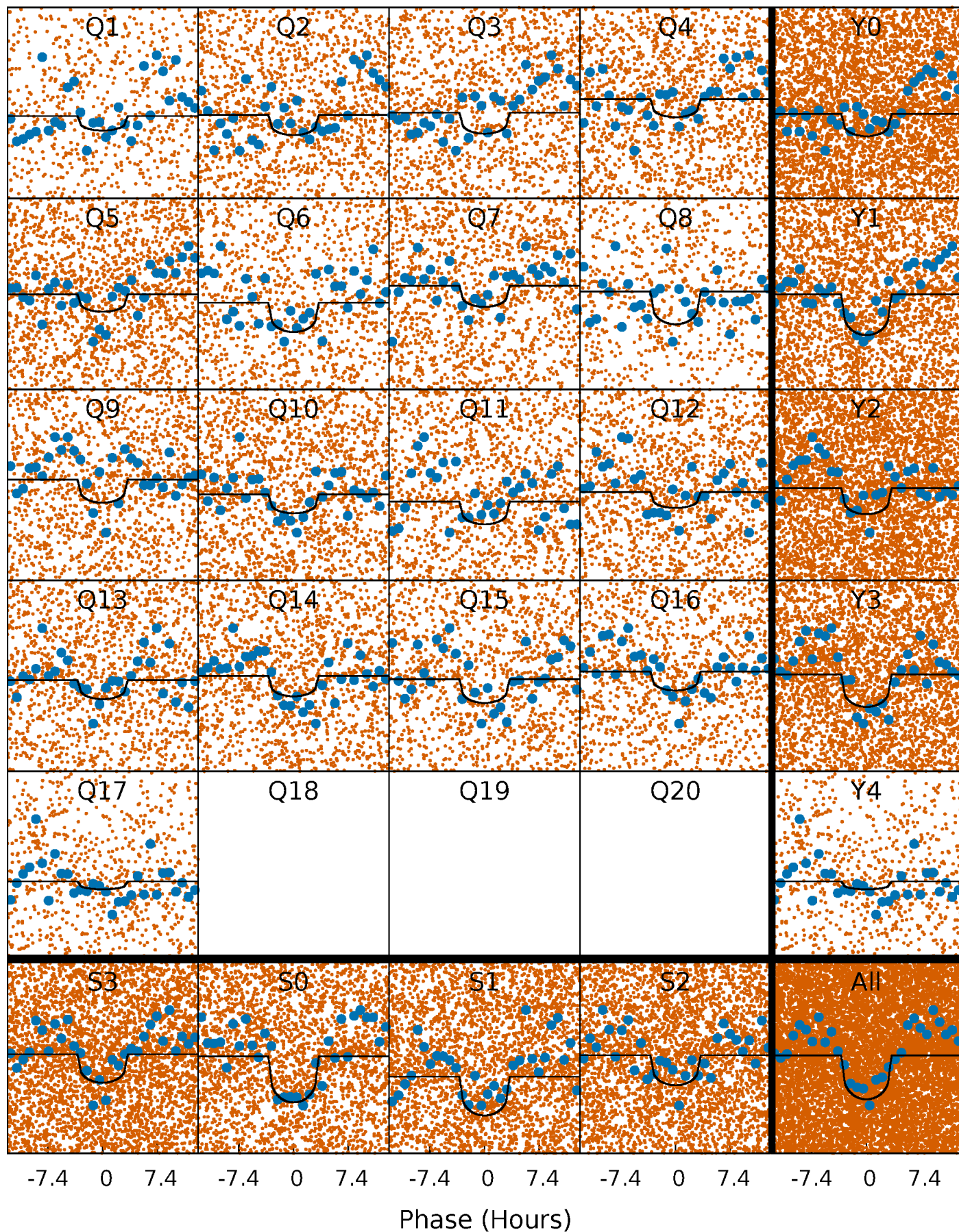
PDC Quarter-Phased Transit Curves

TCE 005817533-02 P= 1.099316 Days $T_0=131.793277$ (BKJD)



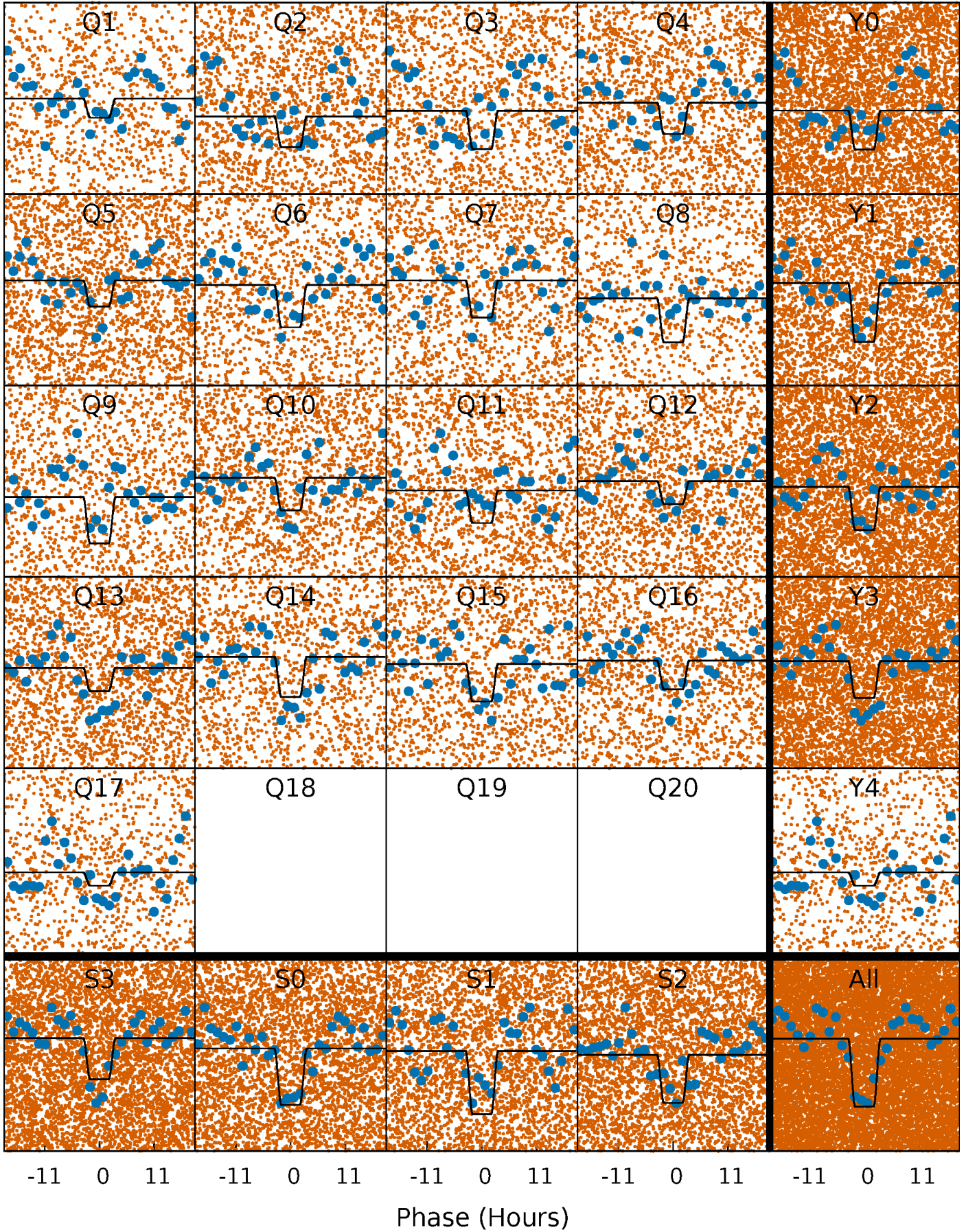
DV Quarter-Phased Transit Curves

TCE 005817533-02 P= 1.099316 Days $T_0=131.793277$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

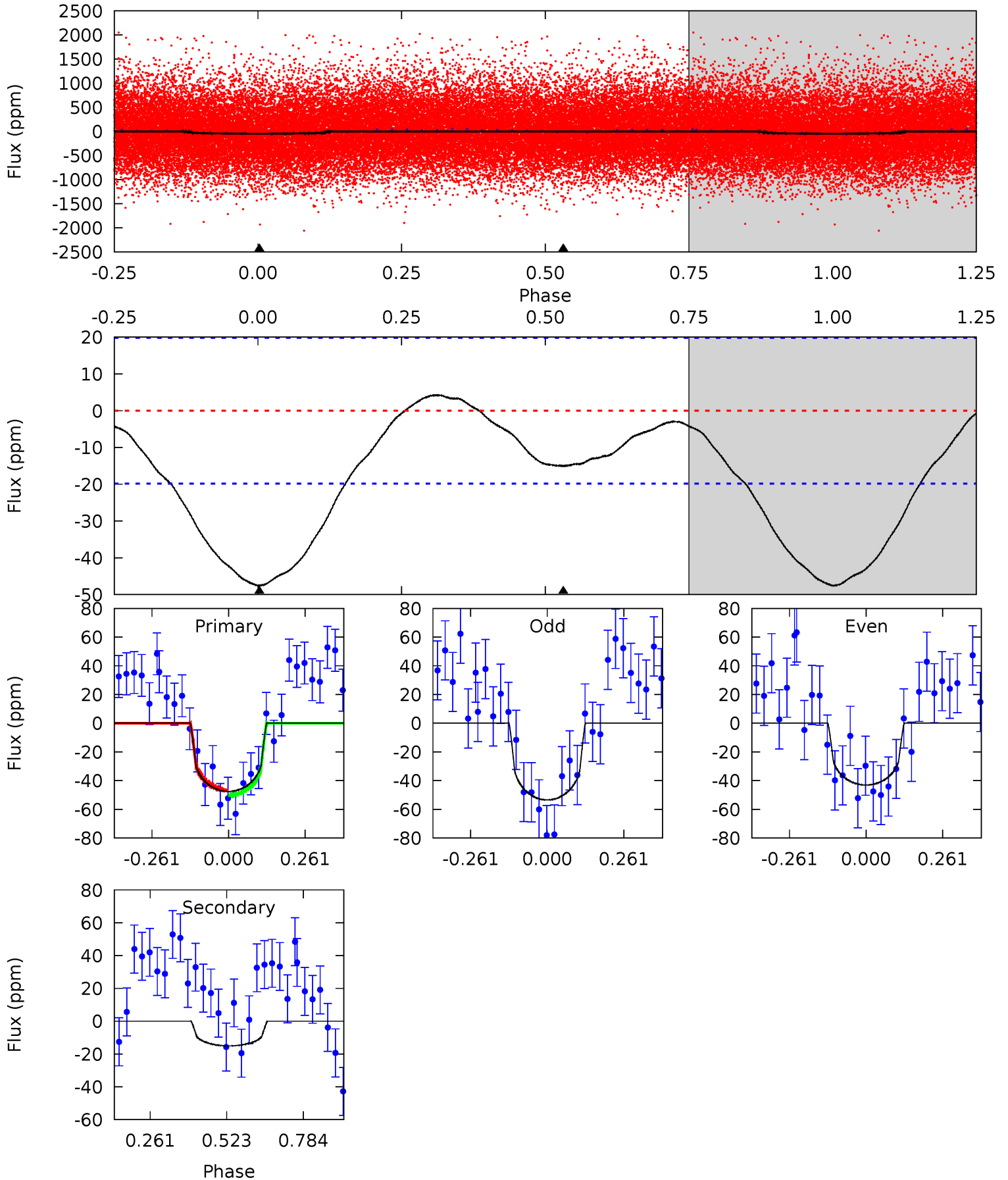
TCE 005817533-02 P= 1.099344 Days $T_0=131.780218$ (BKJD)



DV Model-Shift Uniqueness Test

005817533-02, P = 1.099316 Days, E = 130.693961 Days

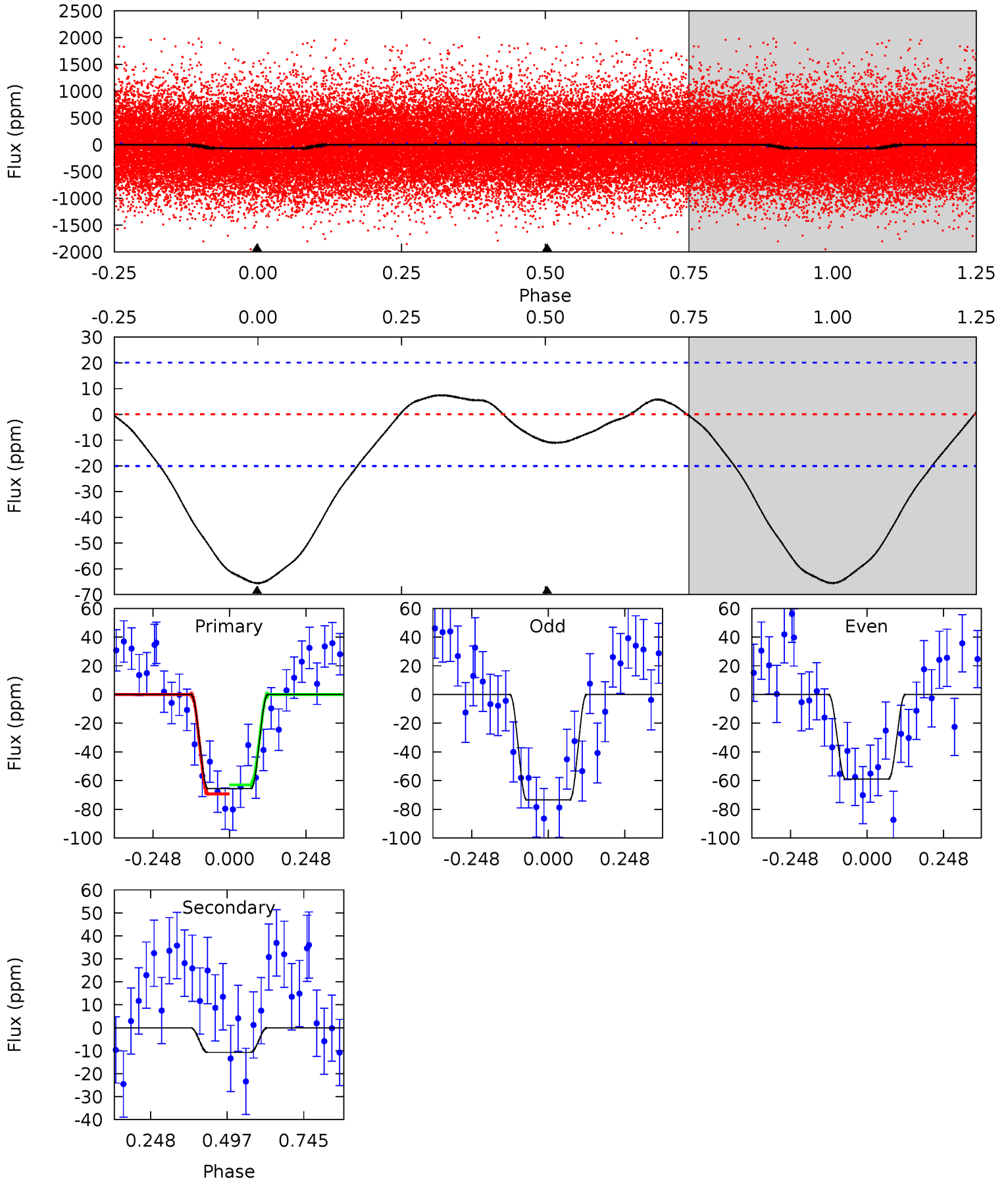
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	3.31	0	0	4.36	1.12	0.76	10.5	10.5	3.31	3.31	1.16	0.94	0.08	0.42



Alt Model-Shift Uniqueness Test

005817533-02, P = 1.099344 Days, E = 130.680874 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	2.33	0	0	4.37	1.15	0.67	14.3	14.3	2.33	2.33	1.60	0.77	0.10	0.69



Stellar Parameters For KIC 005817533

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5480^{+164}_{-164}	$4.522^{+0.080}_{-0.120}$	$-0.360^{+0.350}_{-0.300}$	$0.802^{+0.149}_{-0.092}$	$0.780^{+0.106}_{-0.062}$	$2.132^{+0.798}_{-0.734}$
	+3%/-3%	+2%/-3%	+97%/-83%	+19%/-11%	+14%/-8%	+37%/-34%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005817533-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-15 ± 5	$0.88^{+0.69}_{-0.56}$	2199^{+115}_{-113}	3728^{+2015}_{-739}	$3.755^{+24.499}_{-2.593}$
Alt.	-11 ± 5	$0.93^{+0.68}_{-0.54}$	2199^{+111}_{-104}	3419^{+1528}_{-739}	$2.352^{+13.902}_{-1.667}$

