

KIC 003346027

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})
003346027-01	OBS	No	10.447092	140.837239	157.3	17.199	9.1	8.9	1.42	7372	1.90	500.70
003346027-02	OBS	No	10.447332	135.367241	144.8	4.647	8.4	3.4	1.42	7372	2.21	500.69
003346027-03	OBS	No	10.449097	134.605953	105.1	28.992	7.6	7.6	1.42	7372	1.69	500.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003346027-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
003346027-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003346027-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

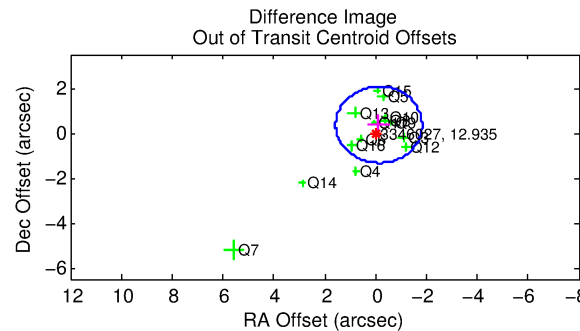
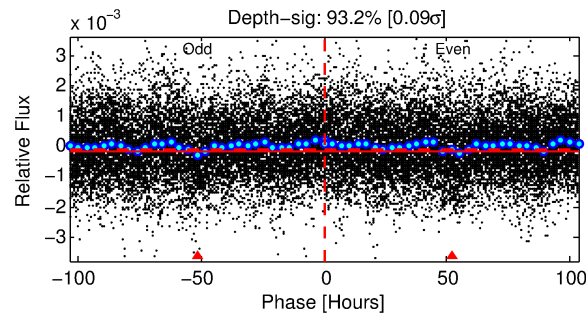
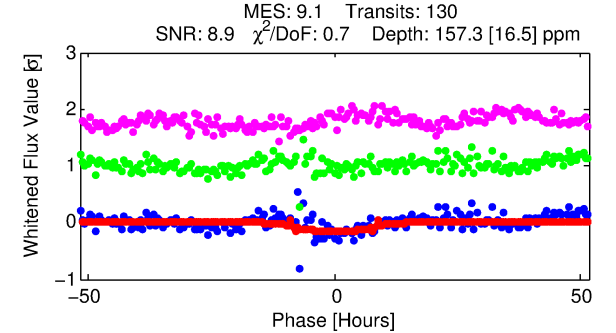
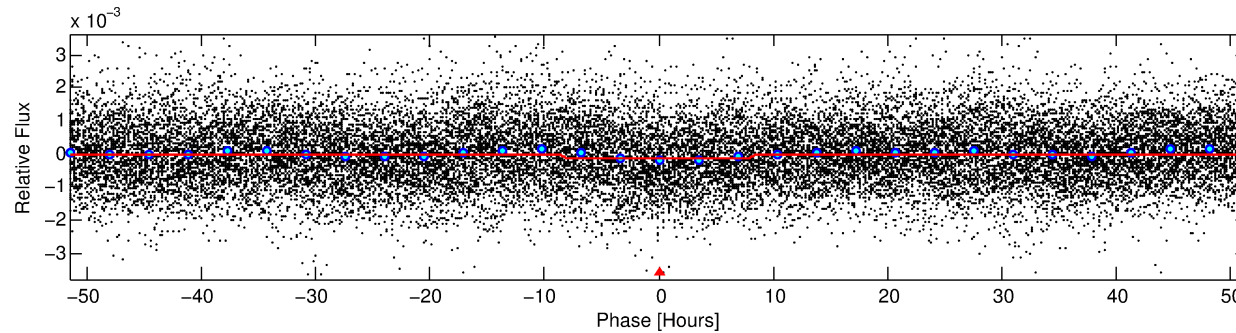
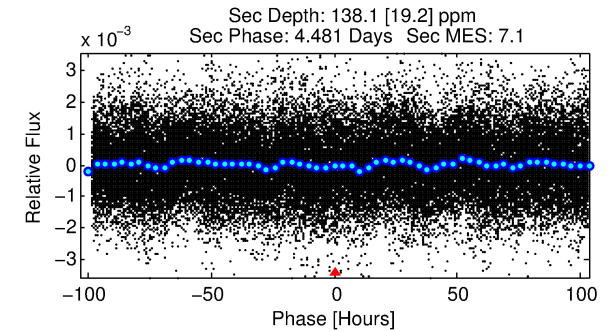
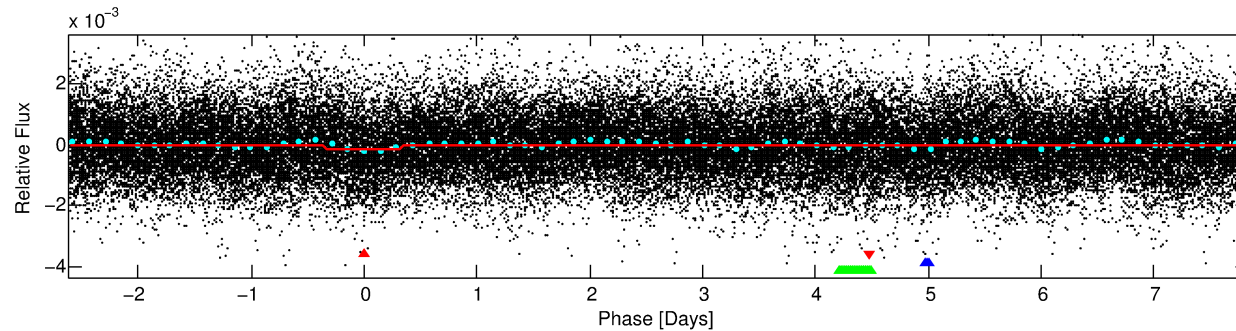
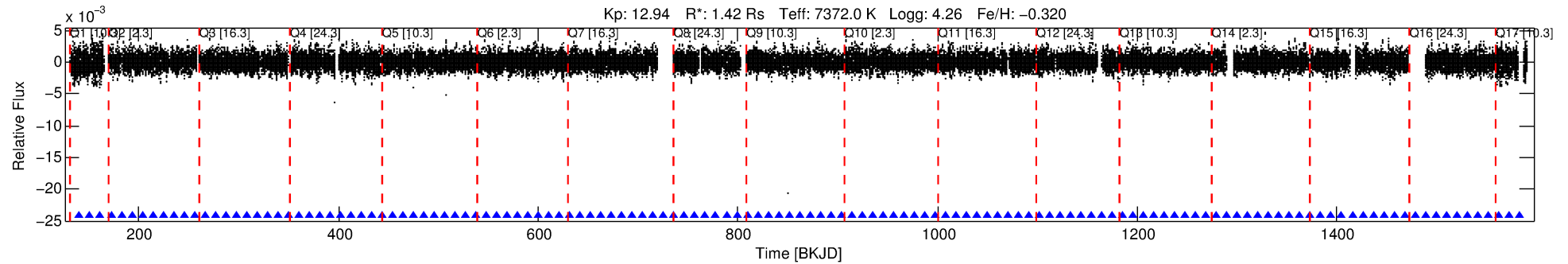
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003346027-01

No Significant Match Found

DV One-Page Summary

KIC: 3346027 Candidate: 1 of 3 Period: 10.447 d



DV Fit Results:

Period = 10.44709 [0.00010] d
Epoch = 140.8372 [0.0069] BKJD
Rp/R* = 0.0122 [0.0012]
a/R* = 3.65 [1.64]
b = 0.66 [0.41]
Seff = 500.70 [210.12]
Teq = 1206 [127] K
Rp = 1.90 [0.67] Re
a = 0.1035 [0.0283] AU
Ag = 225.96 [102.65] [2.19σ]
Teffp = 7231 [533] K [11.00σ]

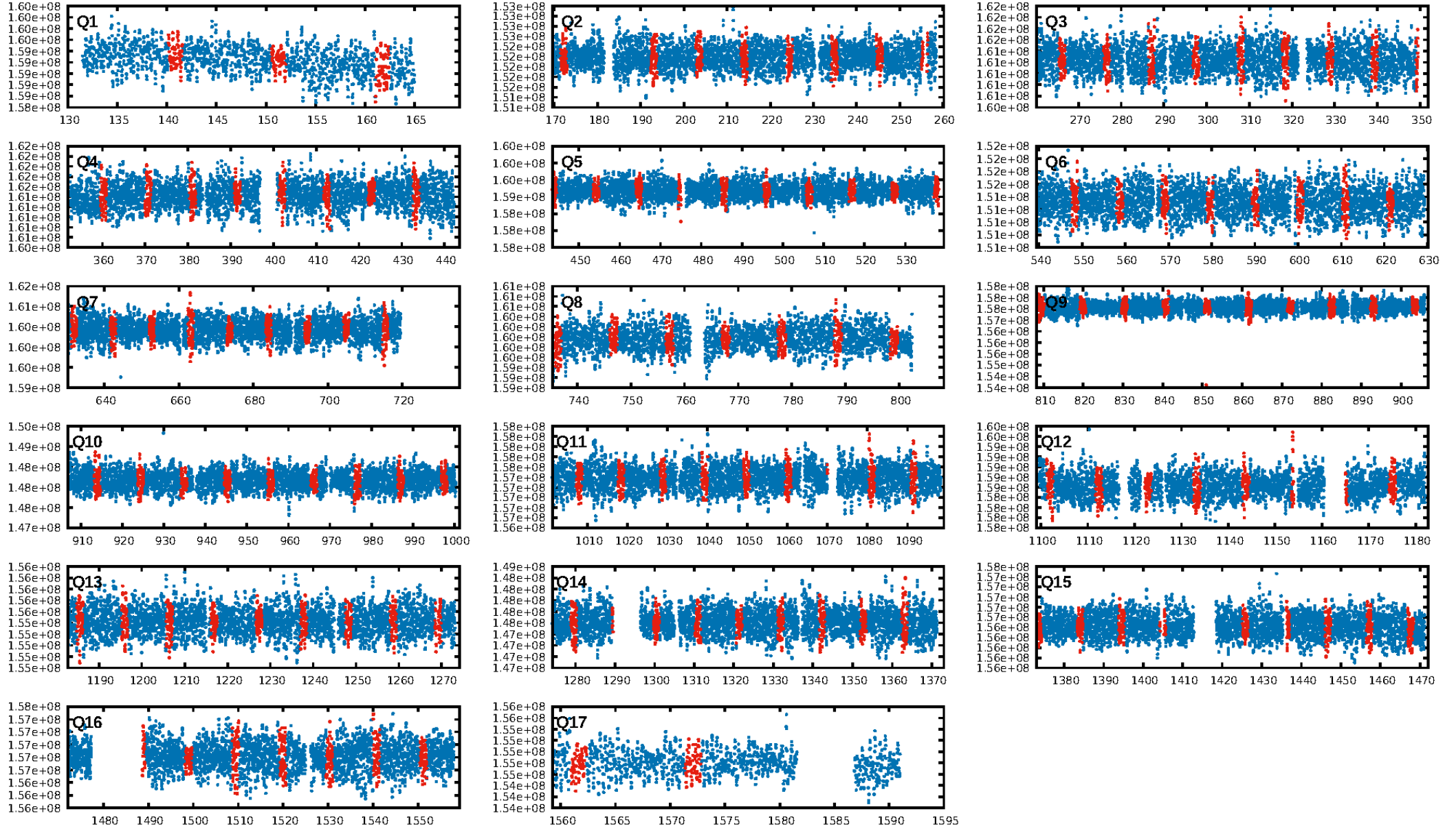
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.02e-19
RollingBand-fgt: 1.00 [125/125]
GhostDiagnostic-chr: 3.428
Centroid-sig: 4.0%
Centroid-so: 0.531 arcsec [1.82σ]
OotOffset-rm: 0.385 arcsec [0.68σ]
KicOffset-rm: 0.427 arcsec [0.73σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.79 [11/14]
DiffImageOverlap-fno: 1.00 [17/17]

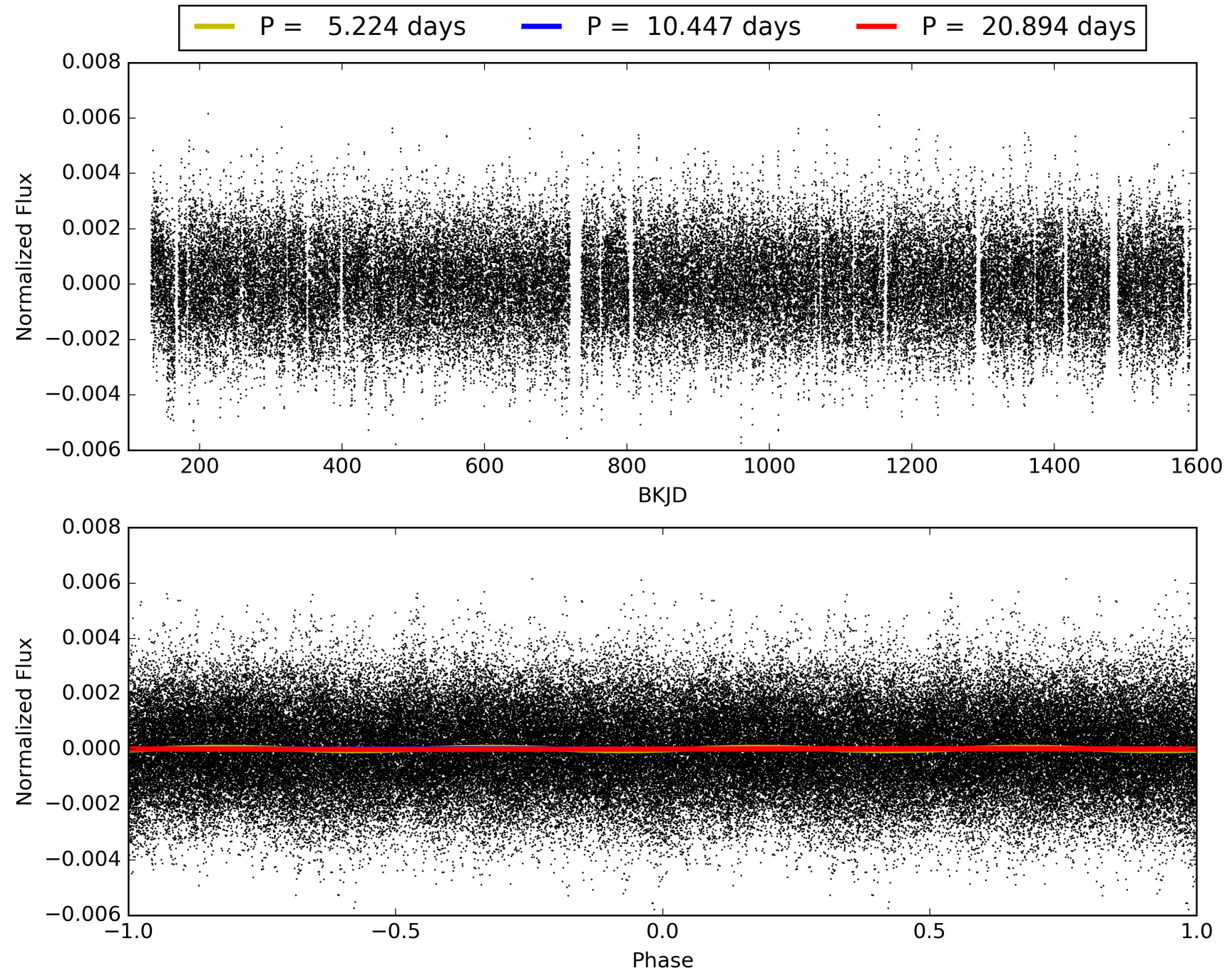
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:40:54 Z

