

KIC 006147573

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})
006147573-01	OBS	6669.01	25.836831	137.364148	144010.1	6.327	7536.0	5037.1	0.90	5691	50.22	28.13
006147573-02	OBS	No	25.836830	156.131678	124872.5	6.486	6043.3	4058.6	0.90	5691	46.73	28.13
006147573-03	OBS	No	517.470886	373.634312	712.8	8.011	13.6	9.6	0.90	5691	2.48	0.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006147573-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVN_DV—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_KIC_POS
006147573-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS
006147573-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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.

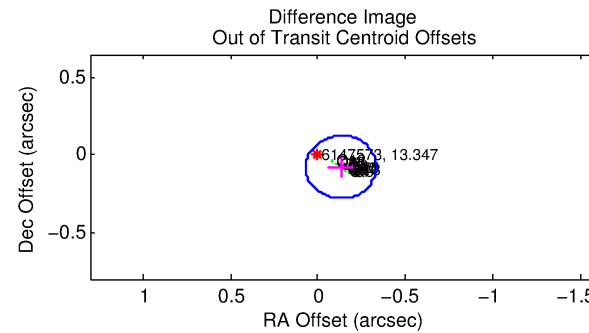
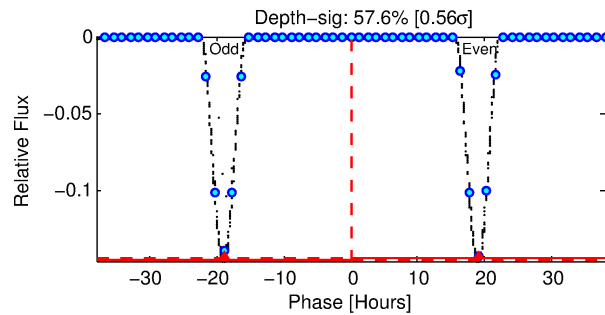
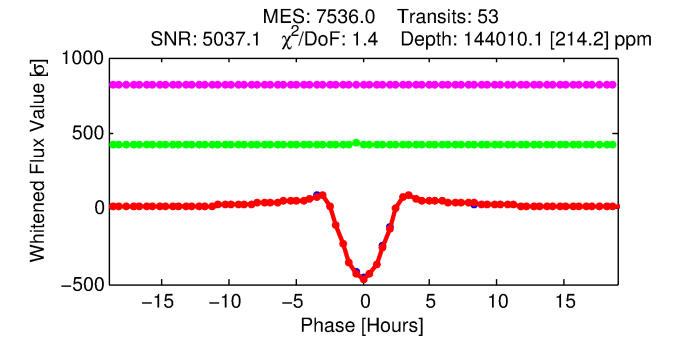
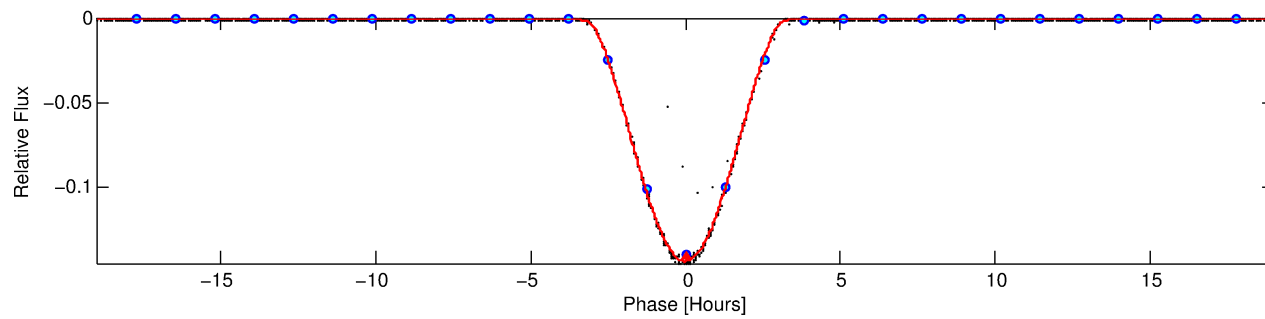
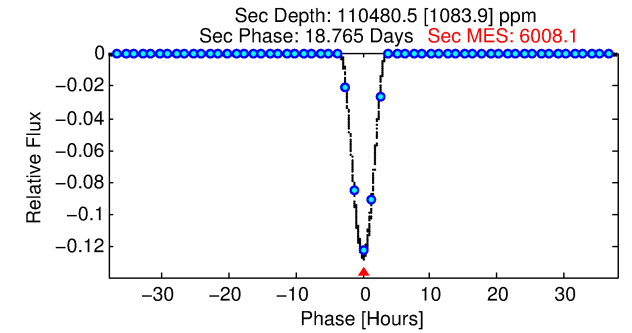
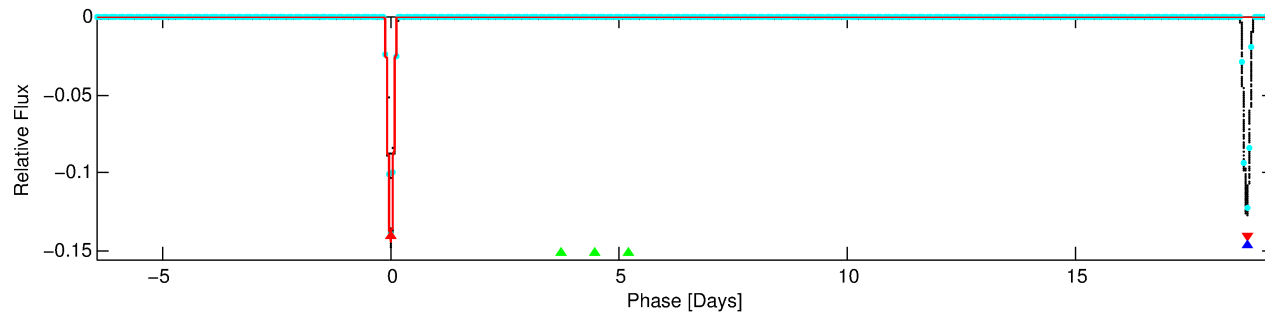
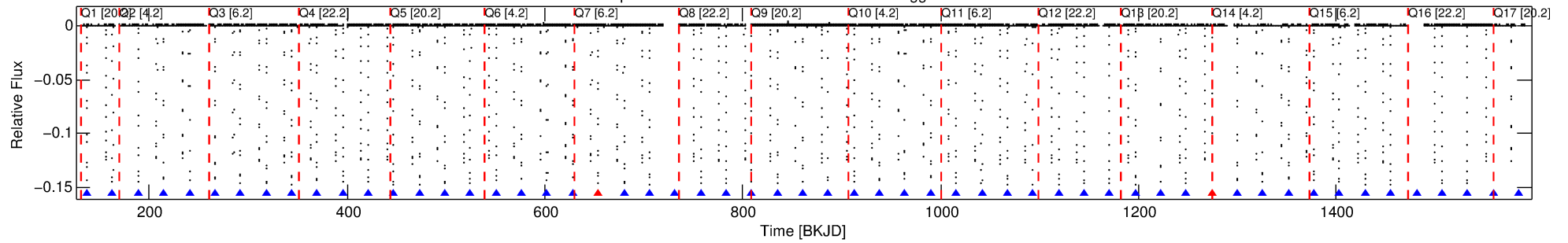
Ephemeris Match Information For 006147573-01

No Significant Match Found

DV One-Page Summary

KIC: 6147573 Candidate: 1 of 3 Period: 25.837 d
KOI: K06669.01 Corr: 1.000

Kp: 13.35 R*: 0.90 Rs Teff: 5691.0 K Logg: 4.48 Fe/H: -0.200



DV Fit Results:

Period = 25.83683 [0.00000] d
Epoch = 137.3641 [0.0000] BKJD
Rp/R* = 0.5131 [0.0630]
a/R* = 38.07 [0.42]
b = 0.90 [0.09]
Seff = 28.13 [9.77]
Teq = 587 [51] K
Rp = 50.22 [14.63] Re
a = 0.1640 [0.0369] AU
Ag = 647.71 [266.61] [2.43σ]
Teffp = 4580 [307] K [12.84σ]

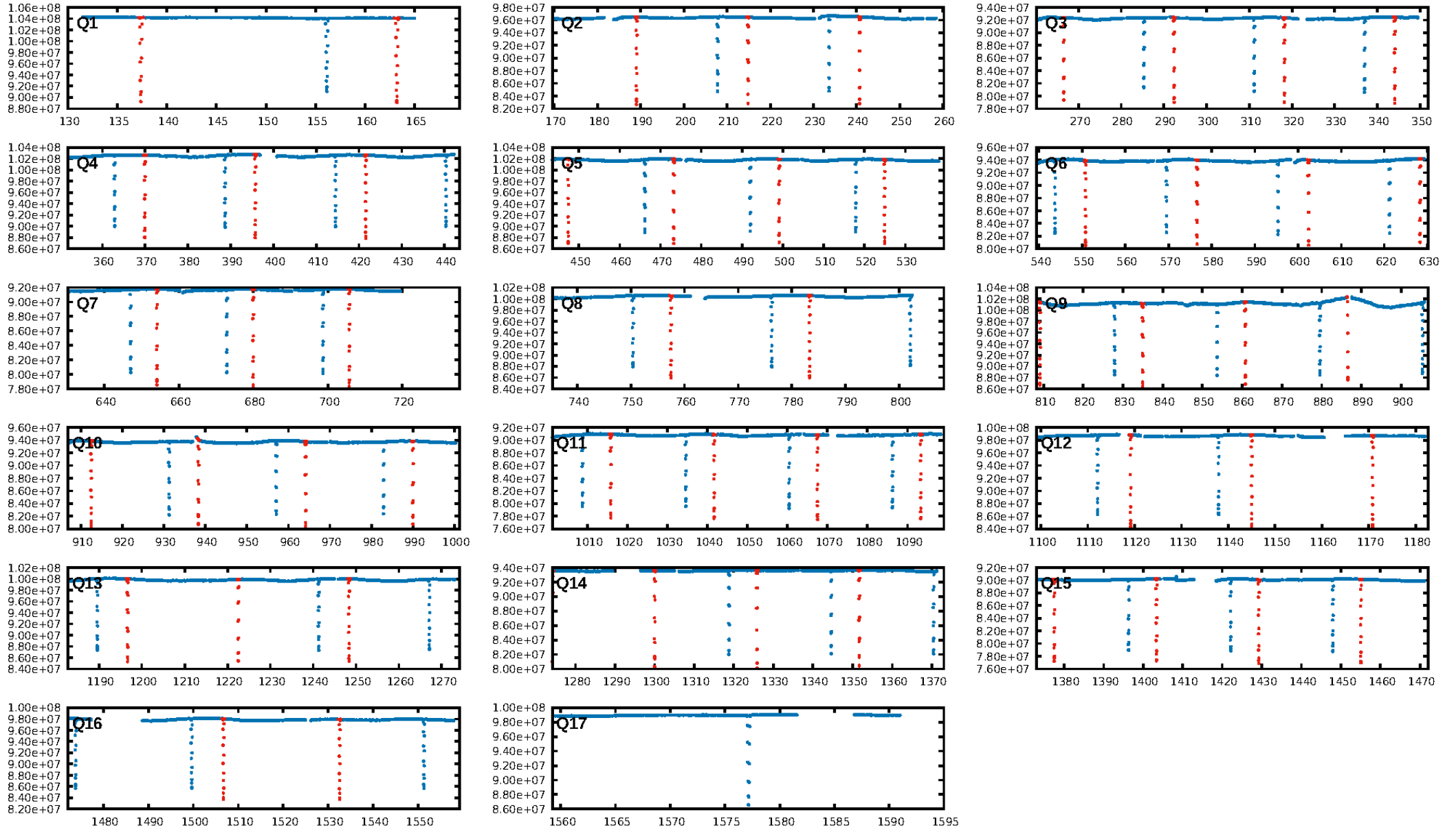
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [1155.87σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.96 [49/51]
GhostDiagnostic-chr: 9.083
Centroid-sig: 0.0%
Centroid-so: 0.223 arcsec [217.98σ]
OotOffset-rm: 0.152 arcsec [2.25σ]
KicOffset-rm: 0.203 arcsec [3.01σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

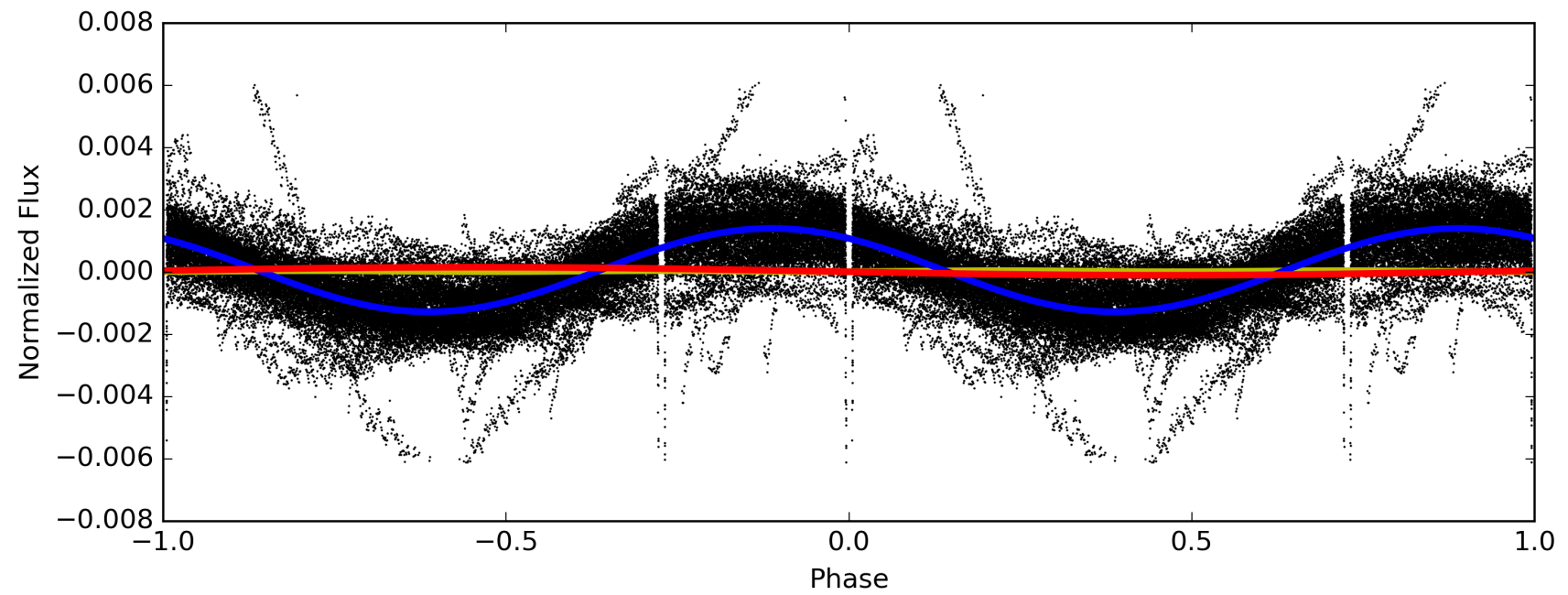
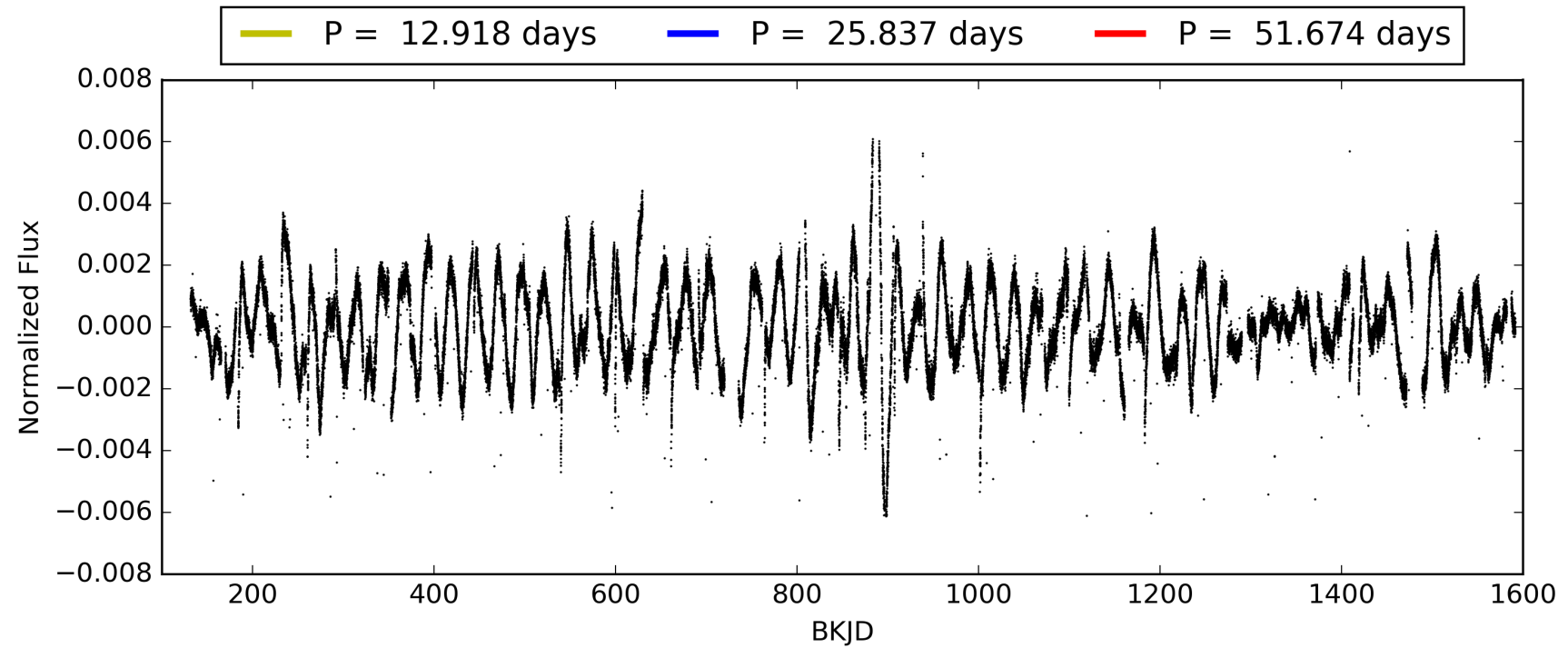
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:48:01 Z

