

KIC 008630788

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})
008630788-01	OBS	1258.01	36.337440	160.398972	2818.1	7.068	83.9	83.8	0.88	5717	5.29	16.40
008630788-02	OBS	1258.02	14.646213	136.516987	577.0	6.161	24.7	25.7	0.88	5717	2.60	55.07
008630788-03	OBS	1258.03	148.271996	138.006148	1580.5	4.308	18.5	18.7	0.88	5717	4.12	2.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008630788-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008630788-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008630788-03	OBS	PC	0.96	0	0	0	0	NO_COMMENT

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

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

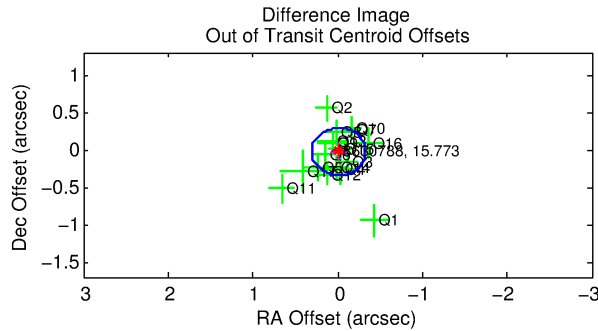
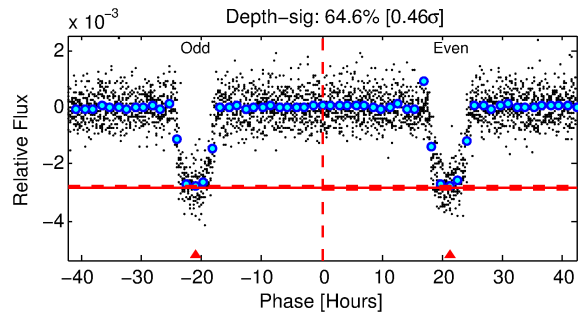
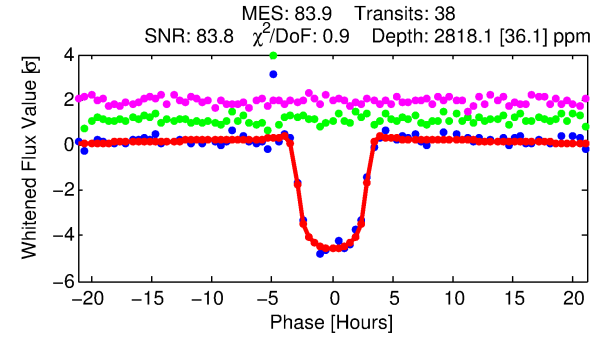
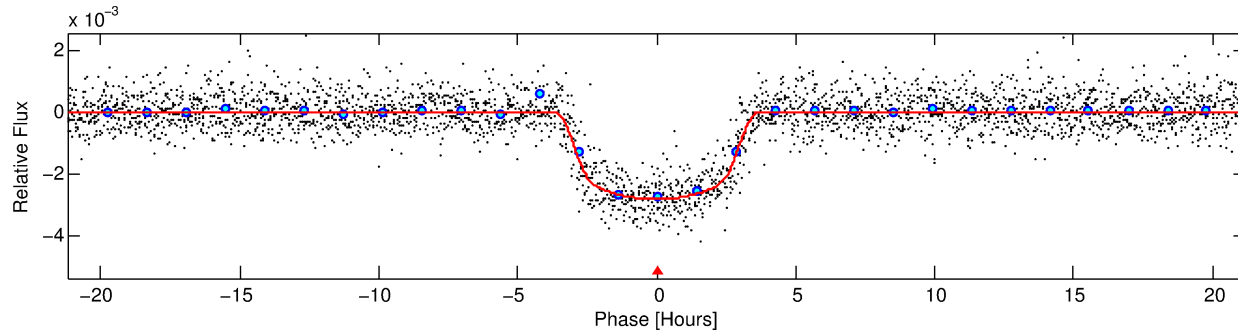
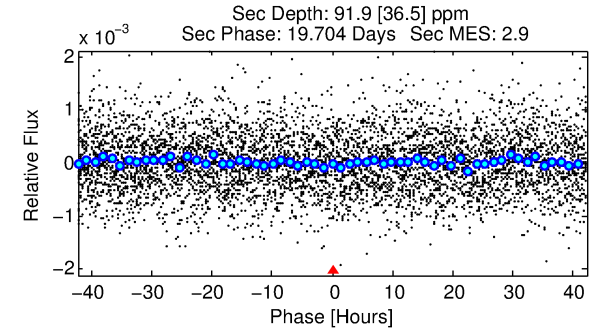
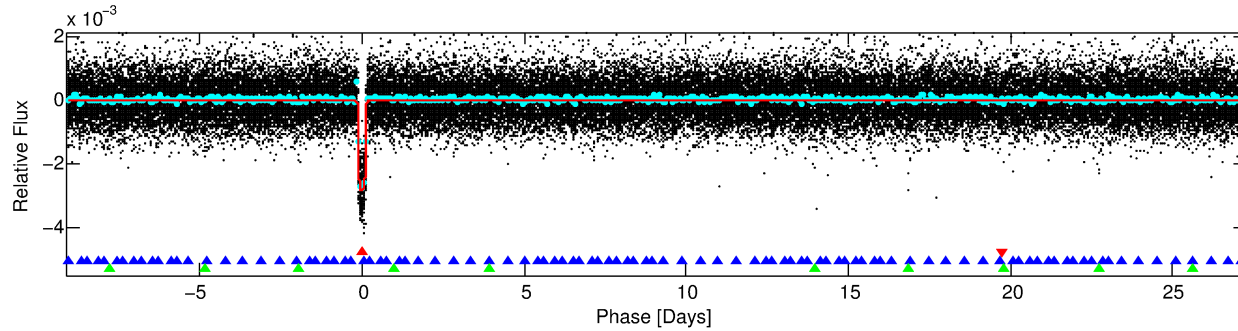
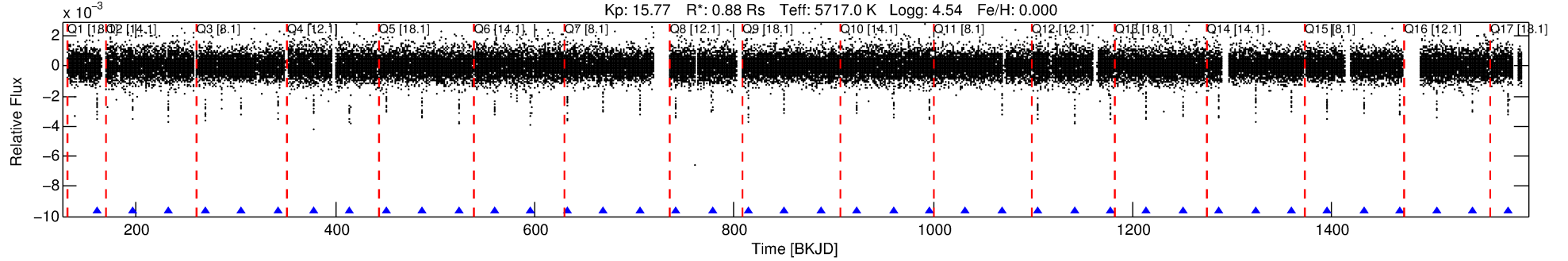
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008630788-01

No Significant Match Found

DV One-Page Summary

KIC: 8630788 Candidate: 1 of 3 Period: 36.337 d
KOI: K01258.01 Name: Kepler-281c Corr: 0.993



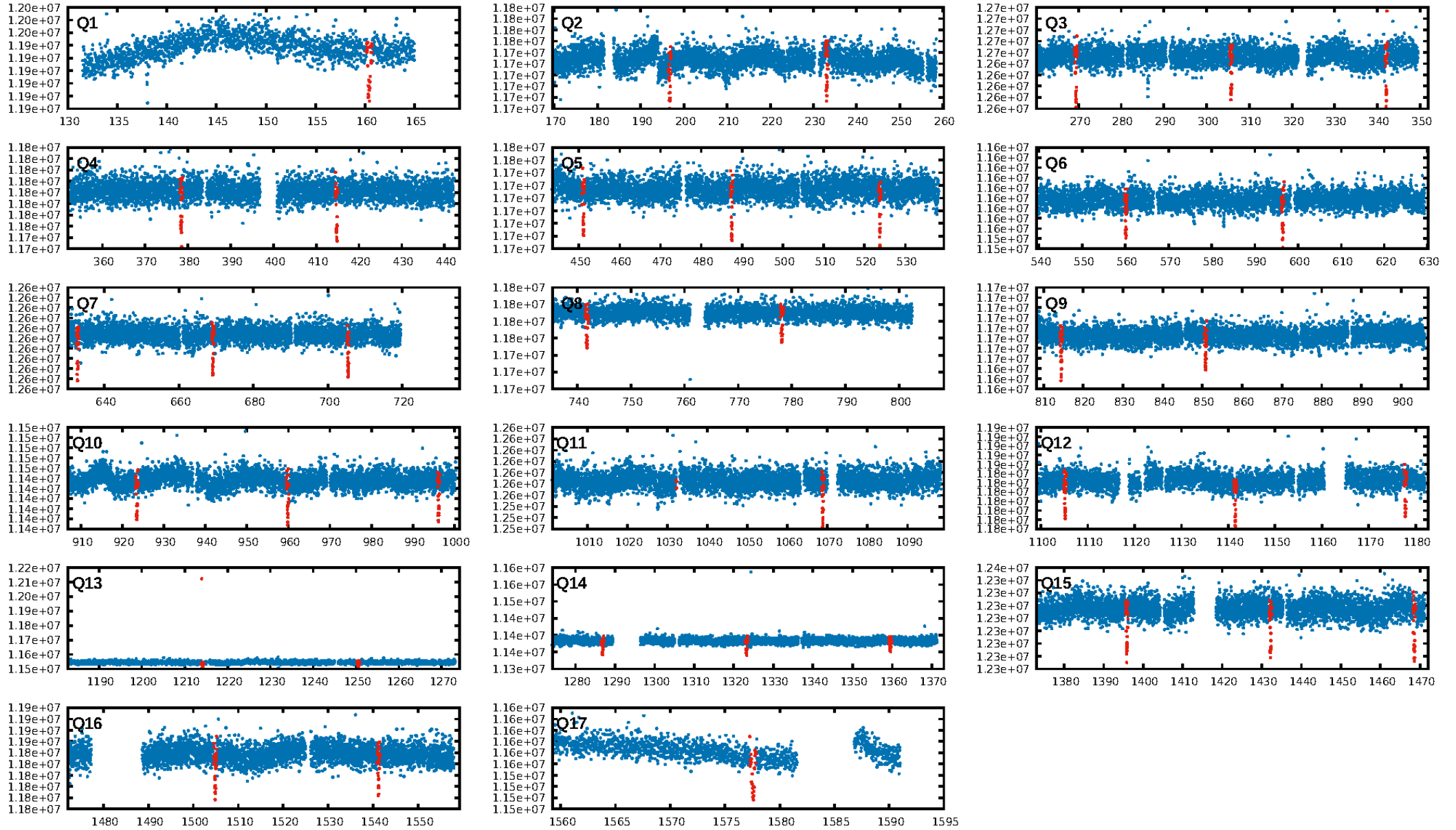
DV Fit Results:

Period = 36.33744 [0.00007] d
Epoch = 160.3990 [0.0017] BKJD
Rp/R* = 0.0549 [0.0009]
a/R* = 25.74 [1.49]
b = 0.83 [0.02]
Seff = 16.40 [5.85]
Teff = 513 [46] K
Rp = 5.29 [1.38] Re
a = 0.2136 [0.0481] AU
Ag = 82.27 [42.88] [1.90σ]
Teffp = 2389 [249] K [7.41σ]

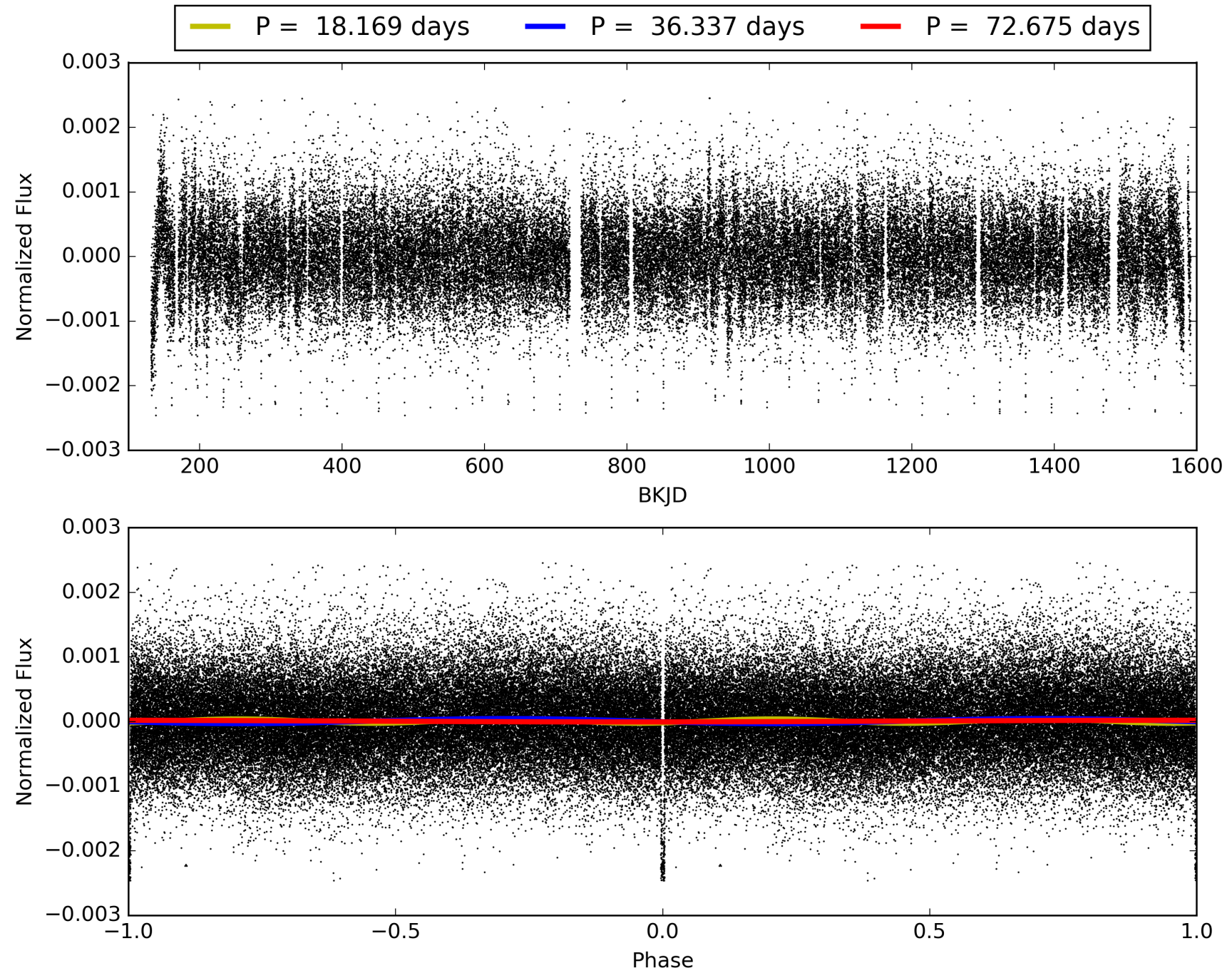
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [55.52σ]
LongPeriod-sig: 100.0% [324.55σ]
ModelChiSquare2-sig: 70.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [36/36]
GhostDiagnostic-chr: 3.443
Centroid-sig: 13.3%
Centroid-so: 0.431 arcsec [3.00σ]
OotOffset-rm: 0.031 arcsec [0.29σ]
KicOffset-rm: 0.122 arcsec [1.32σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008630788-01, PDC Light Curves

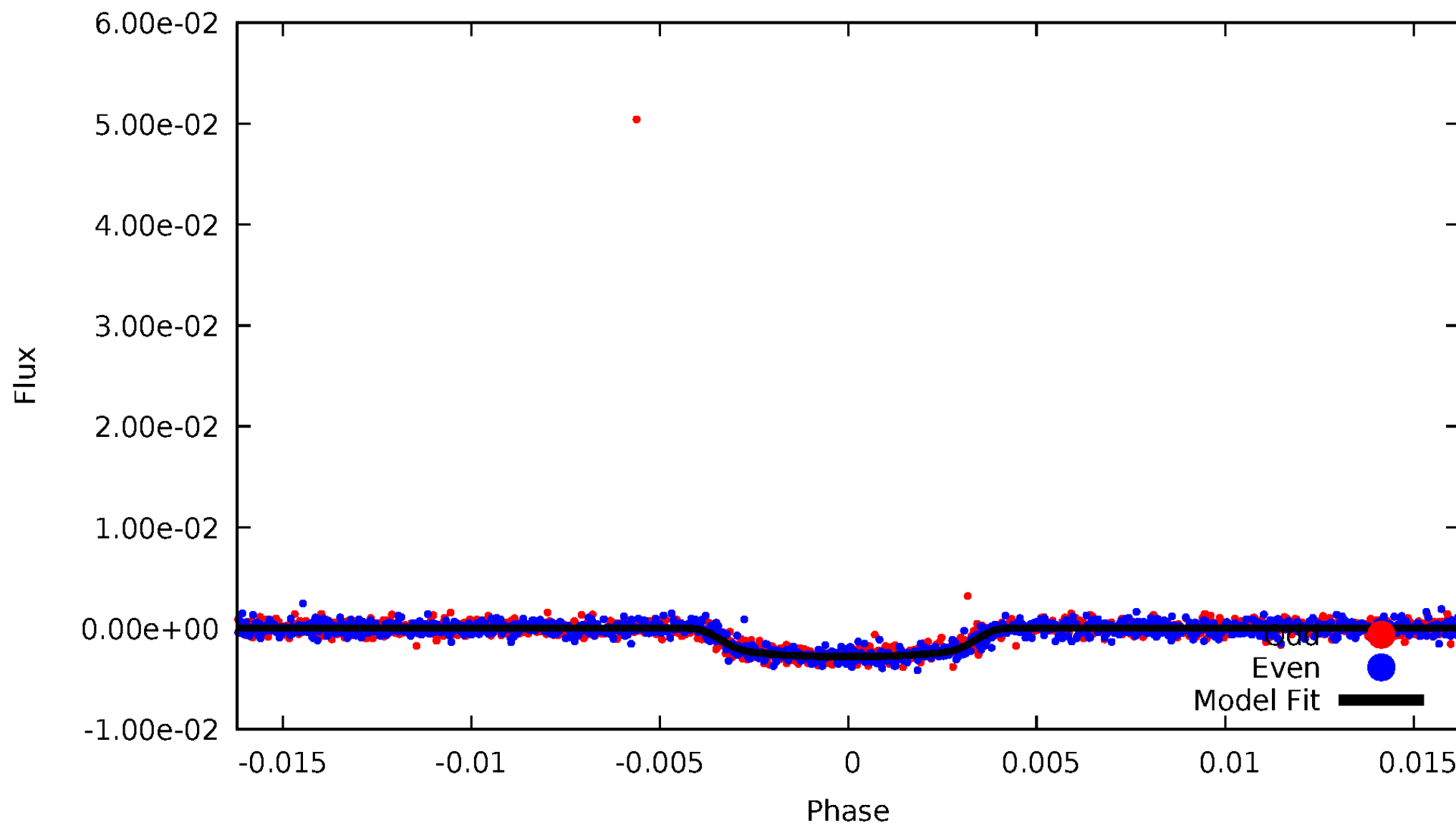


TCE 008630788-01



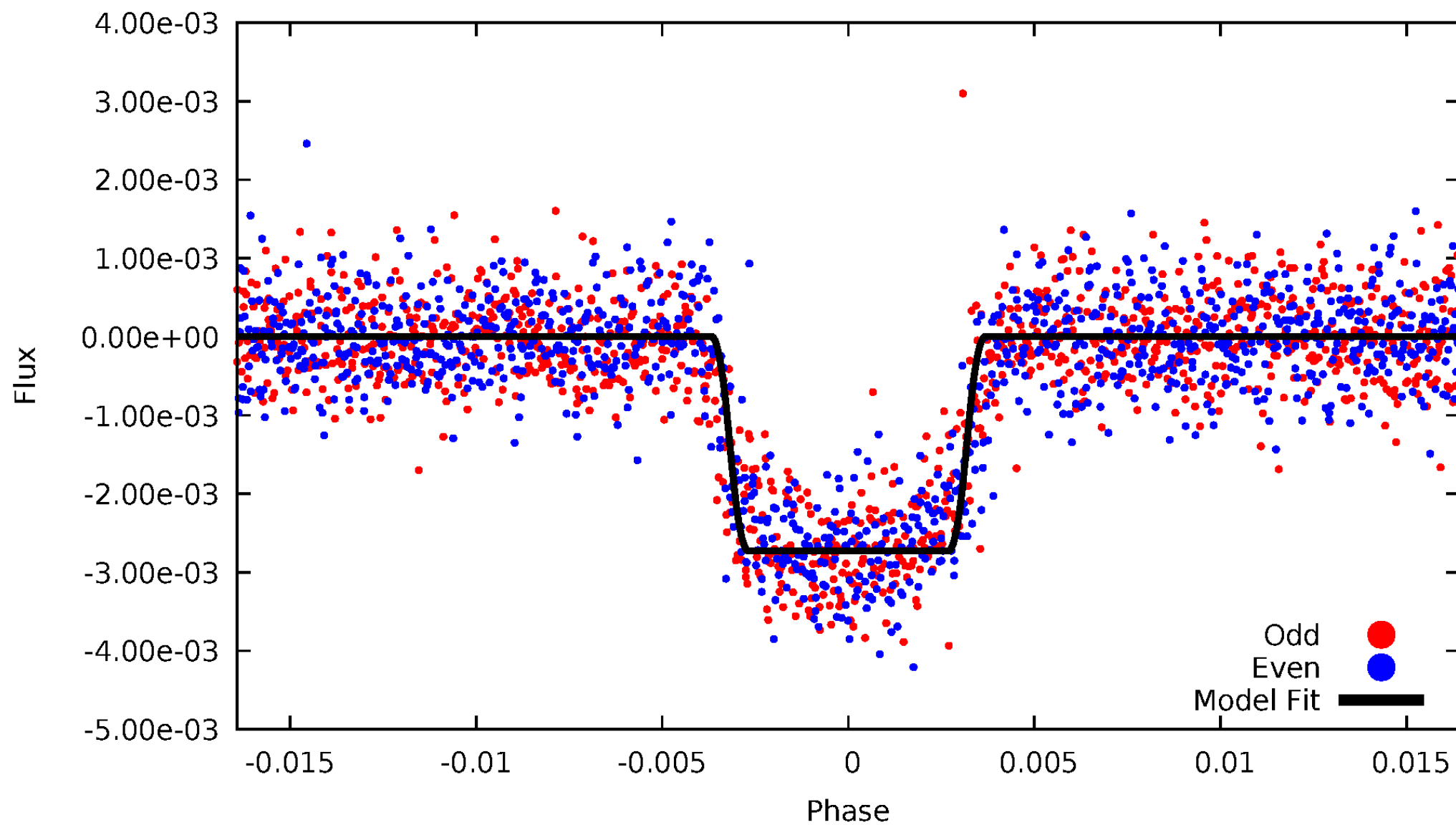
DV Odd/Even

TCE 008630788-01



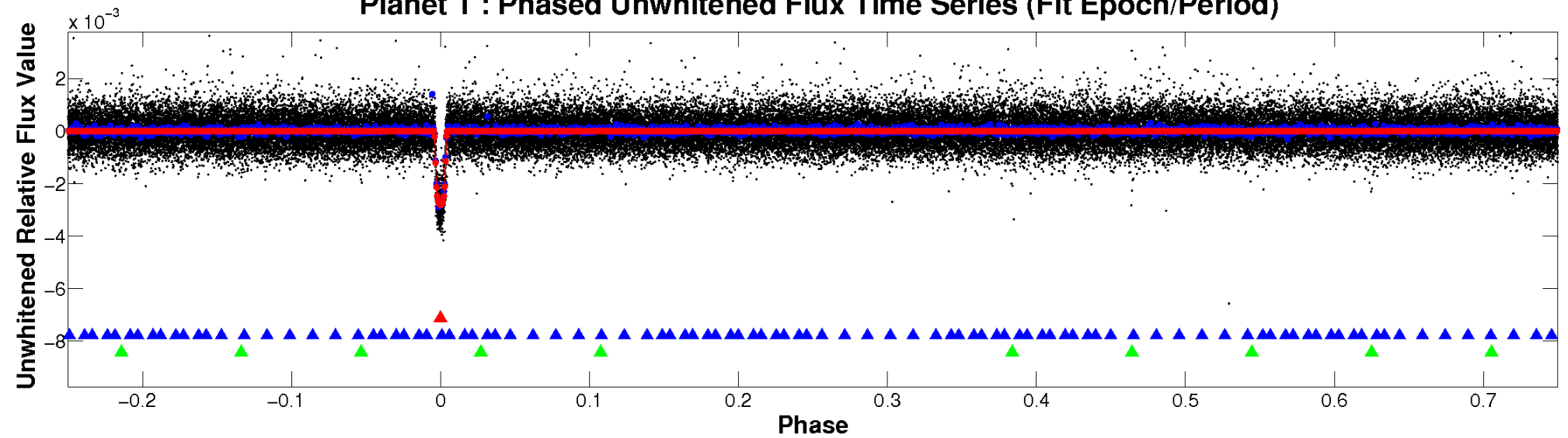
ALT Odd/Even

TCE 008630788-01

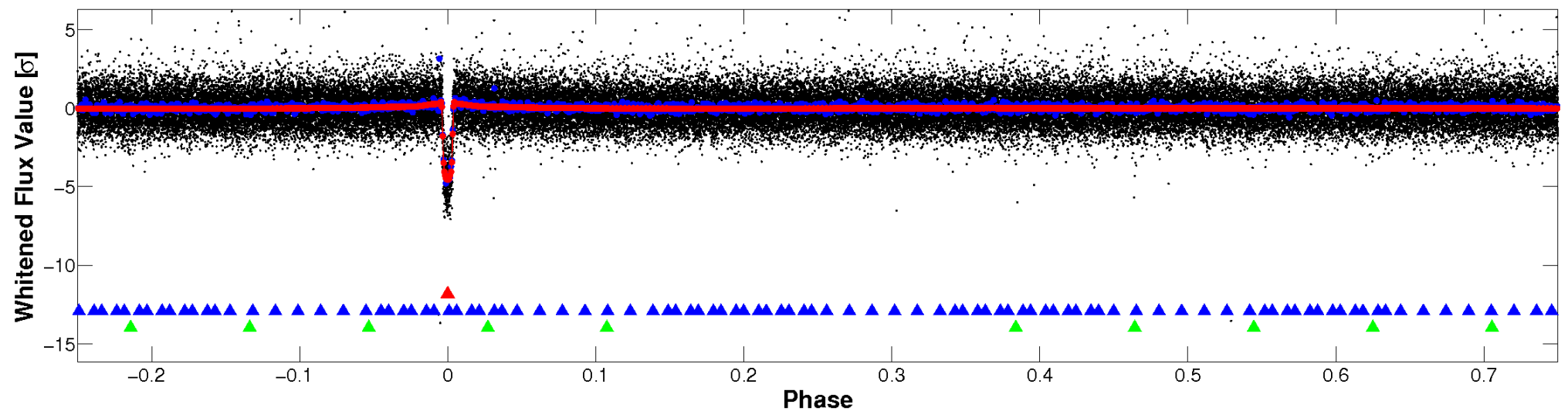


Non-Whitened Vs. Whitened Light Curve

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

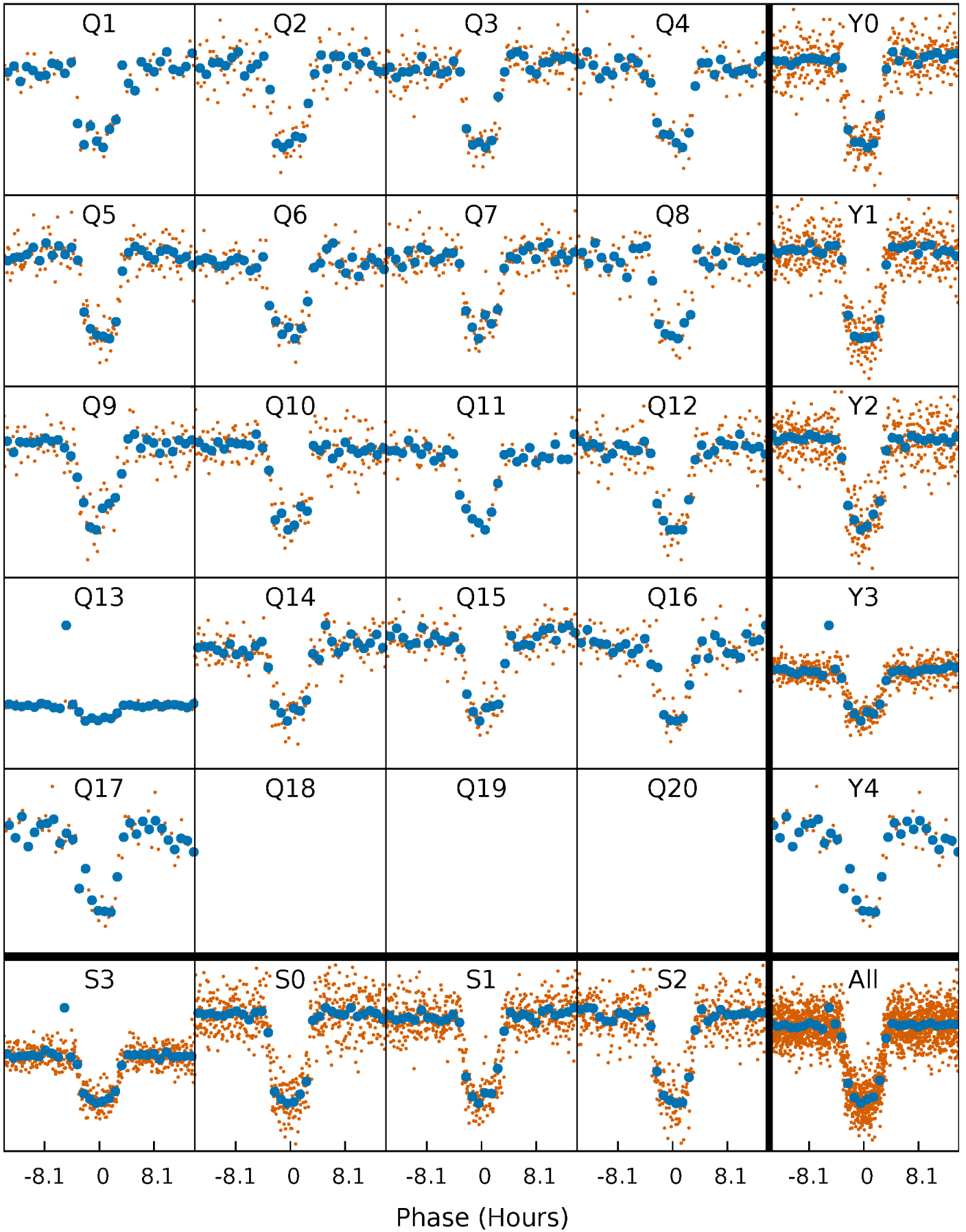


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



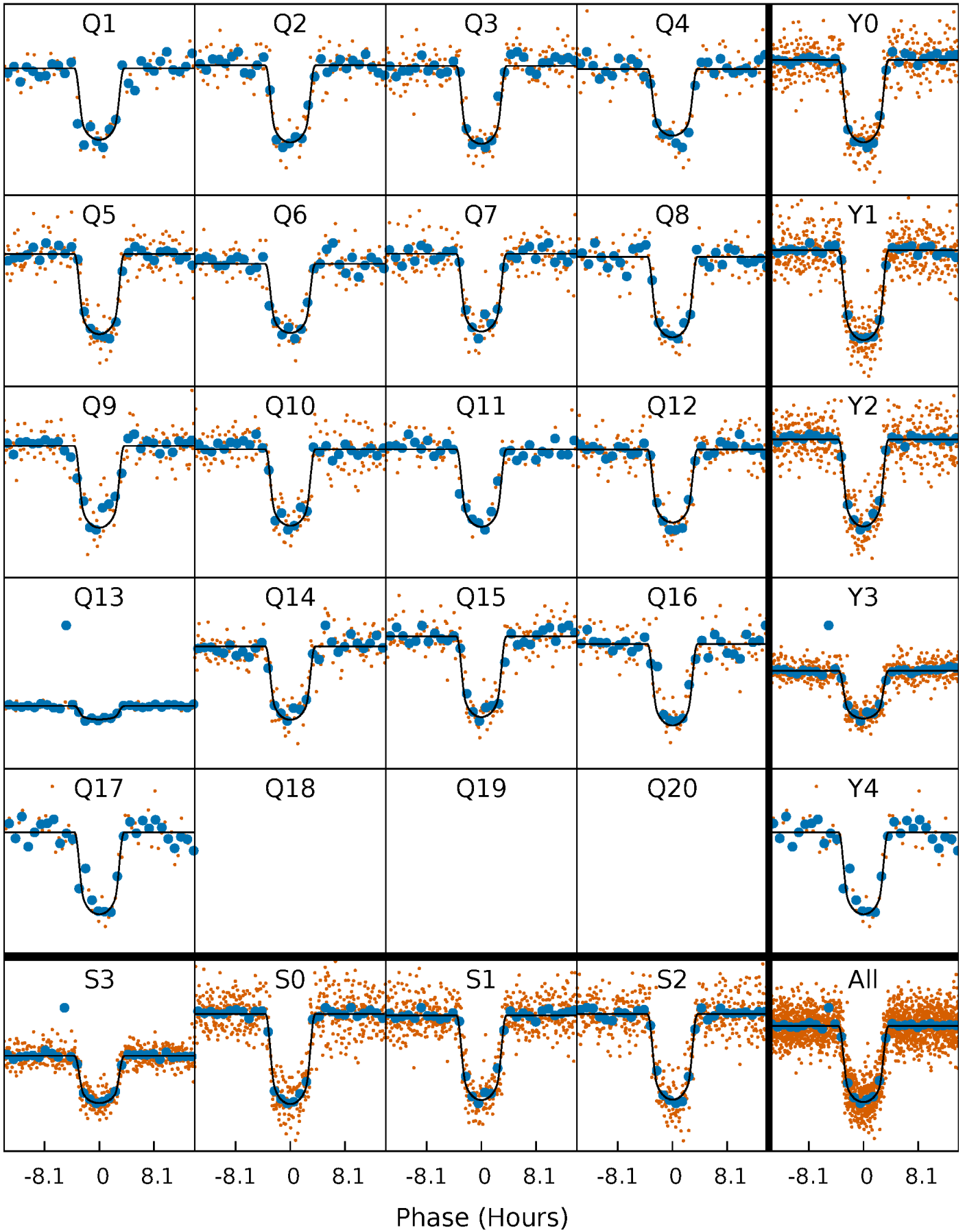
PDC Quarter-Phased Transit Curves

TCE 008630788-01 P= 36.337440 Days $T_0=160.398972$ (BKJD)