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

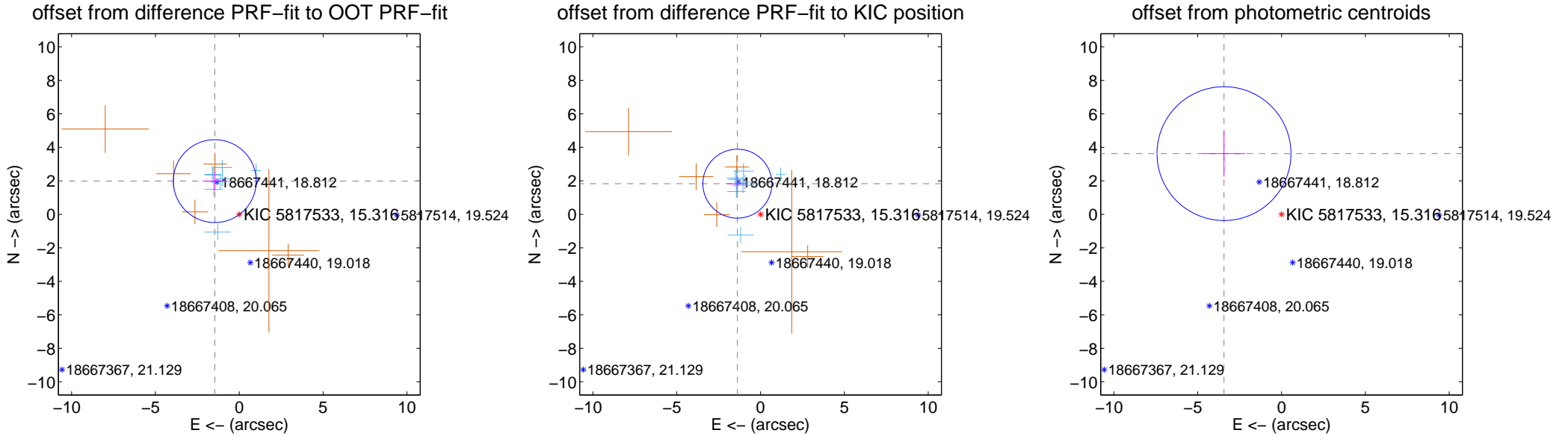
DV Centroid Data

Supplemental centroid analysis for 005817533-02. Kepler magnitude: 15.32. Transit SNR 9.96

There are 8 quarters with good PRF difference image offsets

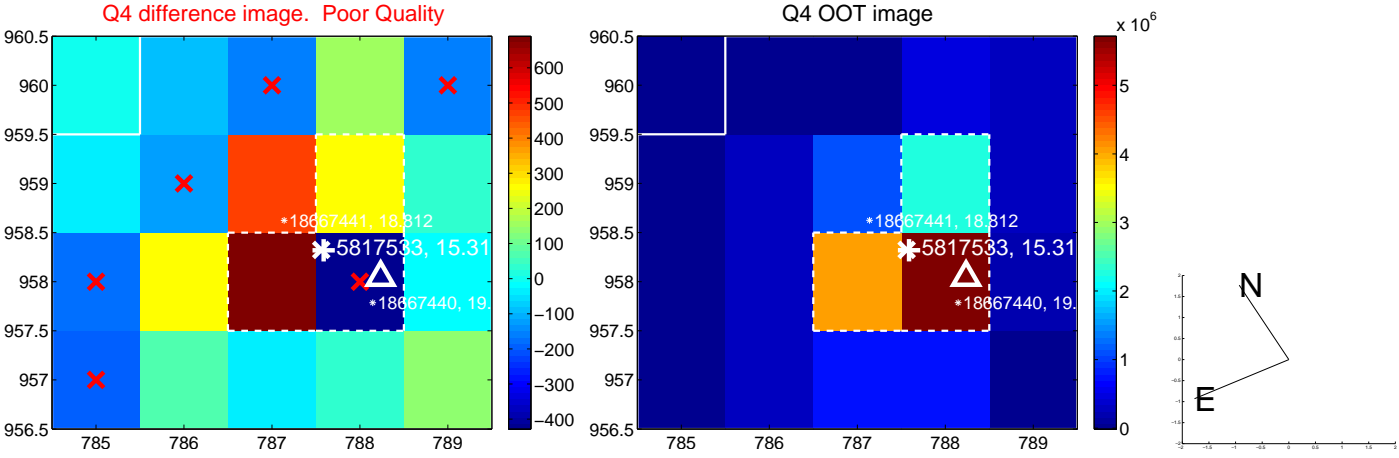
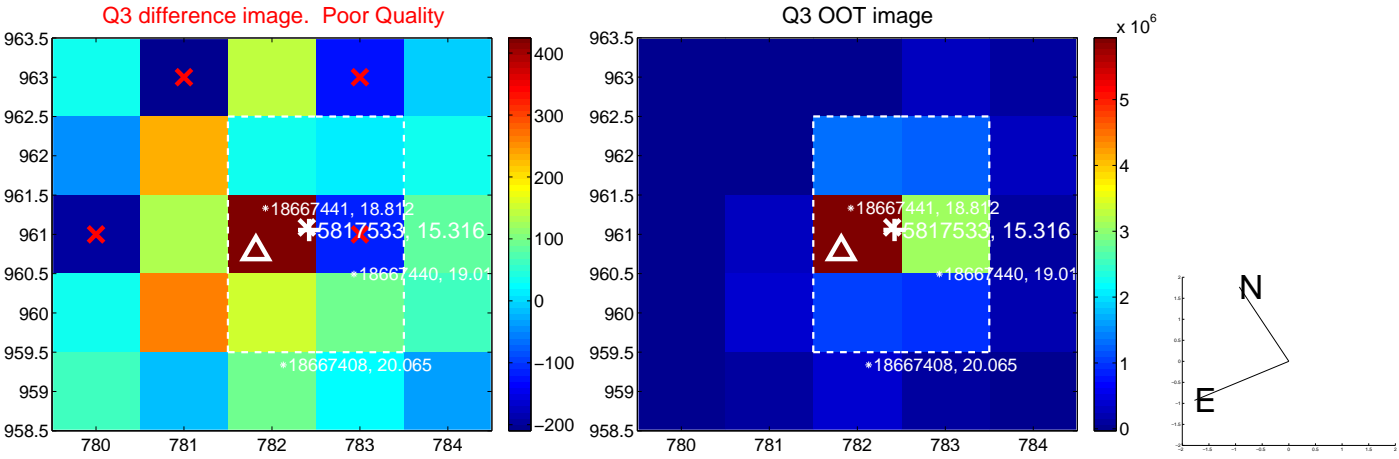
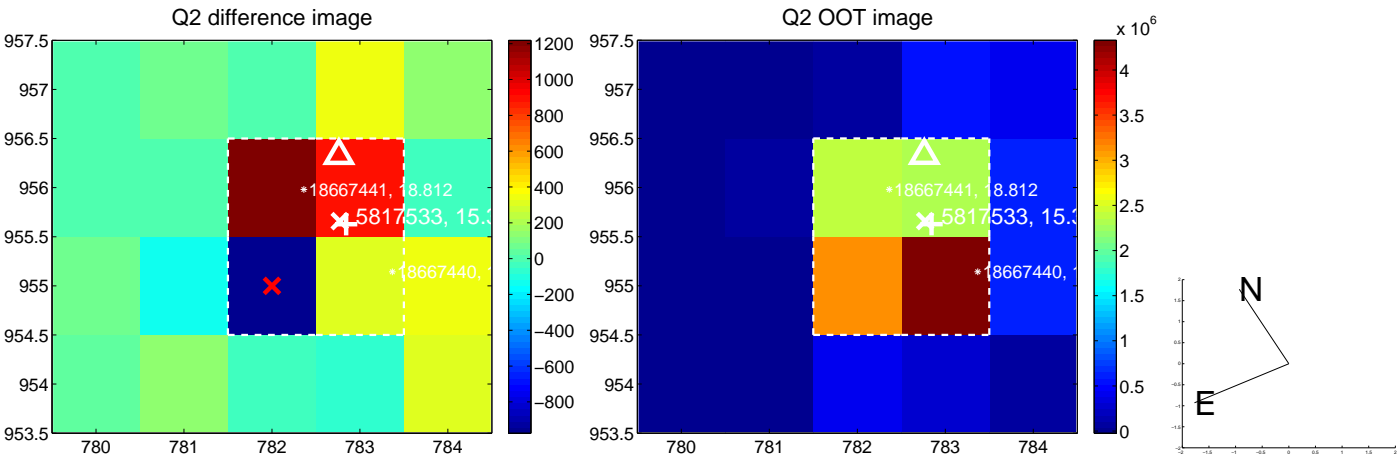
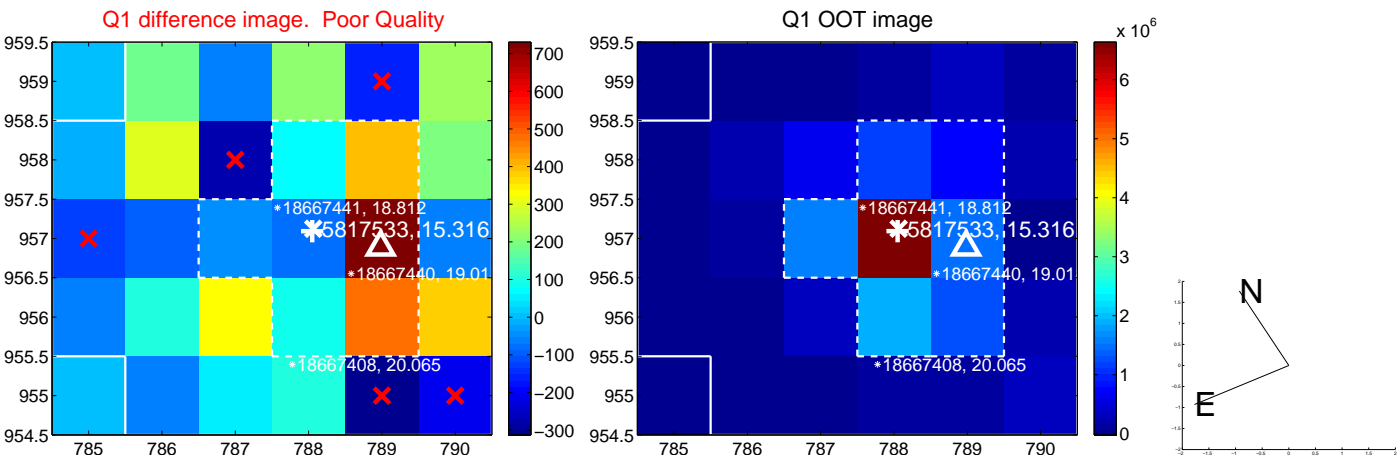
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.463 ± 0.824	2.99	1.460 ± 0.702	1.984 ± 0.579
PRF-fit source offset from KIC position	2.294 ± 0.686	3.34	1.382 ± 0.606	1.832 ± 0.489
photometric centroid source offset	5.00 ± 1.33	3.75	3.43 ± 1.28	3.63 ± 1.38

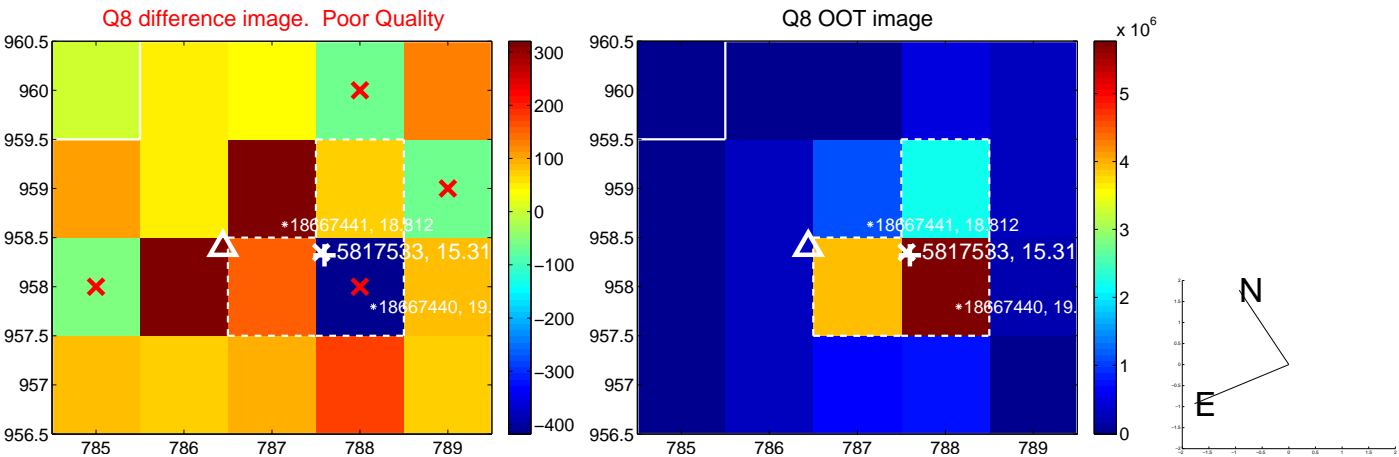
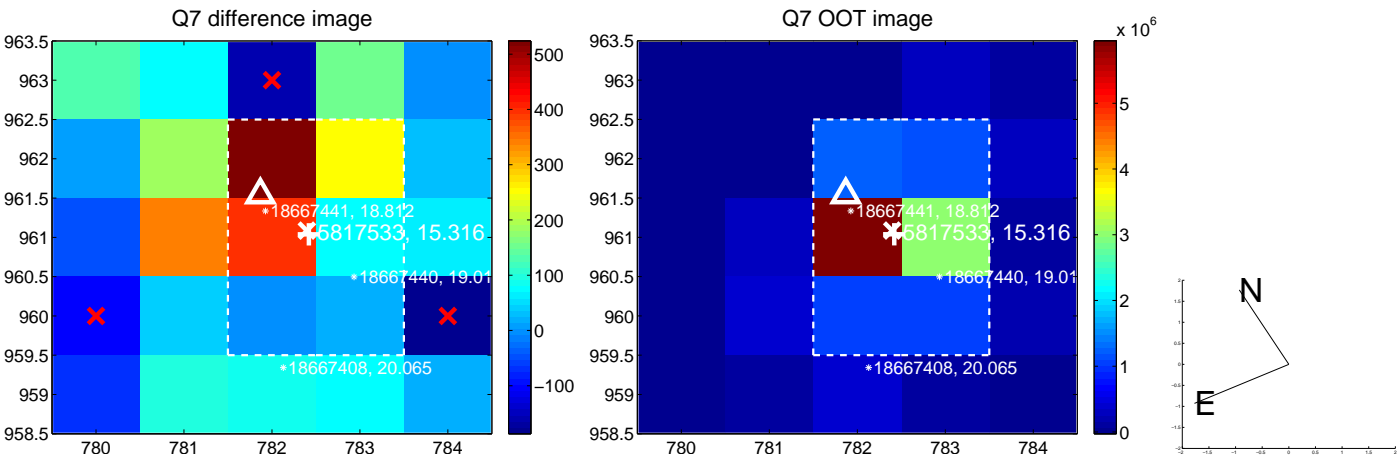
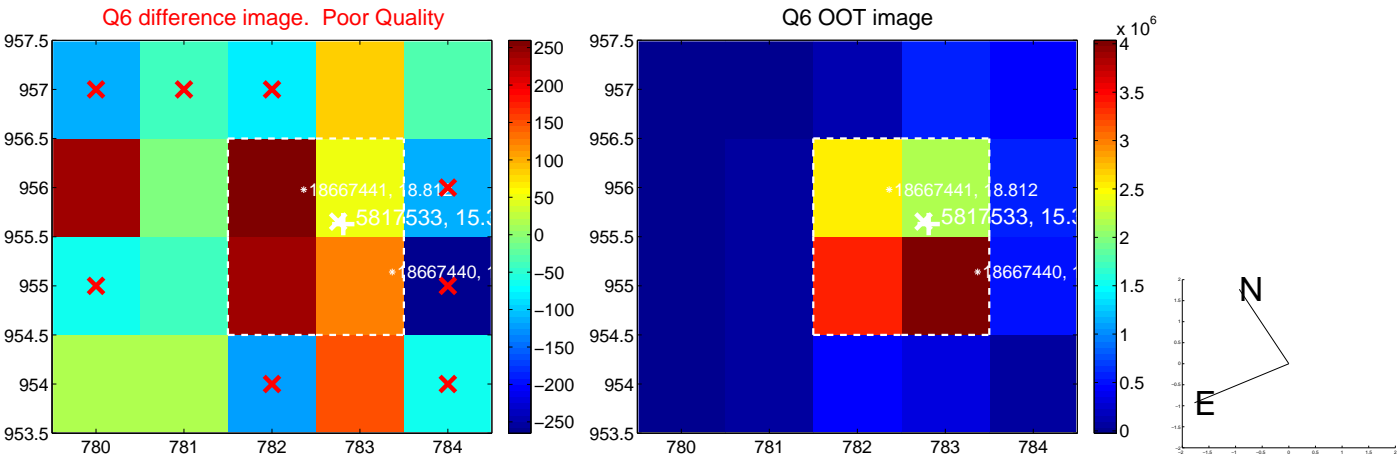
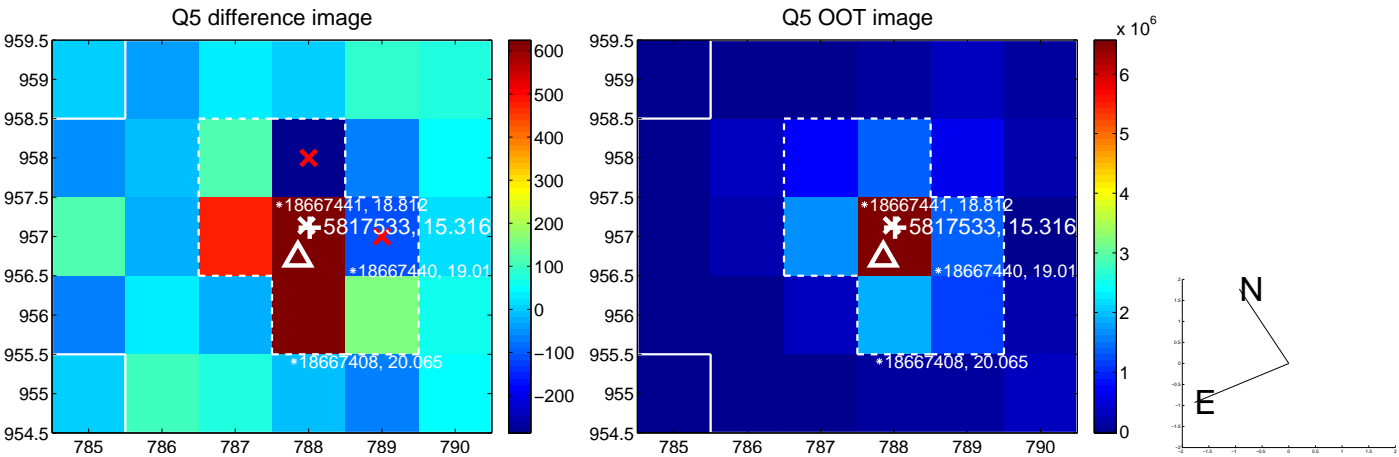