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

TCE 006147573-01, PDC Light Curves

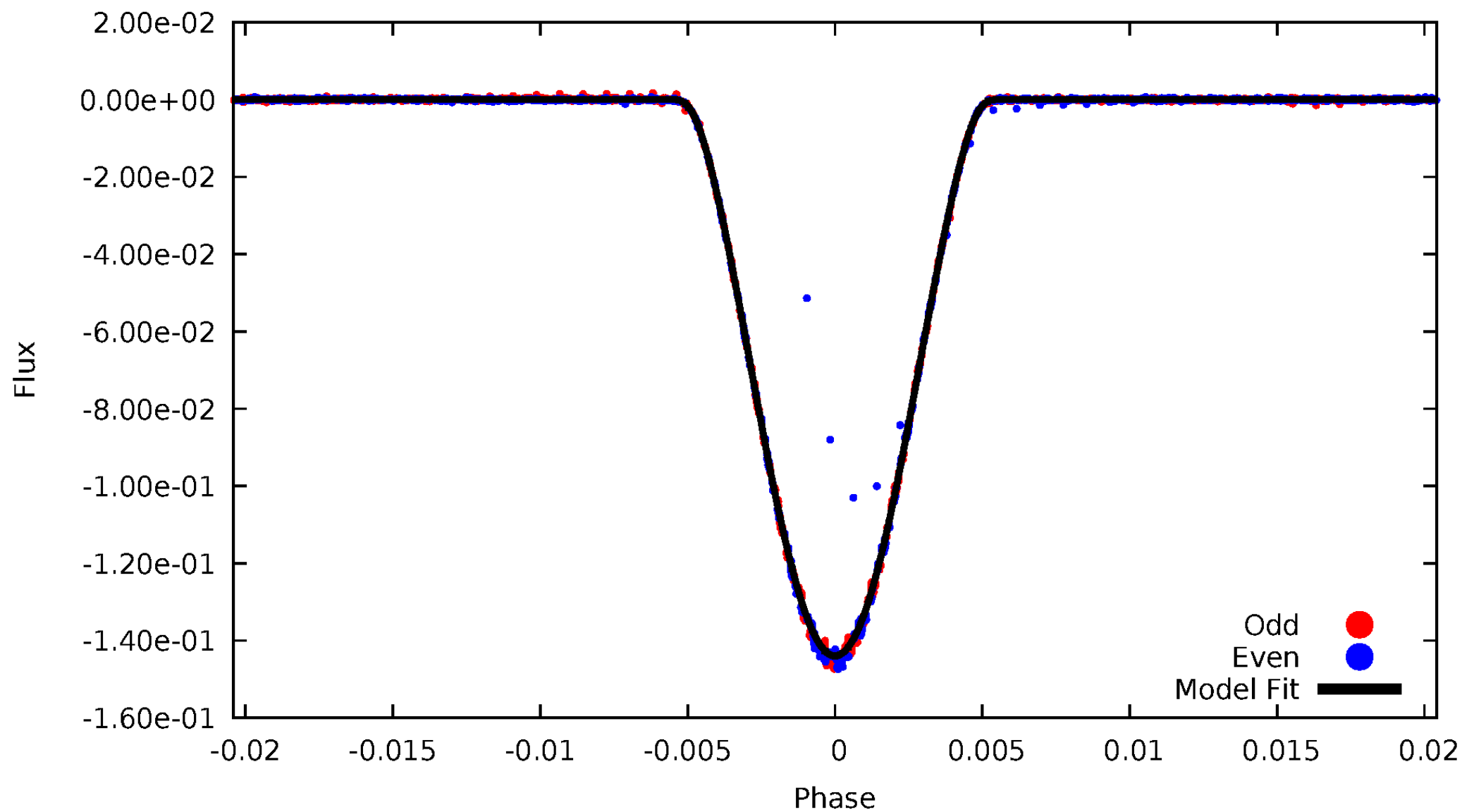


TCE 006147573-01



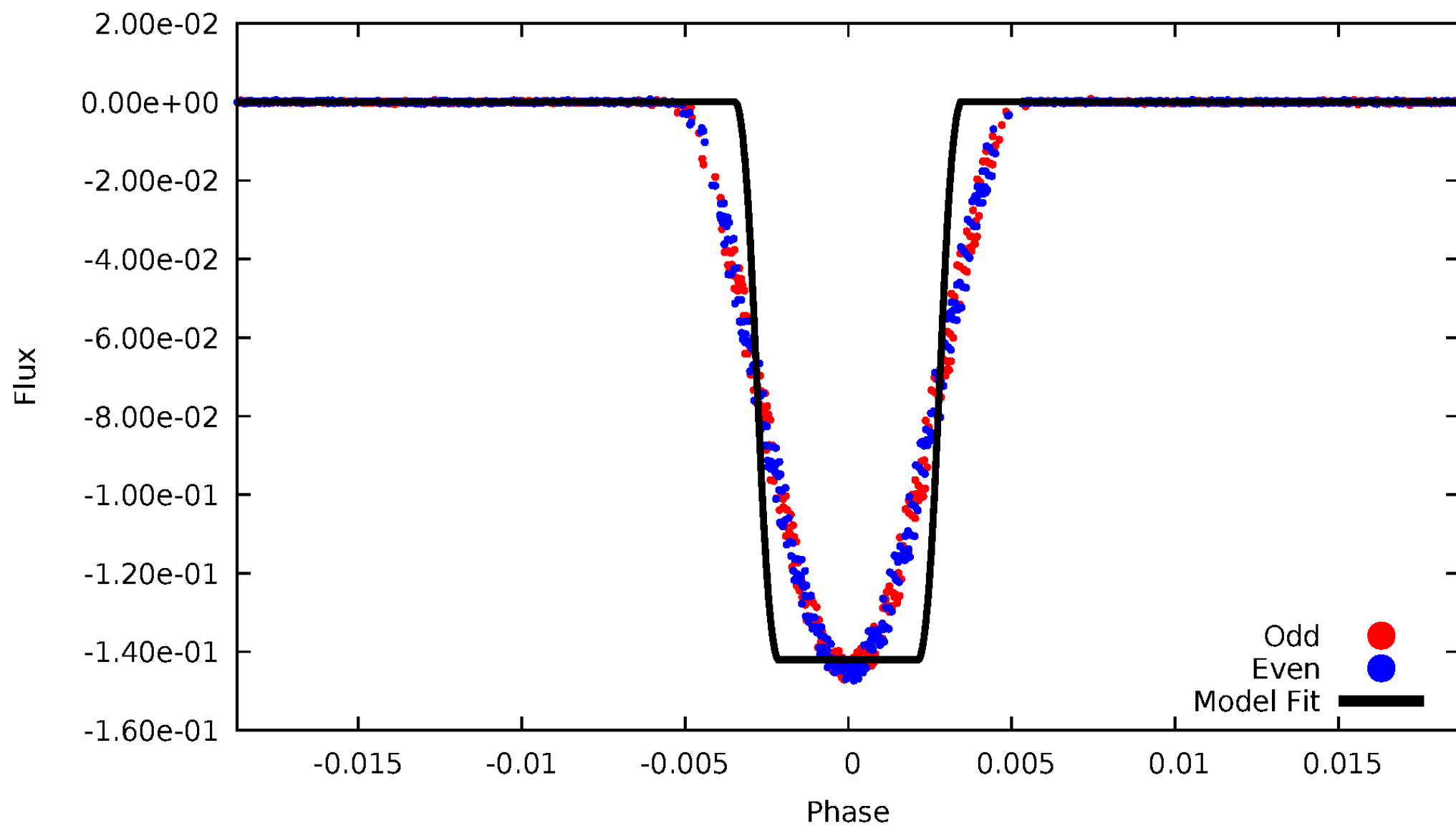
DV Odd/Even

TCE 006147573-01



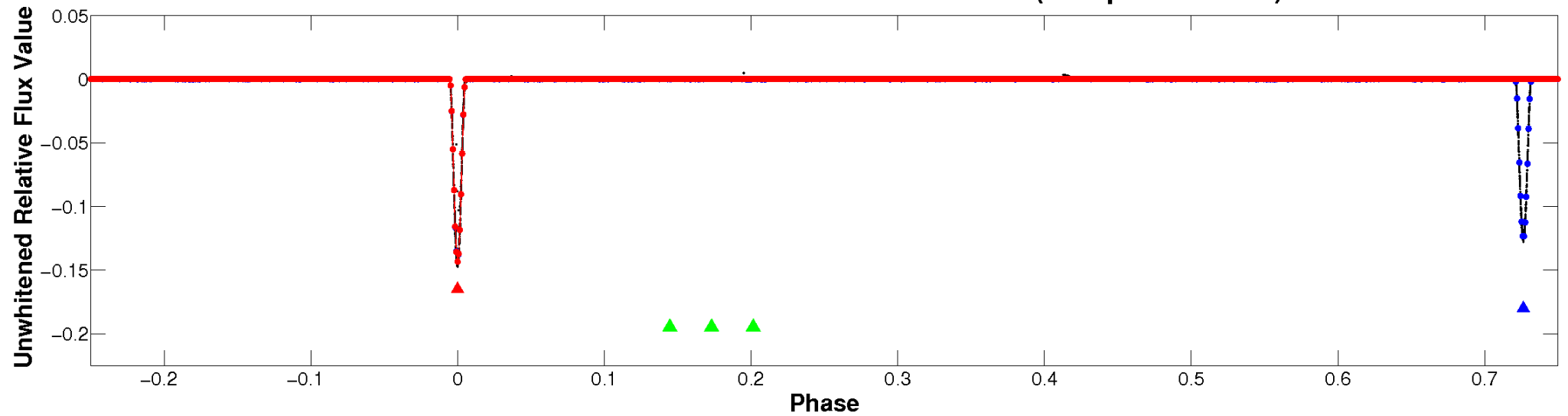
ALT Odd/Even

TCE 006147573-01

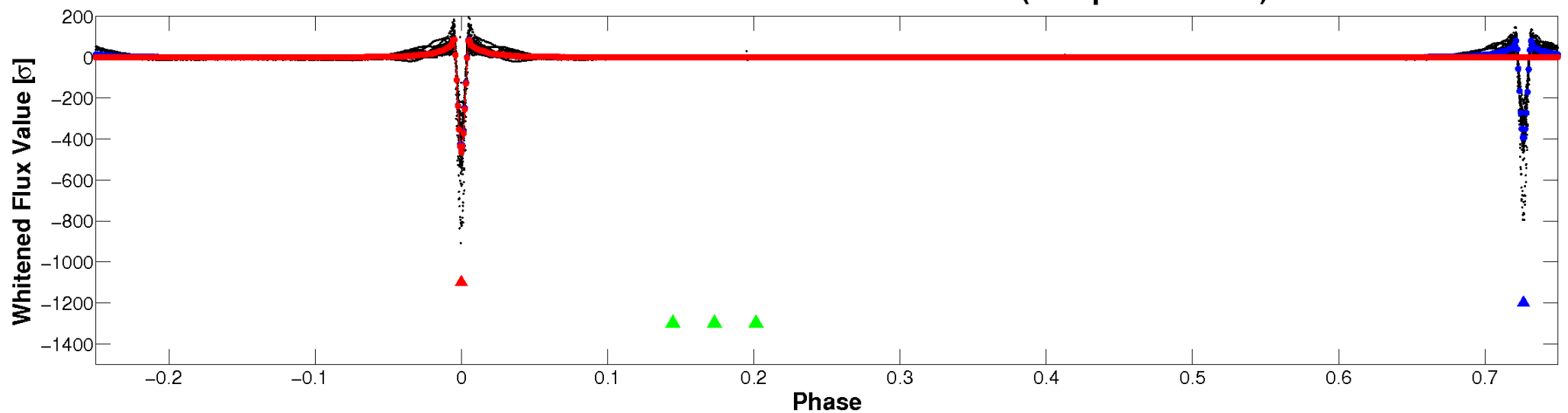


Non-Whitened Vs. Whitened Light Curve

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

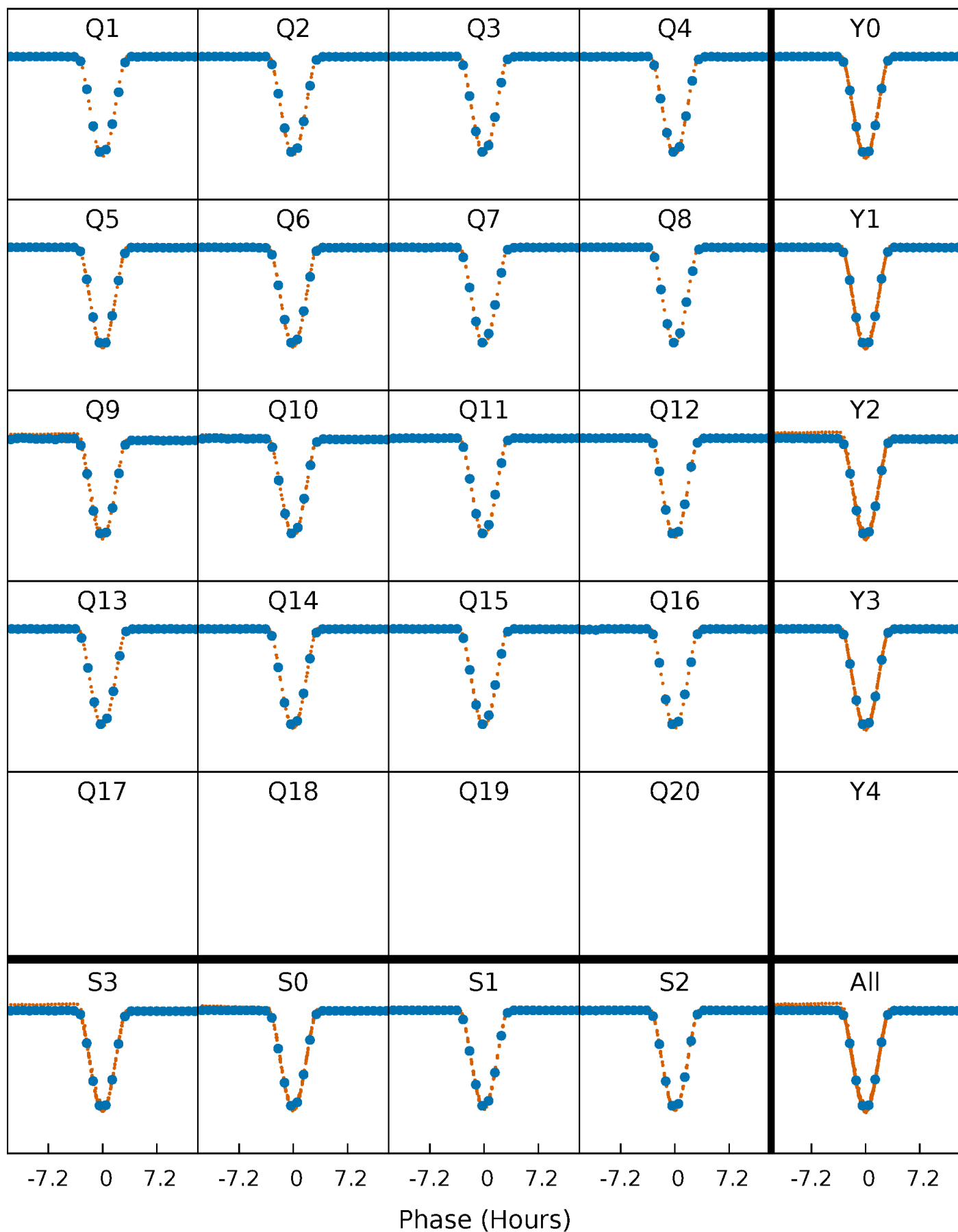


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



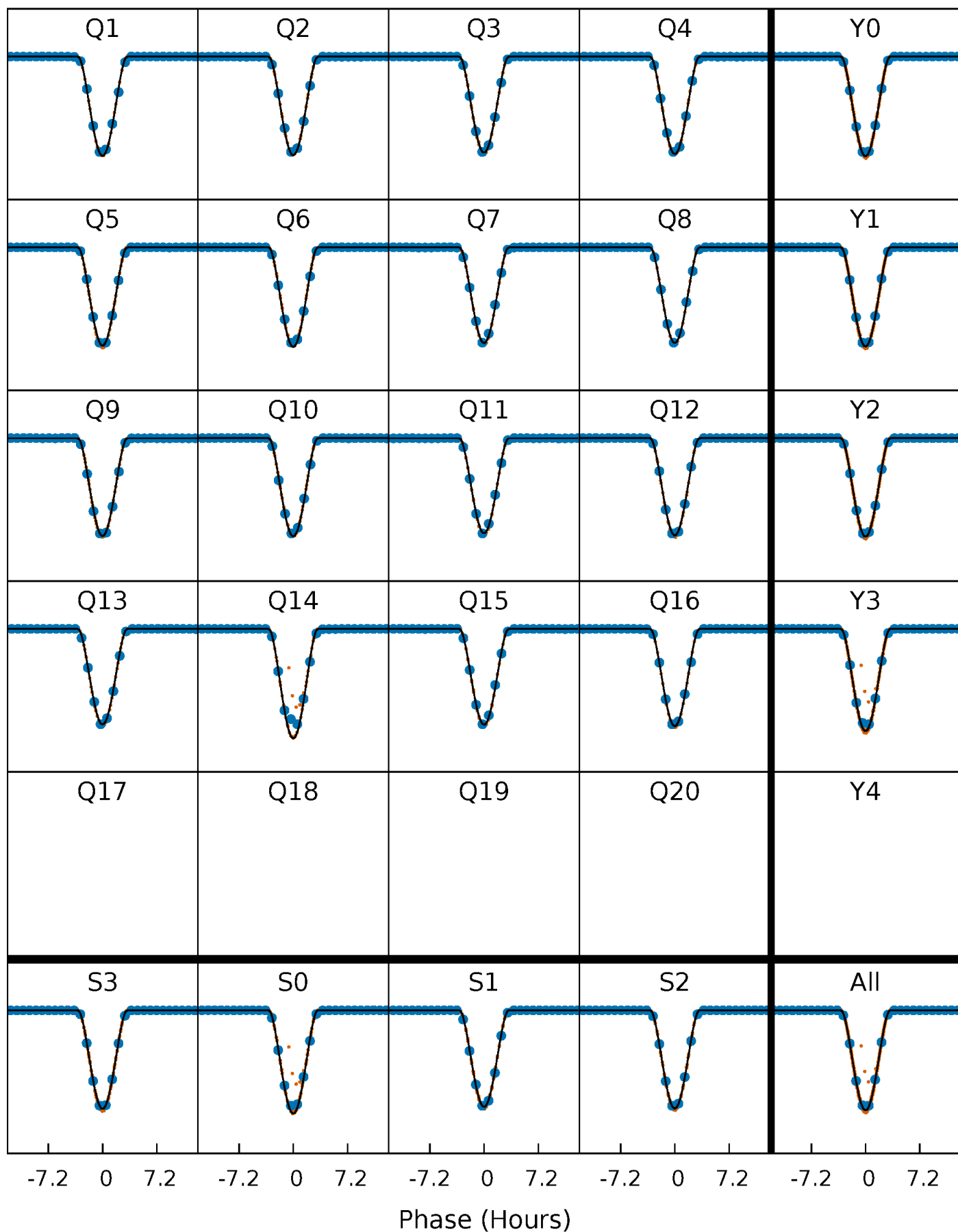
PDC Quarter-Phased Transit Curves

TCE 006147573-01 P= 25.836831 Days $T_0=137.364148$ (BKJD)



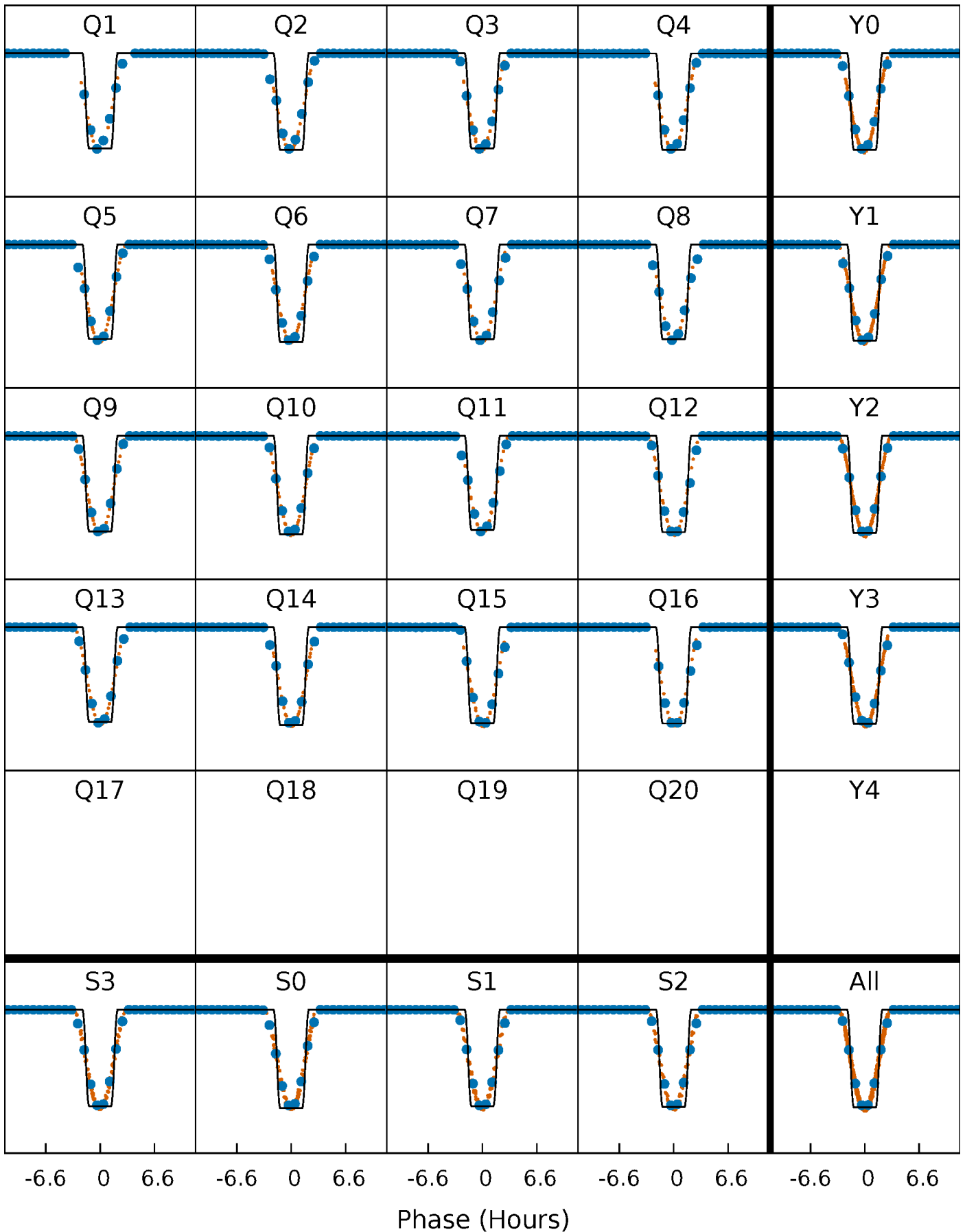
DV Quarter-Phased Transit Curves

TCE 006147573-01 P= 25.836831 Days $T_0=137.364148$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

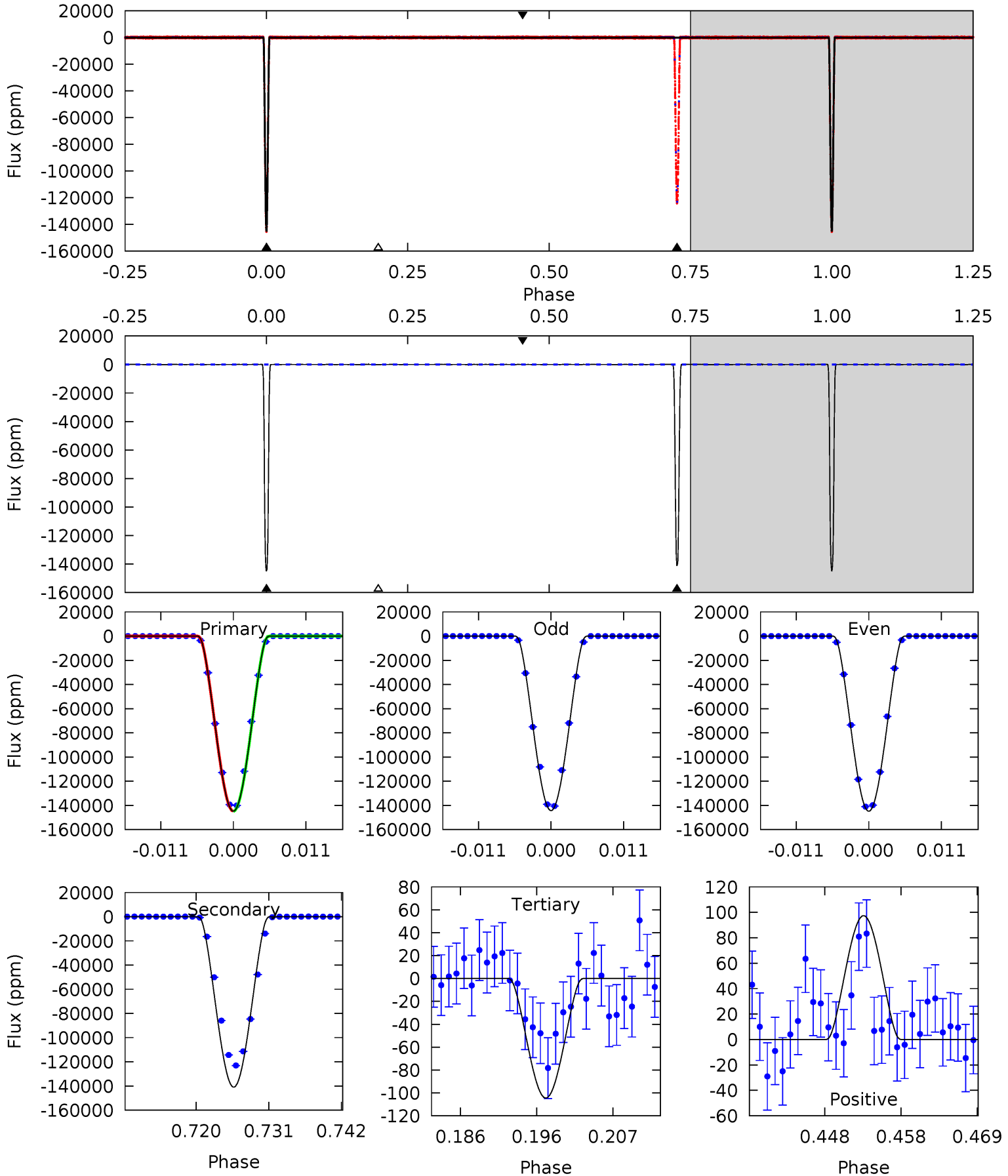
TCE 006147573-01 P= 25.836632 Days $T_0=137.369450$ (BKJD)



DV Model-Shift Uniqueness Test

006147573-01, P = 25.836831 Days, E = 111.527317 Days

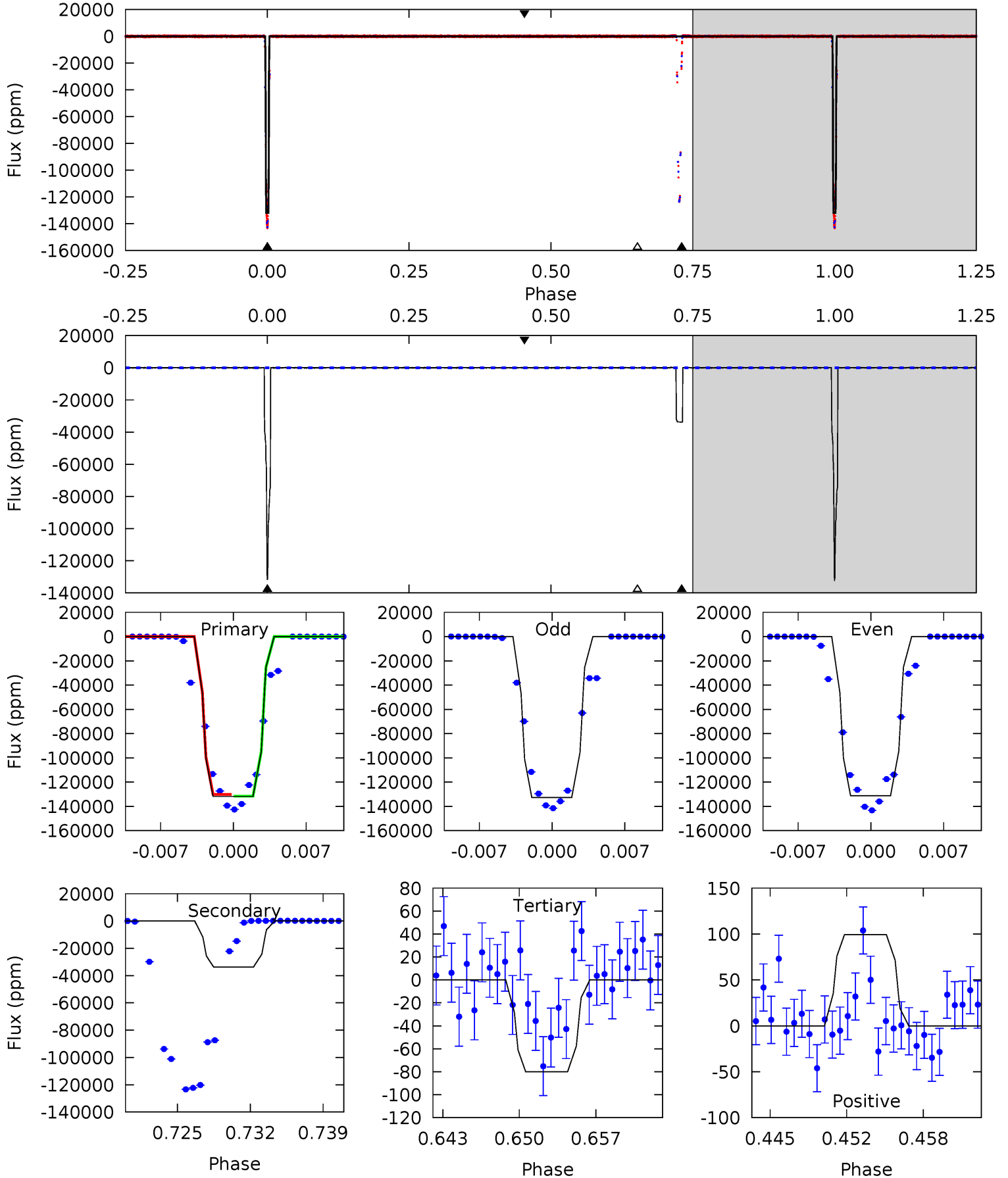
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15049	14646	10.9	10.1	5.01	2.55	3.46	15038	15039	14635	14636	27.0	0.99	0.00	0



Alt Model-Shift Uniqueness Test

006147573-01, P = 25.836632 Days, E = 111.532818 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3420	874.9	2.08	2.57	5.10	2.70	12.7	3418	3418	872.8	872.3	9.22	1.00	0.00	0



Stellar Parameters For KIC 006147573

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5691^{+152}_{-152}	$4.477^{+0.078}_{-0.182}$	$-0.200^{+0.300}_{-0.300}$	$0.897^{+0.237}_{-0.102}$	$0.881^{+0.111}_{-0.083}$	$1.720^{+0.658}_{-0.771}$
	+3%/-3%	+2%/-4%	+150%/-150%	+26%/-11%	+13%/-9%	+38%/-45%
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 006147573-01 / KOI 6669.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-140909 ± 10	$52.21^{+9.44}_{-7.72}$	832^{+56}_{-41}	5097^{+338}_{-244}	895^{+319}_{-237}
Alt.	-33729 ± 39	$37.81^{+8.17}_{-7.57}$	831^{+50}_{-40}	4256^{+326}_{-260}	362^{+190}_{-113}

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

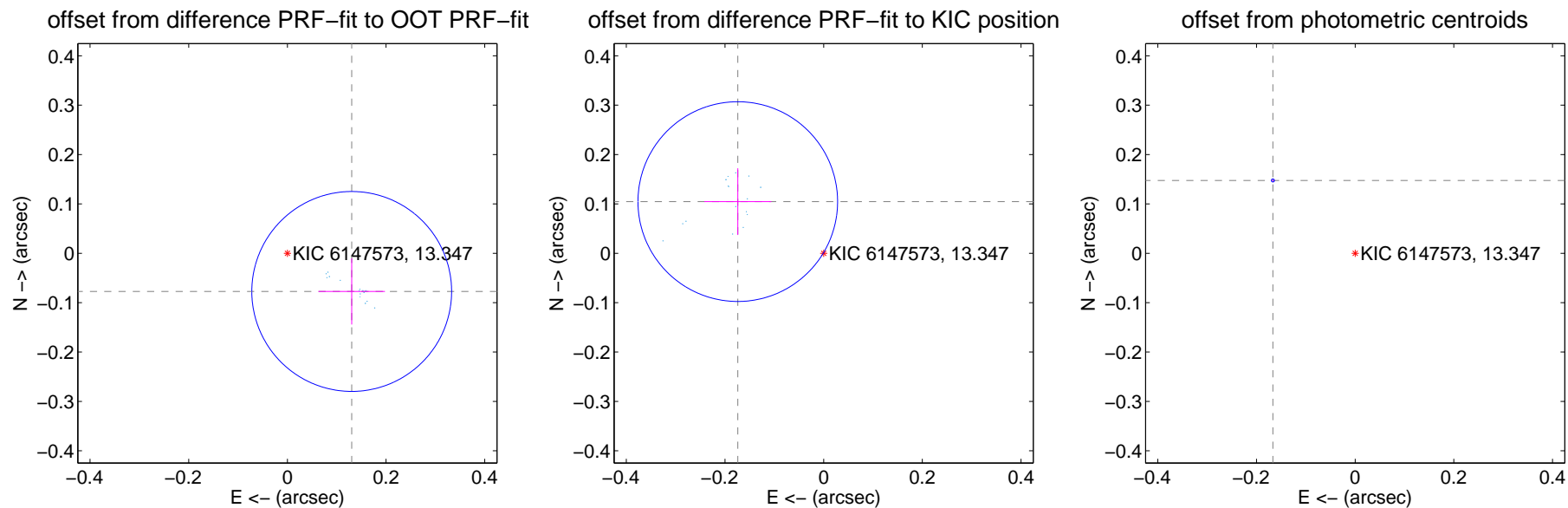
DV Centroid Data

Supplemental centroid analysis for 006147573-01. Kepler magnitude: 13.35. Transit SNR 5037.14

There are 16 quarters with good PRF difference image offsets

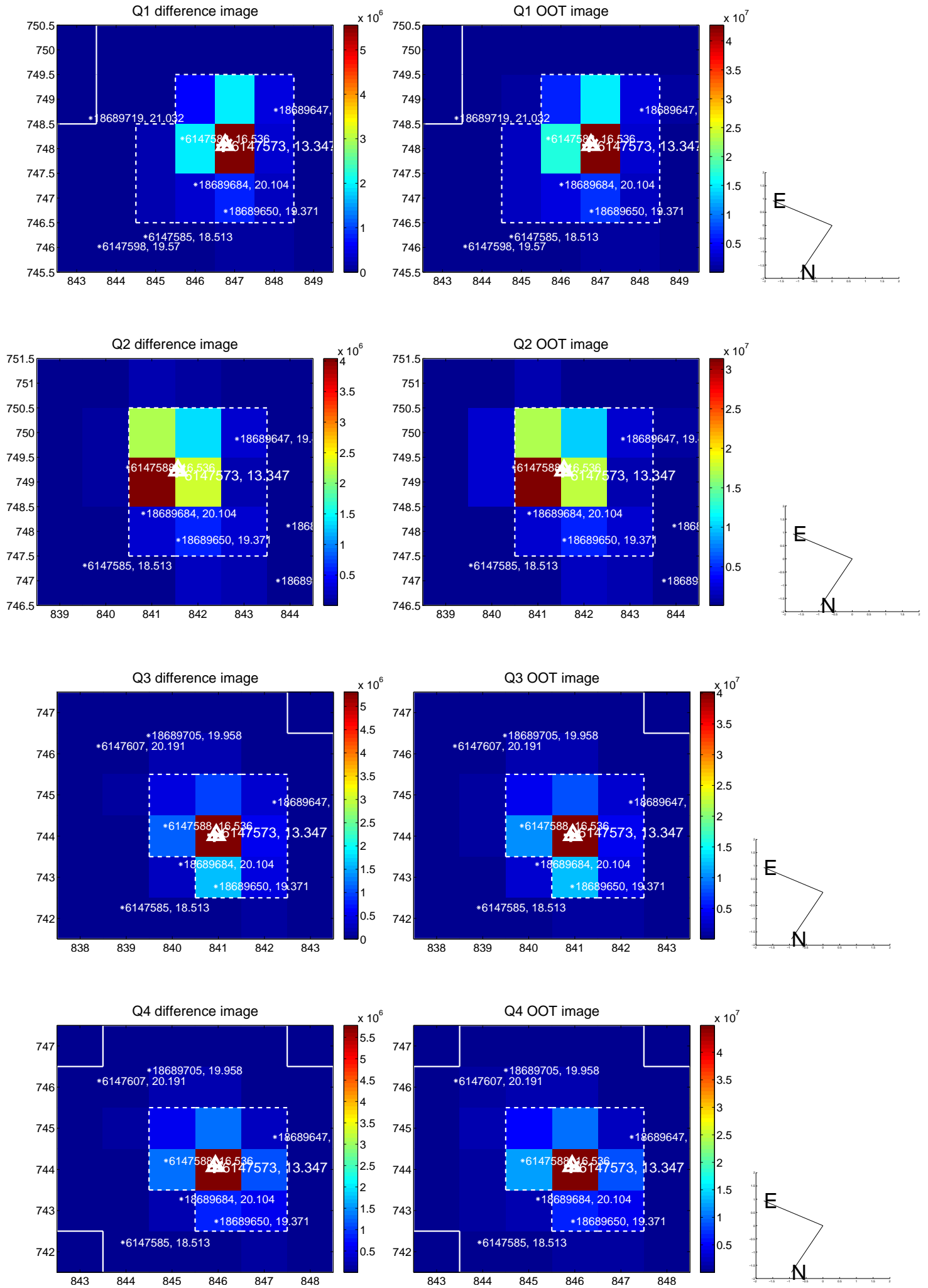
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.152 ± 0.067	2.25	-0.130 ± 0.067	-0.077 ± 0.067
PRF-fit source offset from KIC position	0.203 ± 0.067	3.01	0.174 ± 0.068	0.105 ± 0.068
photometric centroid source offset	0.22 ± 0.00	217.98	0.17 ± 0.00	0.15 ± 0.00

