

KIC 005817957

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})
005817957-01	OBS	7742.01	372.768681	377.601154	1016.8	21.122	10.6	10.9	0.89	5800	3.37	0.81
005817957-02	OBS	No	372.759056	382.475883	929.3	20.214	9.3	10.6	0.89	5800	2.71	0.81
005817957-03	OBS	No	372.829177	389.913245	797.7	30.216	7.7	8.2	0.89	5800	2.99	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817957-01	OBS	FP	0.00	0	1	0	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_FEW_DIFFS—EPHEM_MATCH
005817957-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_FEW_DIFFS
005817957-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_FEW_DIFFS

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.

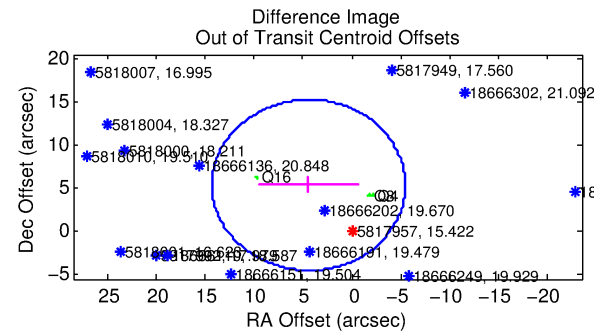
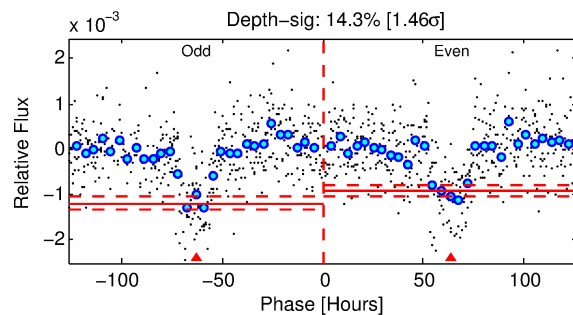
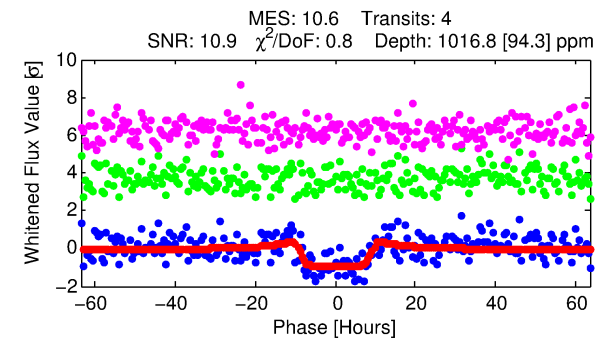
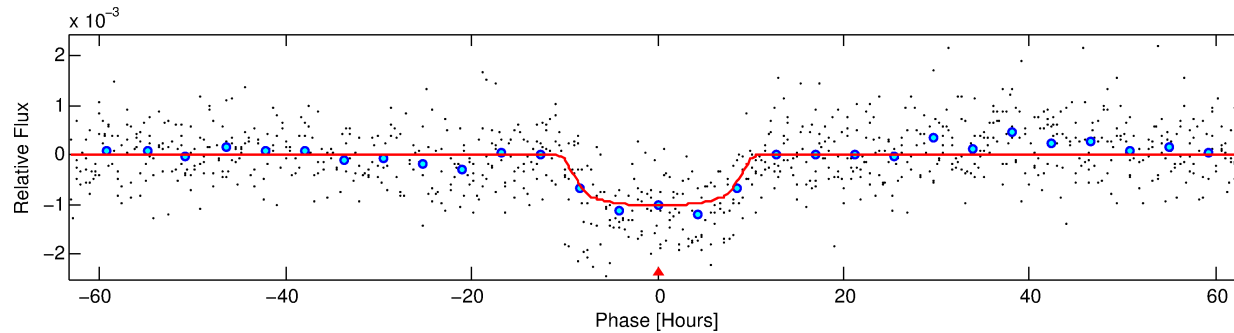
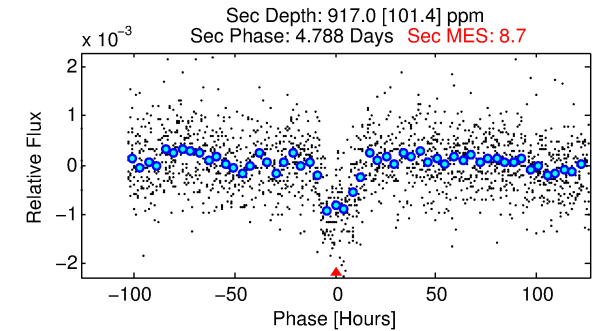
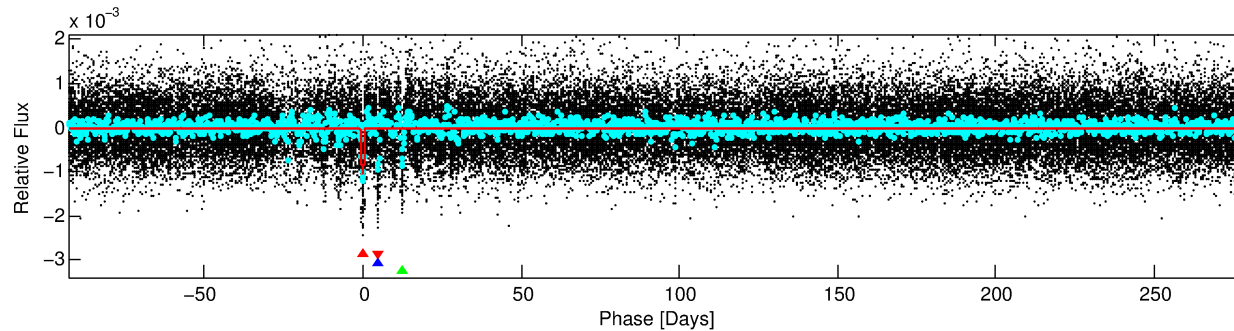
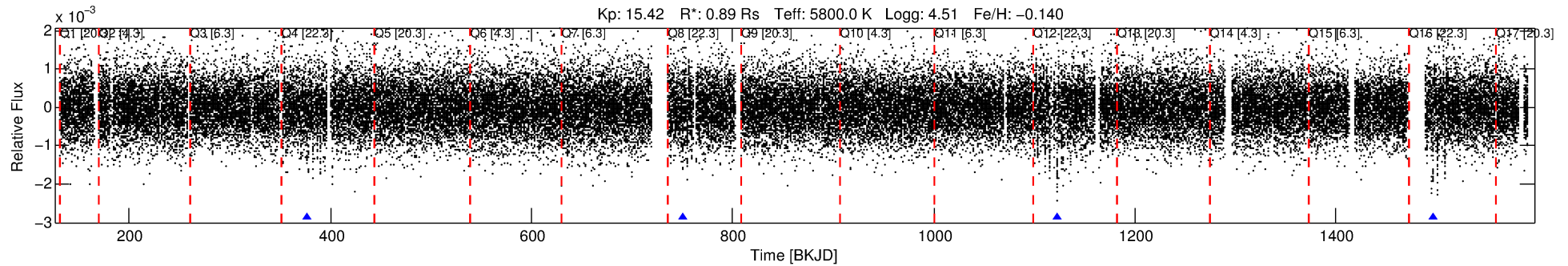
Ephemeris Match Information For 005817957-01

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
005817957-01	5817957	6586.01	5471415	30:1	2893.7	43	-7	12.62	15.42	1.29	Col-Anomaly	1	4.84	0.71

Notes: P₁:P₂ 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. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ 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: 5817957 Candidate: 1 of 3 Period: 372.769 d



DV Fit Results:

Period = 372.76868 [0.01308] d
Epoch = 377.6012 [0.0240] BKJD
Rp/R* = 0.0345 [0.0026]
a/R* = 70.00 [16.94]
b = 0.89 [0.05]
Seff = 0.81 [0.31]
Teq = 242 [23] K
Rp = 3.37 [0.97] Re
a = 0.9974 [0.2403] AU
Ag = 44309.35 [17879.44] [2.48σ]
Teffp = 5434 [308] K [16.83σ]

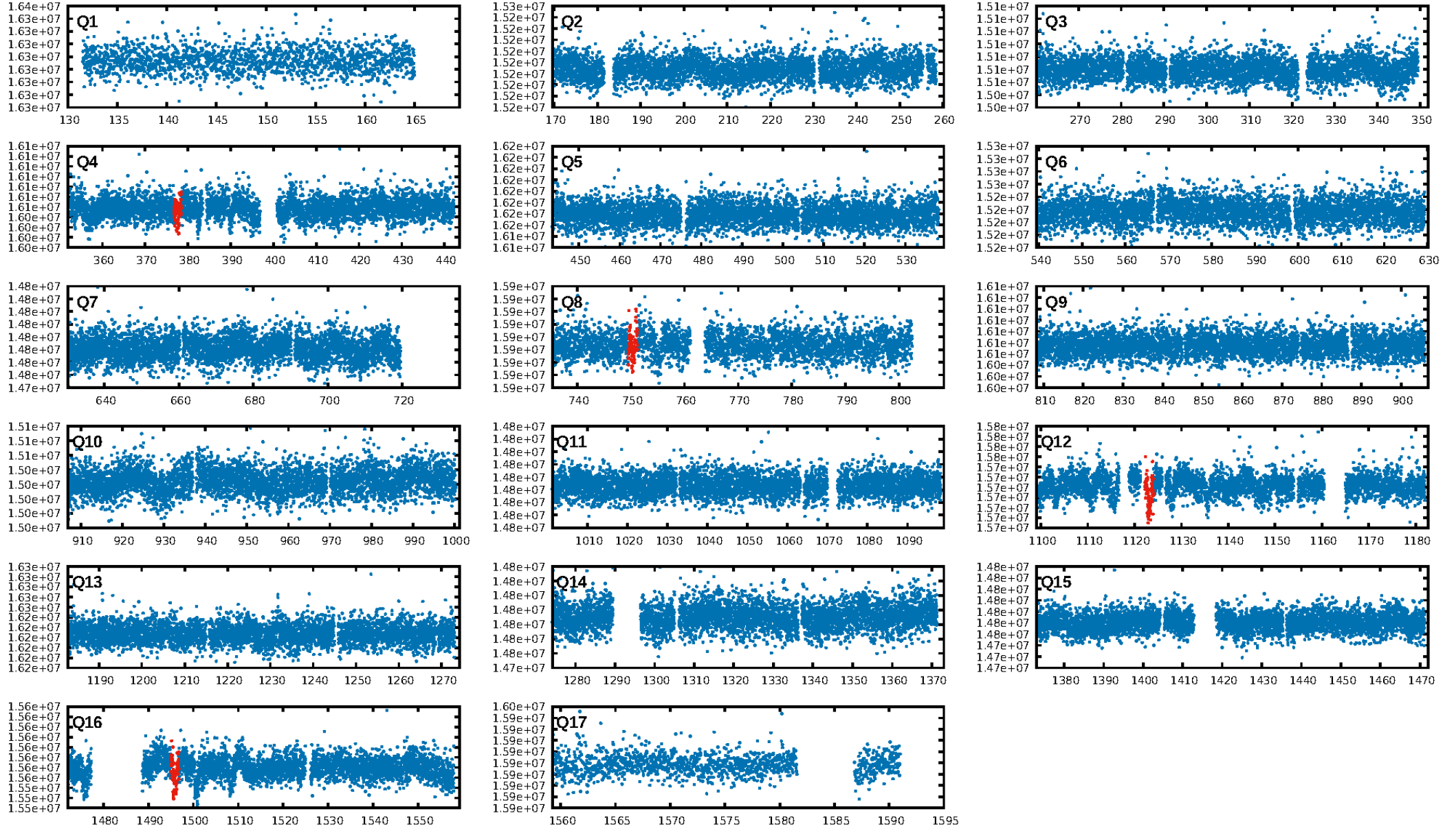
DV Diagnostic Results:

ShortPeriod-sig: 0.6% [0.01σ]
LongPeriod-sig: 3.1% [0.04σ]
ModelChiSquare2-sig: 4.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.35e-23
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.6154
Centroid-sig: 0.0%
Centroid-so: 4.553 arcsec [4.17σ]
OotOffset-rm: 6.958 arcsec [2.11σ]
KicOffset-rm: 6.742 arcsec [2.02σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

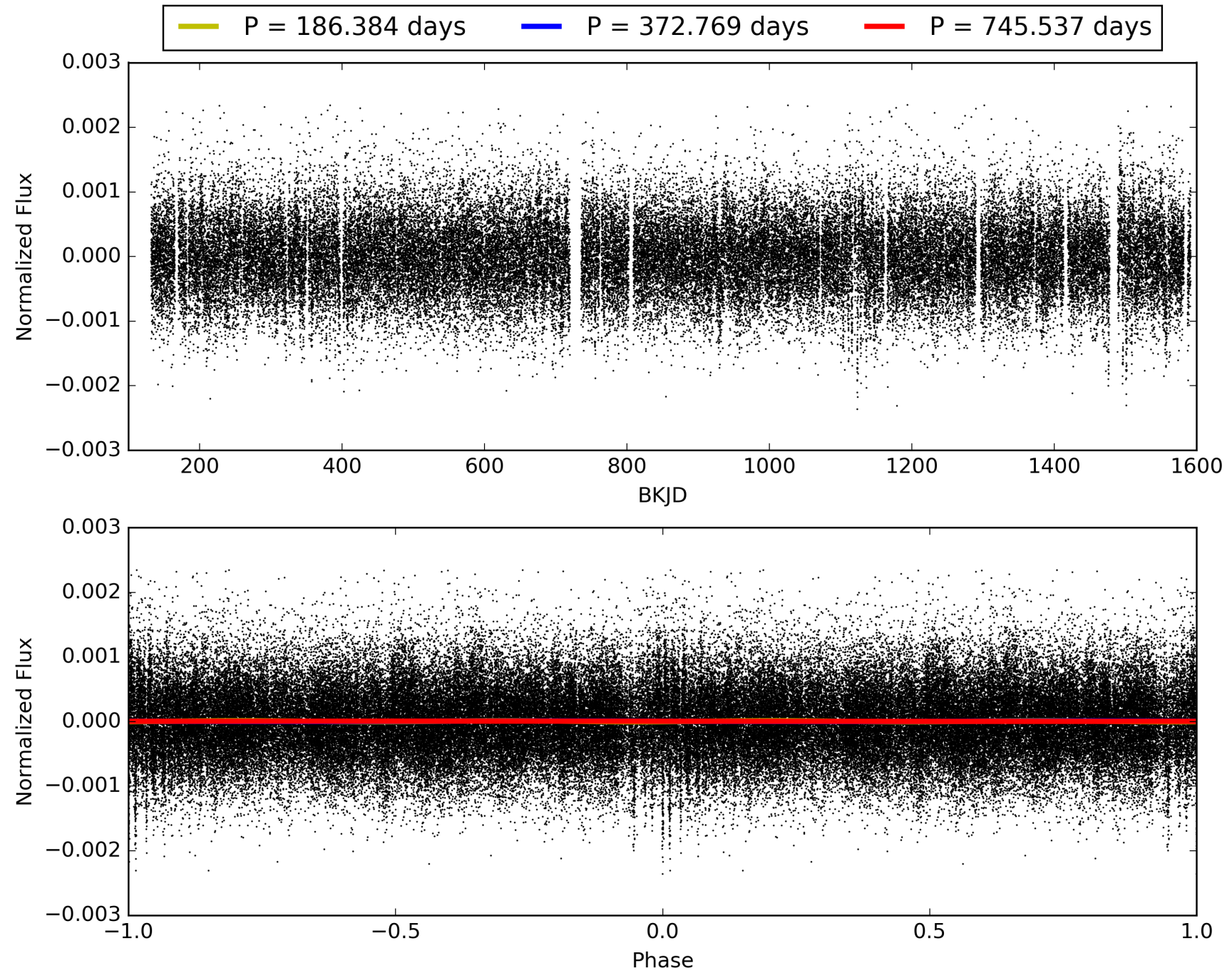
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:49:24 Z