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

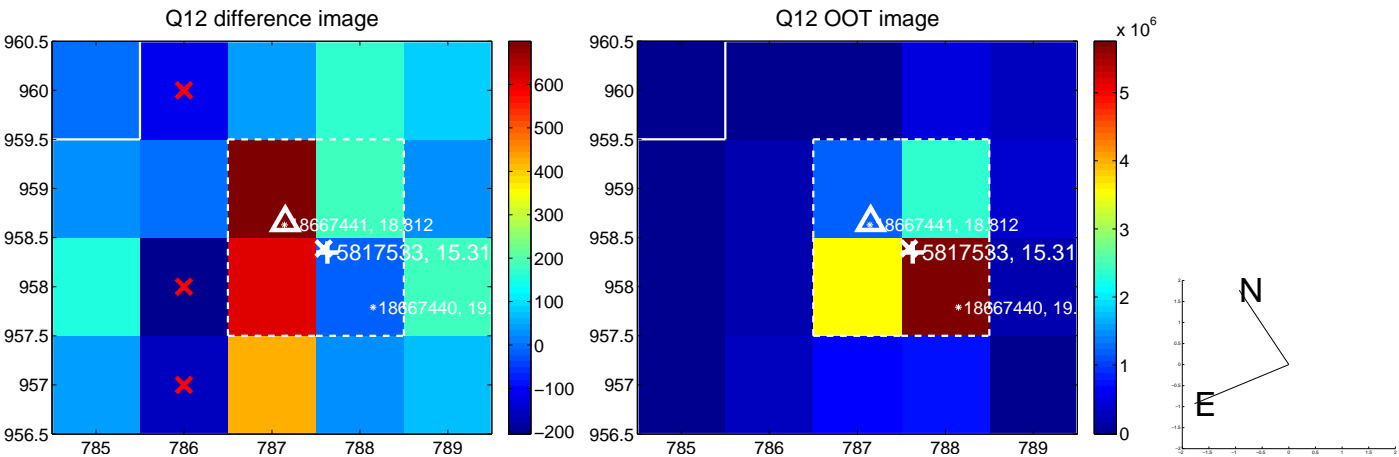
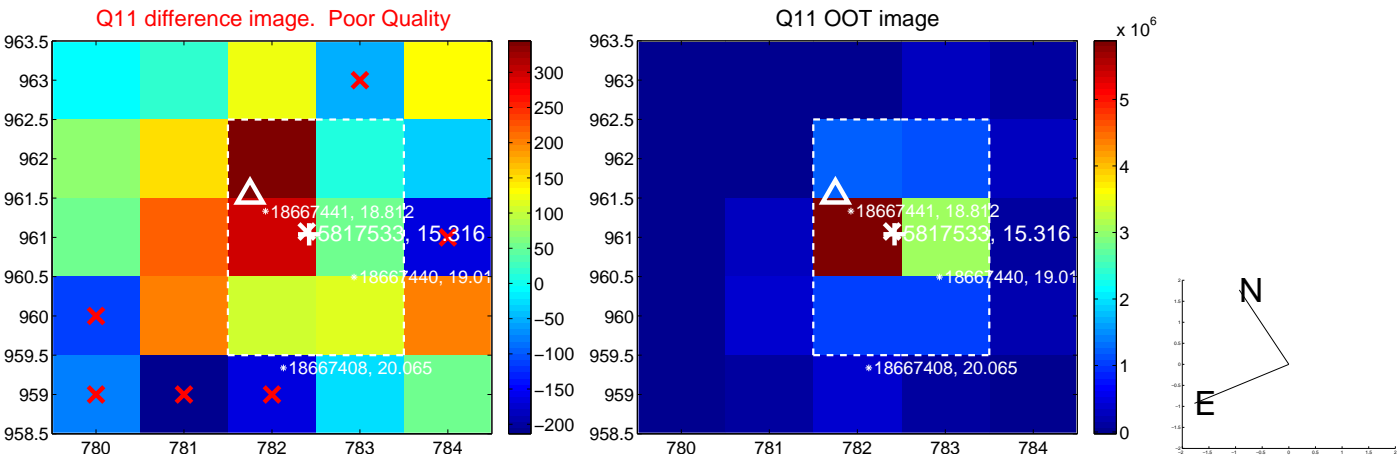
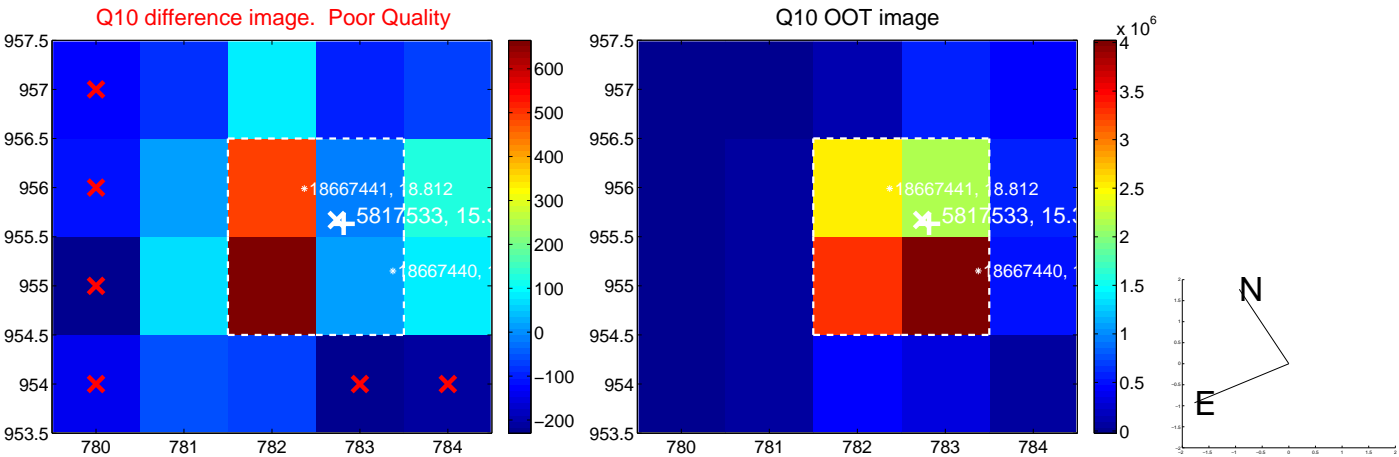
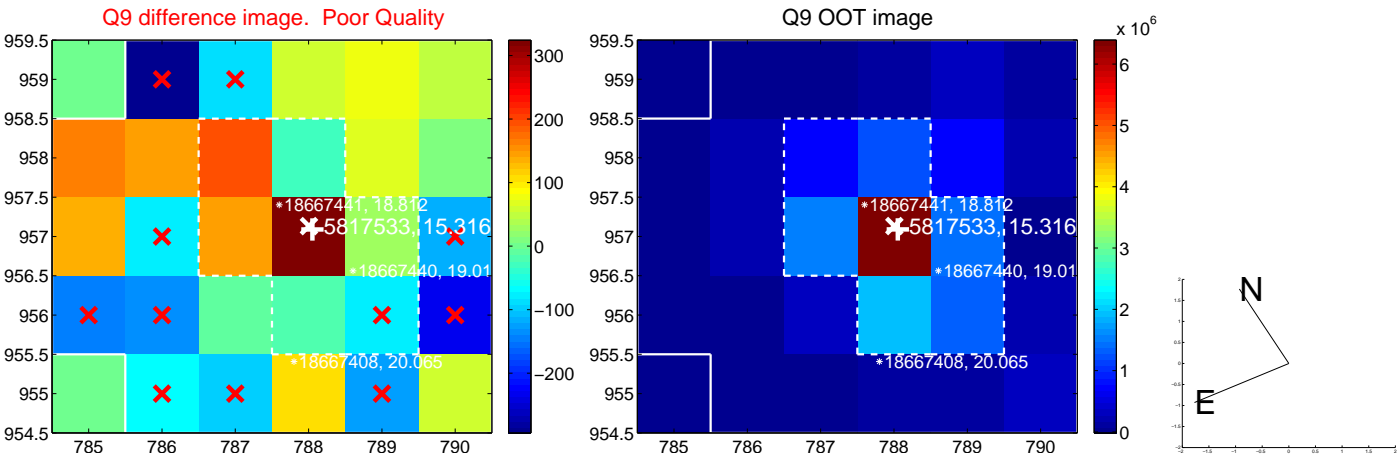
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



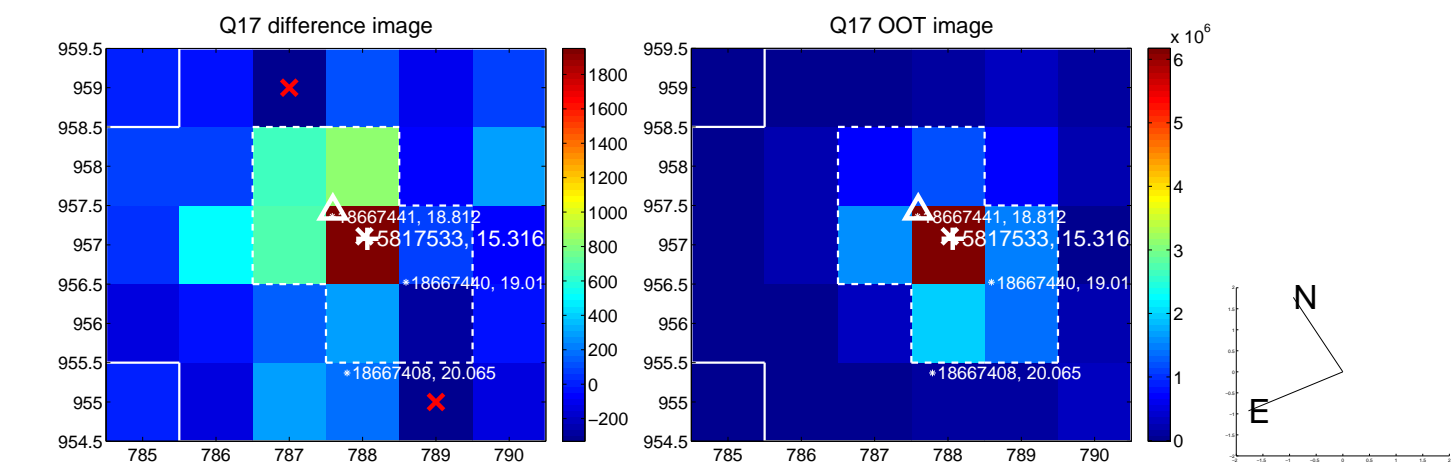
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



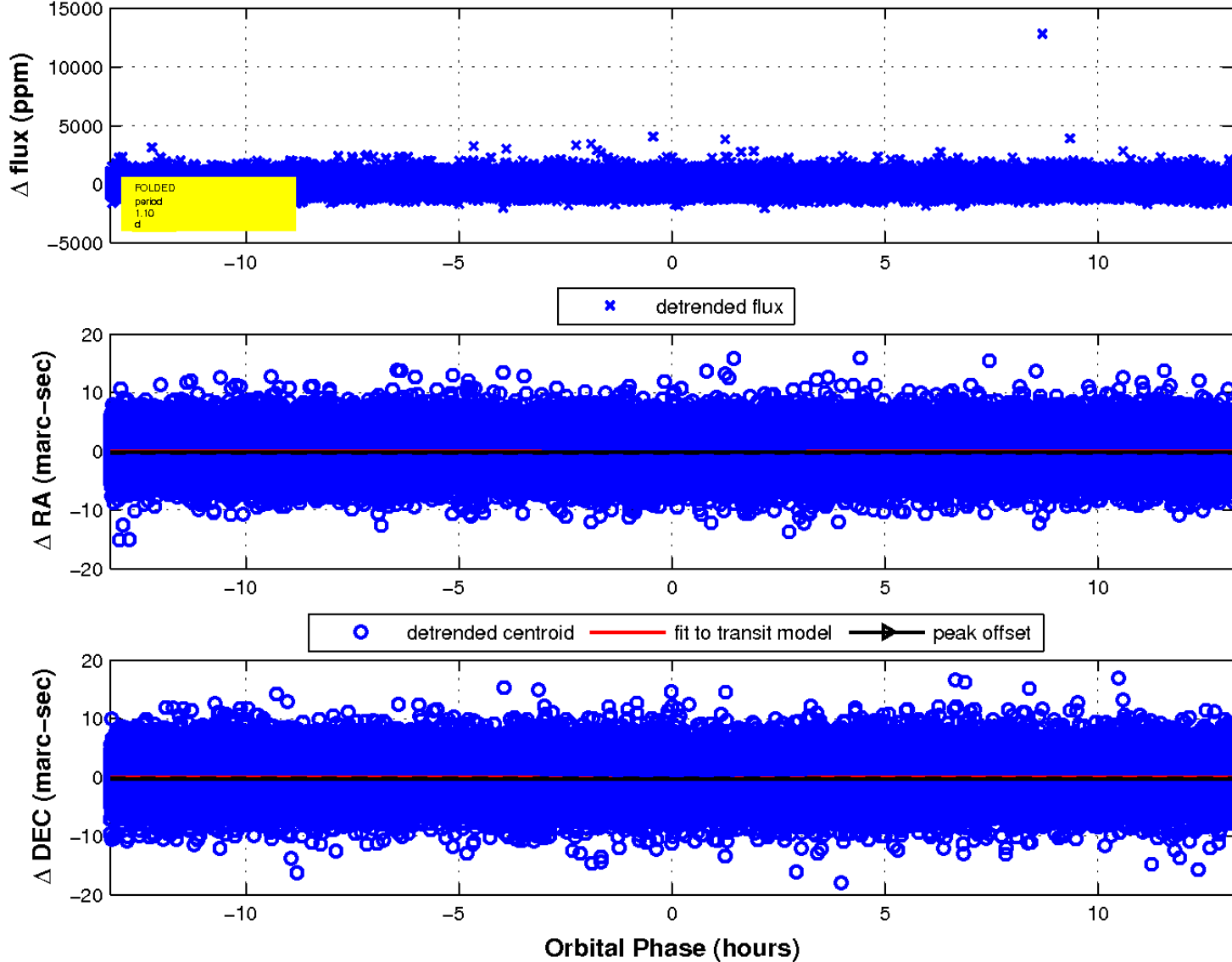
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