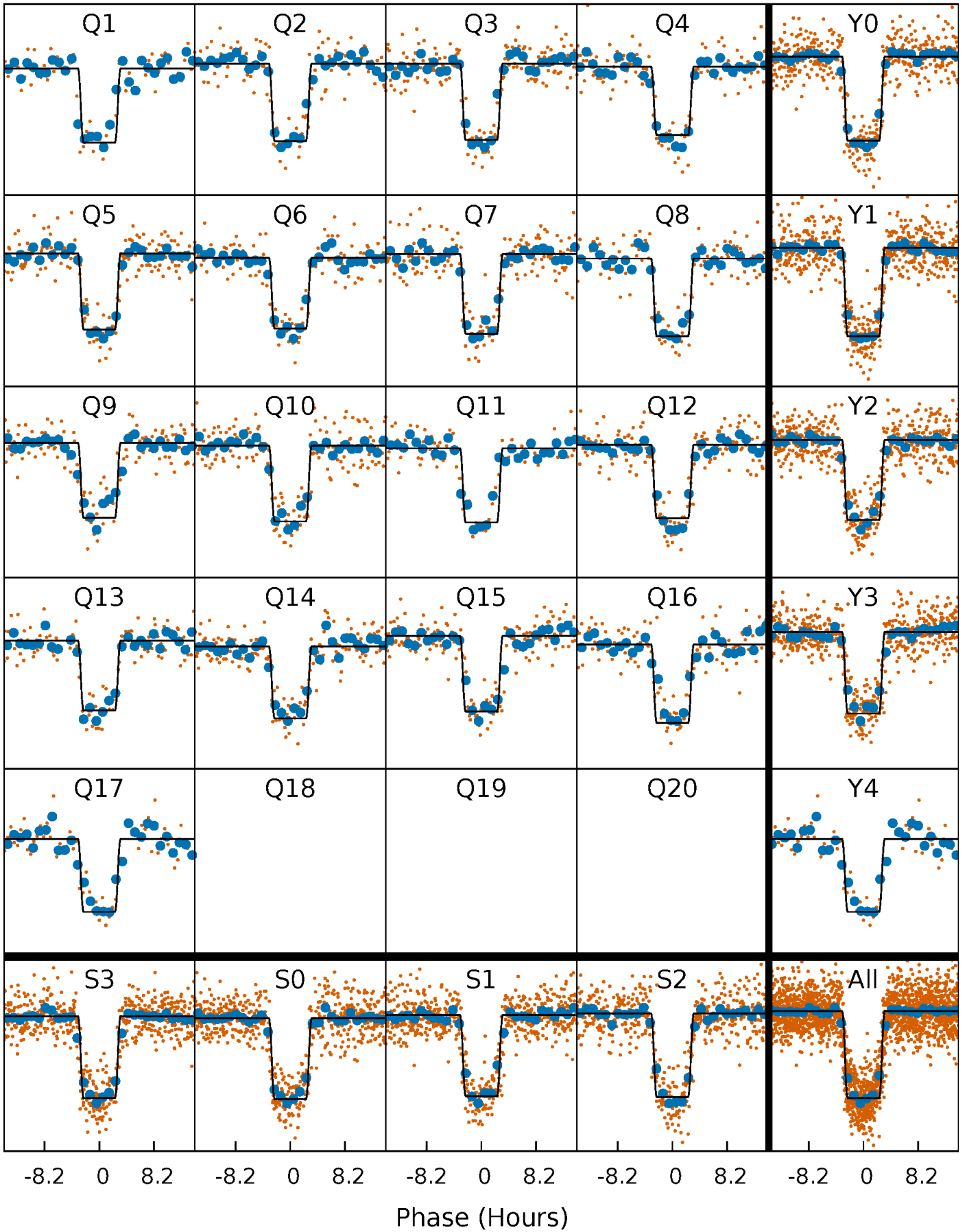
DV Quarter-Phased Transit Curves

TCE 008630788-01 P= 36.337440 Days $T_0=160.398972$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

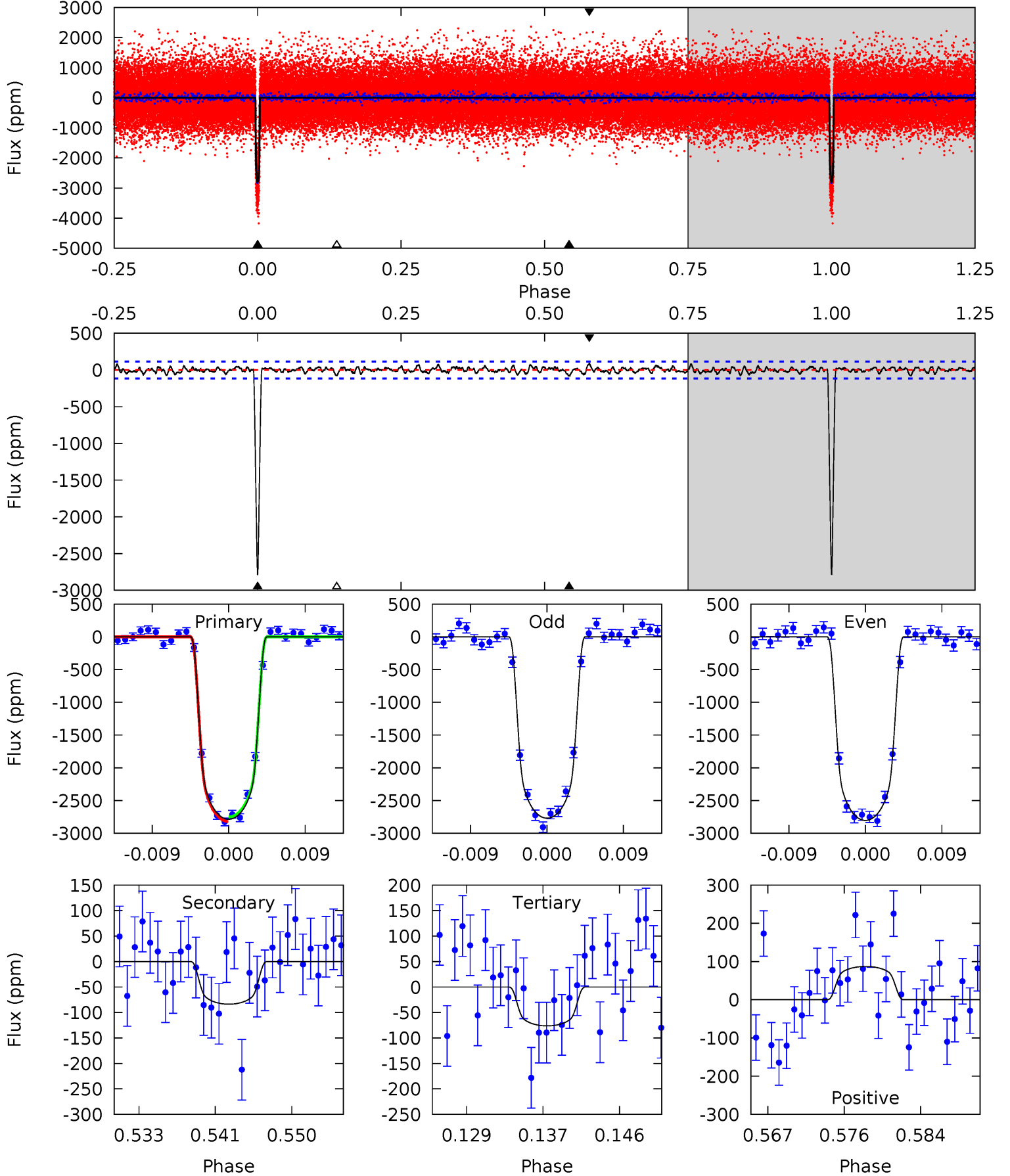
TCE 008630788-01 P= 36.337227 Days $T_0=160.403255$ (BKJD)



DV Model-Shift Uniqueness Test

008630788-01, $P = 36.337440$ Days, $E = 124.061532$ Days

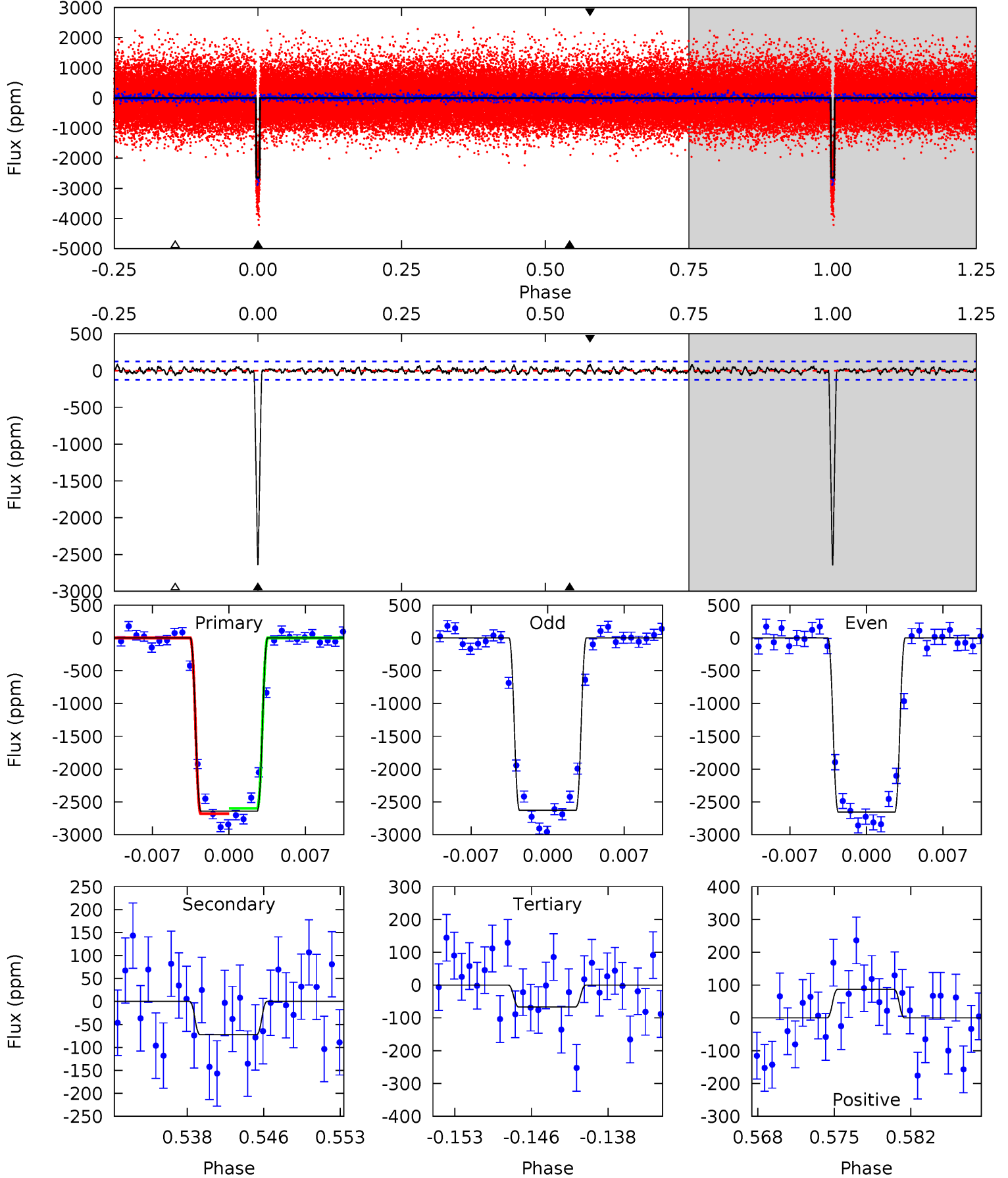
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
121.7	3.66	3.33	3.80	5.06	2.63	1.21	118.3	117.9	0.33	-0.15	0.74	1.00	0.03	1.56



Alt Model-Shift Uniqueness Test

008630788-01, P = 36.337227 Days, E = 124.066028 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
107.0	2.94	2.71	3.53	5.09	2.68	0.98	104.3	103.5	0.23	-0.59	0.54	1.00	0.03	1.63



Stellar Parameters For KIC 008630788

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5717^{+156}_{-173}	$4.538^{+0.044}_{-0.187}$	$0.000^{+0.250}_{-0.300}$	$0.884^{+0.230}_{-0.077}$	$0.984^{+0.102}_{-0.114}$	$2.006^{+0.367}_{-0.987}$
	+3%/-3%	+1%/-4%	+inf%/-inf%	+26%/-9%	+10%/-12%	+18%/-49%
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 008630788-01 / KOI 1258.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-84 ± 23	$5.39^{+0.74}_{-0.36}$	730^{+48}_{-31}	2995^{+118}_{-134}	67^{+22}_{-22}
Alt.	-72 ± 25	$5.17^{+0.73}_{-0.36}$	732^{+49}_{-30}	2970^{+146}_{-164}	64^{+25}_{-24}

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 $A_{obs} \gg 1.0$

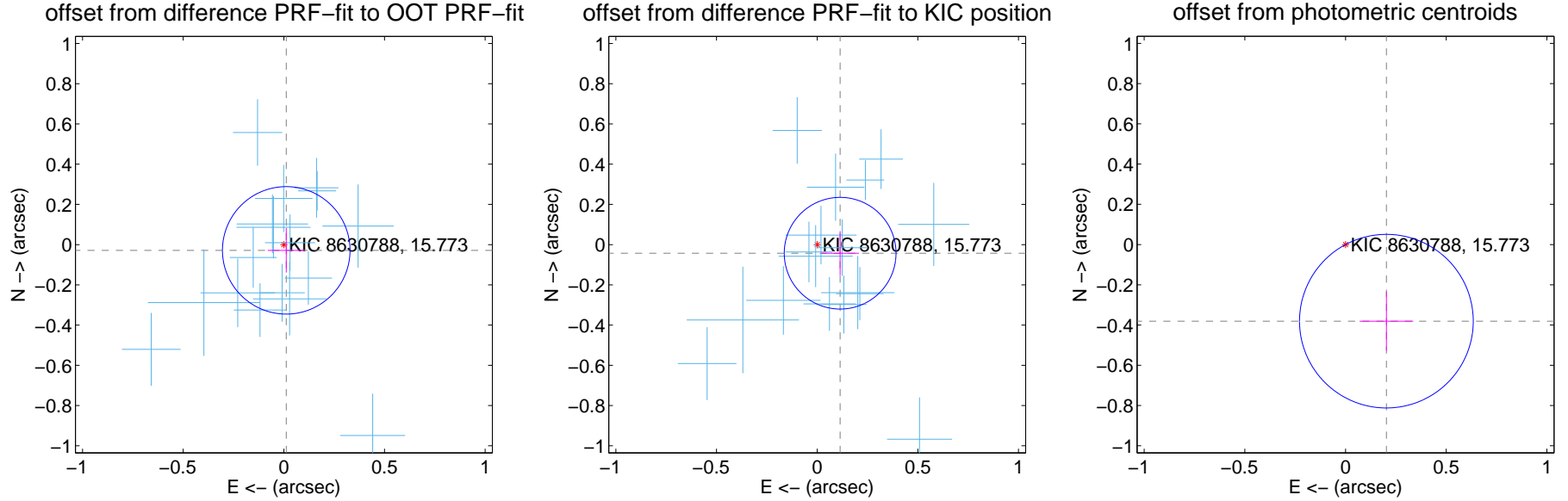
DV Centroid Data

Supplemental centroid analysis for 008630788-01. Kepler magnitude: 15.77. Transit SNR 83.84

There are 17 quarters with good PRF difference image offsets

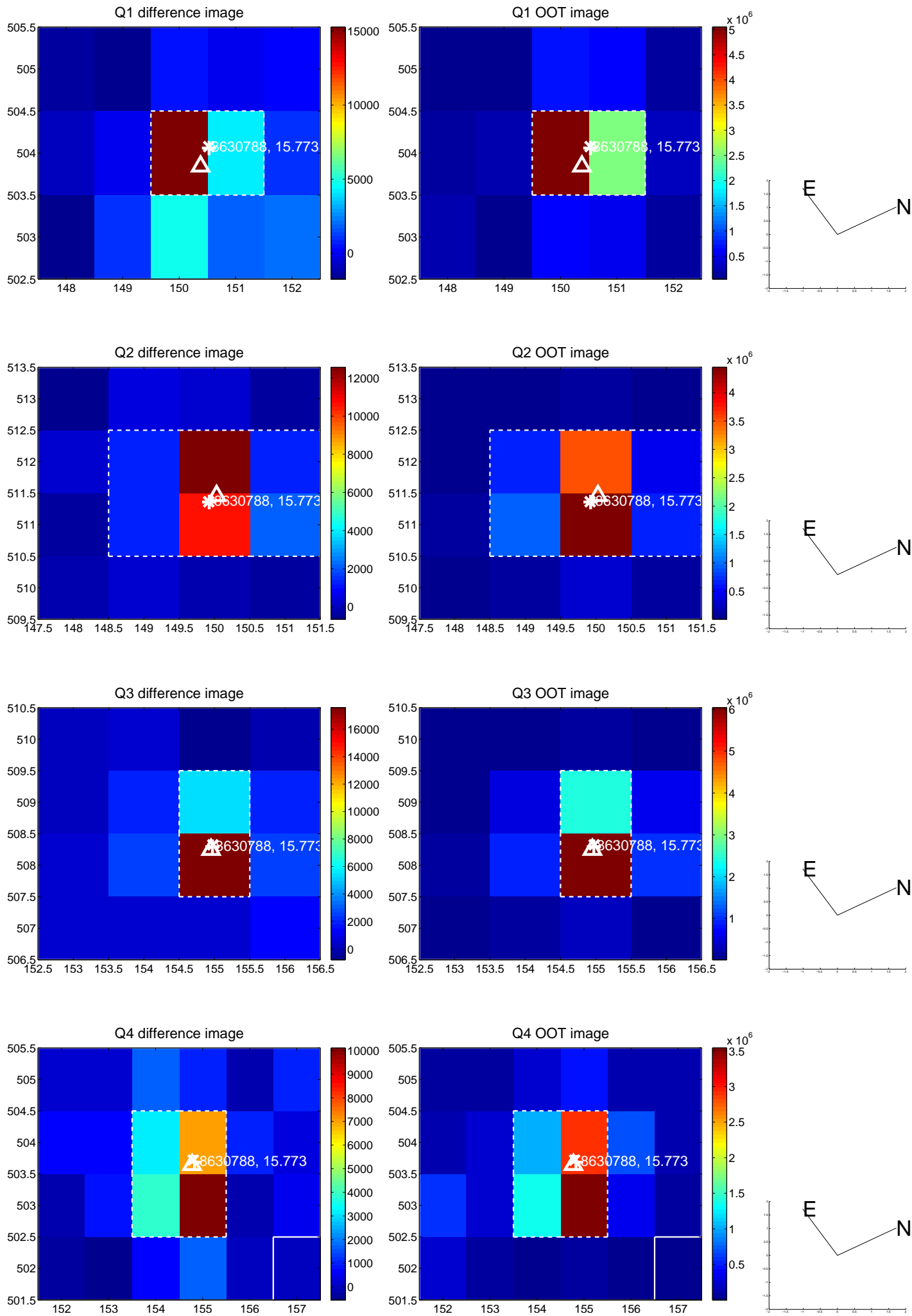
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.031 ± 0.106	0.29	-0.012 ± 0.092	-0.029 ± 0.110
PRF-fit source offset from KIC position	0.122 ± 0.093	1.32	-0.114 ± 0.094	-0.043 ± 0.109
photometric centroid source offset	0.43 ± 0.14	3.00	-0.20 ± 0.13	-0.38 ± 0.15

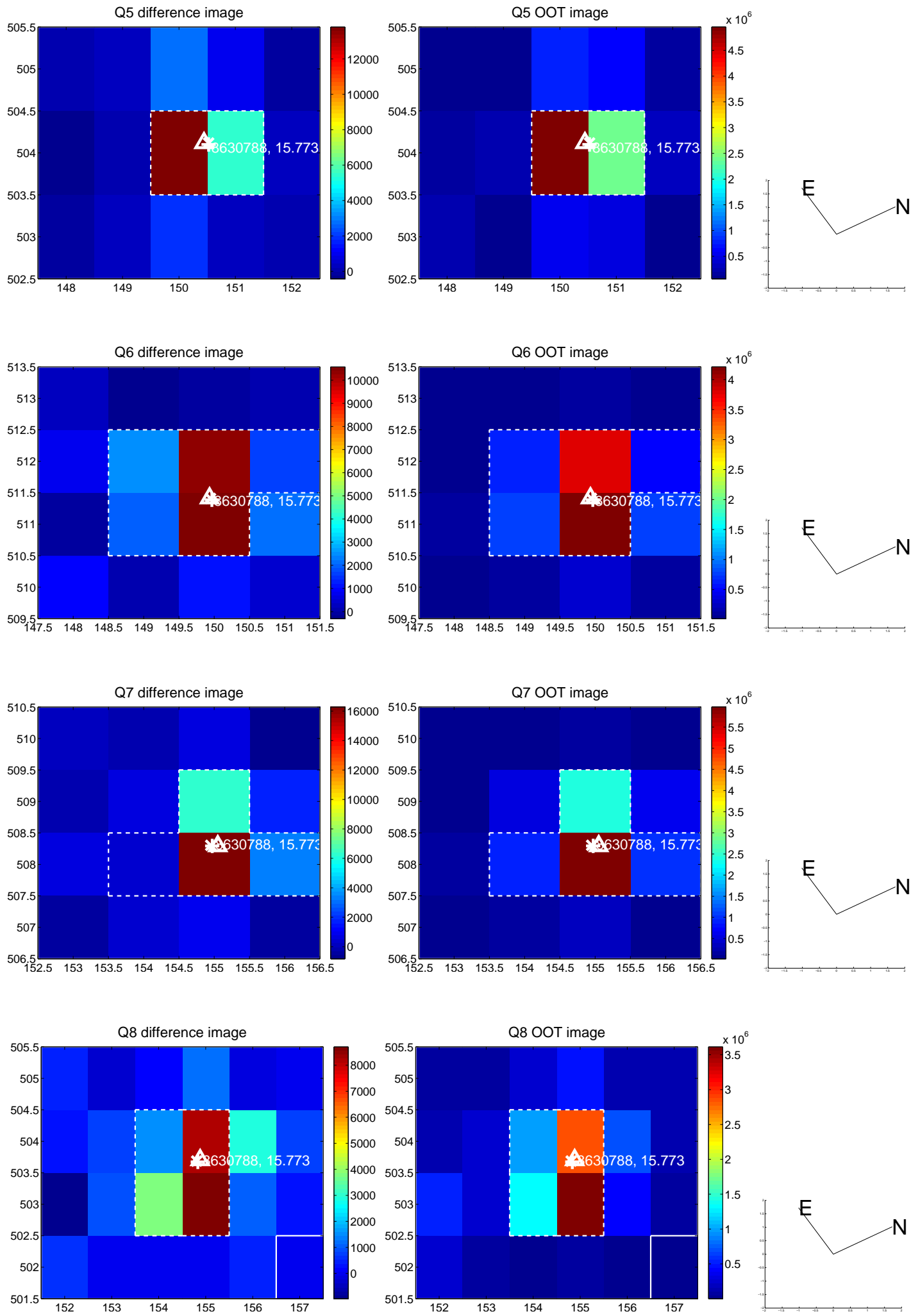


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

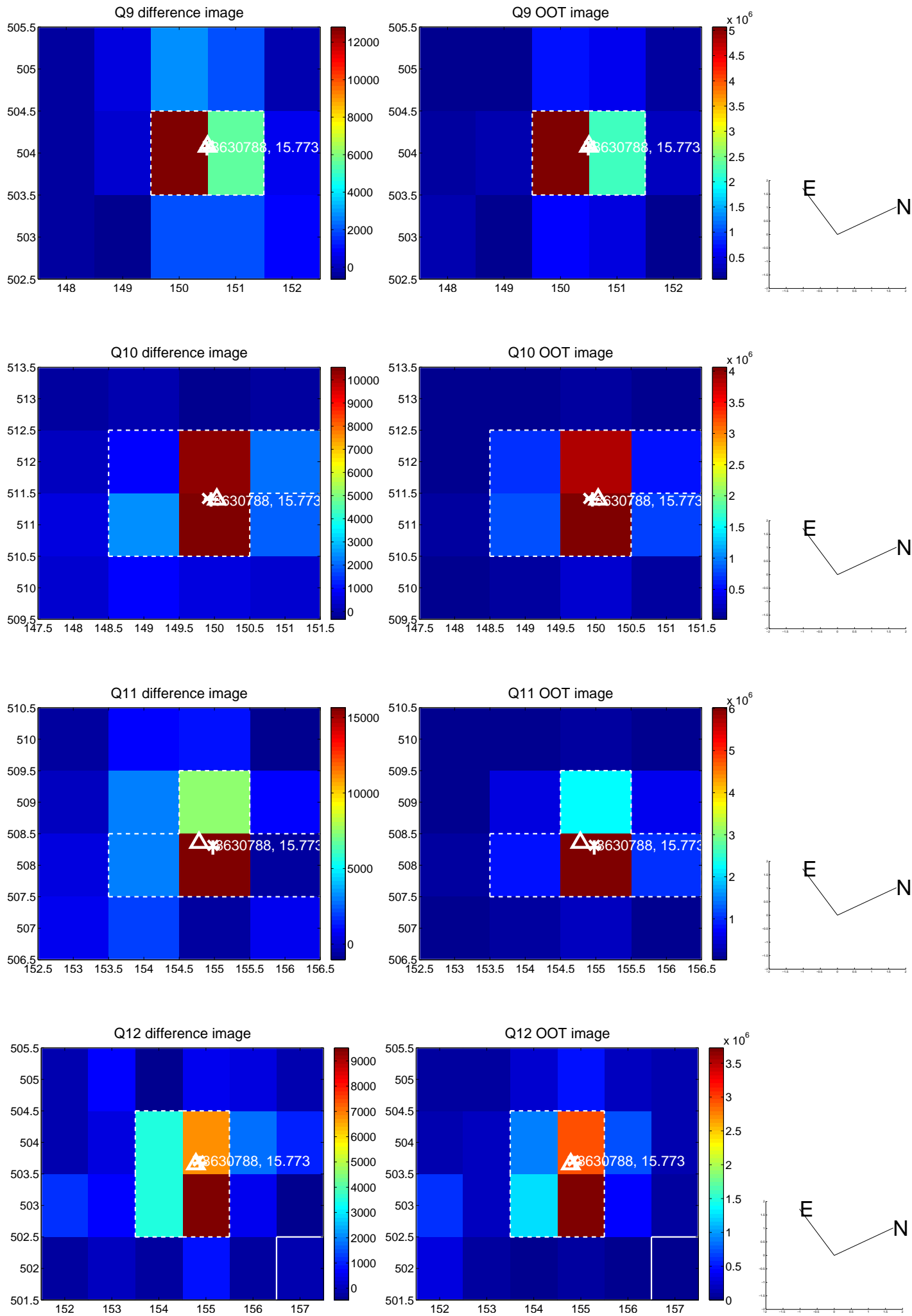
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