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

TCE 005817957-01, PDC Light Curves

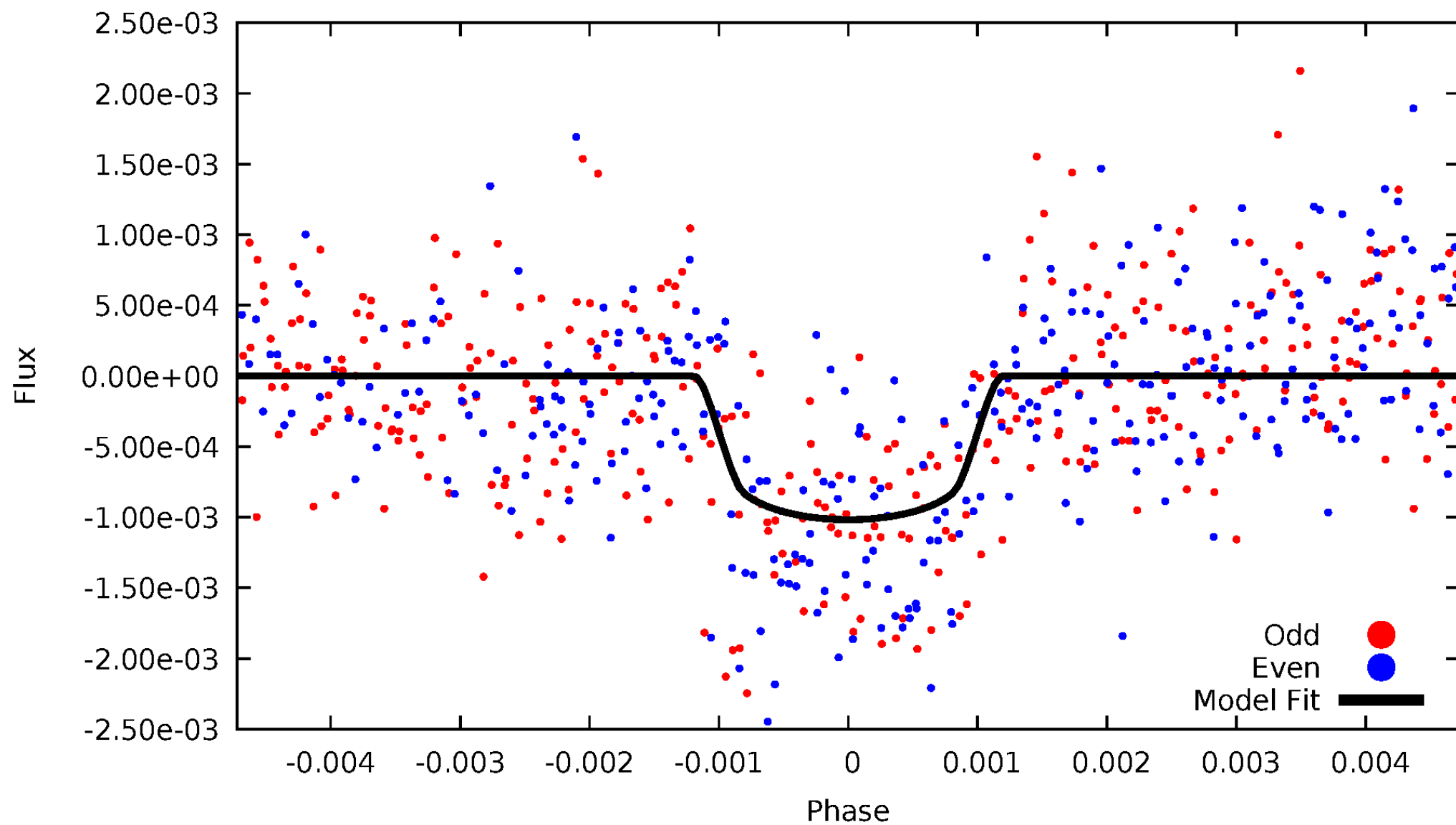


TCE 005817957-01



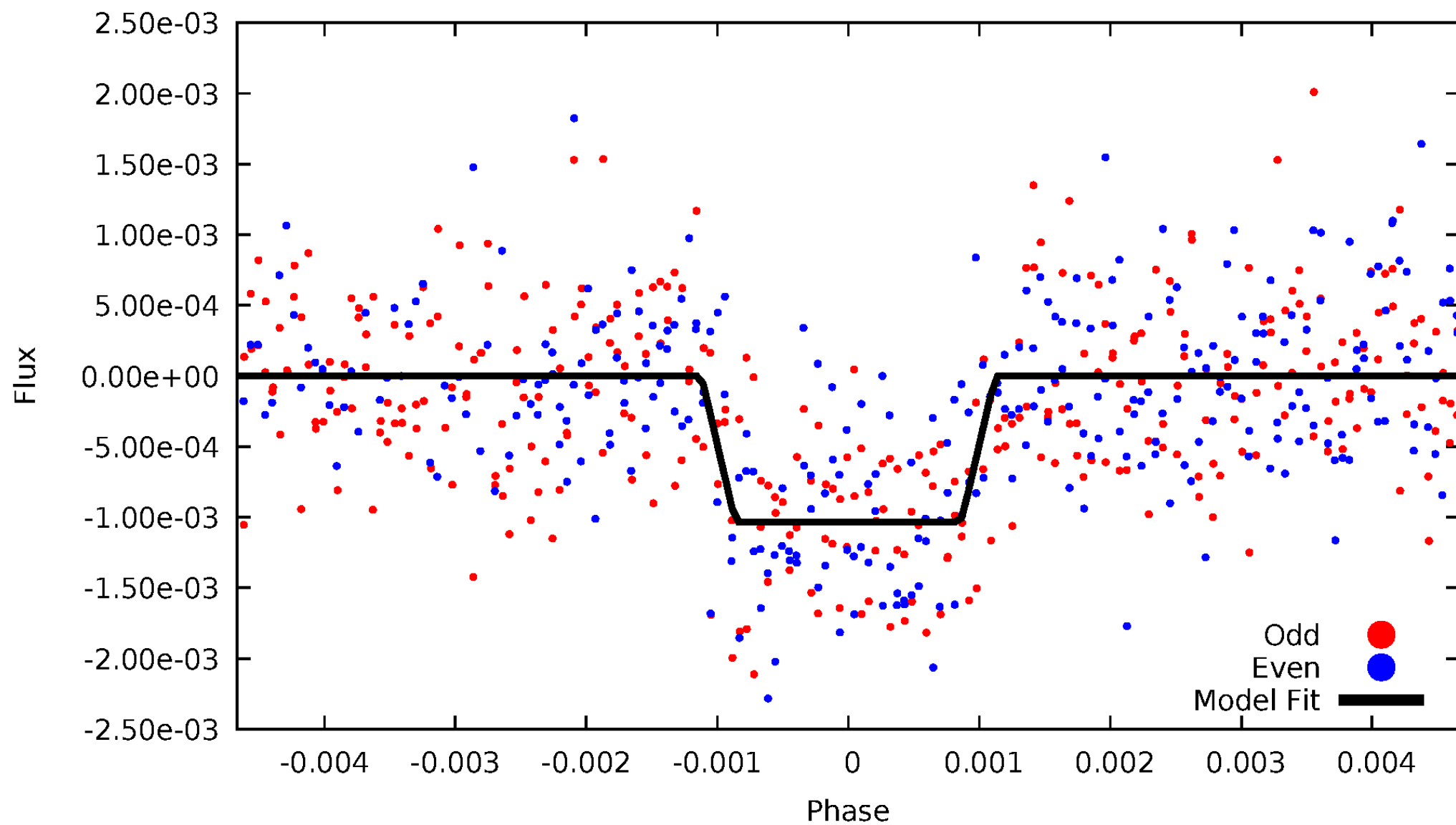
DV Odd/Even

TCE 005817957-01

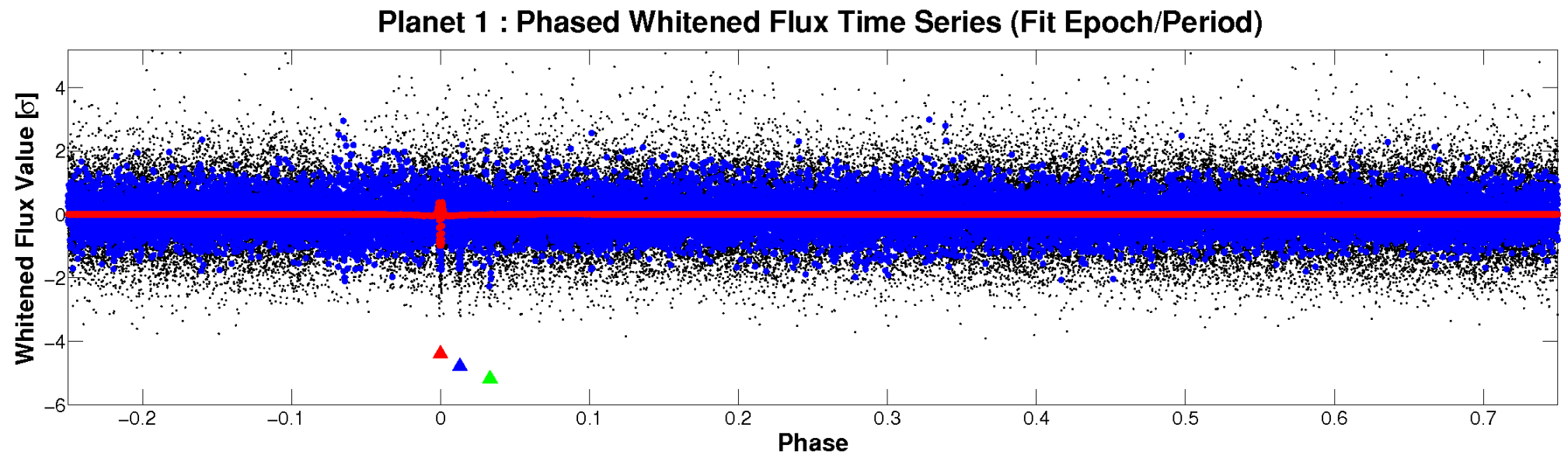
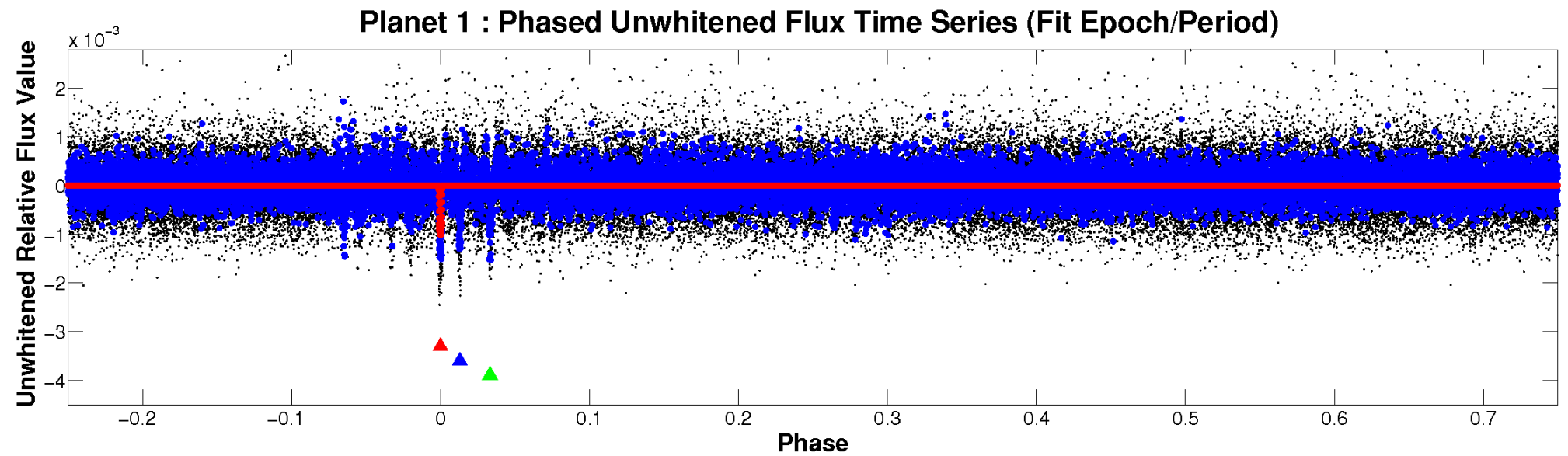


ALT Odd/Even

TCE 005817957-01

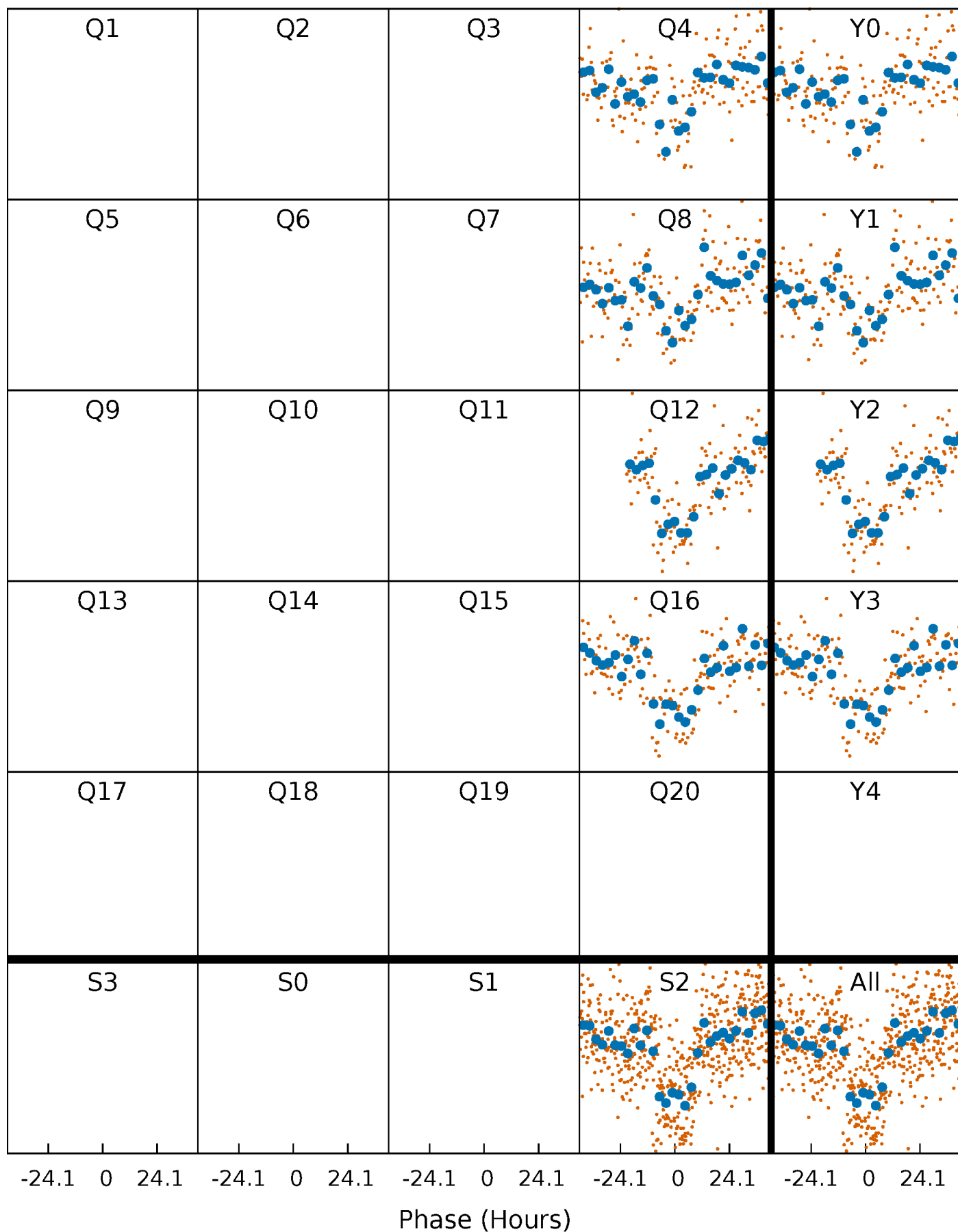


Non-Whitened Vs. Whitened Light Curve



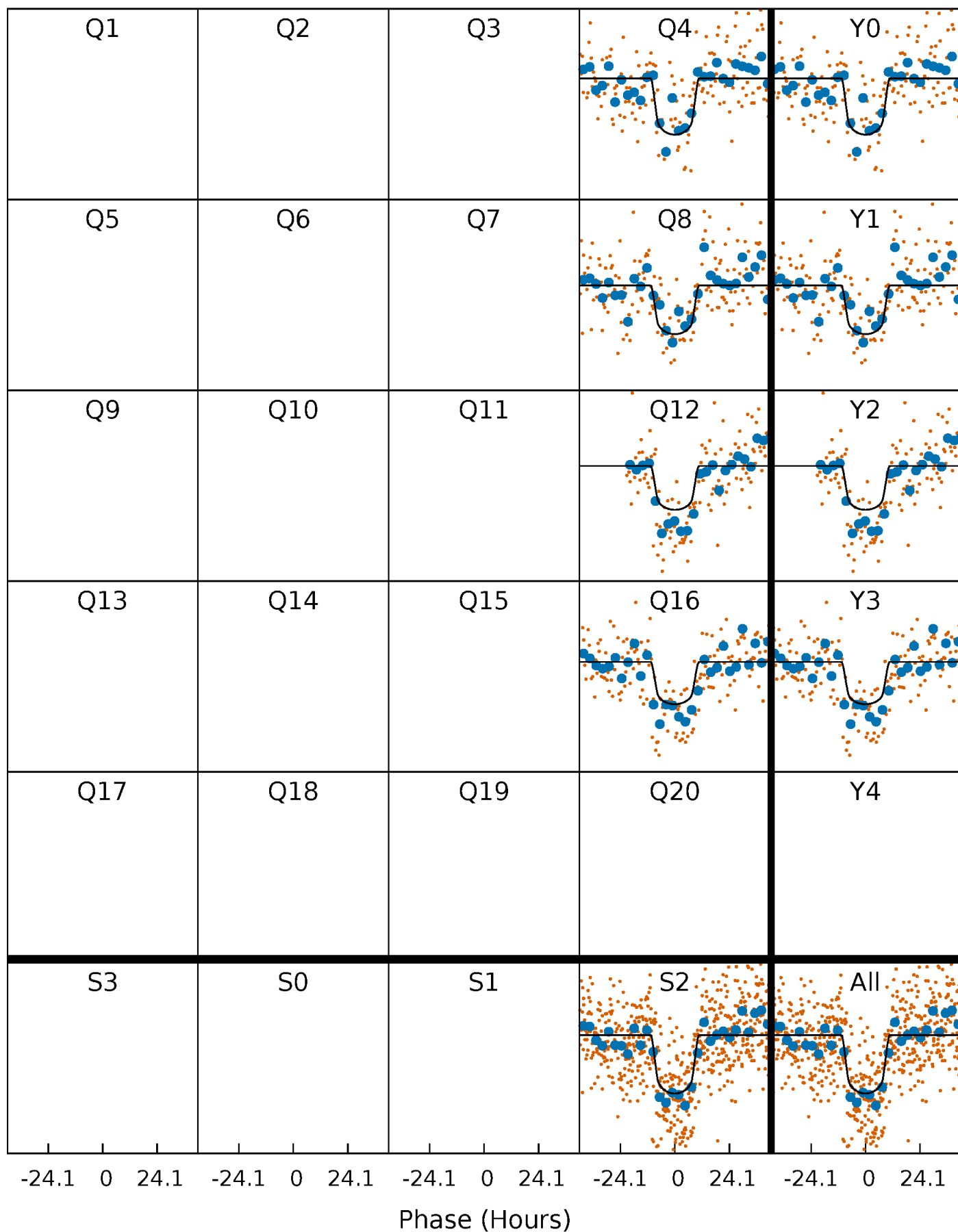
PDC Quarter-Phased Transit Curves

TCE 005817957-01 P=372.768681 Days $T_0=377.601154$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005817957-01 P=372.768681 Days $T_0=377.601154$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

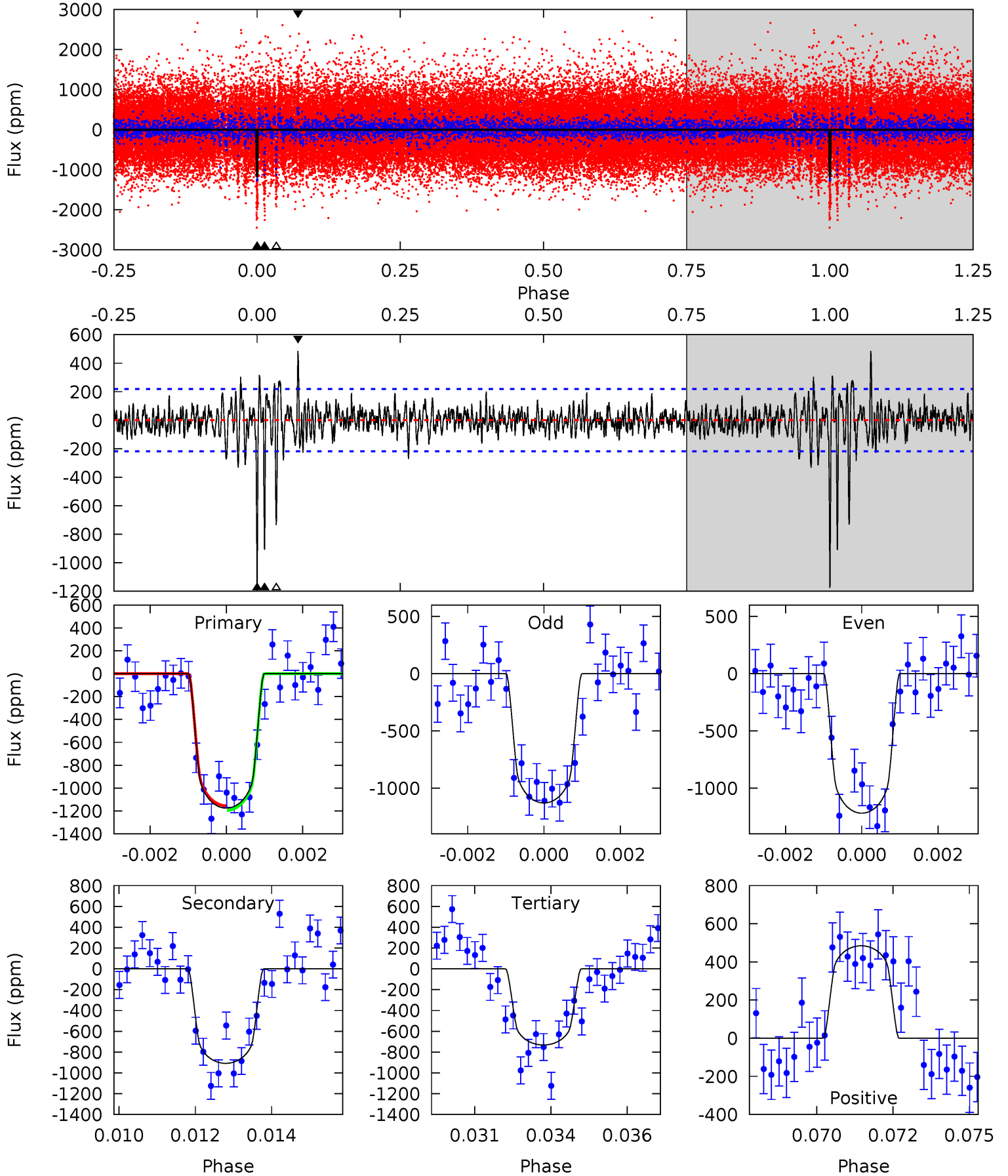
TCE 005817957-01 P=372.749002 Days $T_0=377.636890$ (BKJD)



DV Model-Shift Uniqueness Test

005817957-01, P = 372.768681 Days, E = 4.832473 Days

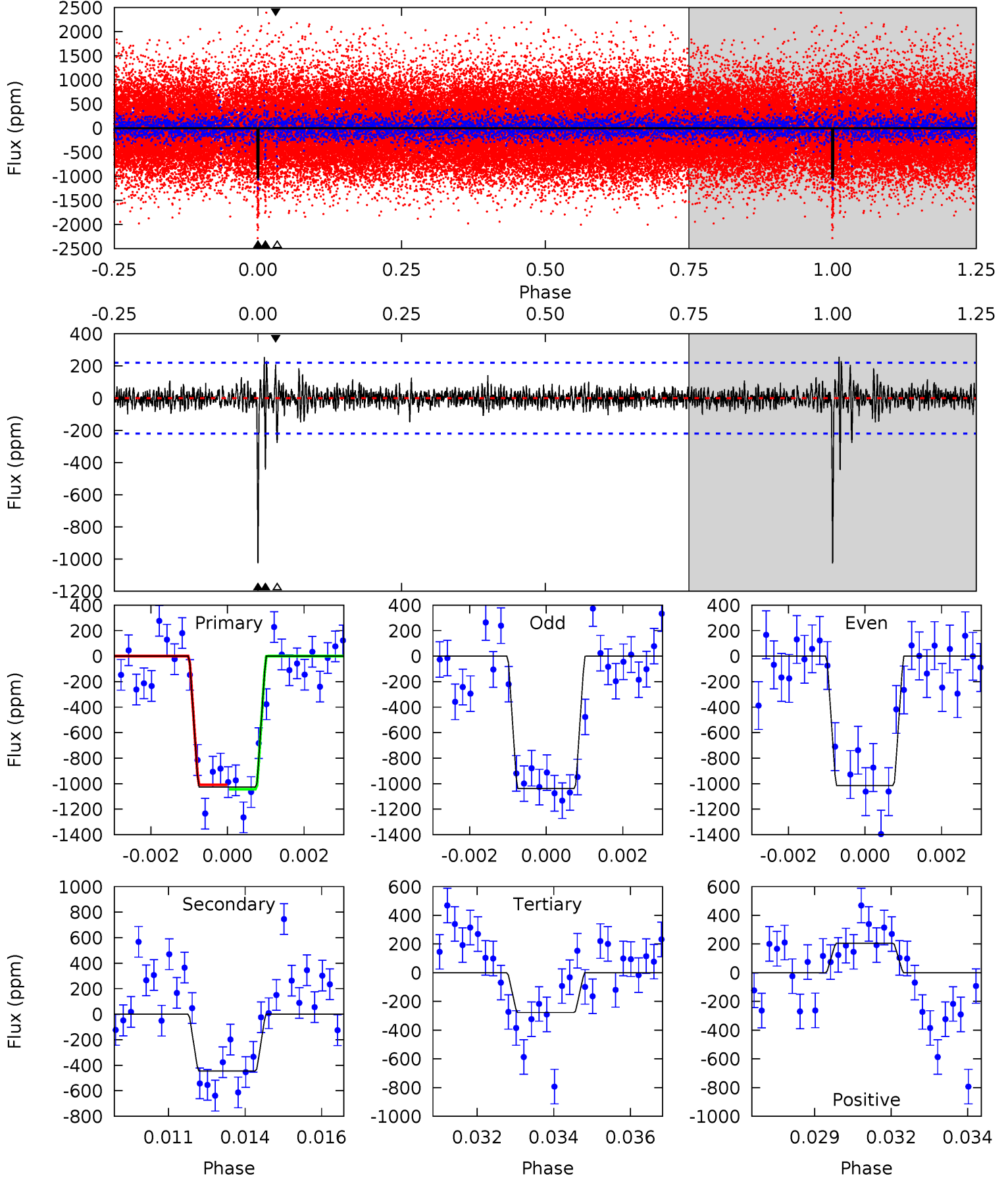
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.5	22.0	17.7	11.8	5.29	3.03	2.01	10.8	16.8	4.28	10.3	1.09	1.02	0.29	0.50



Alt Model-Shift Uniqueness Test

005817957-01, P = 372.749002 Days, E = 4.887888 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.8	10.7	6.68	4.94	5.31	3.05	0.94	18.1	19.8	4.04	5.78	0.28	0.99	0.20	0.42



Stellar Parameters For KIC 005817957

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5800^{+155}_{-190}	$4.514^{+0.050}_{-0.200}$	$-0.140^{+0.300}_{-0.300}$	$0.894^{+0.249}_{-0.089}$	$0.951^{+0.111}_{-0.111}$	$1.878^{+0.492}_{-0.948}$
	+3%/-3%	+1%/-4%	+214%/-214%	+28%/-10%	+12%/-12%	+26%/-51%
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 005817957-01 / KOI 7742.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-908 ± 41	$3.49^{+0.55}_{-0.40}$	344^{+23}_{-15}	5428^{+262}_{-227}	40497^{+10362}_{-9846}
Alt.	-445 ± 41	$3.25^{+0.53}_{-0.37}$	345^{+24}_{-16}	4805^{+234}_{-207}	22391^{+6381}_{-5708}

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 $A_{obs} \gg 1.0$

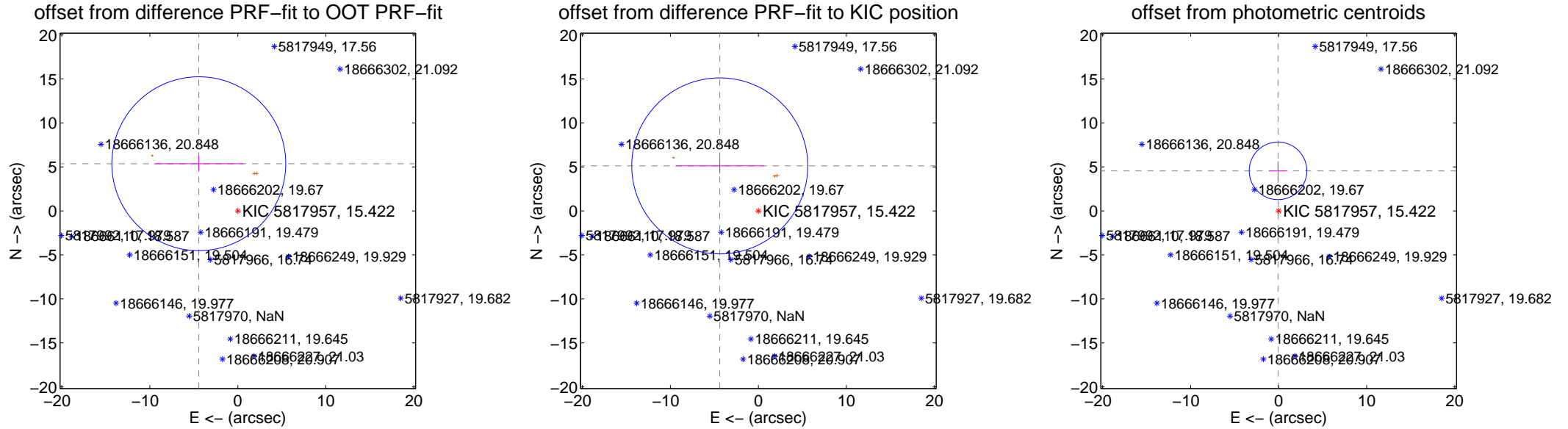
DV Centroid Data

Supplemental centroid analysis for 005817957-01. Kepler magnitude: 15.42. Transit SNR 10.86

There are 0 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	6.958 ± 3.294	2.11	4.432 ± 5.061	5.364 ± 0.879
PRF-fit source offset from KIC position	6.742 ± 3.334	2.02	4.389 ± 5.017	5.117 ± 0.878
photometric centroid source offset	4.55 ± 1.09	4.17	0.08 ± 1.04	4.55 ± 1.09



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 are from the UKIRT catalog.