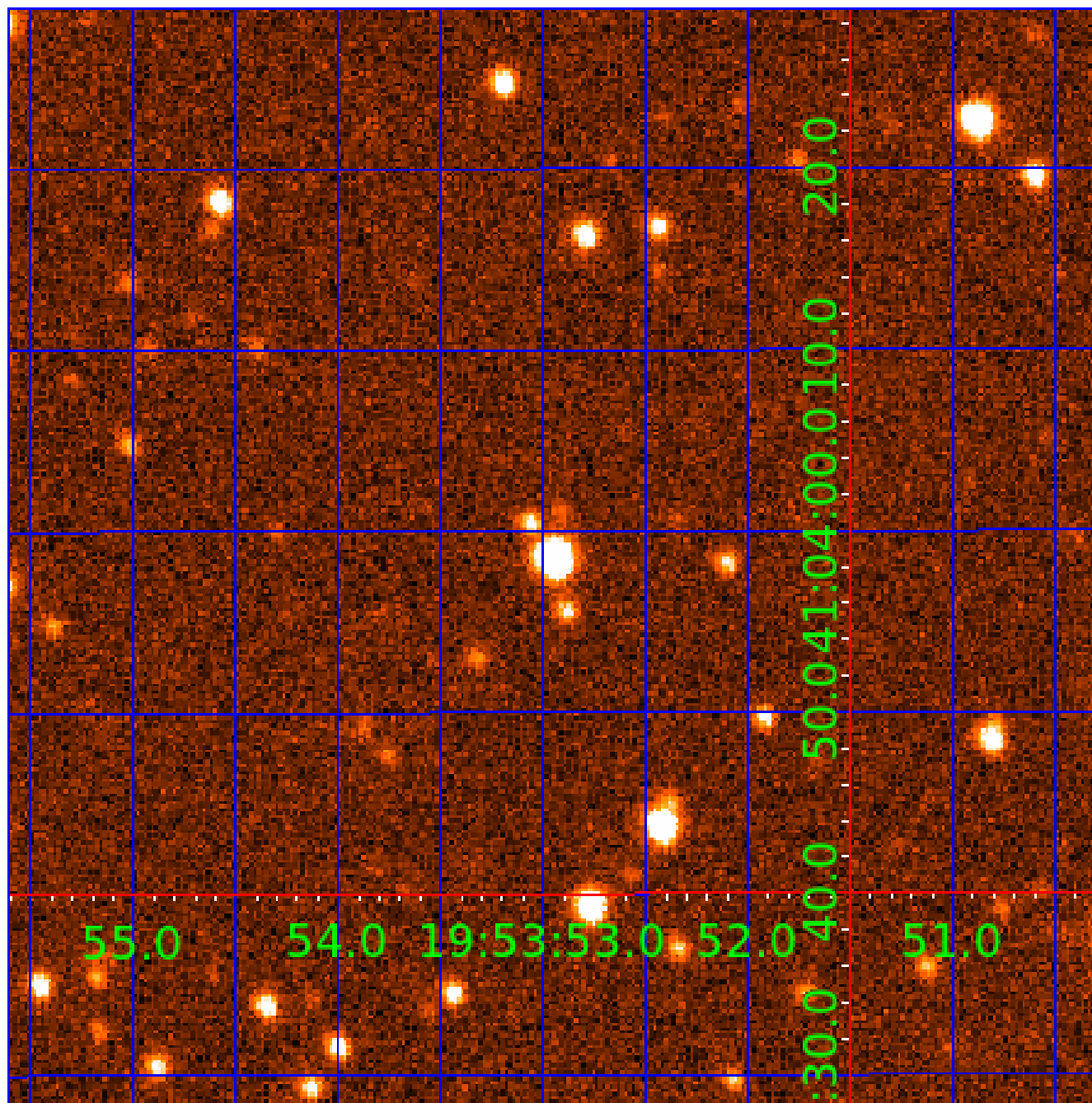


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 005817533

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})
005817533-01	OBS	4293.01	4.206112	132.248872	142.1	9.099	12.2	12.9	0.80	5480	1.92	235.66
005817533-02	OBS	No	1.099316	131.793277	58.8	6.449	8.3	10.0	0.80	5480	0.63	1410.27
005817533-03	OBS	No	40.158335	147.755883	1161.3	1.884	8.9	9.0	0.80	5480	5.43	11.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817533-01	OBS	FP	0.00	0	0	1	1	CENT_UNRESOLVED_OFFSET—EPHEM_MATCH
005817533-02	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_UNRESOLVED_OFFSET
005817533-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—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.

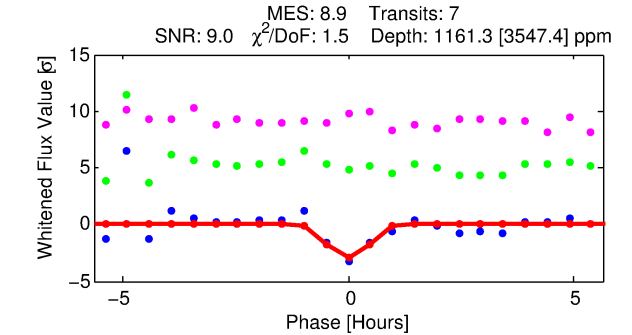
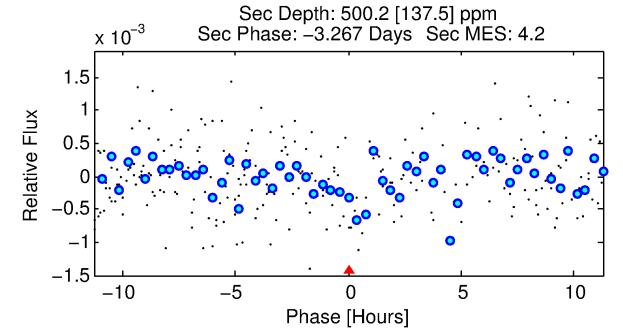
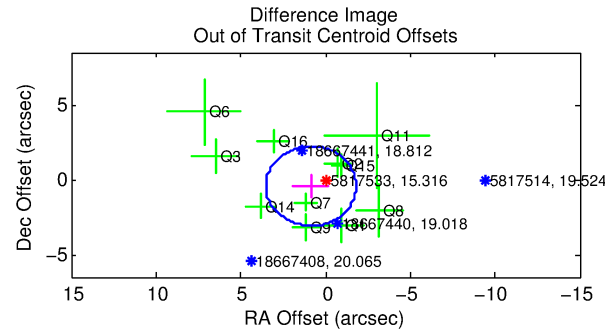
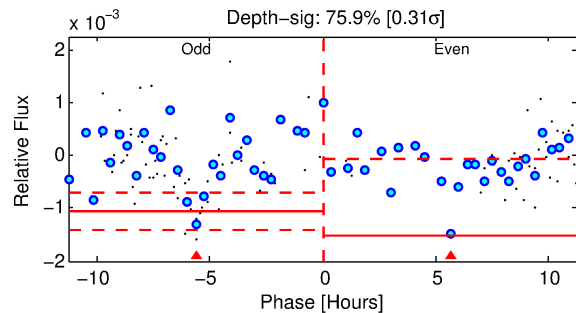
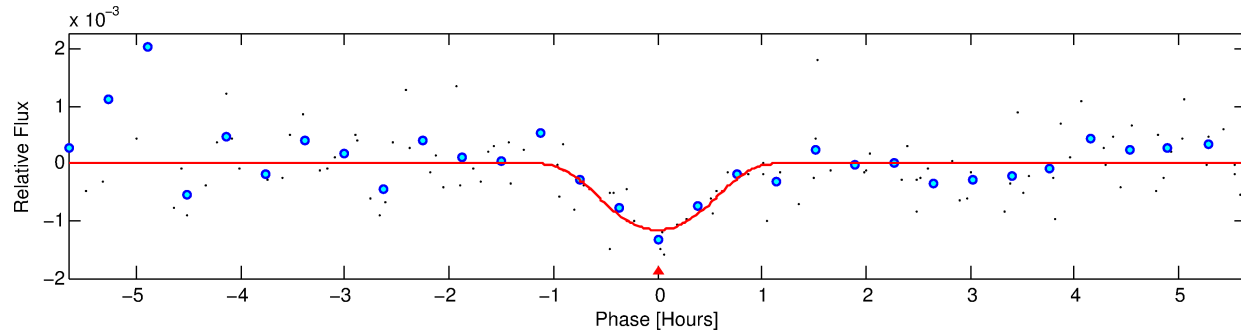
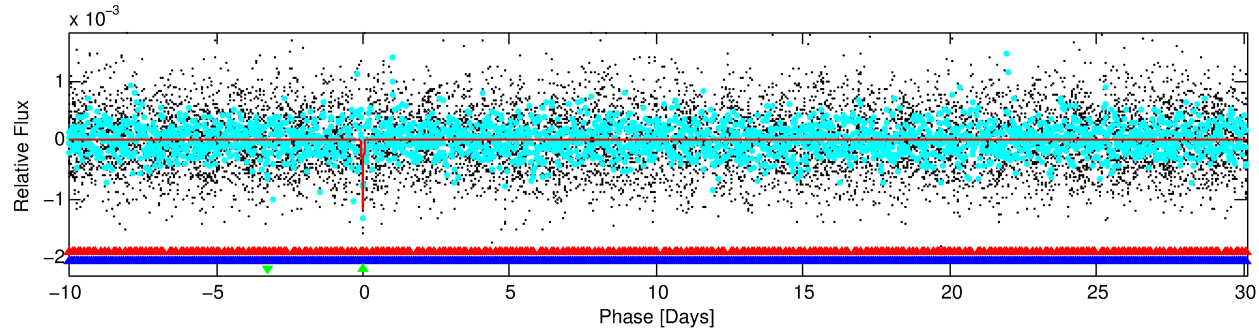
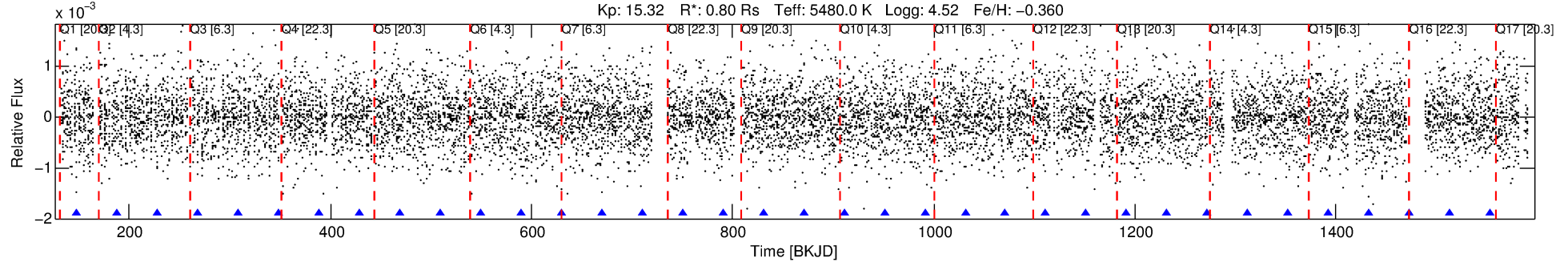
Ephemeris Match Information For 005817533-03

No Significant Match Found

DV One-Page Summary

KIC: 5817533 Candidate: 3 of 3 Period: 40.158 d
KOI: K04293 Corr: No Ephemeris Match

Kp: 15.32 R*: 0.80 Rs Teff: 5480.0 K Logg: 4.52 Fe/H: -0.360



DV Fit Results:

Period = 40.15834 [0.00025] d
Epoch = 147.7559 [0.0056] BKJD
Rp/R* = 0.0620 [0.6807]
a/R* = 58.24 [147.64]
b = 1.00 [0.84]
Seff = 11.63 [2.93]
Teq = 471 [30] K
Rp = 5.43 [59.58] Re
a = 0.2113 [0.0326] AU
Ag = 417.48 [9167.65] [0.05σ]
Teffp = 3291 [18068] K [0.1σ]

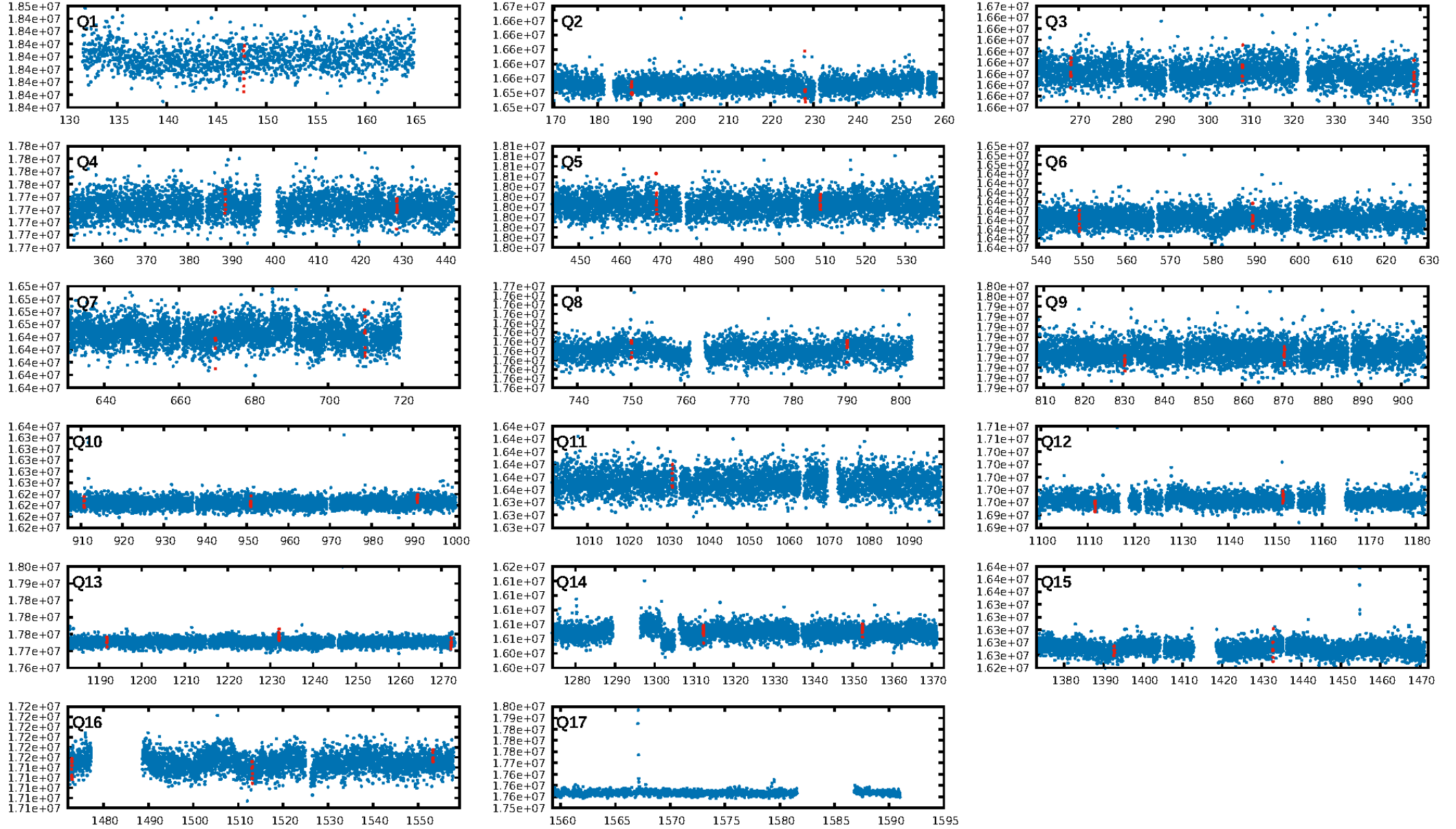
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [92.86σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 87.5%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 2.68e-11
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 6.312
Centroid-sig: 0.4%
Centroid-so: 2.474 arcsec [2.60σ]
OotOffset-rm: 0.961 arcsec [1.09σ]
OotOffset-st: 3/4/2/2 [11]
KicOffset-rm: 1.005 arcsec [1.30σ]
KicOffset-st: 3/4/2/2 [11]
DiffImageQuality-fgm: 0.09 [1/11]
DiffImageOverlap-fno: 0.44 [7/16]