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

TCE 003346027-01, PDC Light Curves

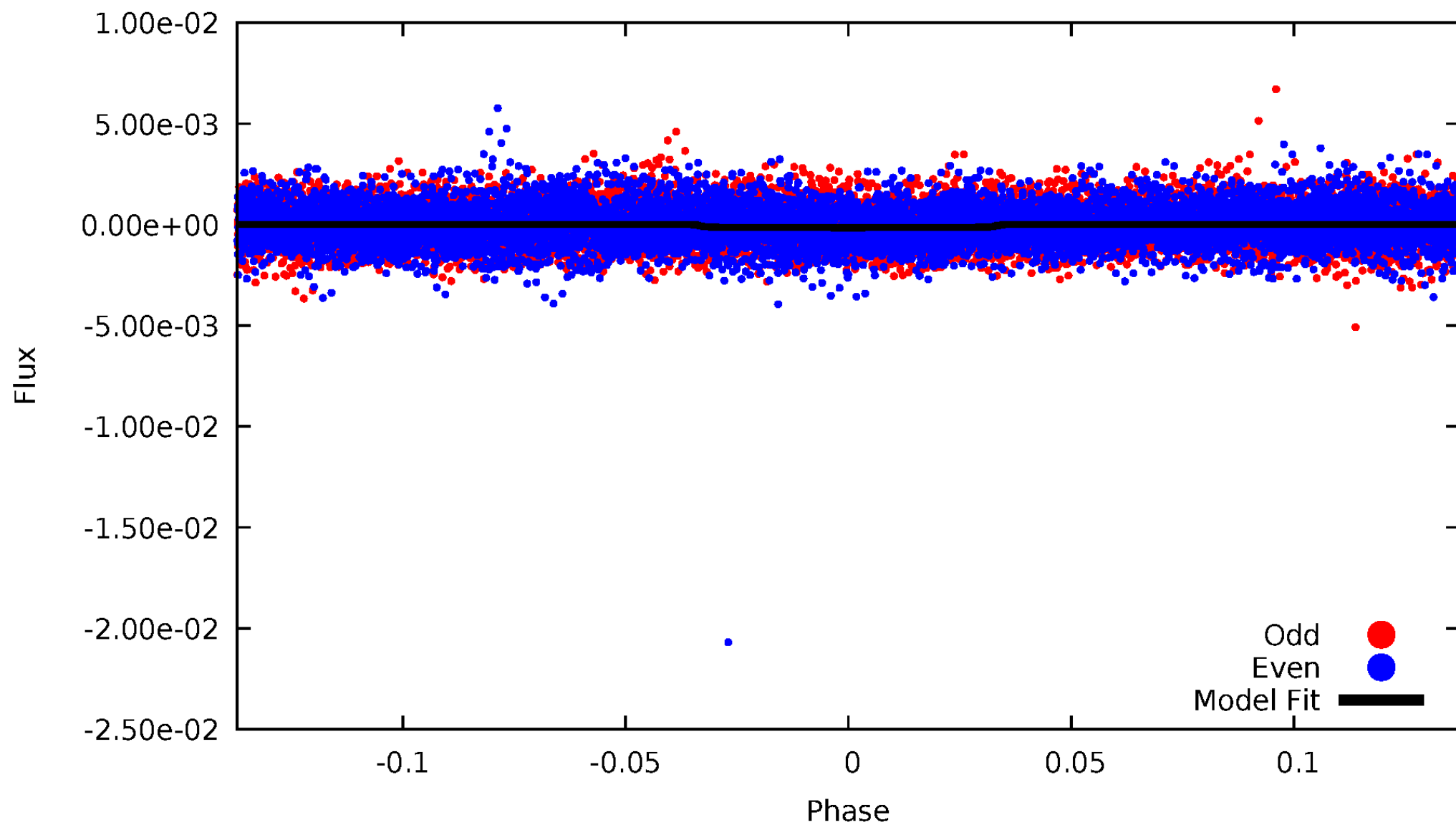


TCE 003346027-01



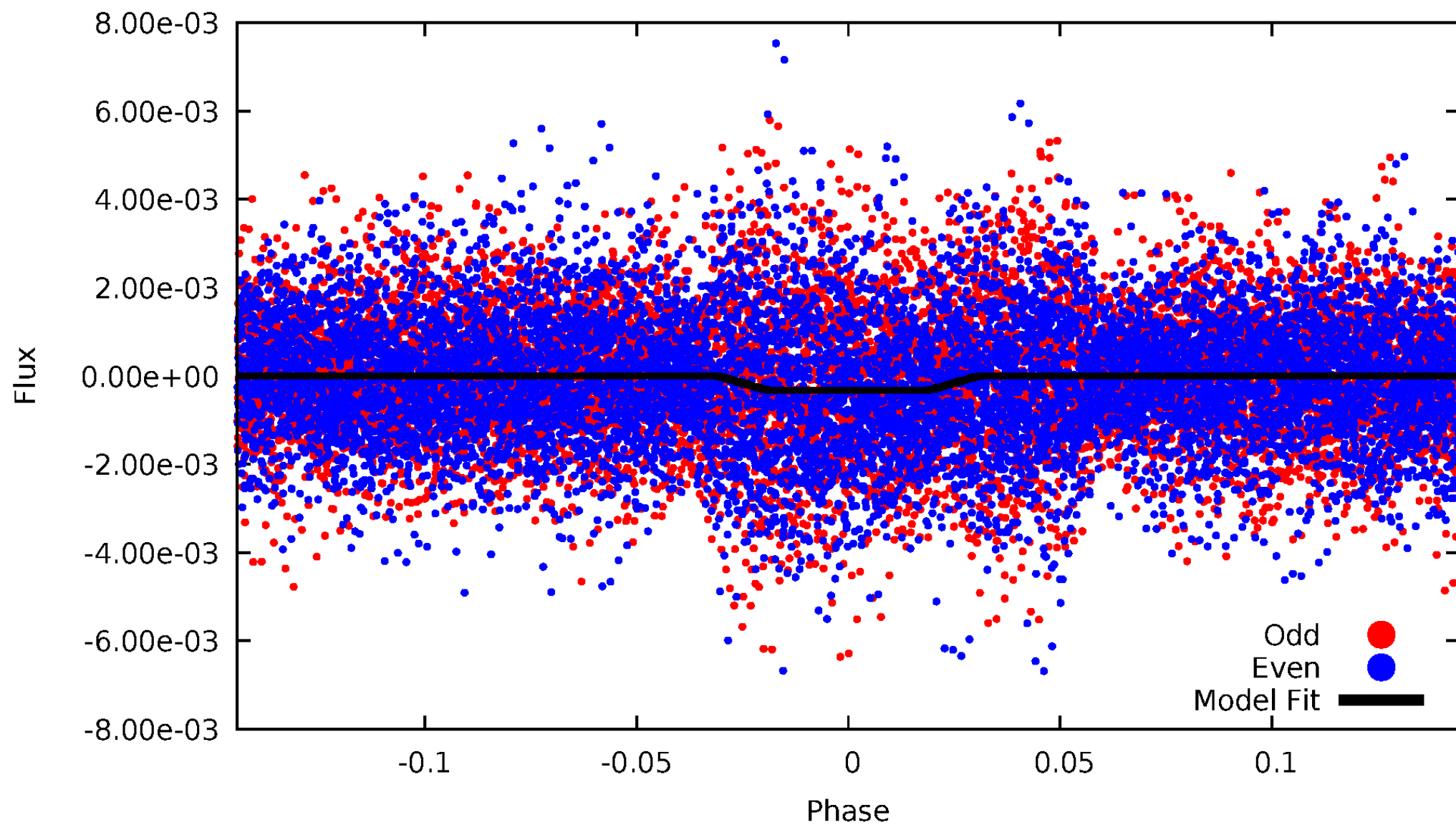
DV Odd/Even

TCE 003346027-01

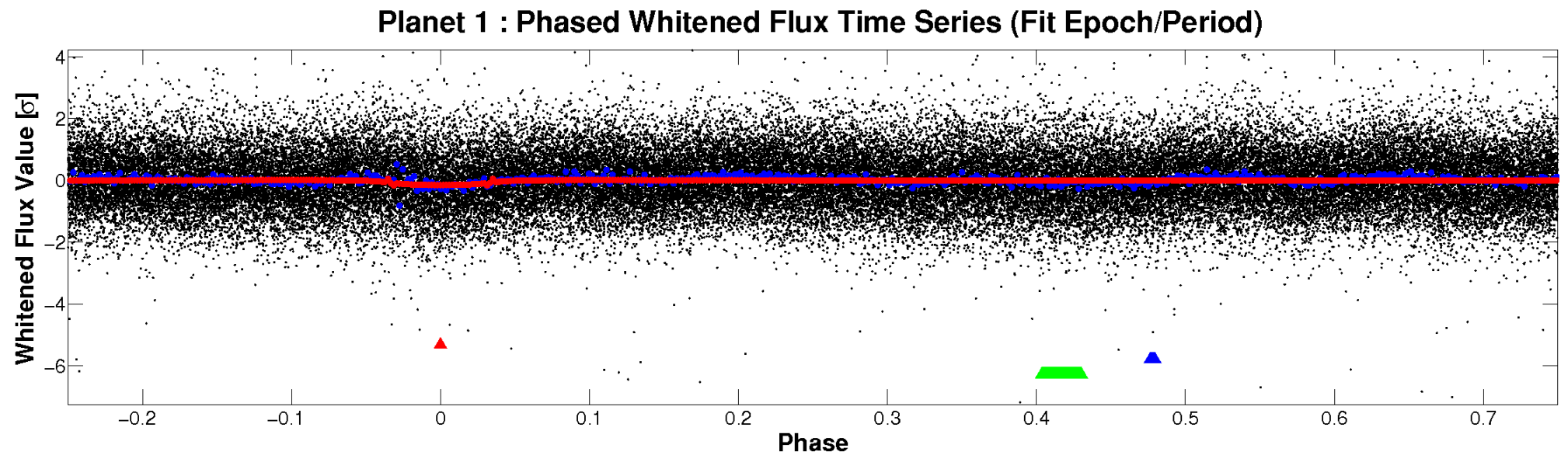
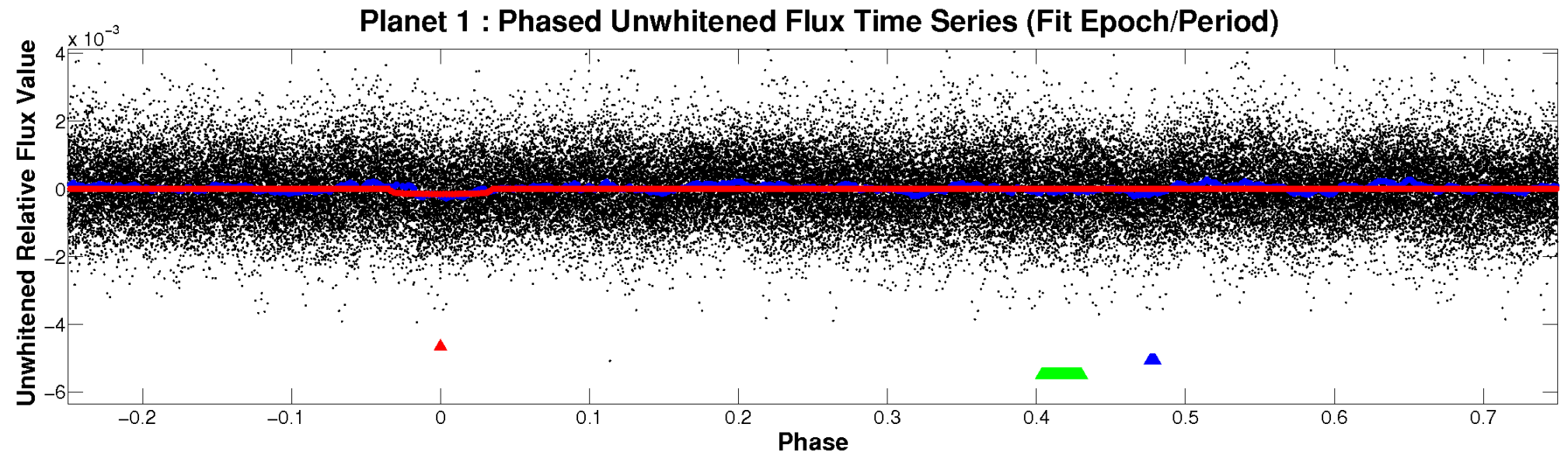