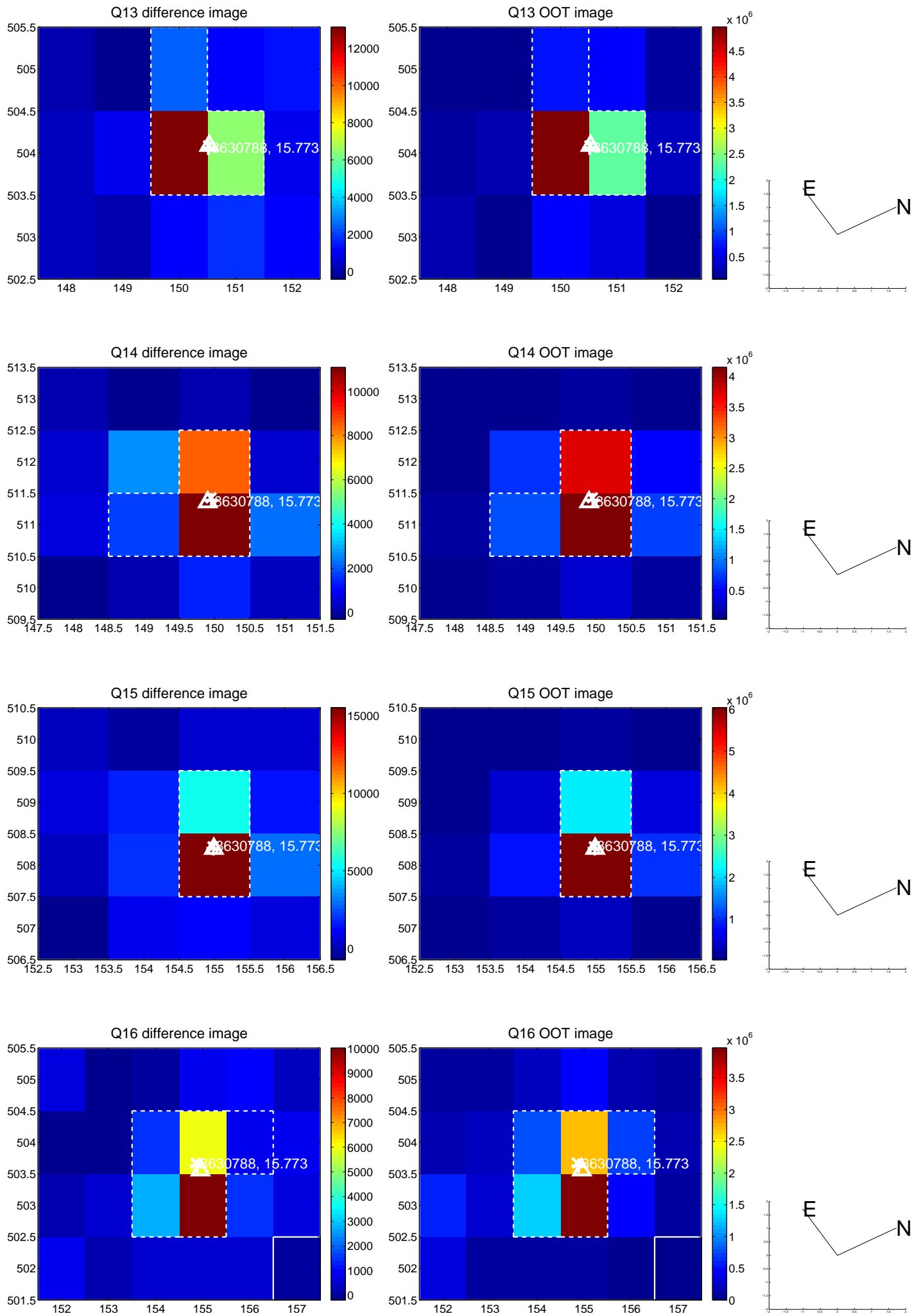
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



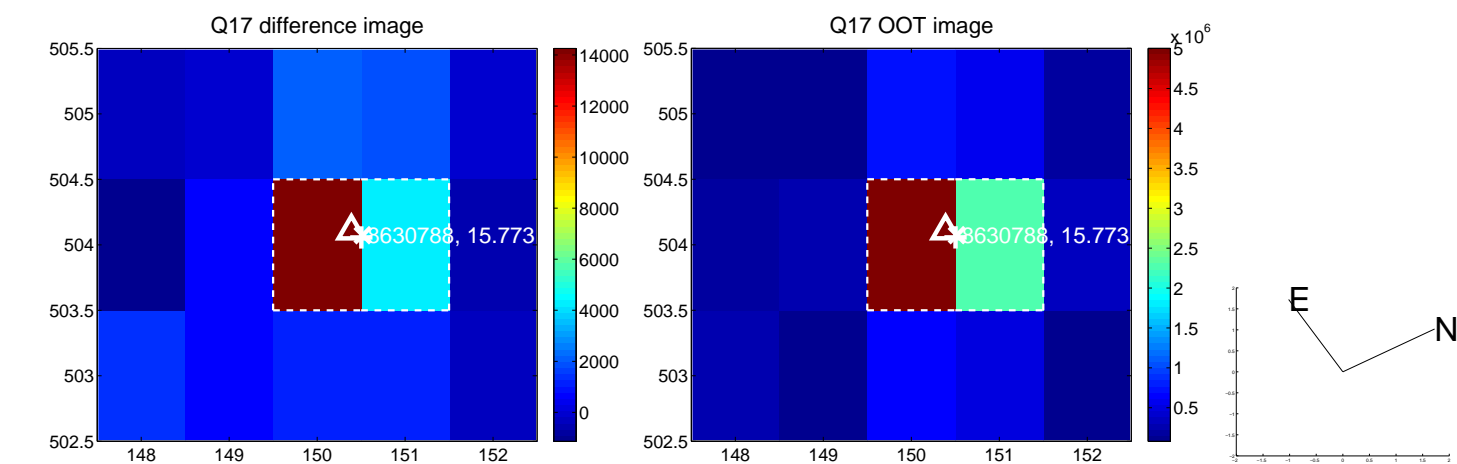
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



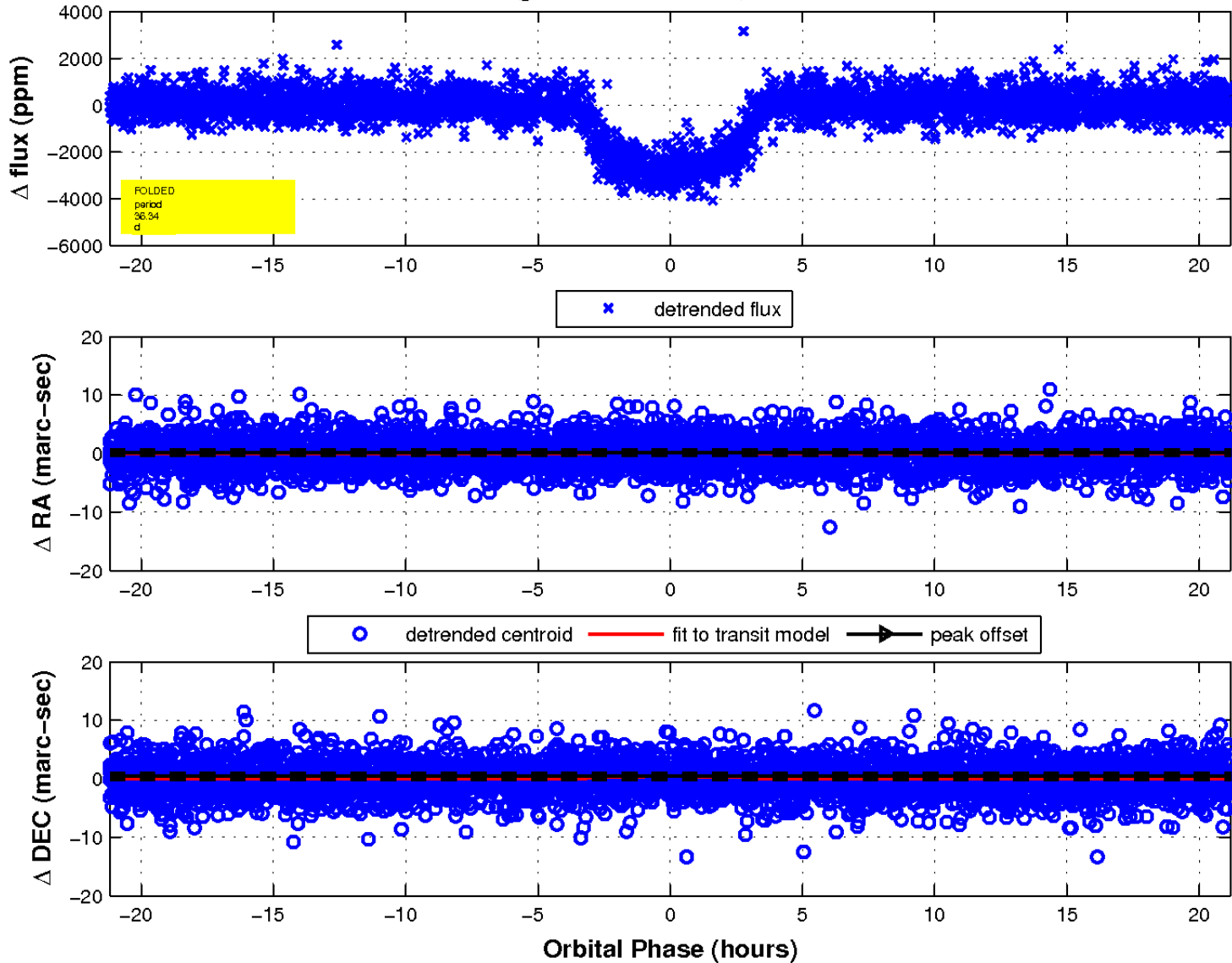
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

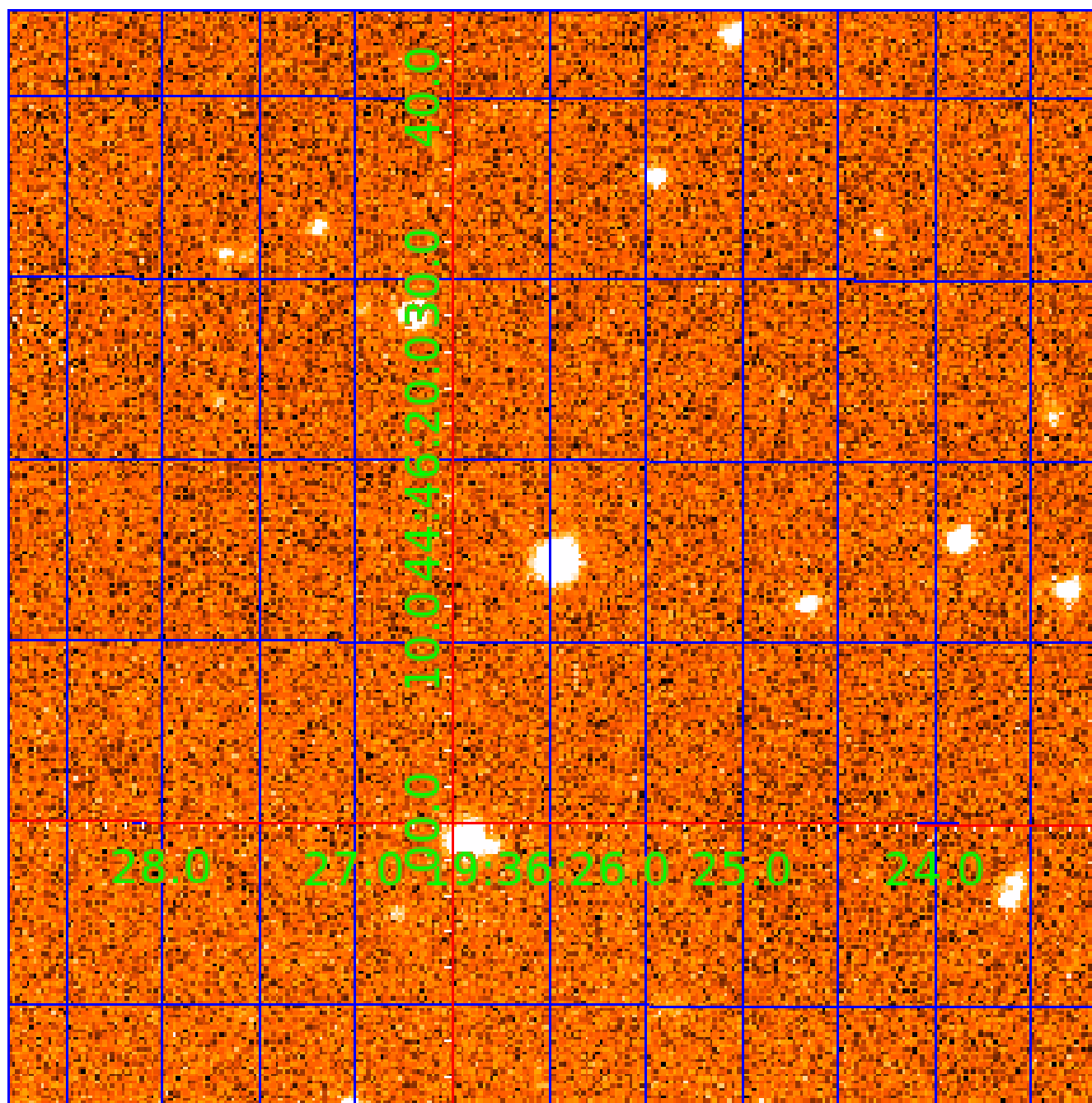


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 008630788

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})
008630788-01	OBS	1258.01	36.337440	160.398972	2818.1	7.068	83.9	83.8	0.88	5717	5.29	16.40
008630788-02	OBS	1258.02	14.646213	136.516987	577.0	6.161	24.7	25.7	0.88	5717	2.60	55.07
008630788-03	OBS	1258.03	148.271996	138.006148	1580.5	4.308	18.5	18.7	0.88	5717	4.12	2.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008630788-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008630788-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008630788-03	OBS	PC	0.96	0	0	0	0	NO_COMMENT

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

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

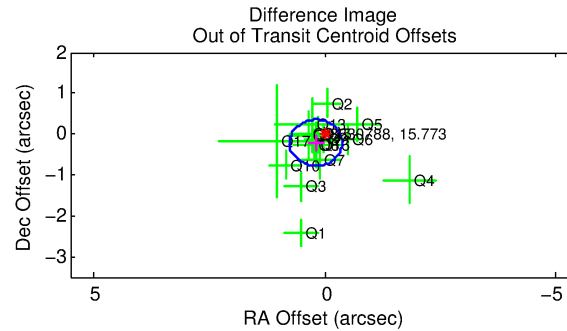
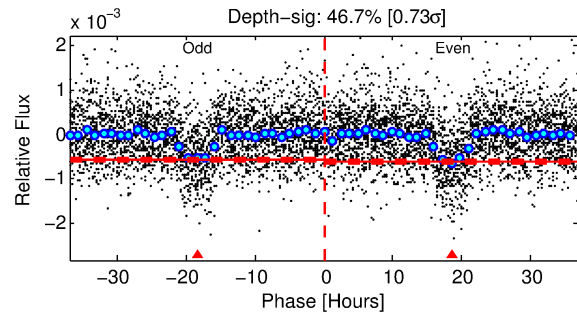
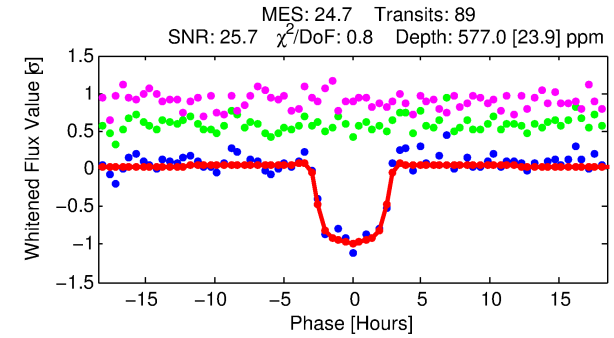
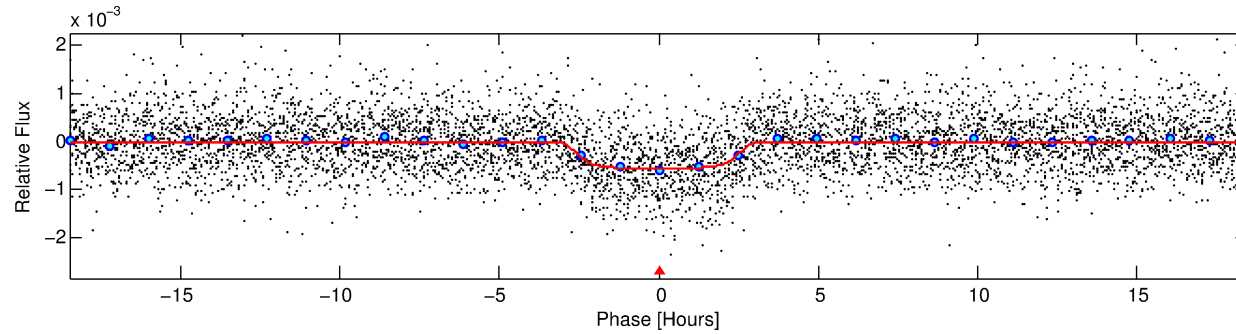
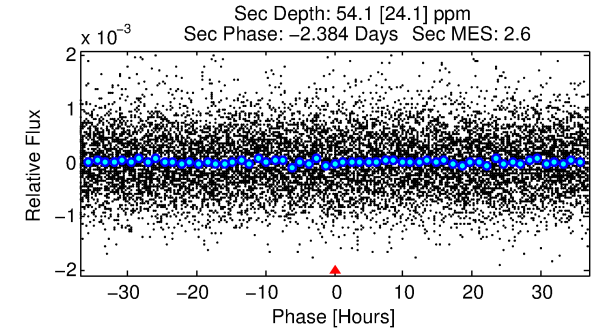
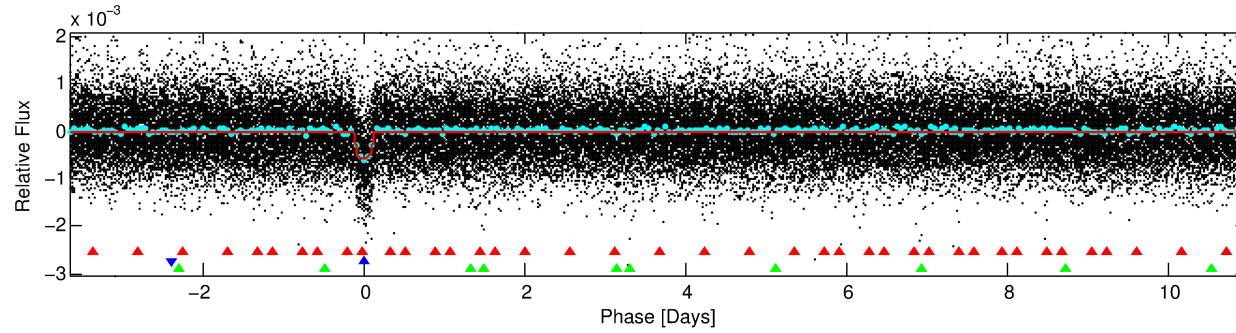
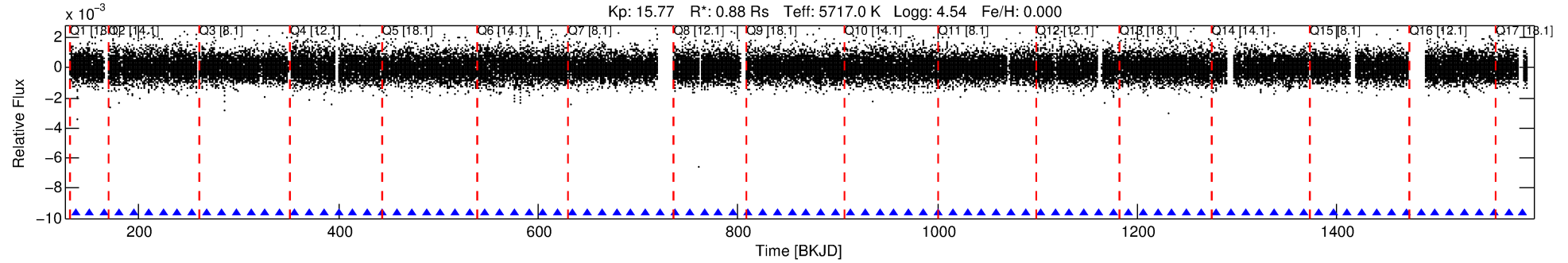
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008630788-02

No Significant Match Found

DV One-Page Summary

KIC: 8630788 Candidate: 2 of 3 Period: 14.646 d
KOI: K01258.02 Name: Kepler-281b Corr: 0.956



DV Fit Results:

Period = 14.64621 [0.00009] d
Epoch = 136.5170 [0.0051] BKJD
Rp/R* = 0.0270 [0.0013]
a/R* = 8.15 [1.52]
b = 0.93 [0.03]
Seff = 55.07 [19.64]
Teff = 695 [62] K
Rp = 2.60 [0.69] Re
a = 0.1165 [0.0262] AU
Ag = 59.62 [33.70] [1.74σ]
Teffp = 2984 [351] K [6.42σ]

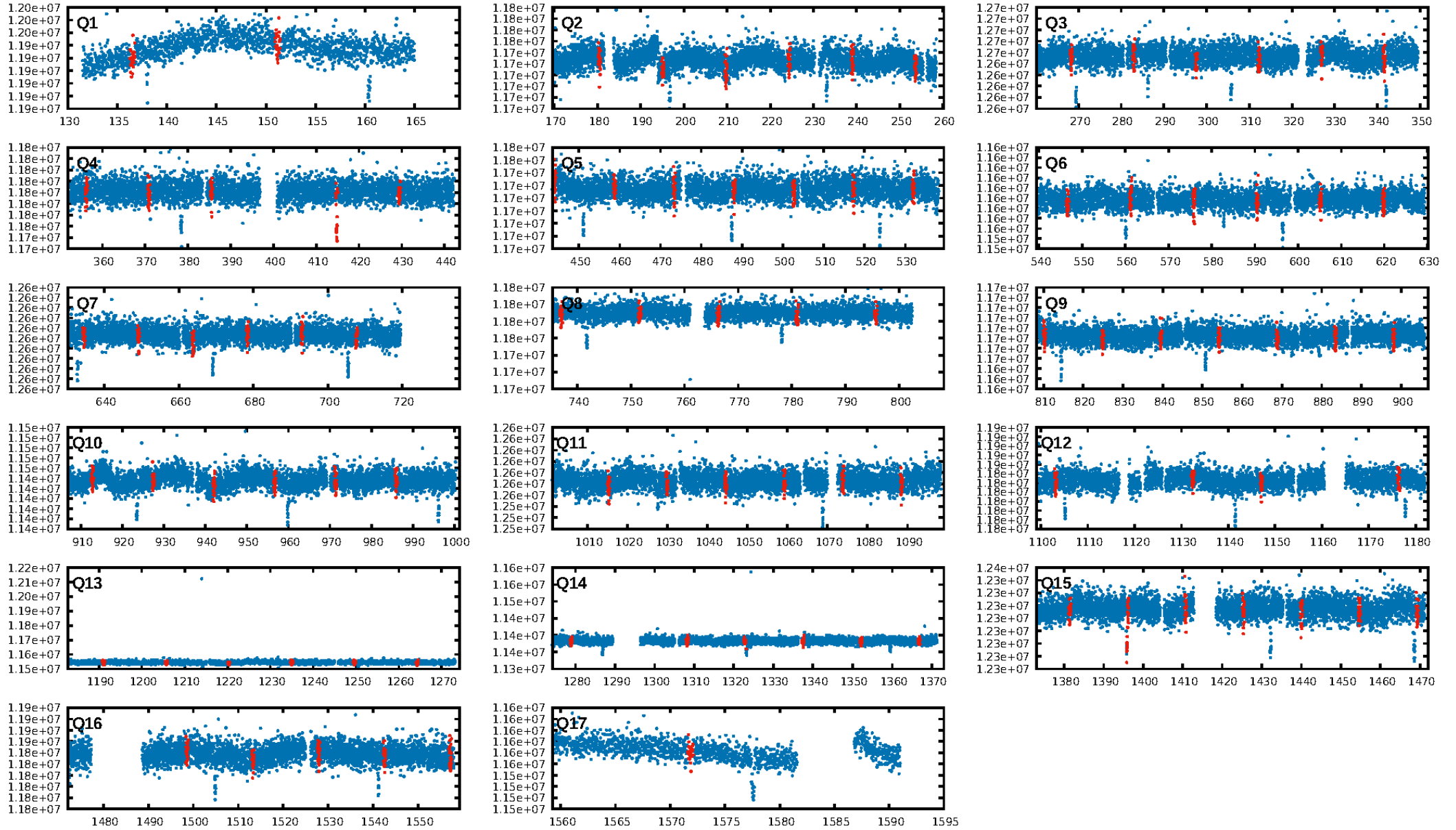
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [55.52σ]
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.30e-133
RollingBand-fgt: 1.00 [86/86]
GhostDiagnostic-chr: 6.03
Centroid-sig: 24.4%
Centroid-so: 0.737 arcsec [1.50σ]
OotOffset-rm: 0.286 arcsec [1.52σ]
KicOffset-rm: 0.248 arcsec [1.28σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

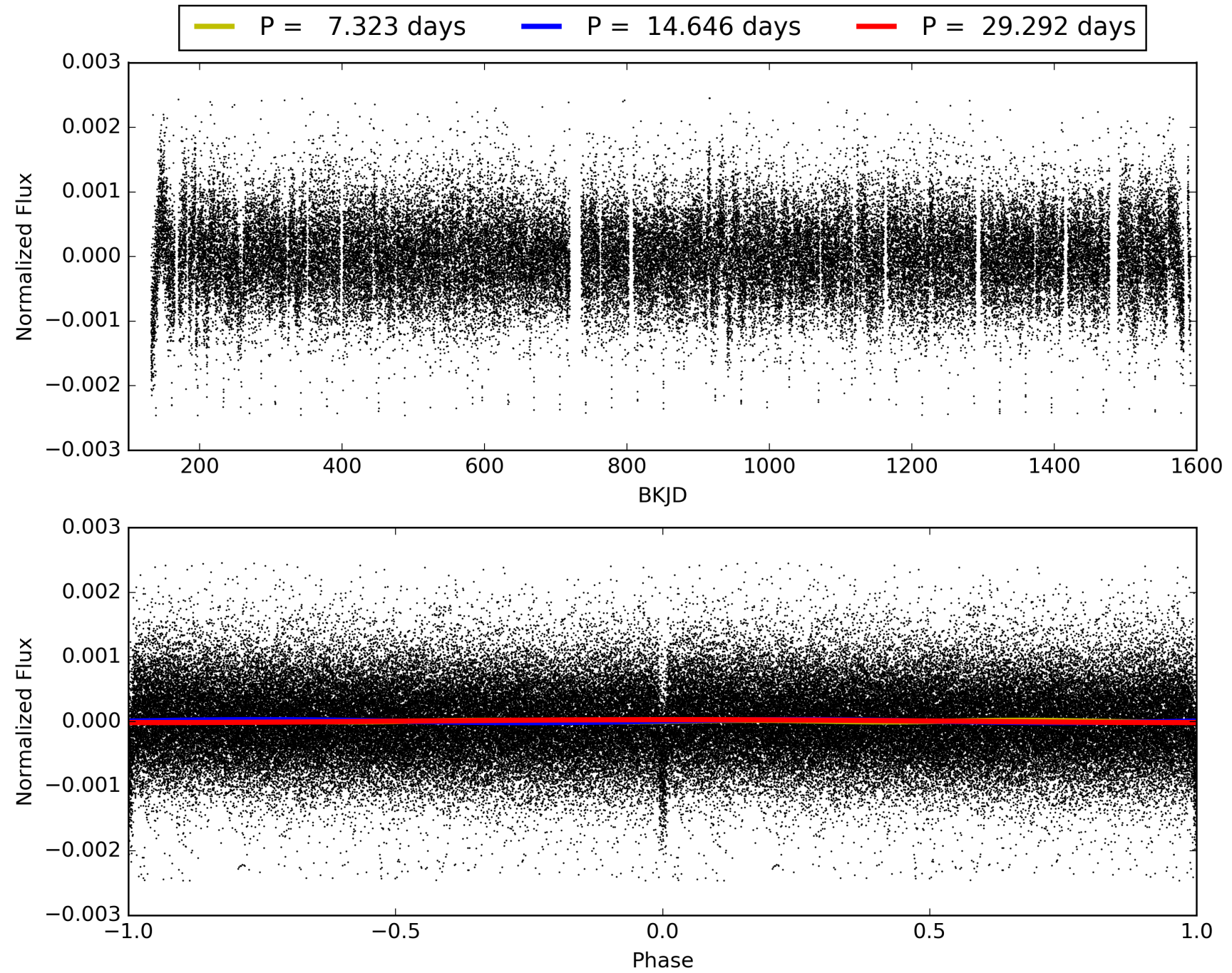
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:34:26 Z