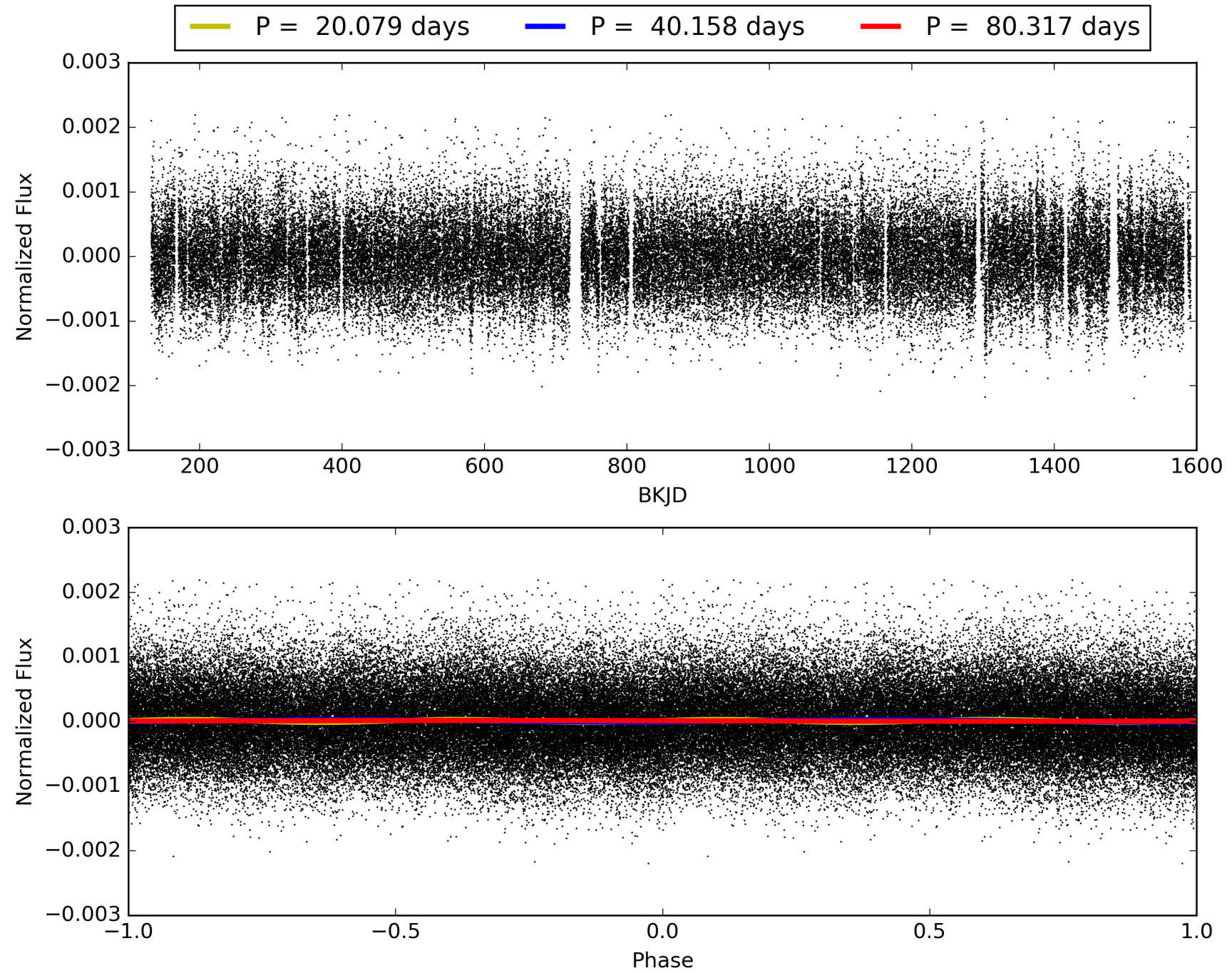
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:34:11 Z