ALT Odd/Even

TCE 003346027-01

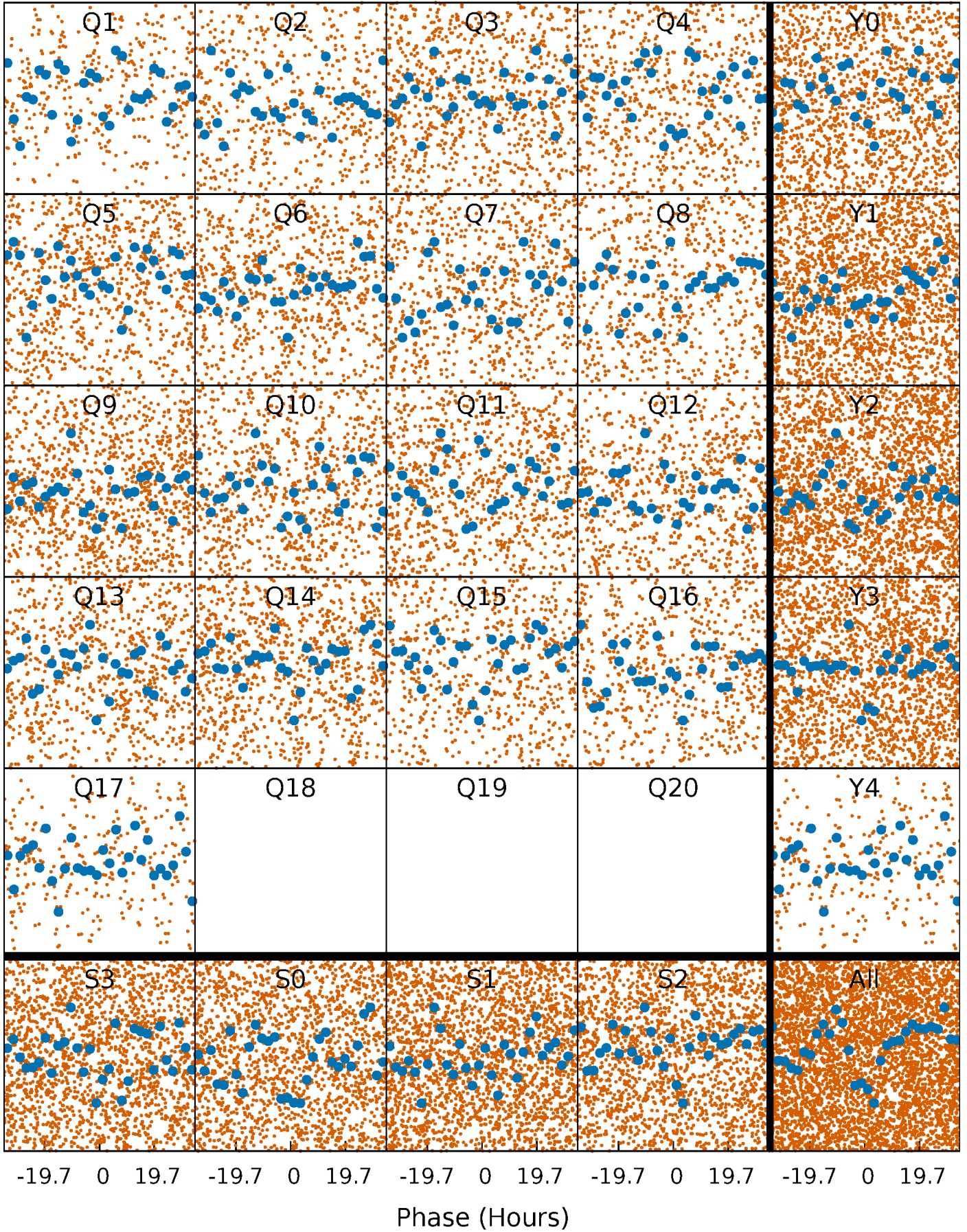


Non-Whitened Vs. Whitened Light Curve



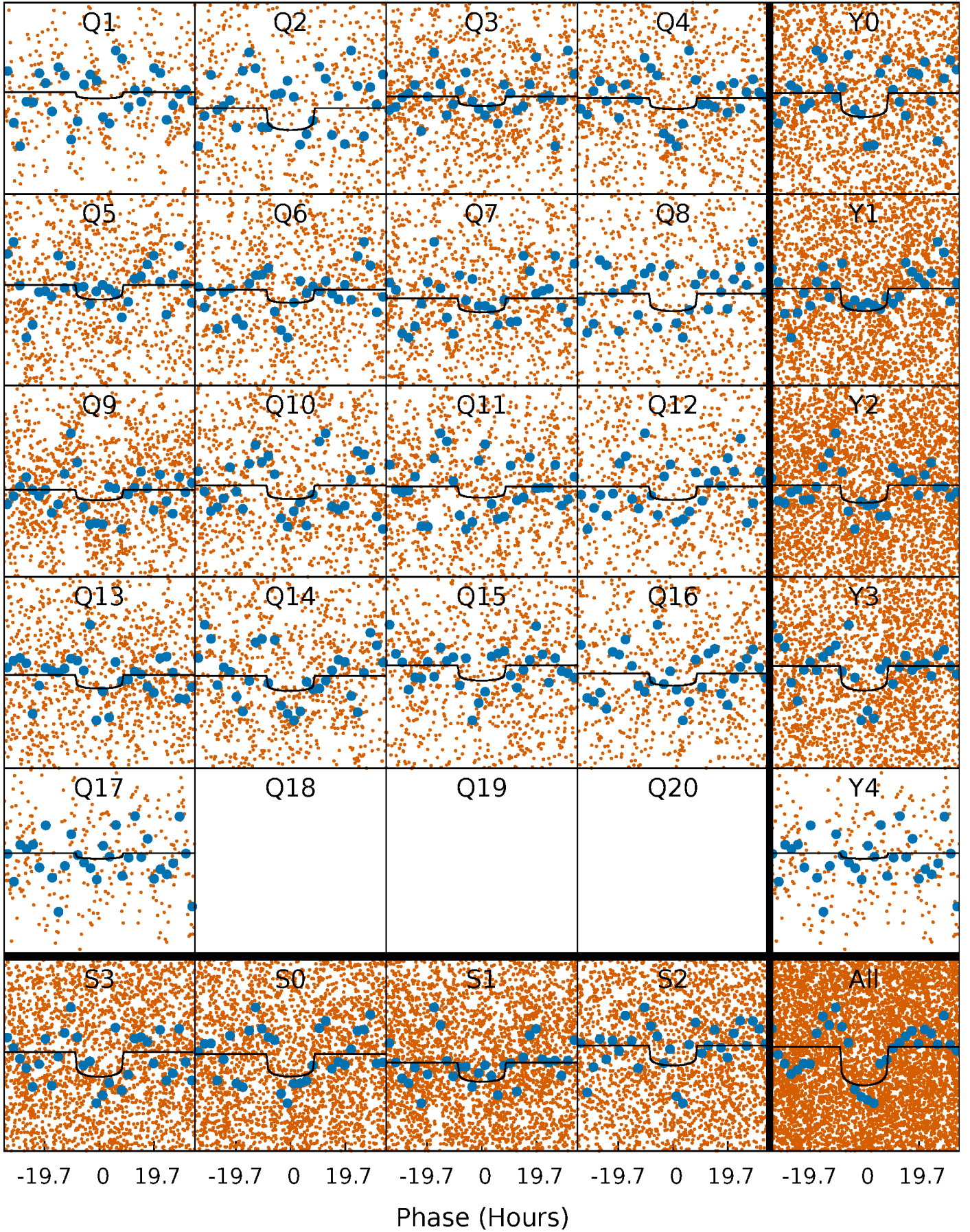
PDC Quarter-Phased Transit Curves

TCE 003346027-01 P= 10.447092 Days $T_0=140.837240$ (BKJD)



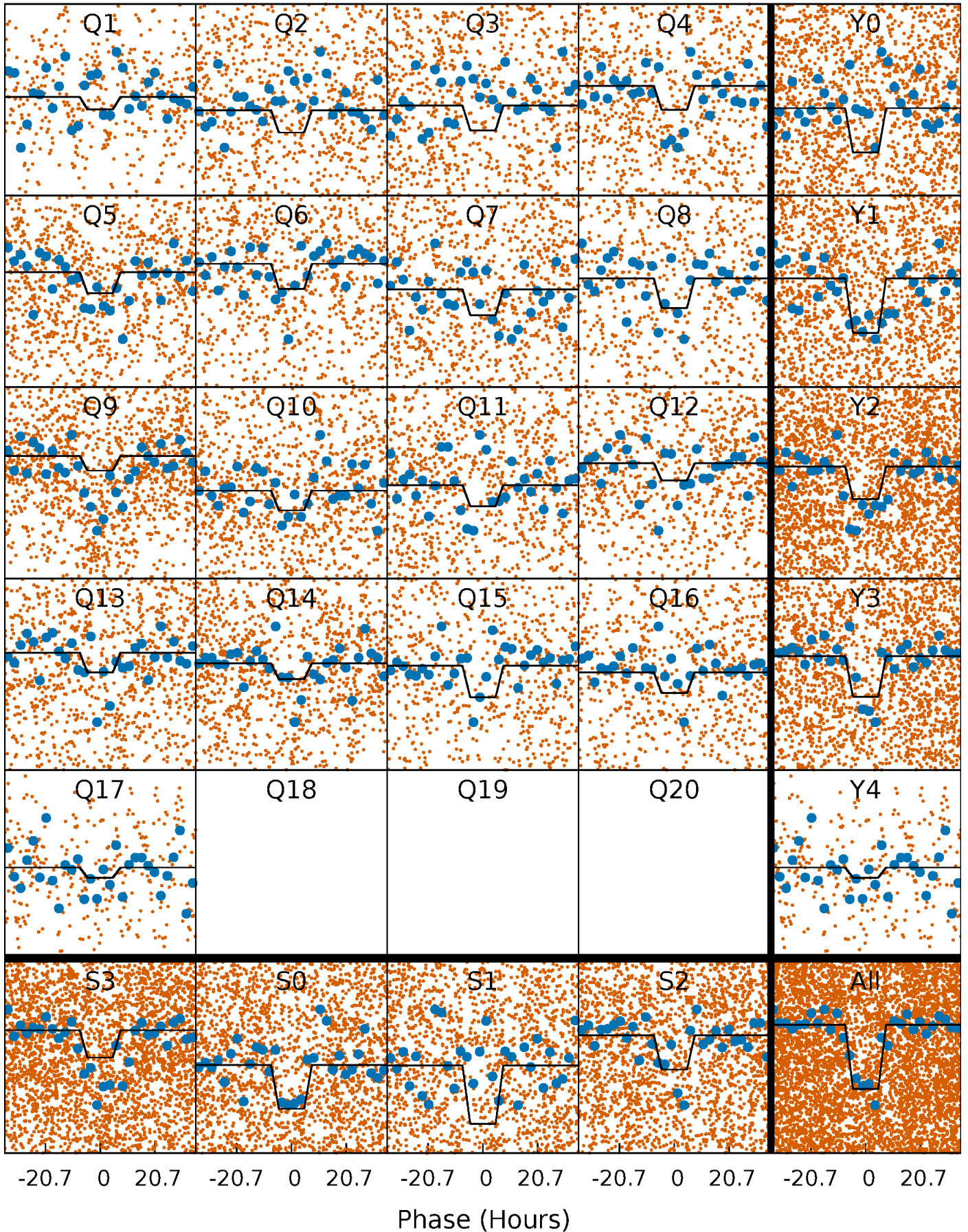
DV Quarter-Phased Transit Curves

TCE 003346027-01 P= 10.447092 Days $T_0=140.837240$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