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

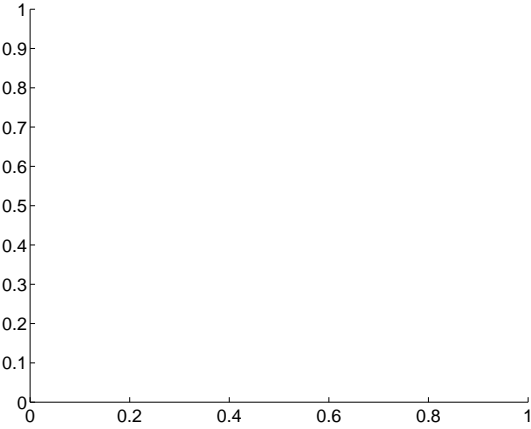
Q1 no difference image



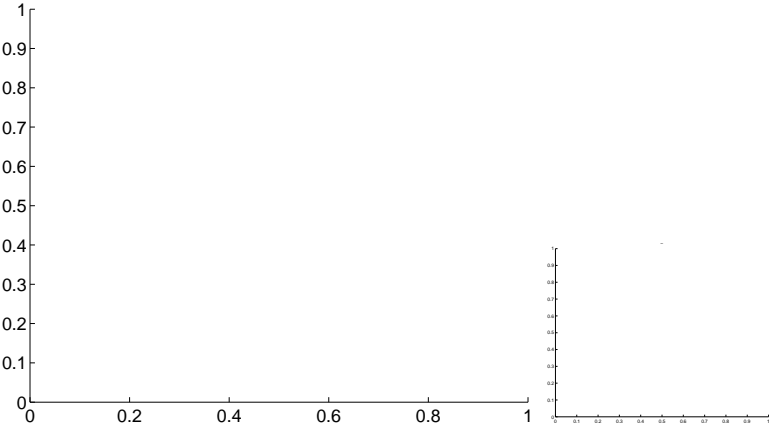
Q1 no OOT image



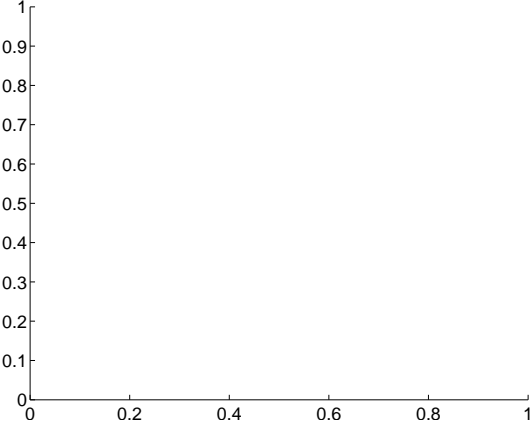
Q2 no difference image



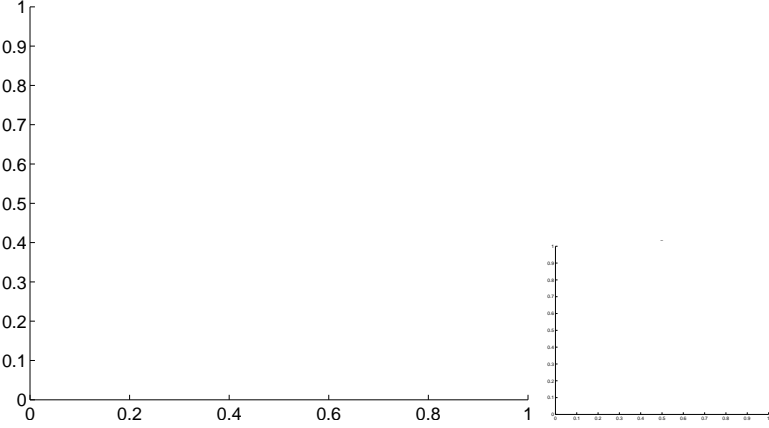
Q2 no OOT image



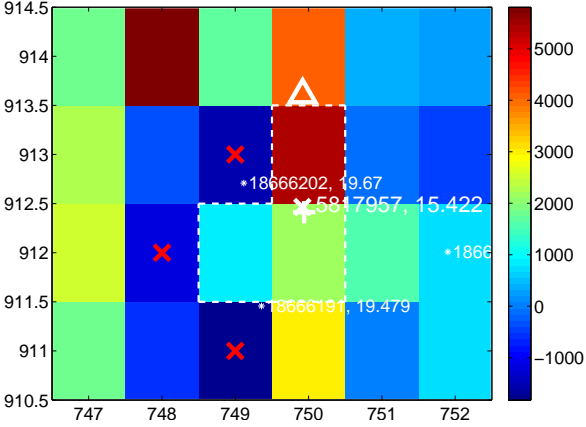
Q3 no difference image



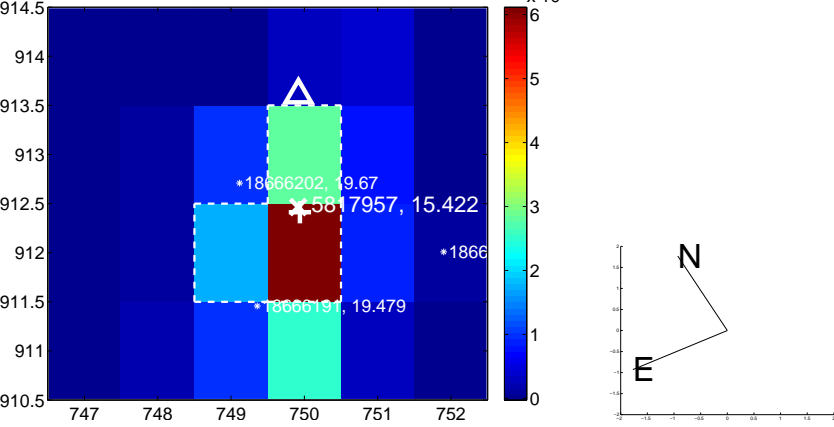
Q3 no OOT image



Q4 difference image. Poor Quality



Q4 OOT image



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

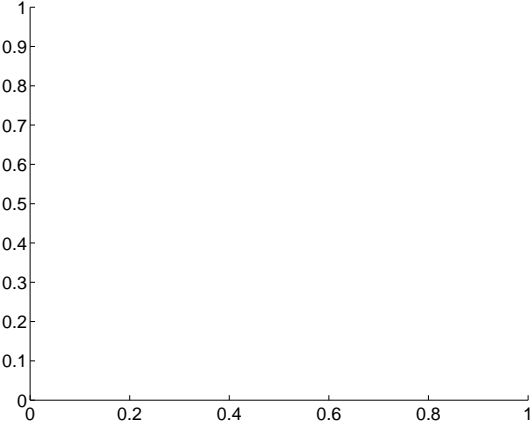
Q5 no difference image



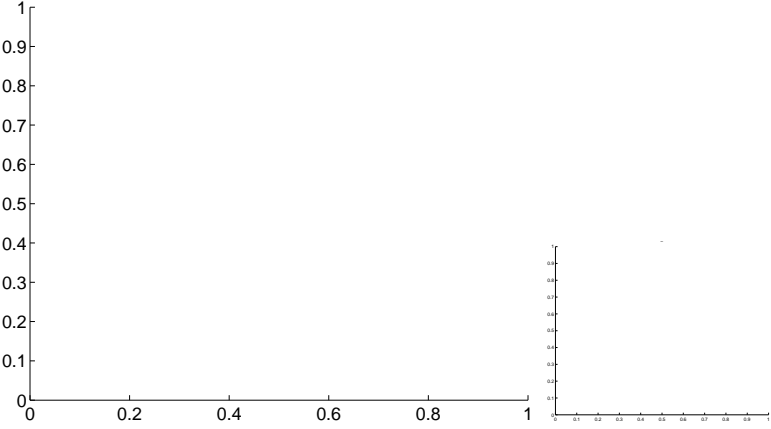
Q5 no OOT image



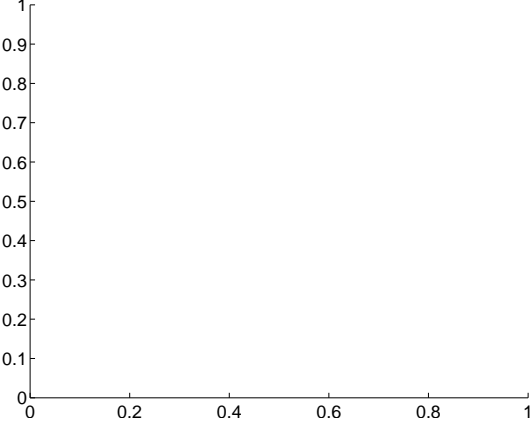
Q6 no difference image



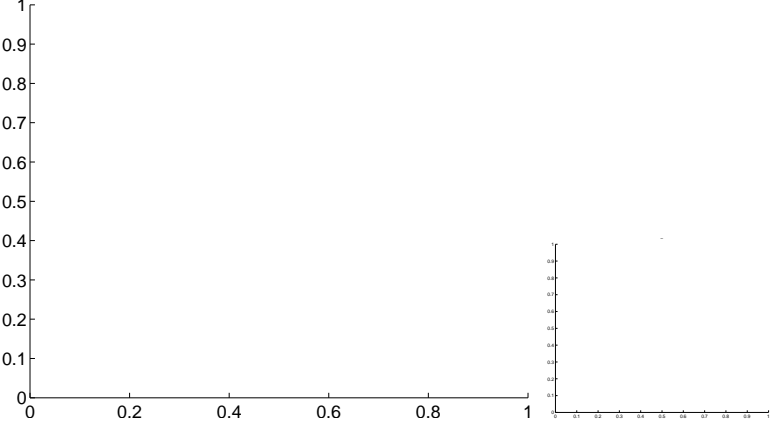
Q6 no OOT image



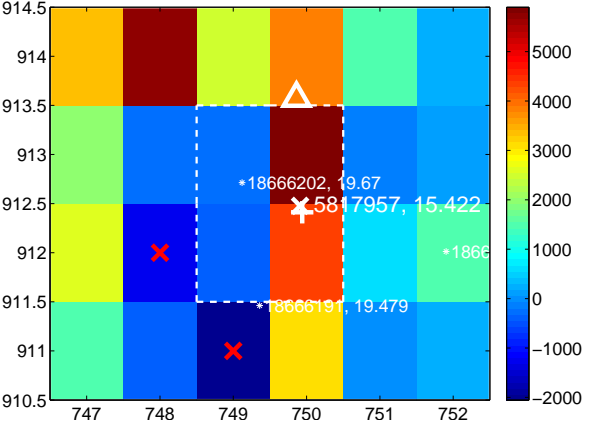
Q7 no difference image



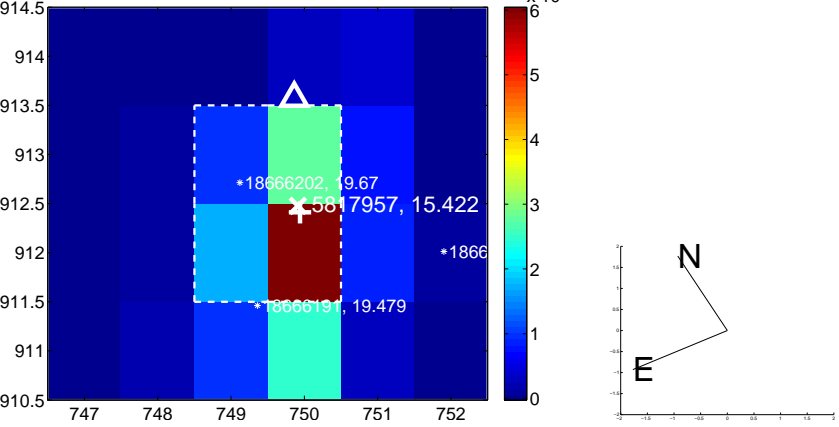
Q7 no OOT image



Q8 difference image. Poor Quality



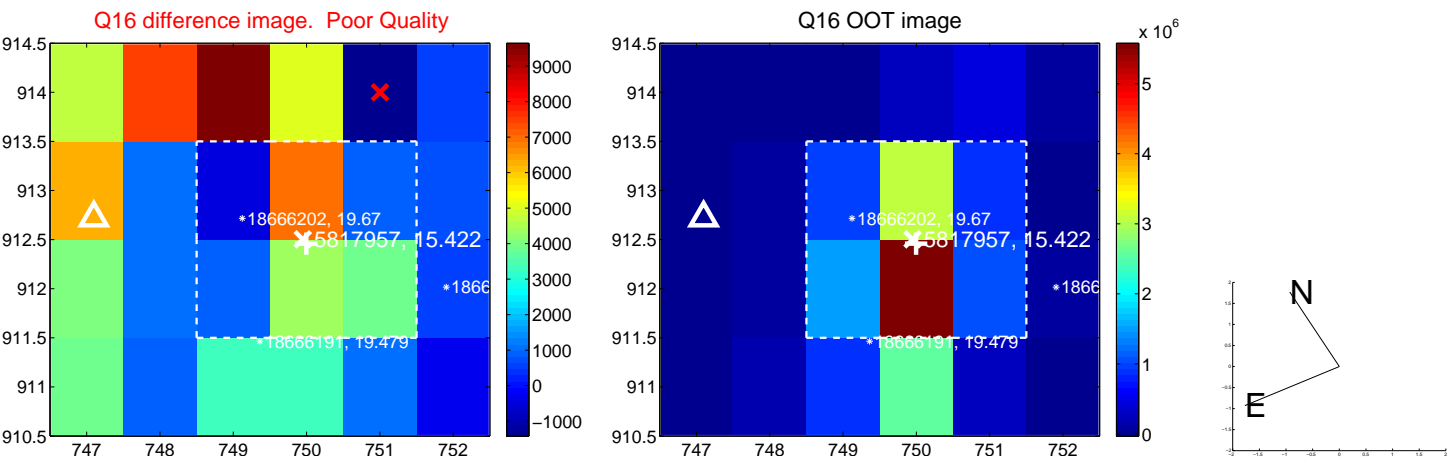
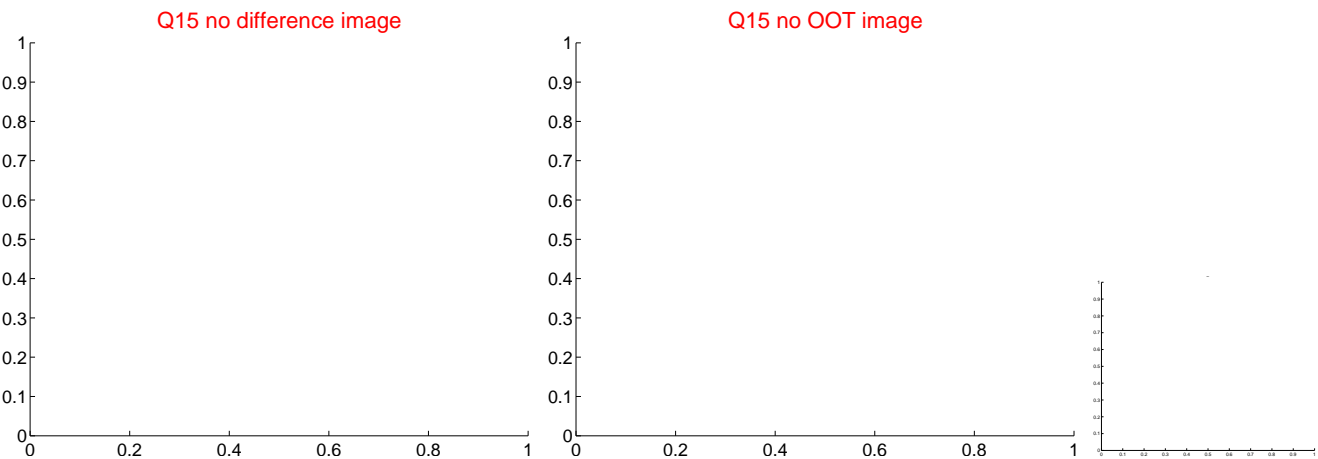
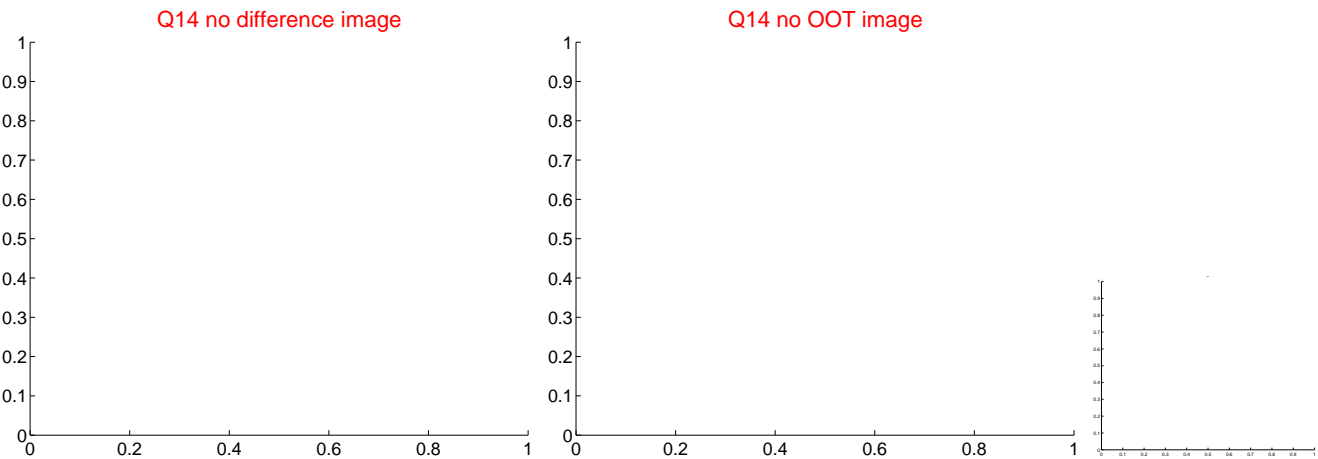
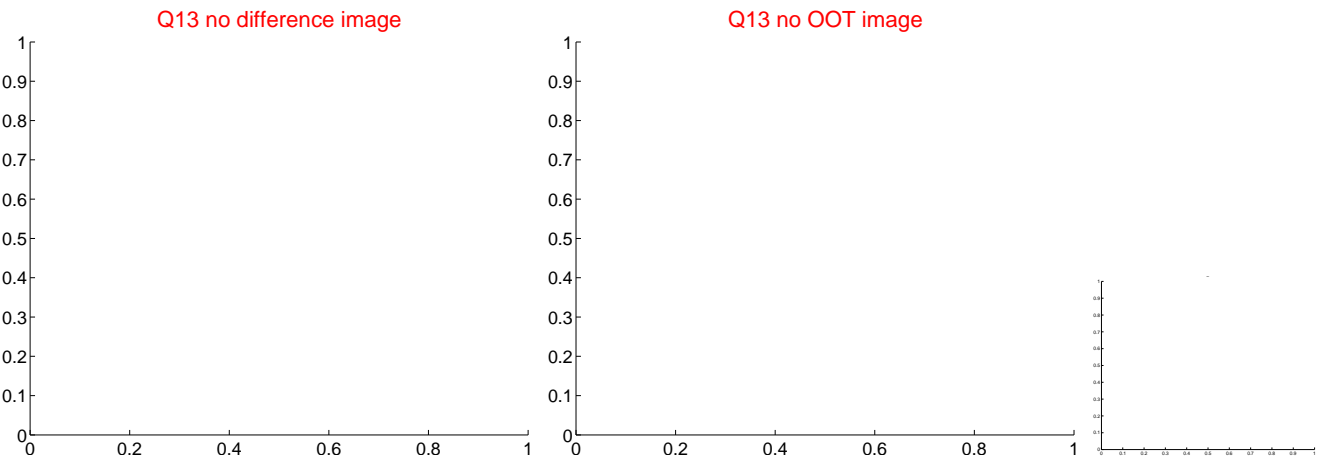
Q8 OOT image



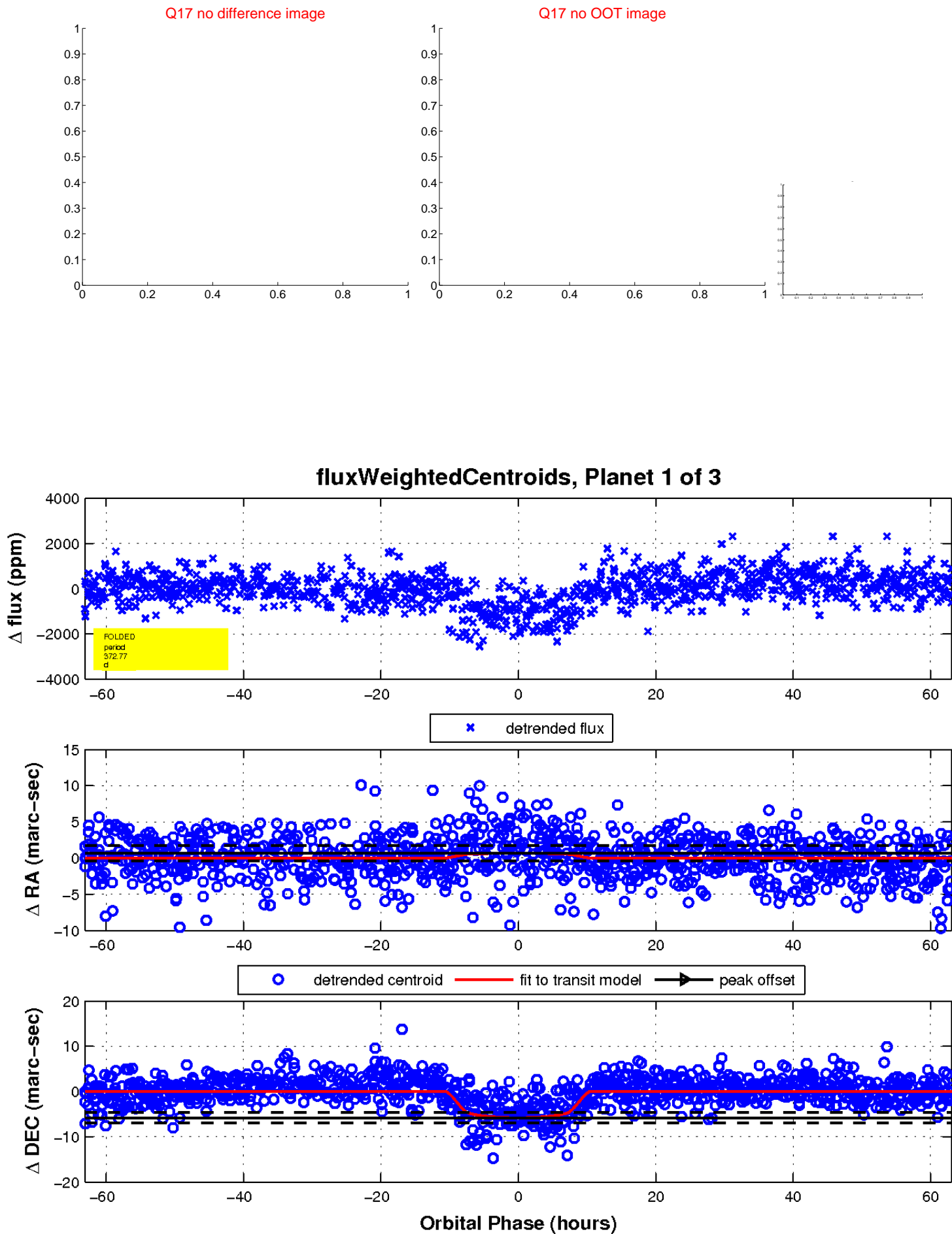
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