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

TCE 008630788-02, PDC Light Curves

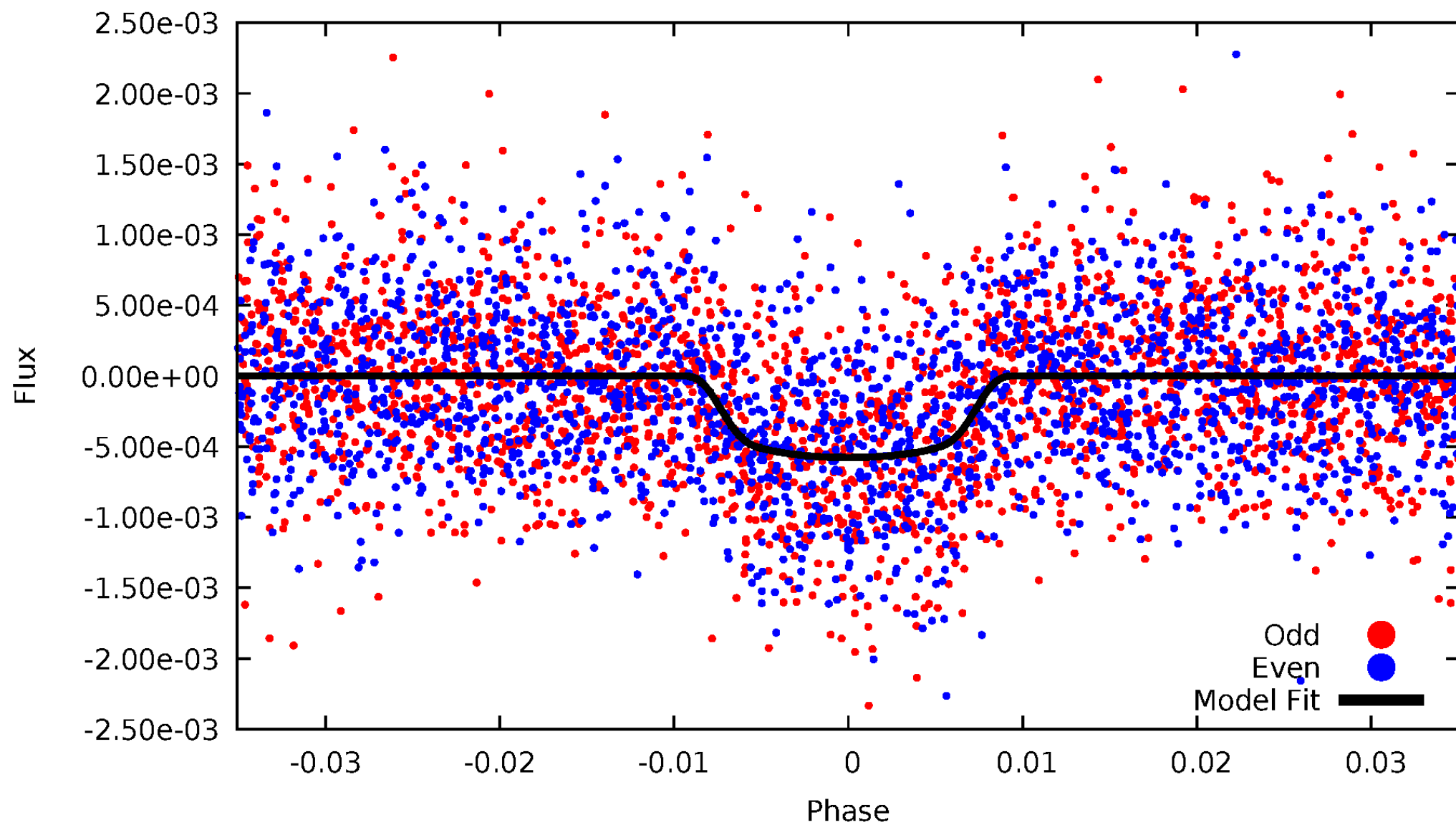


TCE 008630788-02



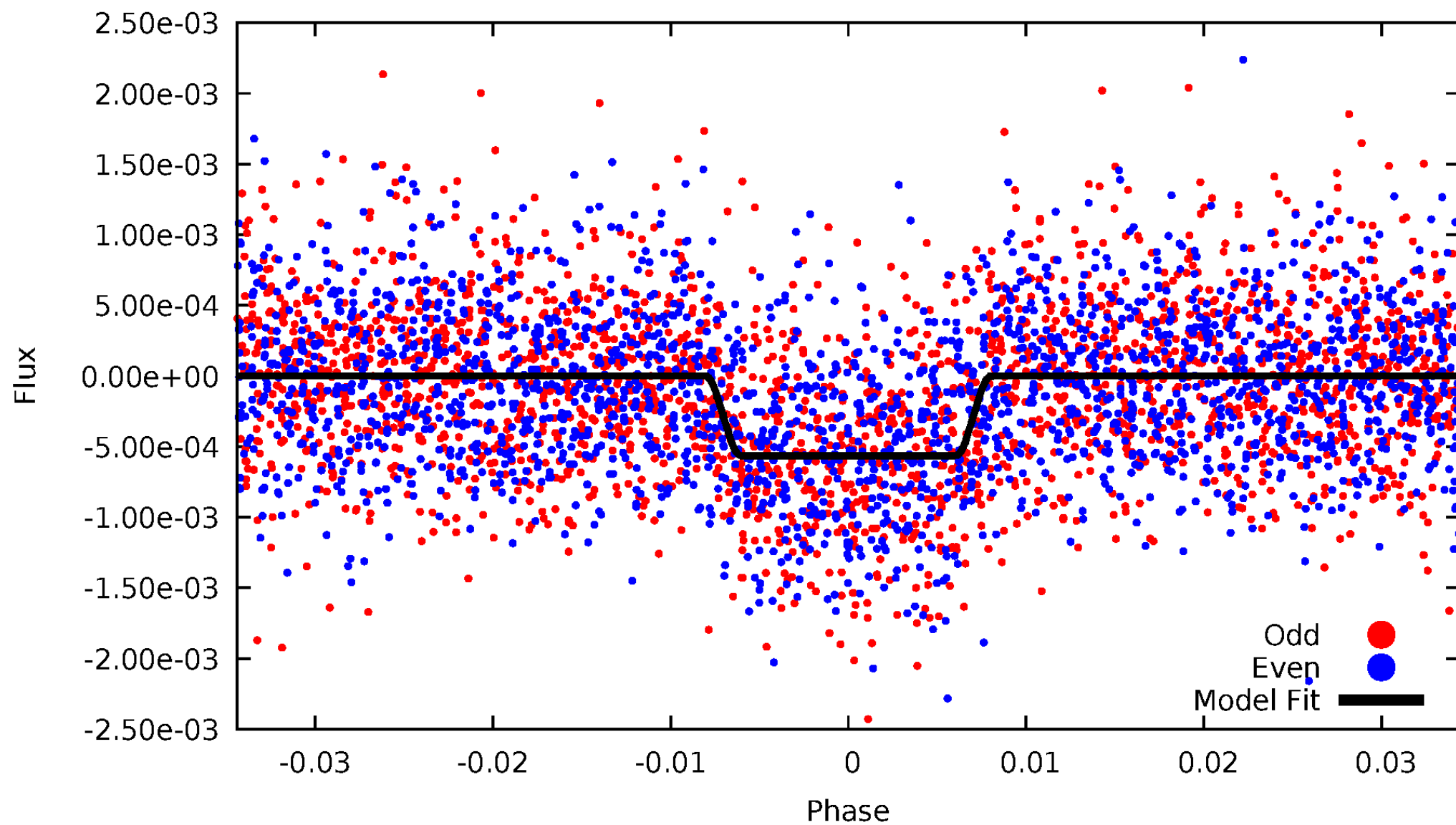
DV Odd/Even

TCE 008630788-02



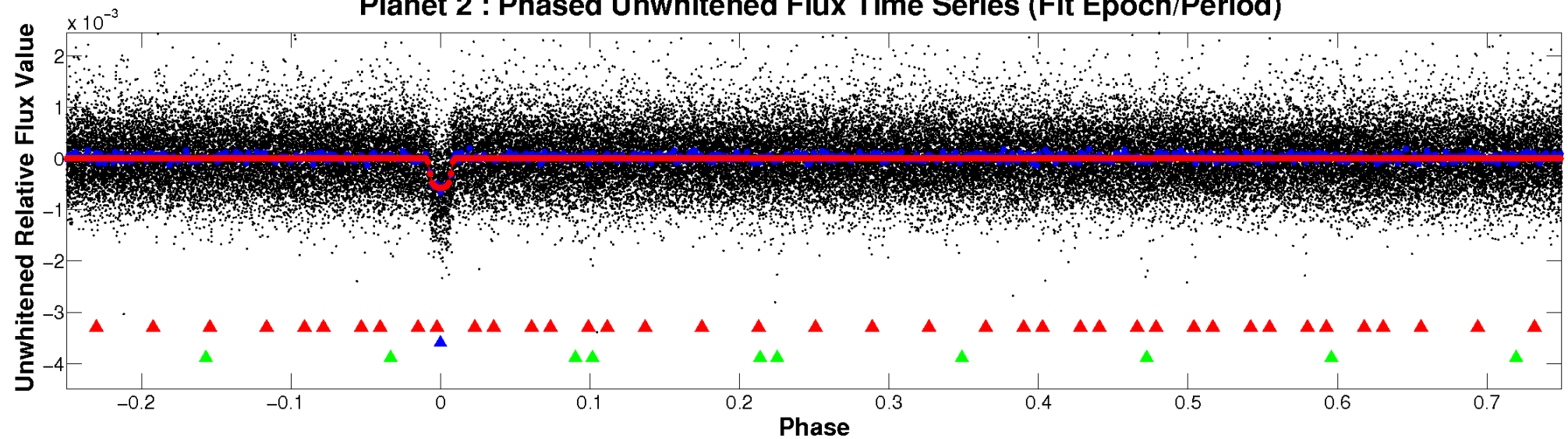
ALT Odd/Even

TCE 008630788-02

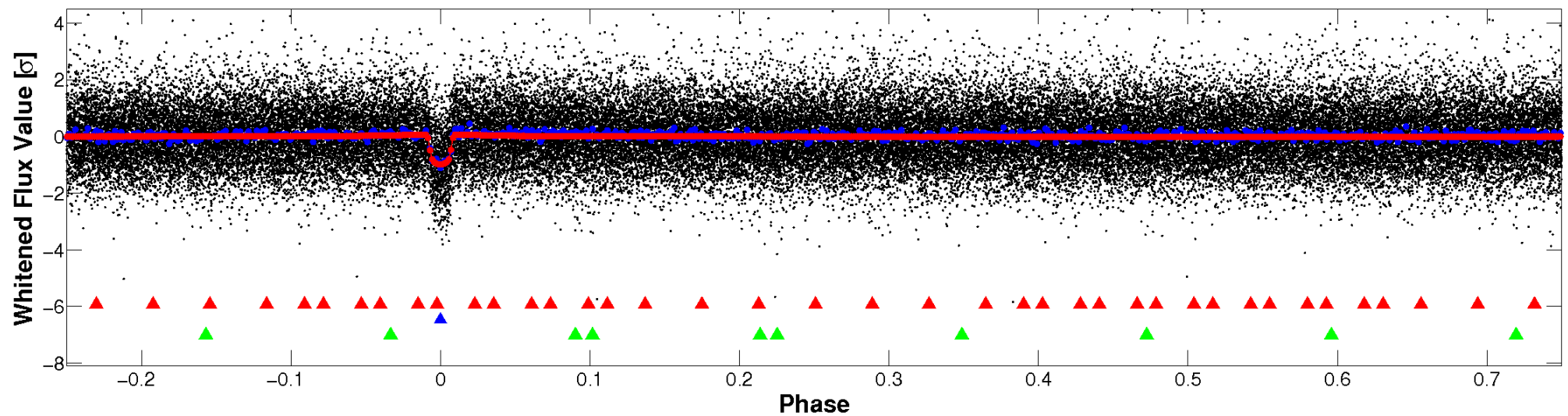


Non-Whitened Vs. Whitened Light Curve

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

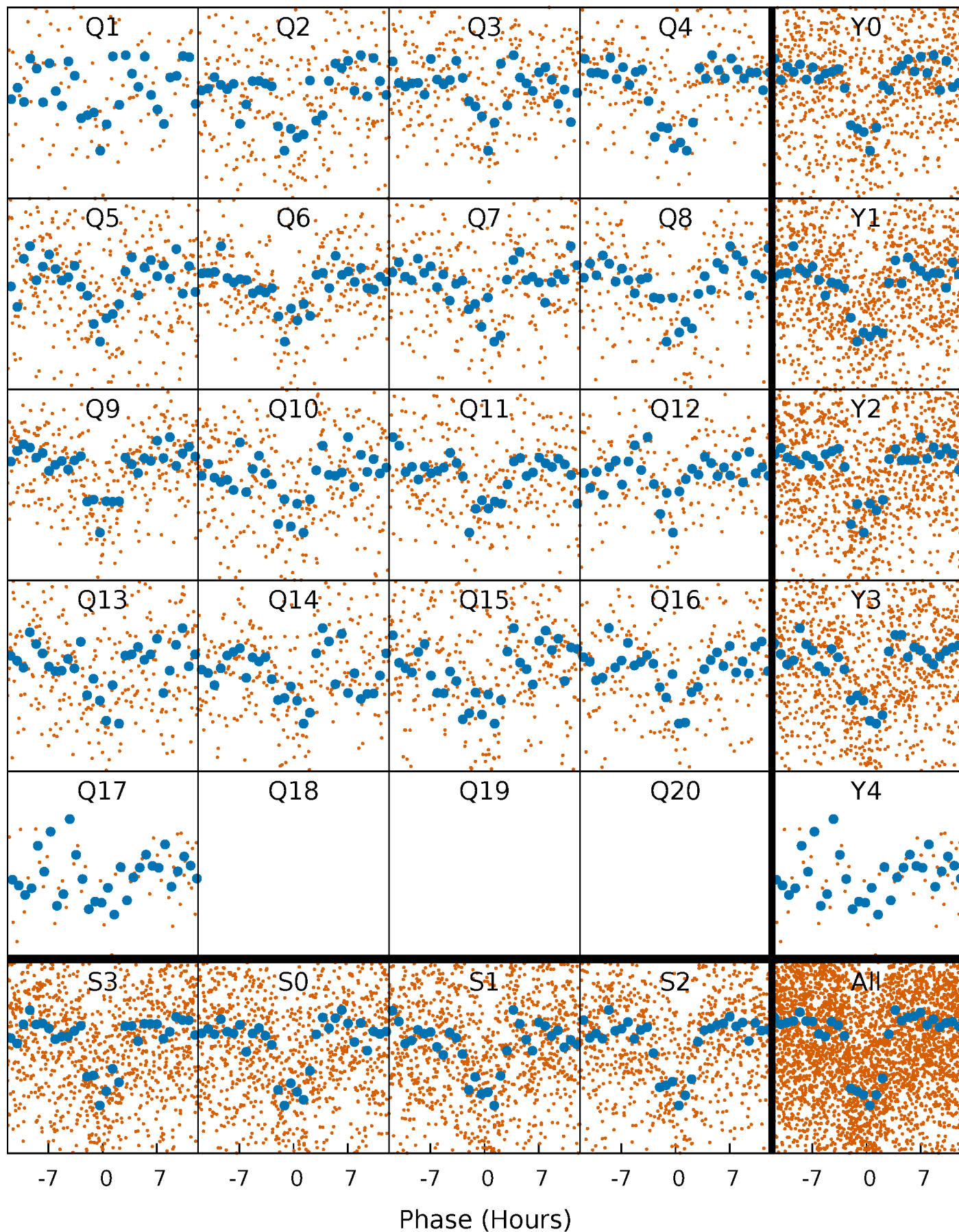


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



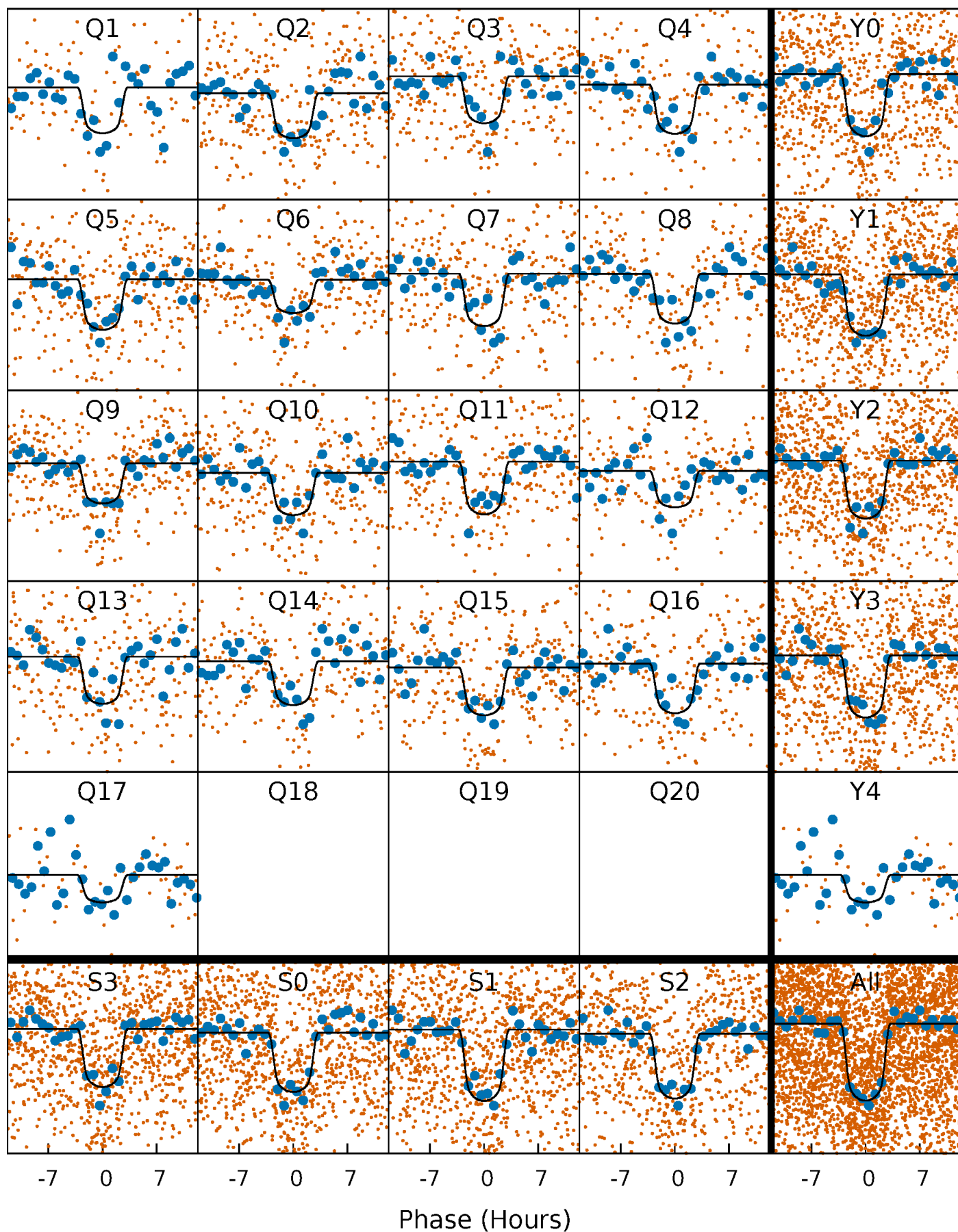
PDC Quarter-Phased Transit Curves

TCE 008630788-02 P= 14.646213 Days $T_0=136.516987$ (BKJD)



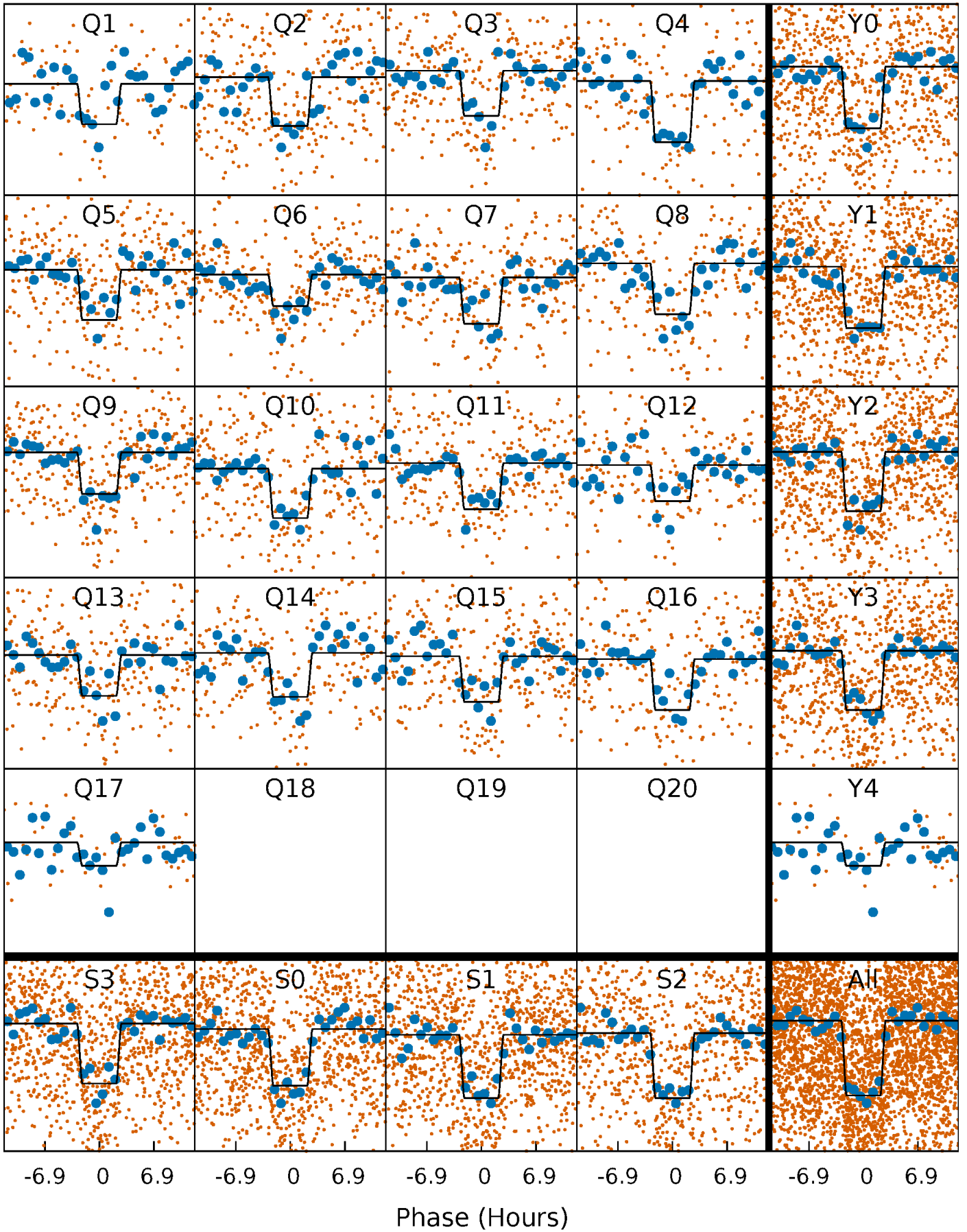
DV Quarter-Phased Transit Curves

TCE 008630788-02 P= 14.646213 Days $T_0=136.516987$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

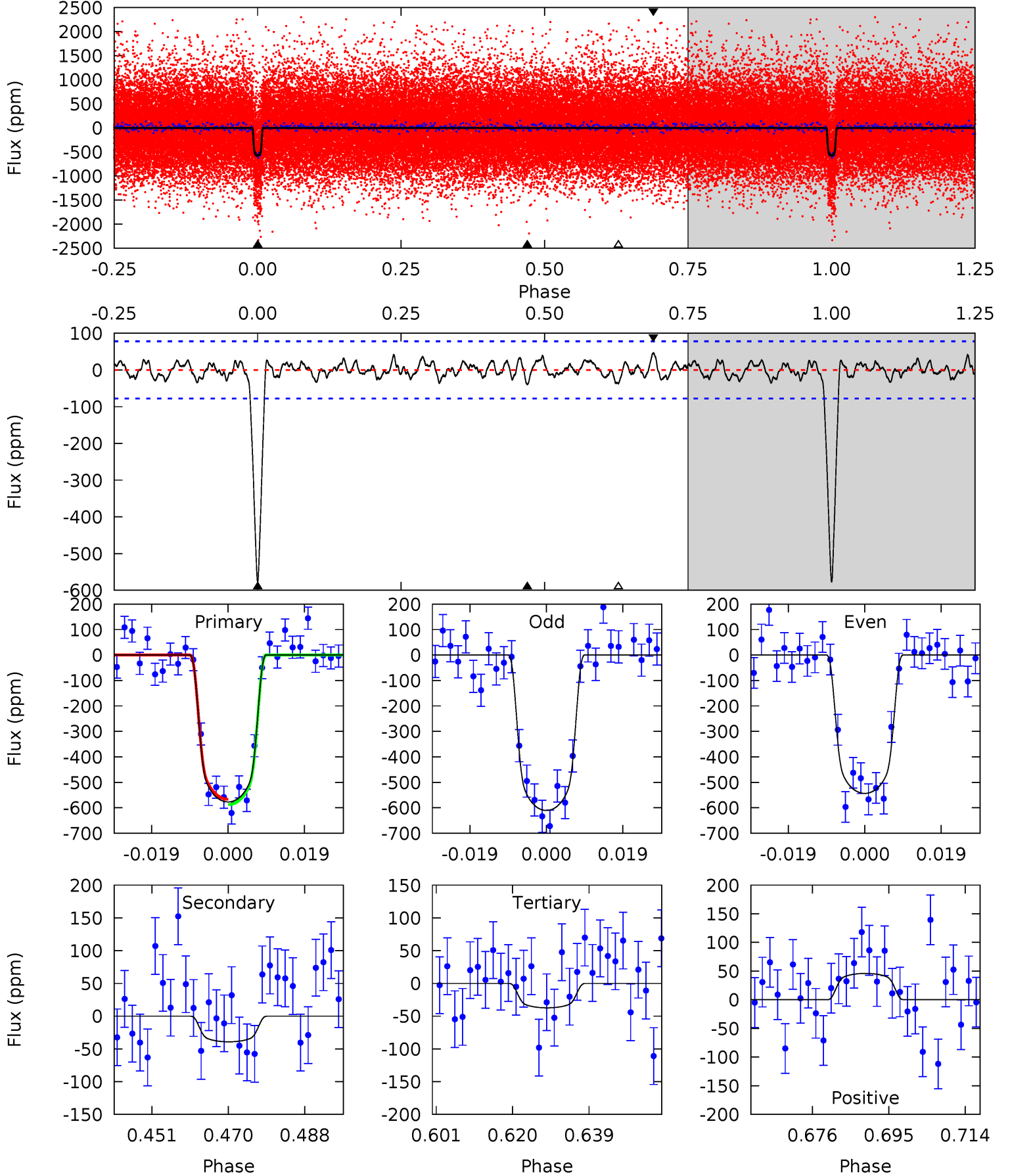
TCE 008630788-02 P= 14.646210 Days $T_0=136.517836$ (BKJD)



DV Model-Shift Uniqueness Test

008630788-02, $P = 14.646213$ Days, $E = 121.870774$ Days

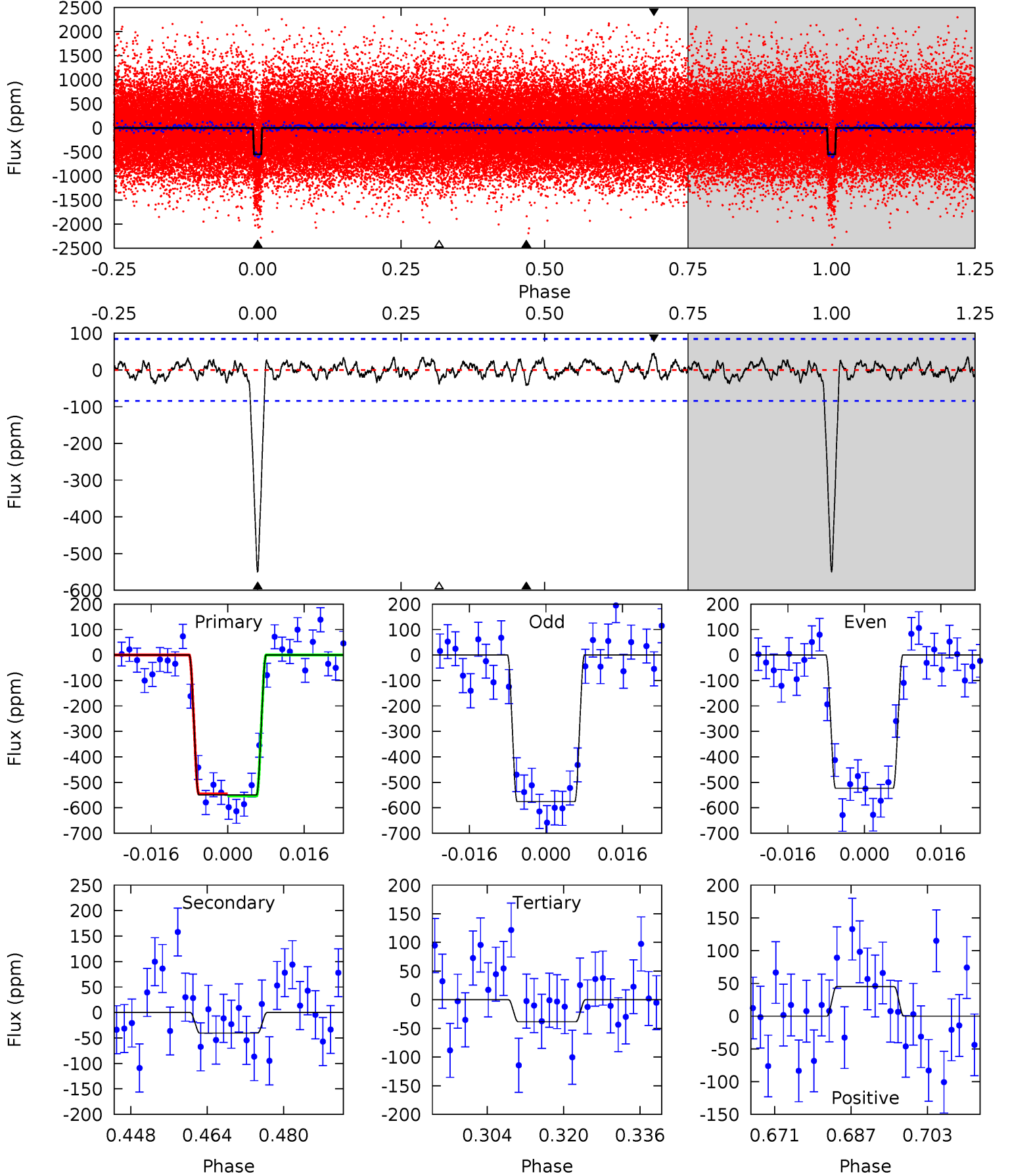
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.3	2.47	2.35	2.89	4.90	2.35	1.01	34.0	33.4	0.12	-0.42	2.12	1.02	0.07	0.66



Alt Model-Shift Uniqueness Test

008630788-02, P = 14.646210 Days, E = 121.871626 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.2	2.37	2.25	2.63	4.94	2.41	0.90	29.9	29.5	0.12	-0.26	1.54	1.03	0.08	0.22



Stellar Parameters For KIC 008630788

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5717^{+156}_{-173}	$4.538^{+0.044}_{-0.187}$	$0.000^{+0.250}_{-0.300}$	$0.884^{+0.230}_{-0.077}$	$0.984^{+0.102}_{-0.114}$	$2.006^{+0.367}_{-0.987}$
	+3%/-3%	+1%/-4%	+inf%/-inf%	+26%/-9%	+10%/-12%	+18%/-49%
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 008630788-02 / KOI 1258.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-39 ± 16	$2.68^{+0.36}_{-0.23}$	990^{+59}_{-43}	3281^{+200}_{-251}	37^{+20}_{-16}
Alt.	-41 ± 17	$2.34^{+0.34}_{-0.21}$	988^{+64}_{-42}	3428^{+241}_{-269}	51^{+26}_{-23}