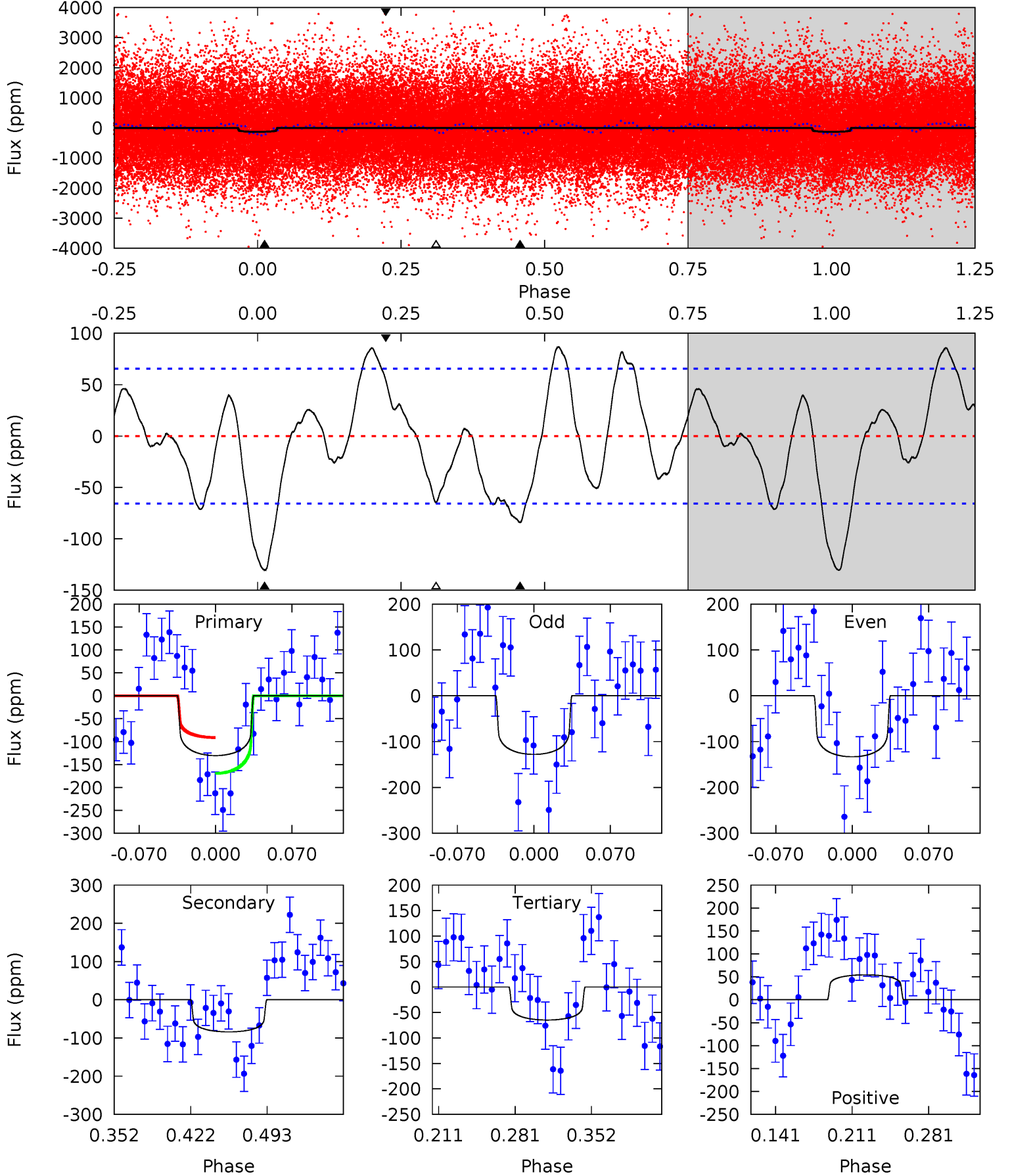
TCE 003346027-01 P= 10.447168 Days $T_0=140.830802$ (BKJD)



DV Model-Shift Uniqueness Test

003346027-01, P = 10.447092 Days, E = 130.390148 Days

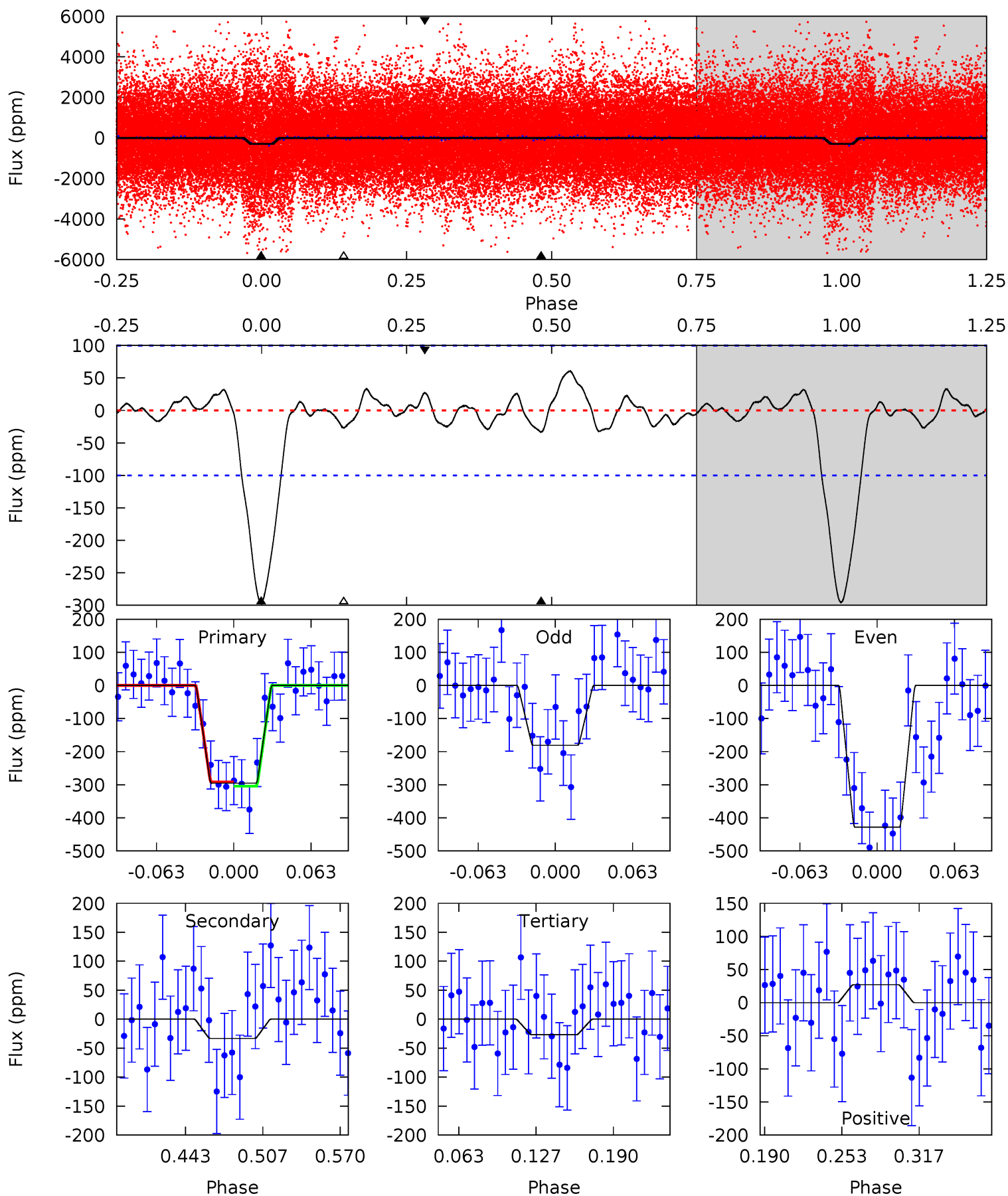
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.23	5.95	4.58	3.84	4.64	1.81	2.76	4.65	5.39	1.37	2.10	0.18	1.05	0.40	2.76



Alt Model-Shift Uniqueness Test

003346027-01, P = 10.447168 Days, E = 130.383634 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	1.55	1.25	1.27	4.66	1.86	0.72	12.5	12.5	0.30	0.28	5.79	0.91	0.17	0.28



Stellar Parameters For KIC 003346027

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7372^{+232}_{-310}	$4.263^{+0.087}_{-0.203}$	$-0.320^{+0.250}_{-0.350}$	$1.424^{+0.481}_{-0.206}$	$1.362^{+0.222}_{-0.201}$	$0.664^{+0.270}_{-0.366}$
	+3%/-4%	+2%/-5%	+78%/-109%	+34%/-14%	+16%/-15%	+41%/-55%
Source	KIC0	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 003346027-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-84 ± 14	$1.97^{+0.37}_{-0.28}$	1714^{+121}_{-108}	6278^{+496}_{-478}	125^{+49}_{-36}
Alt.	-33 ± 21	$2.84^{+0.53}_{-0.32}$	1709^{+131}_{-99}	4337^{+517}_{-865}	22^{+18}_{-16}

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

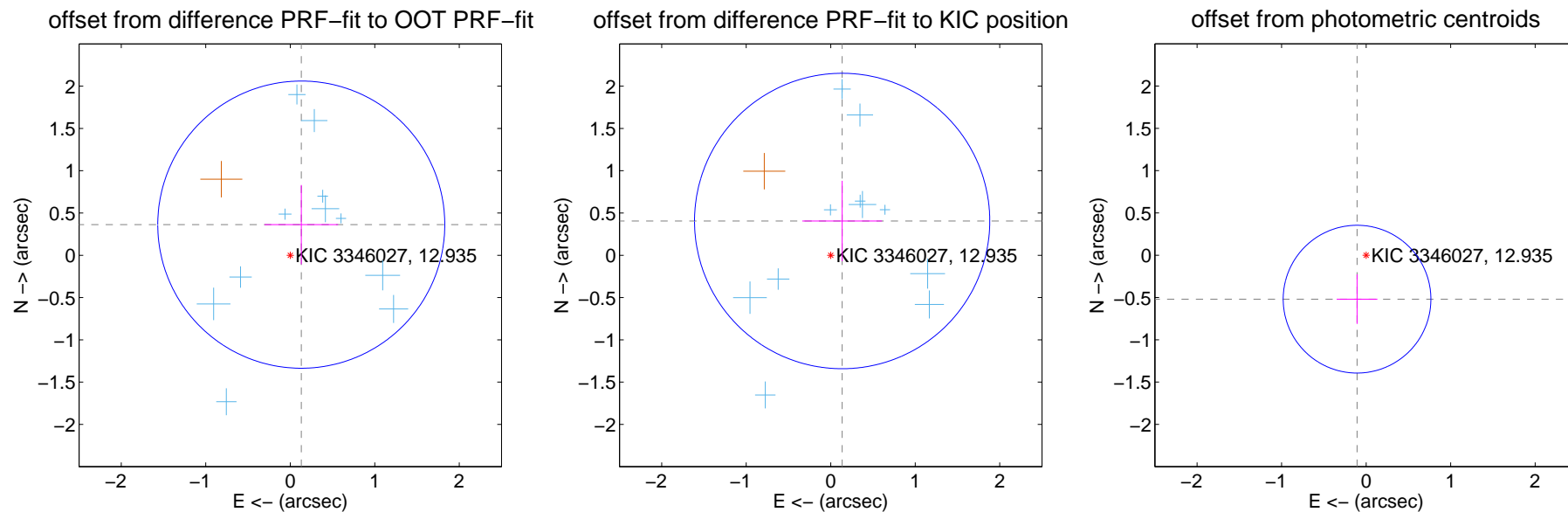
DV Centroid Data

Supplemental centroid analysis for 003346027-01. Kepler magnitude: 12.94. Transit SNR 8.86

There are 11 quarters with good PRF difference image offsets

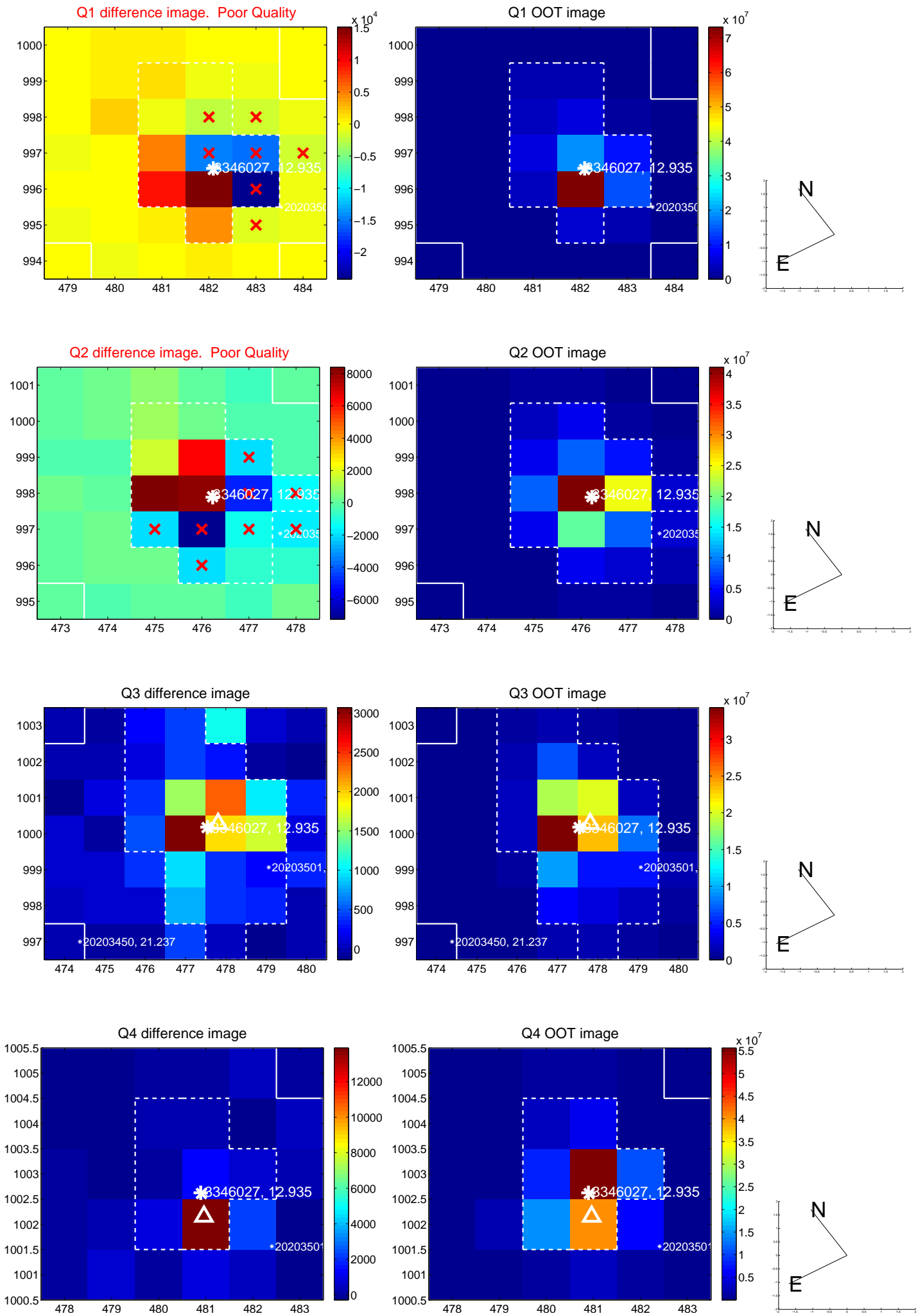
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.385 ± 0.566	0.68	-0.130 ± 0.436	0.362 ± 0.469
PRF-fit source offset from KIC position	0.427 ± 0.582	0.73	-0.135 ± 0.471	0.405 ± 0.476
photometric centroid source offset	0.53 ± 0.29	1.82	0.11 ± 0.24	-0.52 ± 0.29