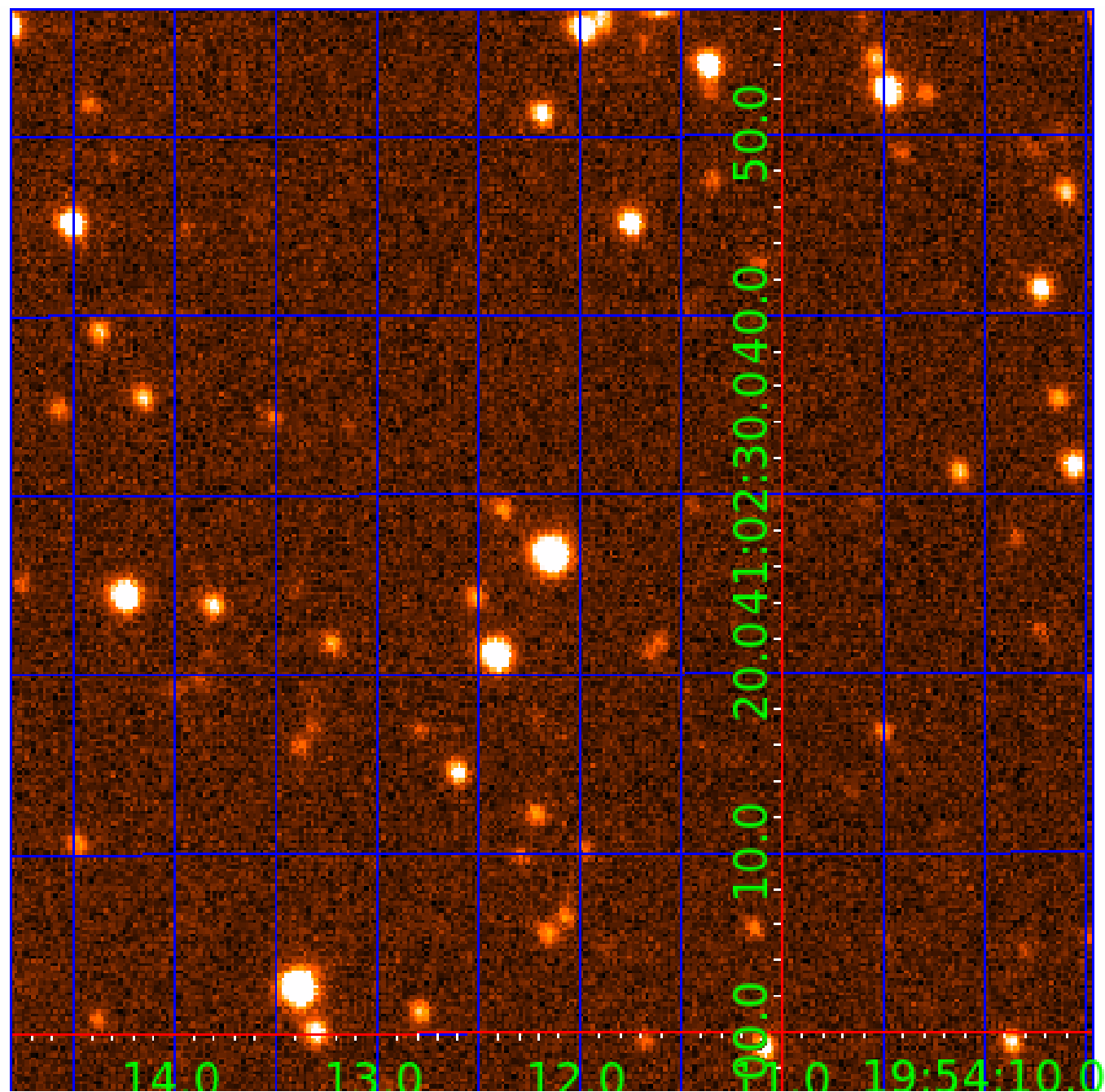


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005817957

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})
005817957-01	OBS	7742.01	372.768681	377.601154	1016.8	21.122	10.6	10.9	0.89	5800	3.37	0.81
005817957-02	OBS	No	372.759056	382.475883	929.3	20.214	9.3	10.6	0.89	5800	2.71	0.81
005817957-03	OBS	No	372.829177	389.913245	797.7	30.216	7.7	8.2	0.89	5800	2.99	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817957-01	OBS	FP	0.00	0	1	0	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_FEW_DIFFS—EPHEM_MATCH
005817957-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_FEW_DIFFS
005817957-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_FEW_DIFFS

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

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

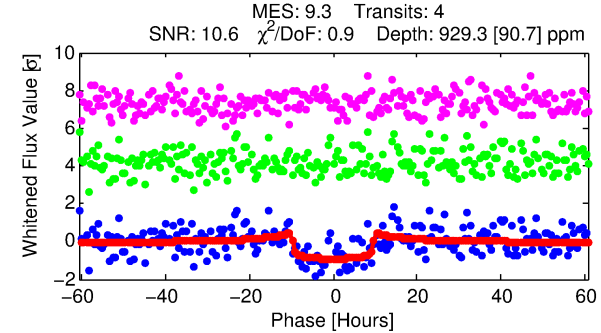
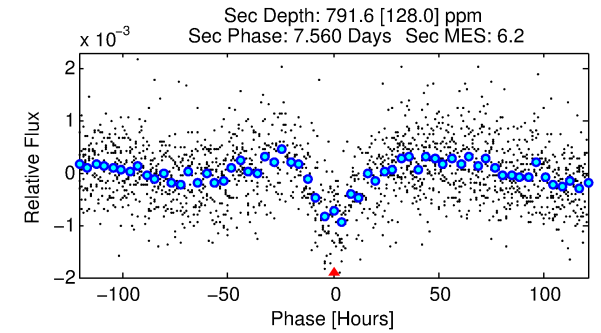
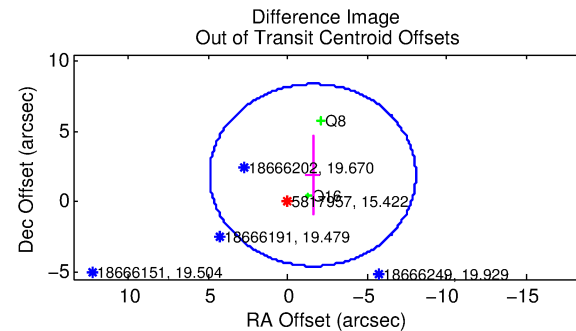
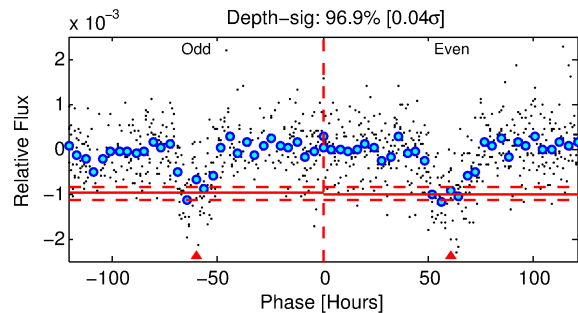
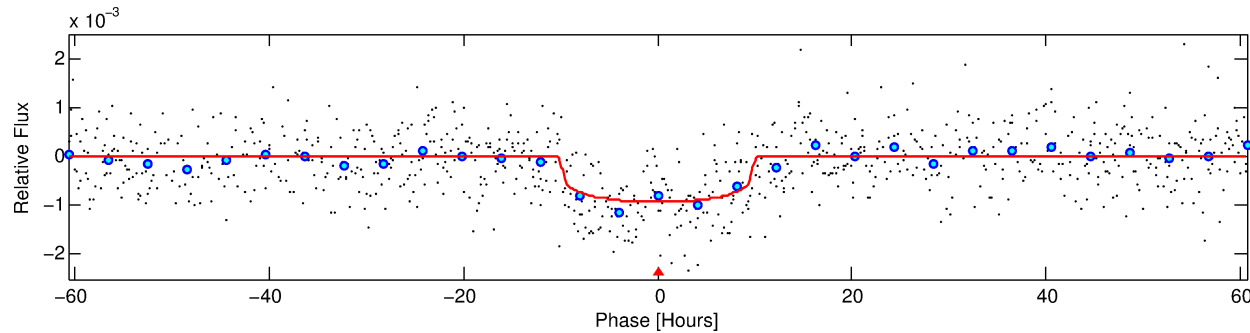
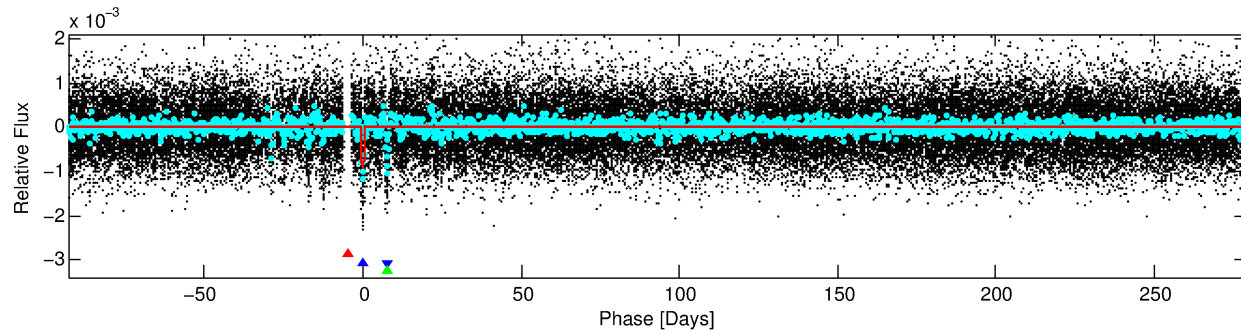
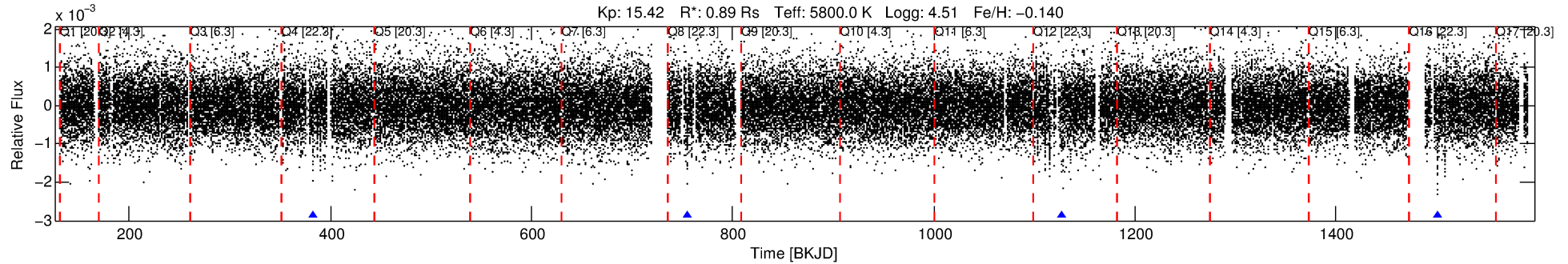
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005817957-02

No Significant Match Found

DV One-Page Summary

KIC: 5817957 Candidate: 2 of 3 Period: 372.759 d



DV Fit Results:

Period = 372.75906 [0.00854] d
Epoch = 382.4759 [0.0151] BKJD
Rp/R* = 0.0278 [0.0113]
a/R* = 141.68 [255.47]
b = 0.21 [8.15]
Seff = 0.81 [0.31]
Teq = 242 [23] K
Rp = 2.71 [1.34] Re
a = 0.9974 [0.2403] AU
Ag = 58775.49 [52968.76] [1.11 σ]
Teffp = 5832 [1220] K [4.58 σ]

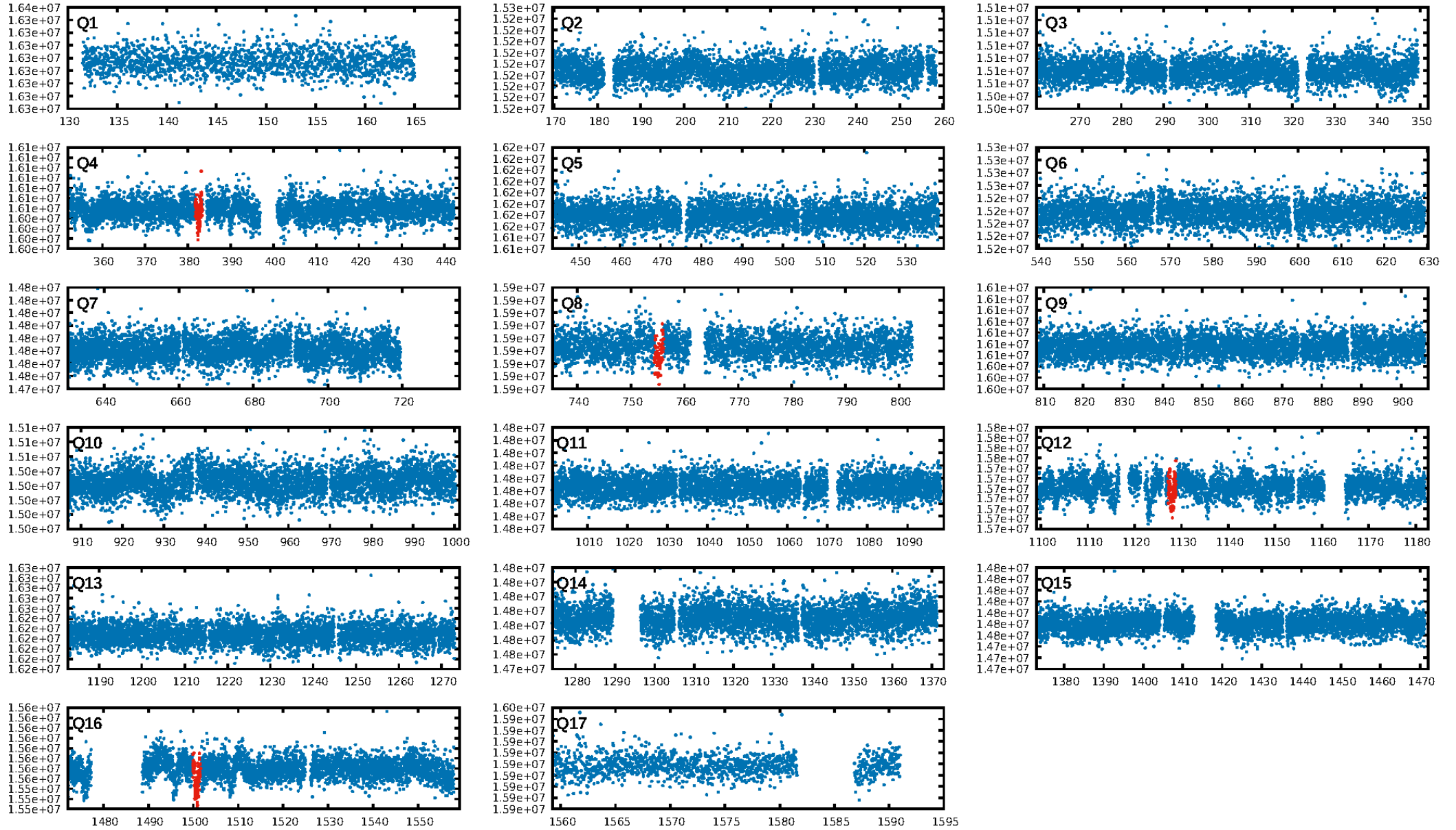
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.6% [0.01 σ]
ModelChiSquare2-sig: 27.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.91e-19
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.7583
Centroid-sig: 0.0%
Centroid-so: 1.816 arcsec [1.59 σ]
OotOffset-rm: 2.466 arcsec [1.14 σ]
KicOffset-rm: 2.328 arcsec [1.18 σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

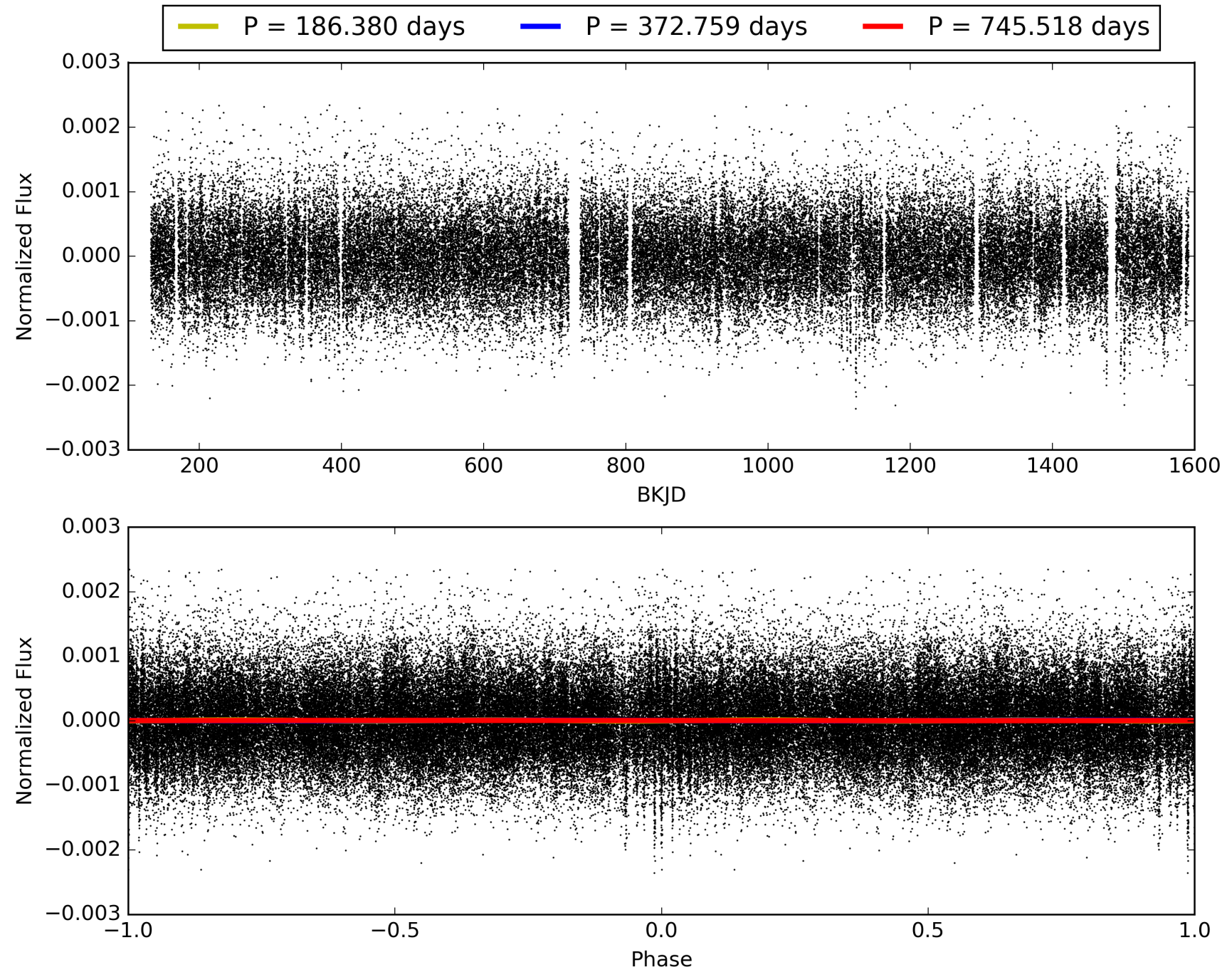
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:49:32 Z