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 $A_{obs} \gg 1.0$

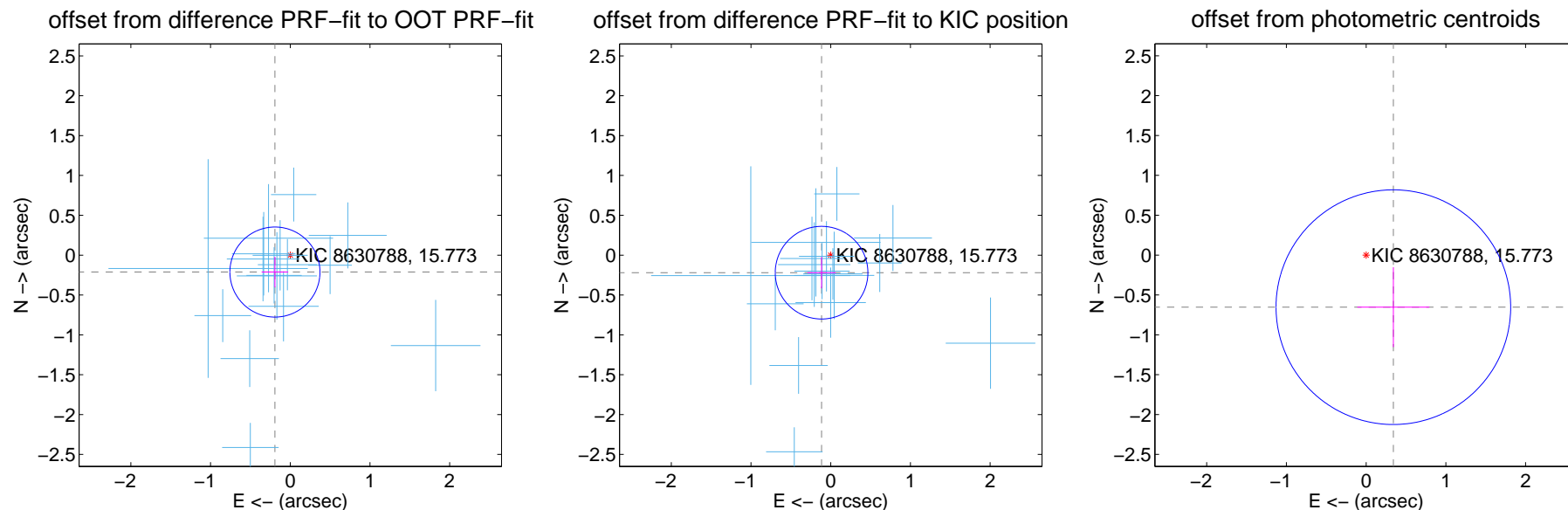
DV Centroid Data

Supplemental centroid analysis for 008630788-02. Kepler magnitude: 15.77. Transit SNR 25.65

There are 16 quarters with good PRF difference image offsets

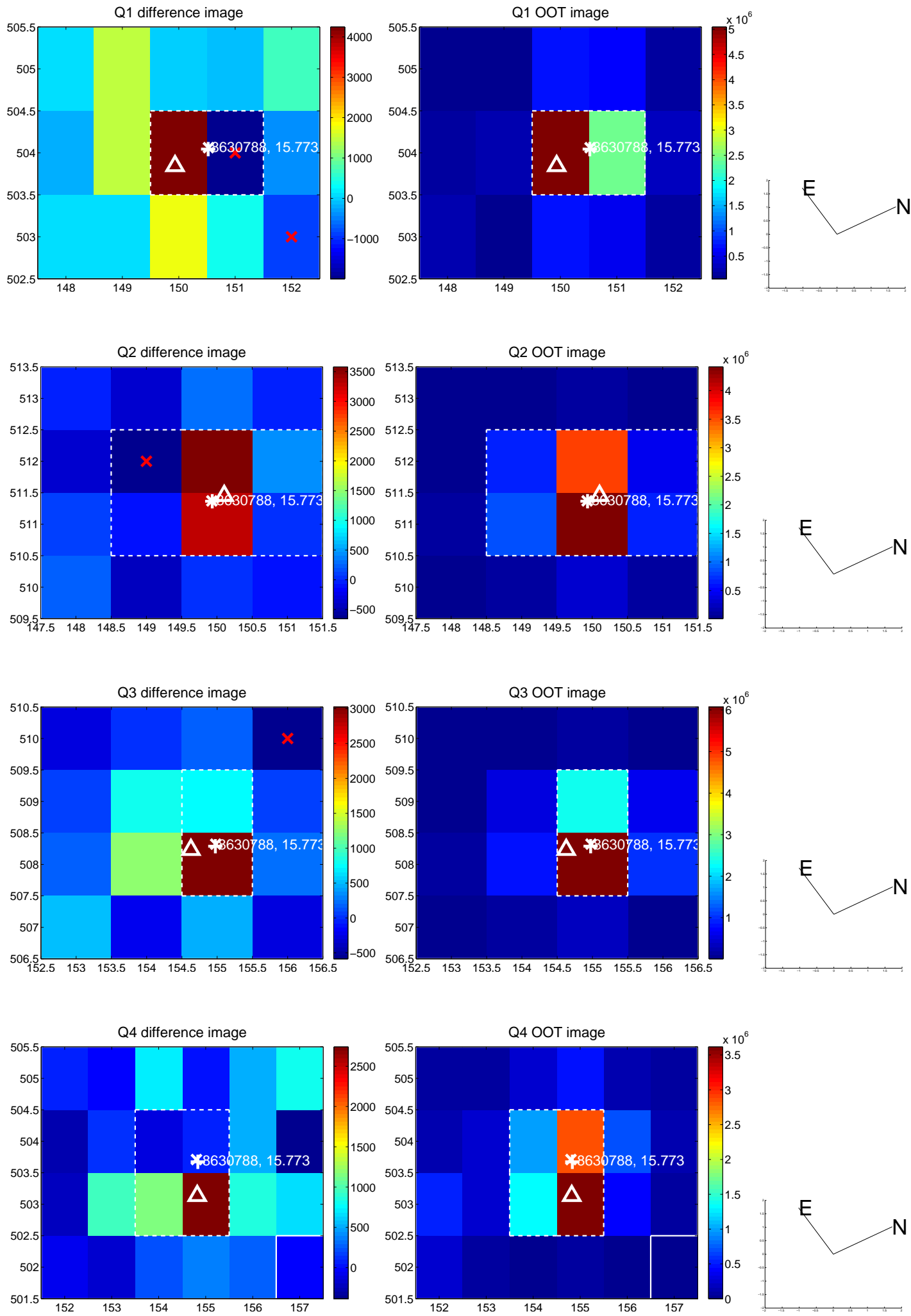
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.286 ± 0.188	1.52	0.192 ± 0.167	-0.212 ± 0.191
PRF-fit source offset from KIC position	0.248 ± 0.194	1.28	0.115 ± 0.178	-0.220 ± 0.196
photometric centroid source offset	0.74 ± 0.49	1.50	-0.34 ± 0.45	-0.65 ± 0.50

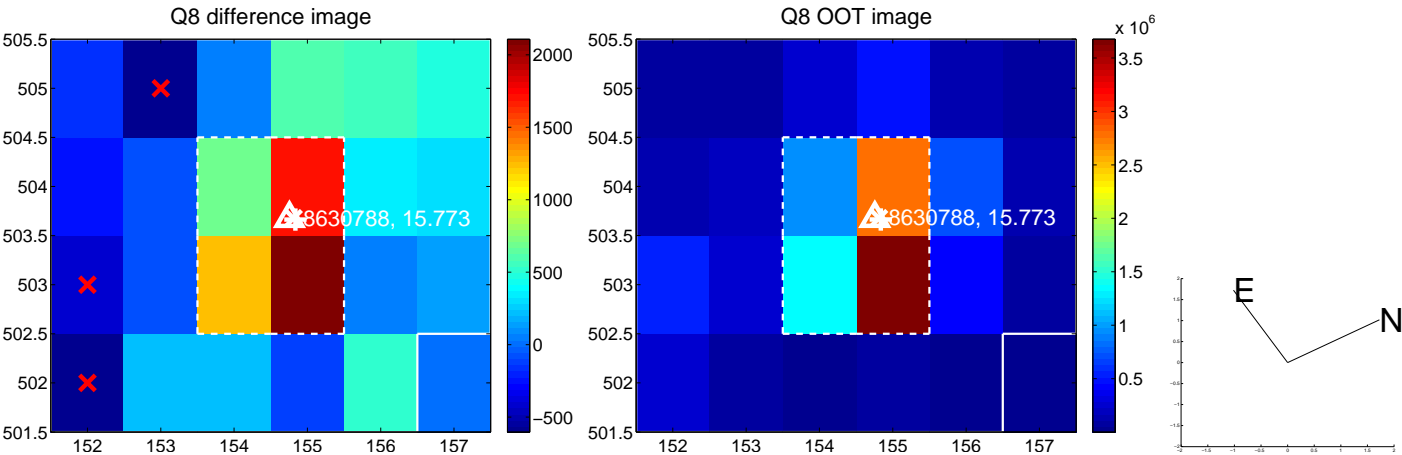
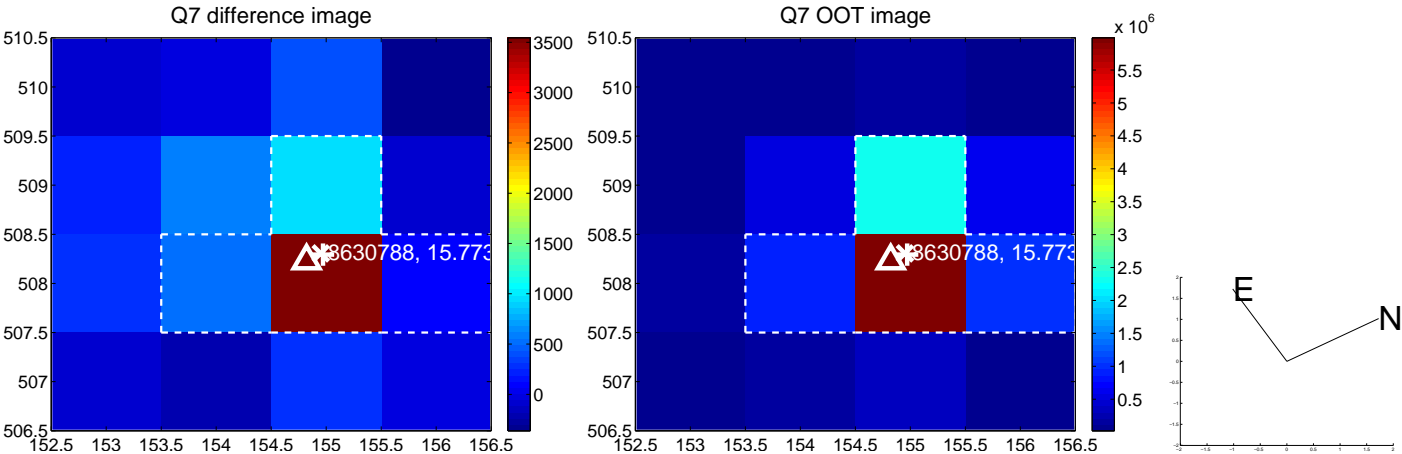
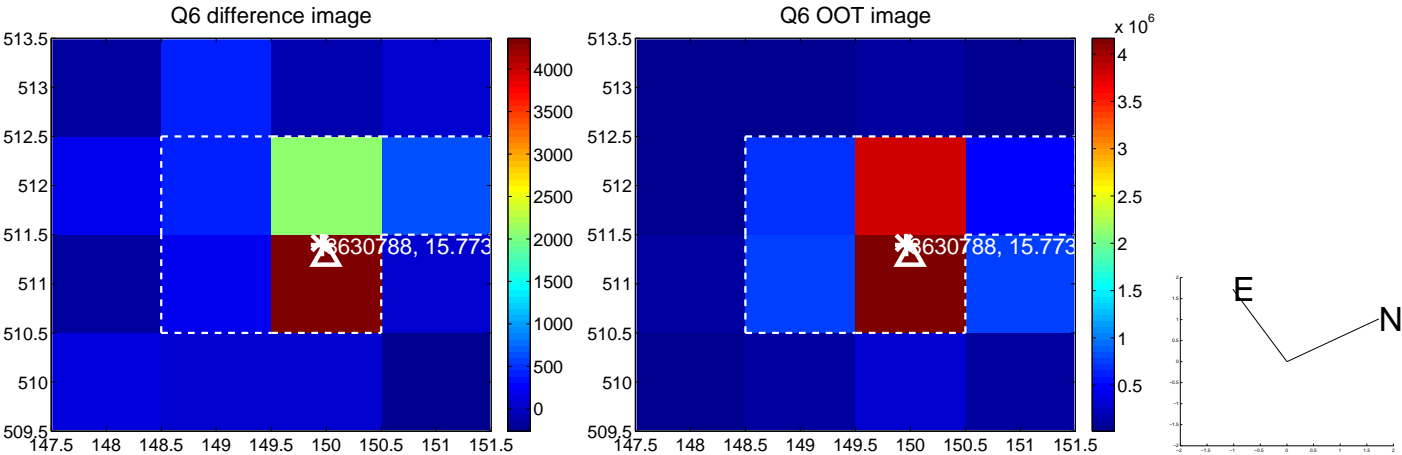
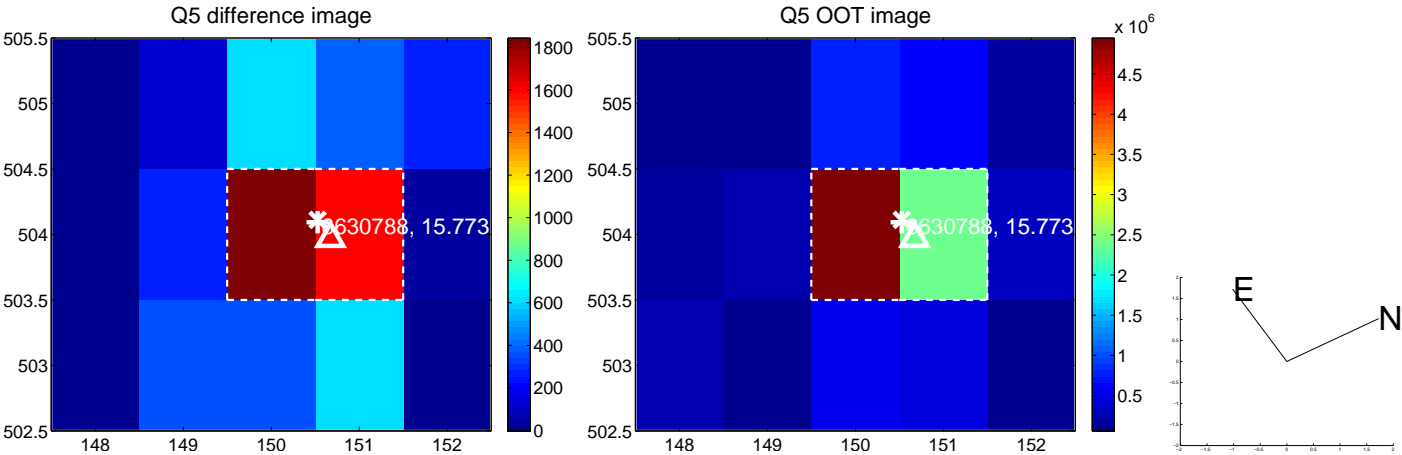


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

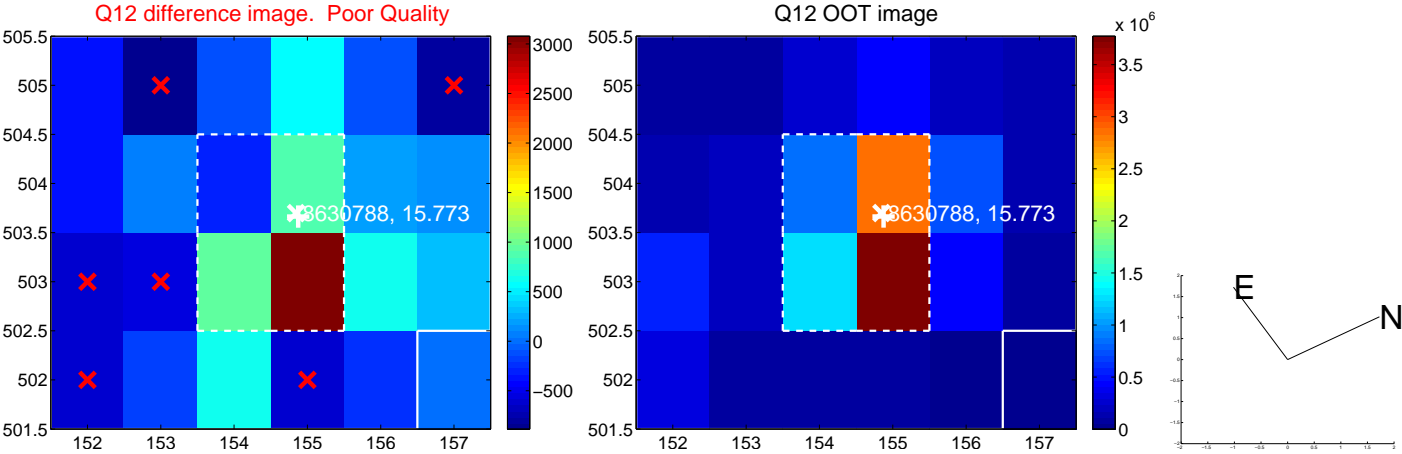
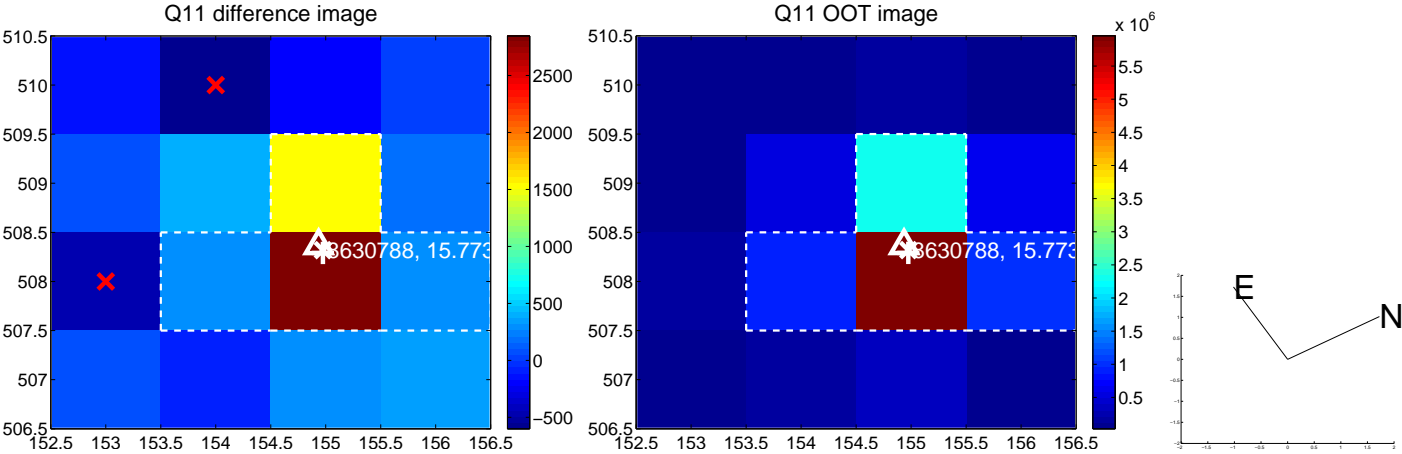
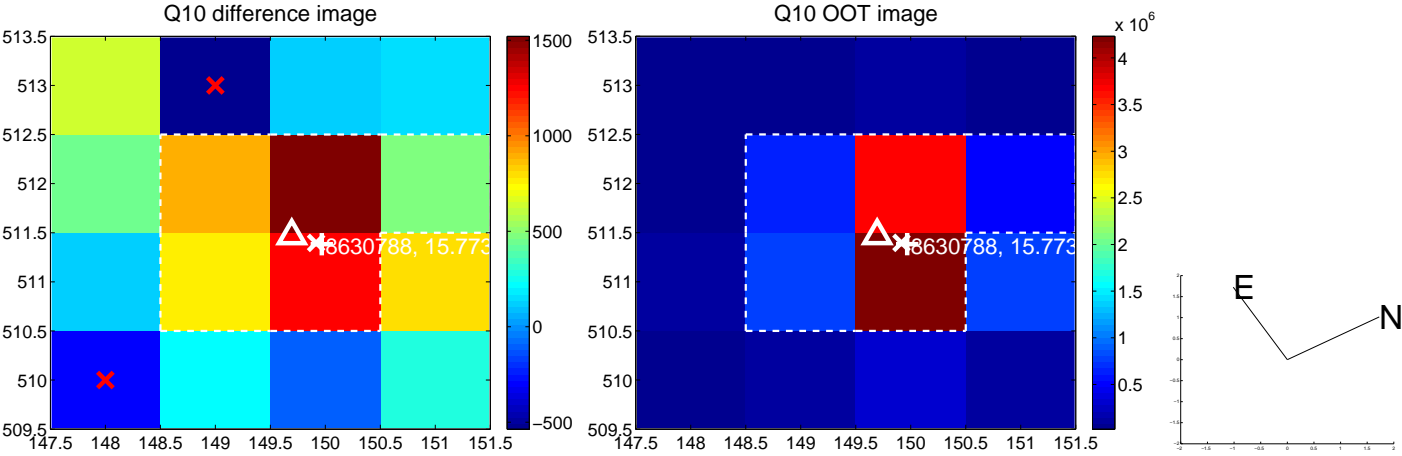
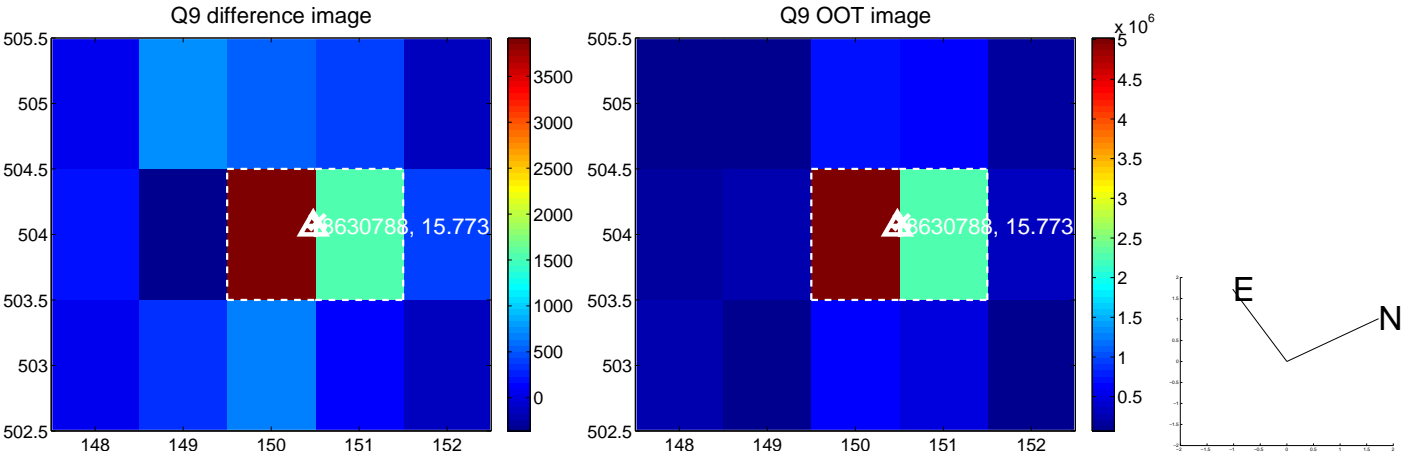
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



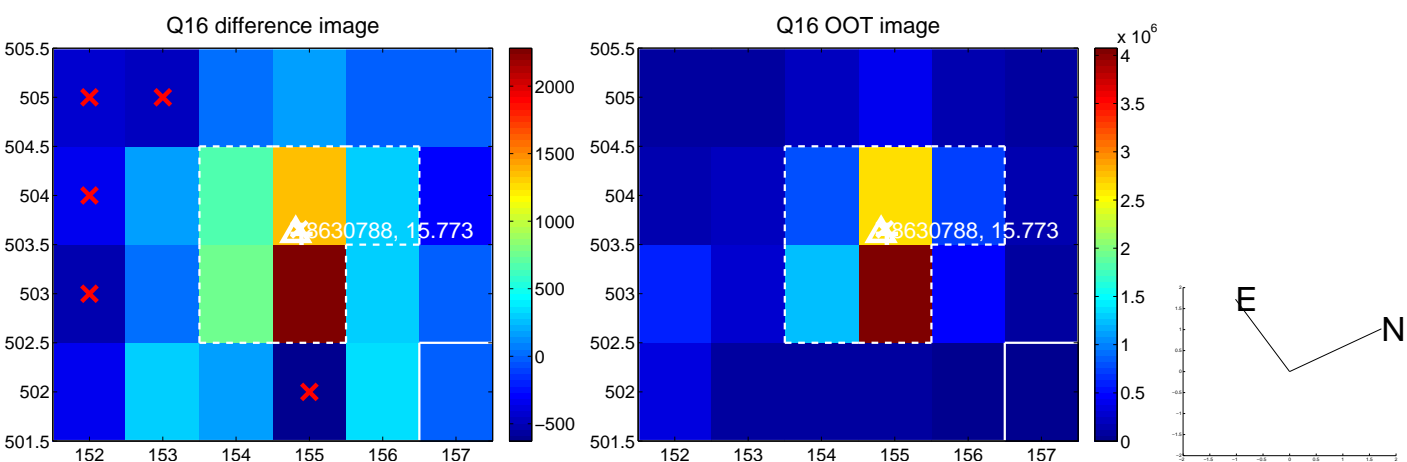
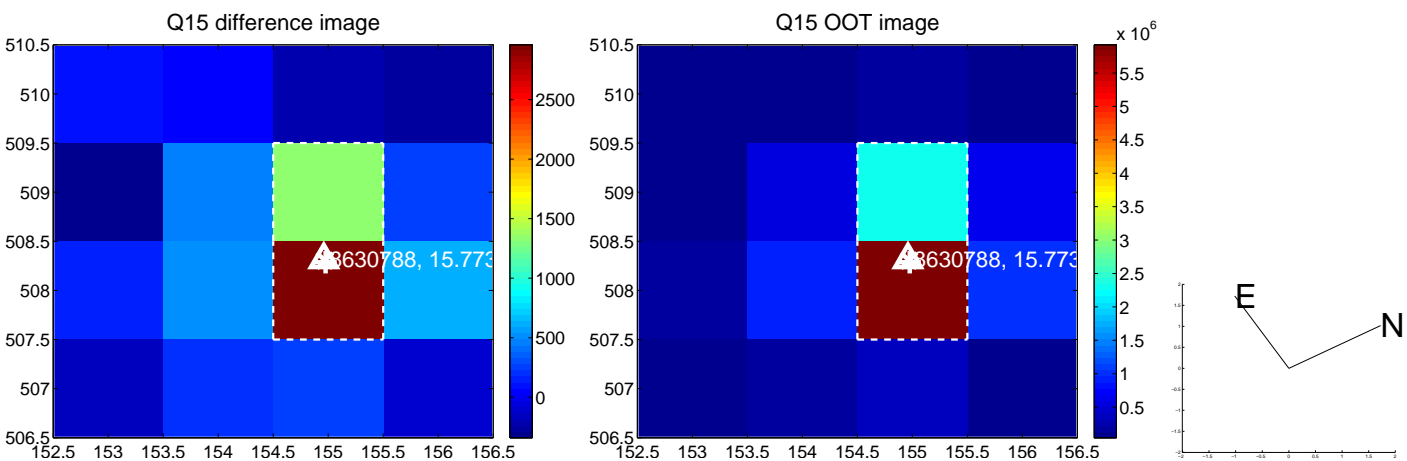
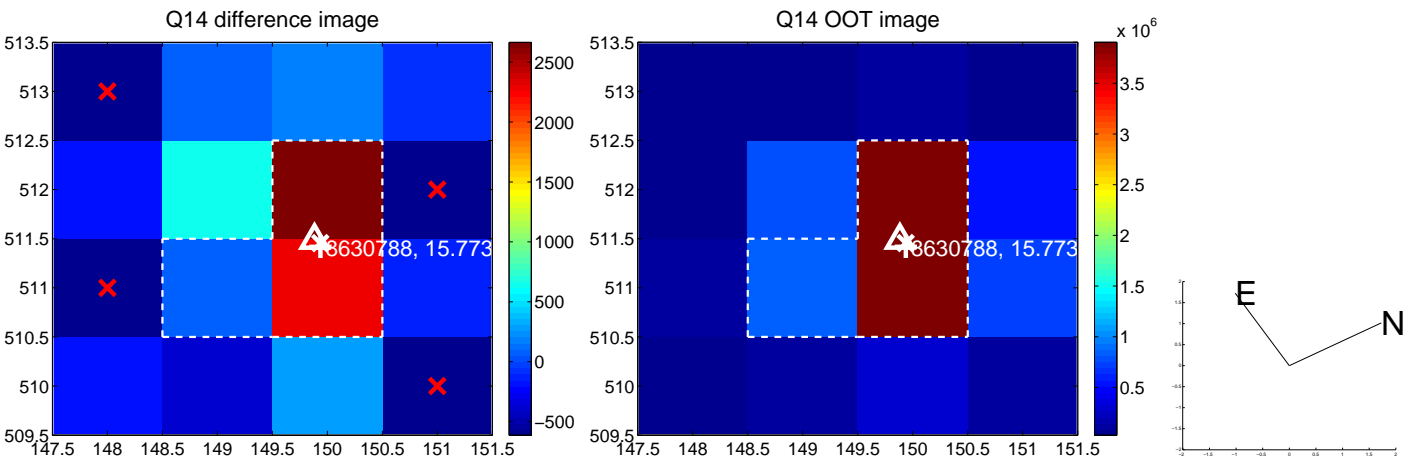
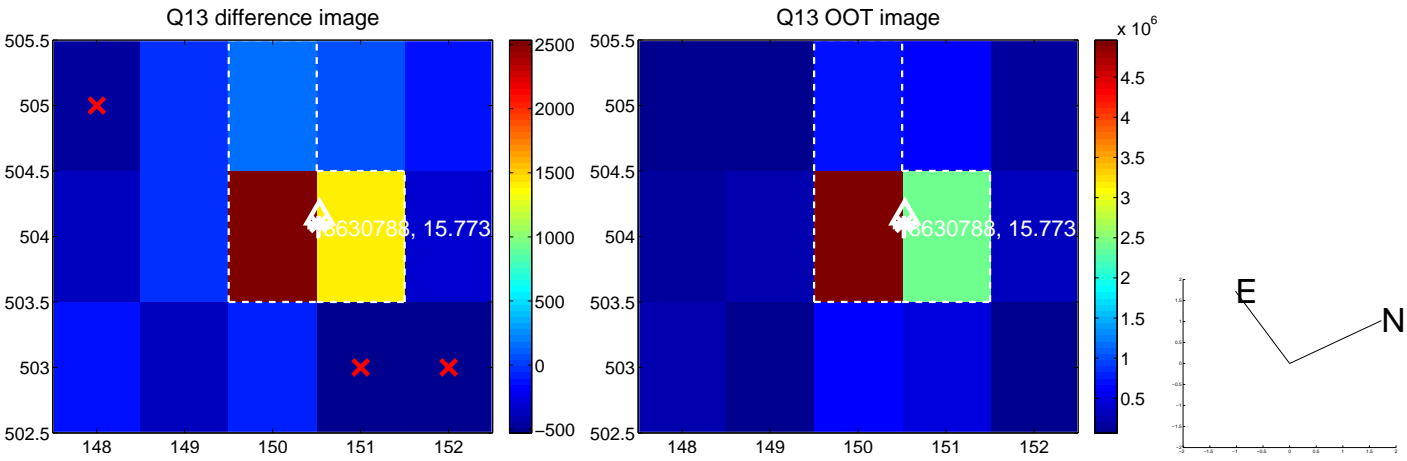
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