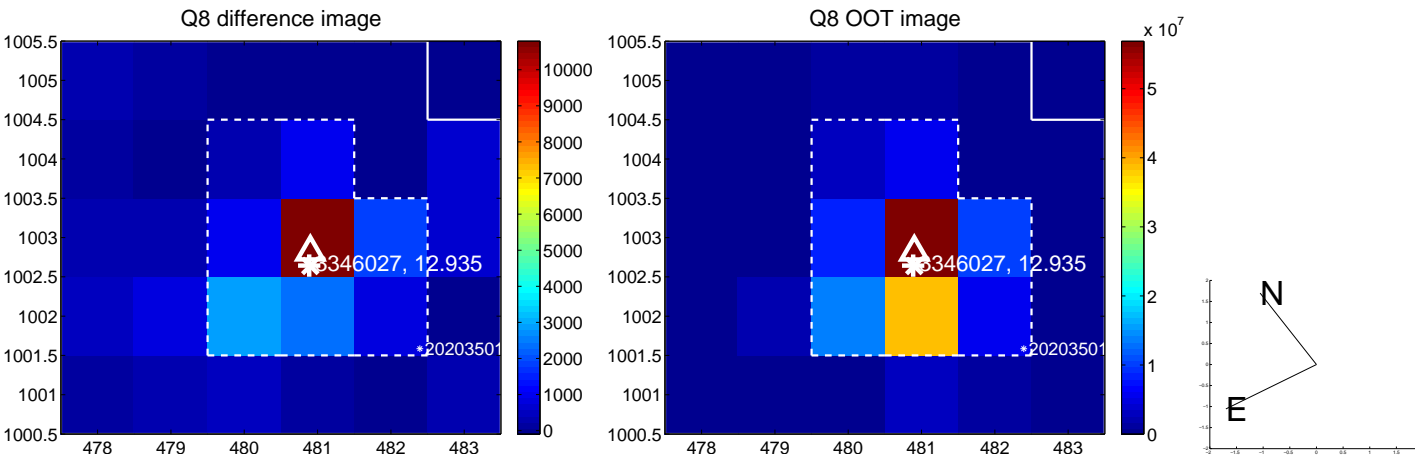
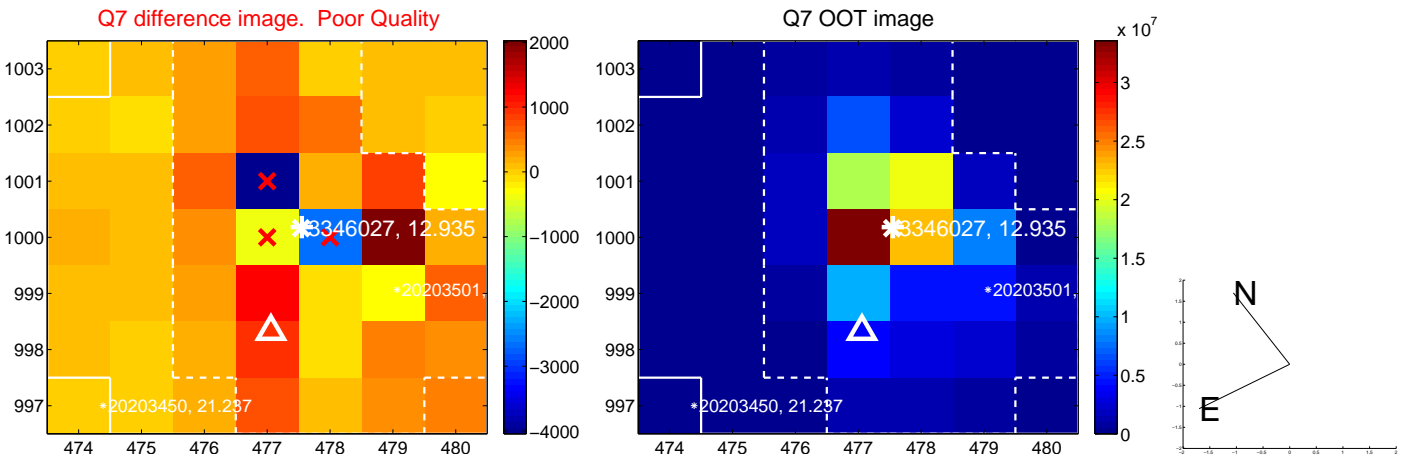
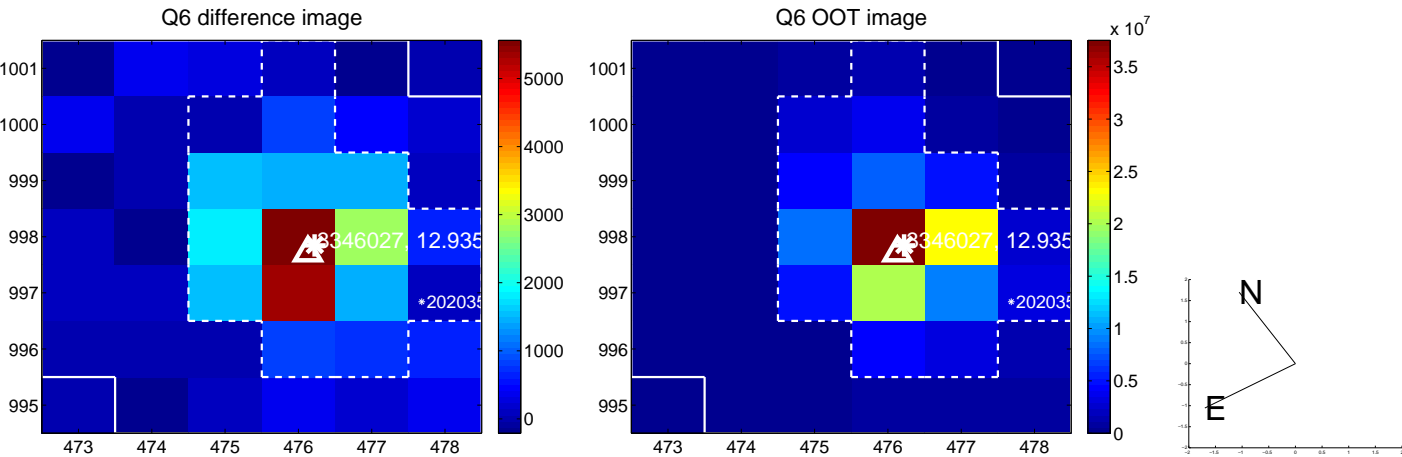
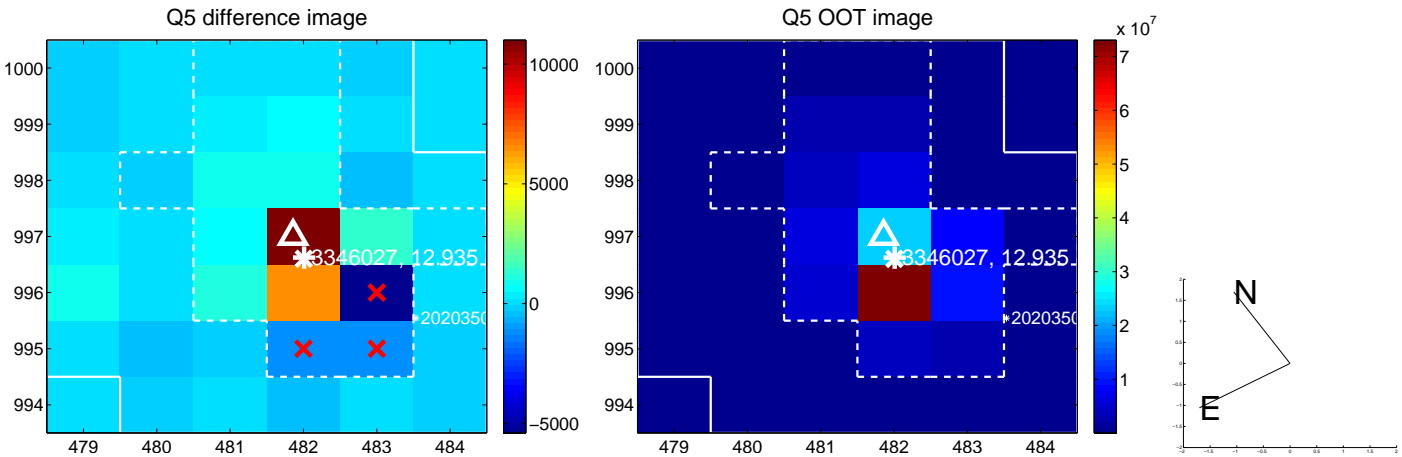


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

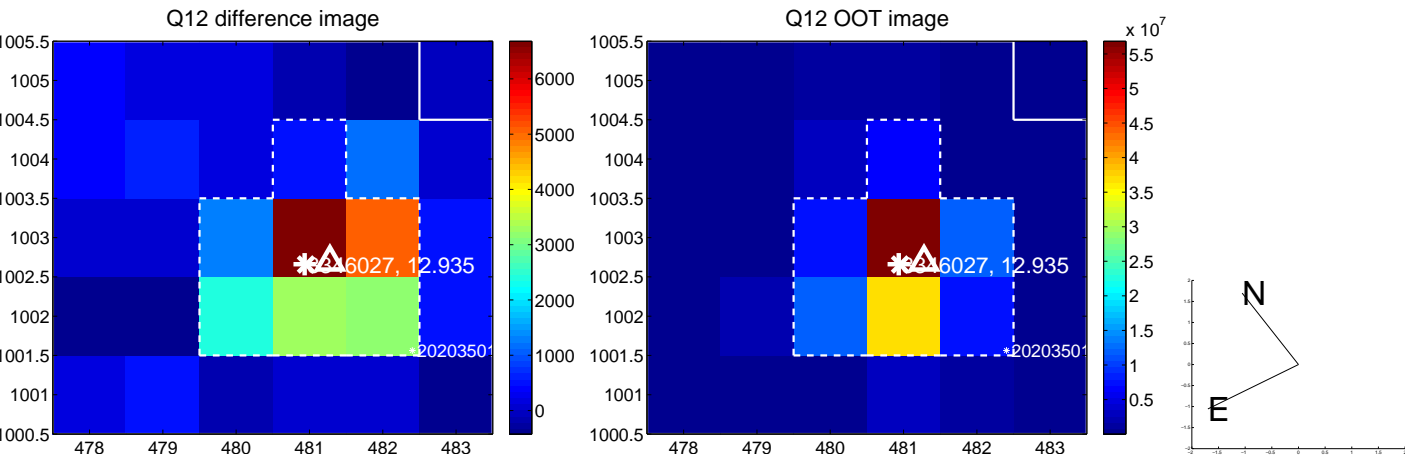
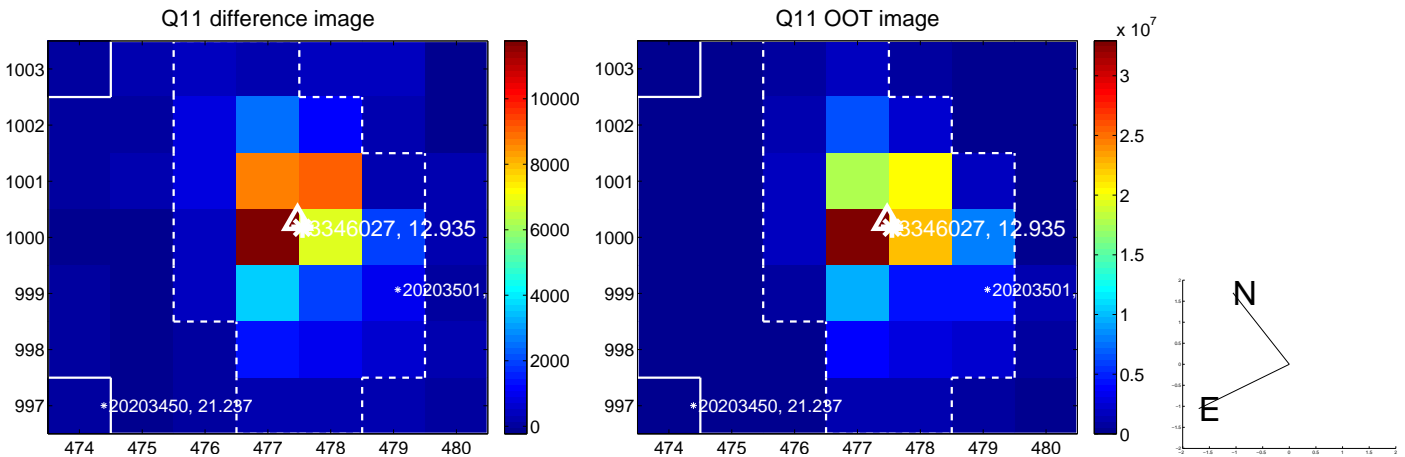
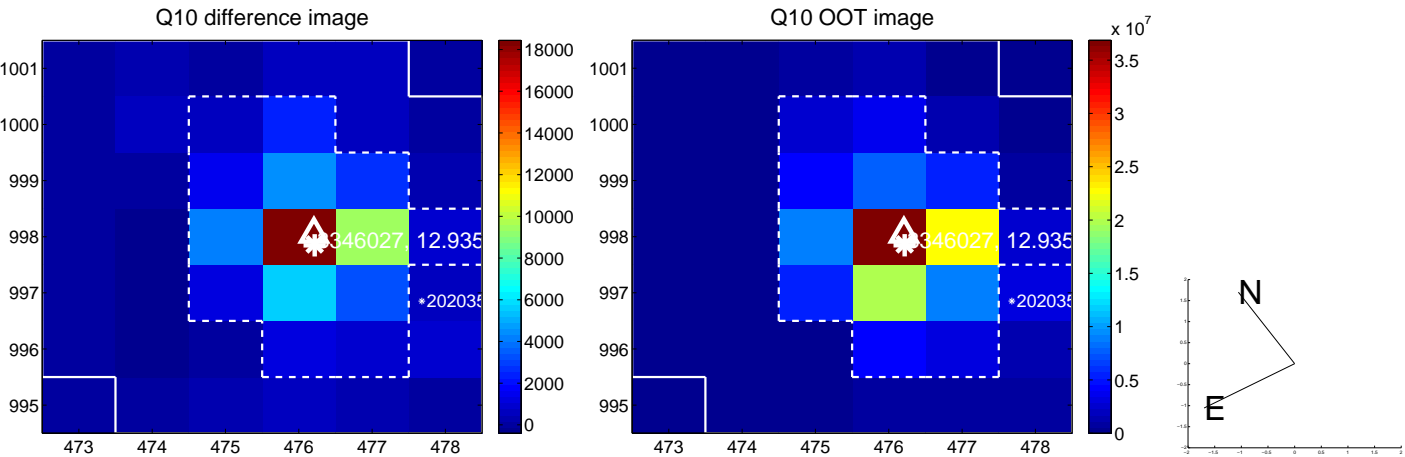
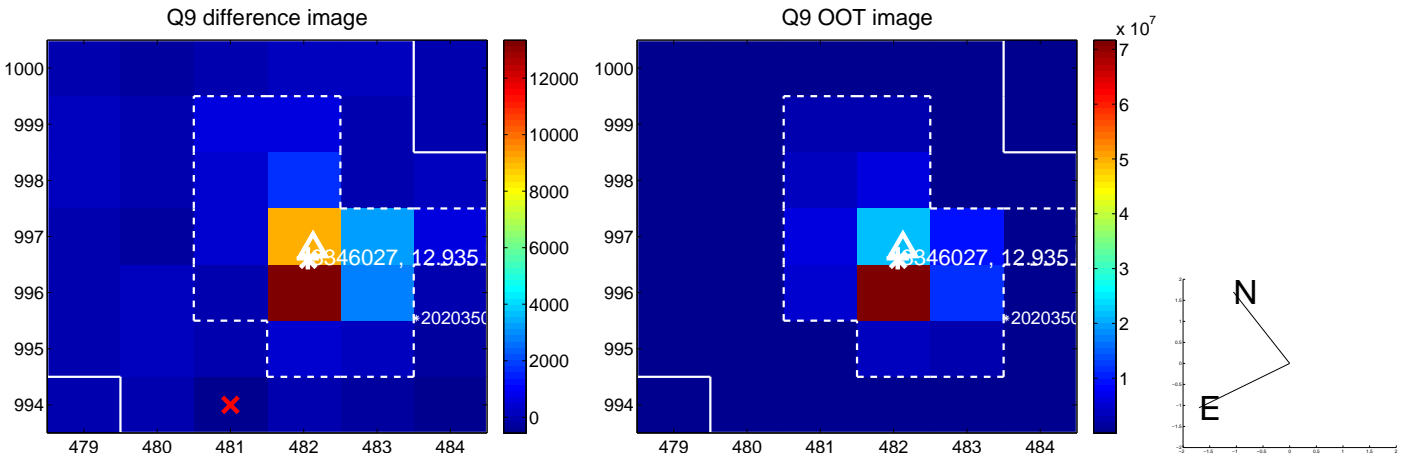
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