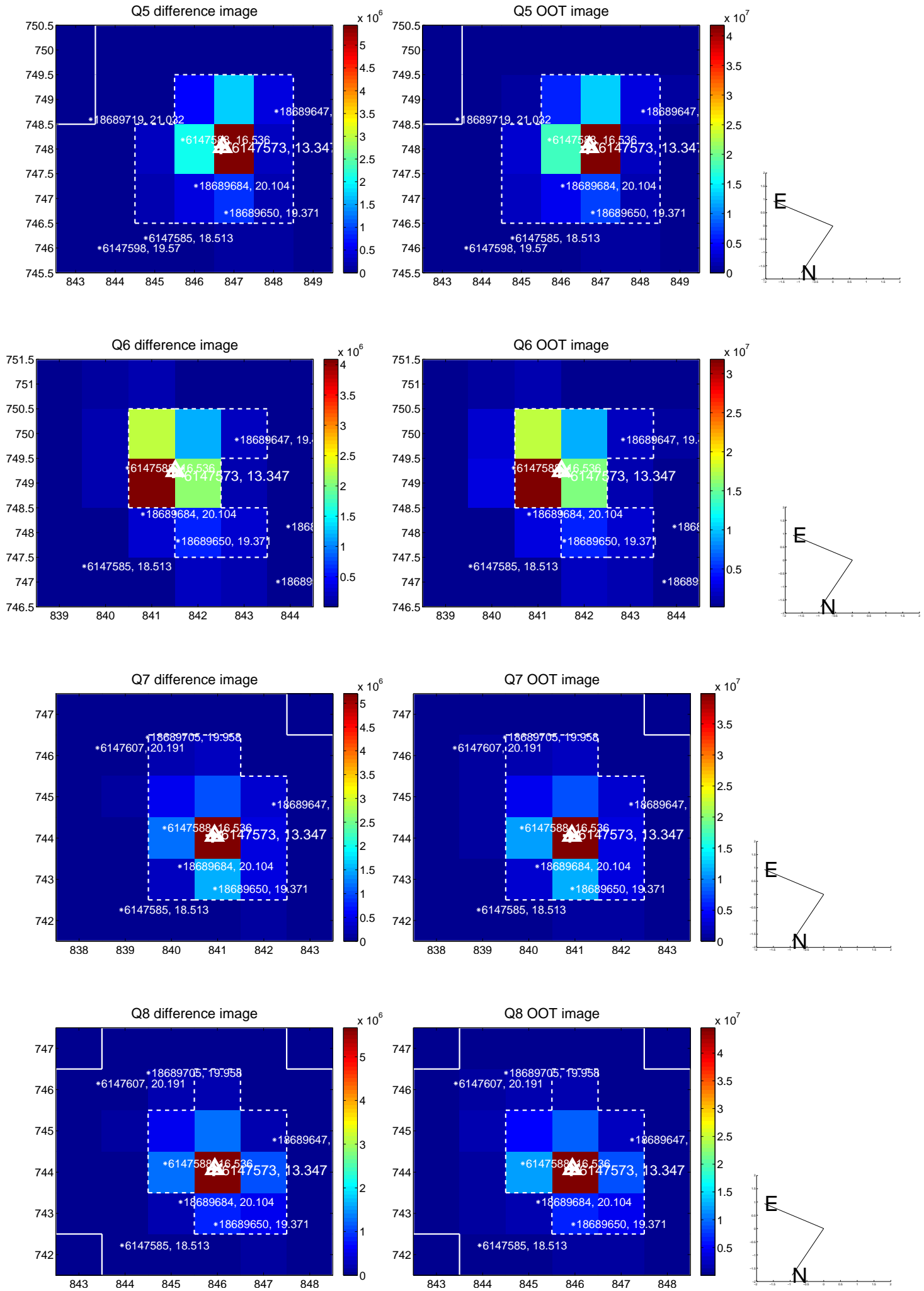


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

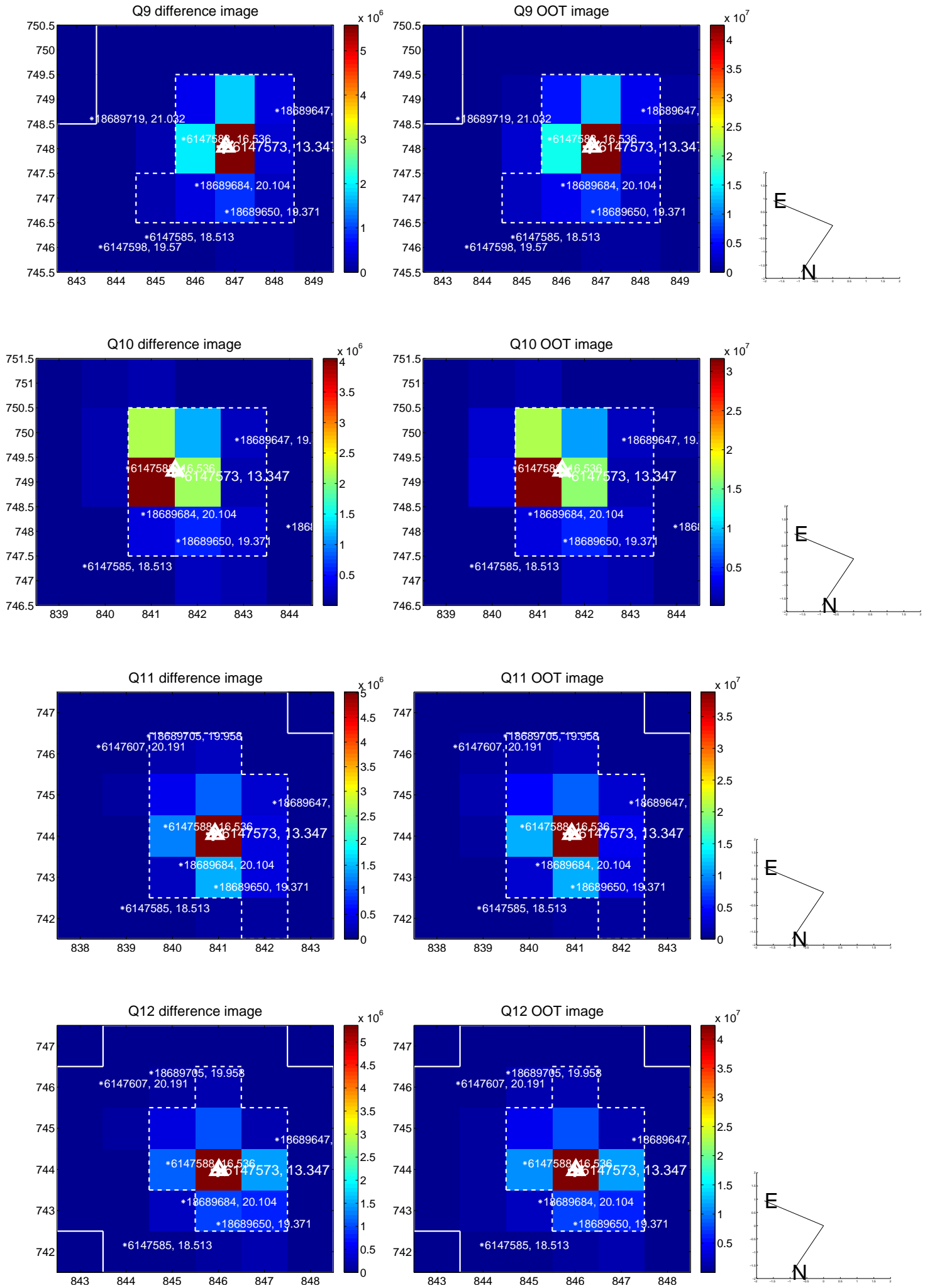
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



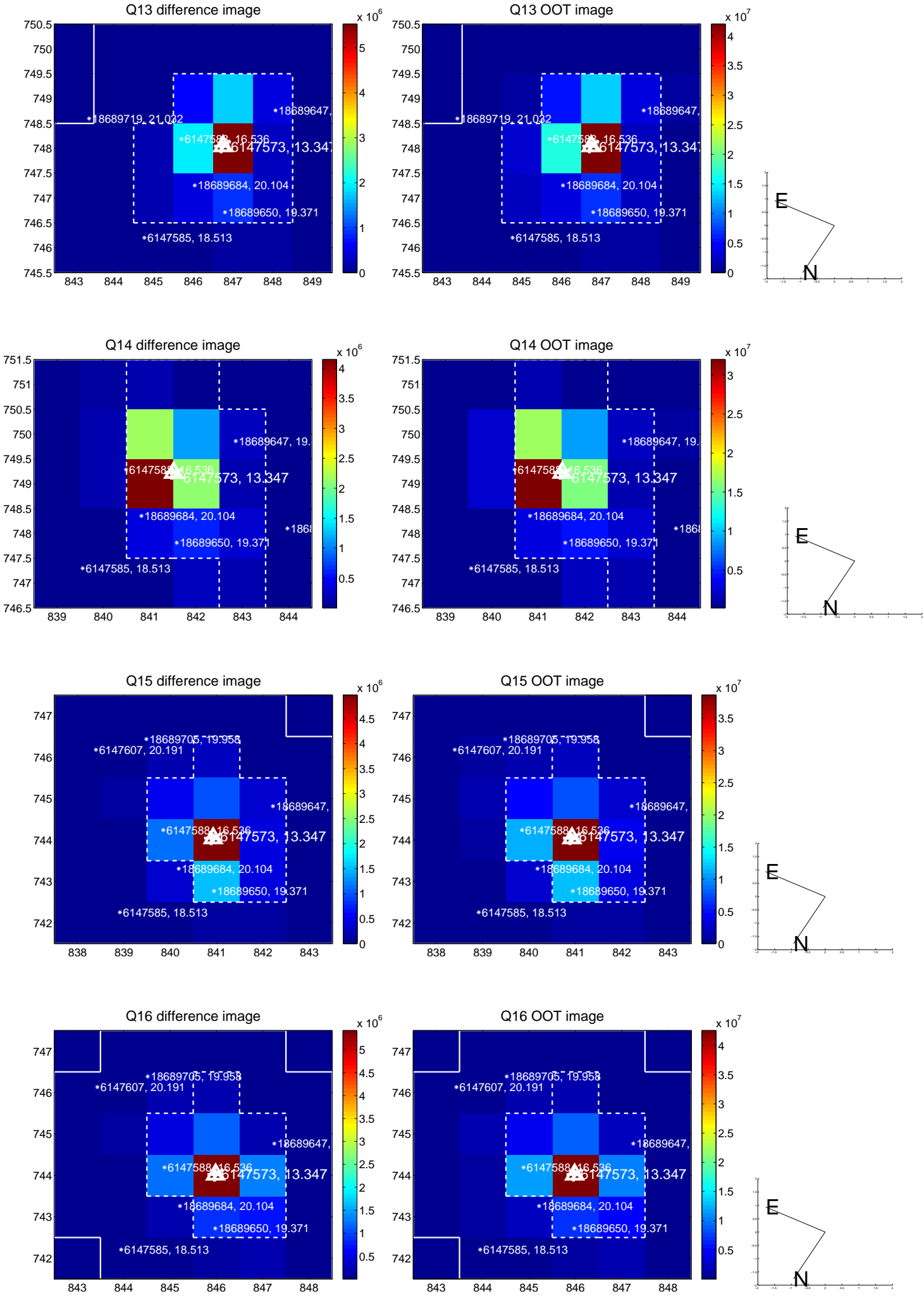
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



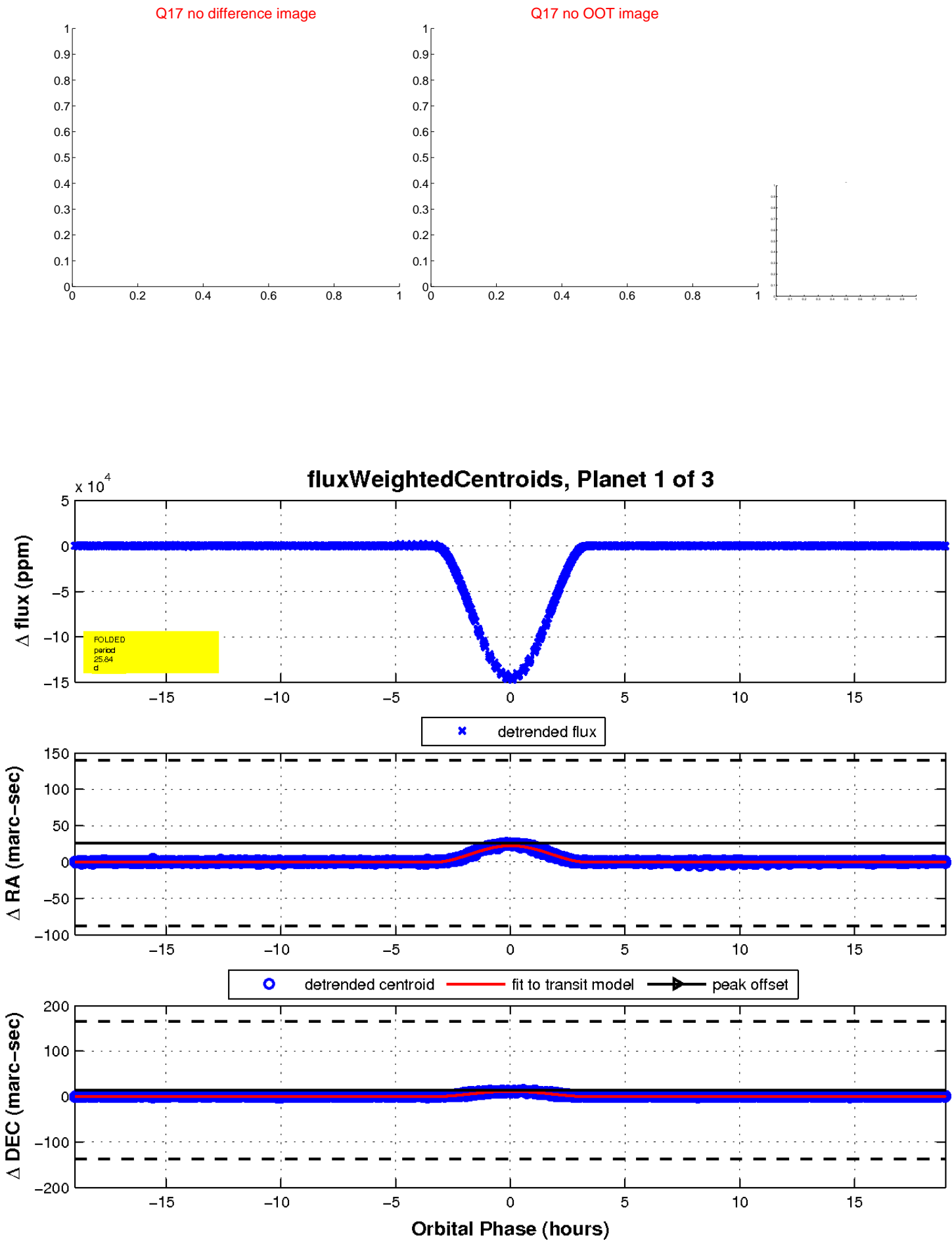
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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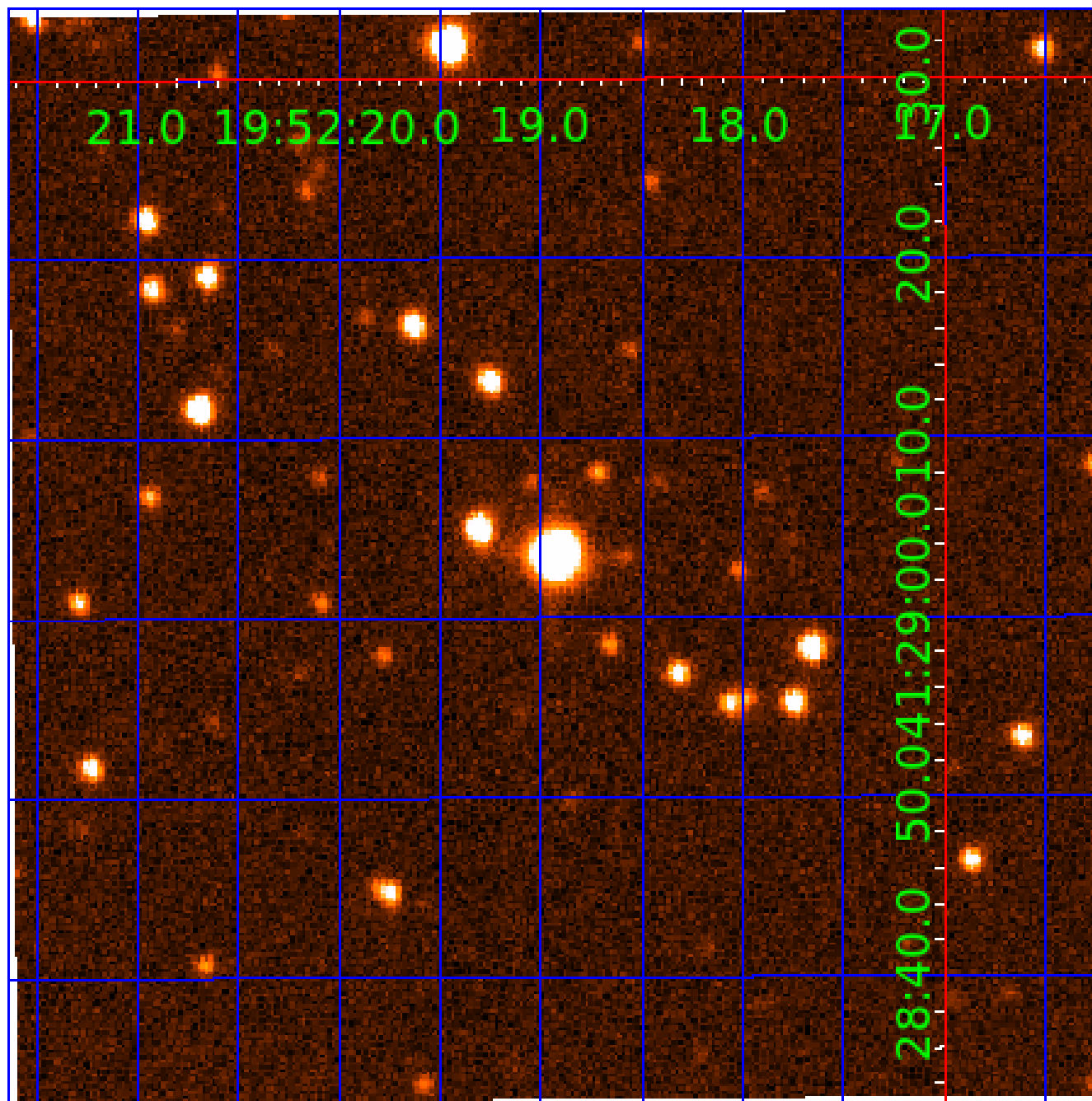


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006147573

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})
006147573-01	OBS	6669.01	25.836831	137.364148	144010.1	6.327	7536.0	5037.1	0.90	5691	50.22	28.13
006147573-02	OBS	No	25.836830	156.131678	124872.5	6.486	6043.3	4058.6	0.90	5691	46.73	28.13
006147573-03	OBS	No	517.470886	373.634312	712.8	8.011	13.6	9.6	0.90	5691	2.48	0.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006147573-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_DV—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_KIC_POS
006147573-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS
006147573-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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.

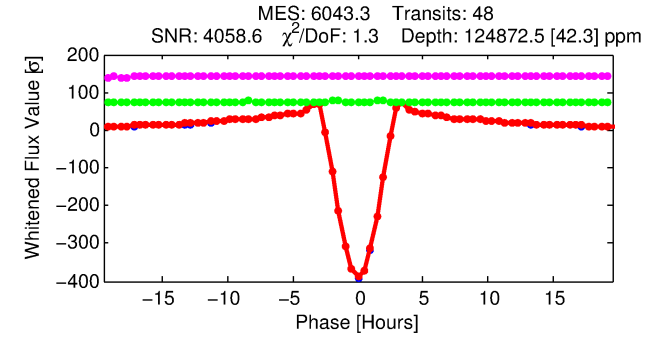
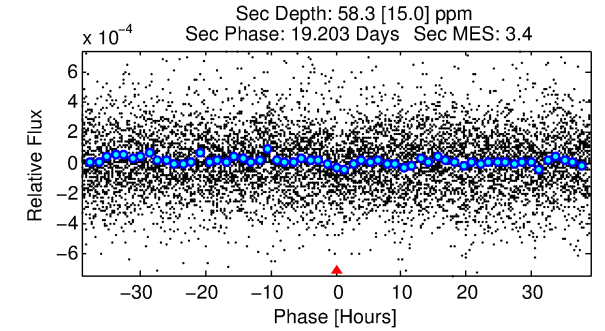
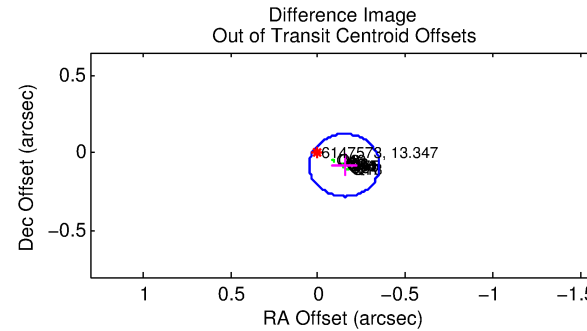
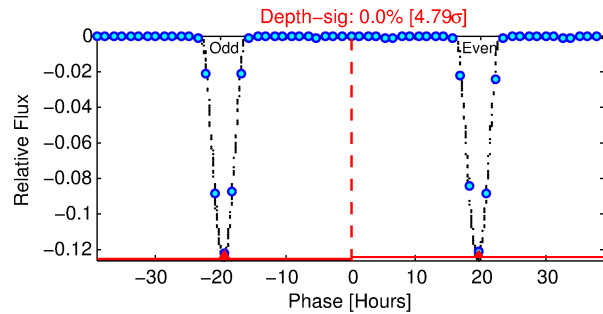
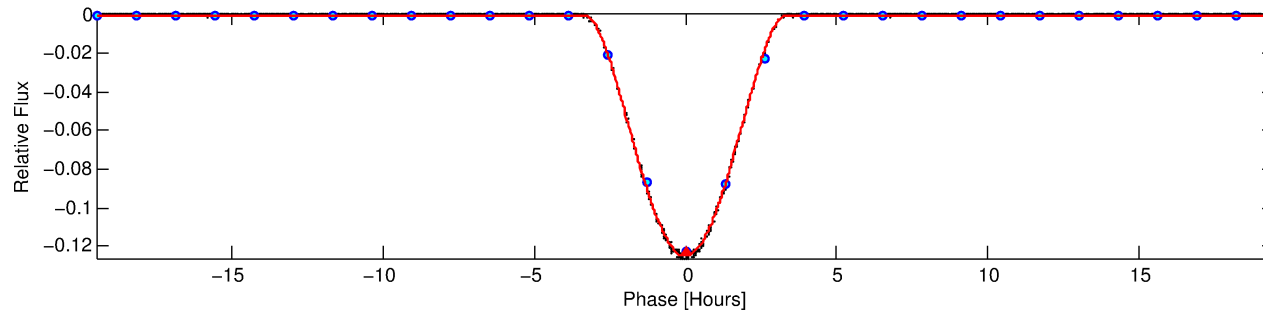
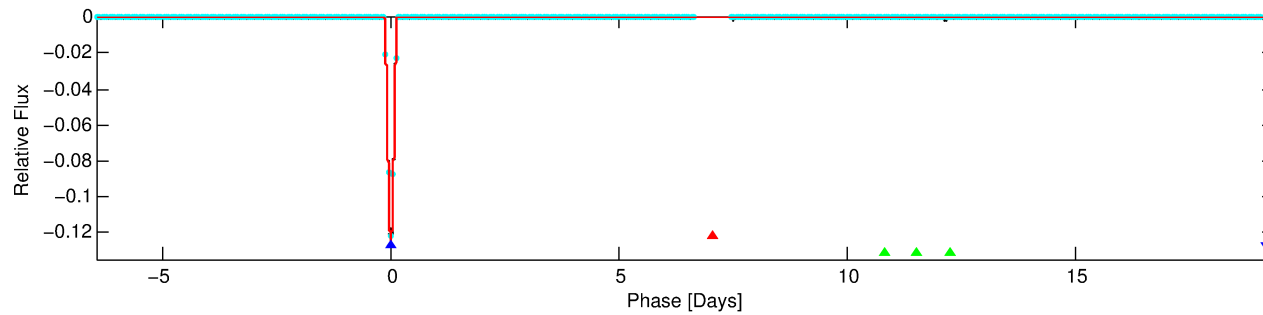
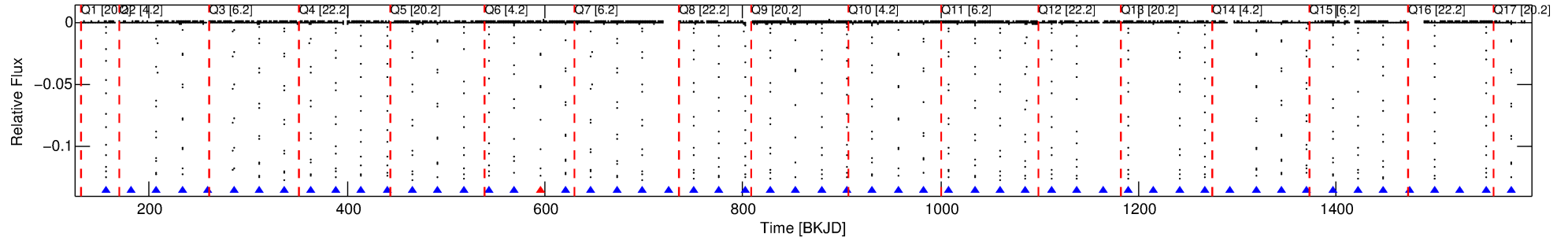
Ephemeris Match Information For 006147573-02