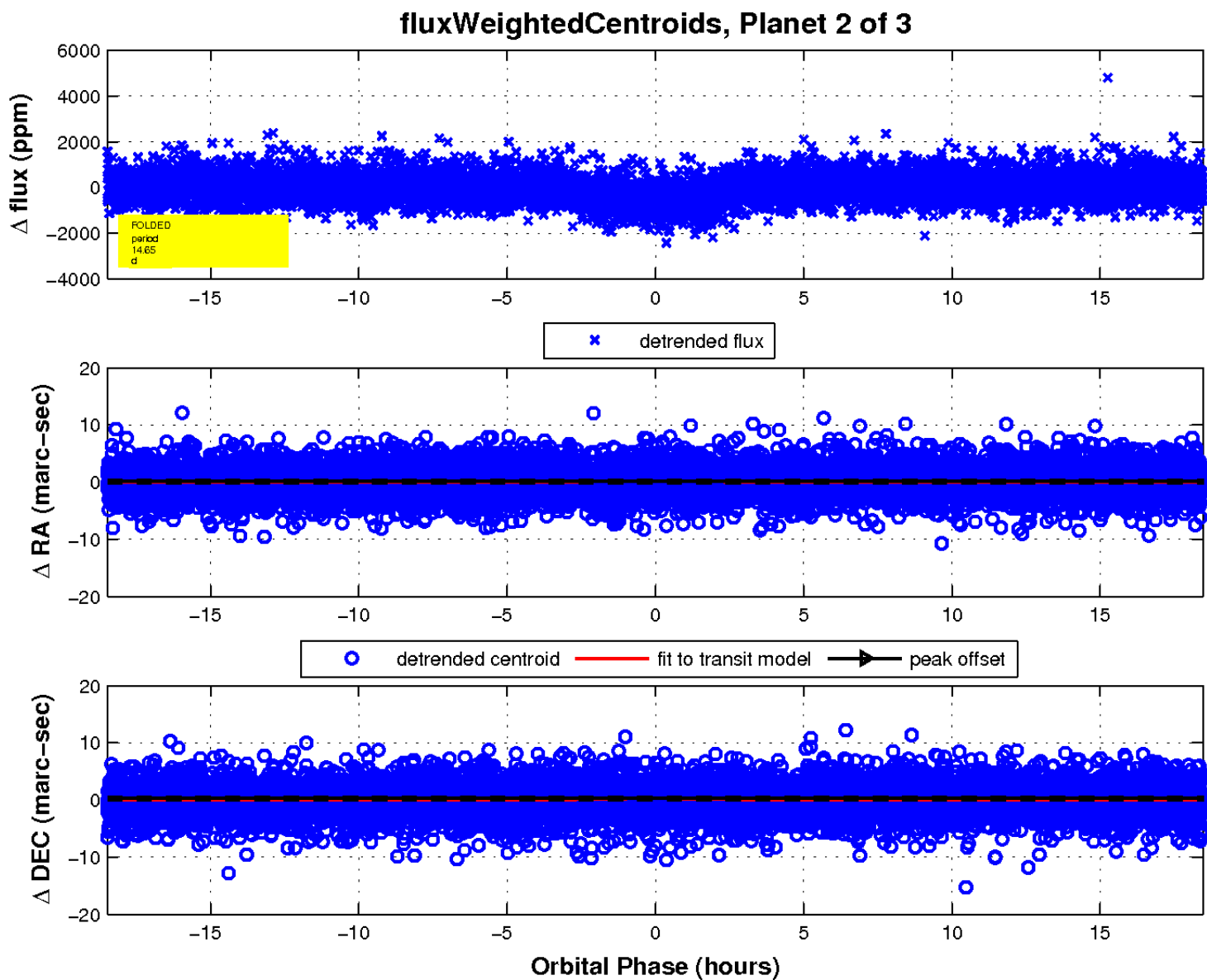
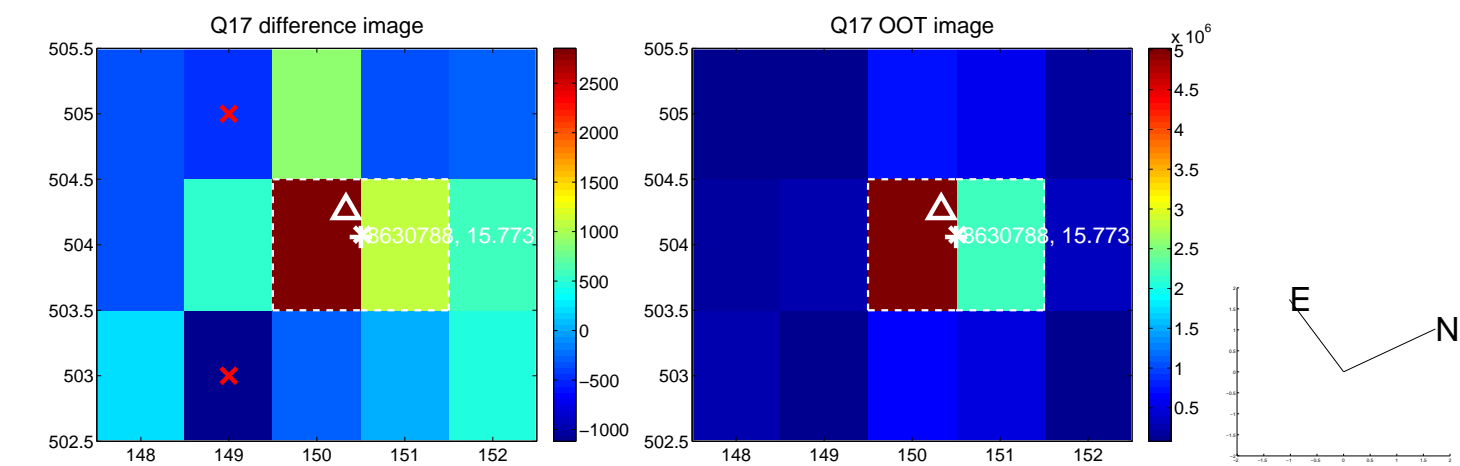
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

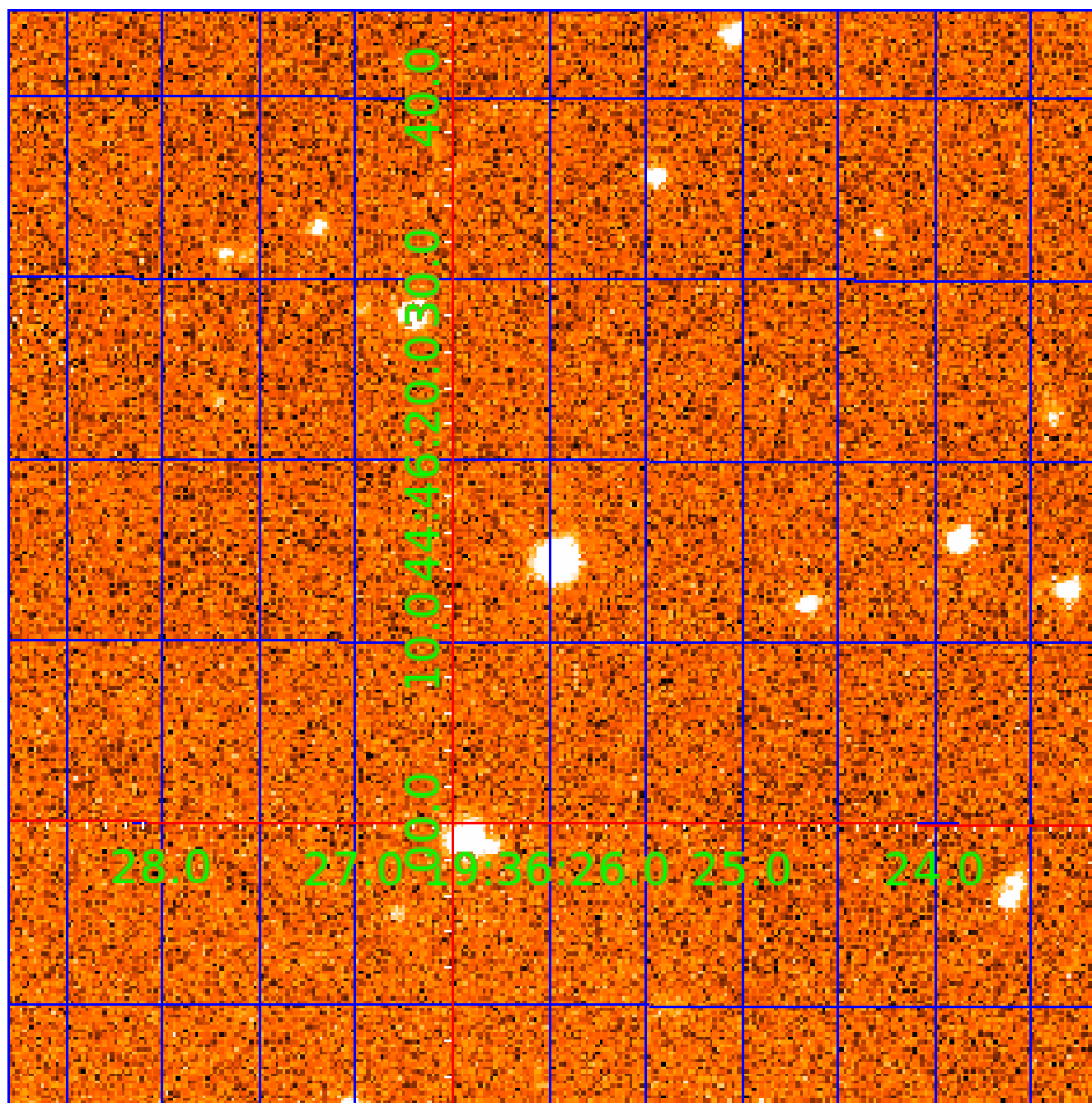


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008630788

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})
008630788-01	OBS	1258.01	36.337440	160.398972	2818.1	7.068	83.9	83.8	0.88	5717	5.29	16.40
008630788-02	OBS	1258.02	14.646213	136.516987	577.0	6.161	24.7	25.7	0.88	5717	2.60	55.07
008630788-03	OBS	1258.03	148.271996	138.006148	1580.5	4.308	18.5	18.7	0.88	5717	4.12	2.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008630788-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008630788-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
008630788-03	OBS	PC	0.96	0	0	0	0	NO_COMMENT

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

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

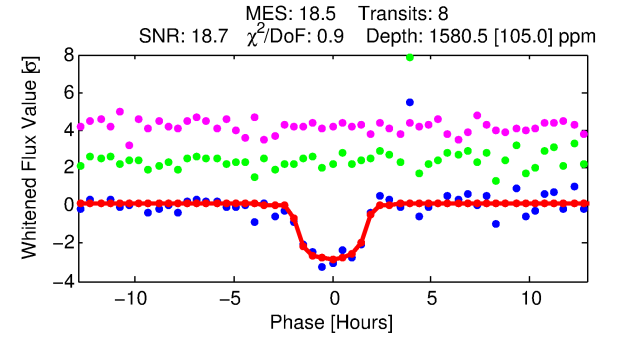
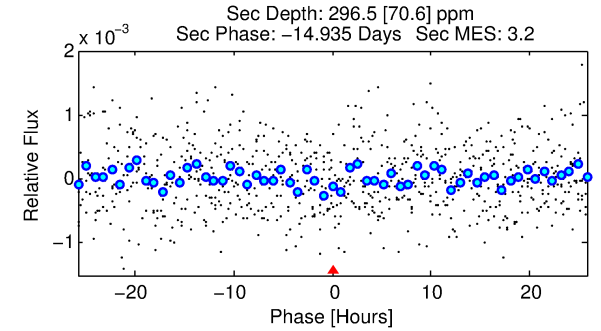
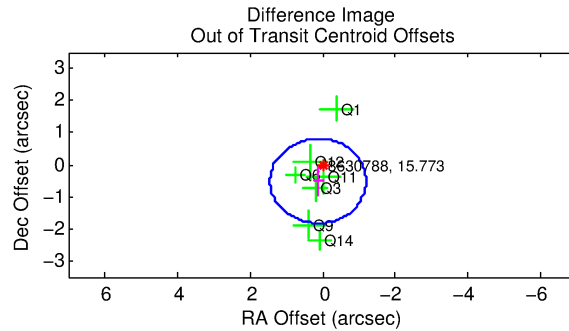
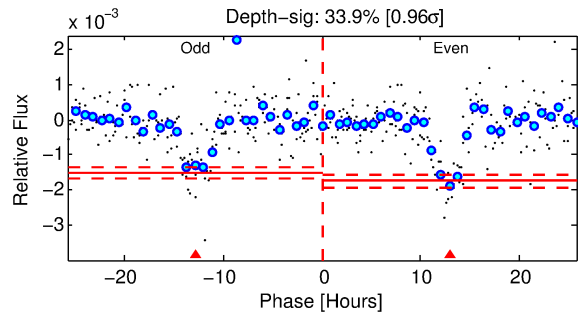
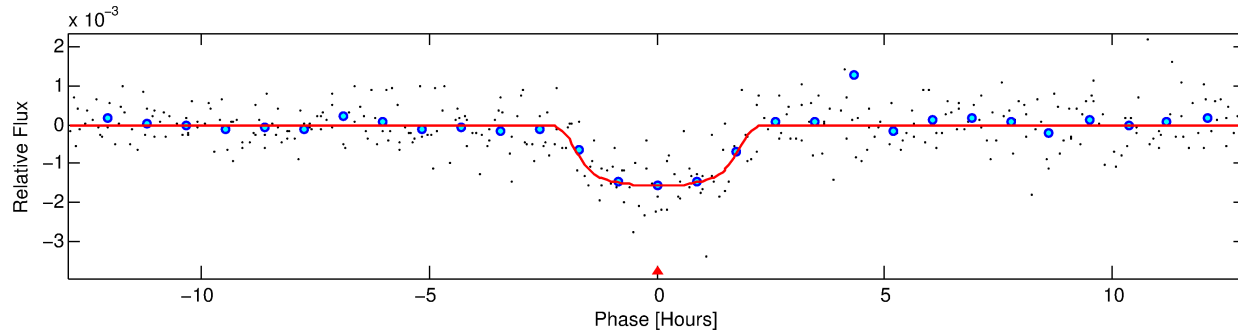
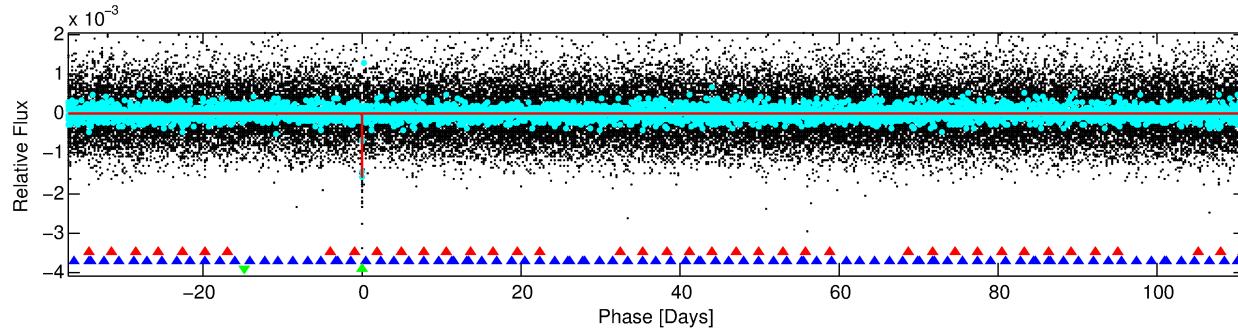
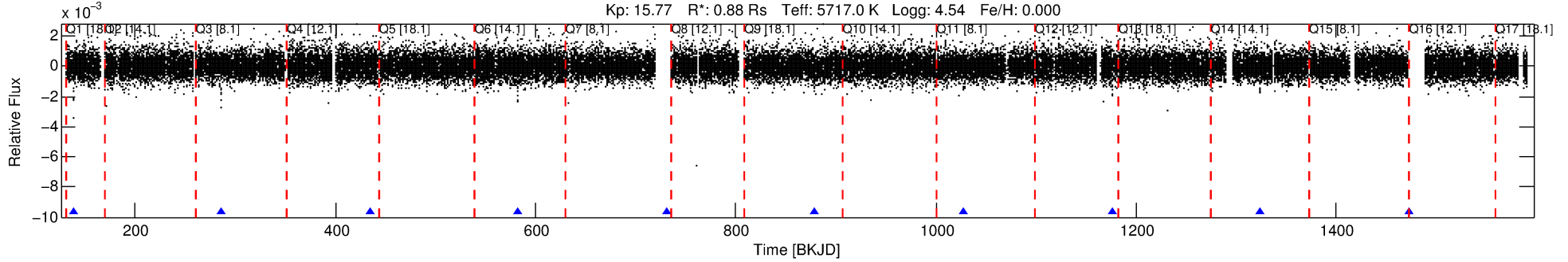
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008630788-03

No Significant Match Found

DV One-Page Summary

KIC: 8630788 Candidate: 3 of 3 Period: 148.272 d
KOI: K01258.03 Corr: 0.970



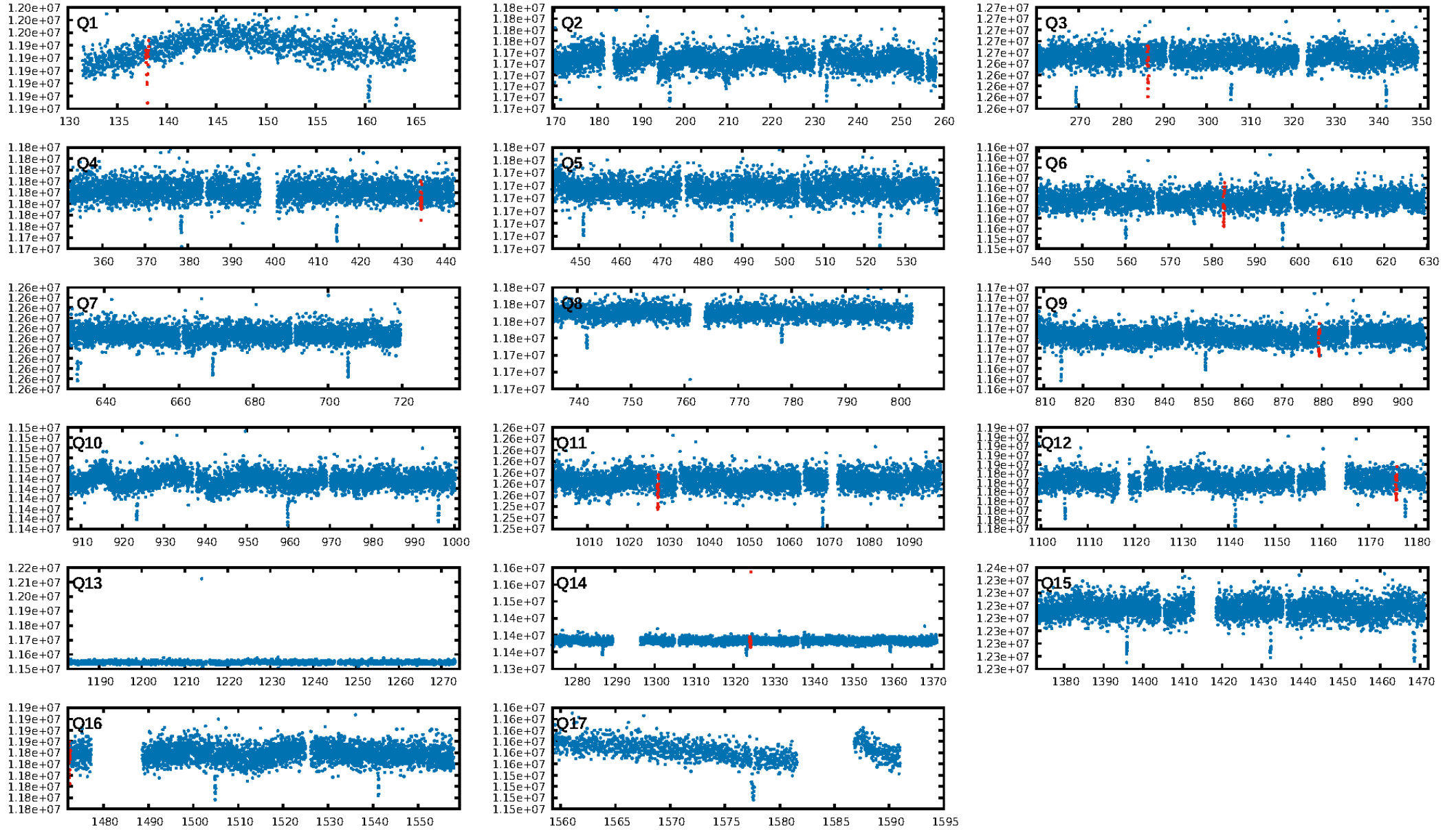
DV Fit Results:

Period = 148.27200 [0.00115] d
Epoch = 138.0061 [0.0055] BKJD
Rp/R* = 0.0427 [0.0040]
a/R* = 146.45 [53.25]
b = 0.88 [0.09]
Seff = 2.51 [0.90]
Teq = 321 [29] K
Rp = 4.12 [1.14] Re
a = 0.5454 [0.1228] AU
Ag = 2856.73 [1290.06] [2.21 σ]
Teffp = 3630 [296] K [11.14 σ]

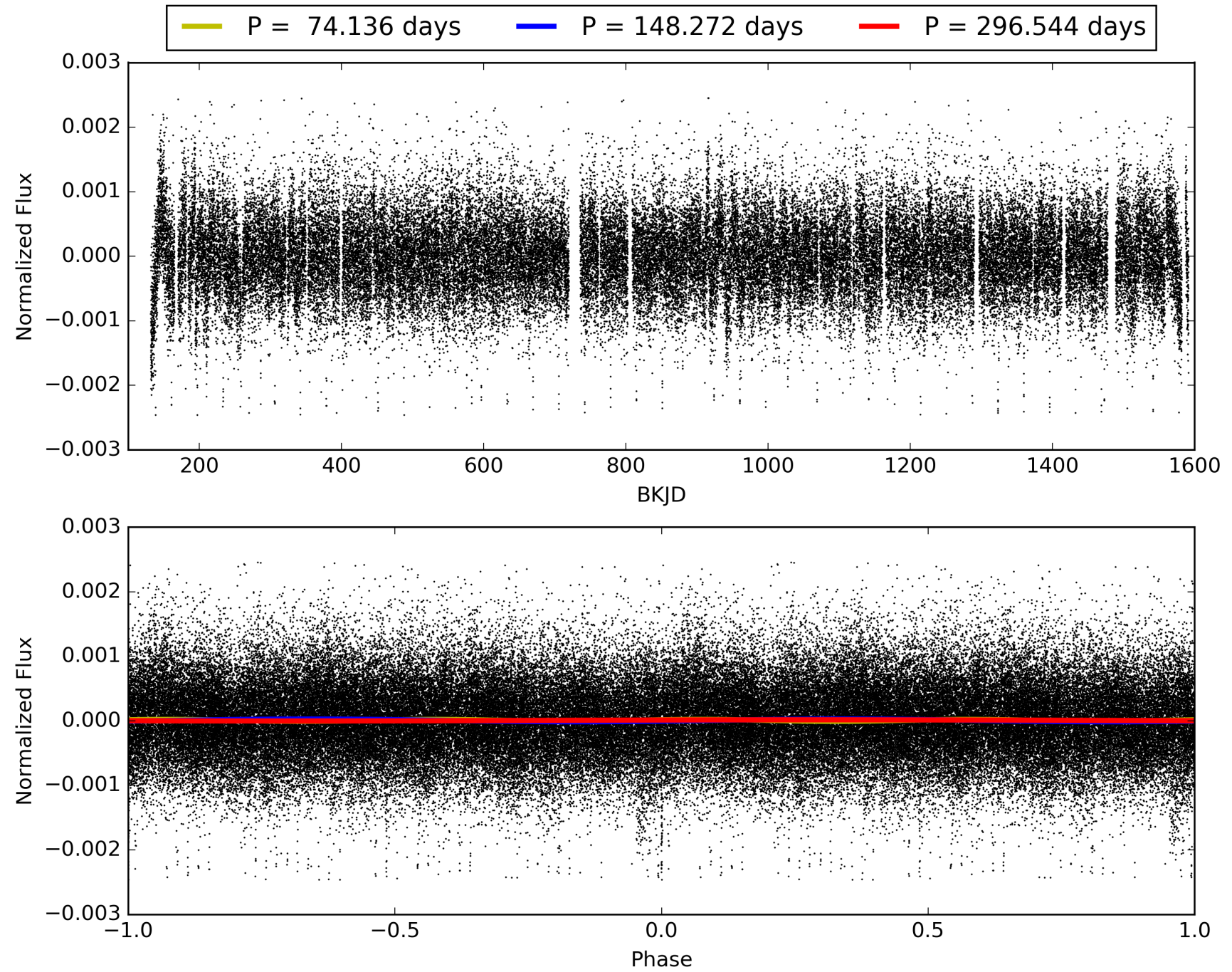
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [324.55 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 54.6%
ModelChiSquareGof-sig: 99.6%
Bootstrap-pfa: 1.52e-72
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 6.198
Centroid-sig: 45.3%
Centroid-so: 0.854 arcsec [1.21 σ]
OotOffset-rm: 0.525 arcsec [1.19 σ]
KicOffset-rm: 0.497 arcsec [1.11 σ]
OotOffset-st: 2/2/1/2 [7]
KicOffset-st: 2/2/1/2 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 0.88 [7/8]