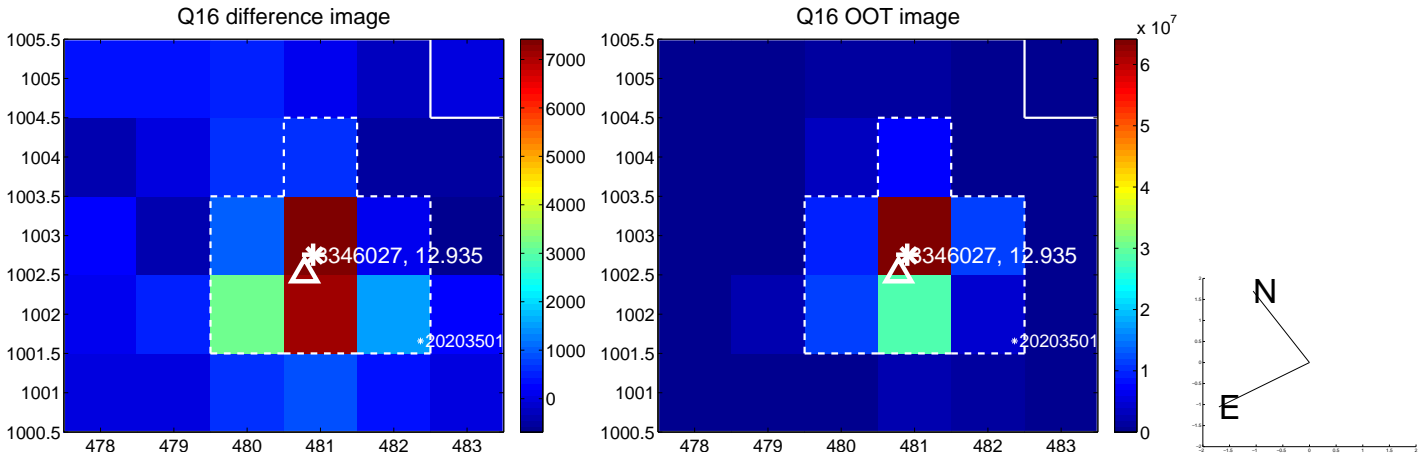
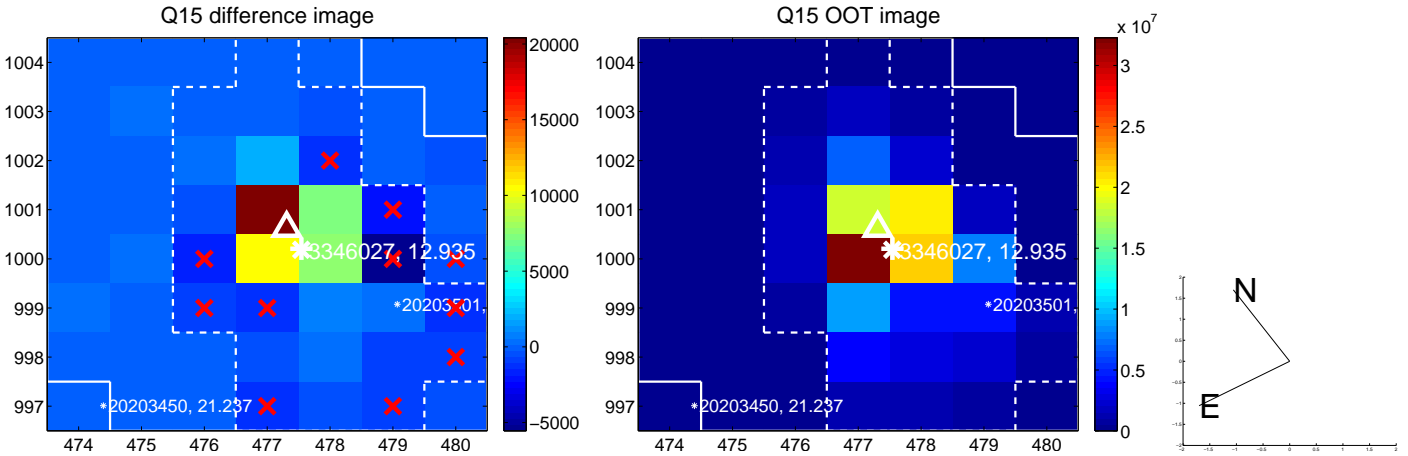
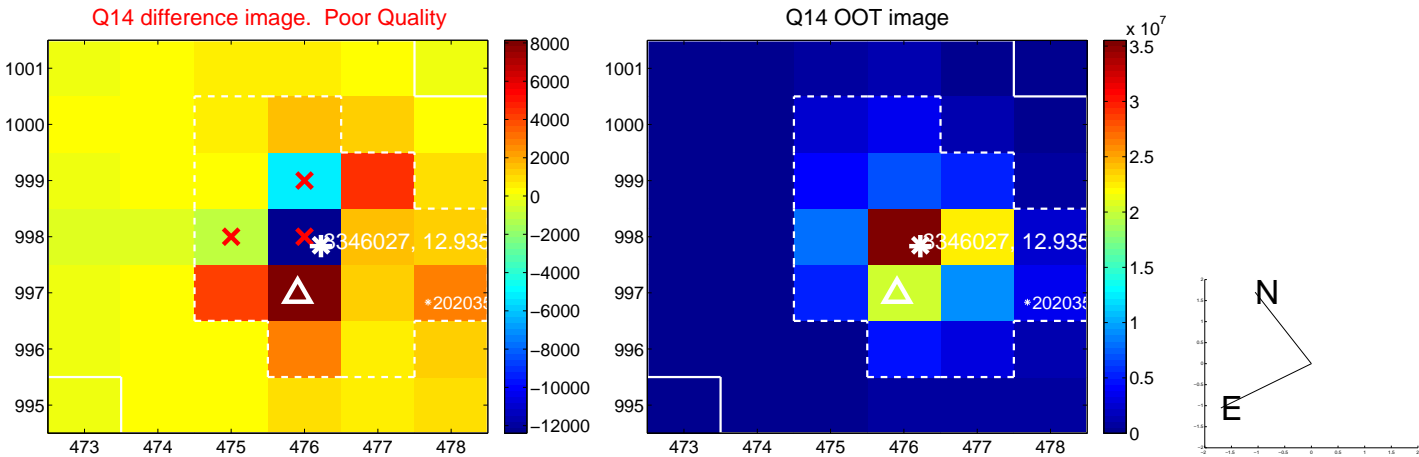
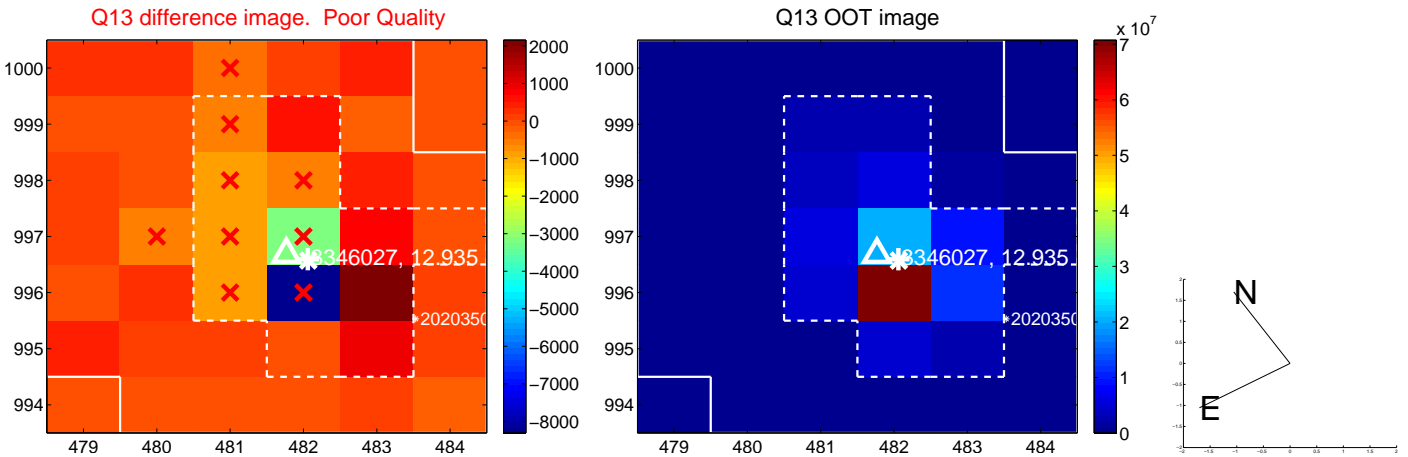
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