No Significant Match Found

DV One-Page Summary

KIC: 6147573 Candidate: 2 of 3 Period: 25.837 d
KOI: K06669 Corr: No Ephemeris Match

Kp: 13.35 R*: 0.90 Rs Teff: 5691.0 K Logg: 4.48 Fe/H: -0.200



DV Fit Results:

Period = 25.83683 [0.00000] d
Epoch = 156.1317 [0.0000] BKJD
Rp/R* = 0.4774 [0.0140]
a/R* = 35.65 [0.07]
b = 0.90 [0.02]
Seff = 28.13 [9.77]
Teff = 587 [51] K
Rp = 46.73 [12.42] Re
a = 0.1640 [0.0369] AU
Ag = 0.39 [0.17] [-3.63σ]
Teffp = 720 [51] K [1.83σ]

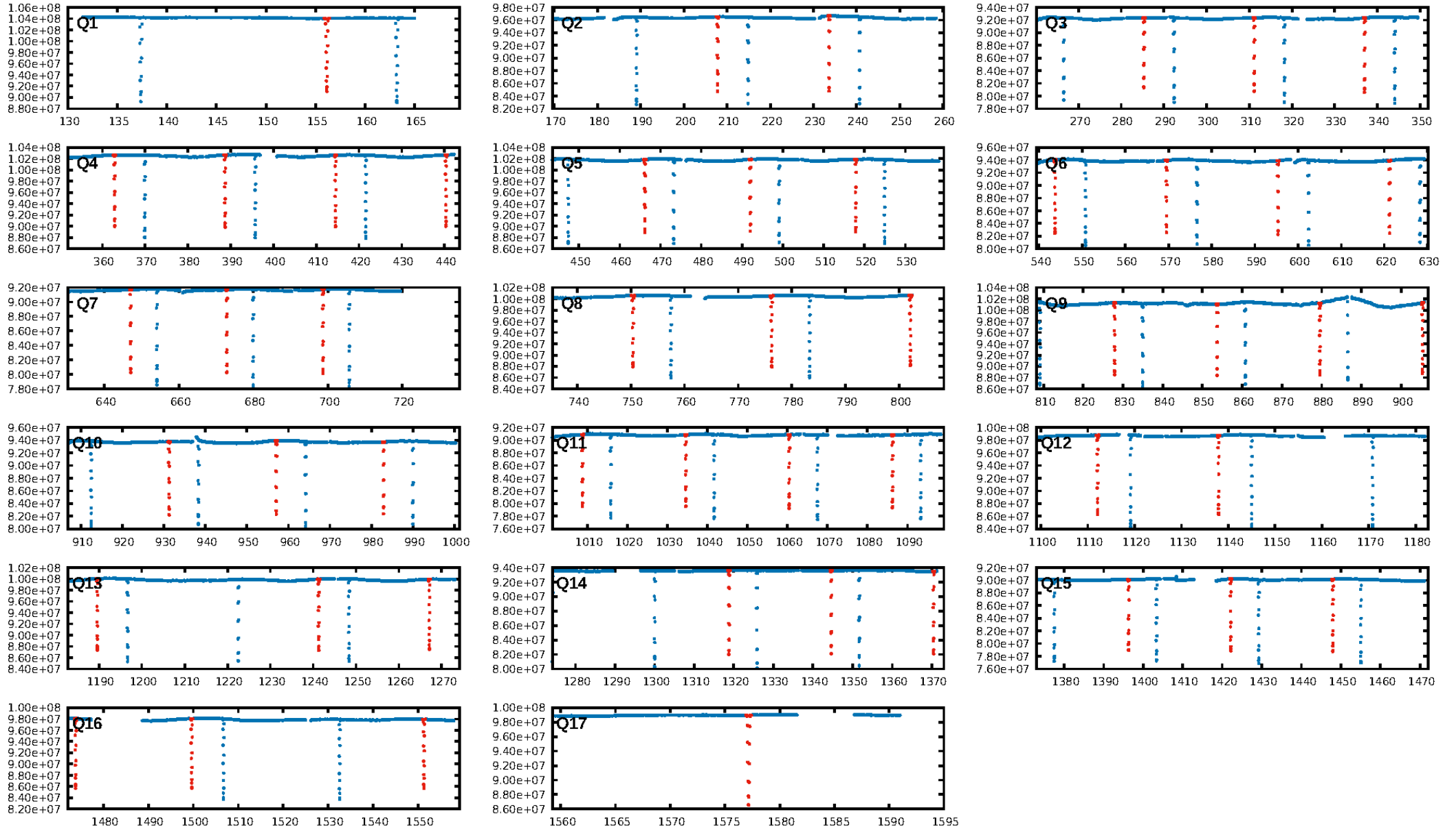
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [45/46]
GhostDiagnostic-chr: 8.594
Centroid-sig: 0.0%
Centroid-so: 0.232 arcsec [192.69σ]
OotOffset-rm: 0.169 arcsec [2.52σ]
KicOffset-rm: 0.195 arcsec [2.89σ]
OotOffset-st: 4/4/4/5 [17]
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DiffImageQuality-fgm: 1.00 [17/17]
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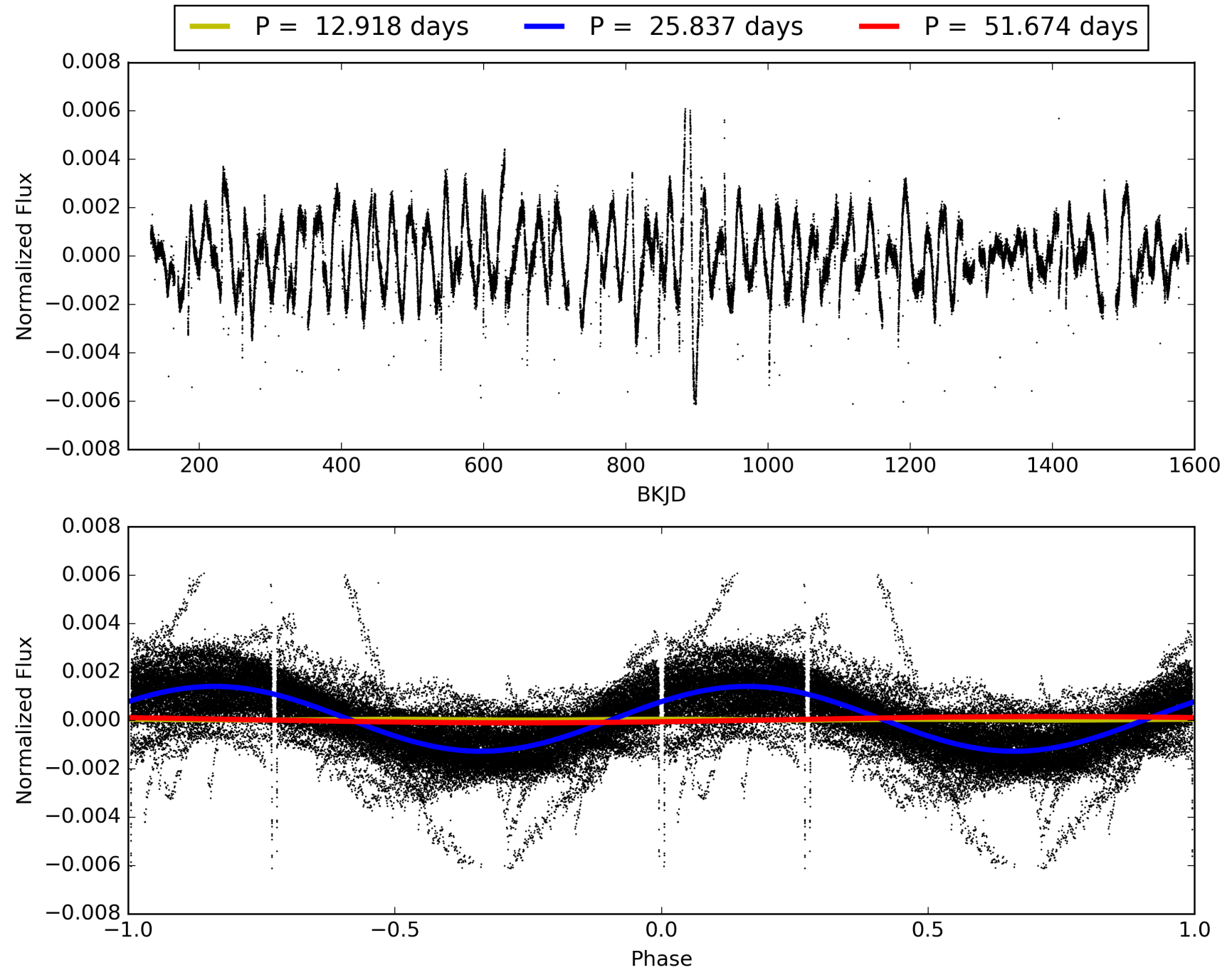
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:48:05 Z

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

TCE 006147573-02, PDC Light Curves

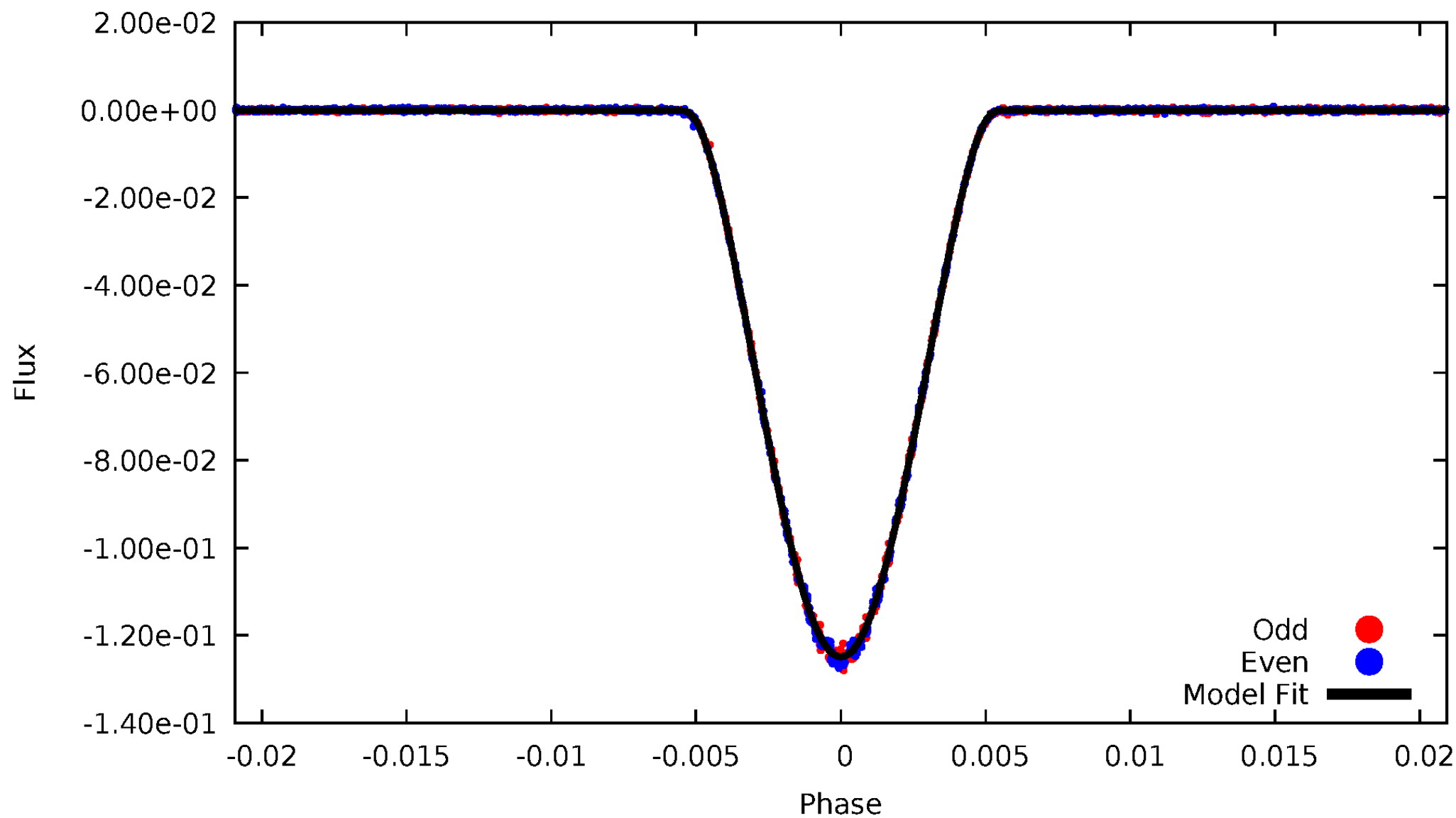


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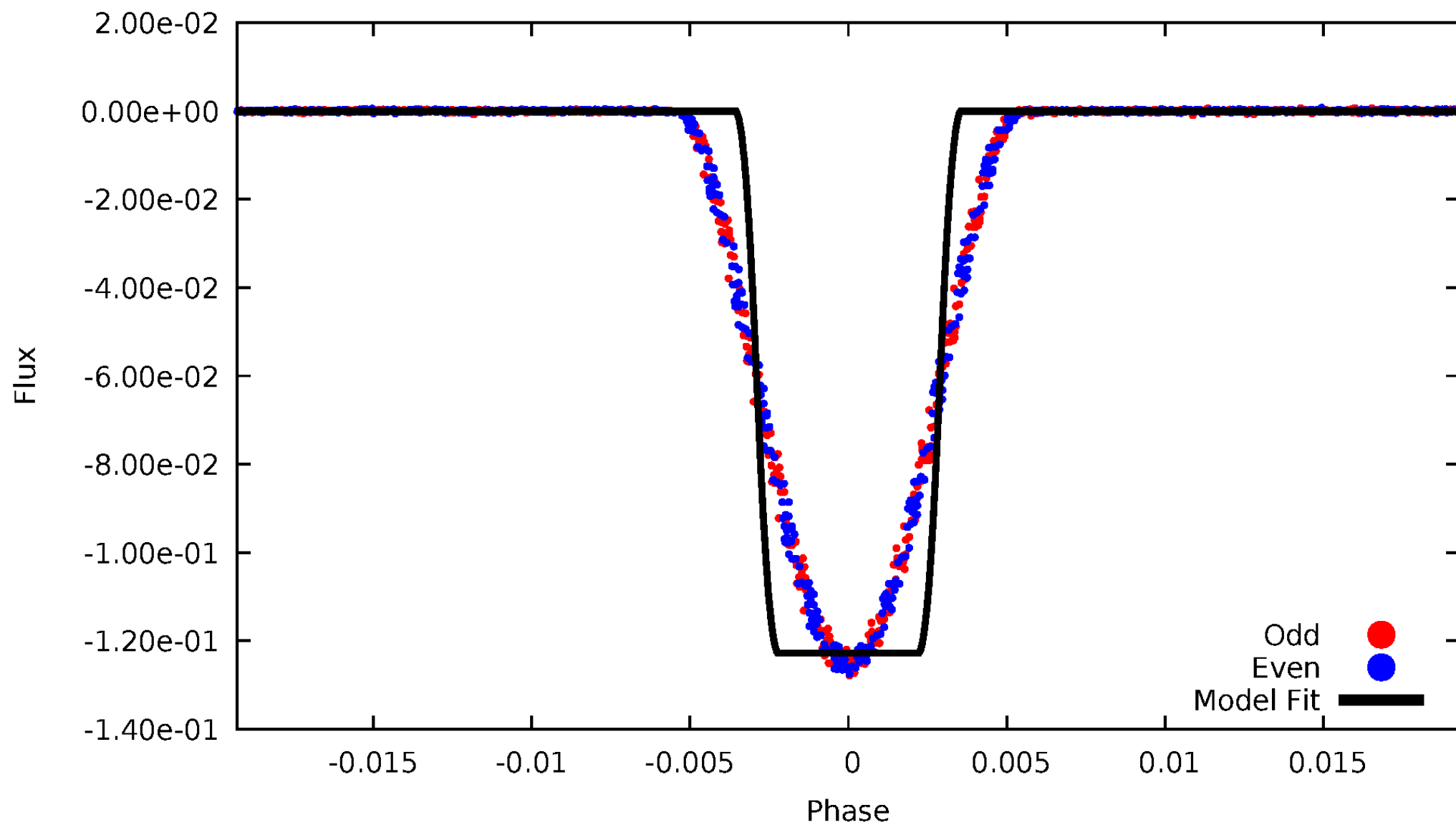
DV Odd/Even

TCE 006147573-02



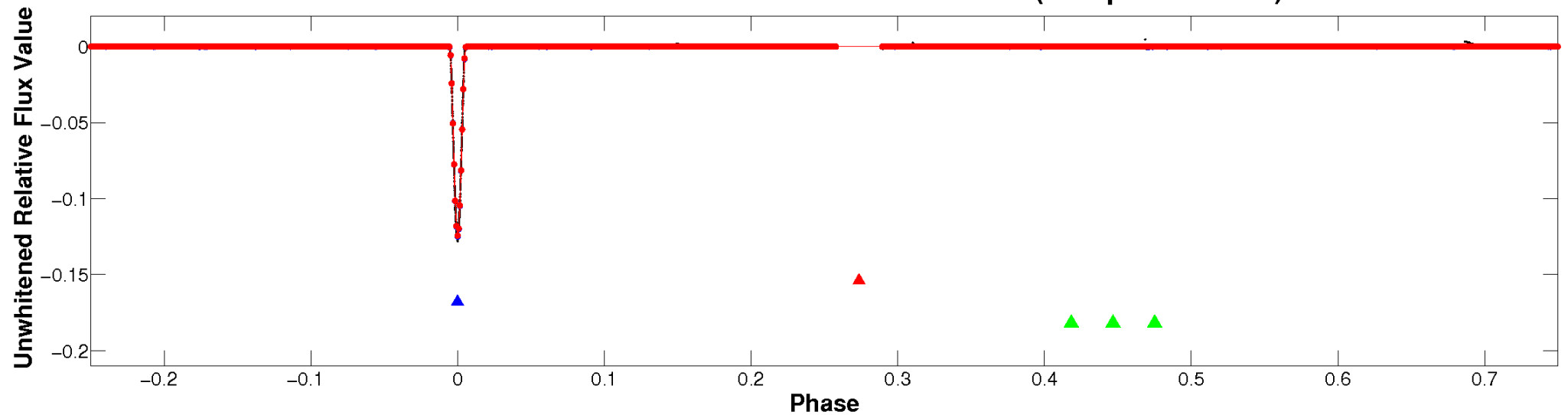
ALT Odd/Even

TCE 006147573-02

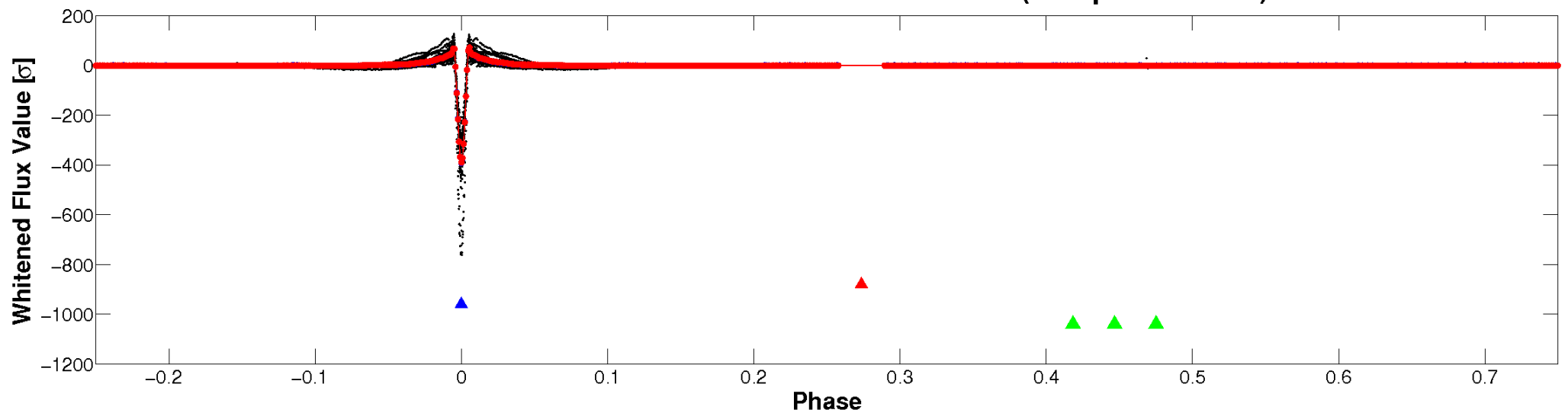


Non-Whitened Vs. Whitened Light Curve

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

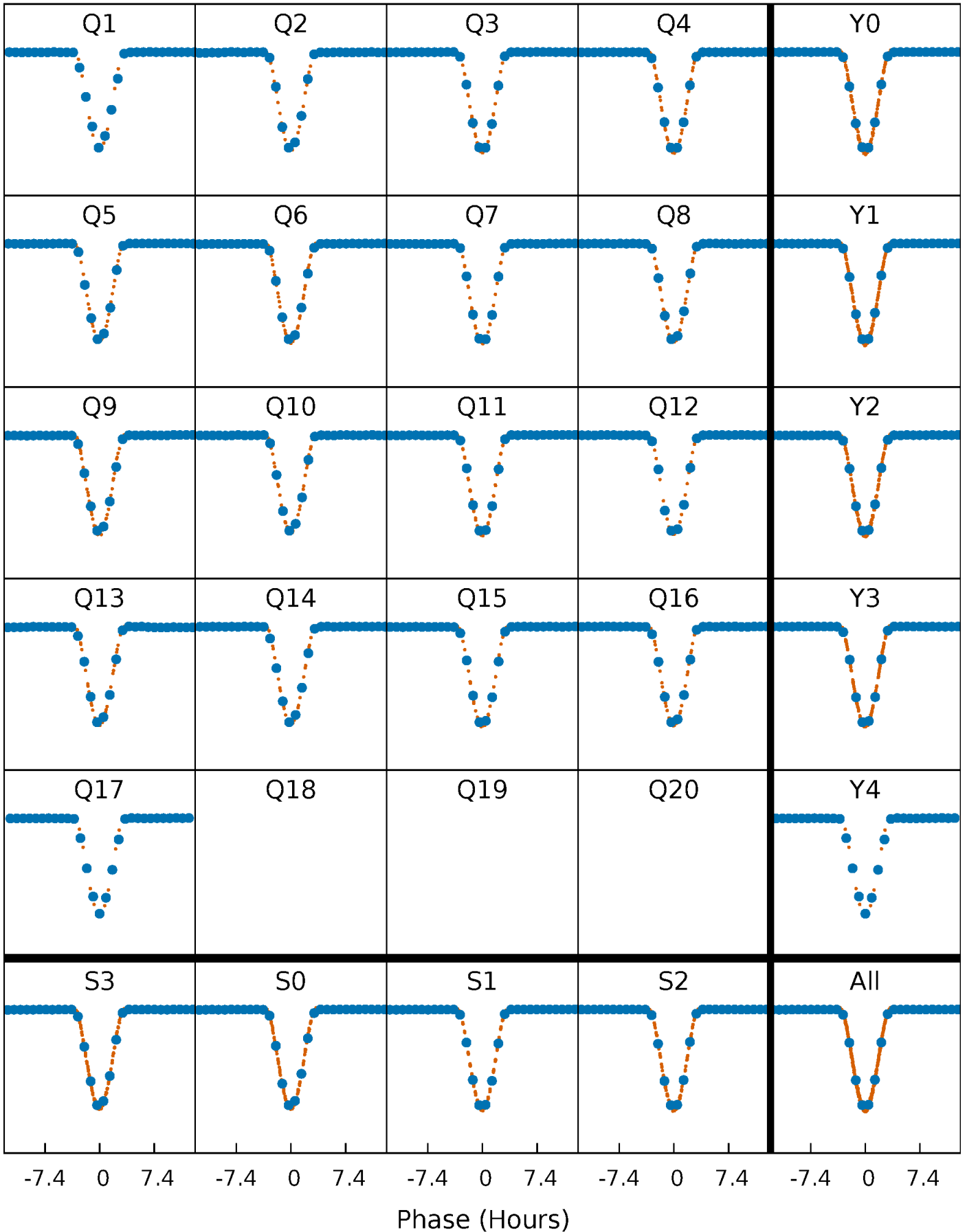


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



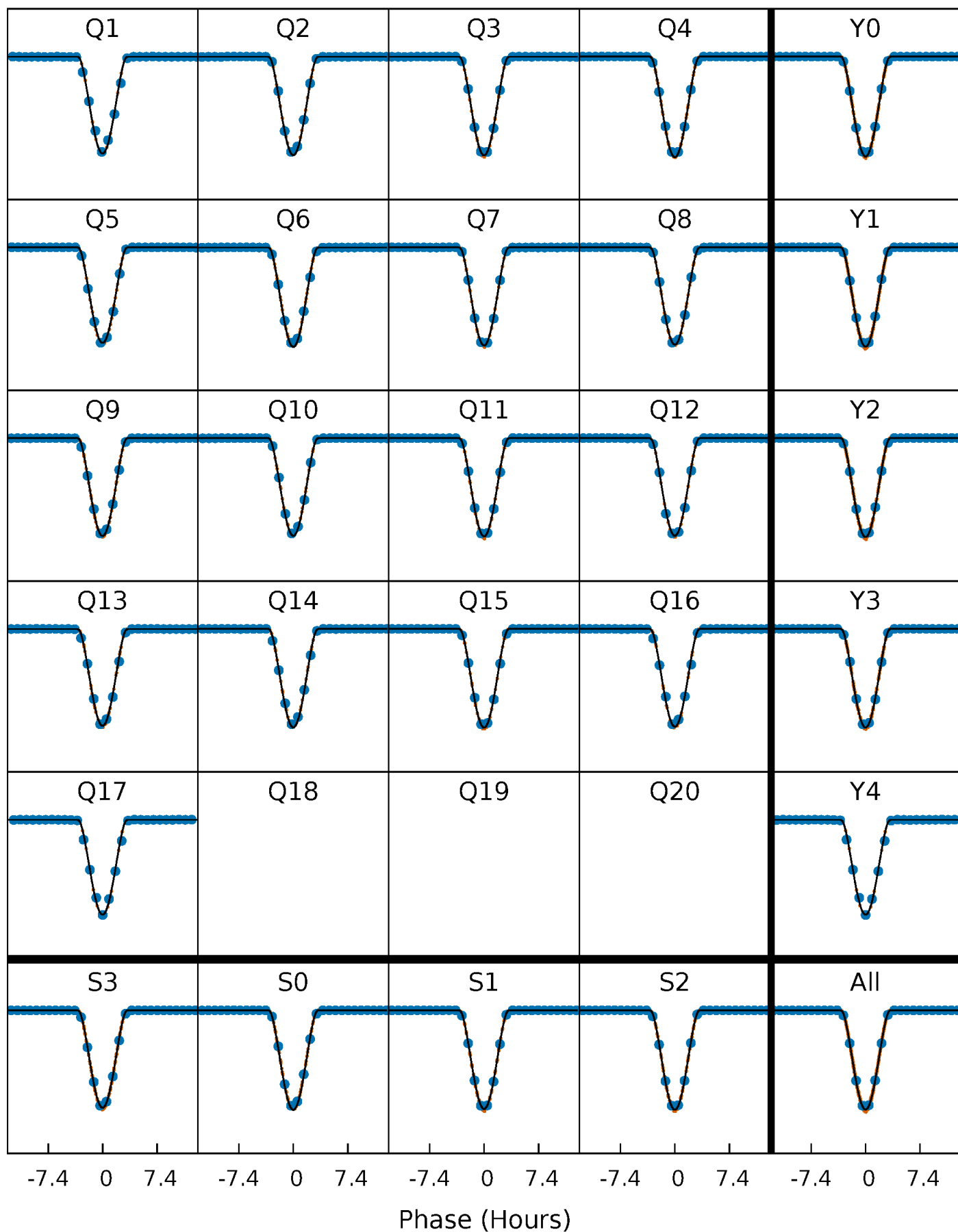
PDC Quarter-Phased Transit Curves

TCE 006147573-02 P= 25.836830 Days $T_0=156.131678$ (BKJD)