TCE 008630788-03, PDC Light Curves

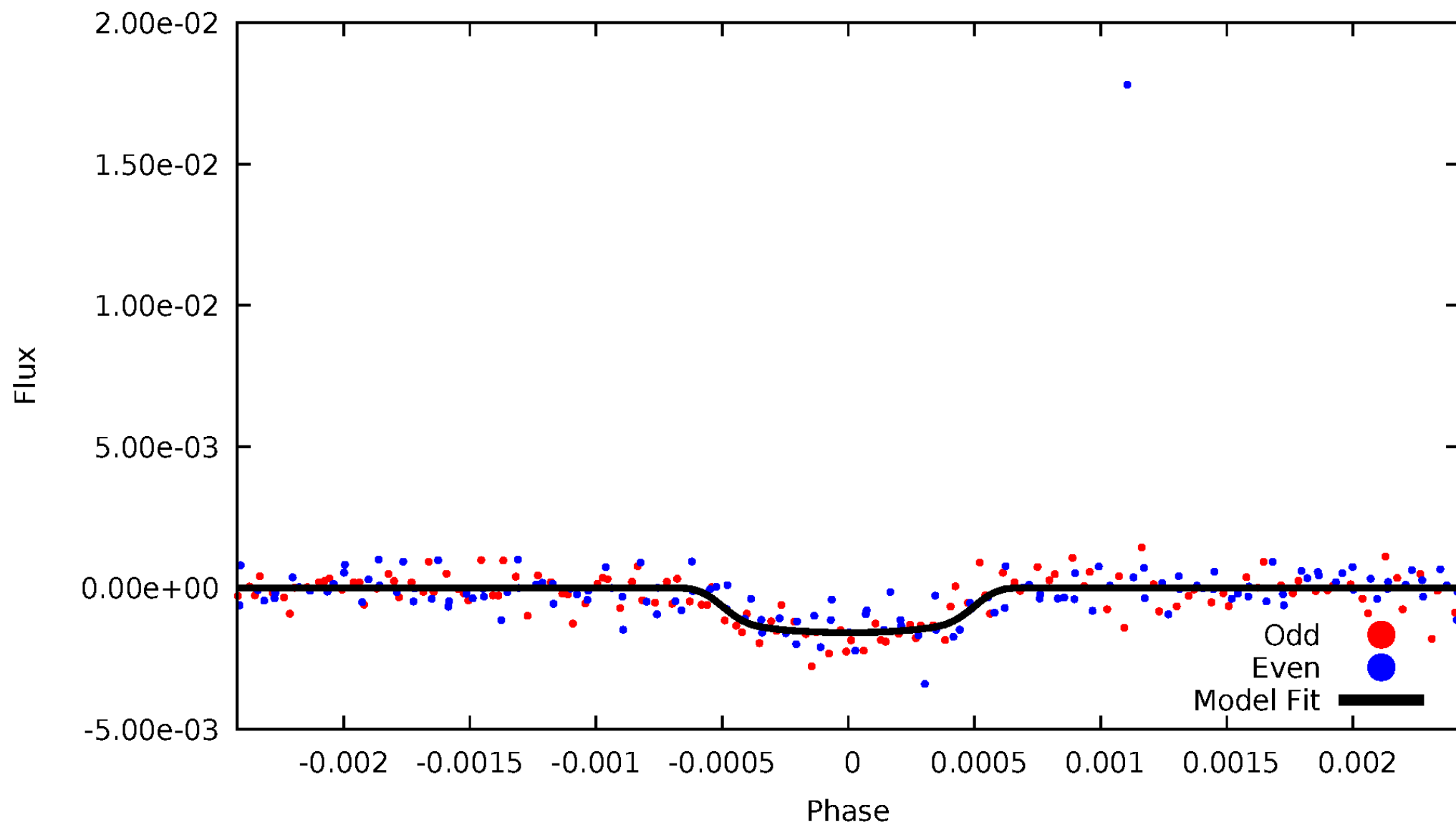


TCE 008630788-03



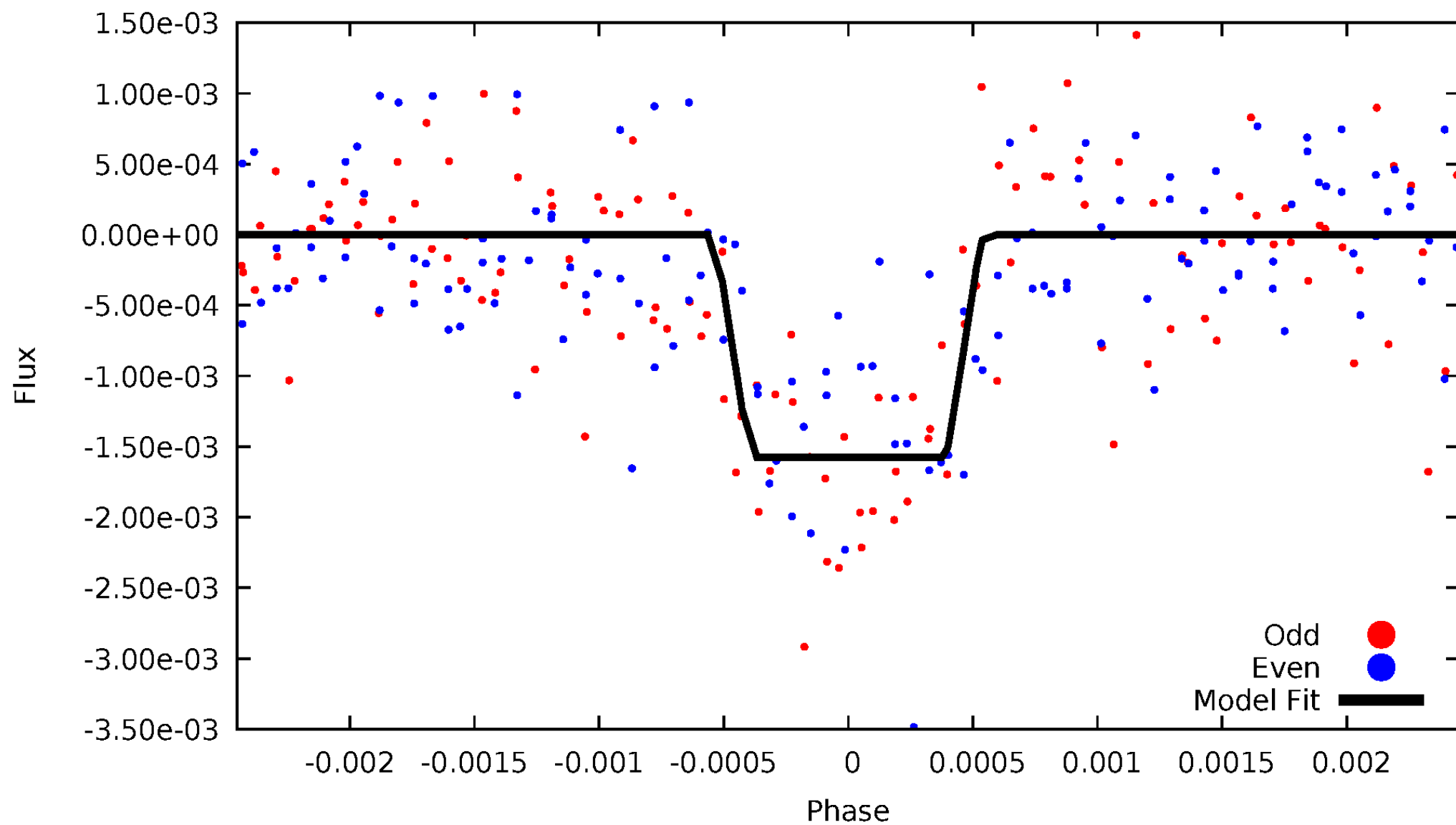
DV Odd/Even

TCE 008630788-03



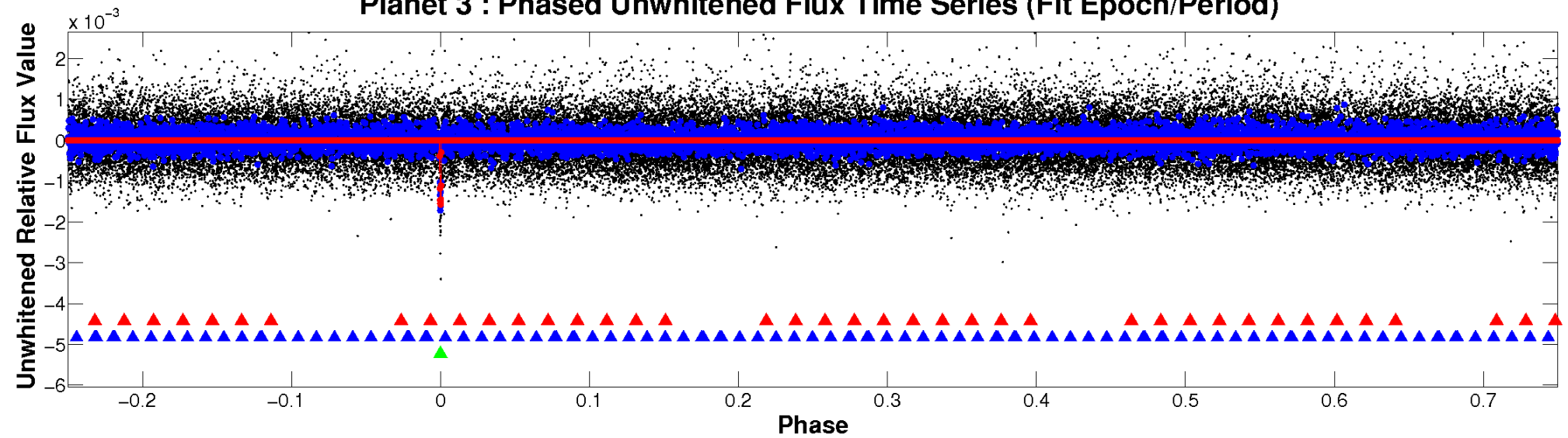
ALT Odd/Even

TCE 008630788-03

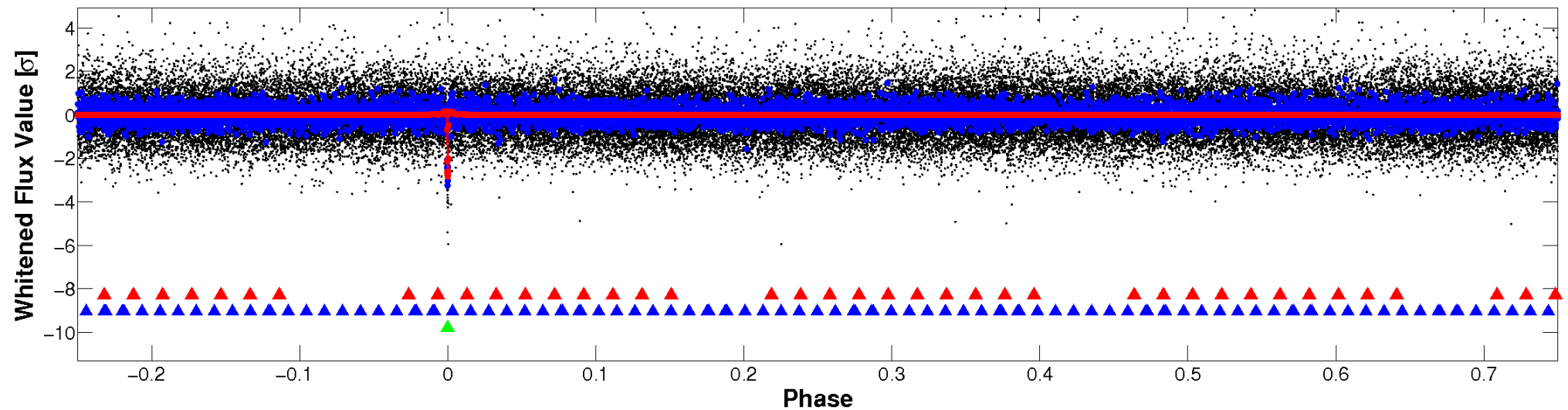


Non-Whitened Vs. Whitened Light Curve

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

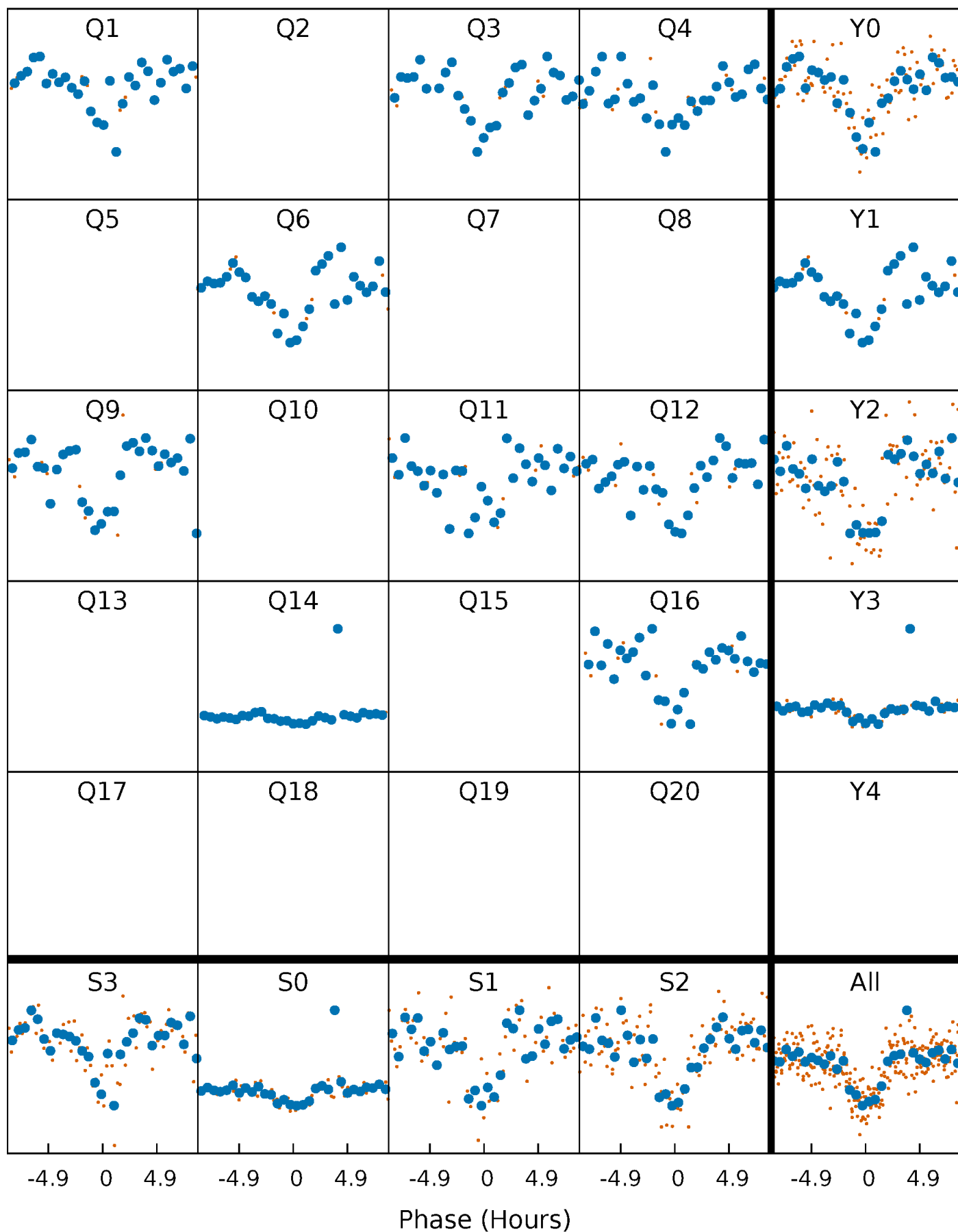


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



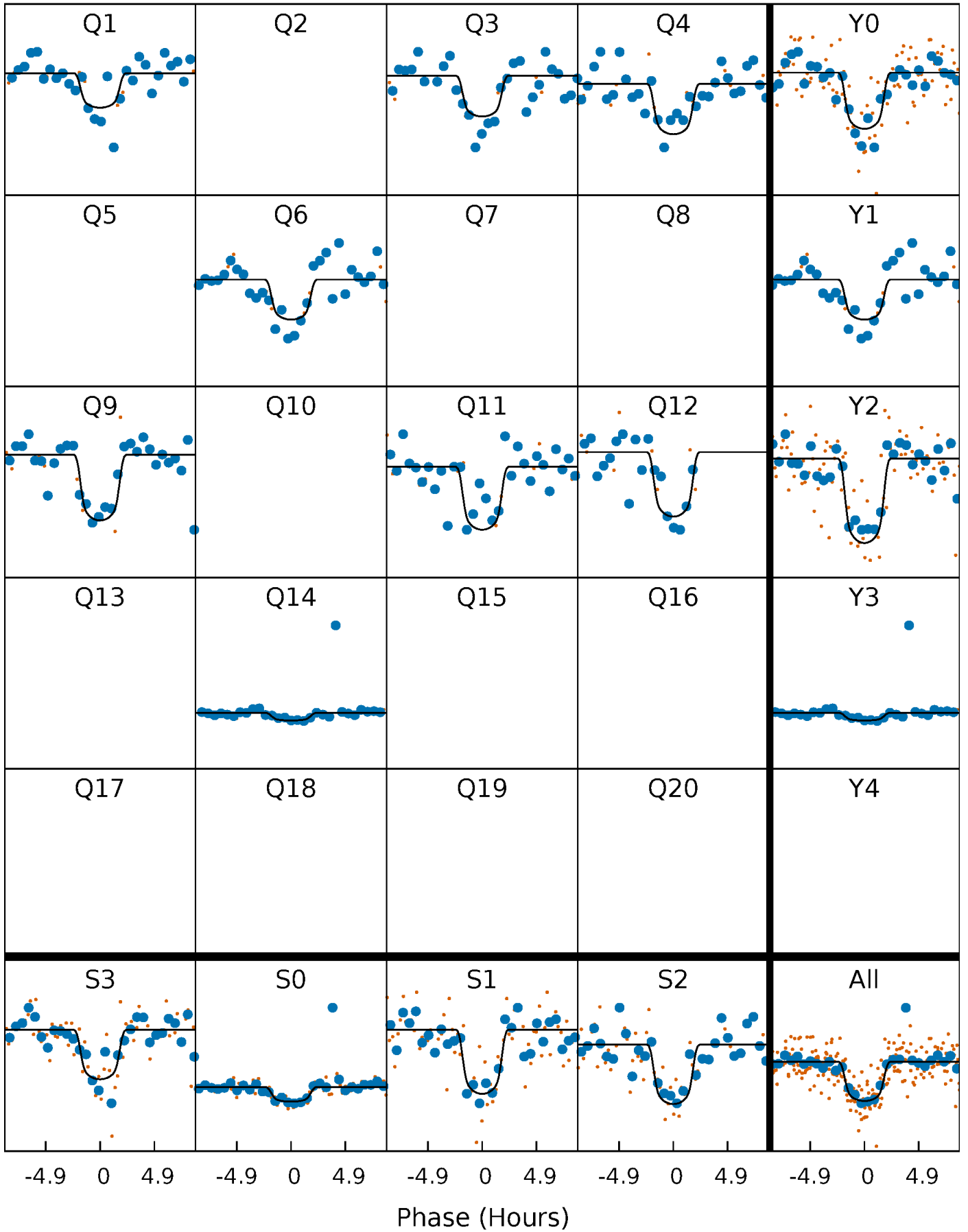
PDC Quarter-Phased Transit Curves

TCE 008630788-03 P=148.271997 Days $T_0=138.006148$ (BKJD)



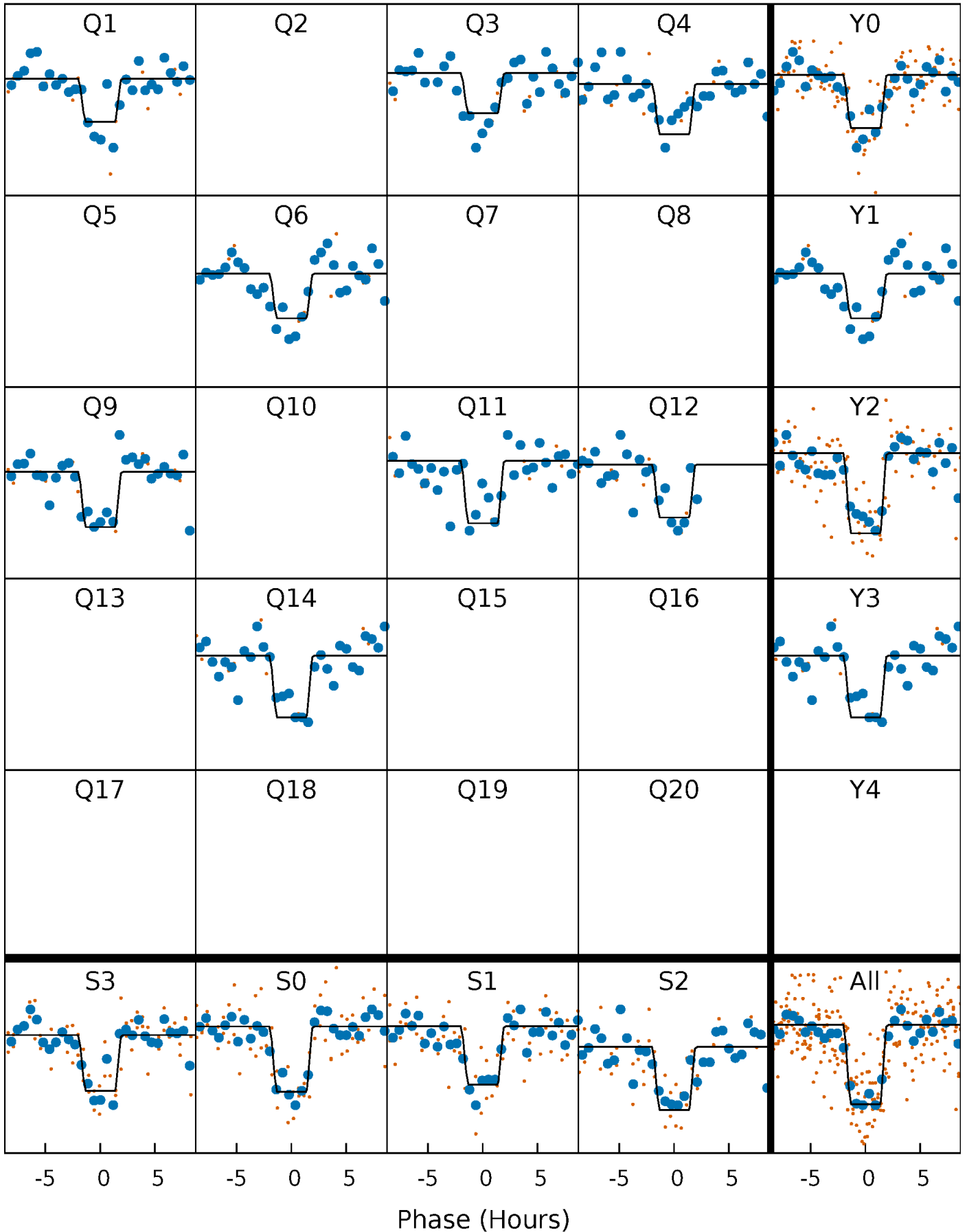
DV Quarter-Phased Transit Curves

TCE 008630788-03 P=148.271997 Days $T_0=138.006148$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

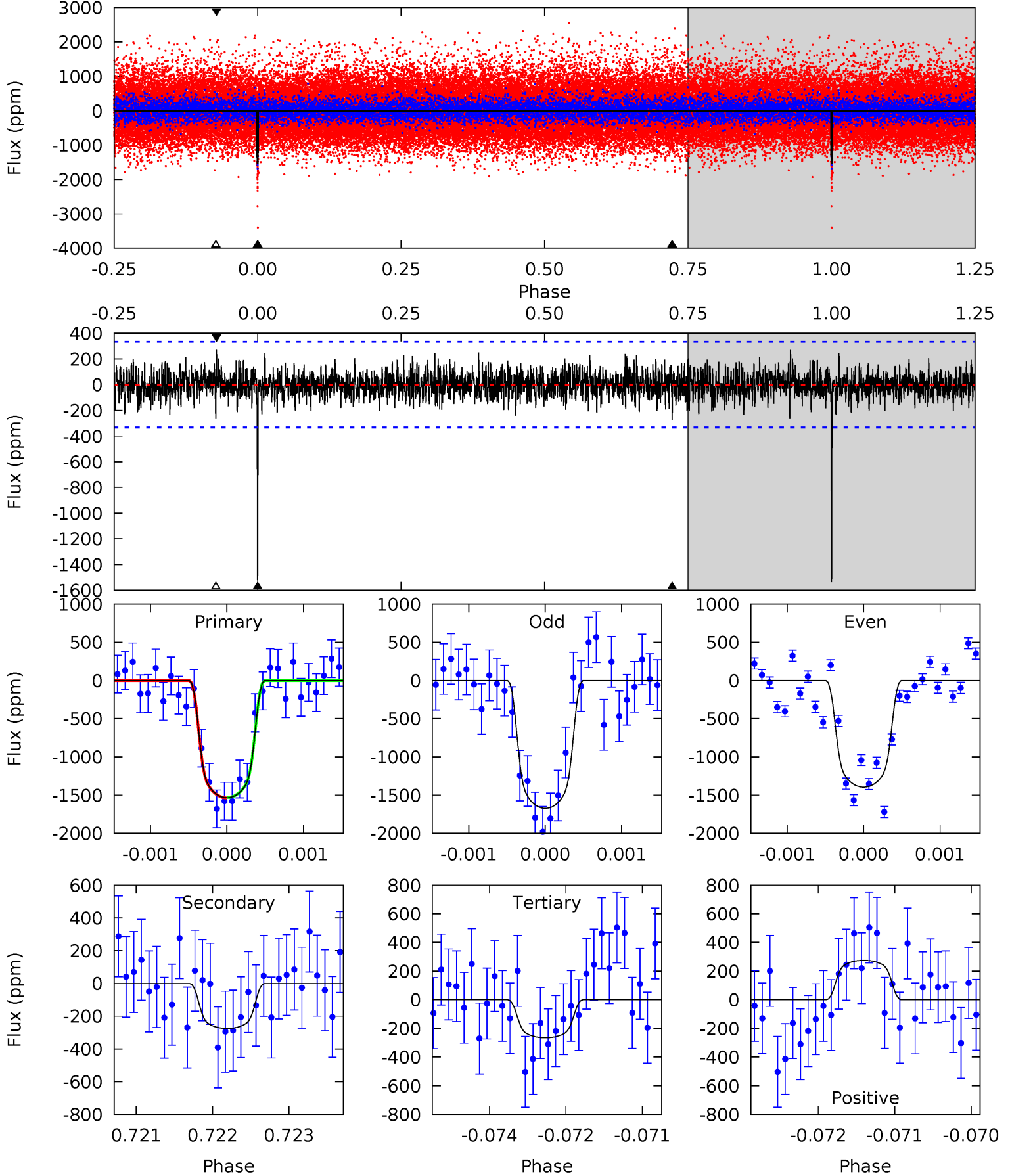
TCE 008630788-03 $P=148.270383$ Days $T_0=138.012187$ (BKJD)



DV Model-Shift Uniqueness Test

008630788-03, P = 148.271997 Days, E = 138.006148 Days

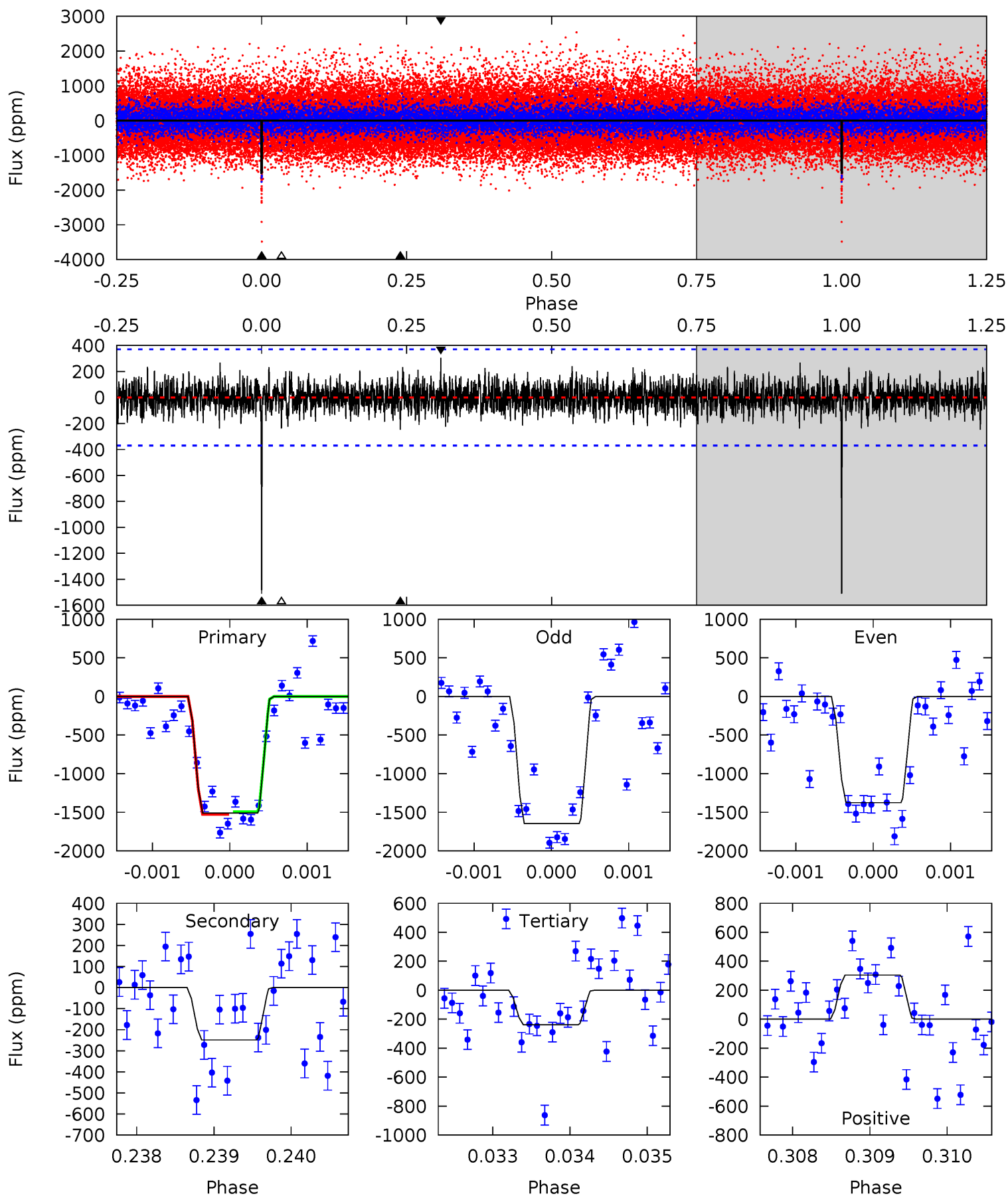
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	4.47	4.30	4.46	5.40	3.21	1.23	20.6	20.4	0.17	0.01	2.27	1.02	0.15	0.04



Alt Model-Shift Uniqueness Test

008630788-03, P = 148.270383 Days, E = 138.012187 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.2	3.65	3.51	4.48	5.44	3.28	1.07	18.7	17.7	0.14	-0.83	1.98	1.08	0.17	0.25



Stellar Parameters For KIC 008630788

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5717^{+156}_{-173}	$4.538^{+0.044}_{-0.187}$	$0.000^{+0.250}_{-0.300}$	$0.884^{+0.230}_{-0.077}$	$0.984^{+0.102}_{-0.114}$	$2.006^{+0.367}_{-0.987}$
	+3%/-3%	+1%/-4%	+inf%/-inf%	+26%/-9%	+10%/-12%	+18%/-49%
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 008630788-03 / KOI 1258.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-276 ± 62	$4.28^{+0.69}_{-0.52}$	457^{+30}_{-20}	3889^{+229}_{-214}	2331^{+990}_{-686}
Alt.	-248 ± 68	$3.96^{+0.68}_{-0.46}$	458^{+28}_{-20}	3920^{+256}_{-250}	2445^{+1091}_{-882}

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 $A_{obs} \gg 1.0$

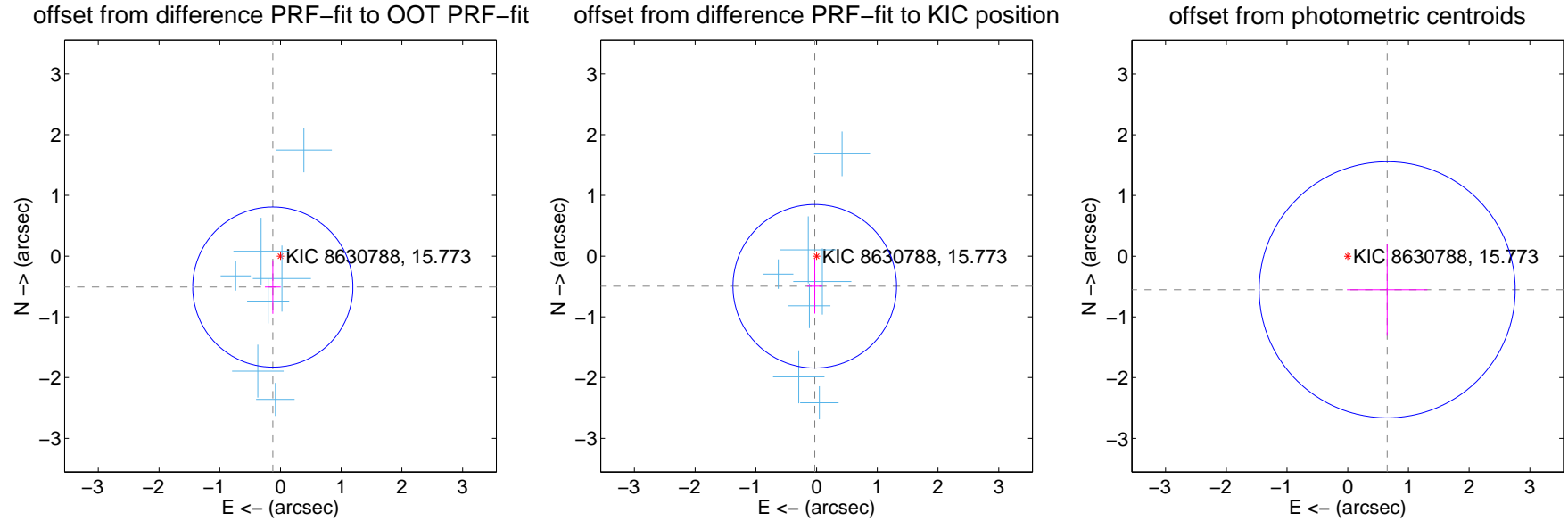
DV Centroid Data

Supplemental centroid analysis for 008630788-03. Kepler magnitude: 15.77. Transit SNR 18.68