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

TCE 005817957-02, PDC Light Curves

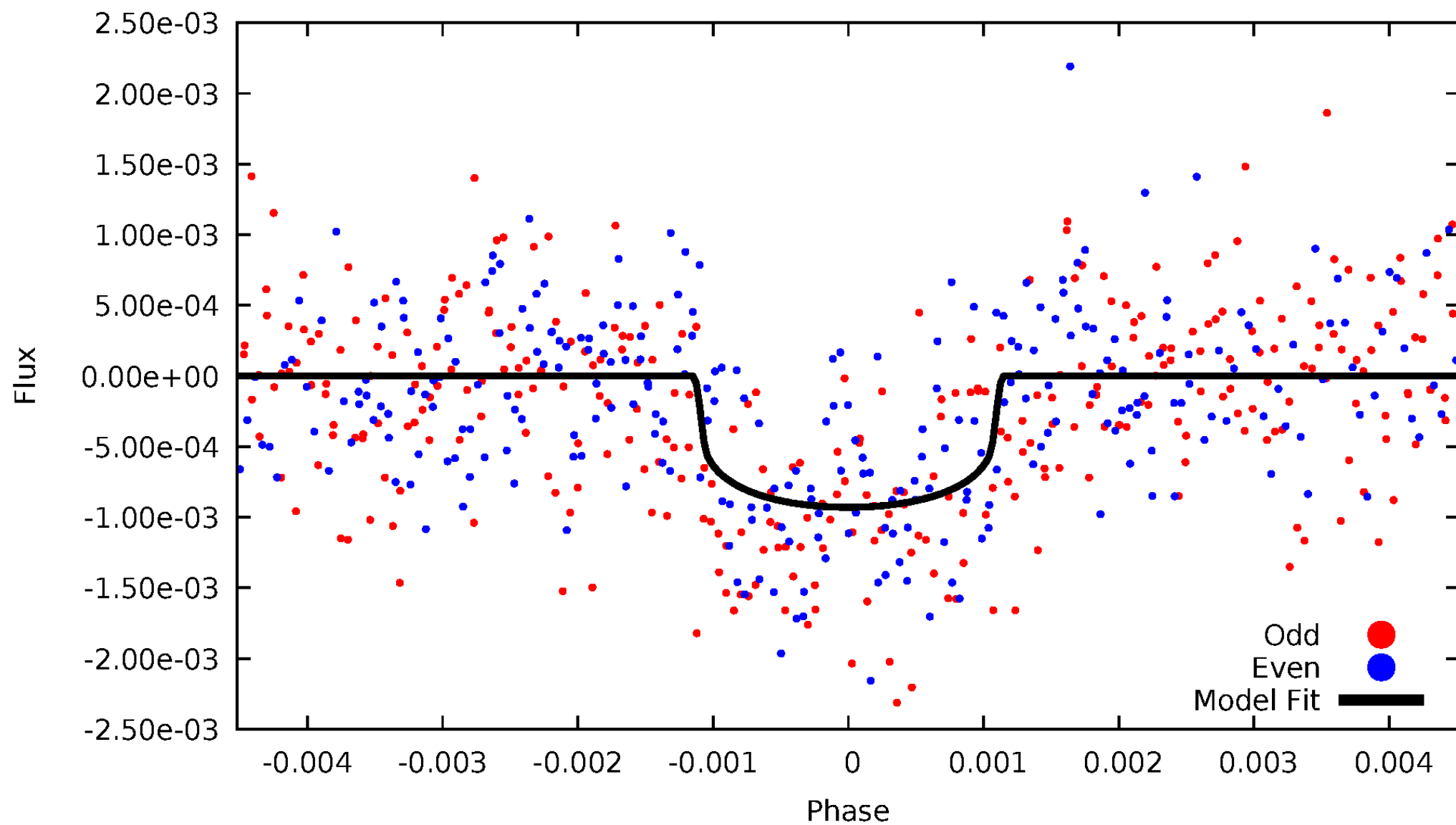


TCE 005817957-02



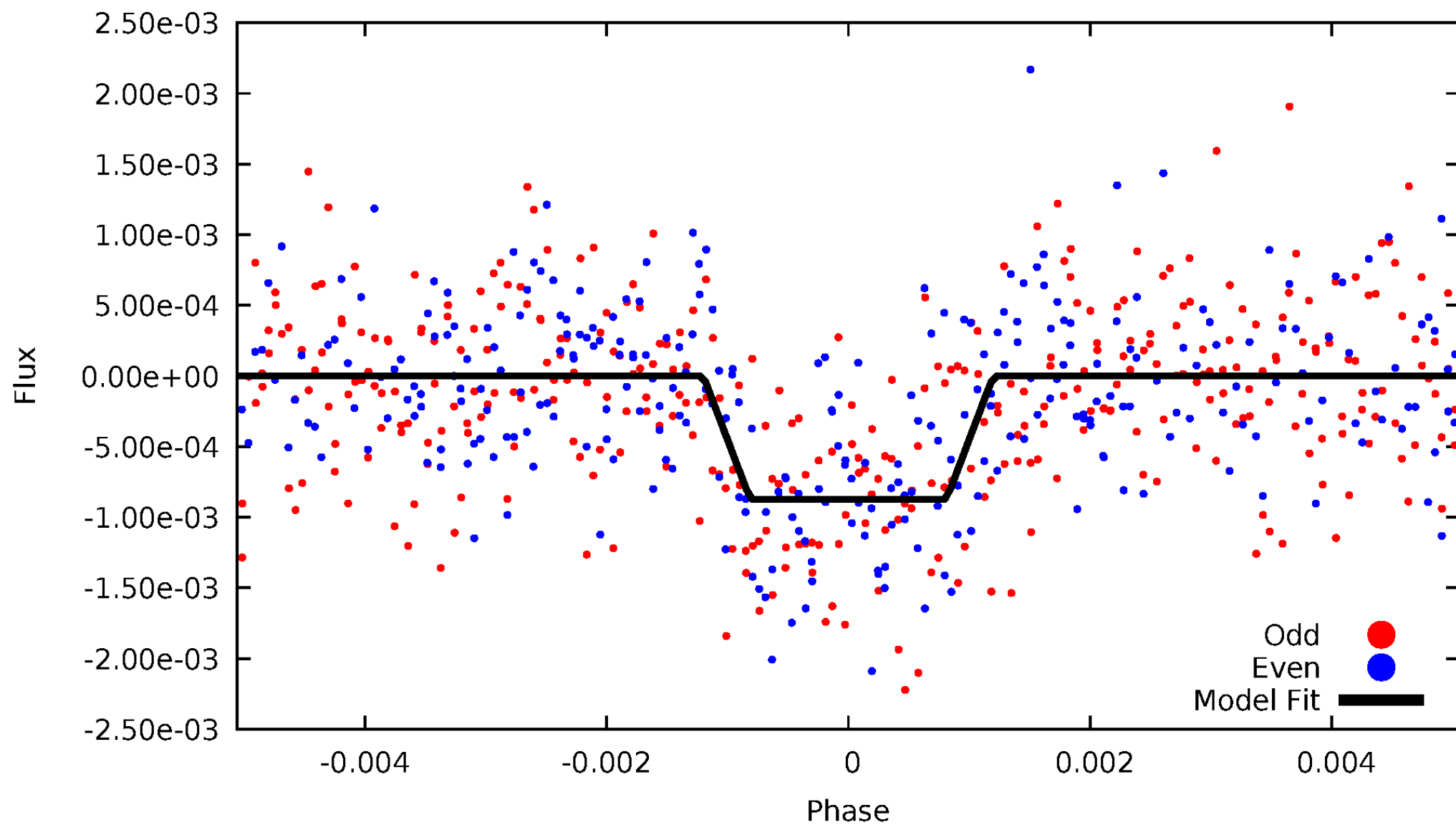
DV Odd/Even

TCE 005817957-02



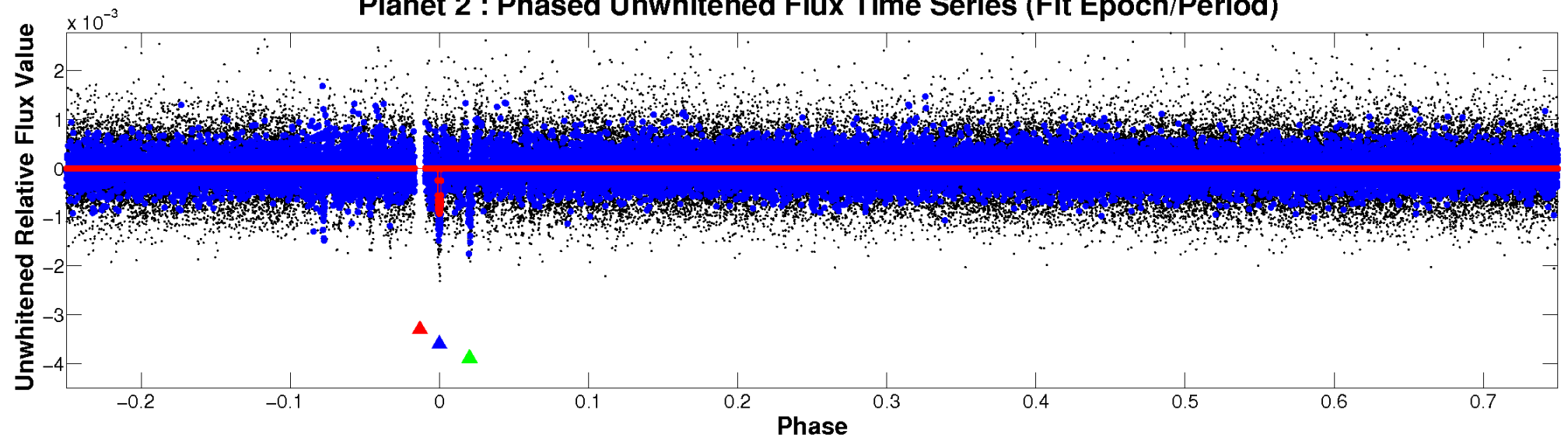
ALT Odd/Even

TCE 005817957-02

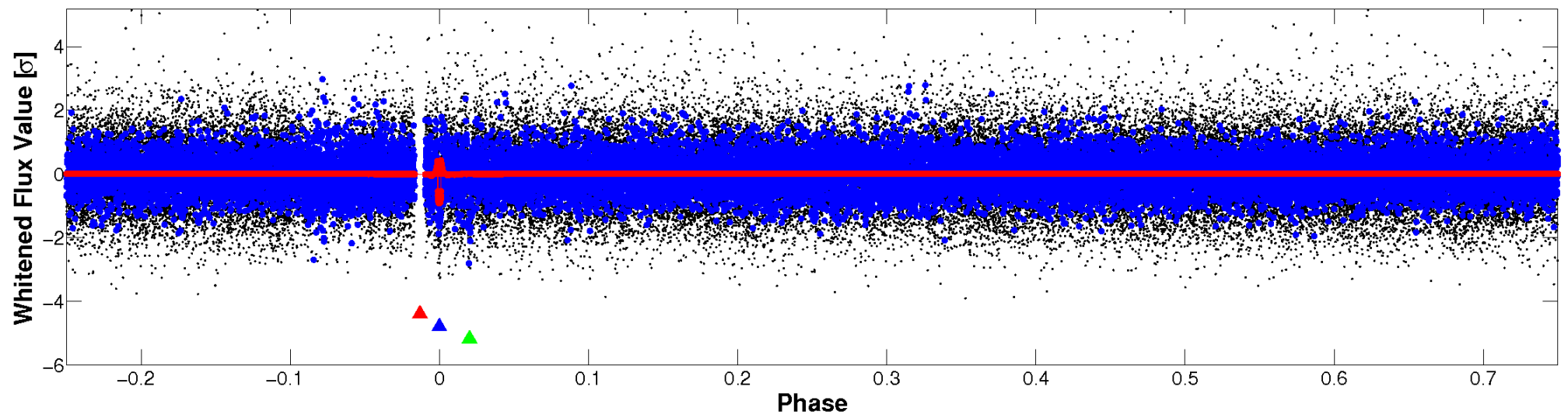


Non-Whitened Vs. Whitened Light Curve

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

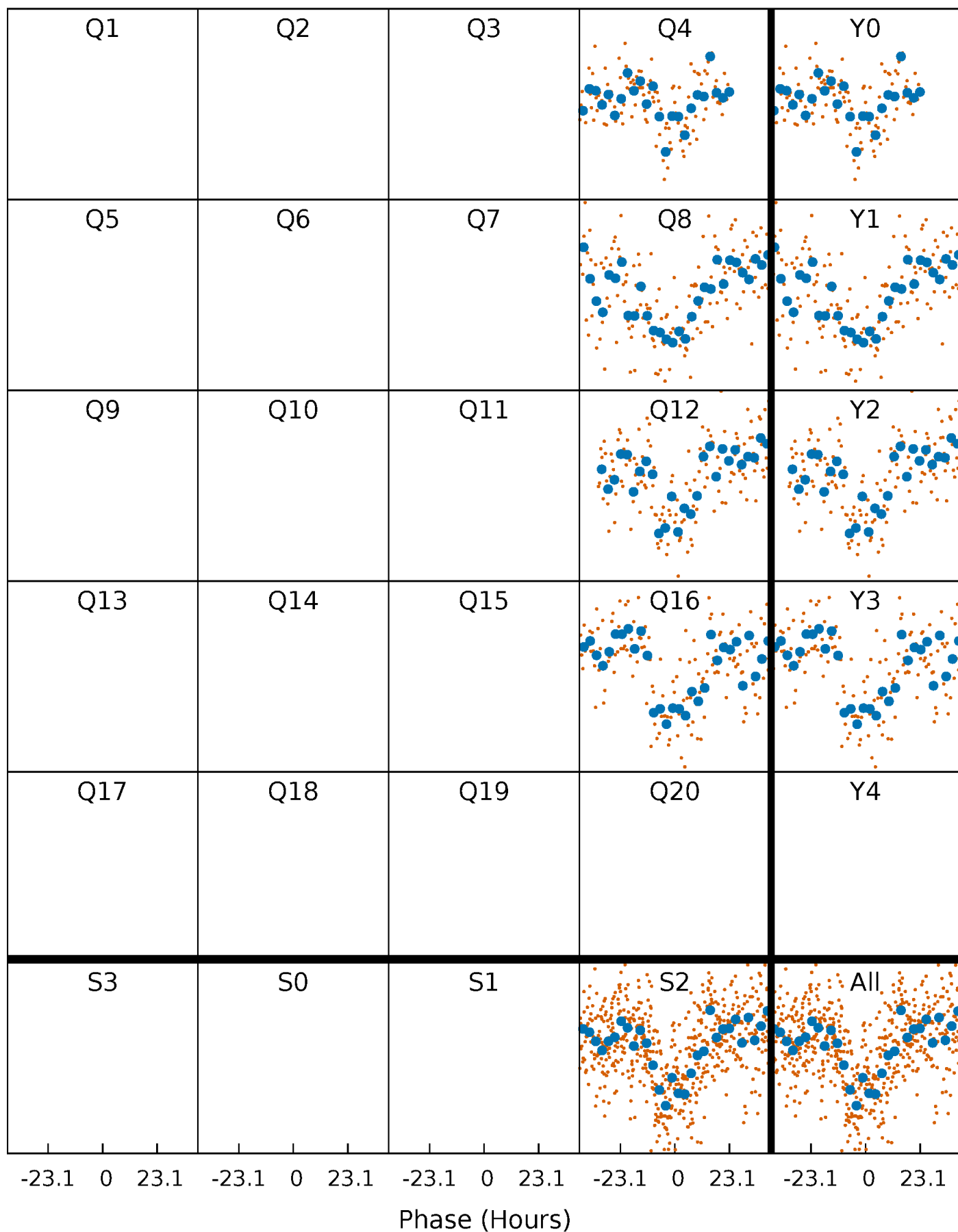


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



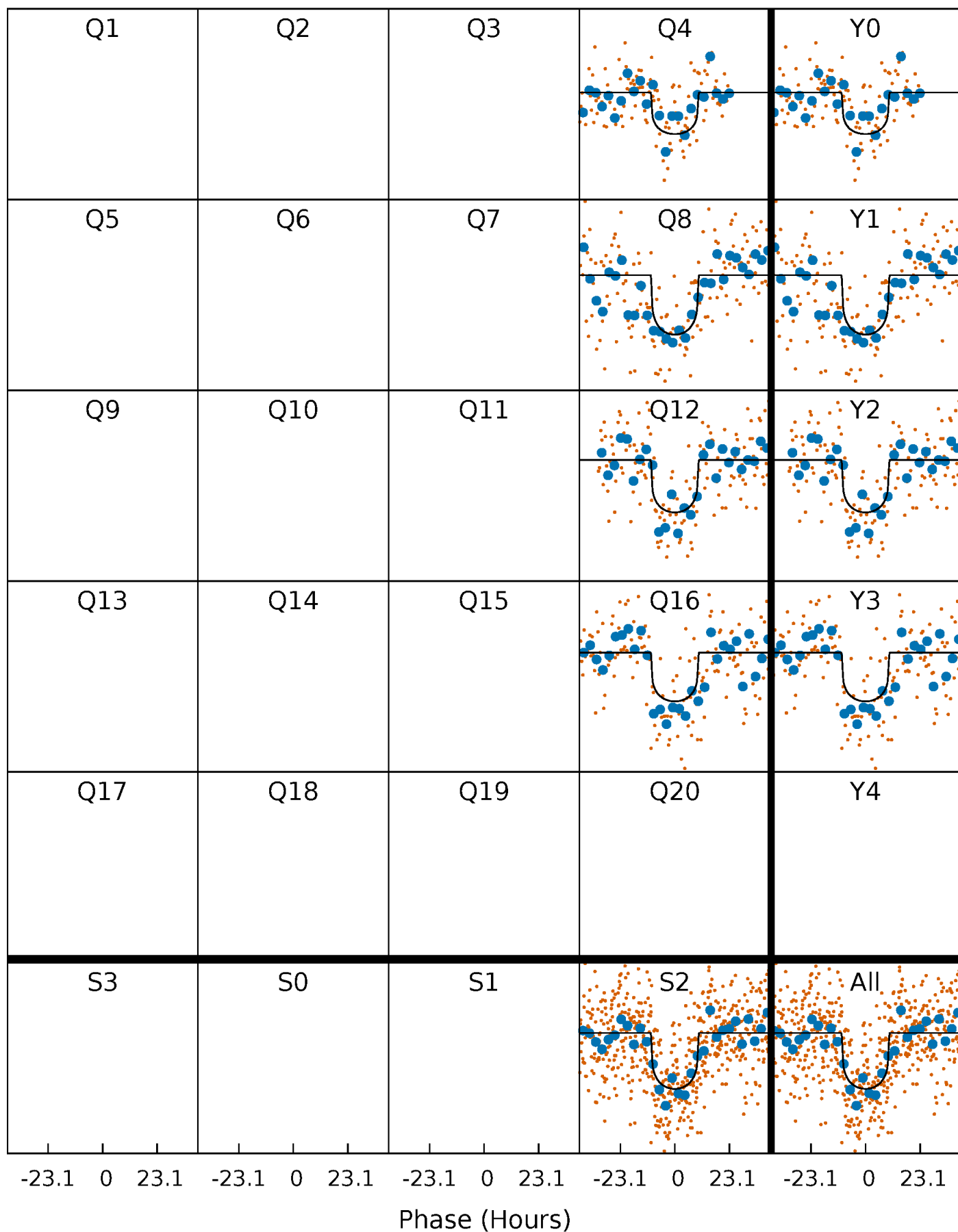
PDC Quarter-Phased Transit Curves

TCE 005817957-02 $P=372.759056$ Days $T_0=382.475883$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005817957-02 P=372.759056 Days $T_0=382.475883$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

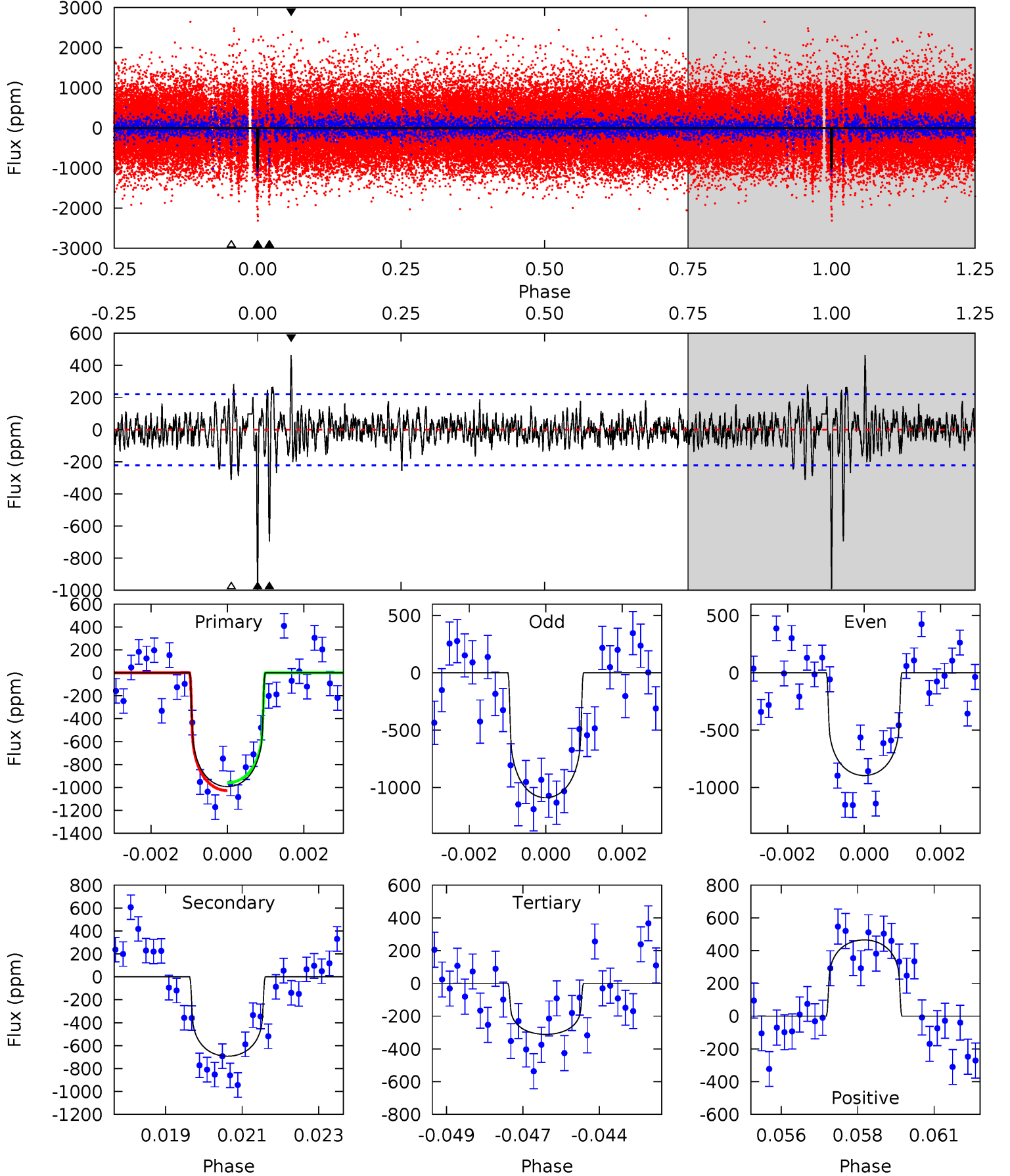
TCE 005817957-02 P=372.728568 Days $T_0=382.526069$ (BKJD)



DV Model-Shift Uniqueness Test

005817957-02, $P = 372.759056$ Days, $E = 9.716827$ Days

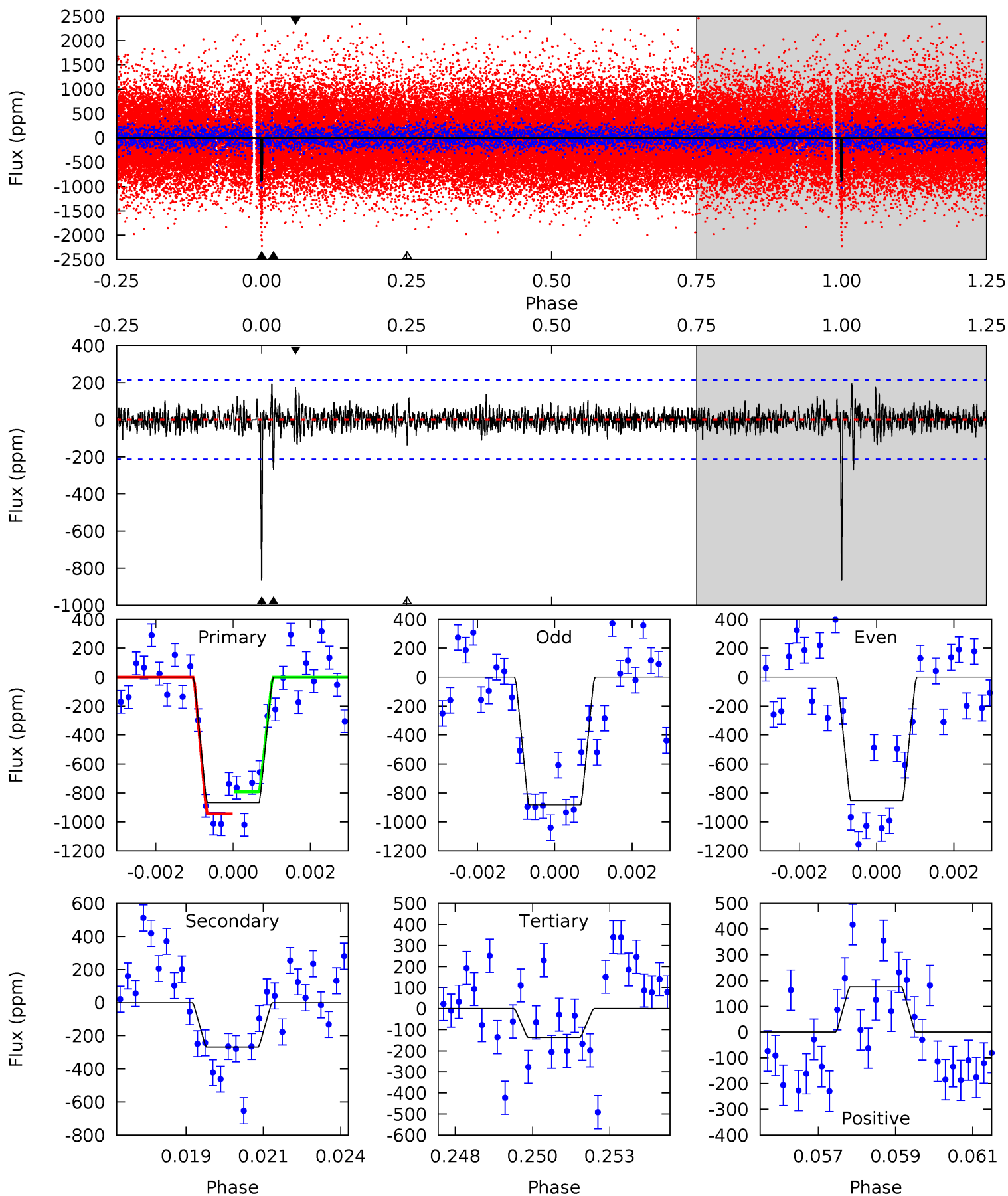
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.7	16.6	7.44	11.1	5.30	3.04	1.72	16.3	12.6	9.11	5.43	2.32	0.95	0.32	0.81