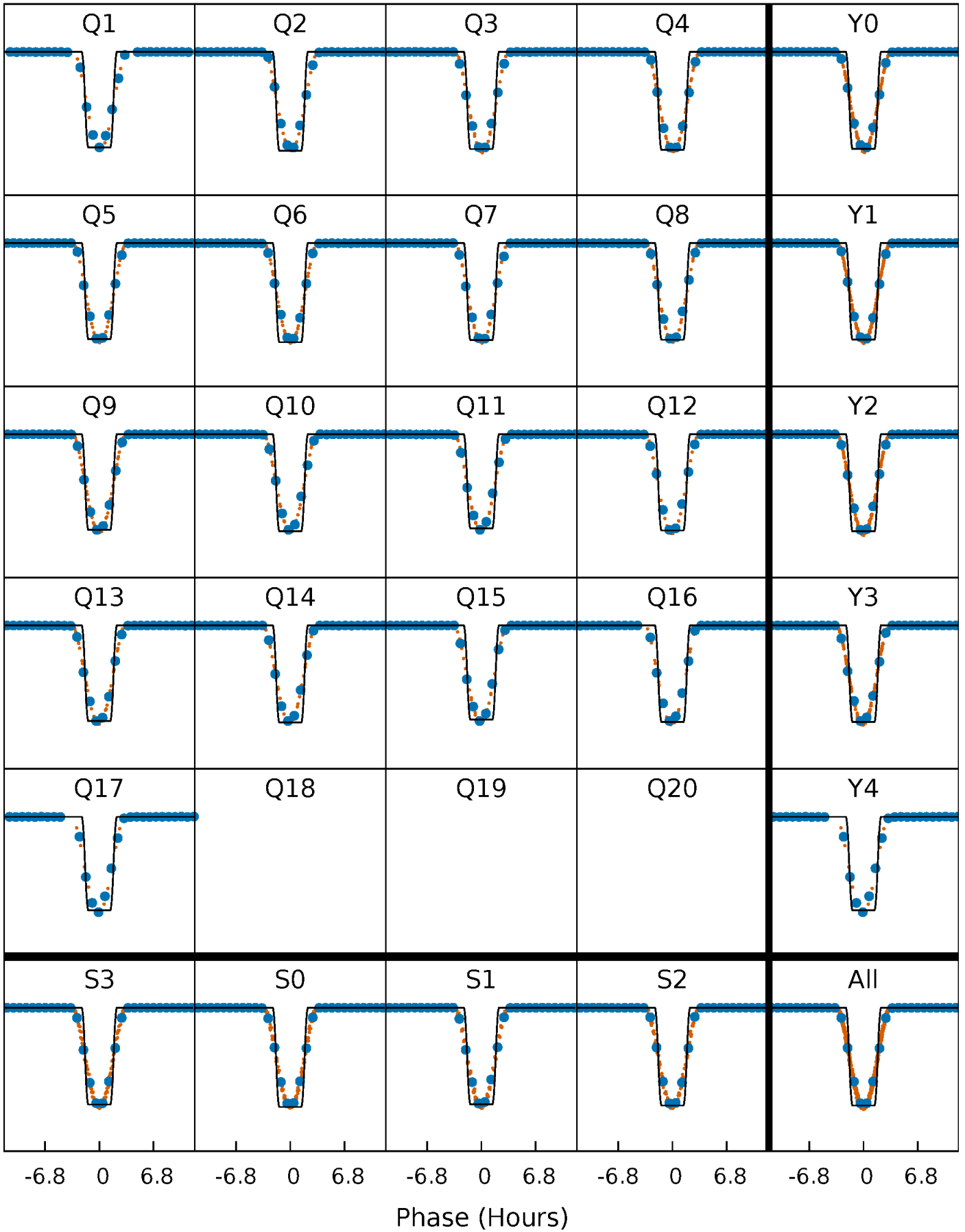
DV Quarter-Phased Transit Curves

TCE 006147573-02 P= 25.836830 Days $T_0=156.131678$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

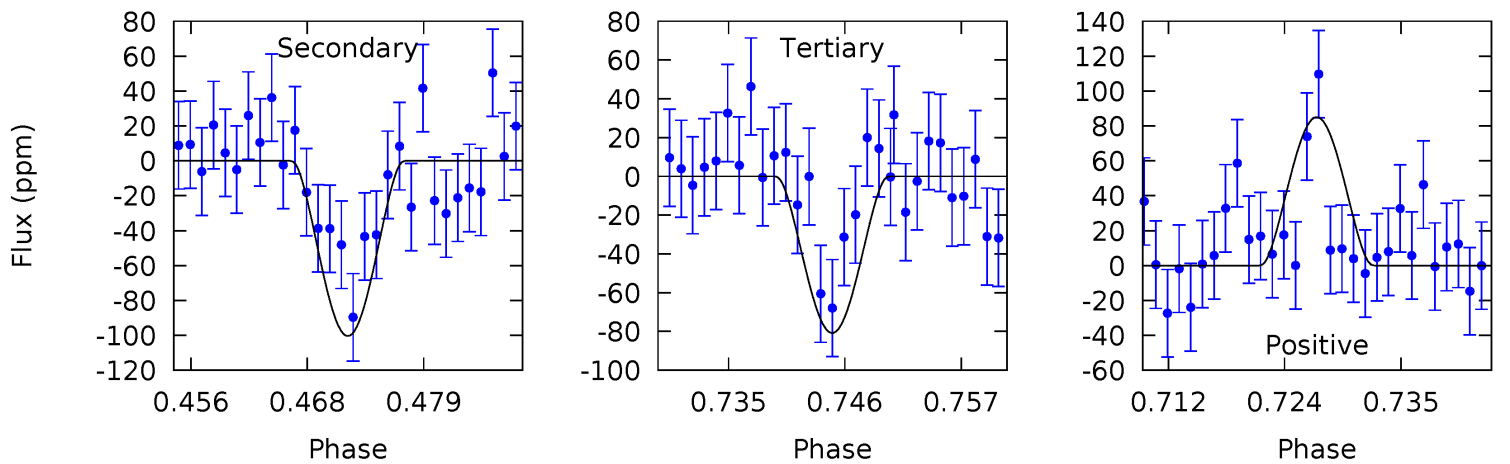
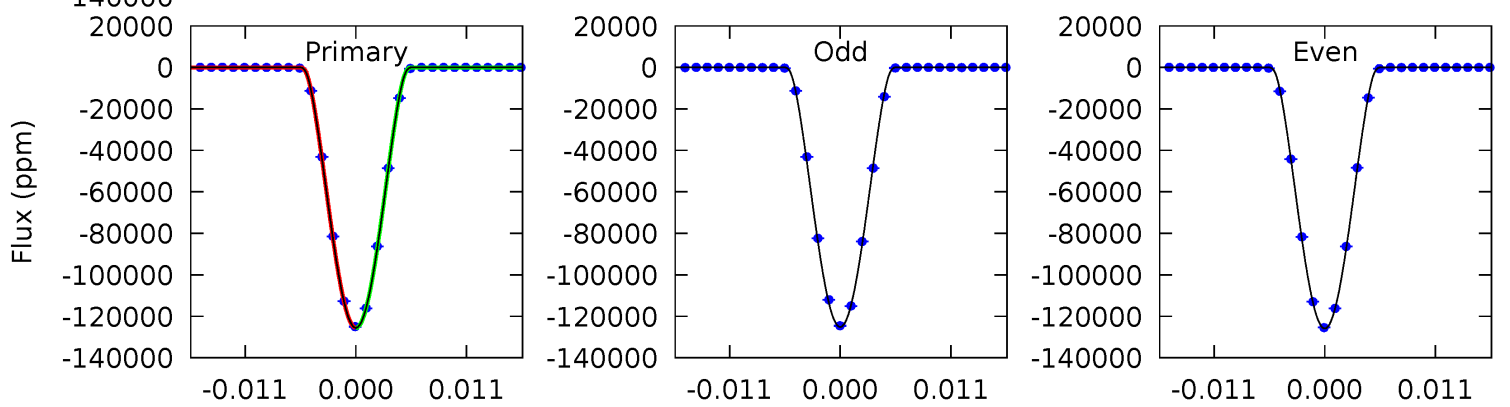
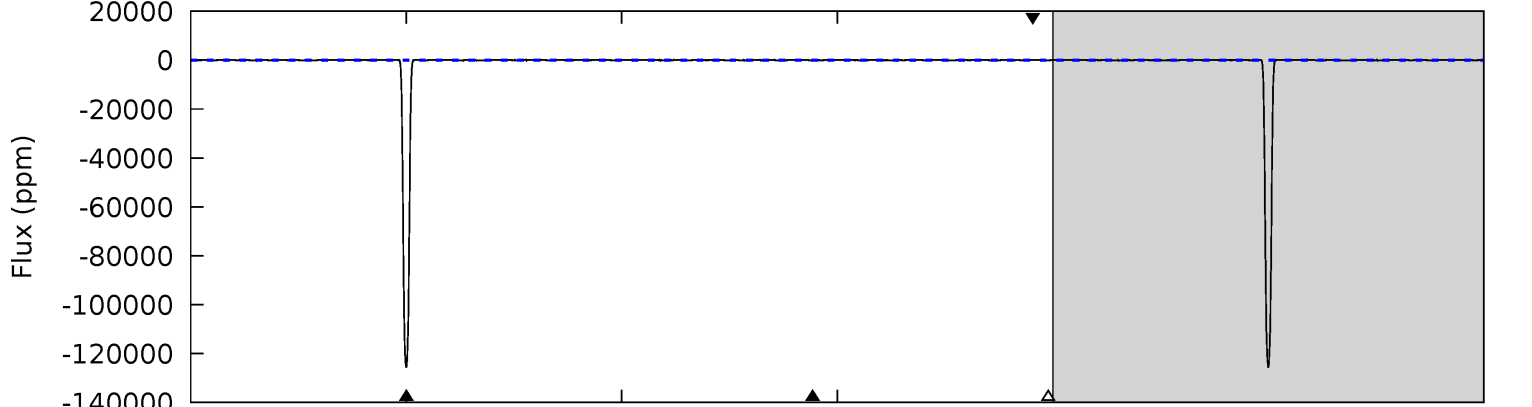
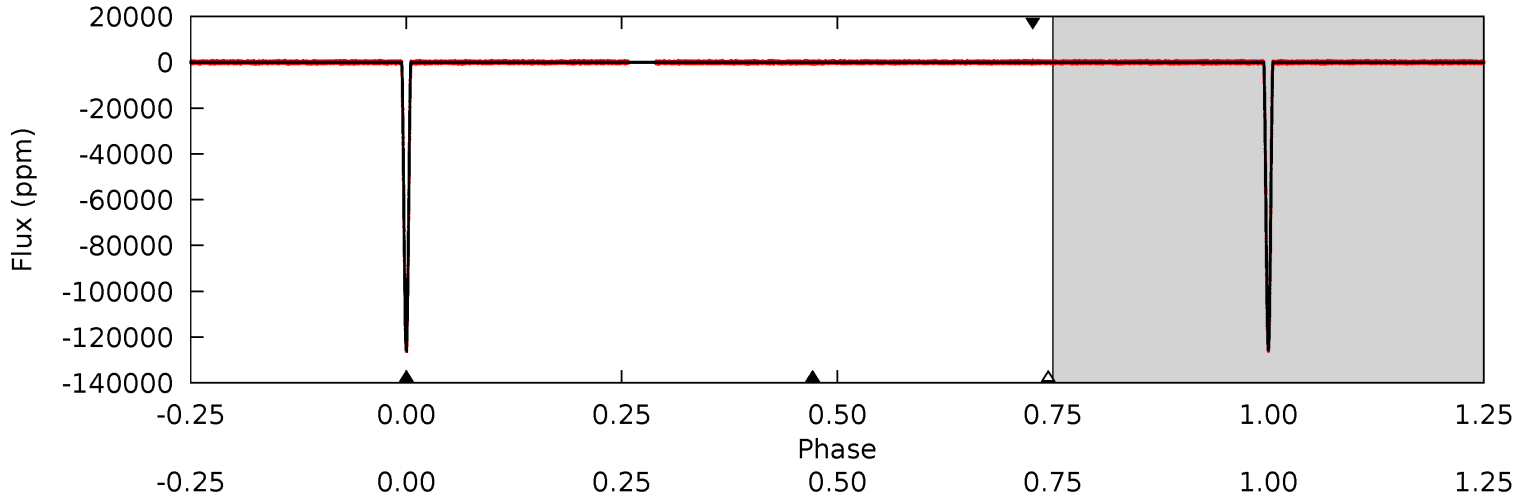
TCE 006147573-02 P= 25.837007 Days $T_0=156.126865$ (BKJD)



DV Model-Shift Uniqueness Test

006147573-02, P = 25.836830 Days, E = 130.294848 Days

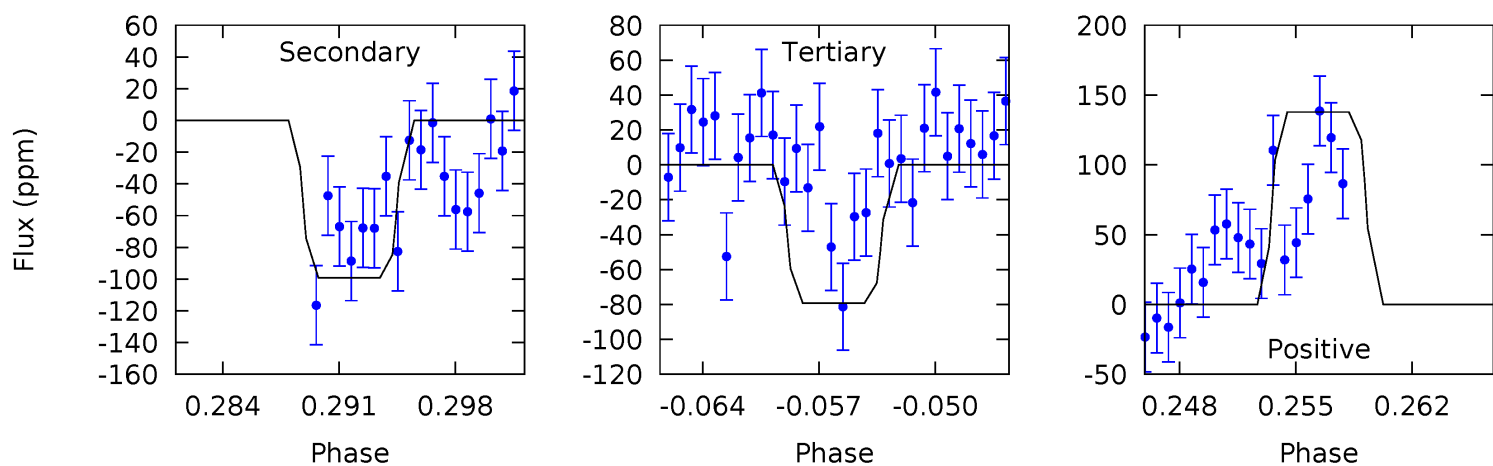
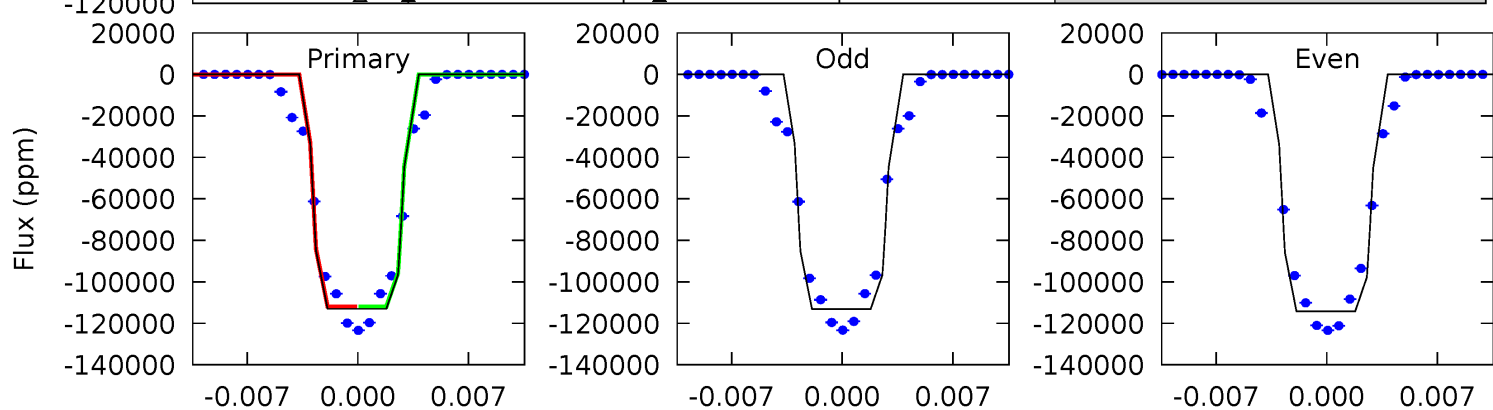
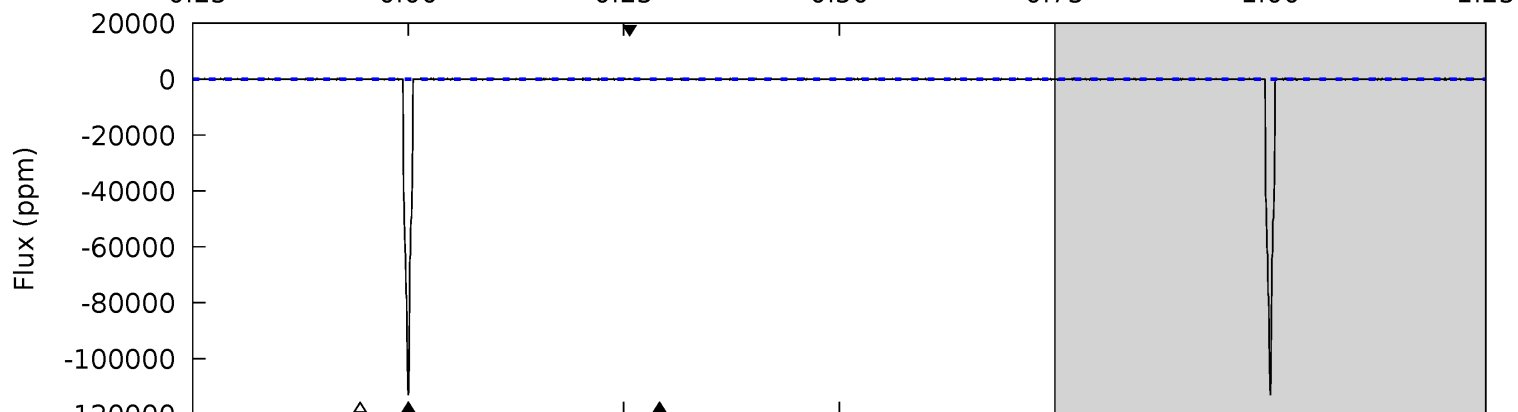
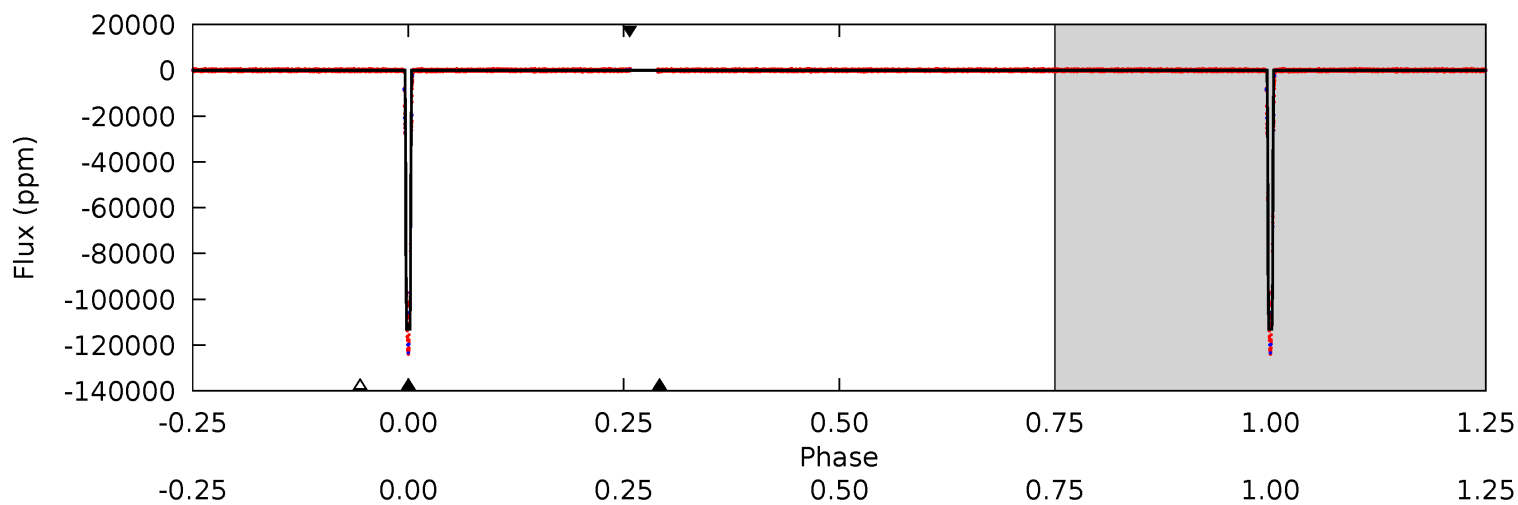
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13418	10.7	8.64	9.09	5.01	2.54	2.86	13409	13409	2.09	1.64	41.3	1.00	0.00	0



Alt Model-Shift Uniqueness Test

006147573-02, P = 25.837007 Days, E = 130.289858 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5672	4.98	3.98	6.92	5.09	2.69	1.14	5668	5665	1.00	-1.94	29.8	1.00	0.00	0



Stellar Parameters For KIC 006147573

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5691^{+152}_{-152}	$4.477^{+0.078}_{-0.182}$	$-0.200^{+0.300}_{-0.300}$	$0.897^{+0.237}_{-0.102}$	$0.881^{+0.111}_{-0.083}$	$1.720^{+0.658}_{-0.771}$
	+3%/-3%	+2%/-4%	+150%/-150%	+26%/-11%	+13%/-9%	+38%/-45%
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 006147573-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-100 ± 9	$47.61^{+6.58}_{-3.88}$	830^{+55}_{-37}	1745^{+42}_{-51}	$0.648^{+0.128}_{-0.134}$
Alt.	-99 ± 20	$35.11^{+5.31}_{-3.12}$	833^{+57}_{-41}	1904^{+60}_{-68}	$1.149^{+0.347}_{-0.315}$

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 $A_{obs} \gg 1.0$

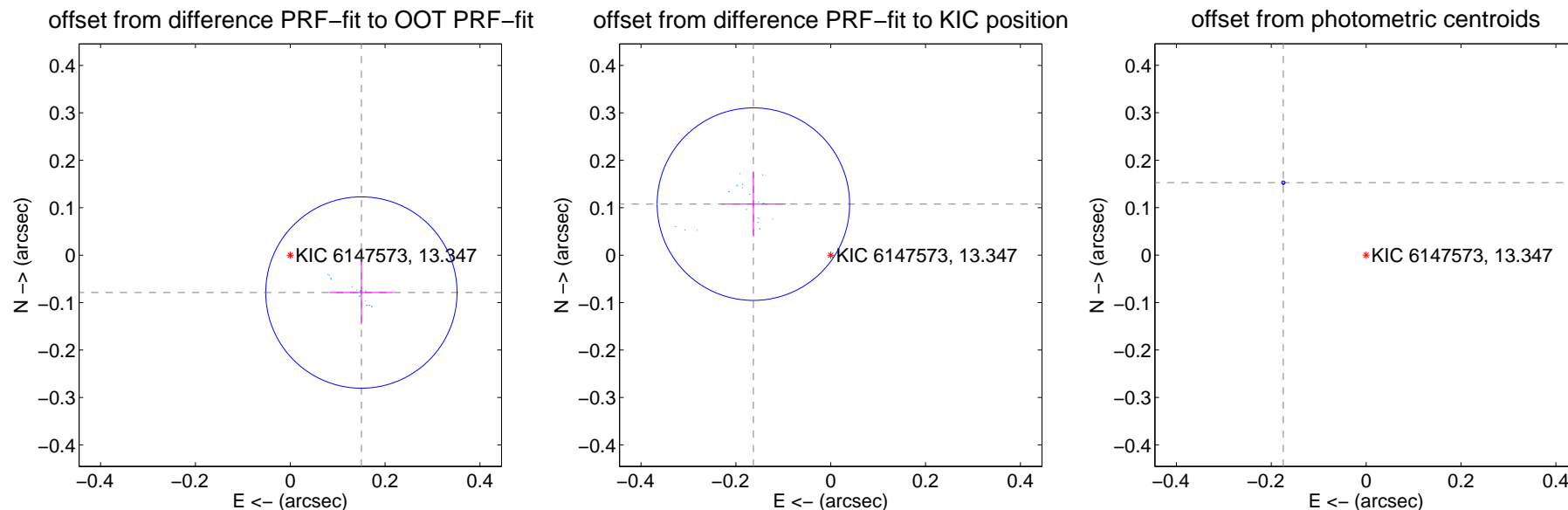
DV Centroid Data

Supplemental centroid analysis for 006147573-02. Kepler magnitude: 13.35. Transit SNR 4058.63