There are 7 quarters with good PRF difference image offsets

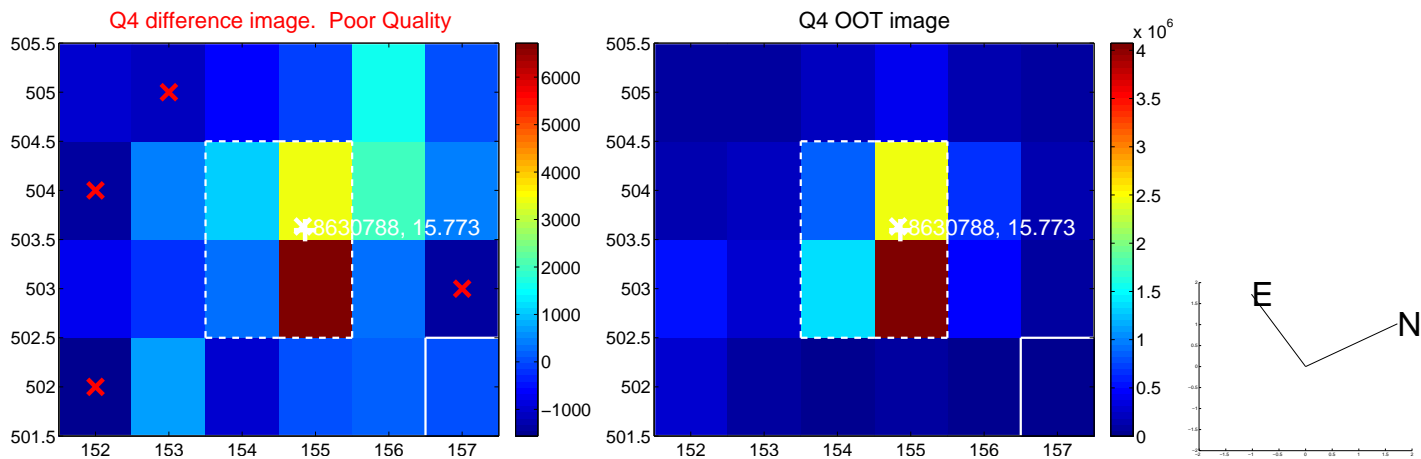
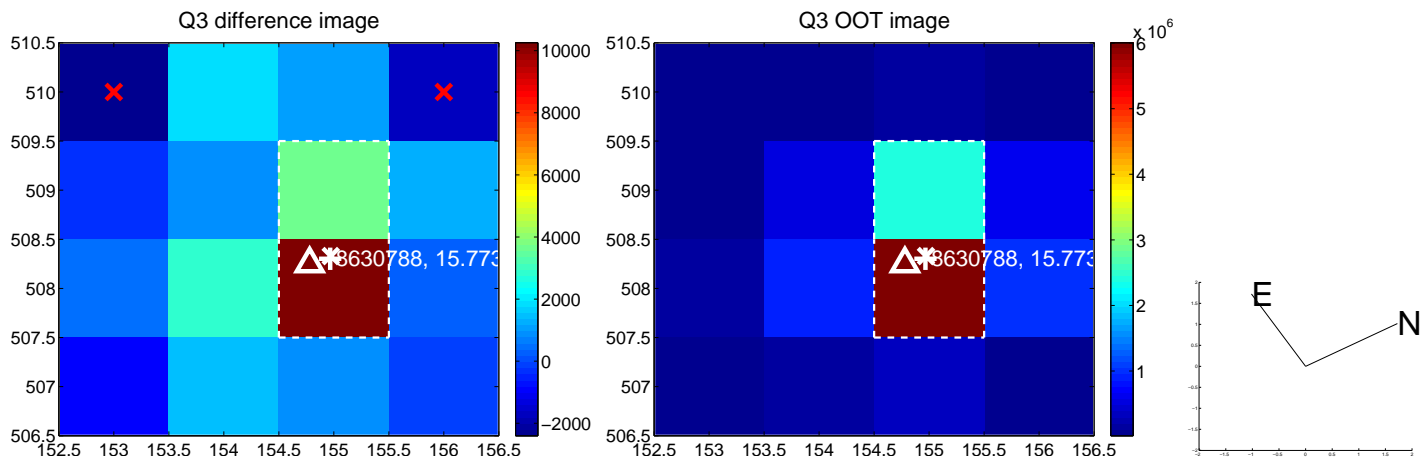
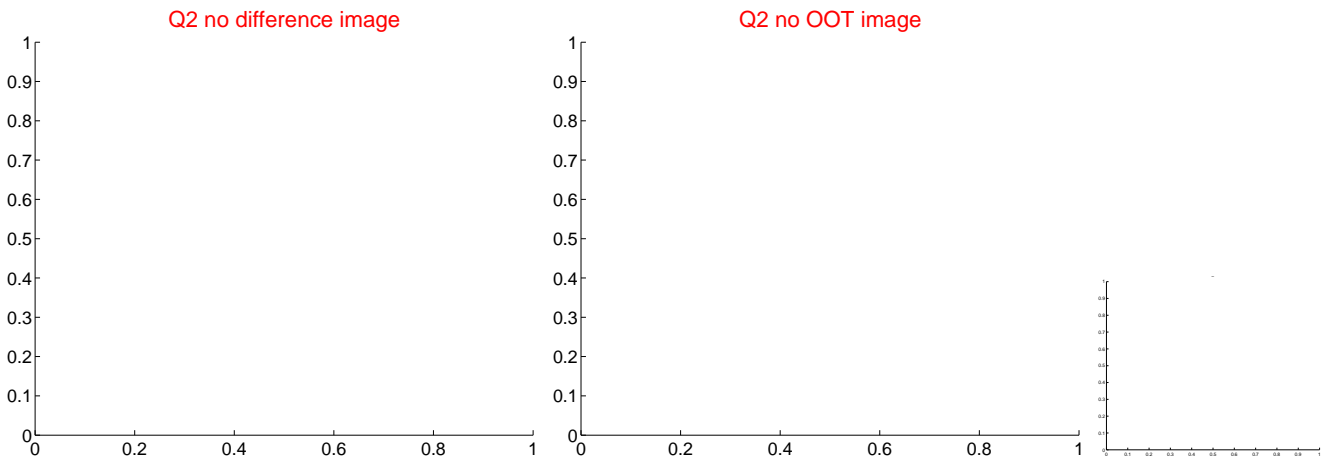
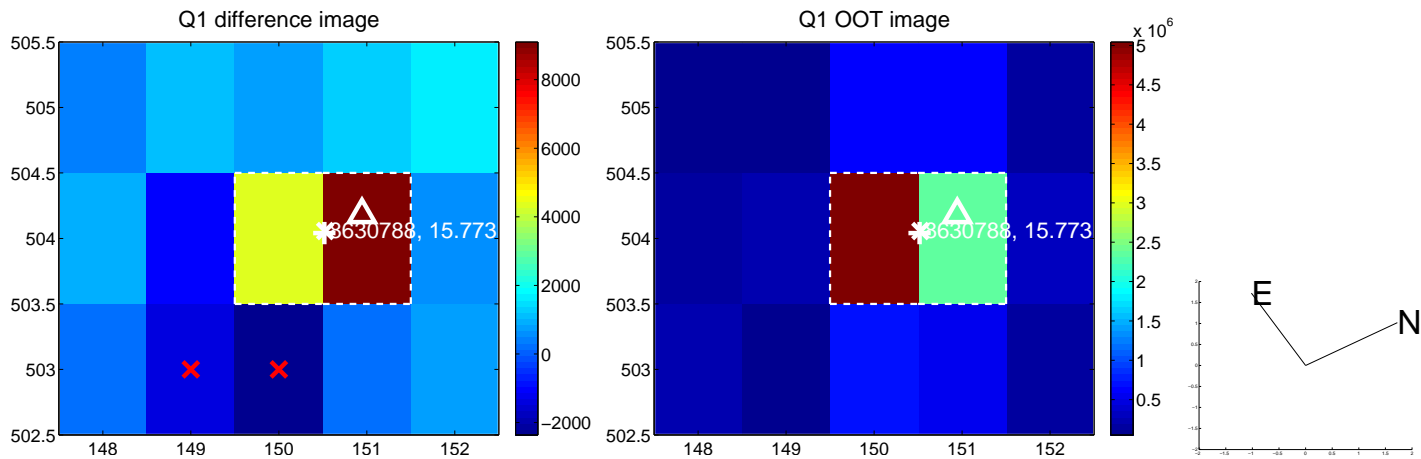
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.525 ± 0.440	1.19	0.126 ± 0.130	-0.509 ± 0.441
PRF-fit source offset from KIC position	0.497 ± 0.449	1.11	0.030 ± 0.127	-0.496 ± 0.450
photometric centroid source offset	0.85 ± 0.70	1.21	-0.65 ± 0.66	-0.55 ± 0.76



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.

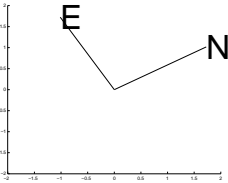
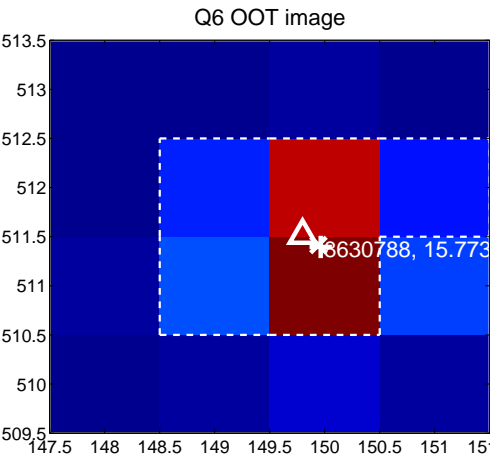
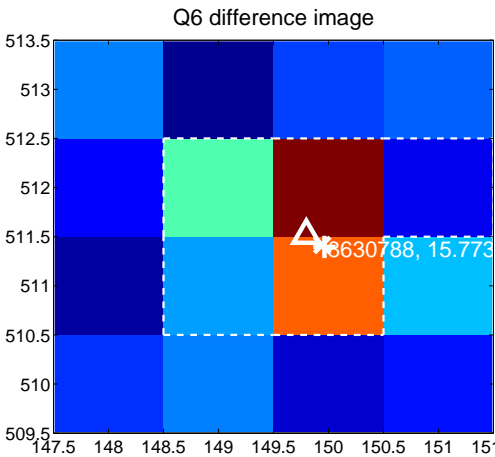


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

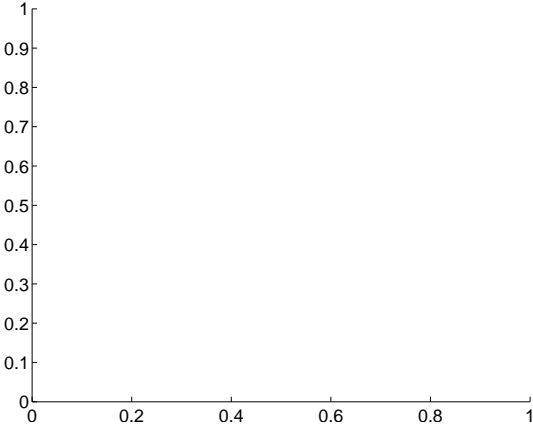
Q5 no difference image



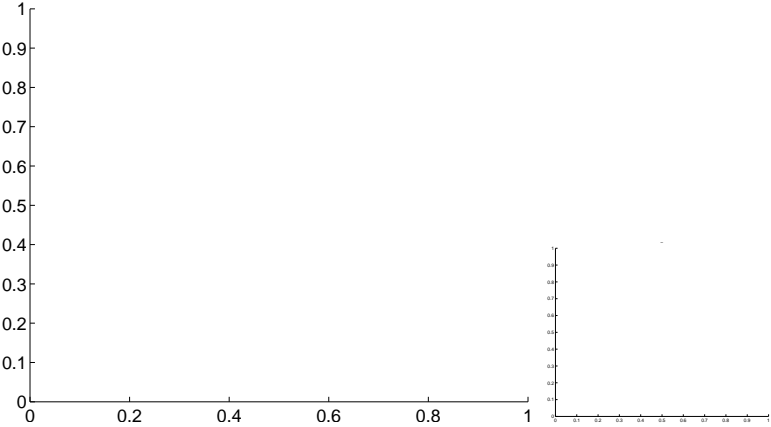
Q5 no OOT image



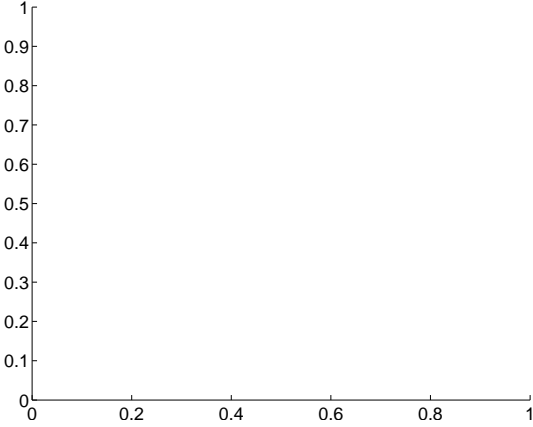
Q7 no difference image



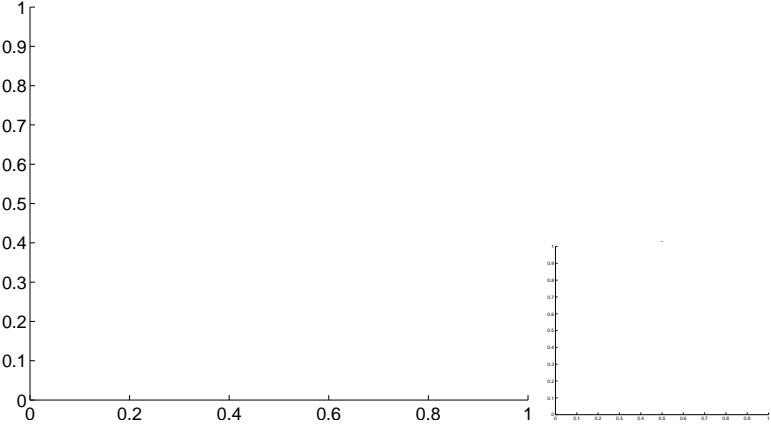
Q7 no OOT image



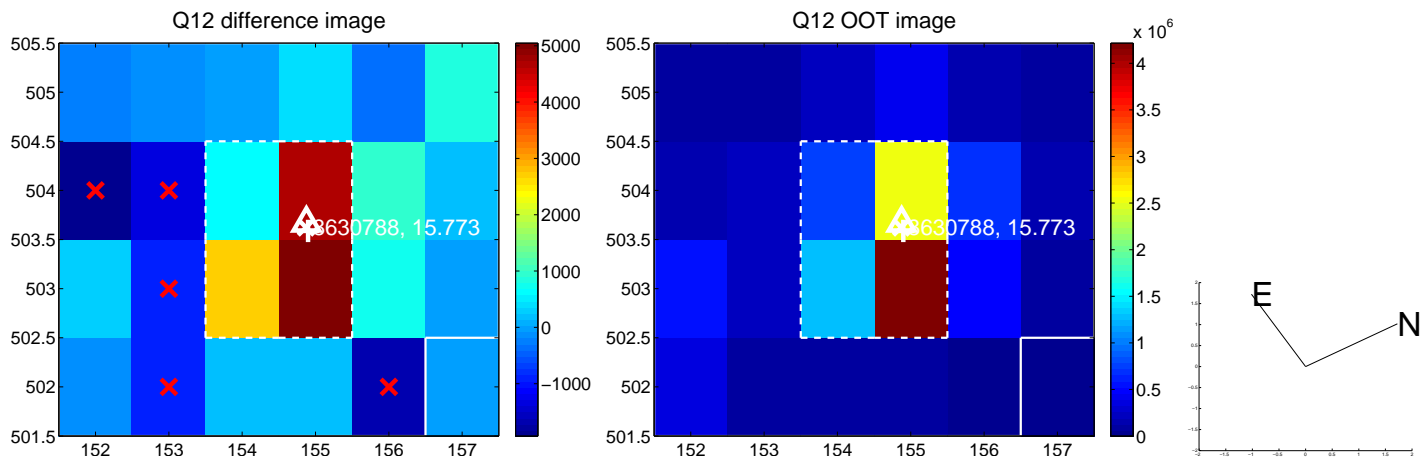
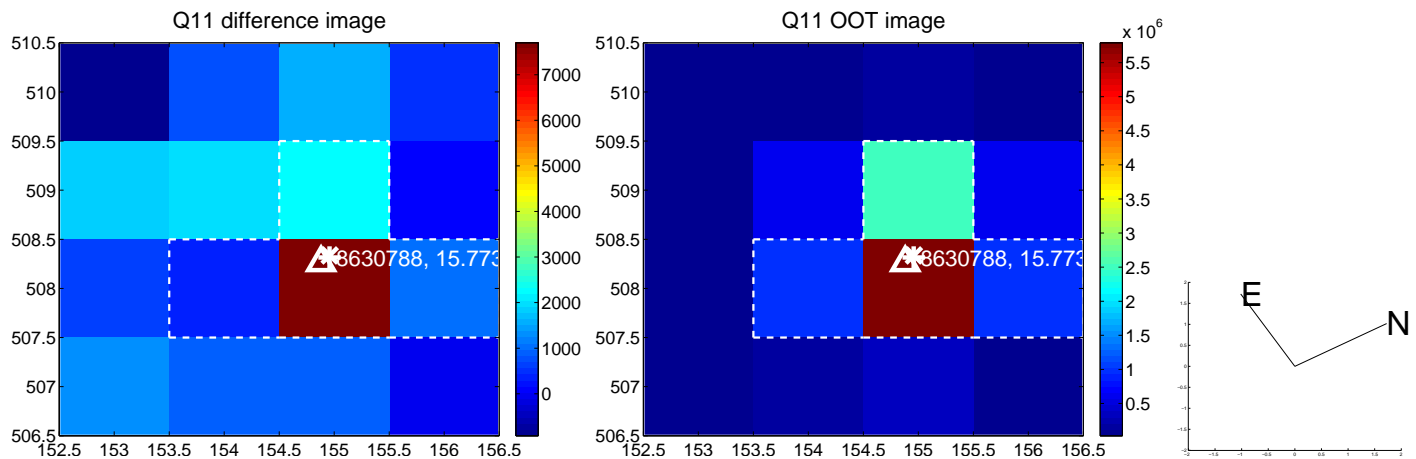
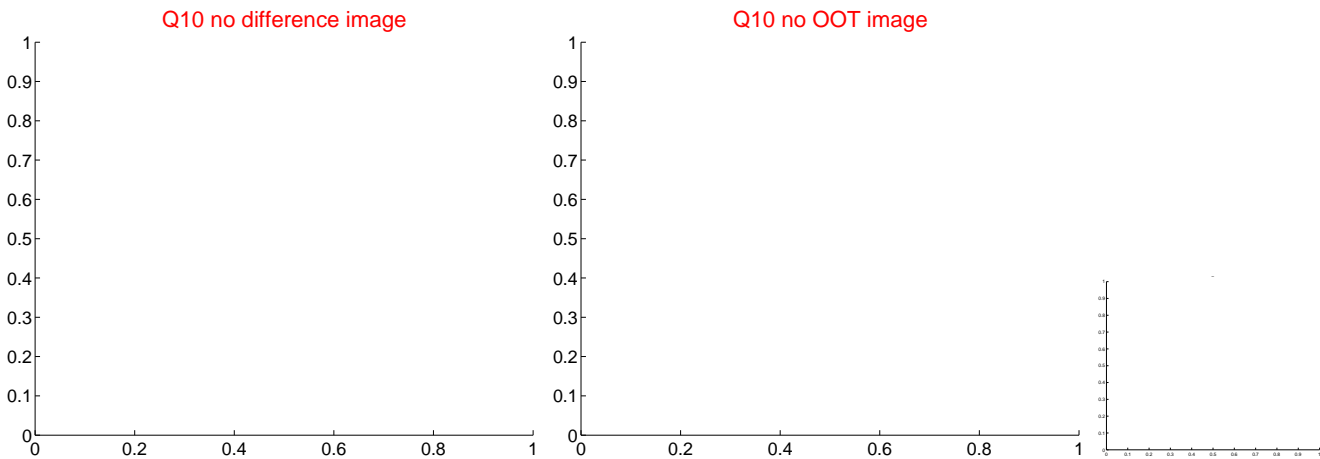
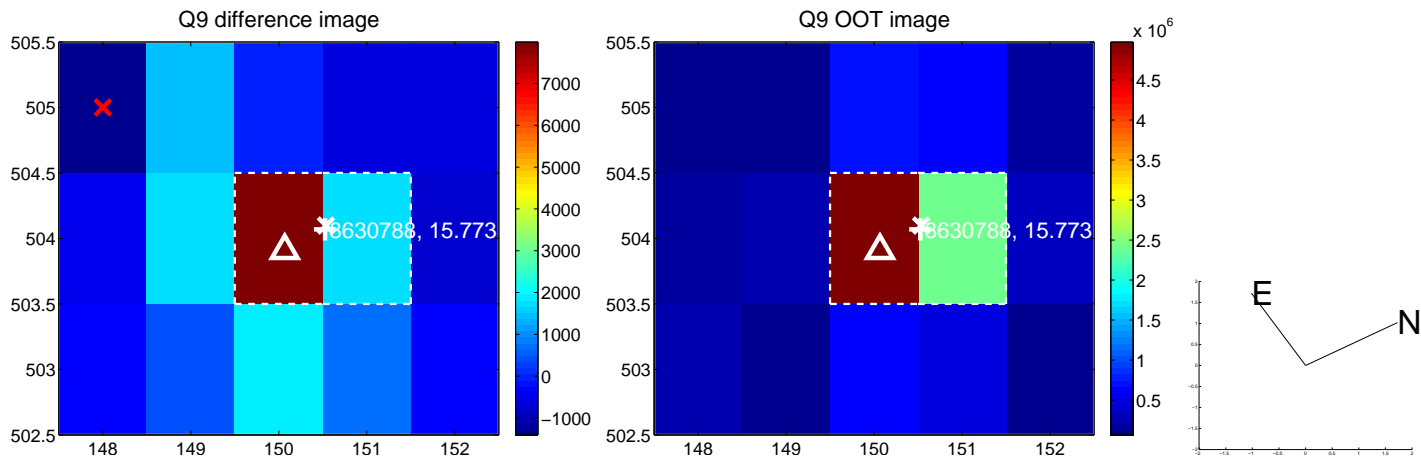
Q8 no difference image



Q8 no OOT image

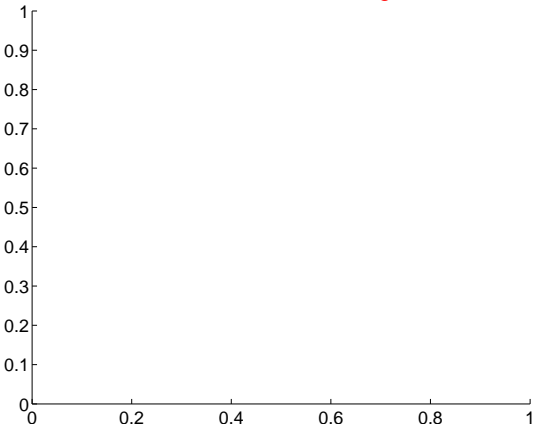


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

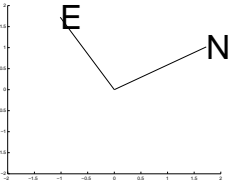
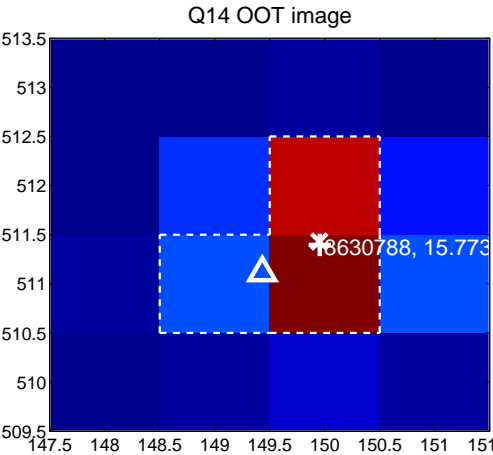
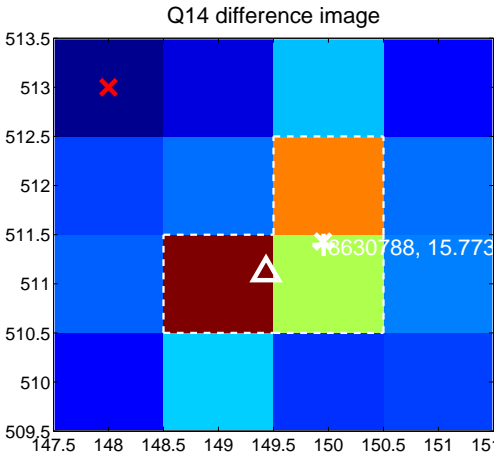


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

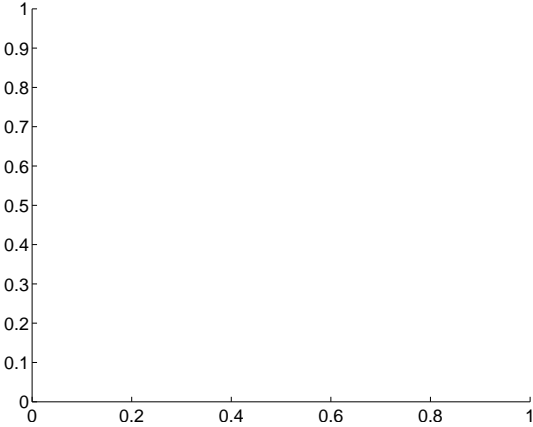
Q13 no difference image



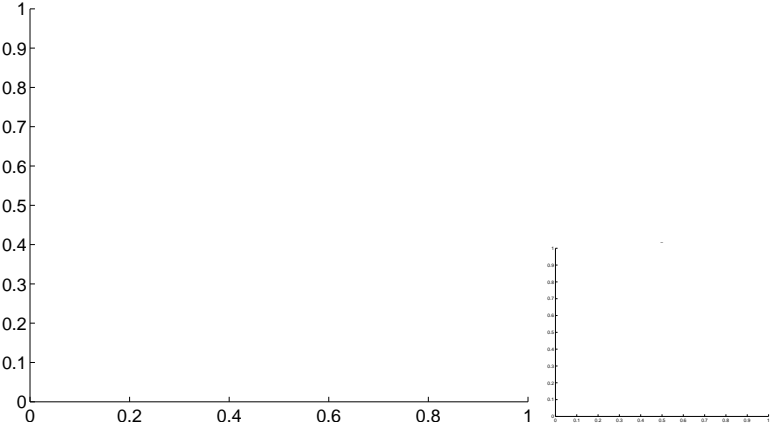
Q13 no OOT image



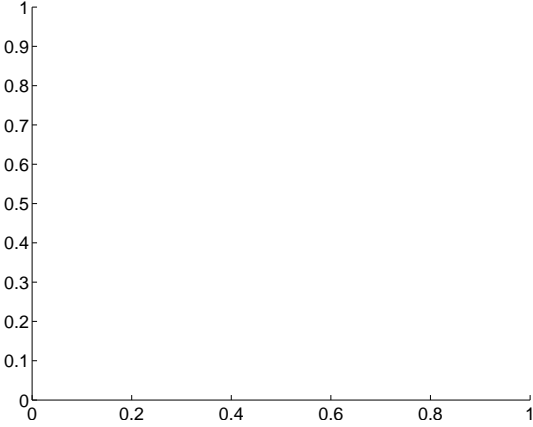
Q15 no difference image



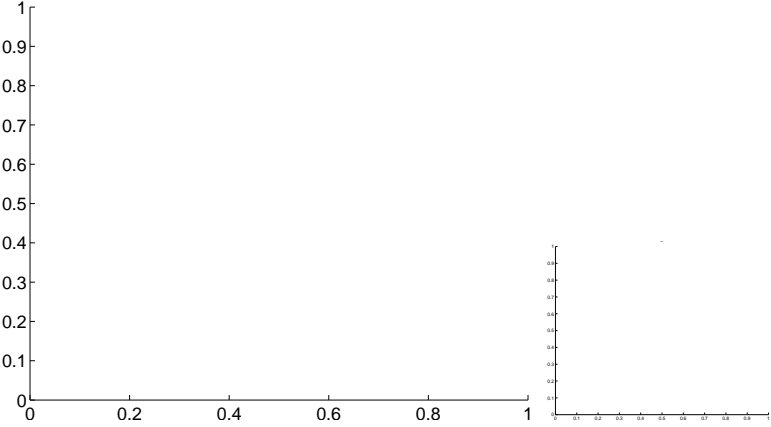
Q15 no OOT image



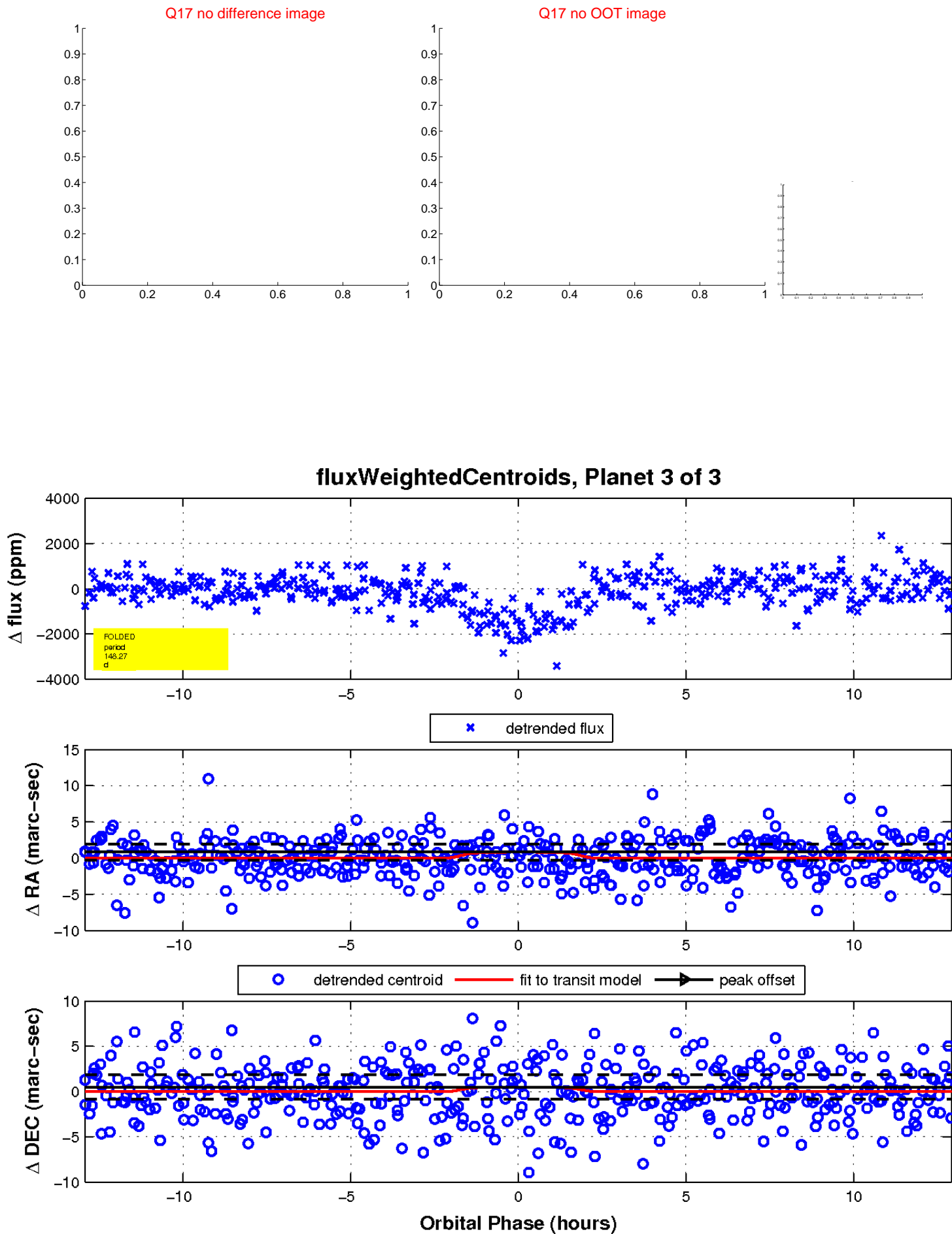
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