Alt Model-Shift Uniqueness Test

005817957-02, P = 372.728568 Days, E = 9.797501 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.5	6.67	3.40	4.35	5.30	3.04	0.90	18.1	17.2	3.27	2.32	0.36	1.02	0.18	1.90



Stellar Parameters For KIC 005817957

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5800^{+155}_{-190}	$4.514^{+0.050}_{-0.200}$	$-0.140^{+0.300}_{-0.300}$	$0.894^{+0.249}_{-0.089}$	$0.951^{+0.111}_{-0.111}$	$1.878^{+0.492}_{-0.948}$
	+3%/-3%	+1%/-4%	+214%/-214%	+28%/-10%	+12%/-12%	+26%/-51%
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 005817957-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-693 ± 42	$2.80^{+1.15}_{-1.14}$	345^{+24}_{-16}	5700^{+1742}_{-818}	47474^{+83767}_{-23252}
Alt.	-269 ± 40	$3.06^{+1.21}_{-1.16}$	346^{+24}_{-16}	4467^{+967}_{-488}	15211^{+25961}_{-7346}

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 $A_{obs} \gg 1.0$

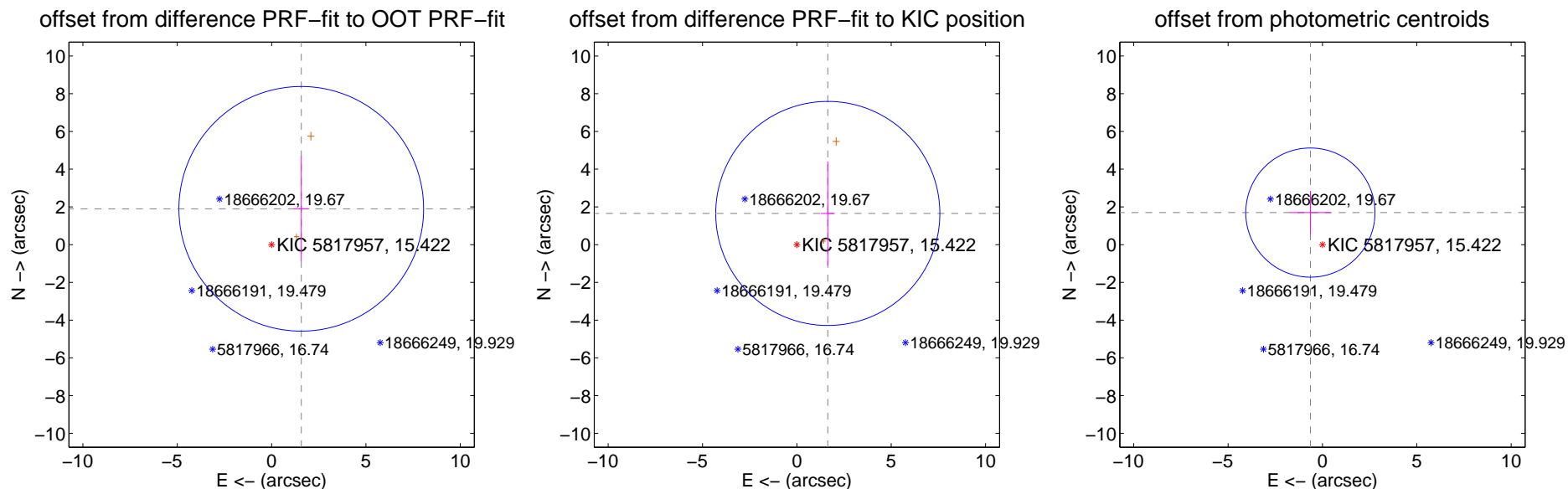
DV Centroid Data

Supplemental centroid analysis for 005817957-02. Kepler magnitude: 15.42. Transit SNR 10.59

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.466 ± 2.161	1.14	-1.572 ± 0.425	1.899 ± 2.783
PRF-fit source offset from KIC position	2.328 ± 1.979	1.18	-1.638 ± 0.370	1.654 ± 2.762
photometric centroid source offset	1.82 ± 1.14	1.59	0.64 ± 1.09	1.70 ± 1.15

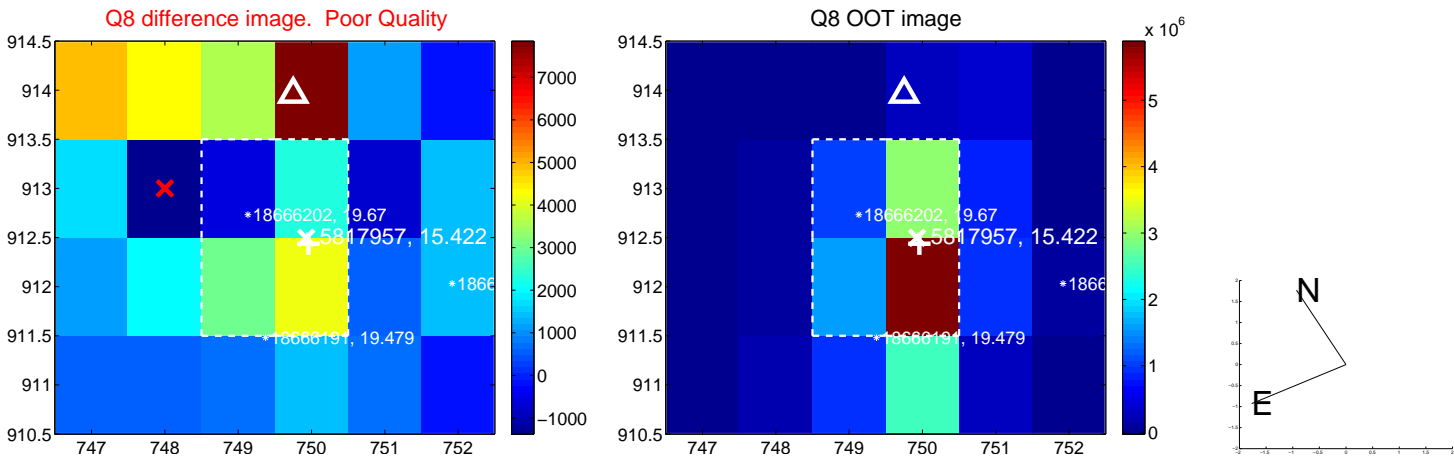
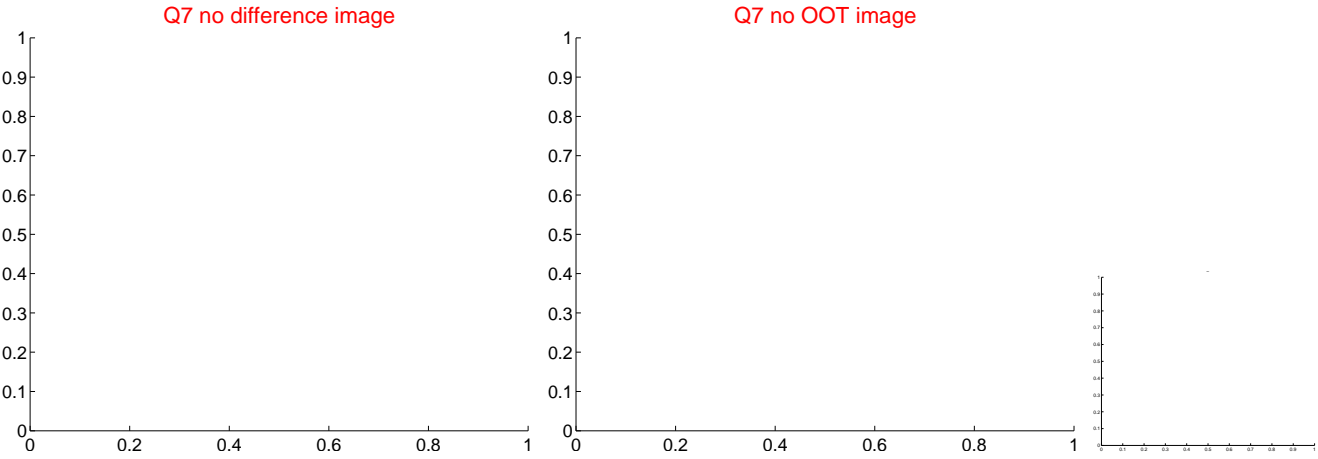
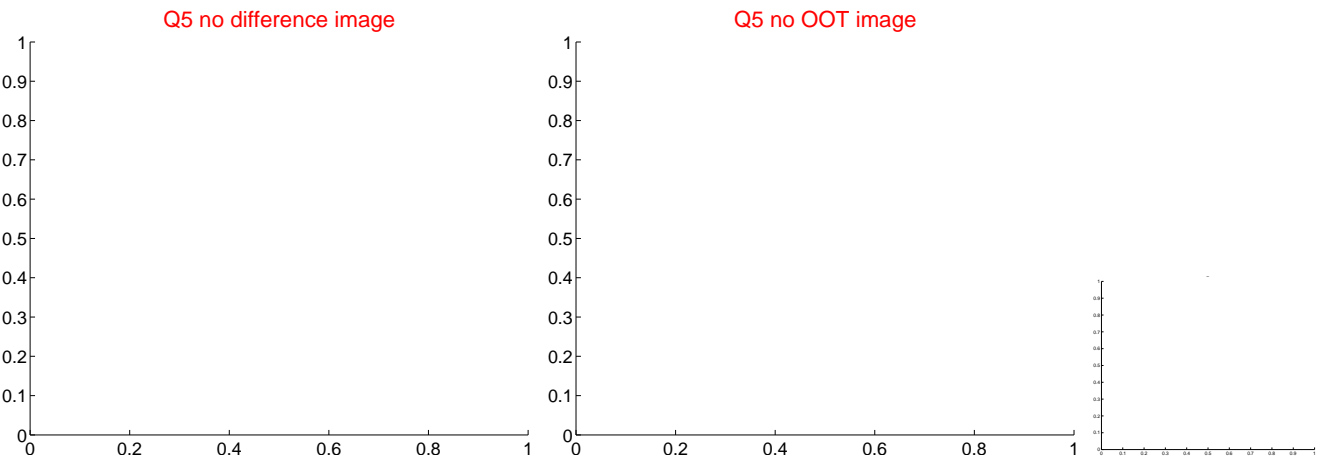


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



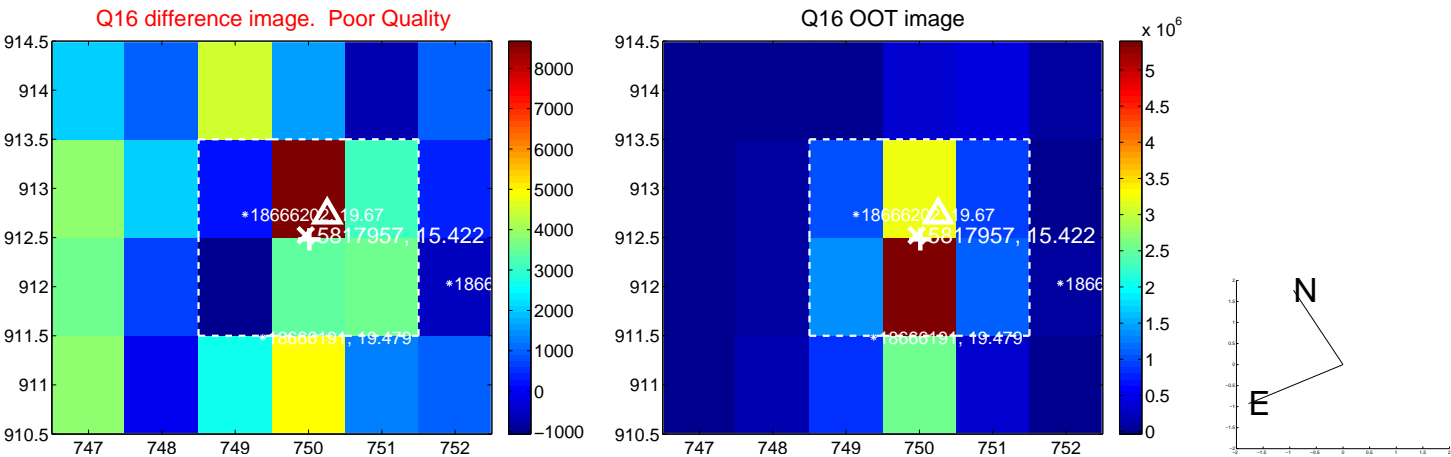
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



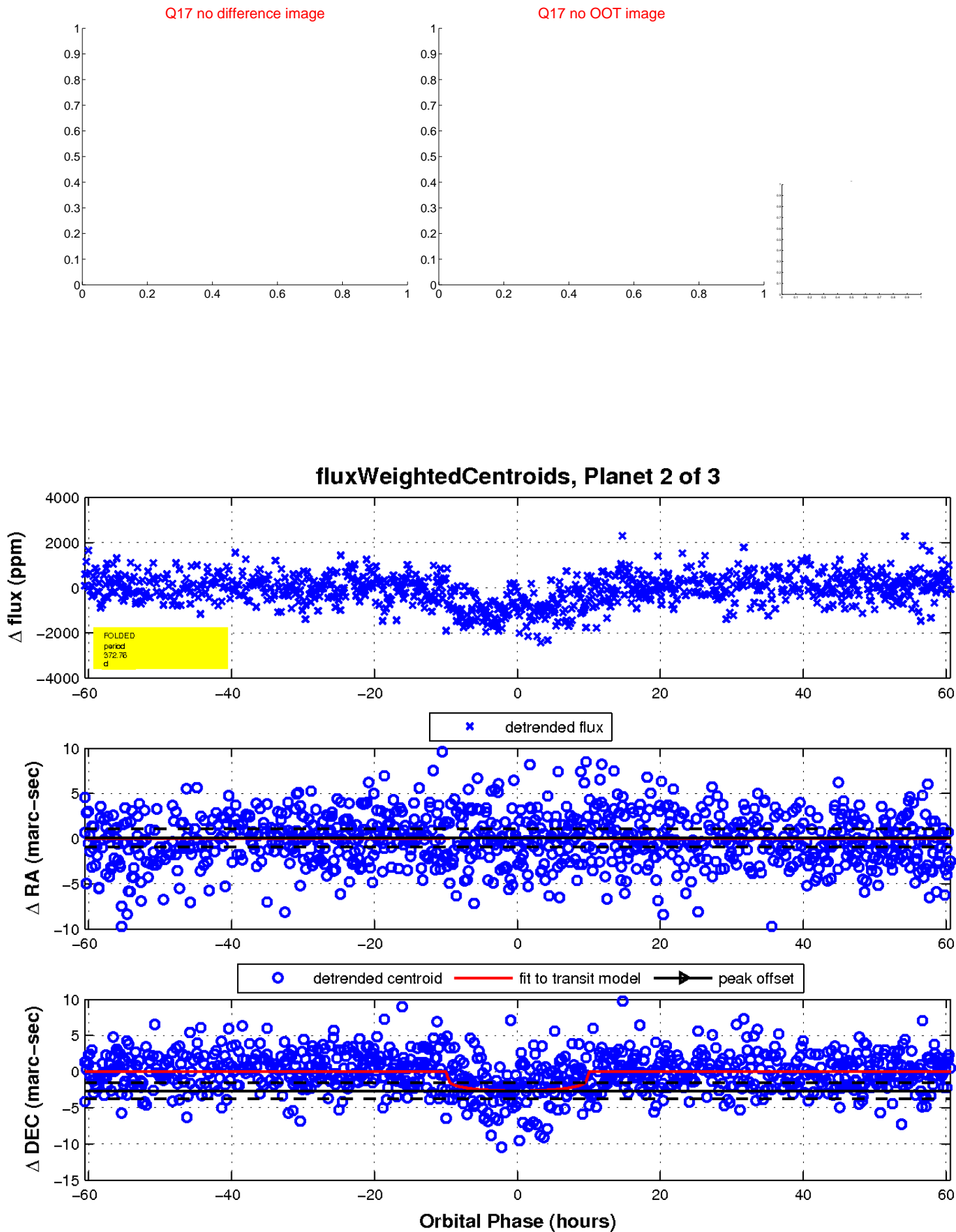
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

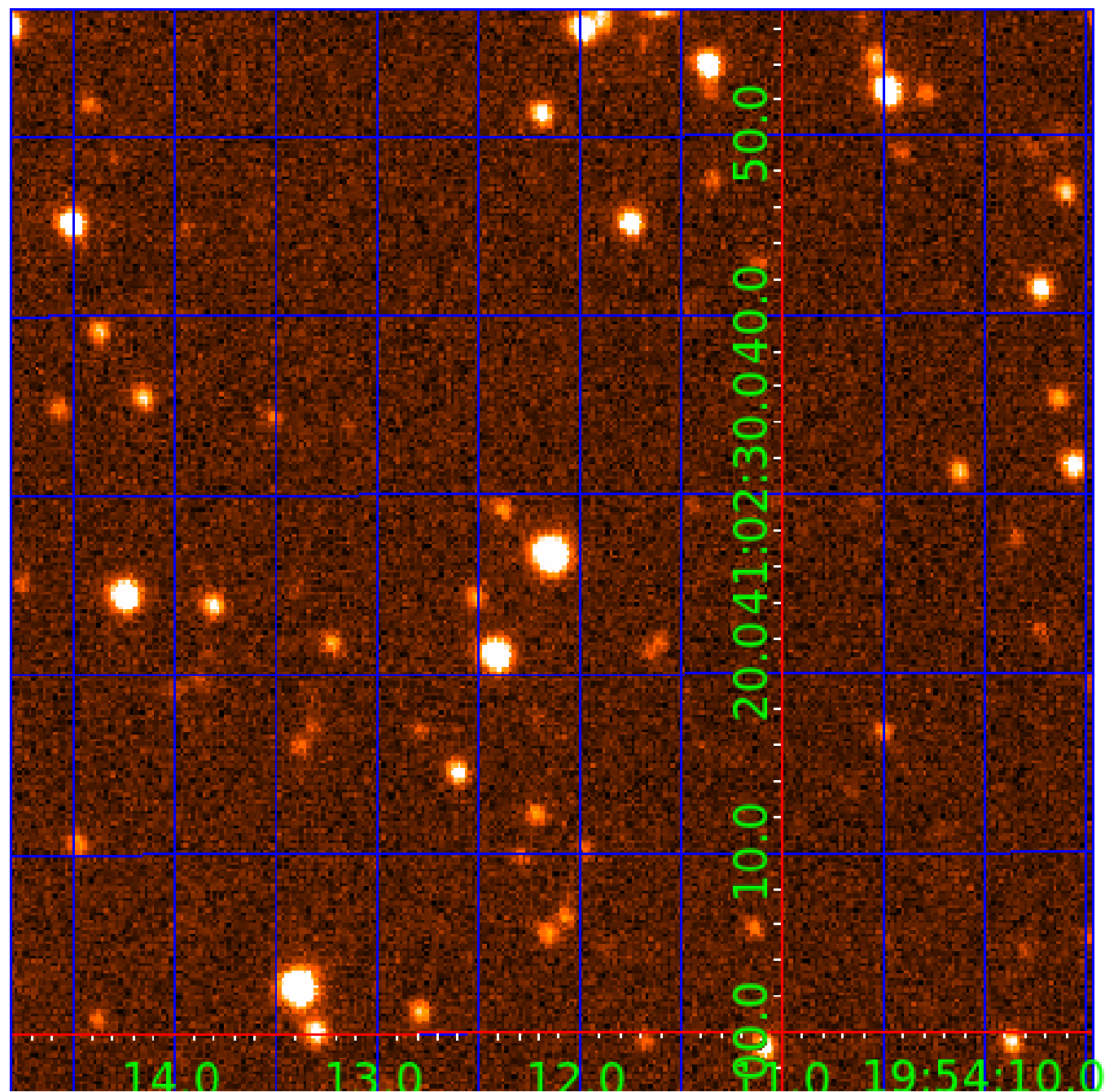


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005817957

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})
005817957-01	OBS	7742.01	372.768681	377.601154	1016.8	21.122	10.6	10.9	0.89	5800	3.37	0.81
005817957-02	OBS	No	372.759056	382.475883	929.3	20.214	9.3	10.6	0.89	5800	2.71	0.81
005817957-03	OBS	No	372.829177	389.913245	797.7	30.216	7.7	8.2	0.89	5800	2.99	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005817957-01	OBS	FP	0.00	0	1	0	1	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_FEW_DIFFS—EPHEM_MATCH
005817957-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_FEW_DIFFS
005817957-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_FEW_DIFFS

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

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

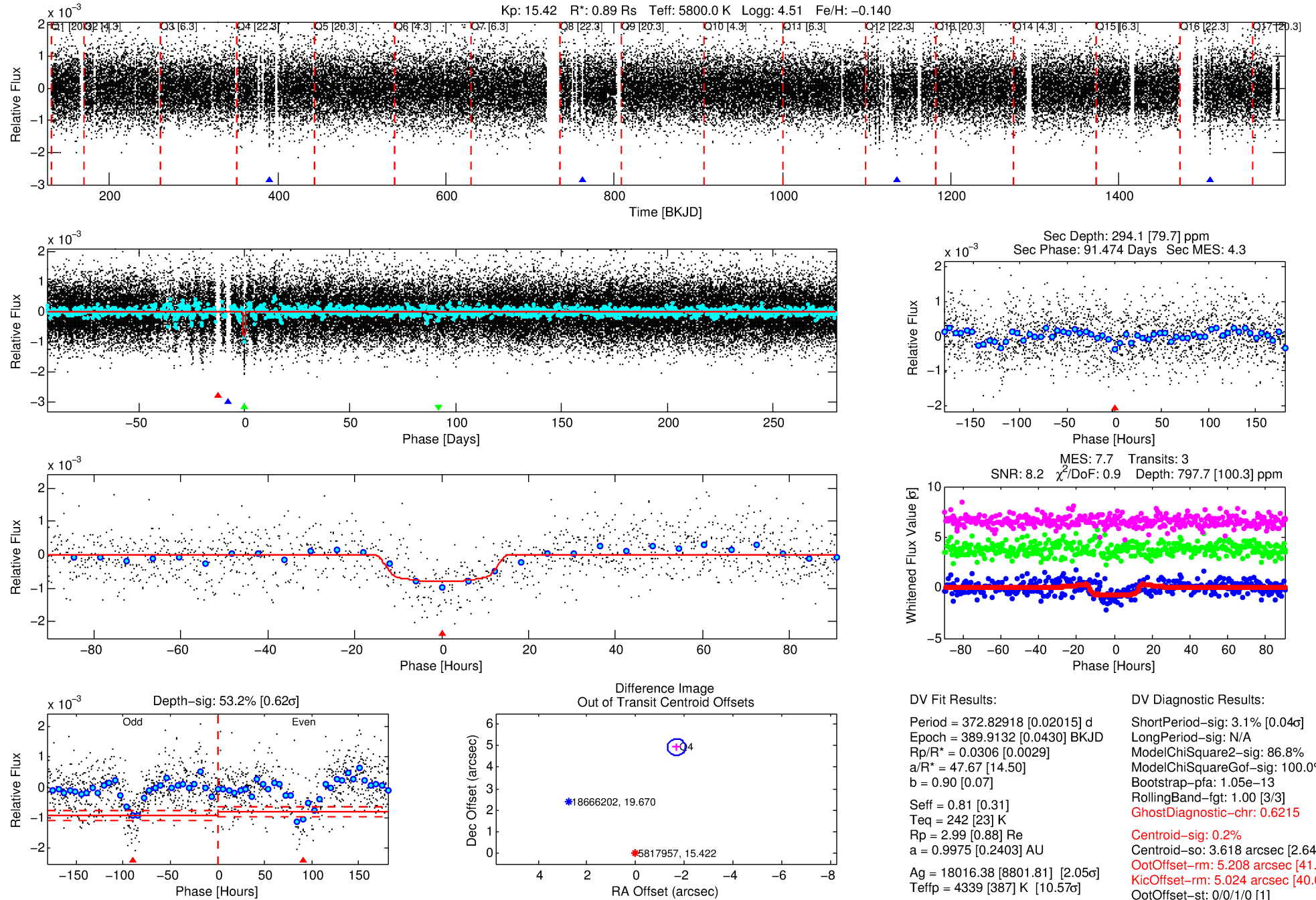
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005817957-03