There are 17 quarters with good PRF difference image offsets

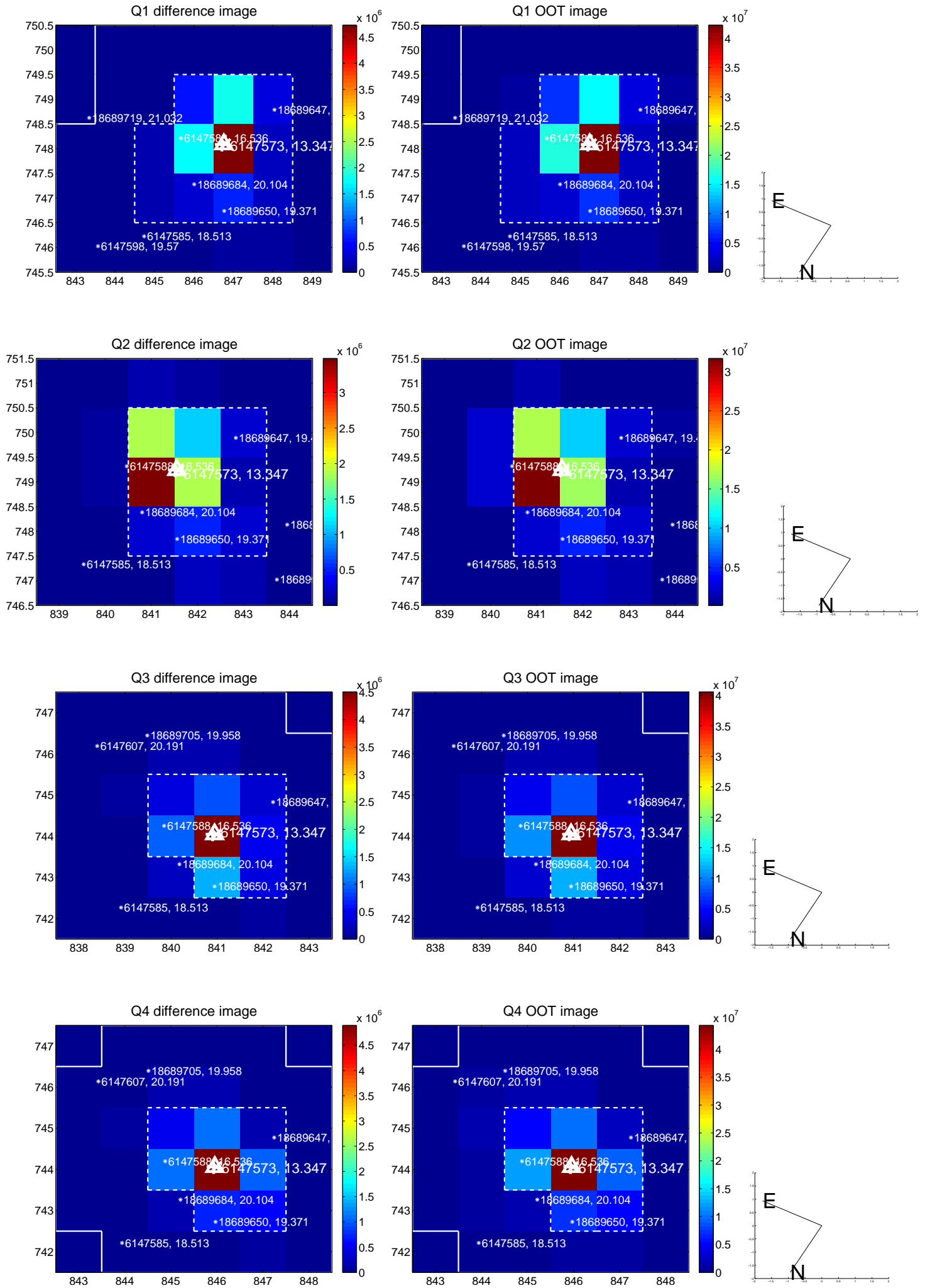
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.169 ± 0.067	2.52	-0.150 ± 0.067	-0.079 ± 0.067
PRF-fit source offset from KIC position	0.195 ± 0.068	2.89	0.163 ± 0.068	0.108 ± 0.067
photometric centroid source offset	0.23 ± 0.00	192.69	0.17 ± 0.00	0.15 ± 0.00

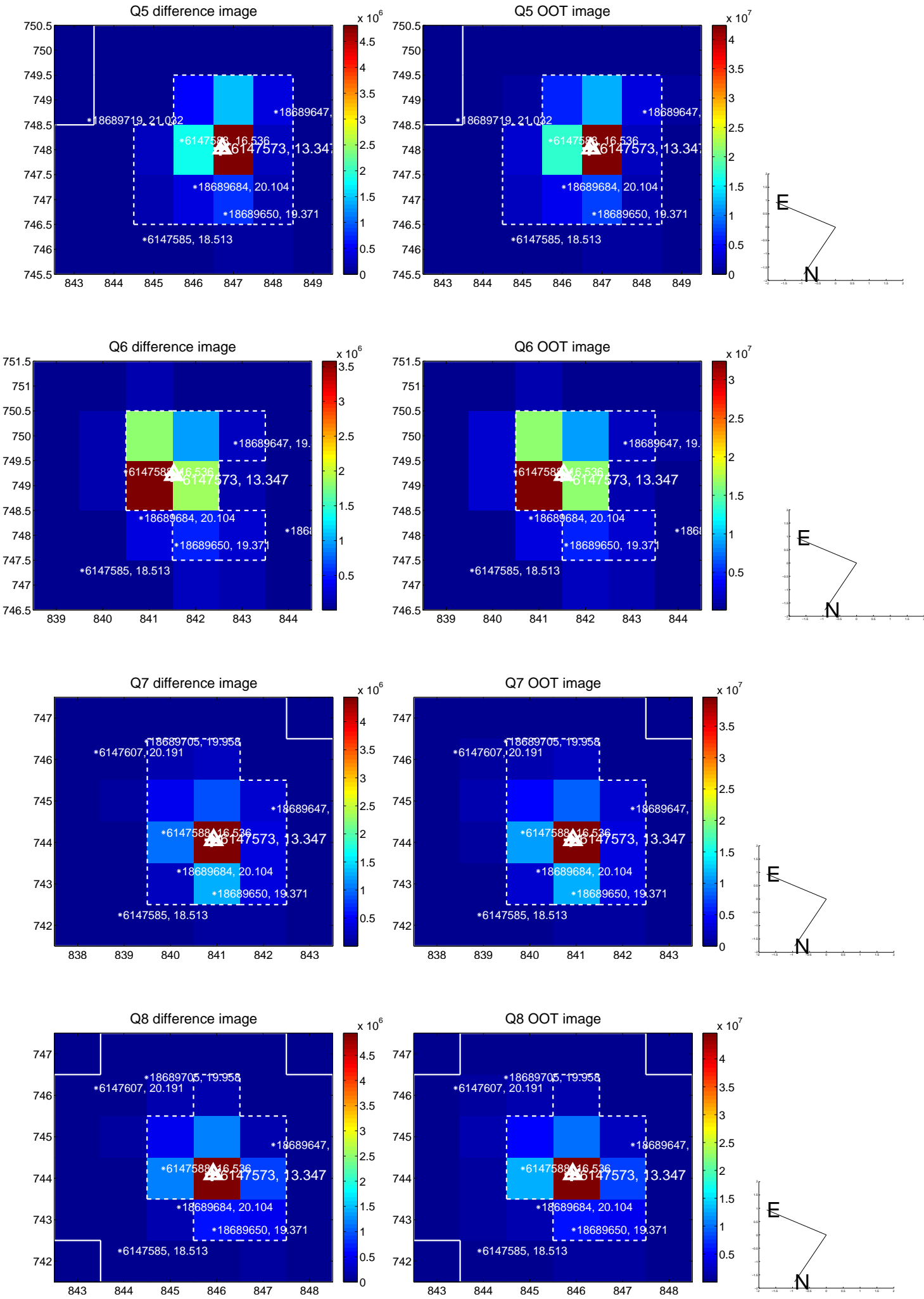


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

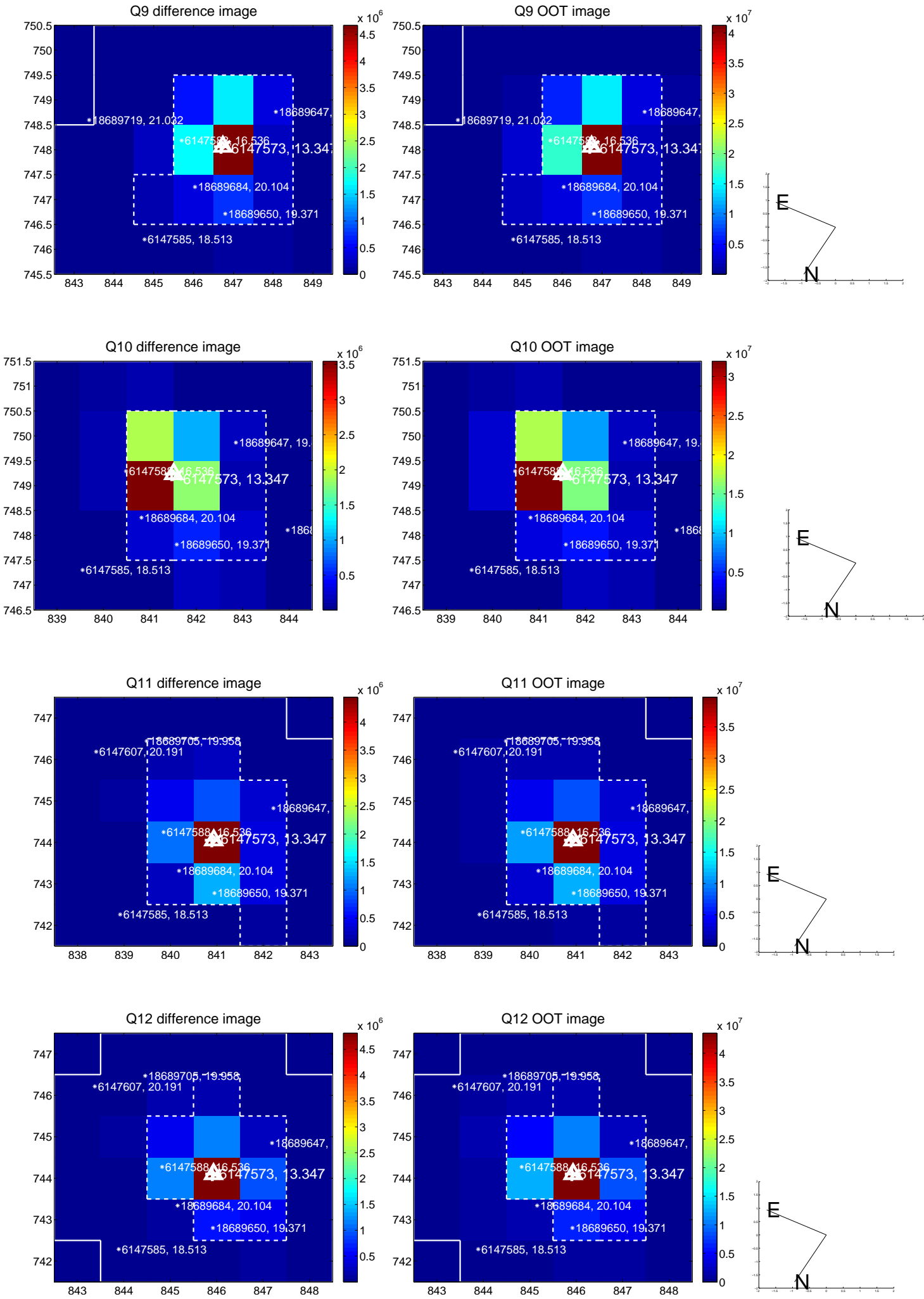
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



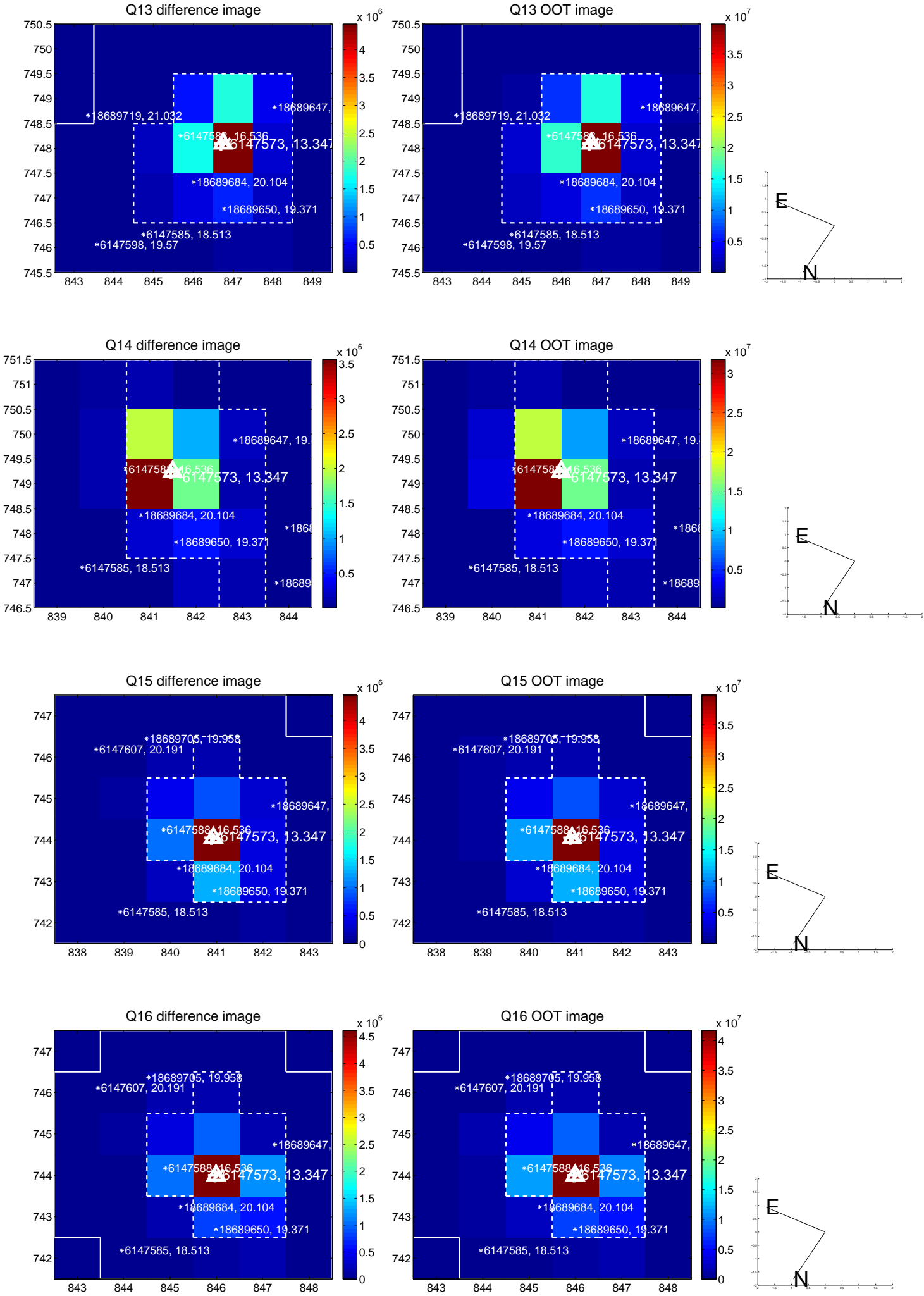
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



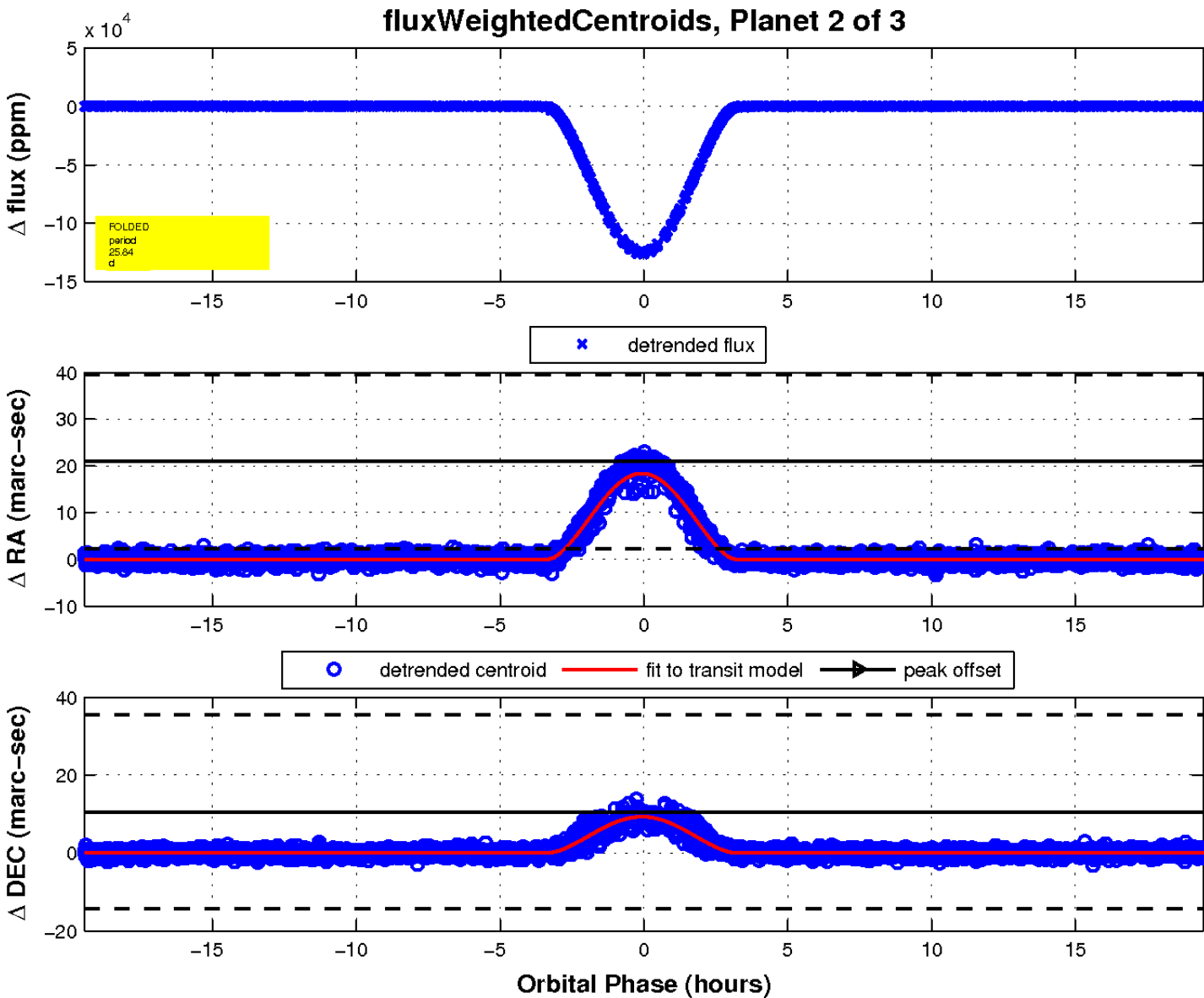
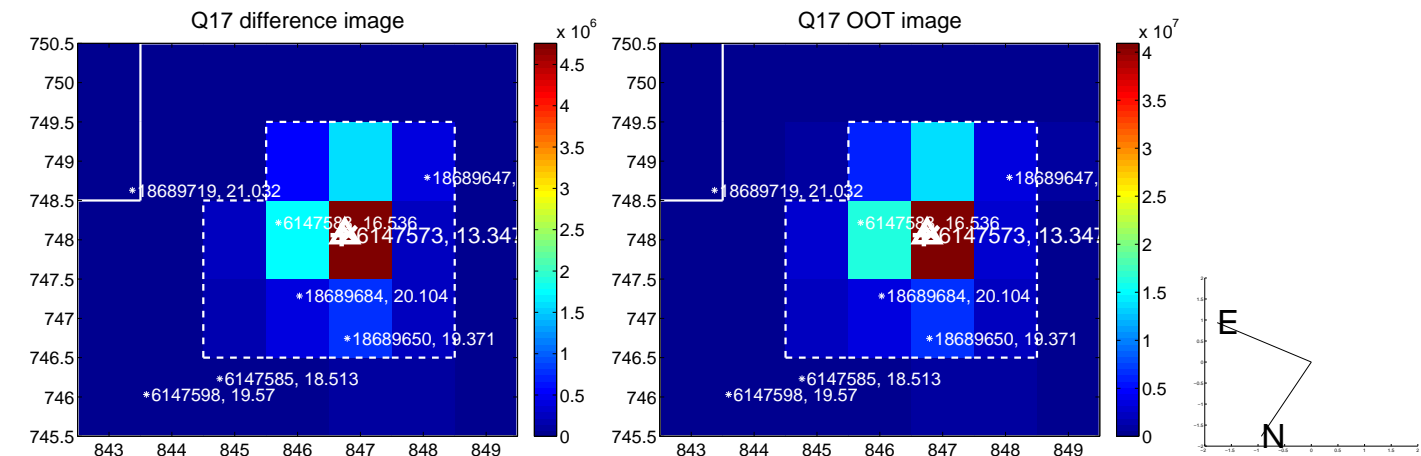
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

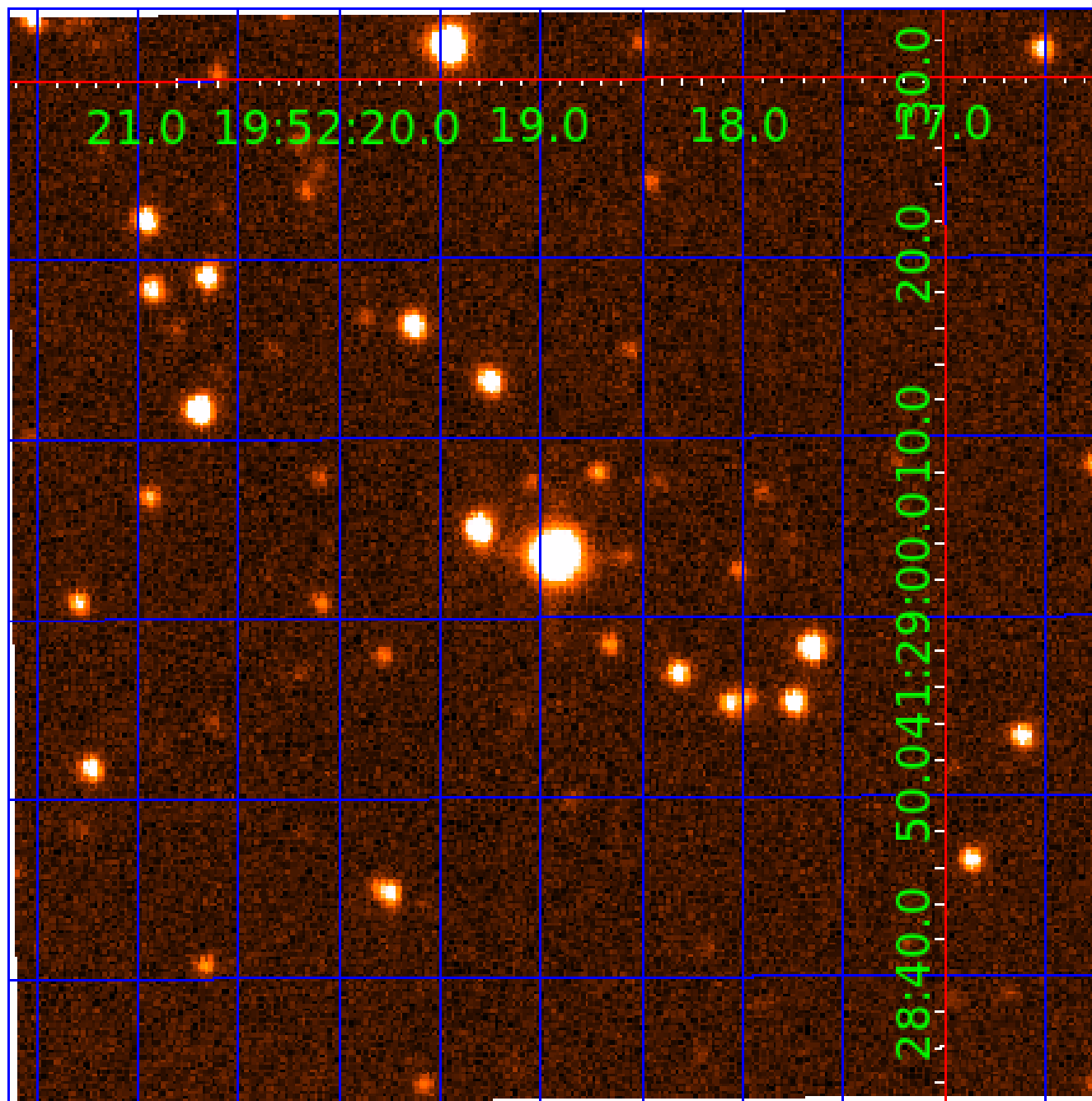


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006147573

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})
006147573-01	OBS	6669.01	25.836831	137.364148	144010.1	6.327	7536.0	5037.1	0.90	5691	50.22	28.13
006147573-02	OBS	No	25.836830	156.131678	124872.5	6.486	6043.3	4058.6	0.90	5691	46.73	28.13
006147573-03	OBS	No	517.470886	373.634312	712.8	8.011	13.6	9.6	0.90	5691	2.48	0.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006147573-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_DV—DEEP_V_SHAPED—HAS_SEC_TCE—CENT_KIC_POS
006147573-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_KIC_POS
006147573-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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 006147573-03

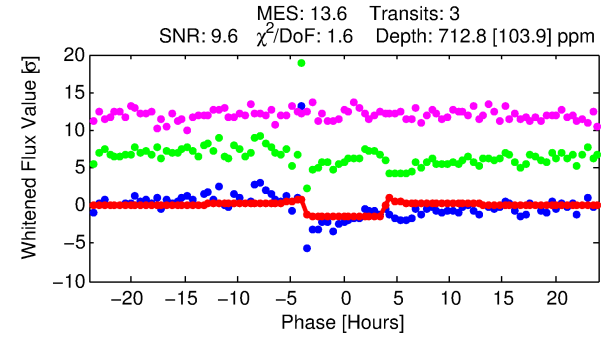
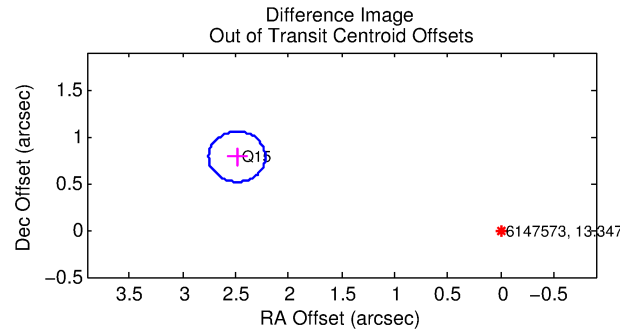
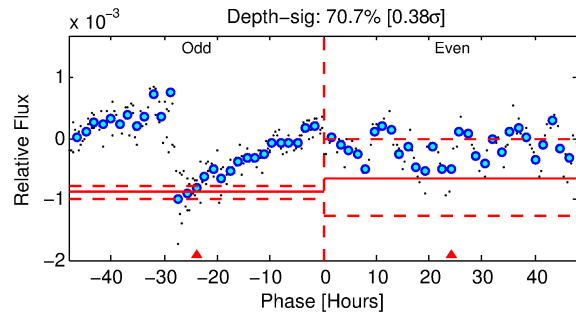
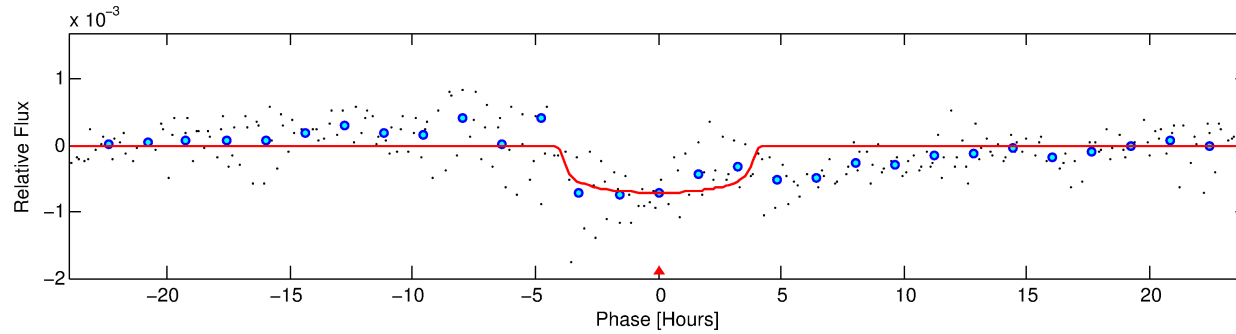
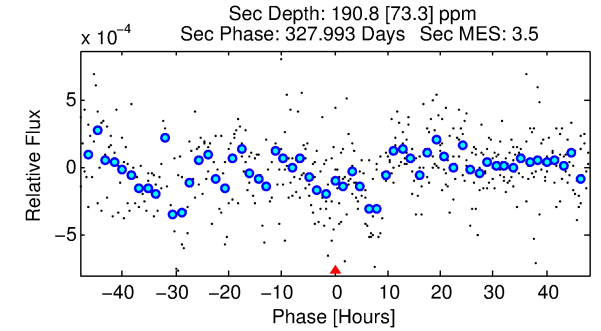
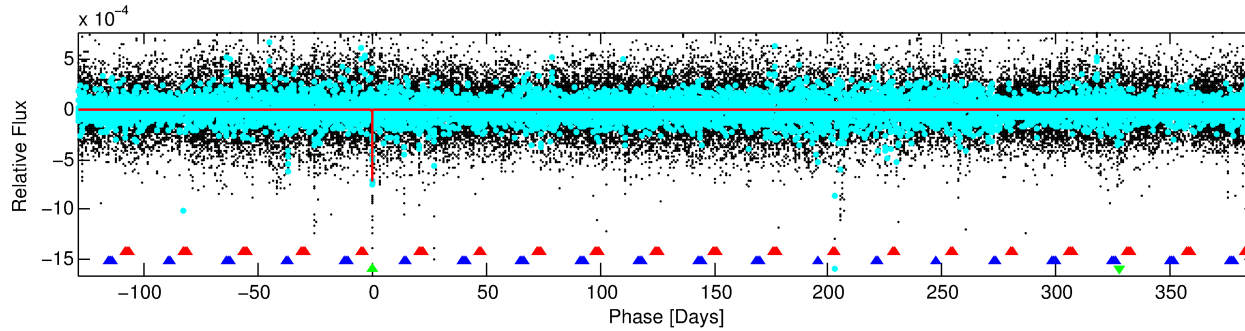
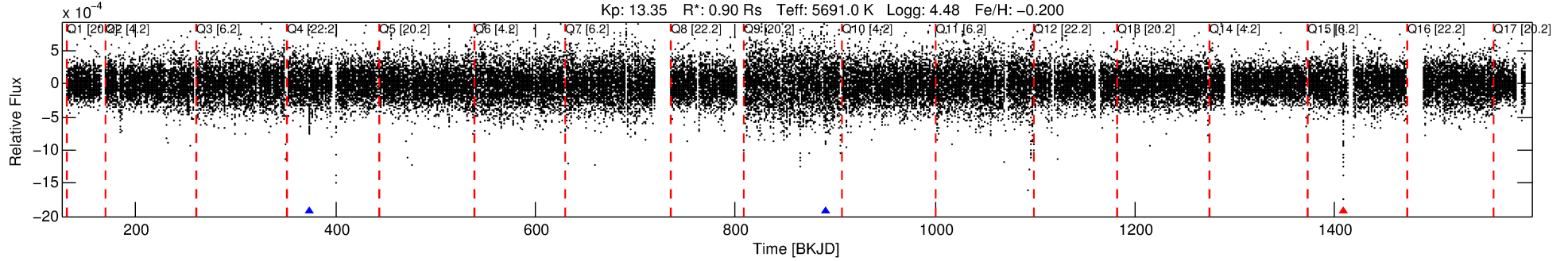
No Significant Match Found