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

TCE 005817533-03, PDC Light Curves

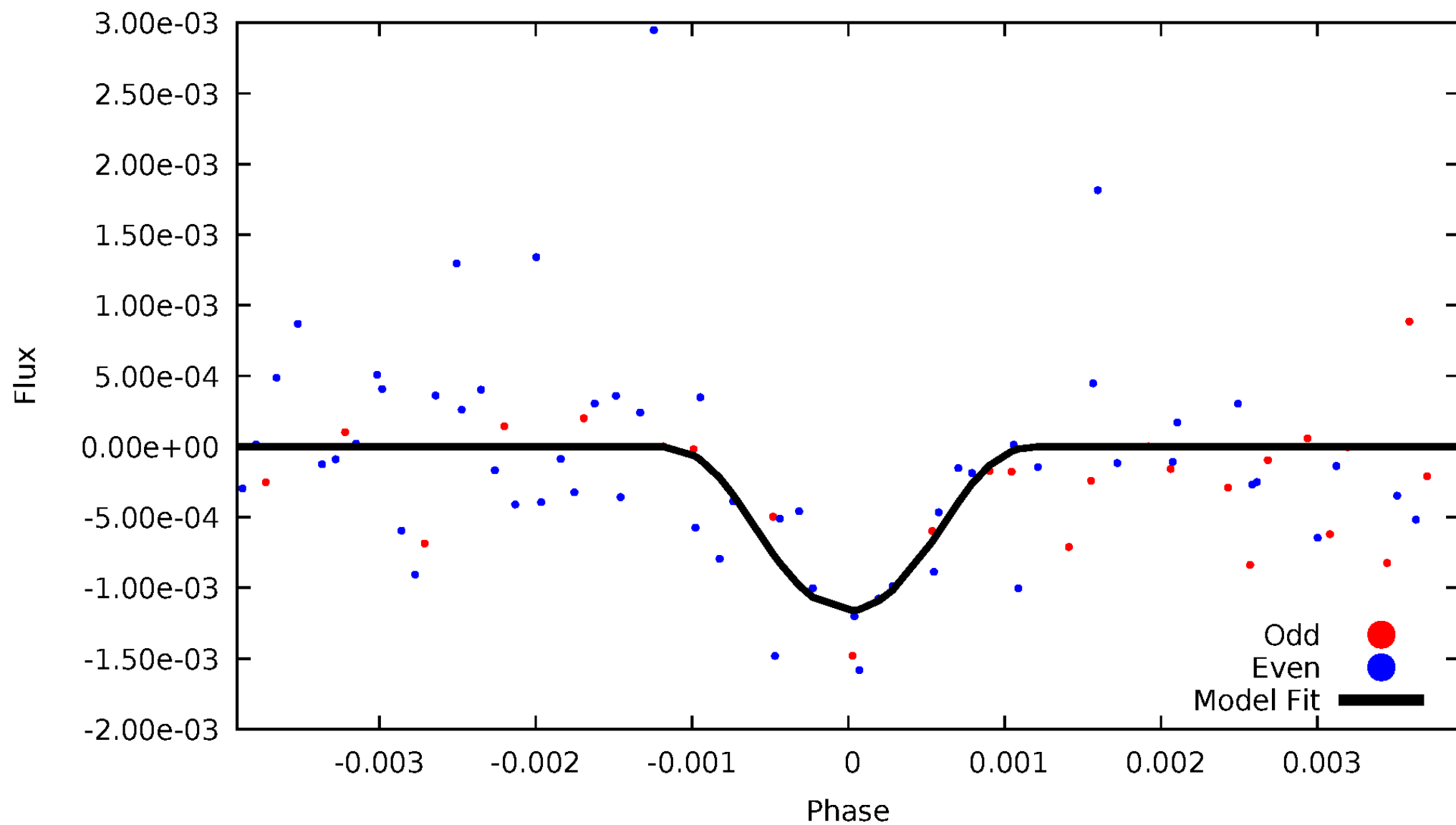


TCE 005817533-03



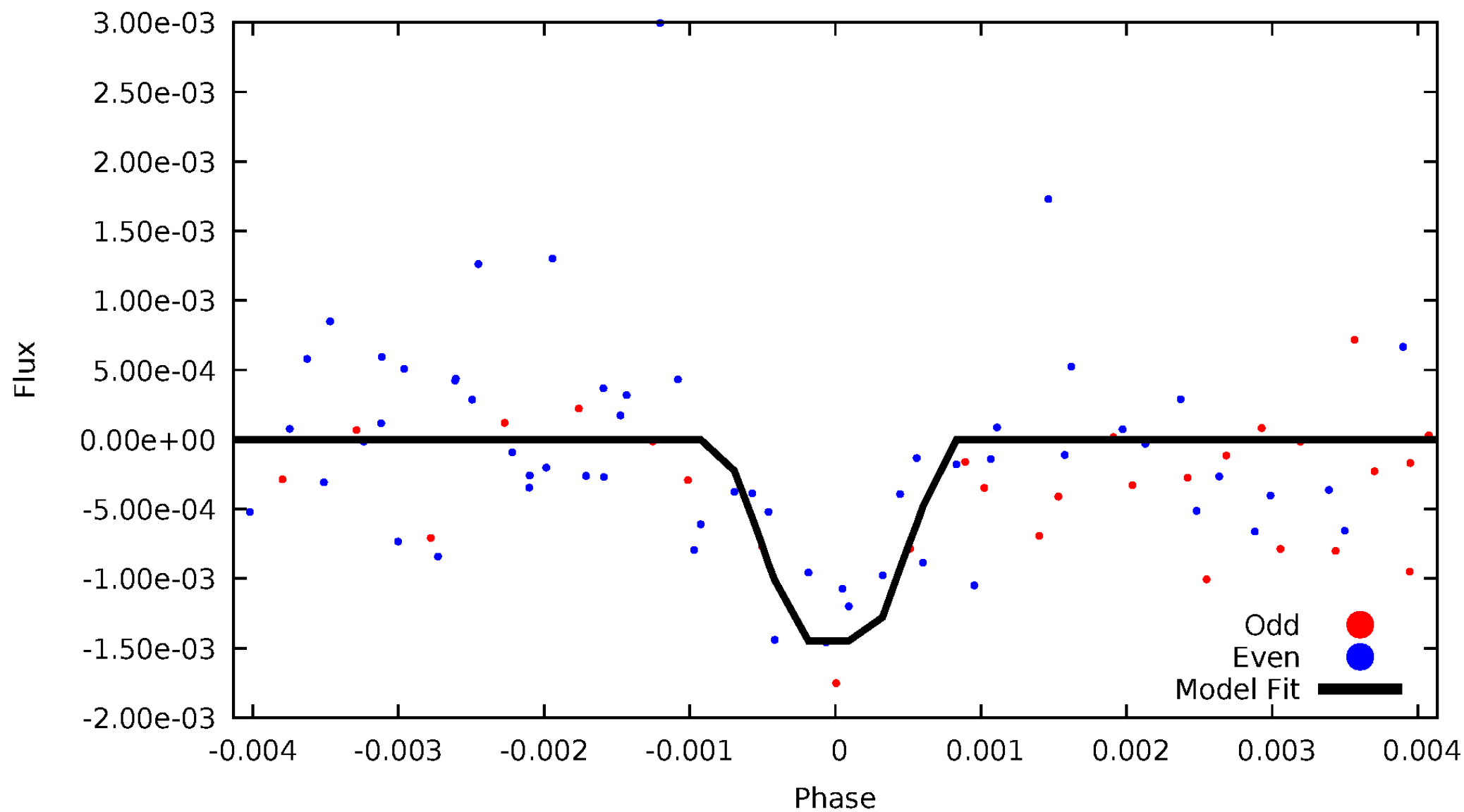
DV Odd/Even

TCE 005817533-03



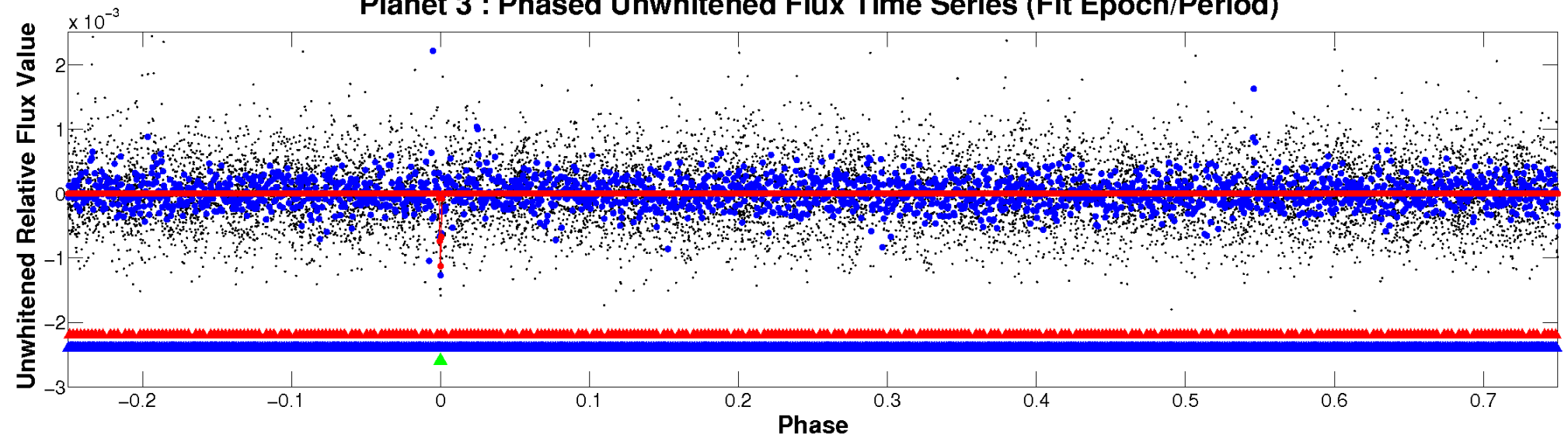
ALT Odd/Even

TCE 005817533-03

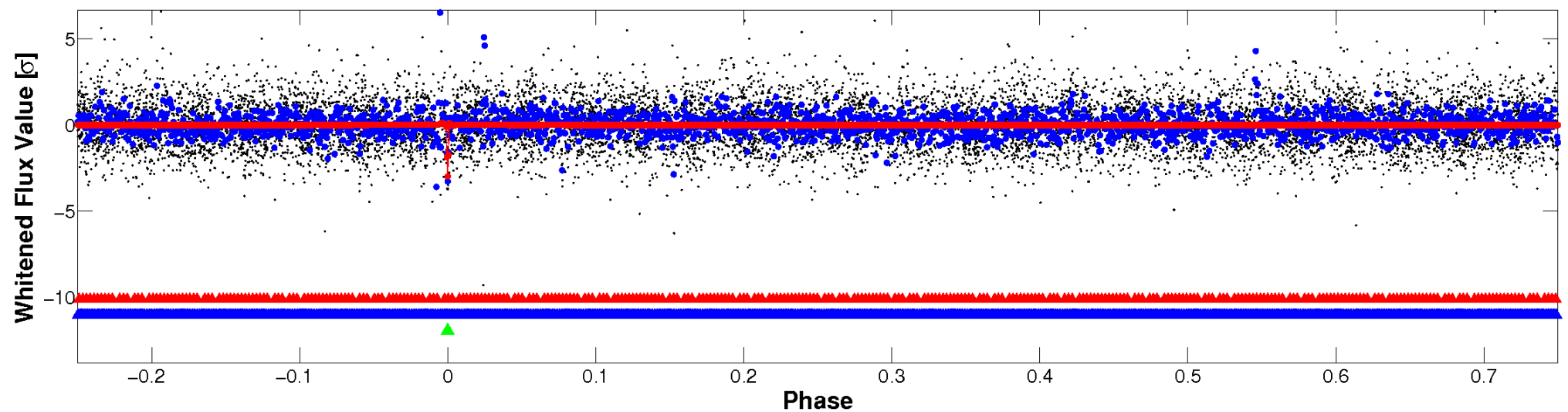


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

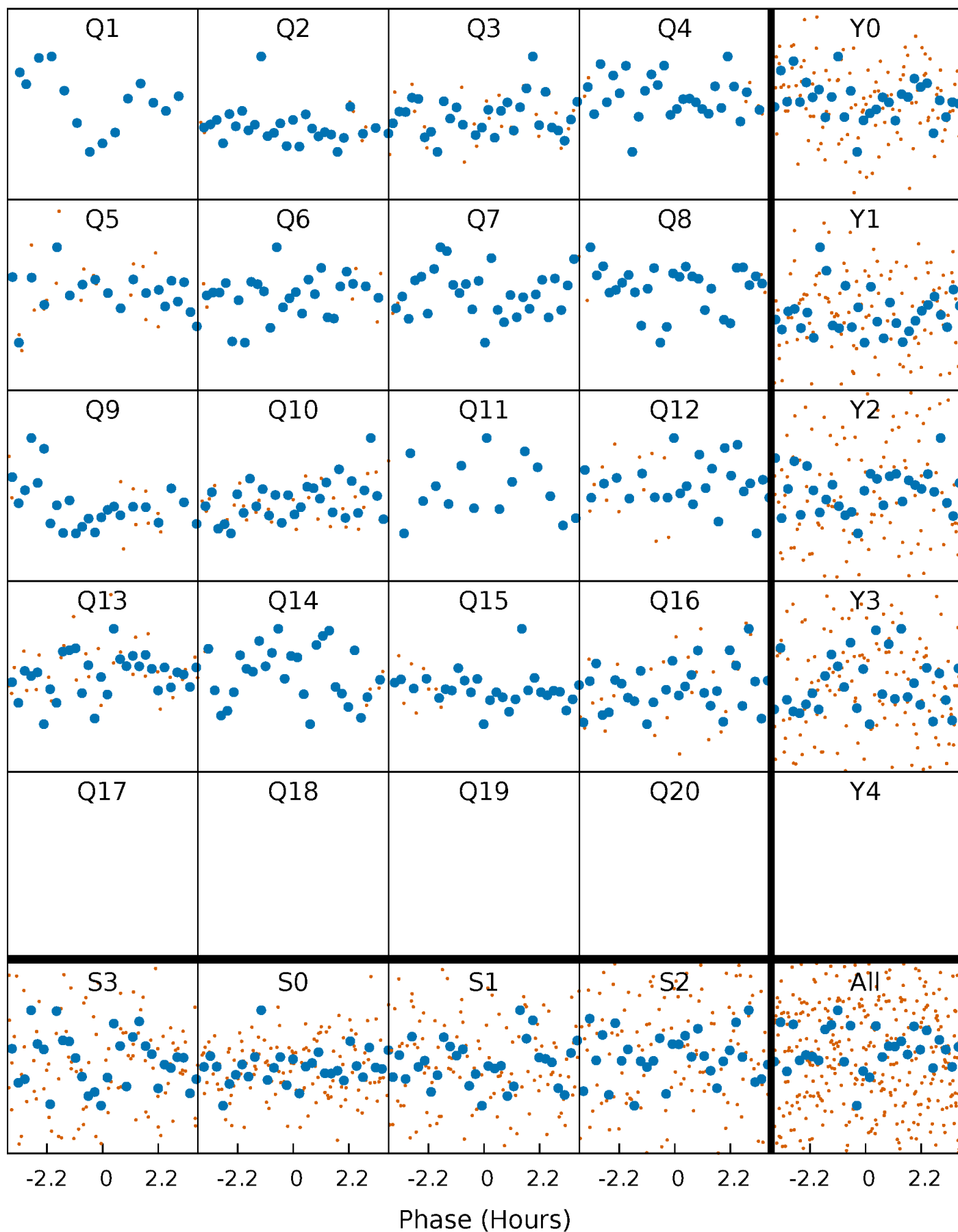


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



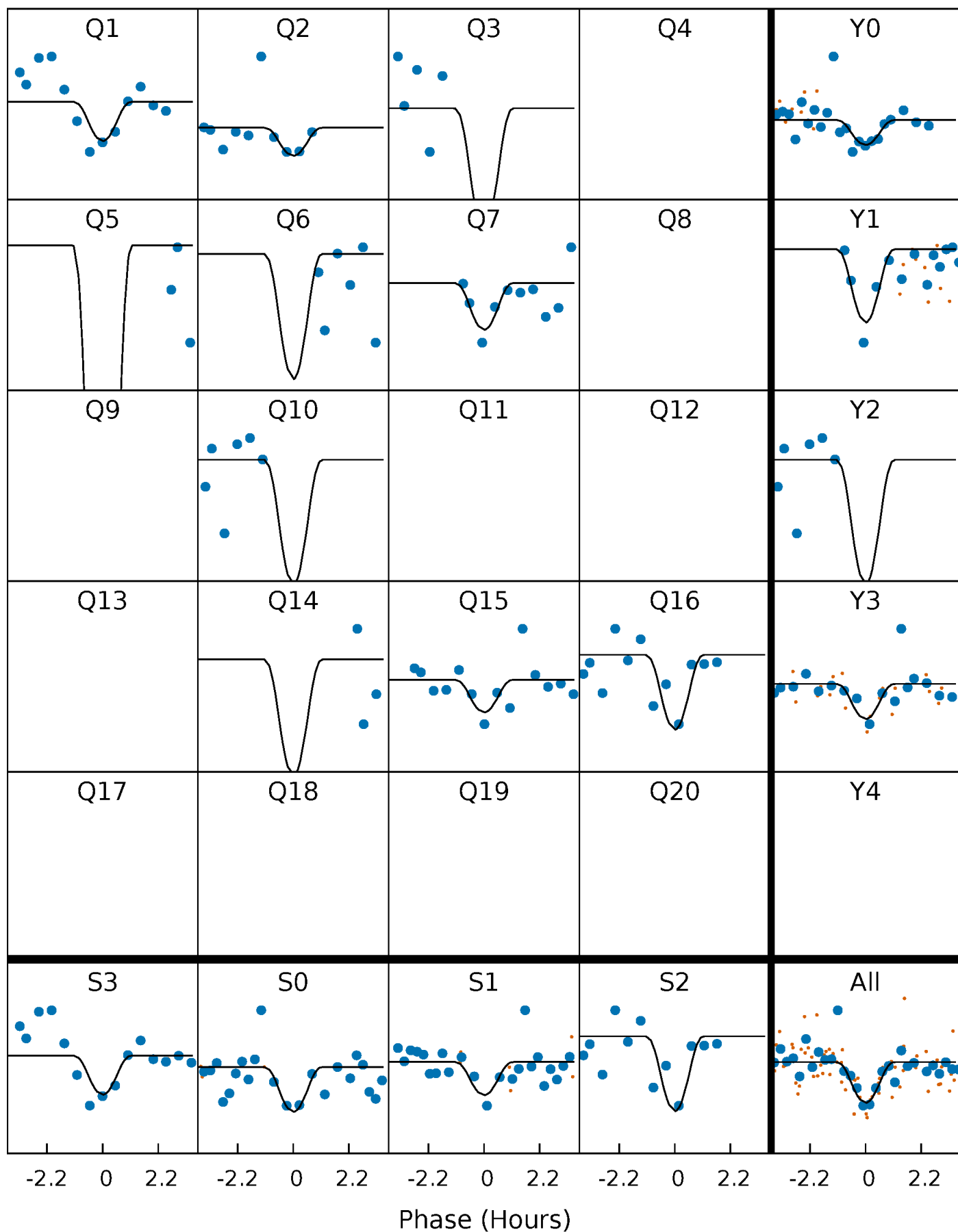
PDC Quarter-Phased Transit Curves

TCE 005817533-03 P= 40.158335 Days $T_0=147.755883$ (BKJD)



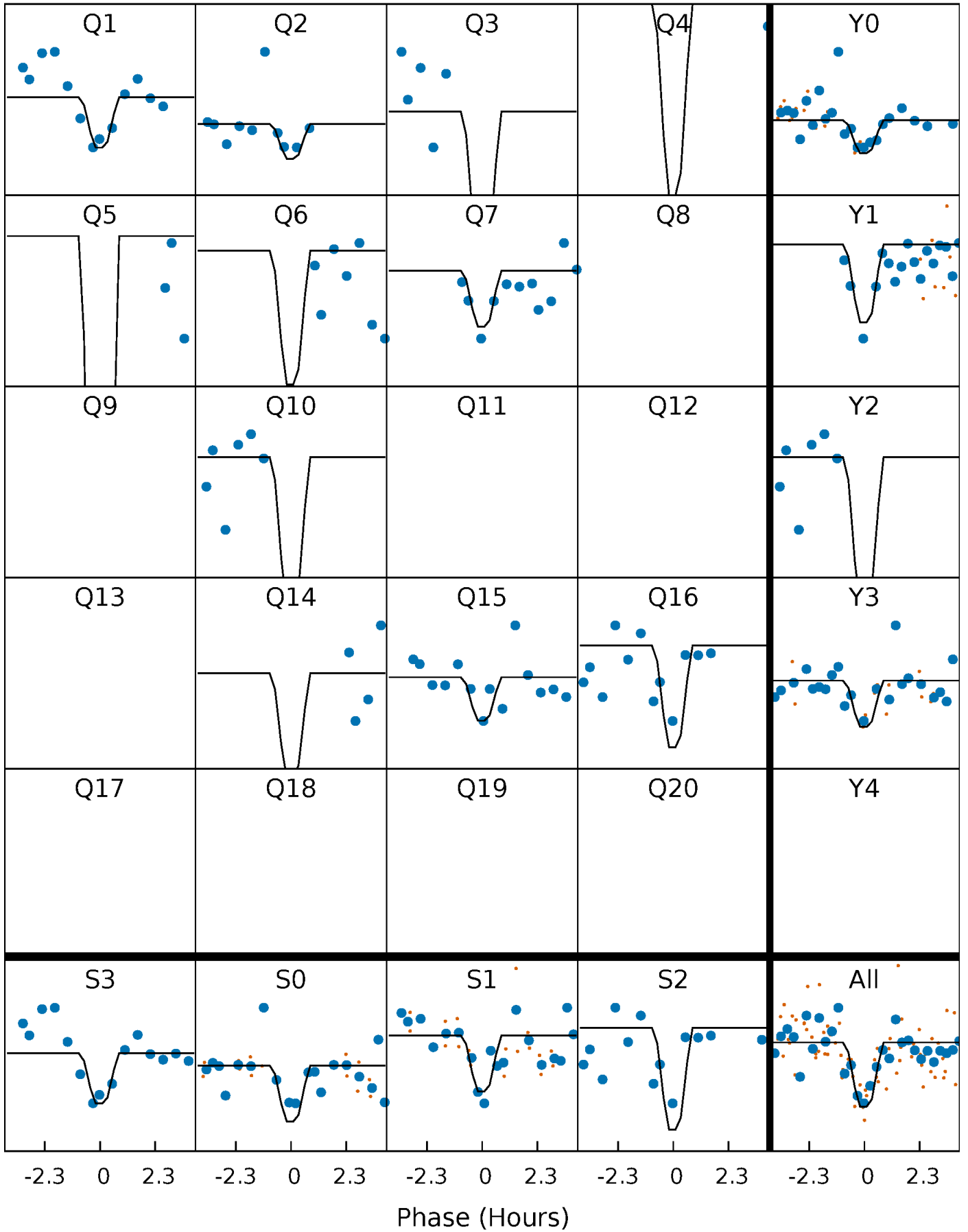
DV Quarter-Phased Transit Curves

TCE 005817533-03 P= 40.158335 Days $T_0=147.755883$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

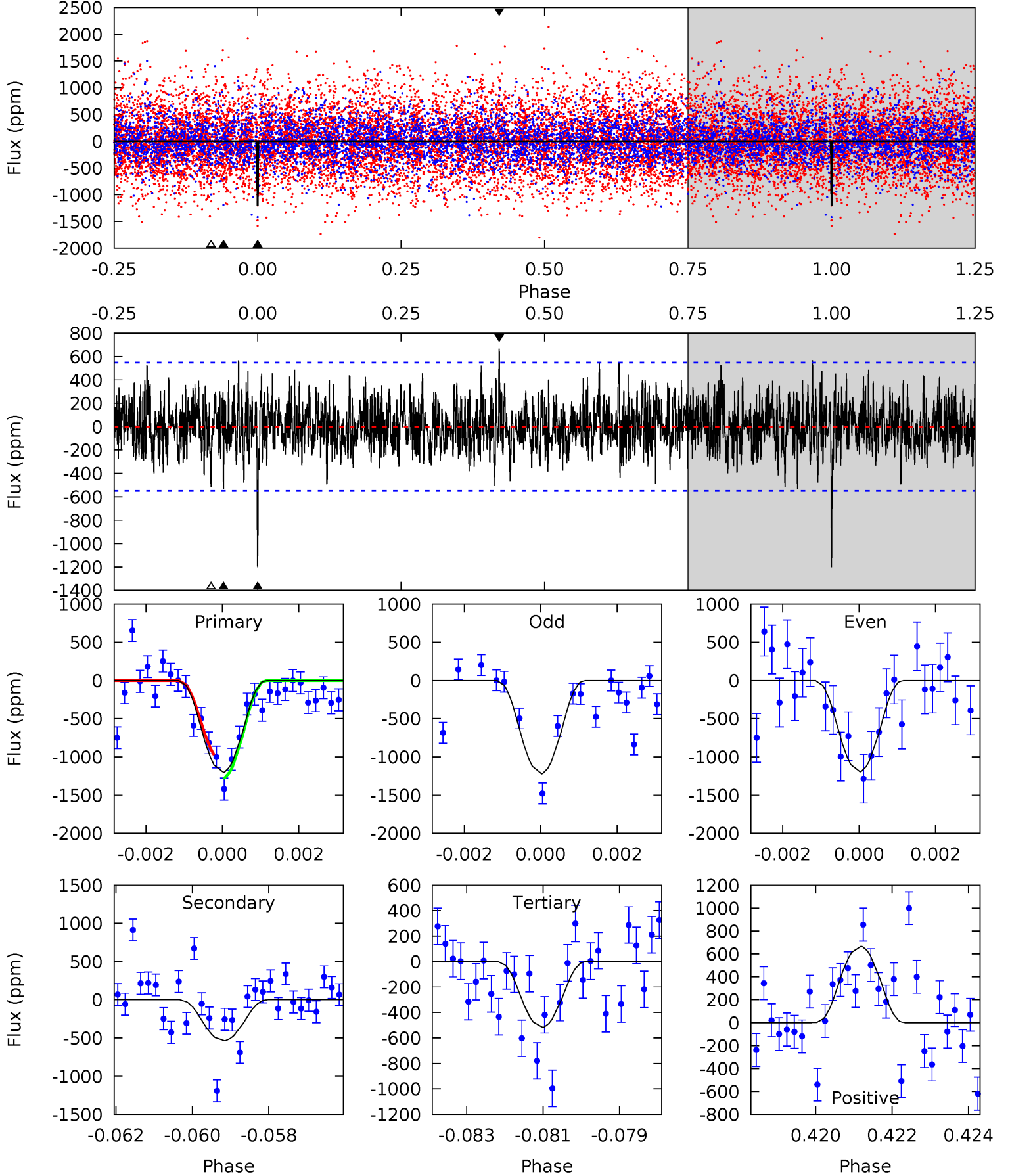
TCE 005817533-03 $P = 40.158569$ Days $T_0 = 147.753736$ (BKJD)



DV Model-Shift Uniqueness Test

005817533-03, P = 40.158335 Days, E = 107.597548 Days

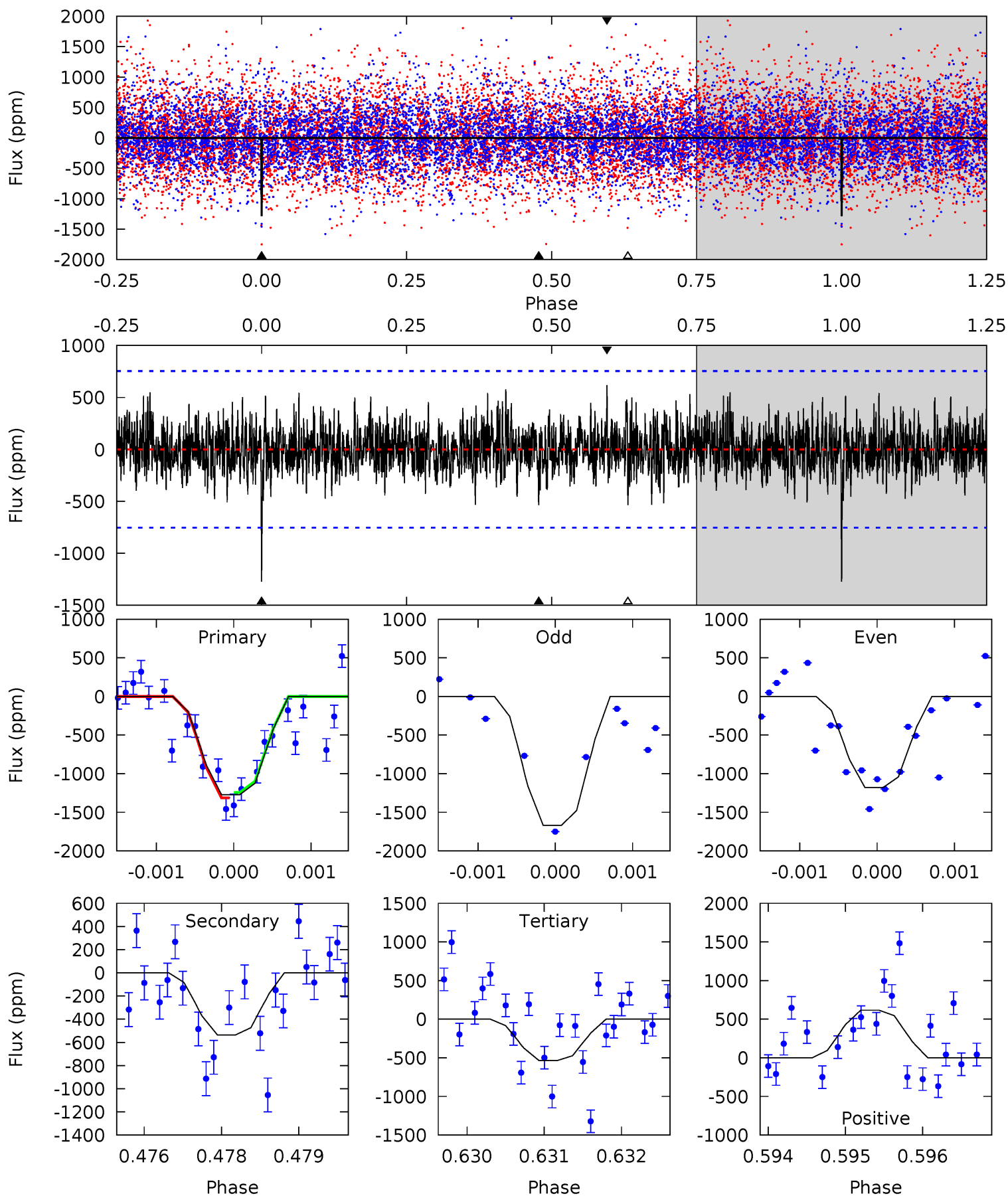
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	5.19	5.01	6.46	5.32	3.08	1.61	6.63	5.18	0.18	-1.27	0.10	0.99	0.36	1.46