No Significant Match Found

DV One-Page Summary

KIC: 5817957 Candidate: 3 of 3 Period: 372.829 d



DV Fit Results:

Period = 372.82918 [0.02015] d
Epoch = 389.9132 [0.0430] BKJD
Rp/R* = 0.0306 [0.0029]
a/R* = 47.67 [14.50]
b = 0.90 [0.07]
Seff = 0.81 [0.31]
Teq = 242 [23] K
Rp = 2.99 [0.88] Re
a = 0.9975 [0.2403] AU
Ag = 18016.38 [8801.81] [2.05σ]
Teff = 4339 [387] K [10.57σ]

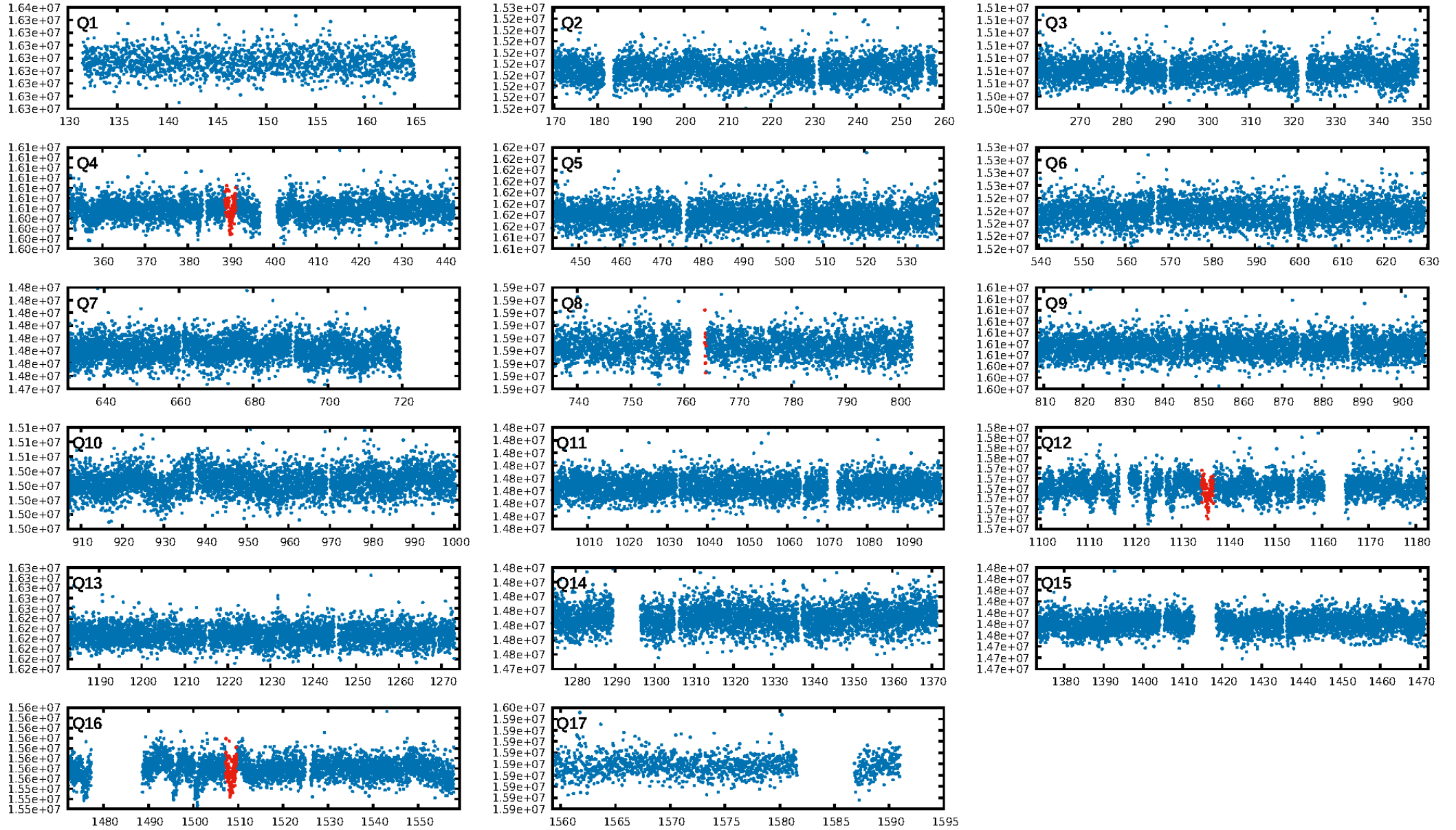
DV Diagnostic Results:

ShortPeriod-sig: 3.1% [0.04σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 86.8%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 1.05e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.6215
Centroid-sig: 0.2%
Centroid-so: 3.618 arcsec [2.64σ]
OotOffset-rm: 5.208 arcsec [41.60σ]
KicOffset-rm: 5.024 arcsec [40.09σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

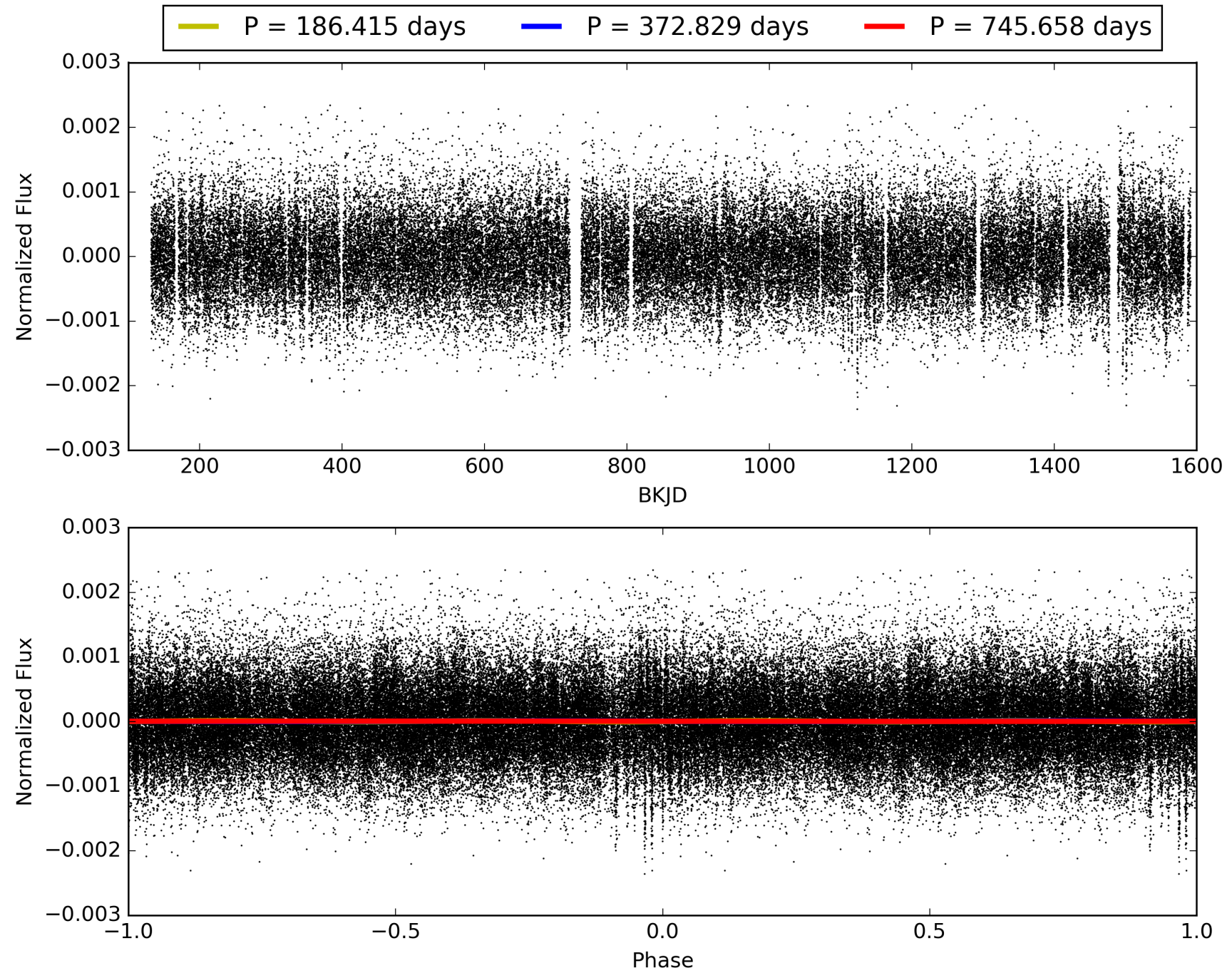
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:49:40 Z

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

TCE 005817957-03, PDC Light Curves

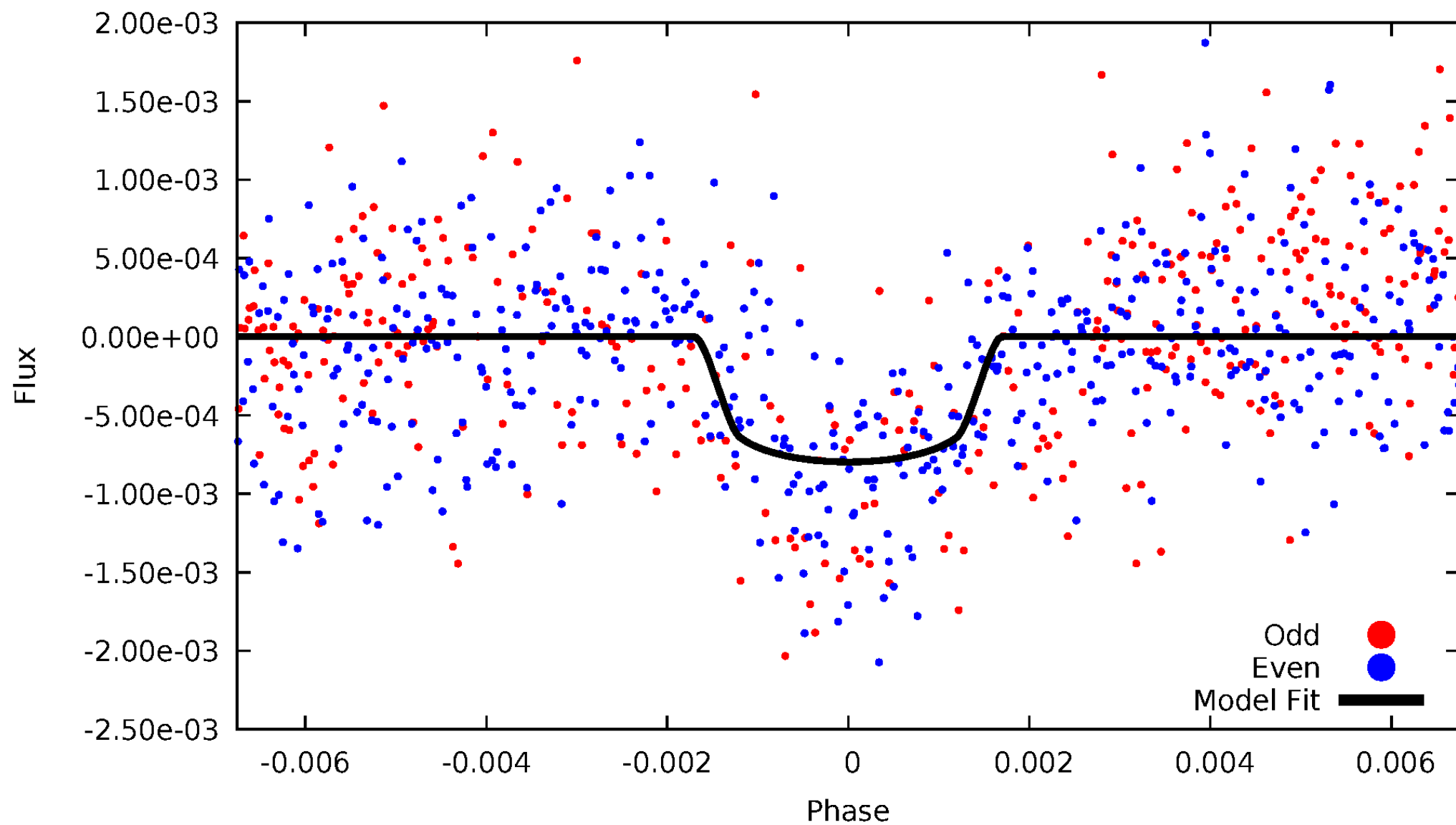


TCE 005817957-03



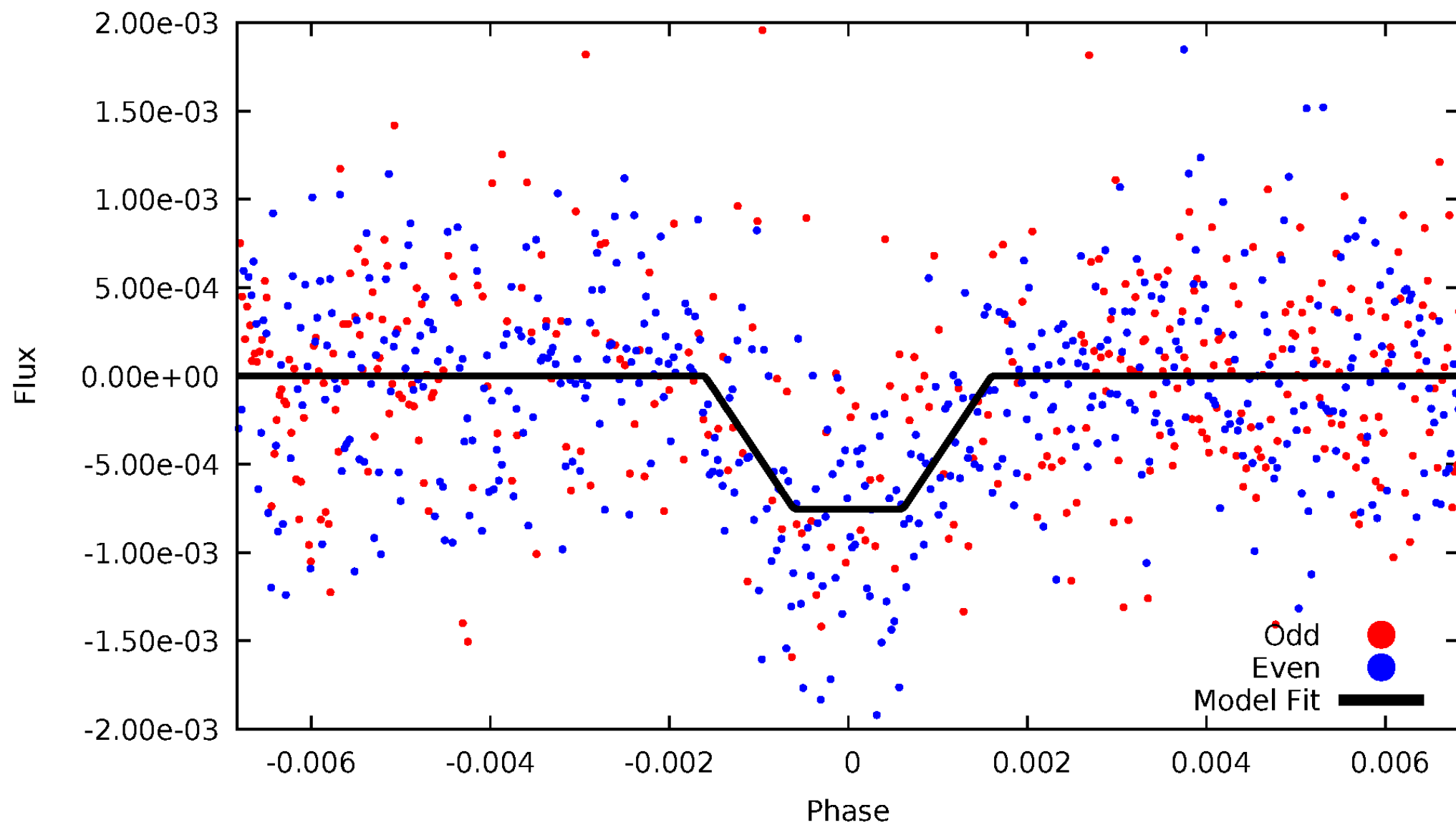
DV Odd/Even

TCE 005817957-03

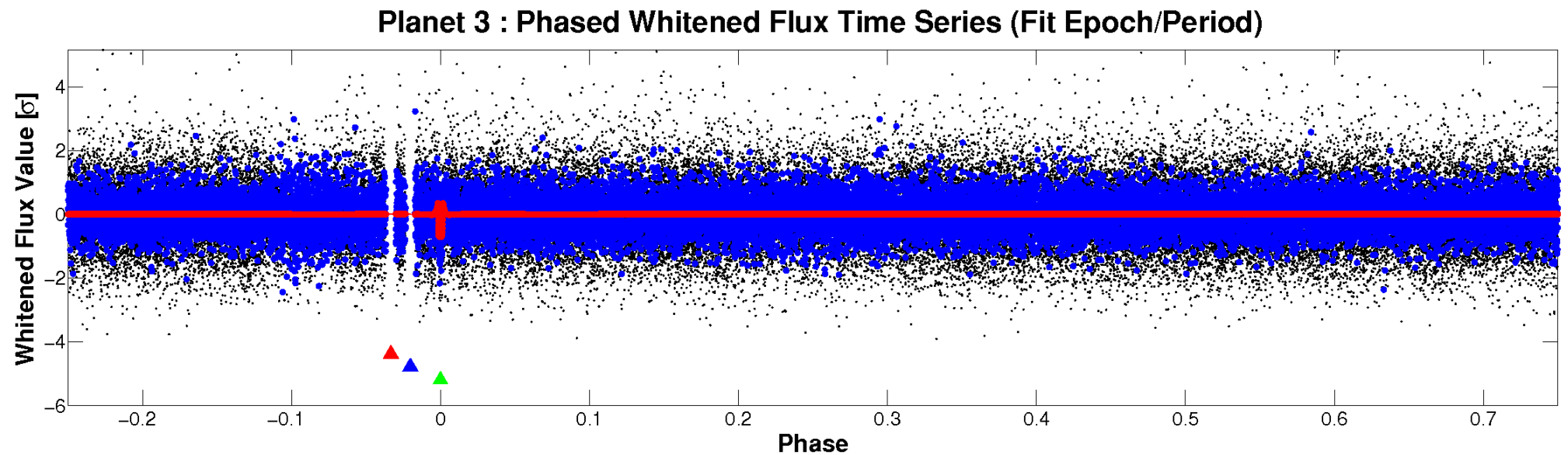
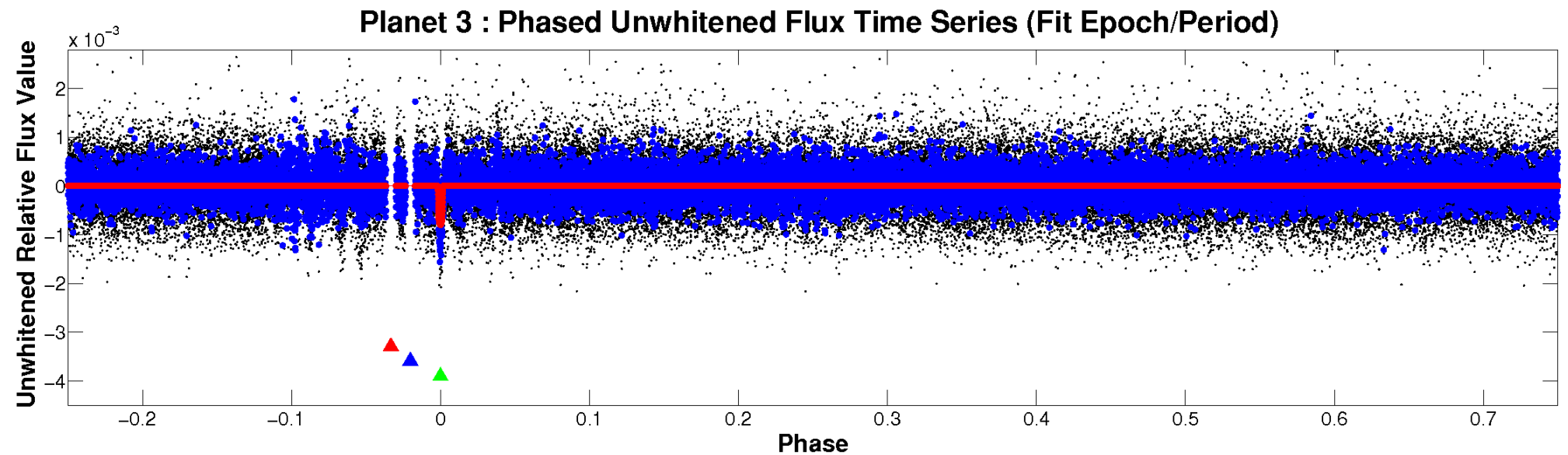


ALT Odd/Even

TCE 005817957-03



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 005817957-03 P=372.829177 Days $T_0=389.913245$ (BKJD)