DV One-Page Summary

KIC: 6147573 Candidate: 3 of 3 Period: 517.471 d

KOI: K06669 Corr: No Ephemeris Match

Kp: 13.35 R*: 0.90 Rs Teff: 5691.0 K Logg: 4.48 Fe/H: -0.200



DV Fit Results:

Period = 517.47089 [0.00608] d
Epoch = 373.6343 [0.0084] BKJD
Rp/R* = 0.0254 [0.0118]
a/R* = 417.25 [821.88]
b = 0.58 [2.27]
Seff = 0.52 [0.18]
Teq = 216 [19] K
Rp = 2.48 [1.33] Re
a = 1.2092 [0.2718] AU
Ag = 24918.75 [26375.93] [0.94σ]
Teffp = 4201 [1062] K [3.75σ]

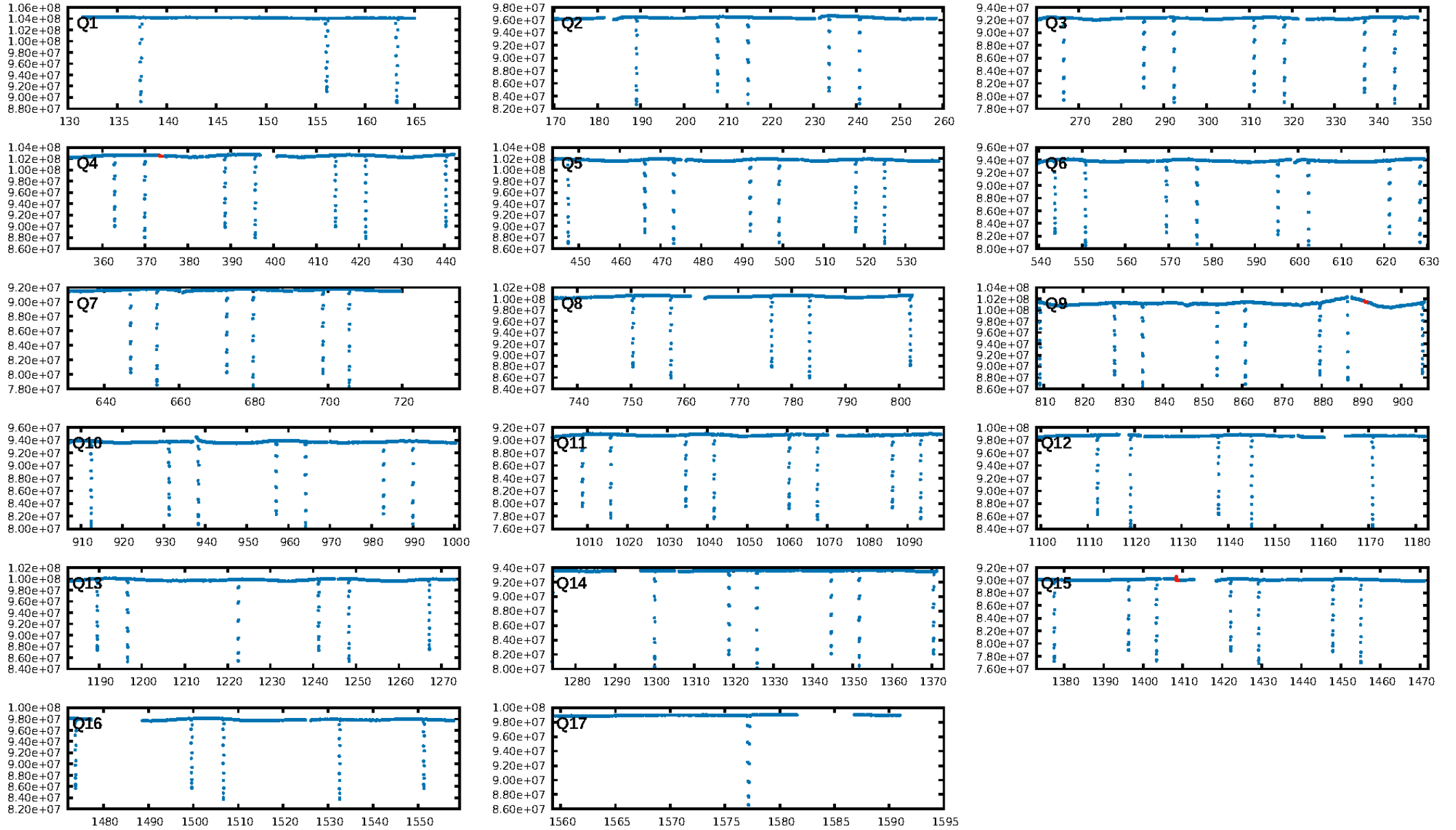
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1155.87σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 54.6%
Bootstrap-pfa: 2.46e-15
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 0.1916
Centroid-sig: 12.8%
Centroid-so: 1.473 arcsec [2.20σ]
OotOffset-rm: 2.607 arcsec [29.28σ]
KicOffset-rm: 3.027 arcsec [34.00σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

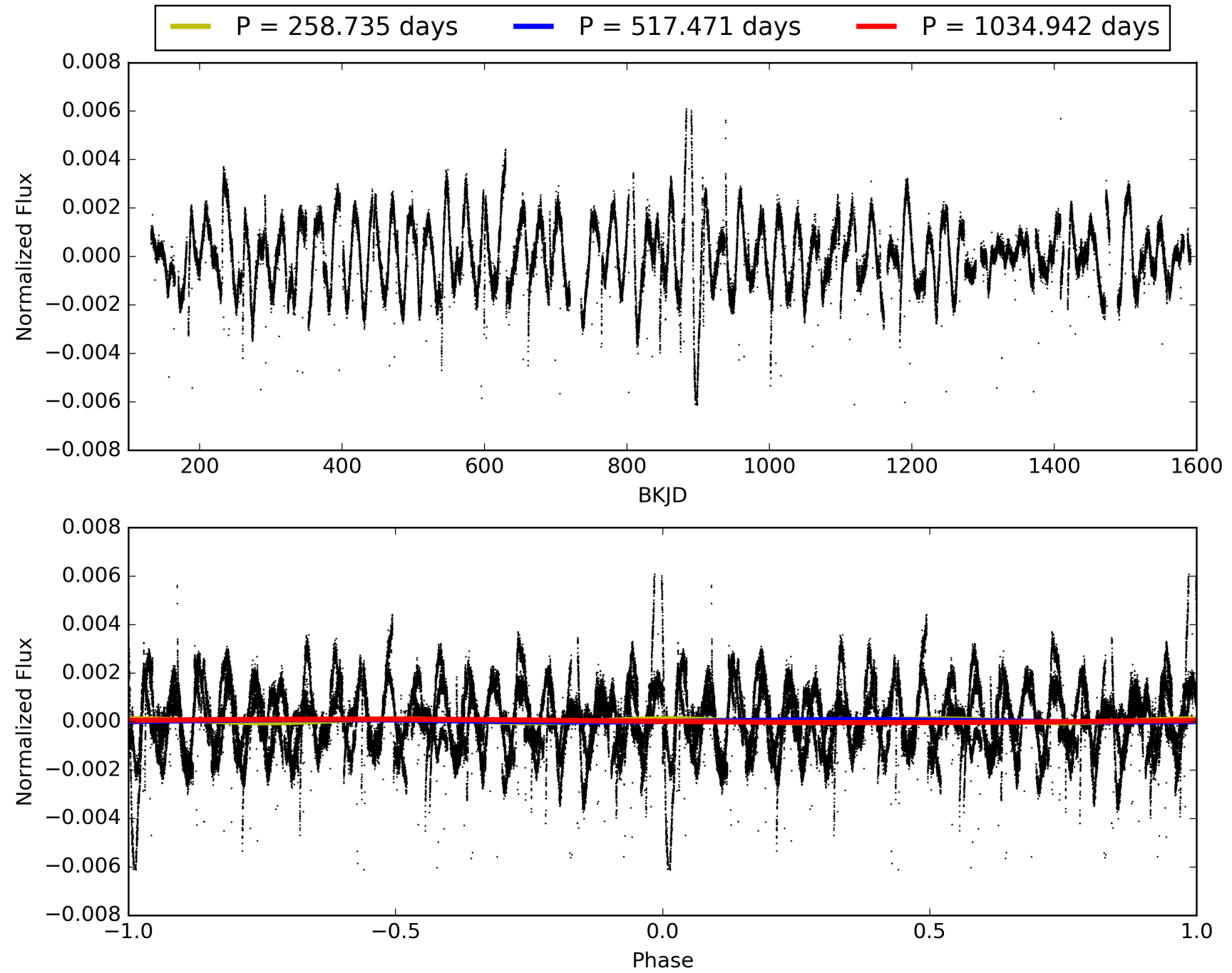
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:48:14 Z

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

TCE 006147573-03, PDC Light Curves

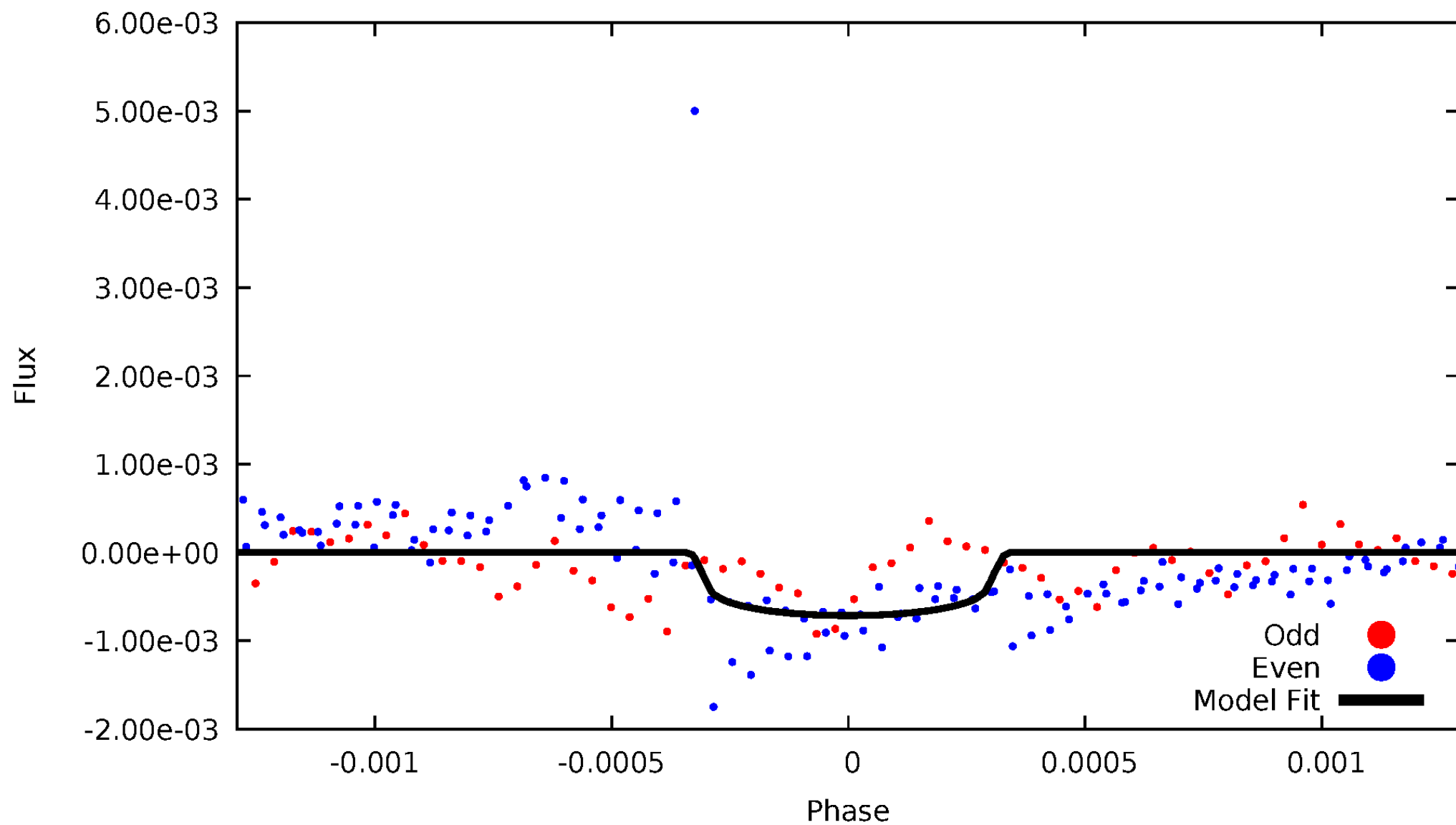


TCE 006147573-03



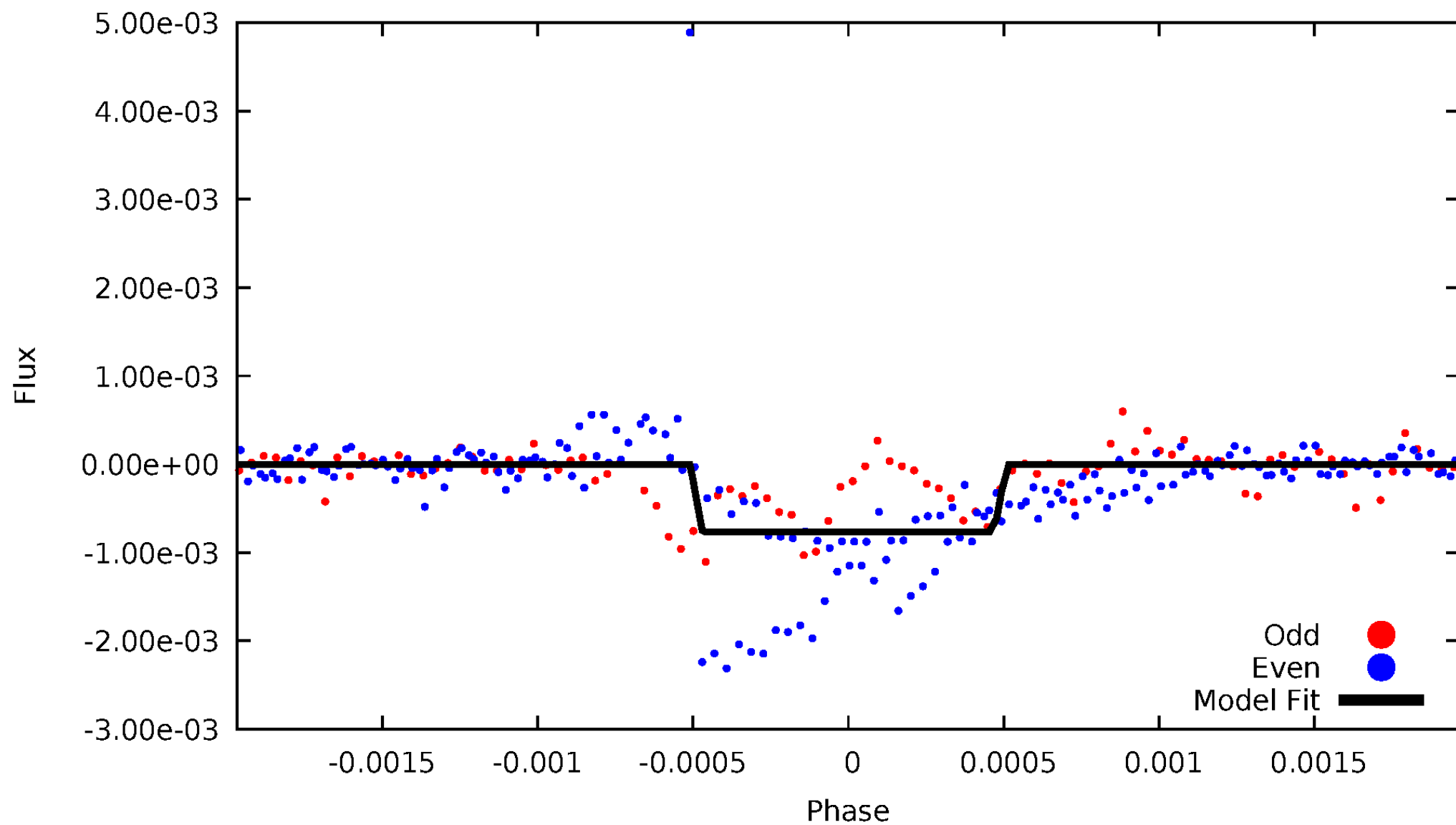
DV Odd/Even

TCE 006147573-03



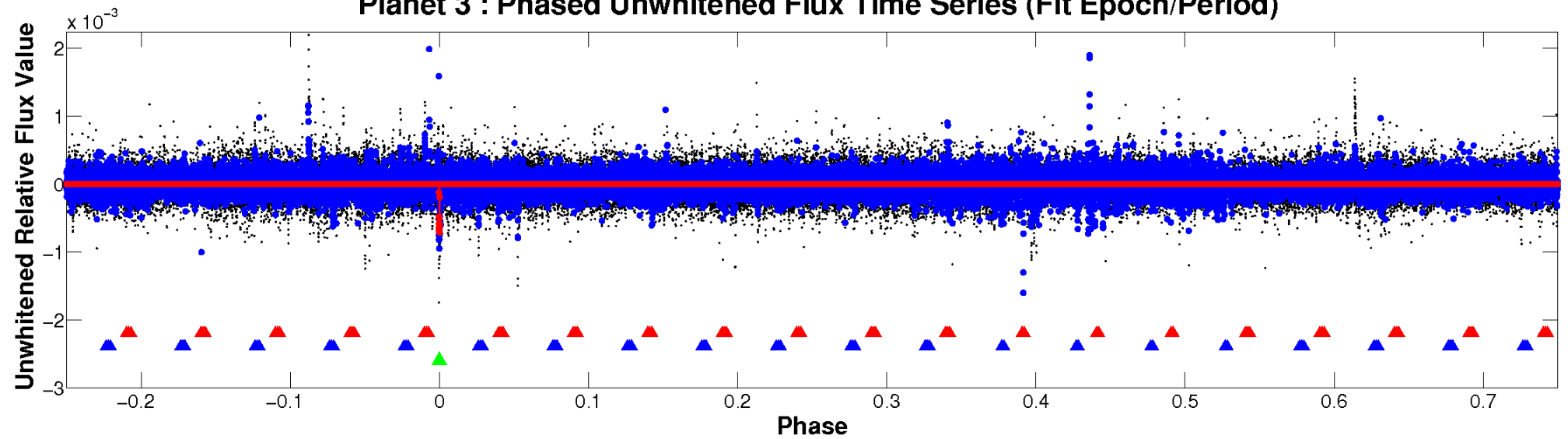
ALT Odd/Even

TCE 006147573-03

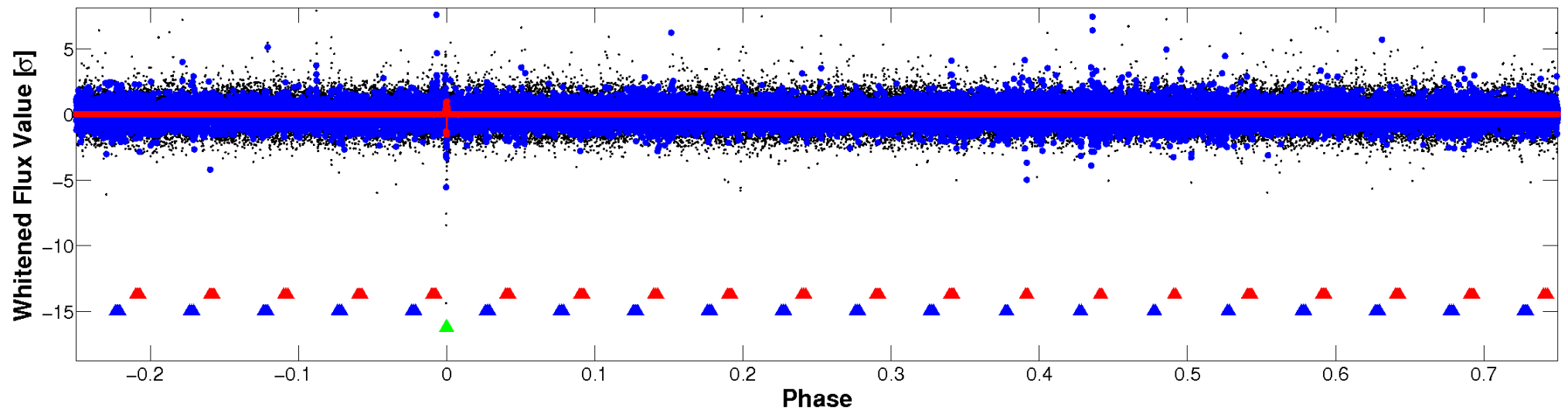


Non-Whitened Vs. Whitened Light Curve

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

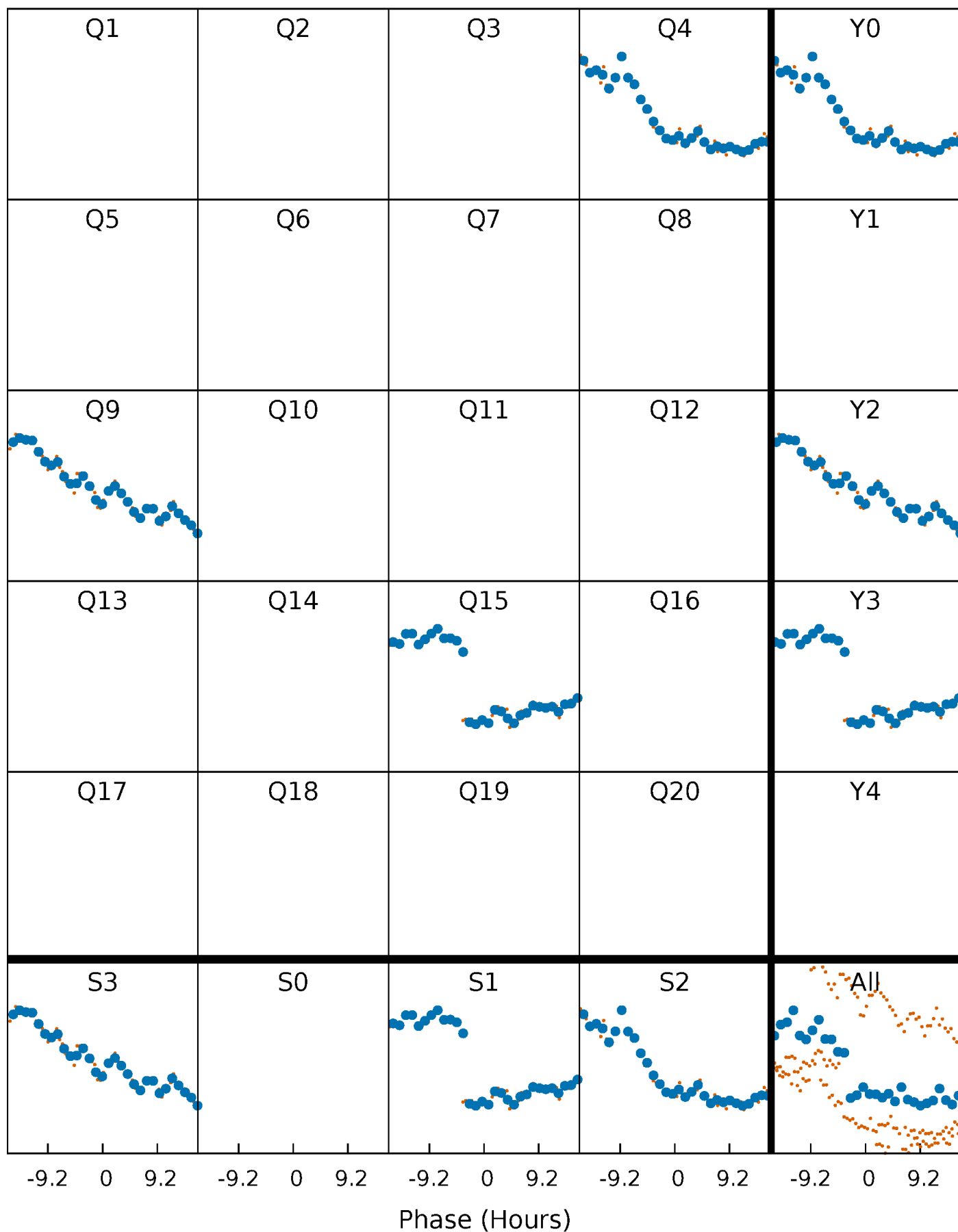


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



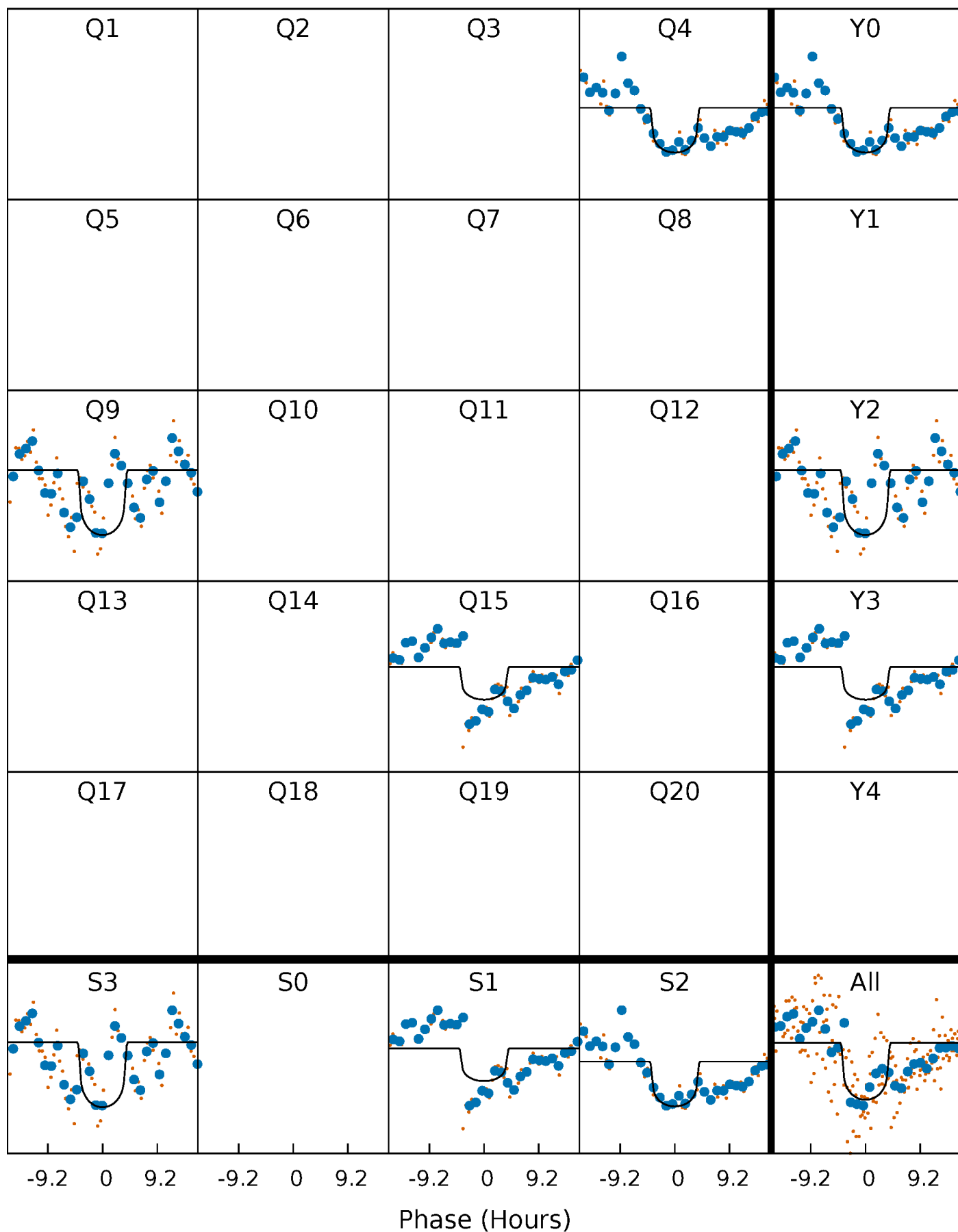
PDC Quarter-Phased Transit Curves

TCE 006147573-03 $P=517.470886$ Days $T_0=373.634312$ (BKJD)