Alt Model-Shift Uniqueness Test

005817533-03, $P = 40.158569$ Days, $E = 107.595167$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.16	3.86	3.85	4.44	5.42	3.25	1.23	5.30	4.72	0.00	-0.59	1.54	1.07	0.33	0.25



Stellar Parameters For KIC 005817533

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5480^{+164}_{-164}	$4.522^{+0.080}_{-0.120}$	$-0.360^{+0.350}_{-0.300}$	$0.802^{+0.149}_{-0.092}$	$0.780^{+0.106}_{-0.062}$	$2.132^{+0.798}_{-0.734}$
	+3%/-3%	+2%/-3%	+97%/-83%	+19%/-11%	+14%/-8%	+37%/-34%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 005817533-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-536 ± 103	$42.14^{+49.60}_{-29.58}$	663^{+36}_{-28}	2147^{+784}_{-340}	$7.240^{+76.833}_{-5.716}$
Alt.	-536 ± 139	$43.99^{+47.71}_{-30.87}$	663^{+35}_{-29}	2135^{+737}_{-327}	$6.551^{+68.010}_{-5.047}$

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

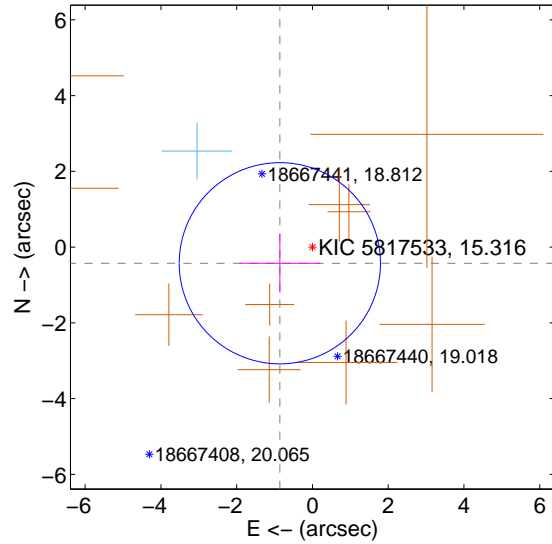
Supplemental centroid analysis for 005817533-03. Kepler magnitude: 15.32. Transit SNR 9.00

There are 1 quarters with good PRF difference image offsets

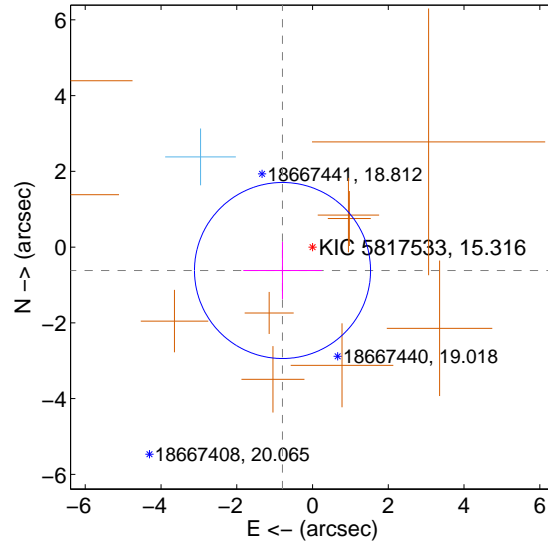
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.961 ± 0.885	1.09	0.861 ± 1.067	-0.427 ± 0.774
PRF-fit source offset from KIC position	1.005 ± 0.775	1.30	0.792 ± 1.036	-0.618 ± 0.756
photometric centroid source offset	2.47 ± 0.95	2.60	1.27 ± 0.91	-2.12 ± 0.97

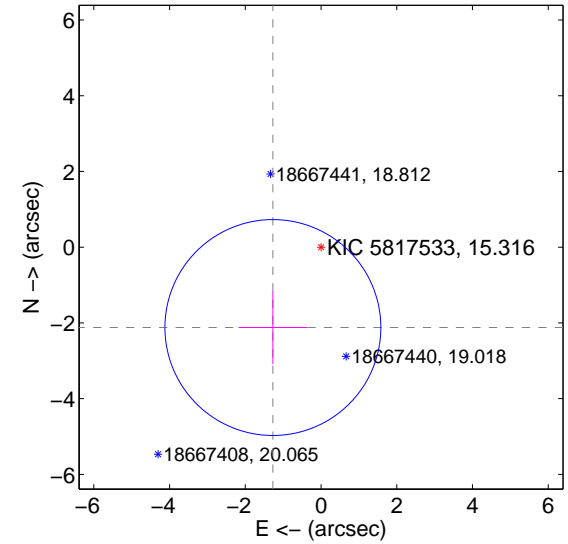
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

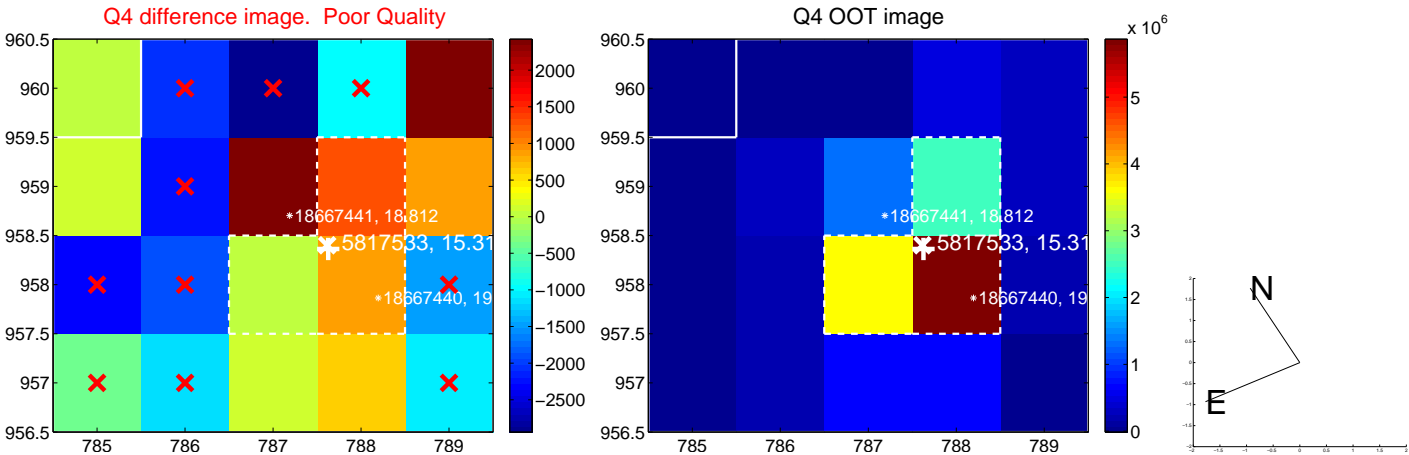
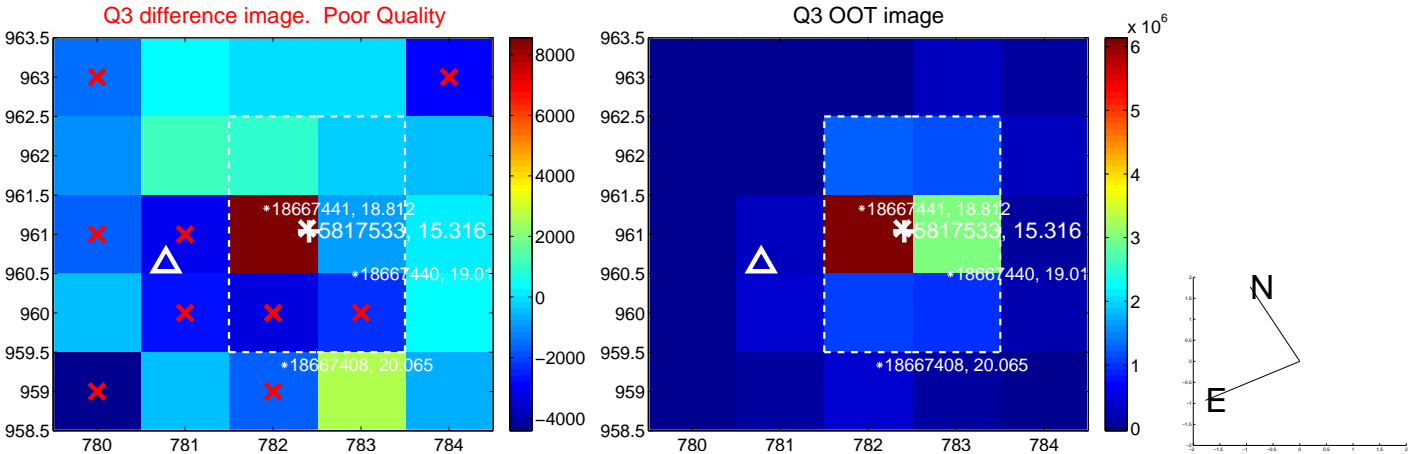
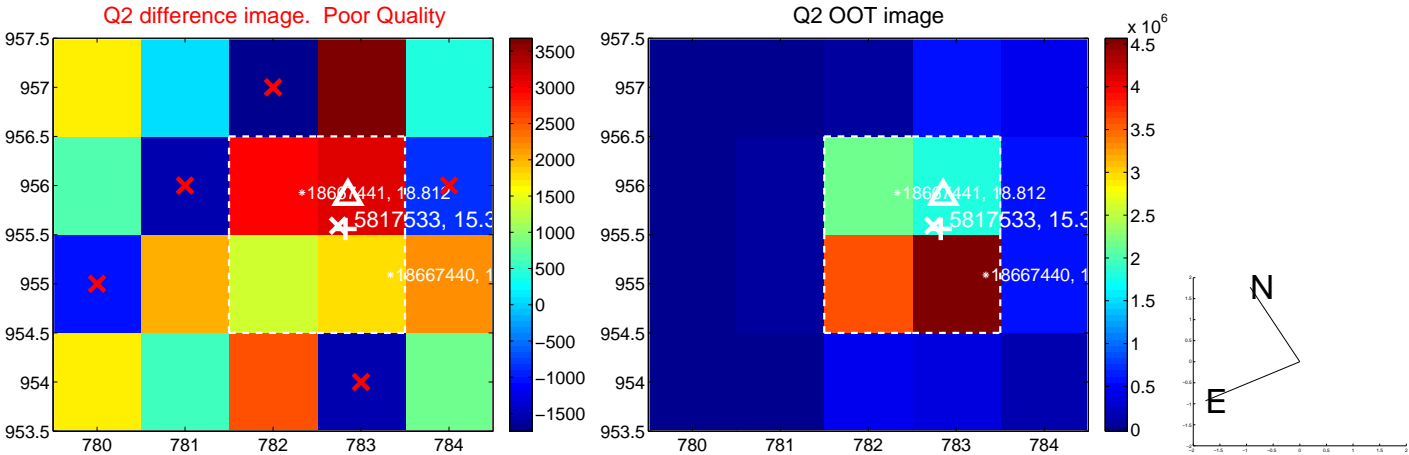
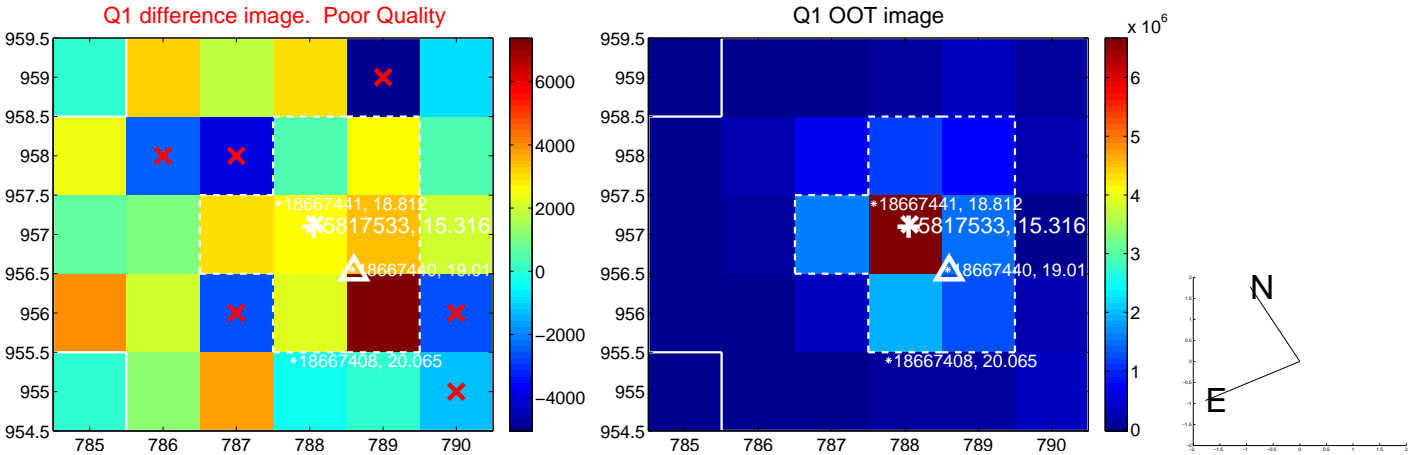