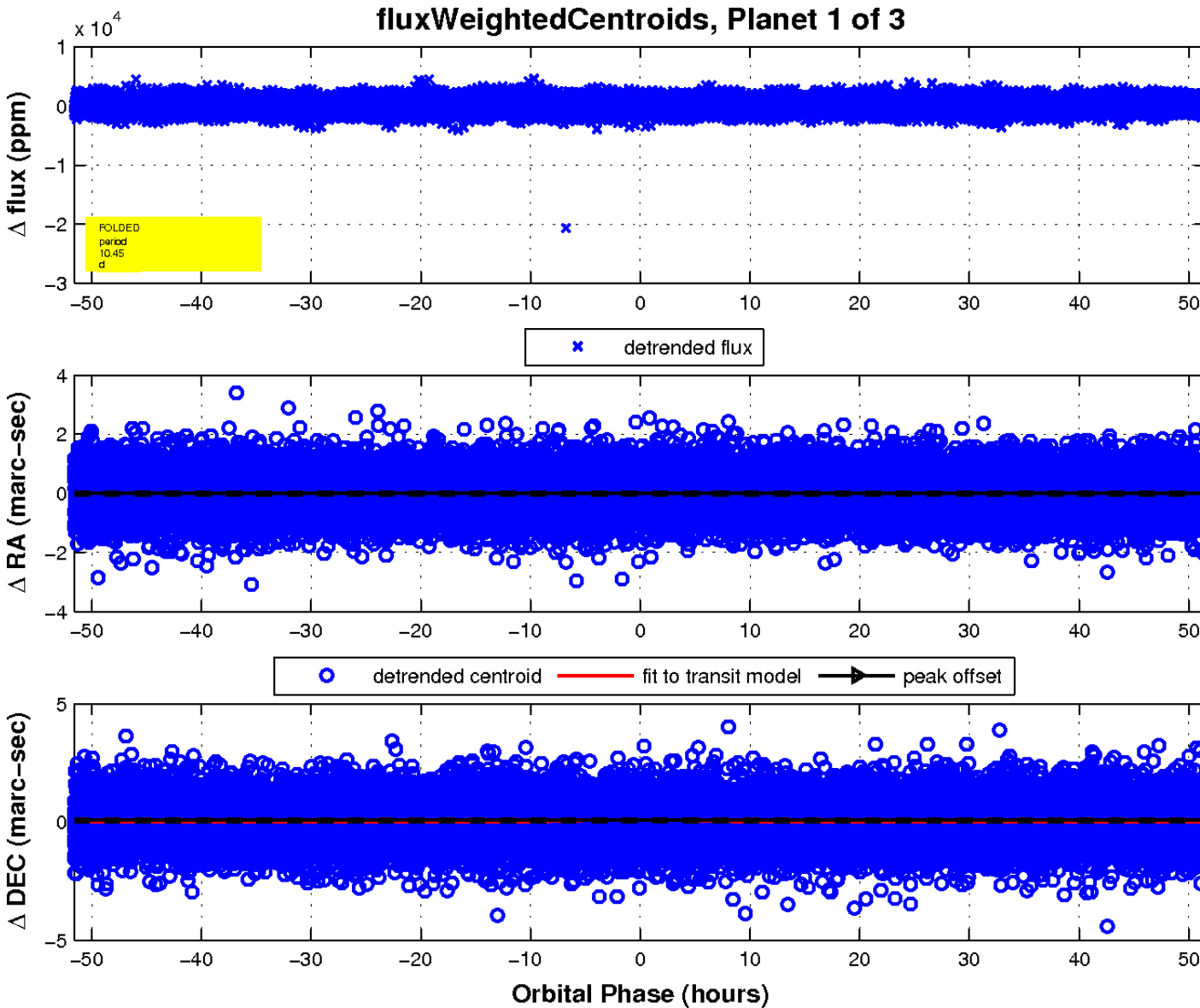
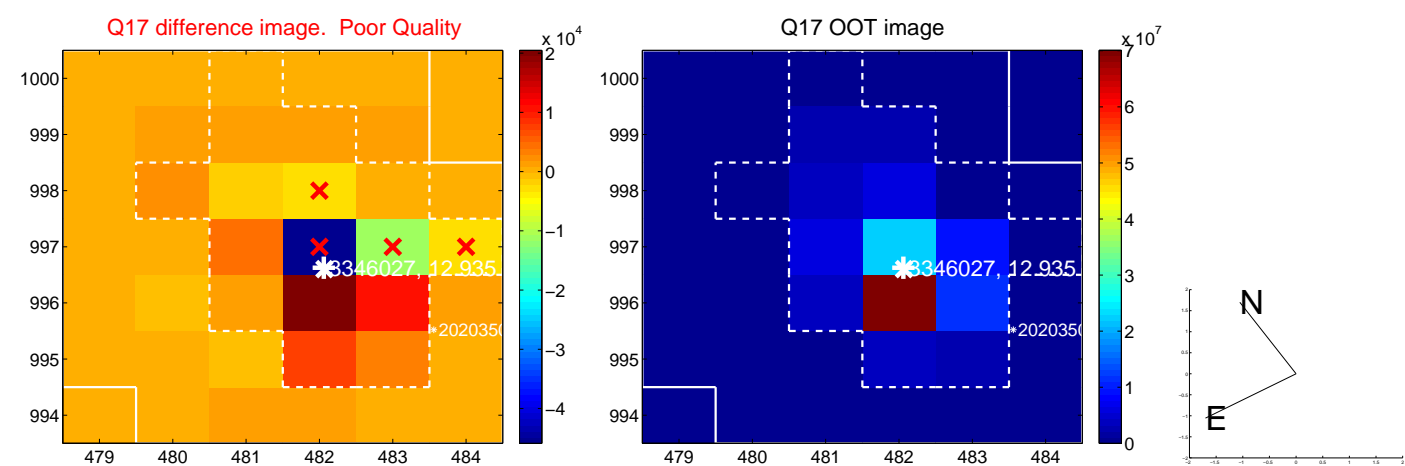
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



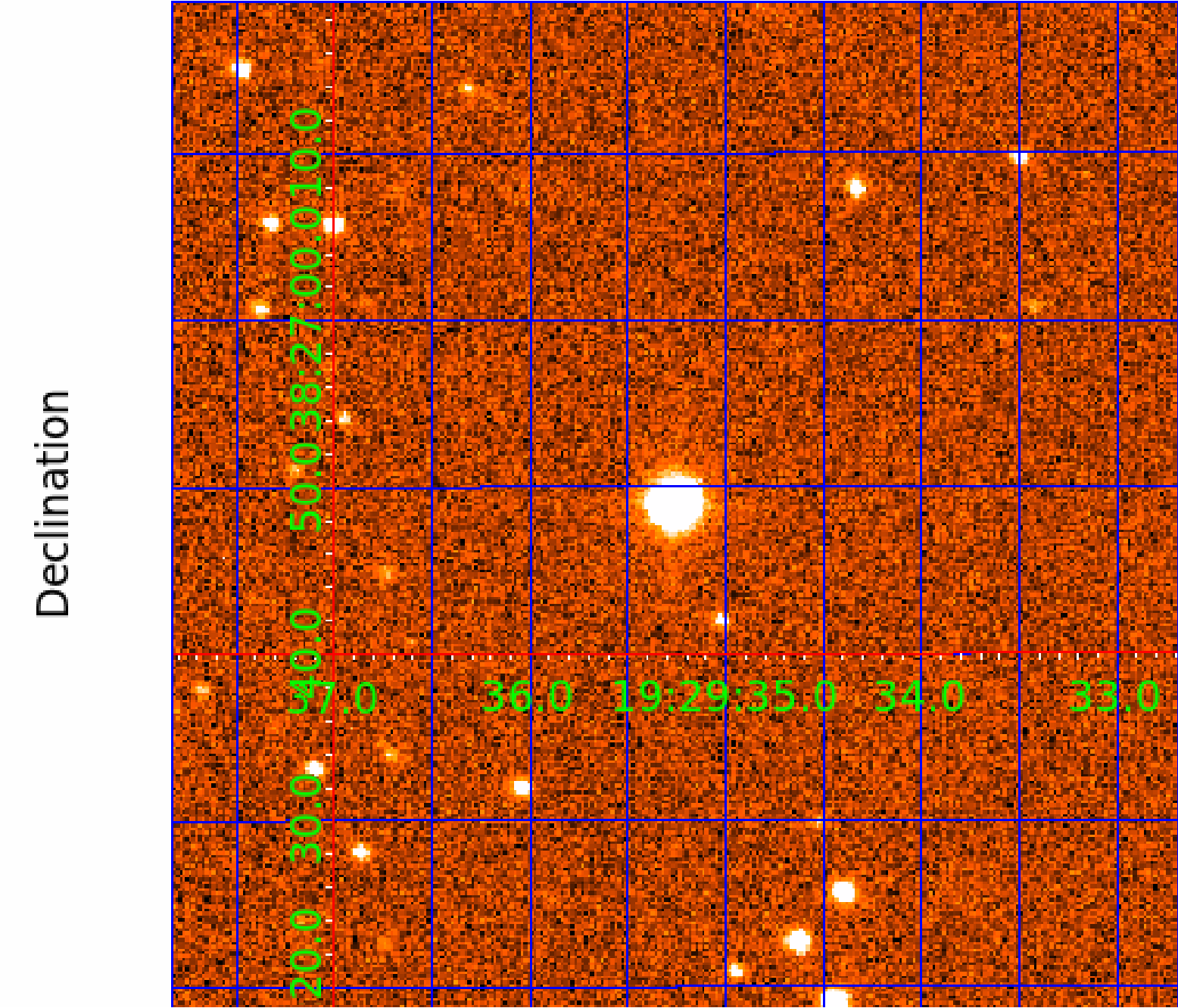
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003346027

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})
003346027-01	OBS	No	10.447092	140.837239	157.3	17.199	9.1	8.9	1.42	7372	1.90	500.70
003346027-02	OBS	No	10.447332	135.367241	144.8	4.647	8.4	3.4	1.42	7372	2.21	500.69
003346027-03	OBS	No	10.449097	134.605953	105.1	28.992	7.6	7.6	1.42	7372	1.69	500.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003346027-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
003346027-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003346027-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

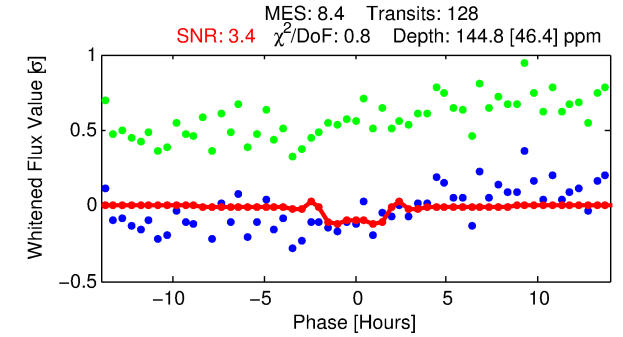
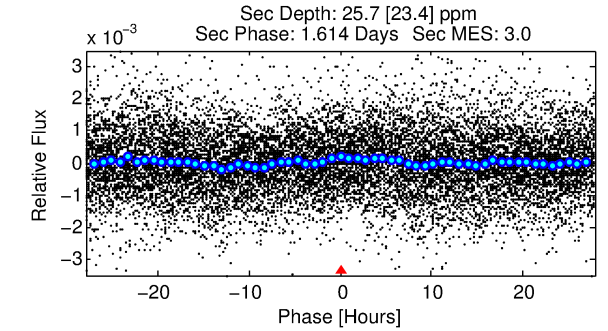
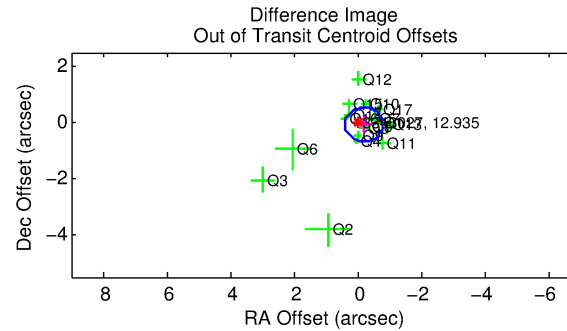
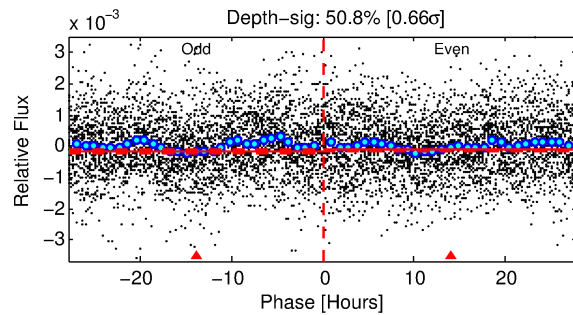
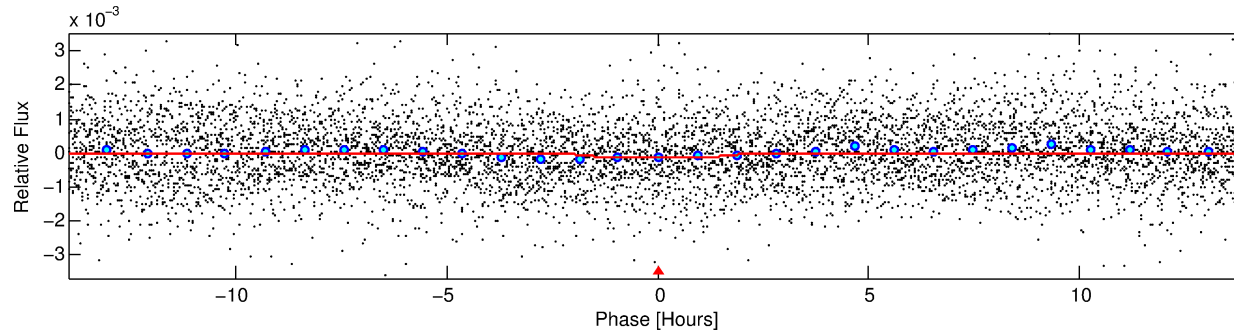
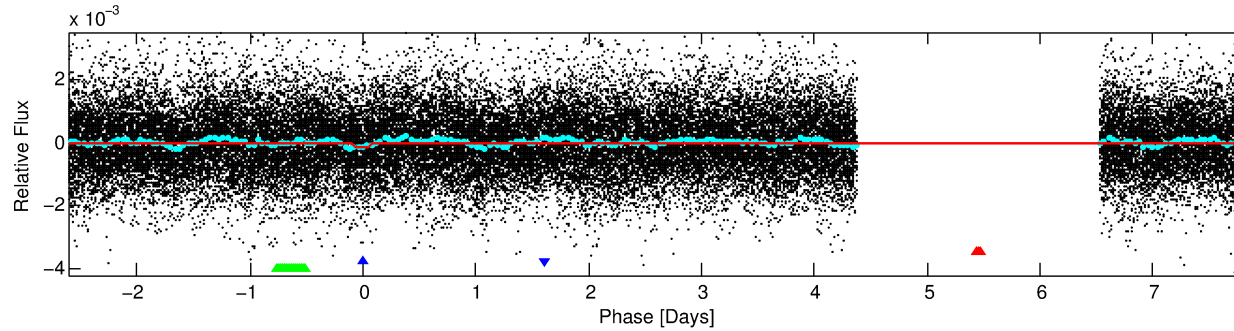
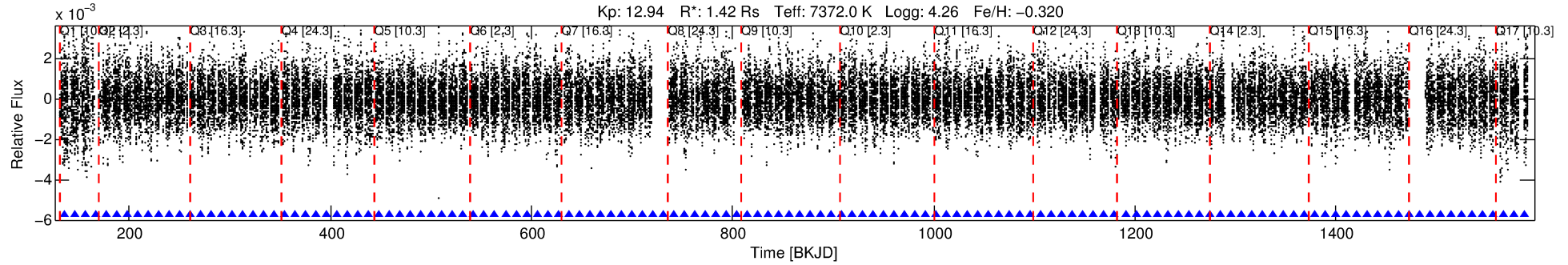
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003346027-02