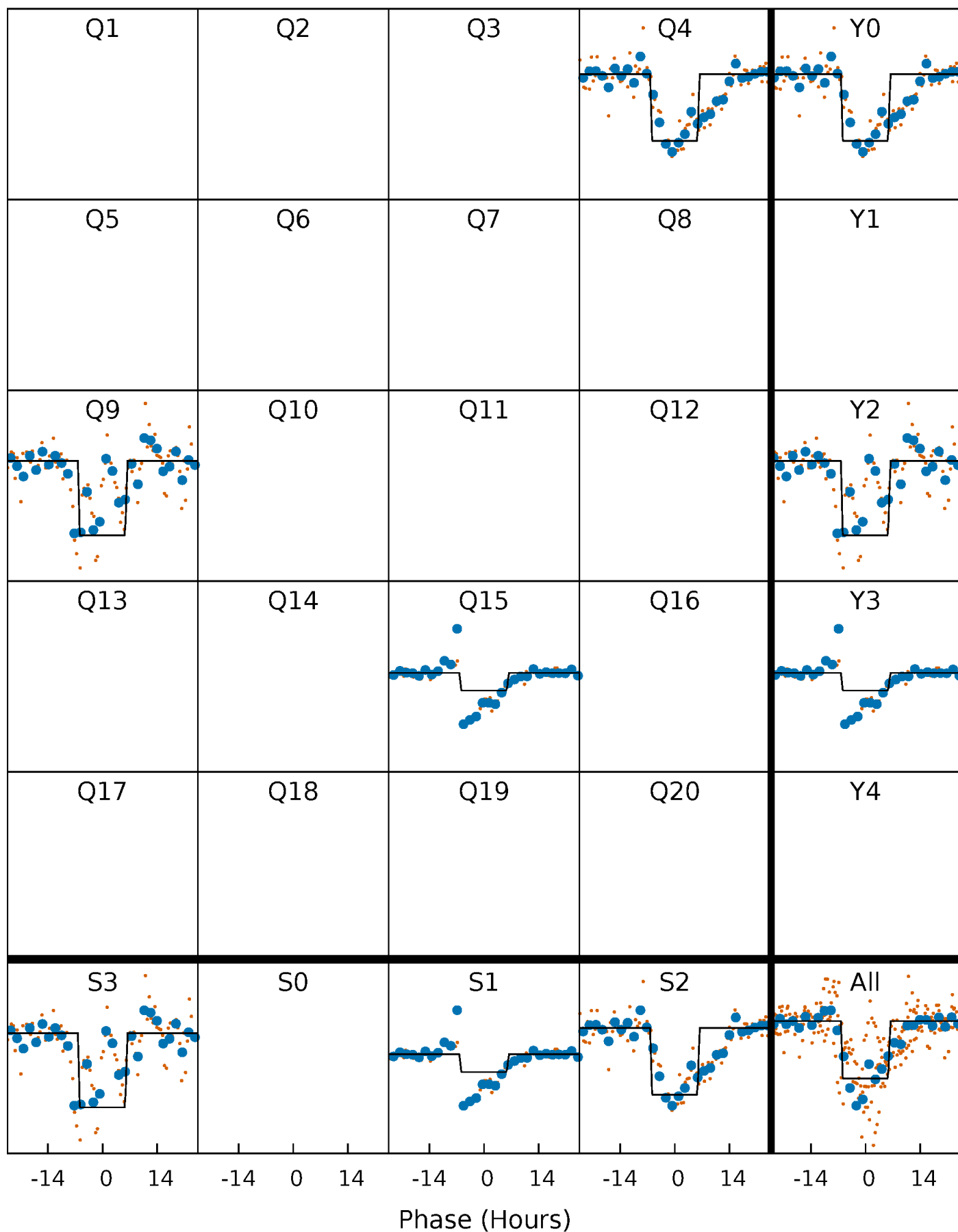
DV Quarter-Phased Transit Curves

TCE 006147573-03 P=517.470886 Days $T_0=373.634312$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

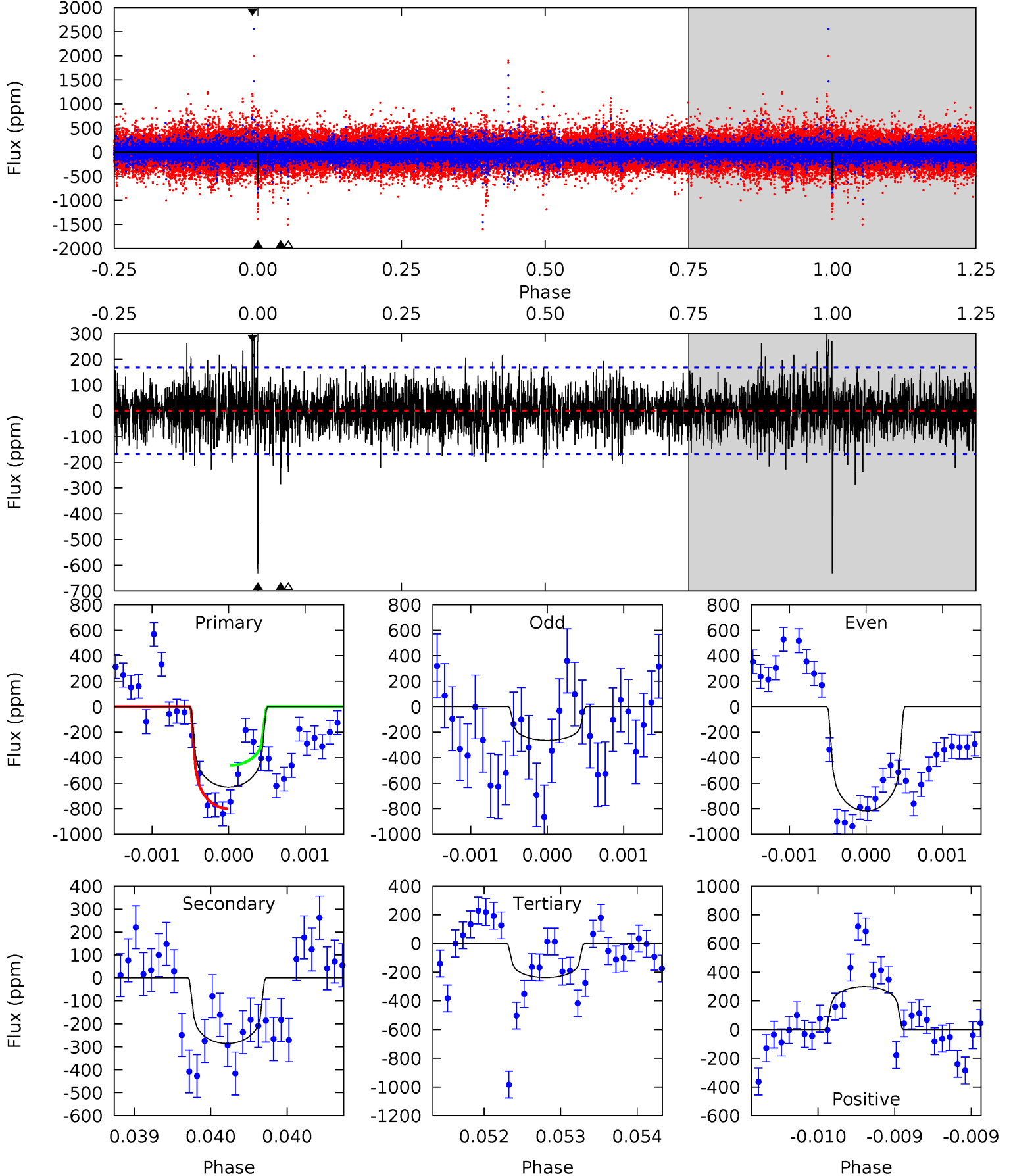
TCE 006147573-03 P=517.527585 Days $T_0=373.617183$ (BKJD)



DV Model-Shift Uniqueness Test

006147573-03, P = 517.470886 Days, E = 373.634312 Days

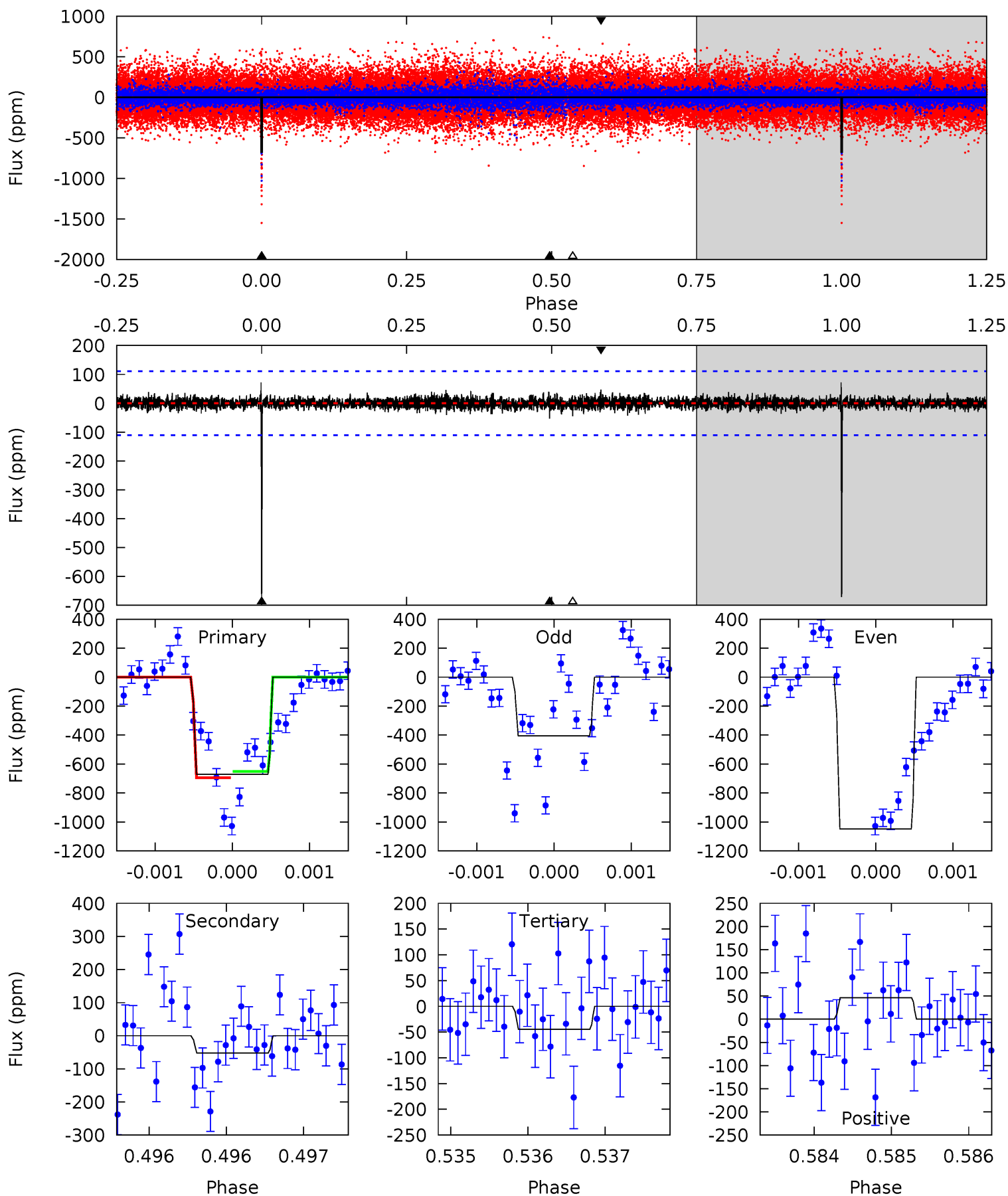
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.7	9.38	7.81	9.84	5.52	3.40	2.06	12.9	10.9	1.58	-0.46	7.98	0.95	0.32	5.59



Alt Model-Shift Uniqueness Test

006147573-03, P = 517.527585 Days, E = 373.617183 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.1	2.57	2.20	2.29	5.45	3.29	0.51	30.9	30.8	0.37	0.28	16.8	1.31	0.10	1.06



Stellar Parameters For KIC 006147573

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5691^{+152}_{-152}	$4.477^{+0.078}_{-0.182}$	$-0.200^{+0.300}_{-0.300}$	$0.897^{+0.237}_{-0.102}$	$0.881^{+0.111}_{-0.083}$	$1.720^{+0.658}_{-0.771}$
	+3%/-3%	+2%/-4%	+150%/-150%	+26%/-11%	+13%/-9%	+38%/-45%
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 006147573-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-286 ± 30	$2.48^{+1.28}_{-1.11}$	306^{+20}_{-15}	4797^{+1665}_{-681}	37566^{+89297}_{-21675}
Alt.	-52 ± 20	$2.84^{+1.34}_{-1.08}$	306^{+22}_{-15}	3365^{+658}_{-409}	4927^{+9546}_{-2946}

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 $A_{obs} \gg 1.0$

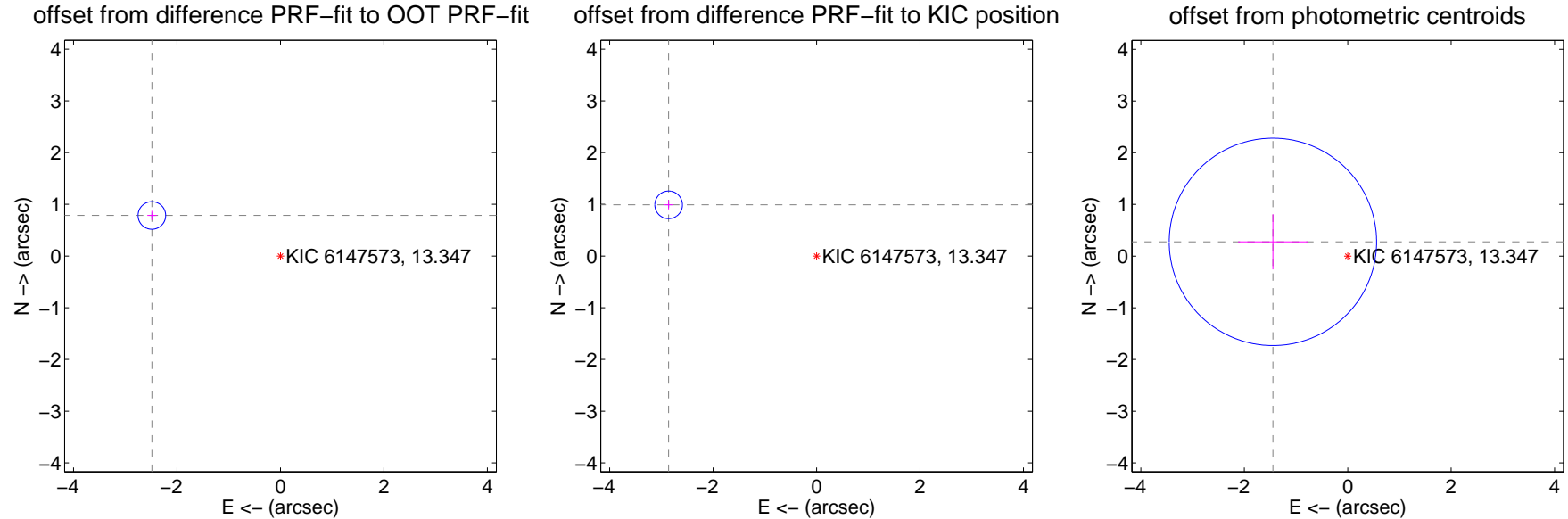
DV Centroid Data

Supplemental centroid analysis for 006147573-03. Kepler magnitude: 13.35. Transit SNR 9.65

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.607 ± 0.089	29.28	2.486 ± 0.089	0.784 ± 0.089
PRF-fit source offset from KIC position	3.027 ± 0.089	34.00	2.860 ± 0.089	0.990 ± 0.089
photometric centroid source offset	1.47 ± 0.67	2.20	1.45 ± 0.67	0.27 ± 0.53



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.

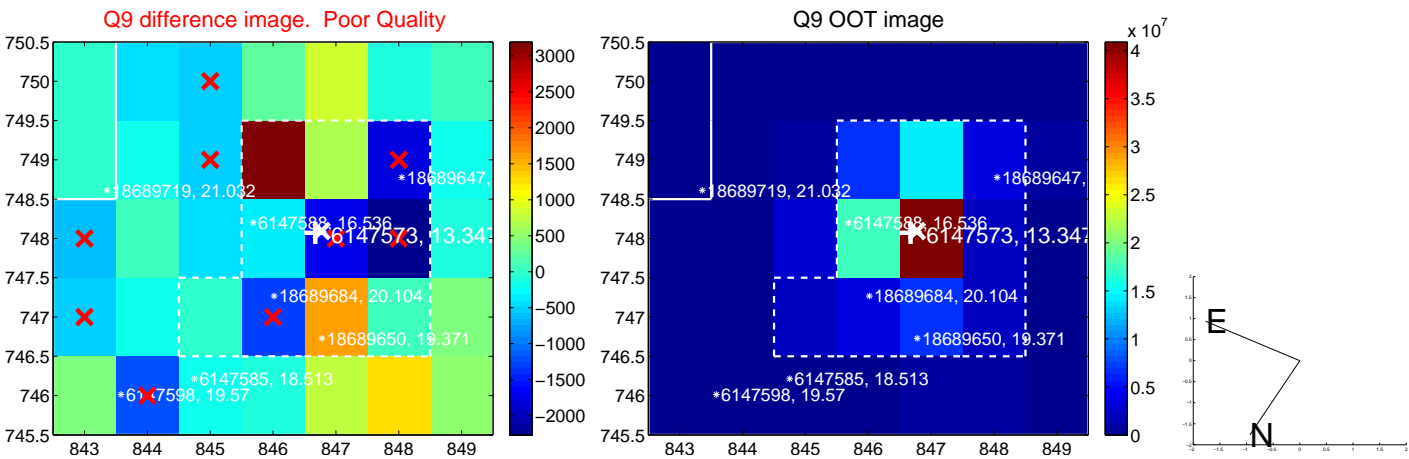
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



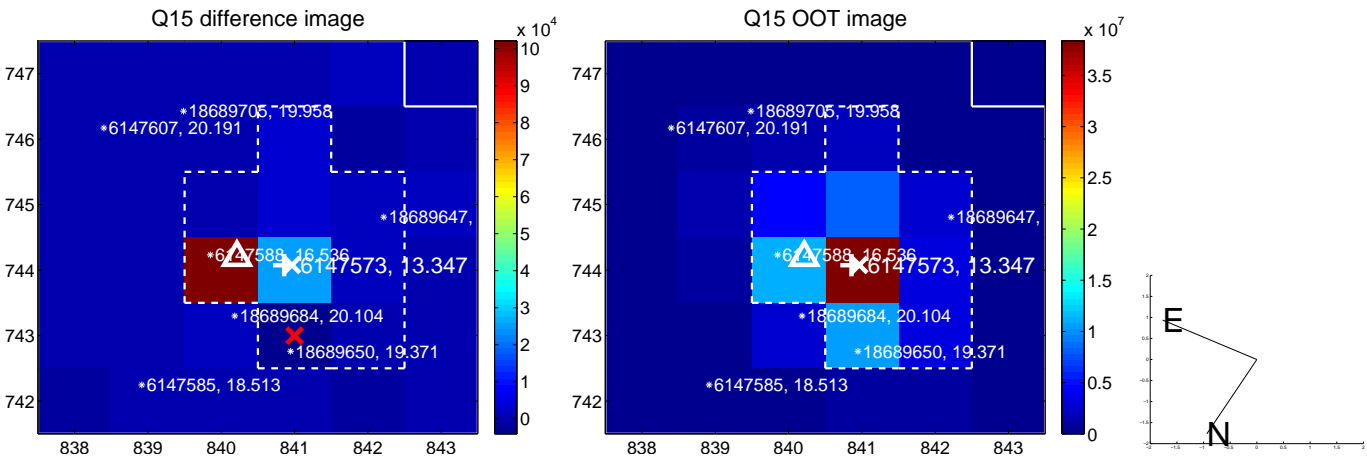
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



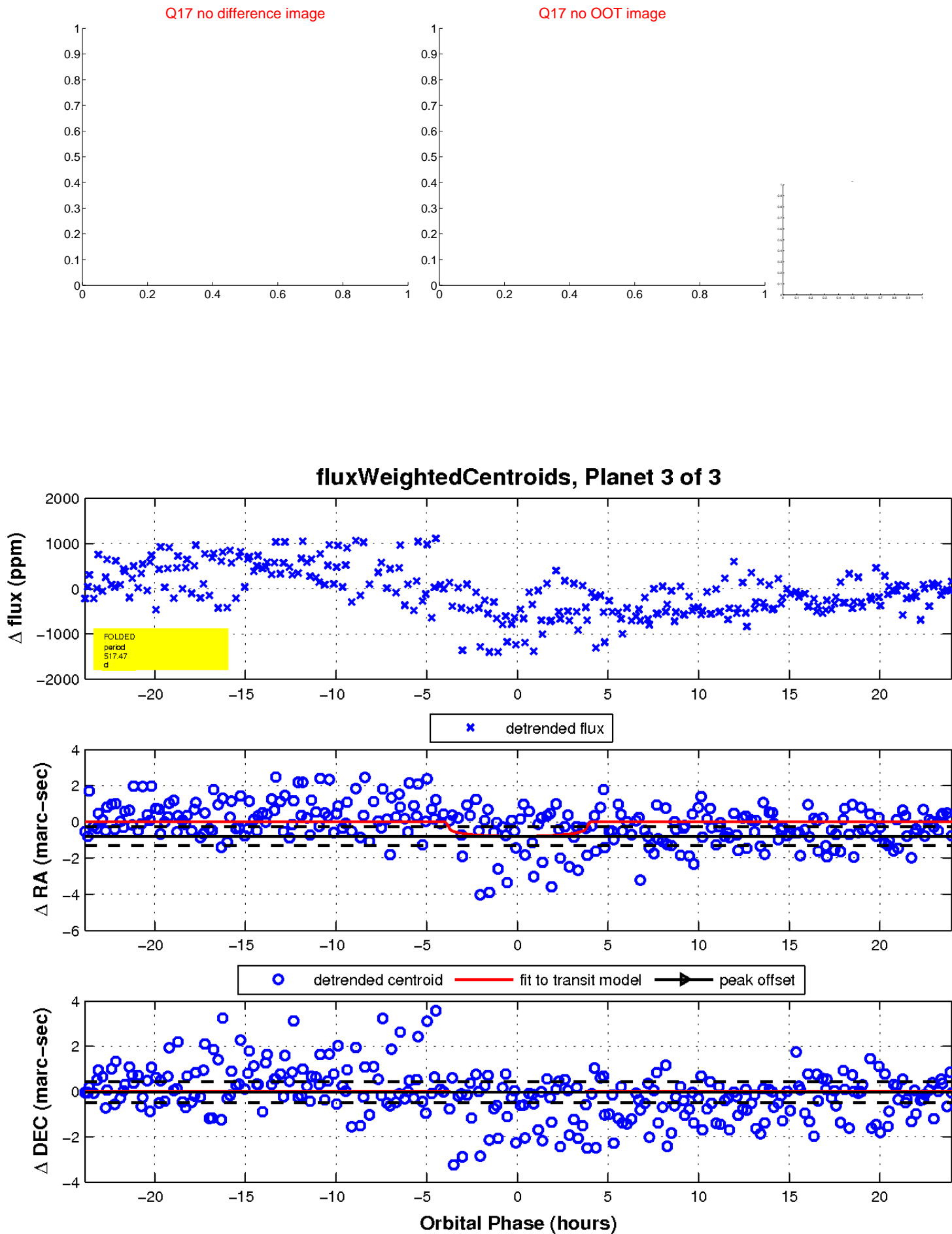
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