offset from photometric centroids

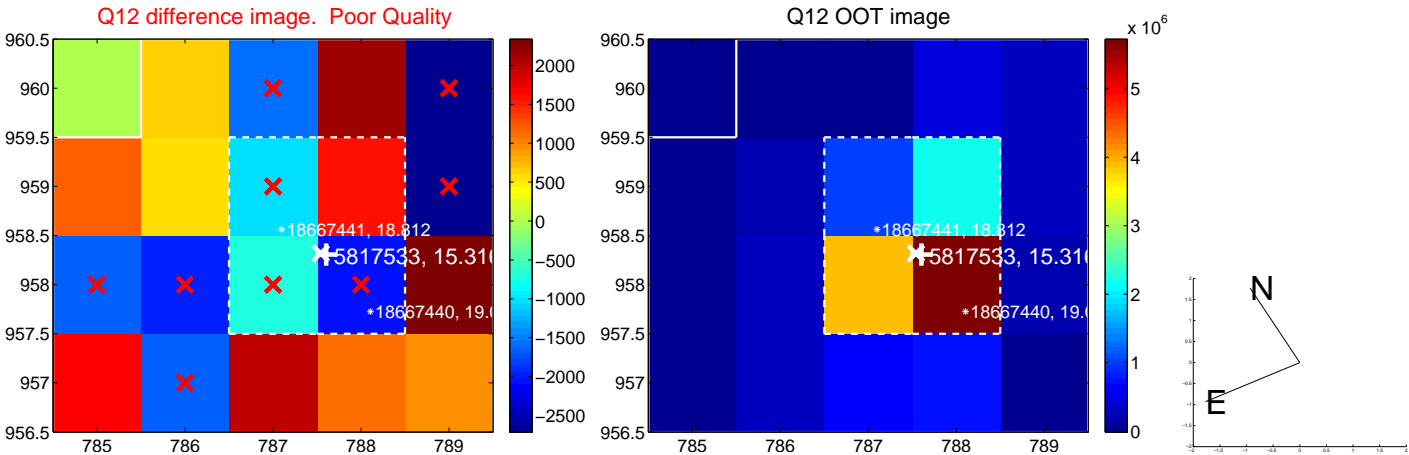
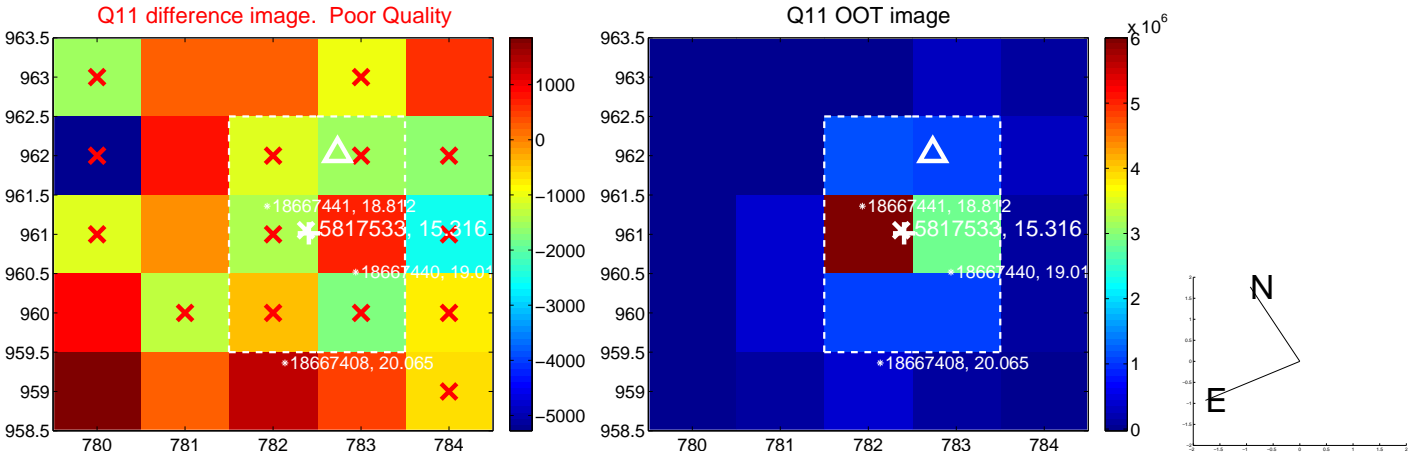
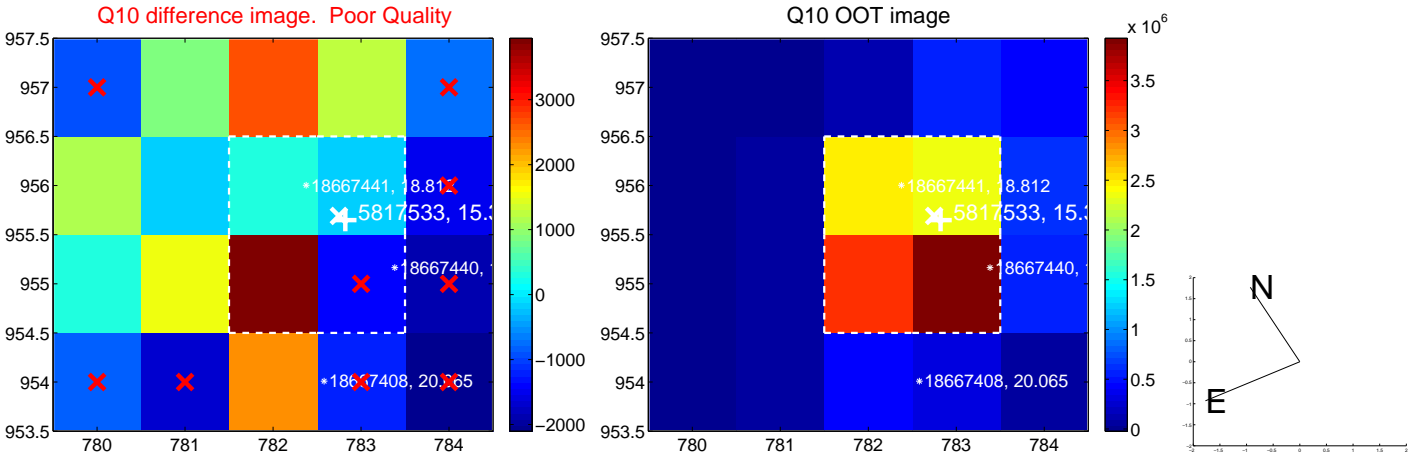
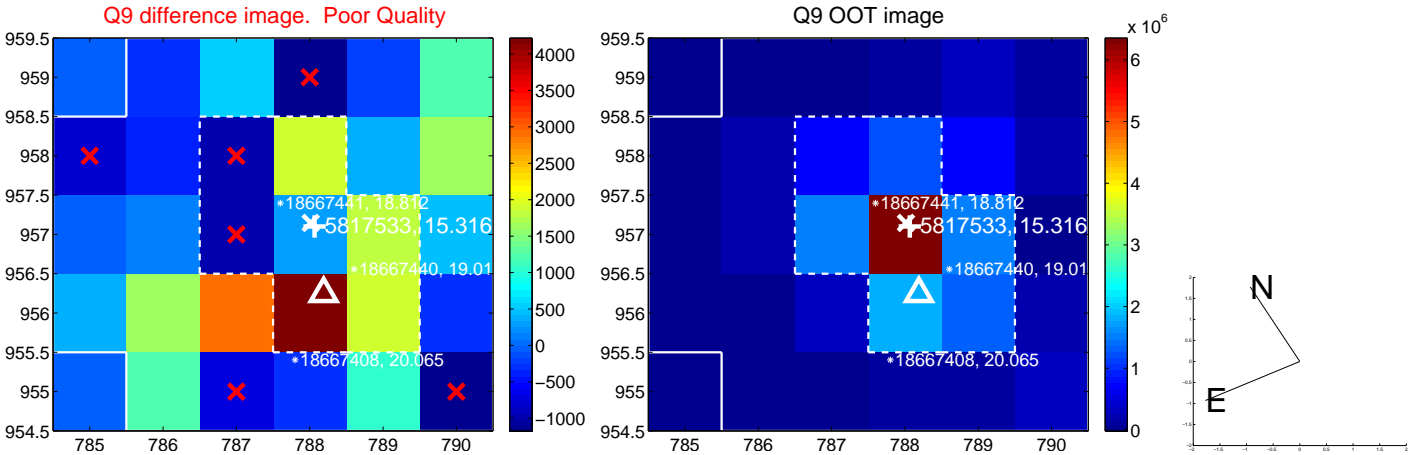


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

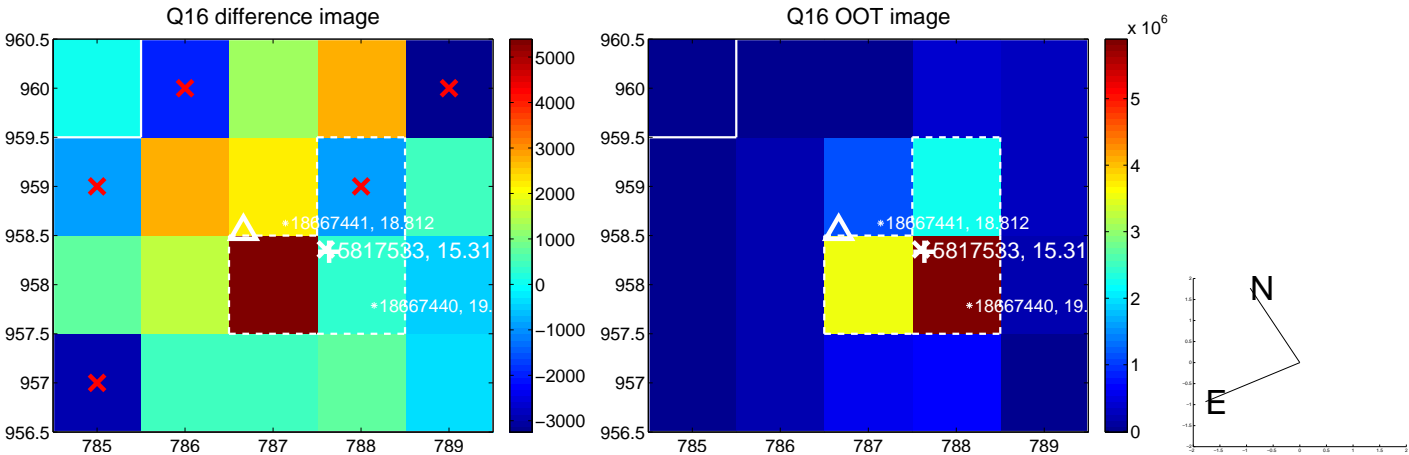
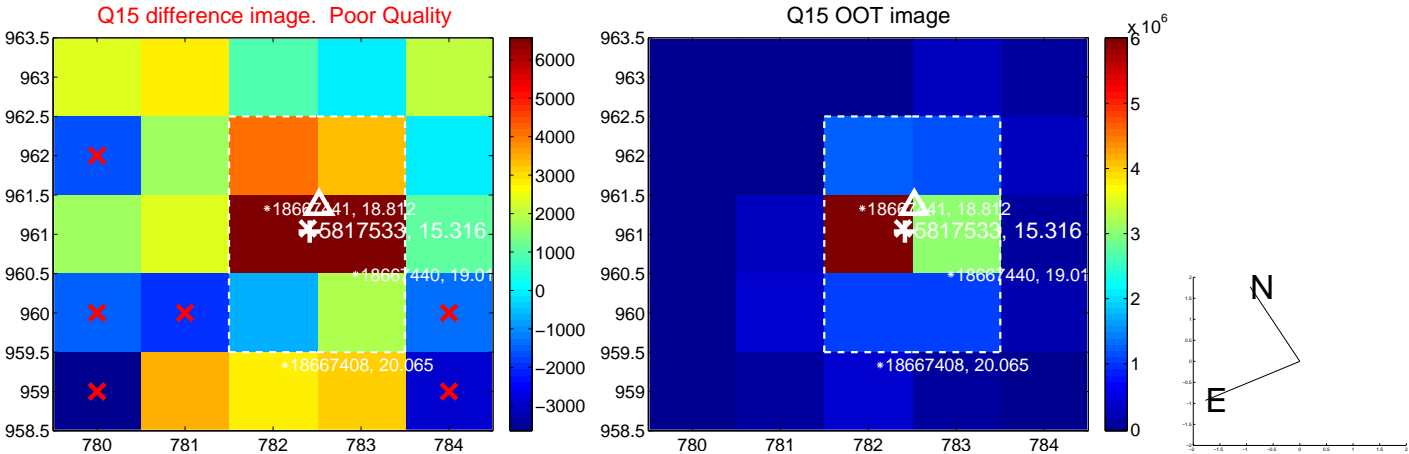
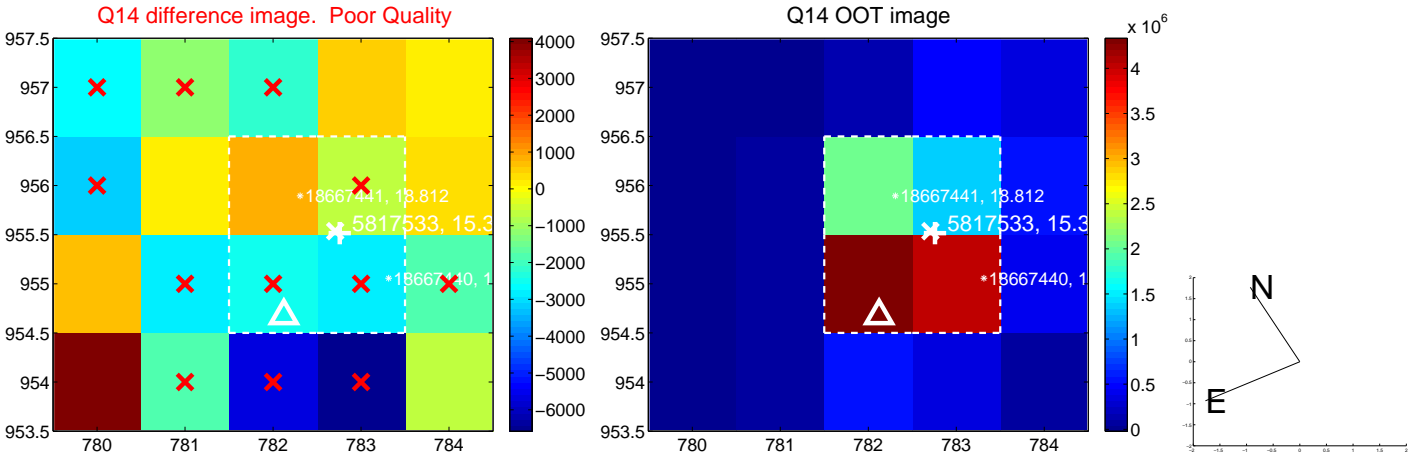
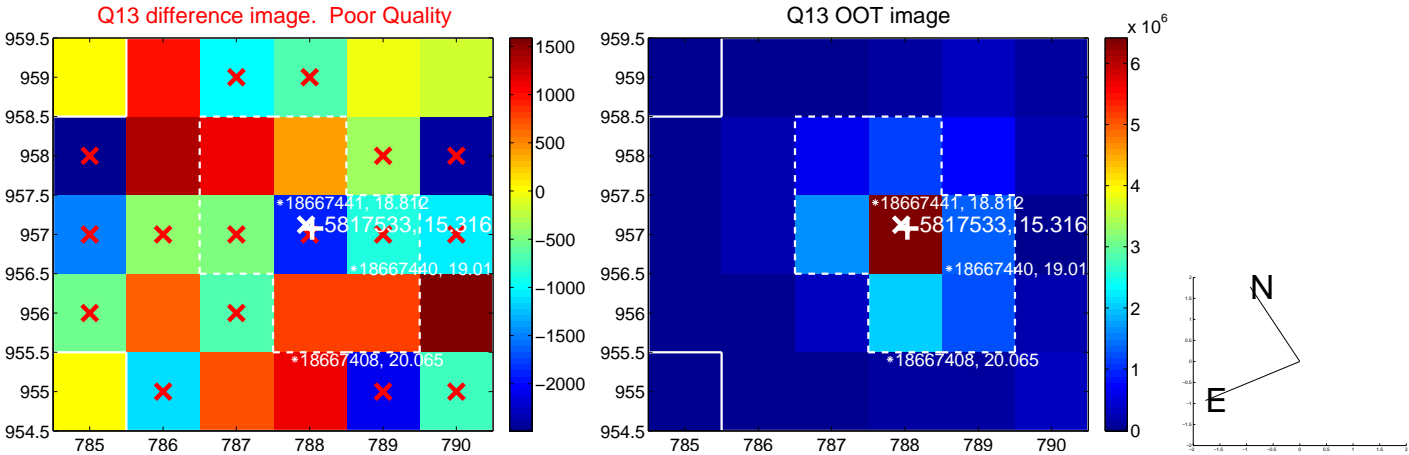
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



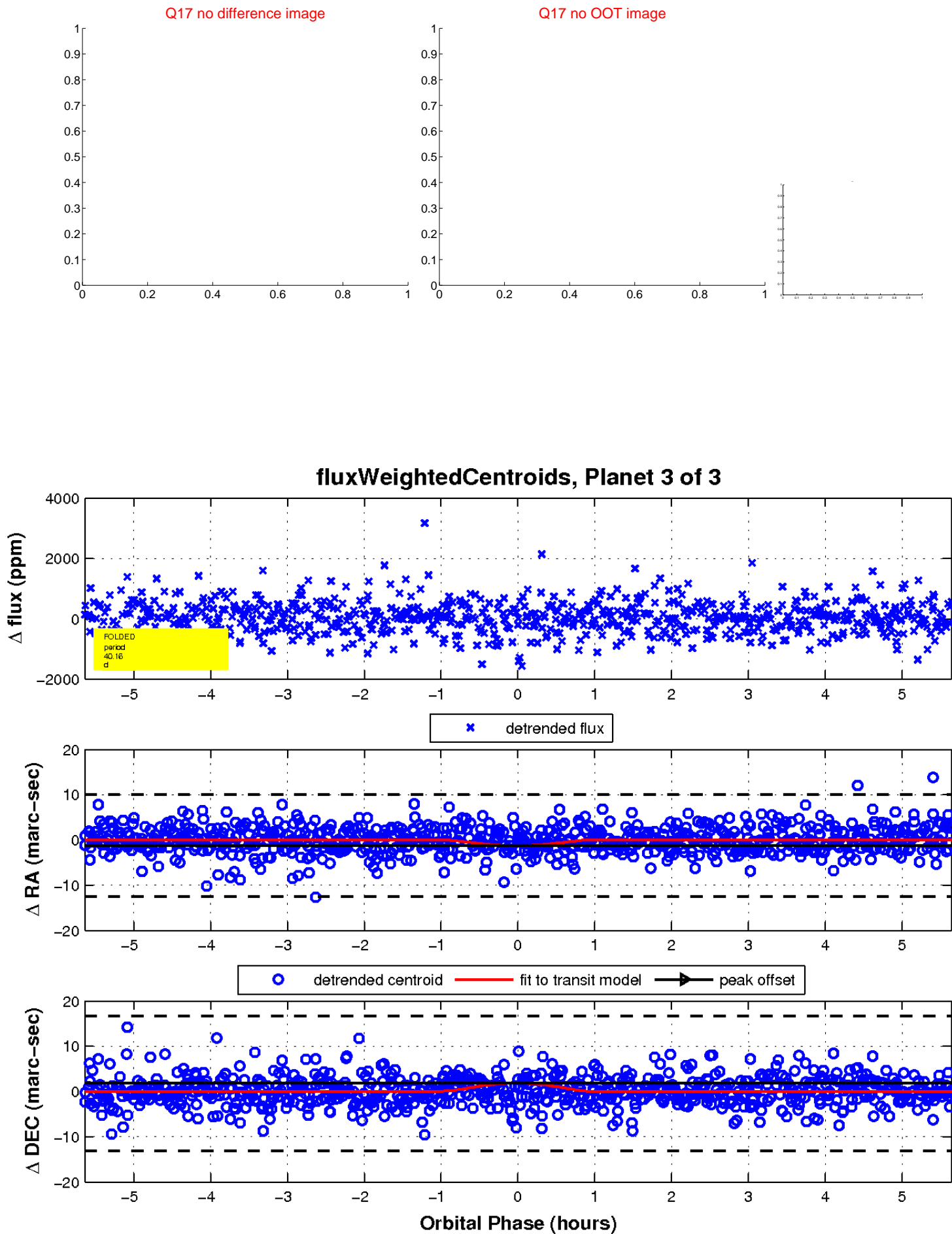
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