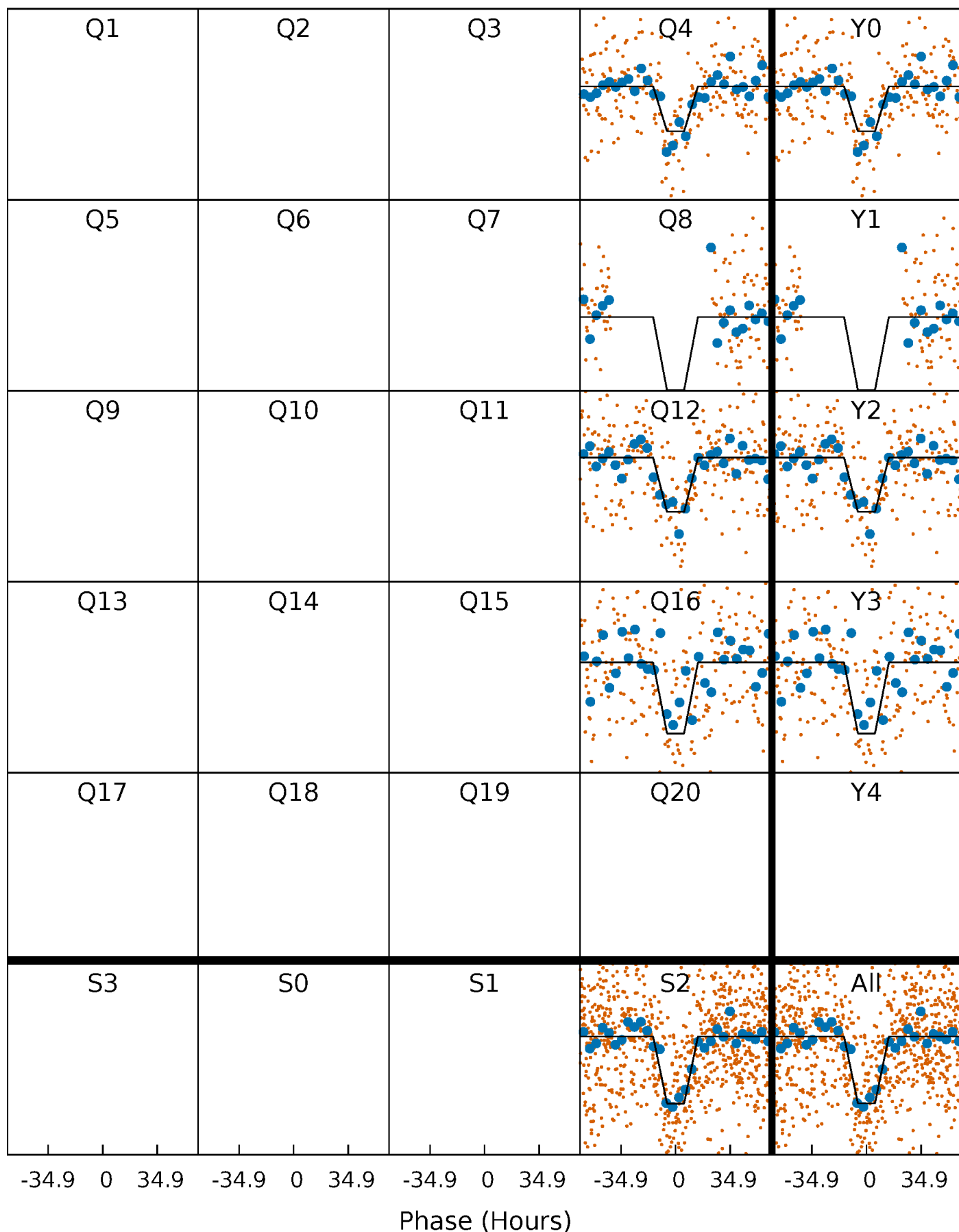
DV Quarter-Phased Transit Curves

TCE 005817957-03 $P=372.829177$ Days $T_0=389.913245$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

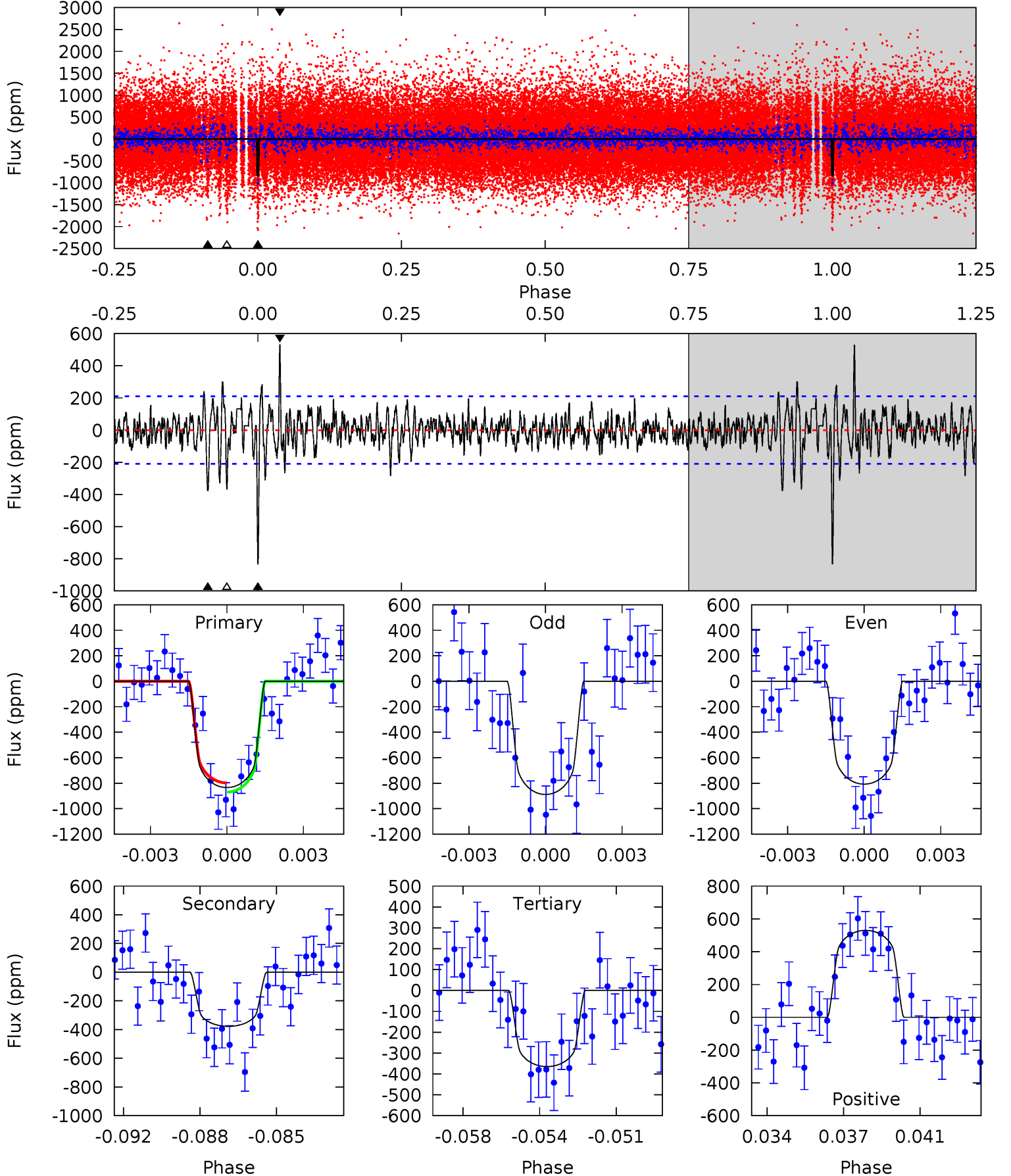
TCE 005817957-03 P=372.796680 Days $T_0=389.986364$ (BKJD)



DV Model-Shift Uniqueness Test

005817957-03, $P = 372.829177$ Days, $E = 17.084068$ Days

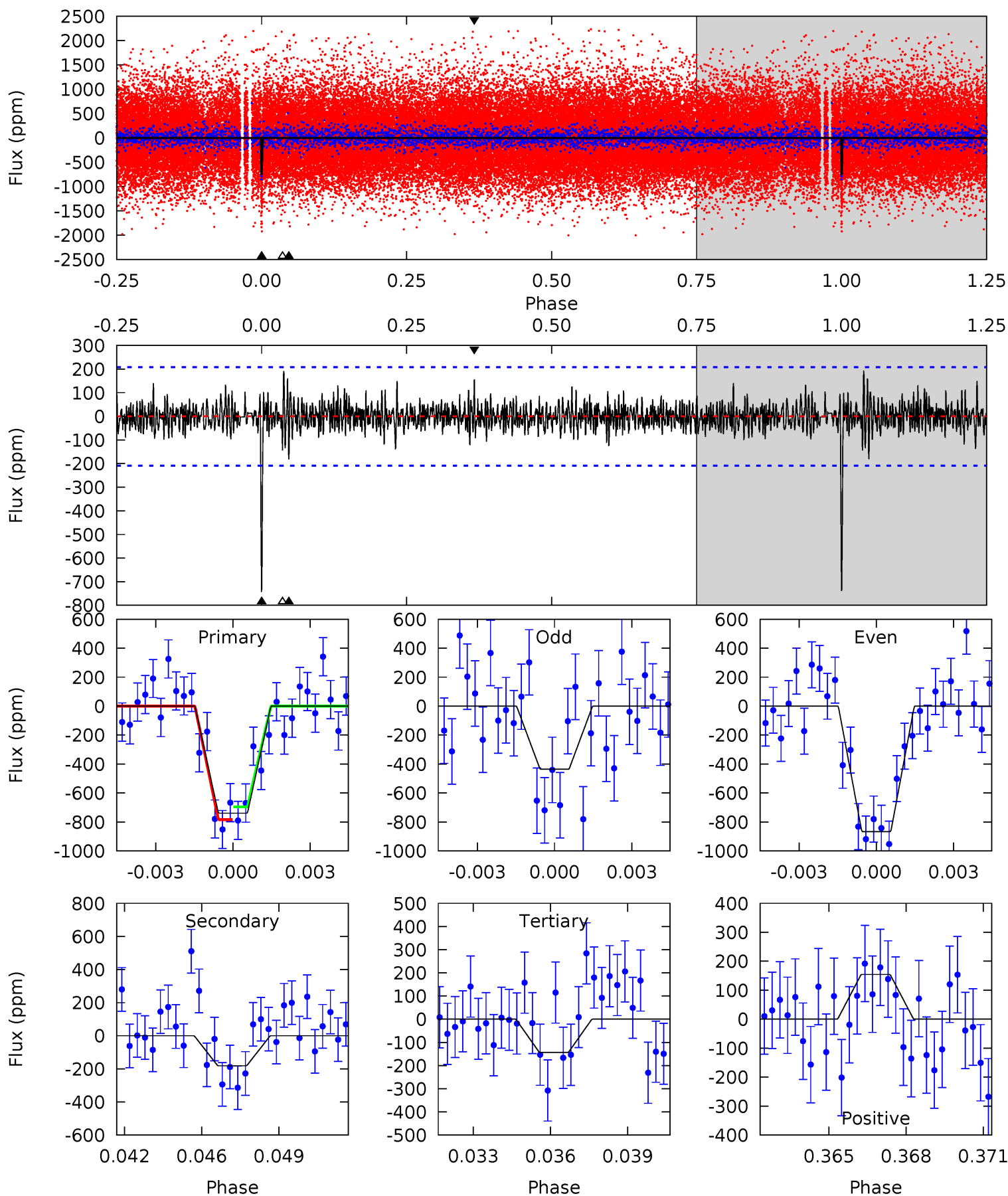
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	9.40	9.09	13.2	5.23	2.93	2.01	11.7	7.56	0.31	-3.80	0.96	0.95	0.39	0.90



Alt Model-Shift Uniqueness Test

005817957-03, $P = 372.796680$ Days, $E = 17.189684$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	4.55	3.61	3.88	5.24	2.94	1.04	15.0	14.7	0.95	0.68	5.14	0.88	0.20	1.11



Stellar Parameters For KIC 005817957

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5800^{+155}_{-190}	$4.514^{+0.050}_{-0.200}$	$-0.140^{+0.300}_{-0.300}$	$0.894^{+0.249}_{-0.089}$	$0.951^{+0.111}_{-0.111}$	$1.878^{+0.492}_{-0.948}$
	+3%/-3%	+1%/-4%	+214%/-214%	+28%/-10%	+12%/-12%	+26%/-51%
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 005817957-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-378 ± 40	$3.11^{+0.52}_{-0.38}$	345^{+24}_{-16}	4737^{+249}_{-232}	20862^{+6959}_{-5753}
Alt.	-181 ± 40	$2.77^{+0.45}_{-0.37}$	344^{+24}_{-16}	4296^{+256}_{-261}	12489^{+5131}_{-3955}

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 $A_{obs} \gg 1.0$

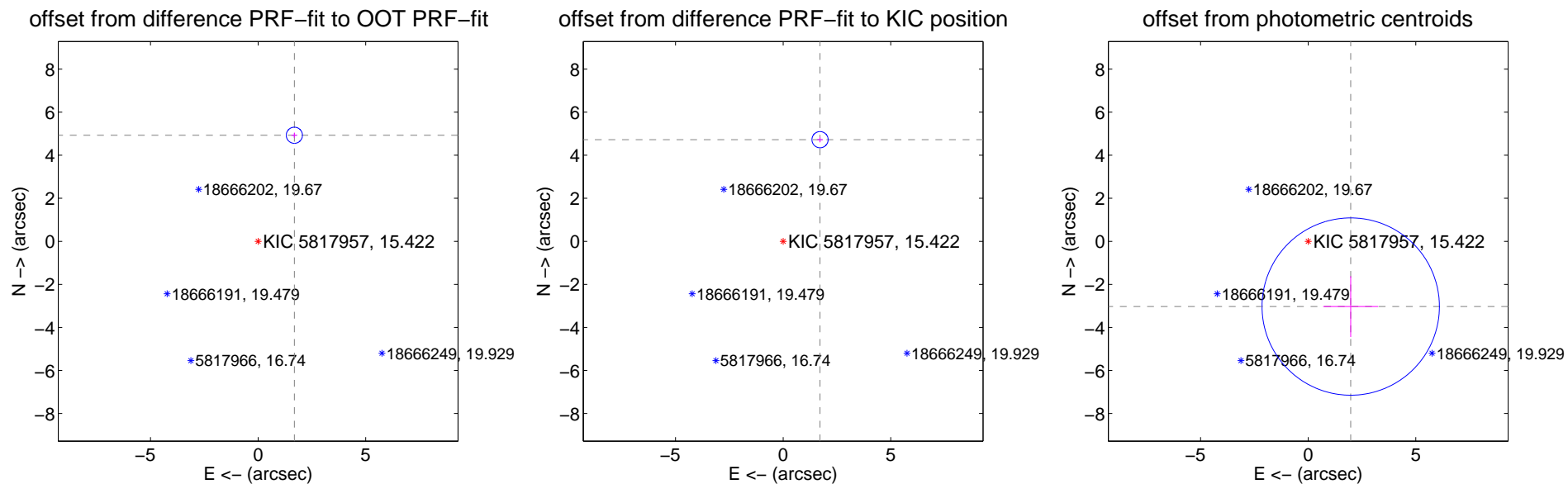
DV Centroid Data

Supplemental centroid analysis for 005817957-03. Kepler magnitude: 15.42. Transit SNR 8.22

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.208 ± 0.125	41.60	-1.684 ± 0.134	4.928 ± 0.124
PRF-fit source offset from KIC position	5.024 ± 0.125	40.09	-1.714 ± 0.134	4.722 ± 0.124
photometric centroid source offset	3.62 ± 1.37	2.64	-1.98 ± 1.28	-3.03 ± 1.41



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.

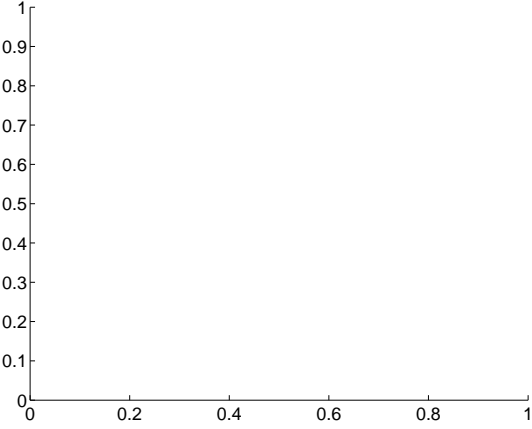
Q1 no difference image



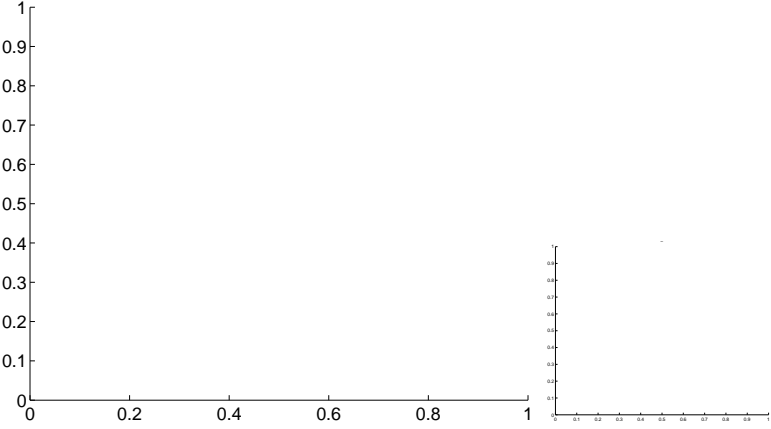
Q1 no OOT image



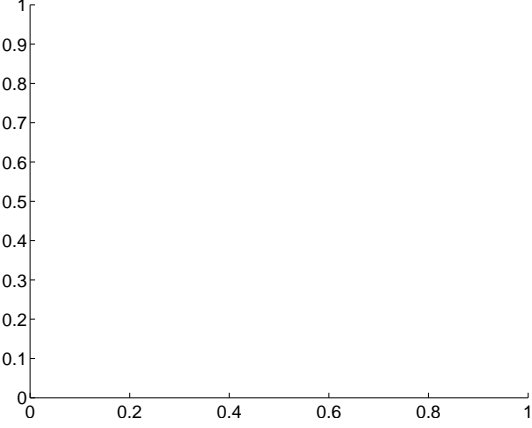
Q2 no difference image



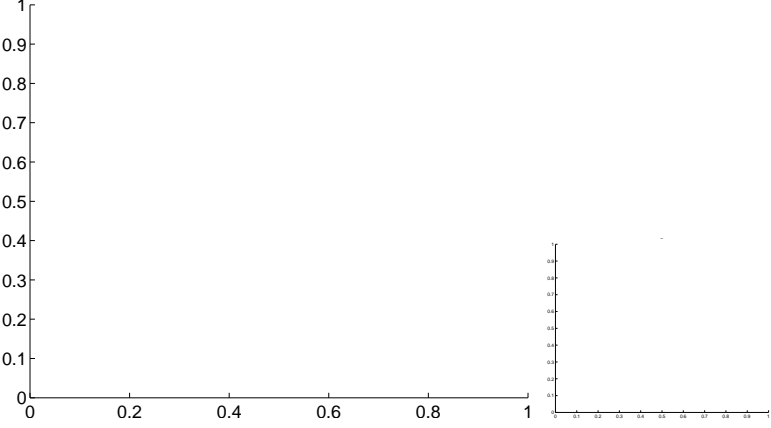
Q2 no OOT image



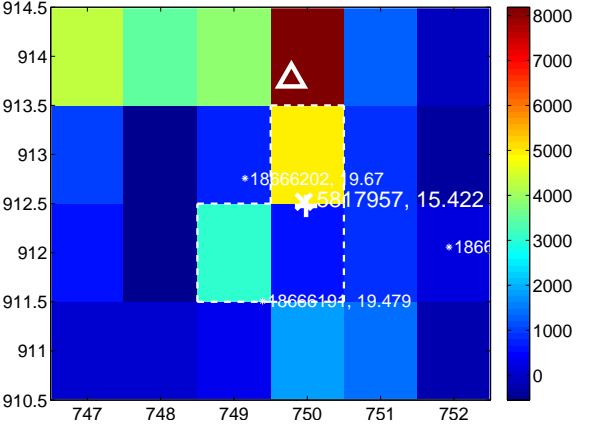
Q3 no difference image



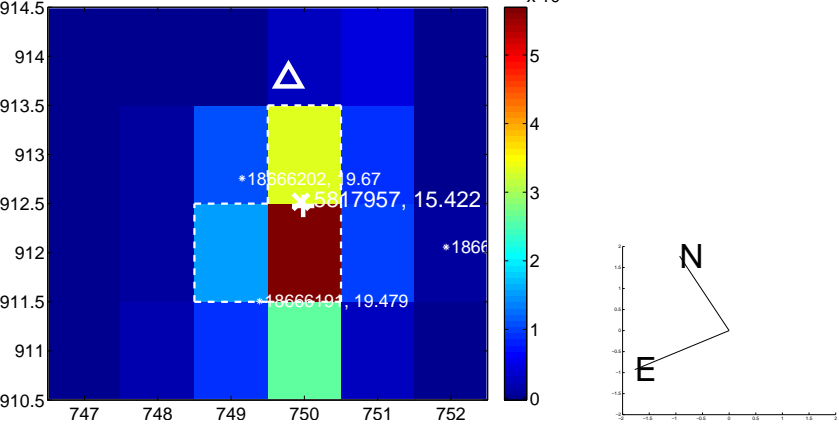
Q3 no OOT image



Q4 difference image



Q4 OOT image



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



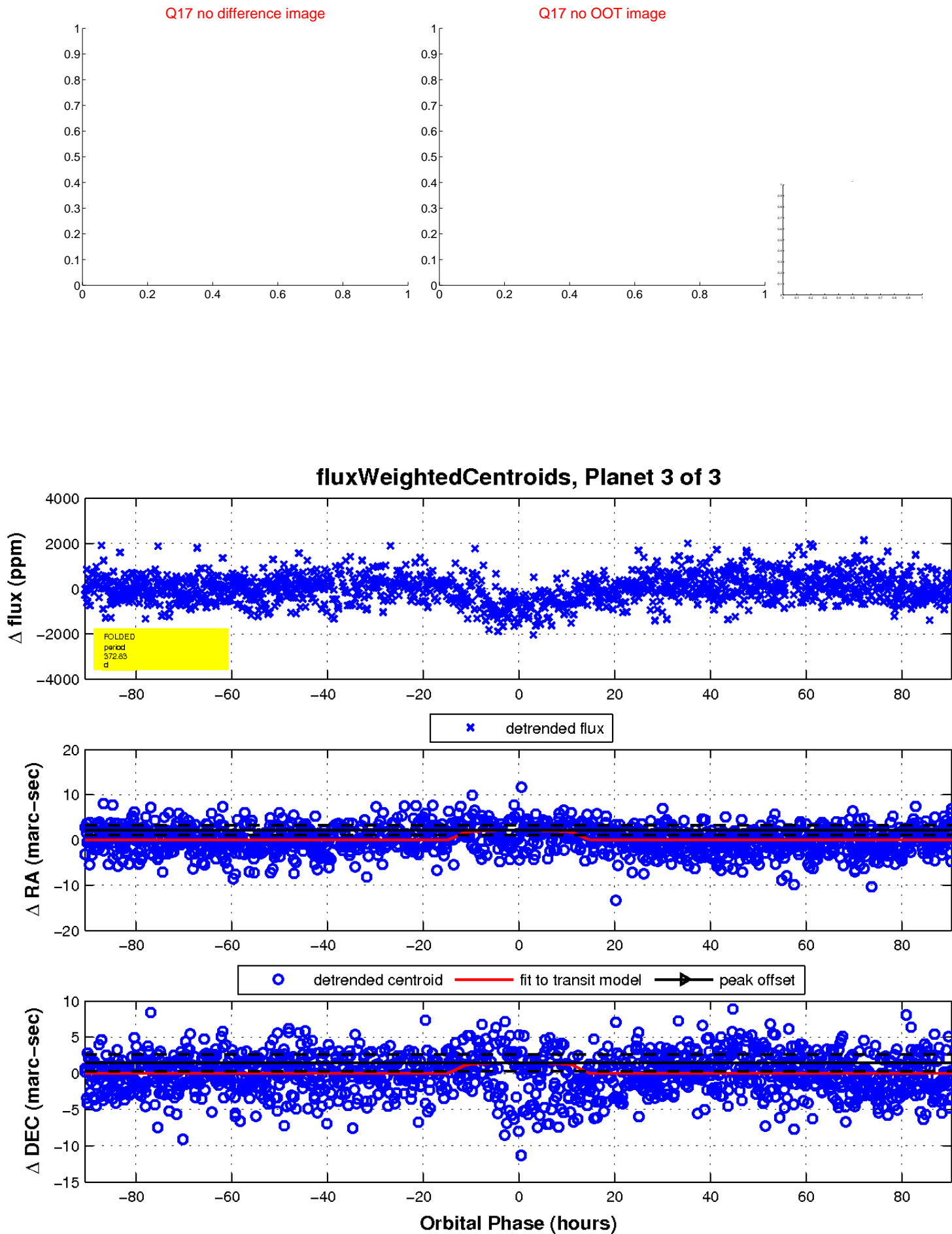
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