No Significant Match Found

DV One-Page Summary

KIC: 3346027 Candidate: 2 of 3 Period: 10.447 d



DV Fit Results:

Period = 10.44733 [0.00020] d
Epoch = 135.3672 [0.0151] BKJD
Rp/R* = 0.0143 [0.0024]
a/R* = 4.68 [0.85]
b = 0.98 [0.01]
Seff = 500.69 [210.11]
Teq = 1206 [127] K
Rp = 2.22 [0.84] Re
a = 0.1035 [0.0283] AU
Ag = 30.87 [32.29] [0.93 σ]
Teff = 4396 [1085] K [2.92 σ]

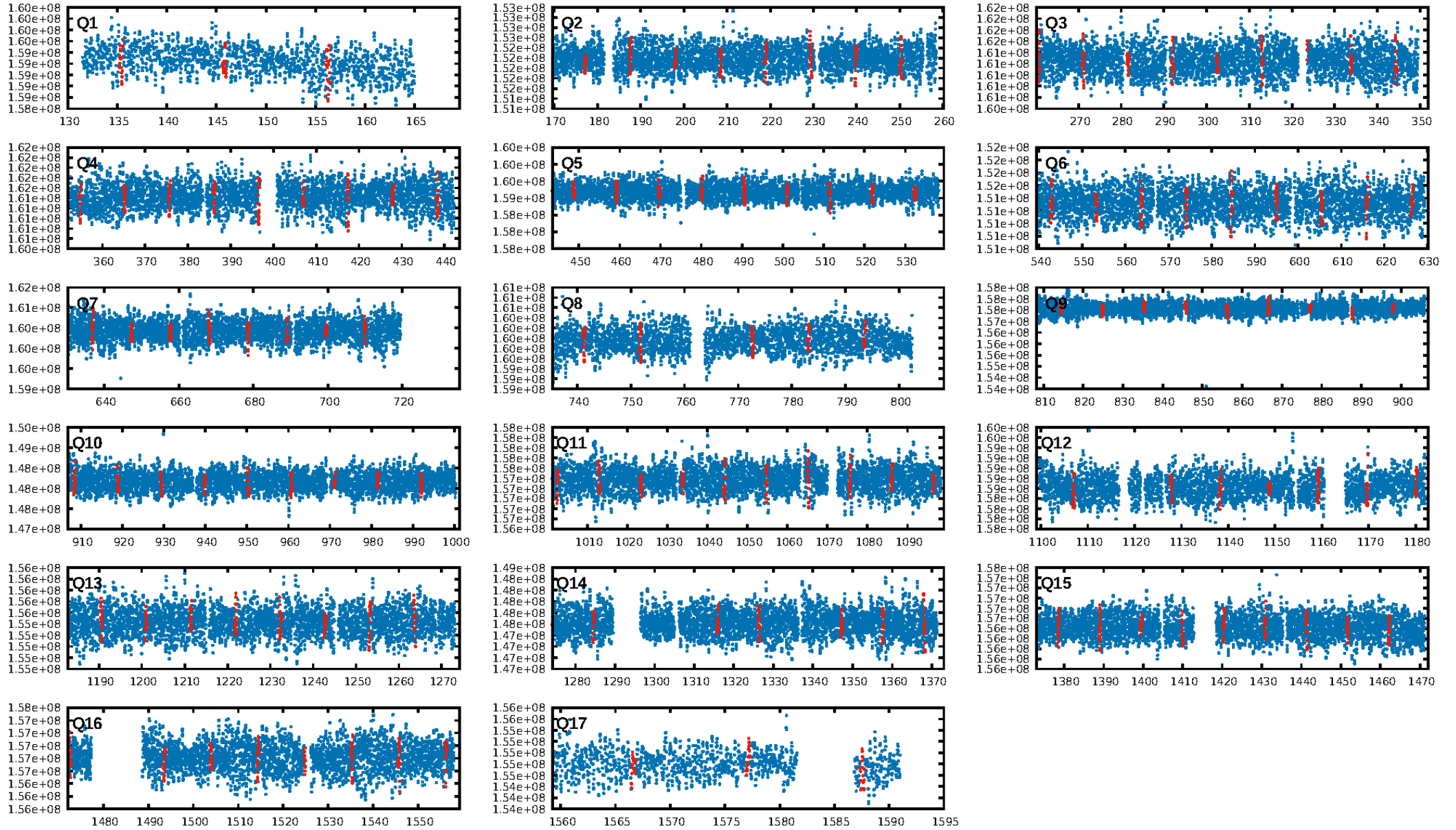
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 0.1% [0.00 σ]
ModelChiSquare2-sig: 66.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.03e-16
RollingBand-fgt: 1.00 [122/122]
GhostDiagnostic-chr: 0.7862
Centroid-sig: 86.8%
Centroid-so: 0.241 arcsec [0.46 σ]
OotOffset-rm: 0.208 arcsec [1.04 σ]
KicOffset-rm: 0.232 arcsec [0.90 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.65 [11/17]
DiffImageOverlap-fno: 0.00 [0/17]

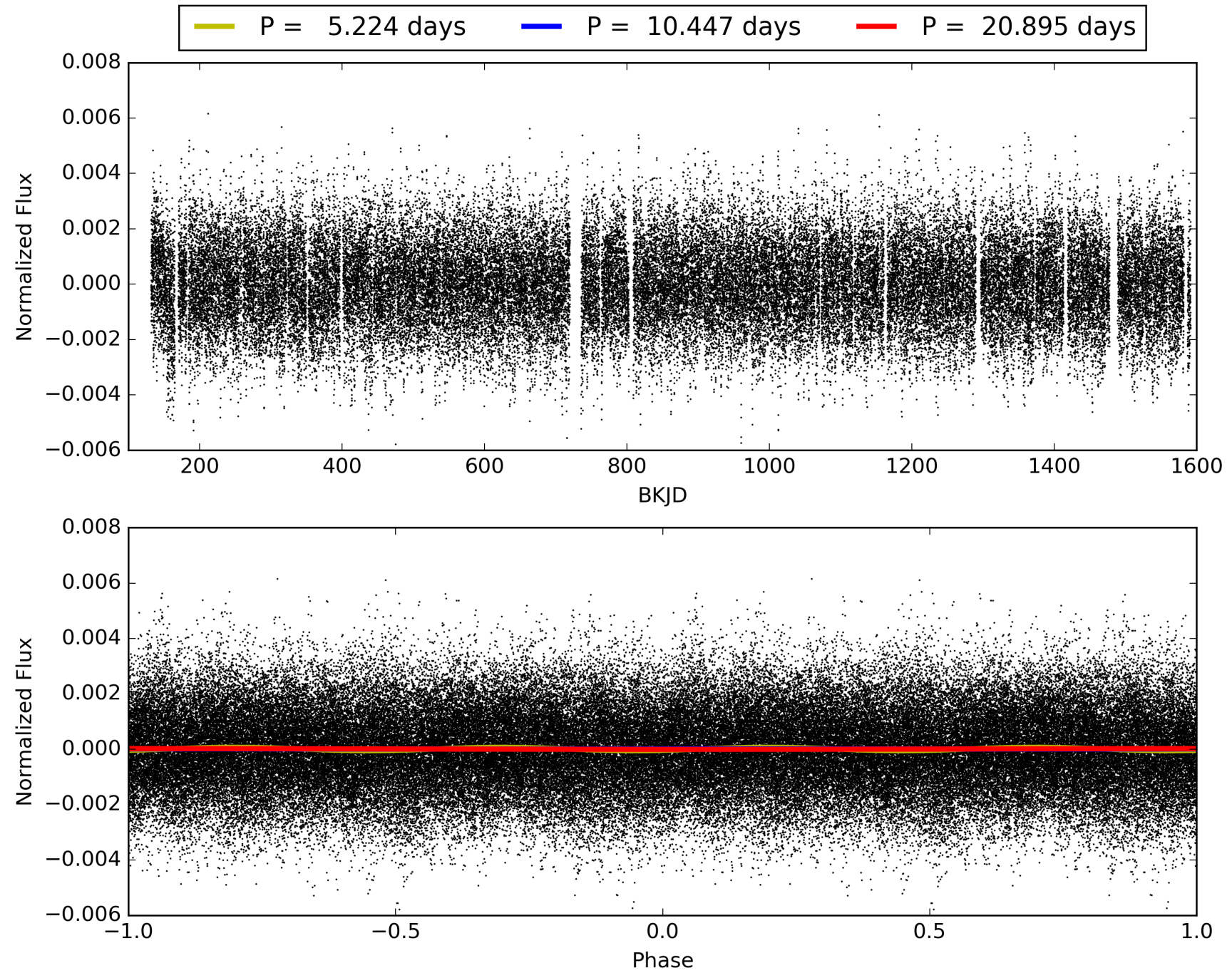
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:41:02 Z

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

TCE 003346027-02, PDC Light Curves

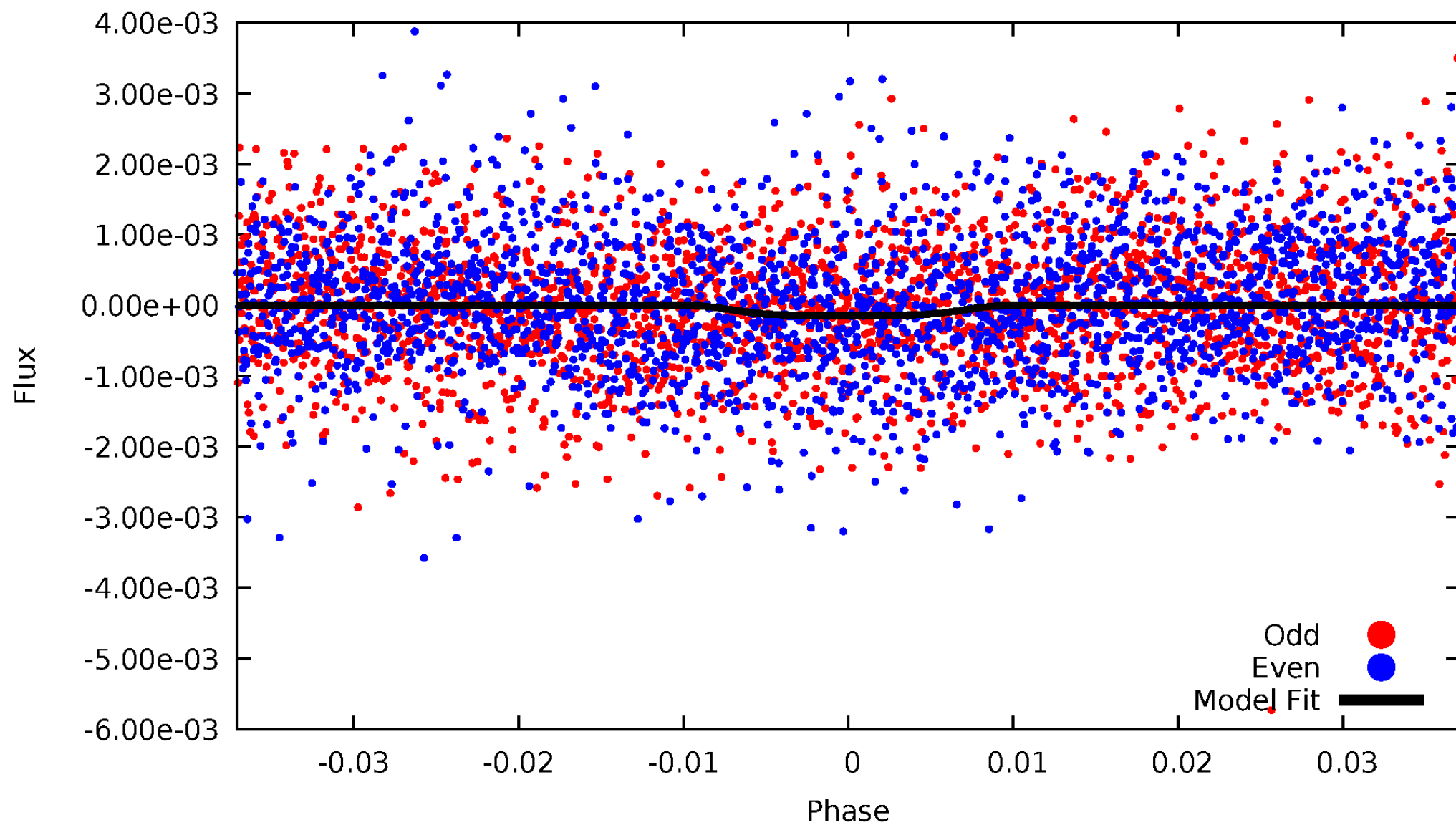


TCE 003346027-02



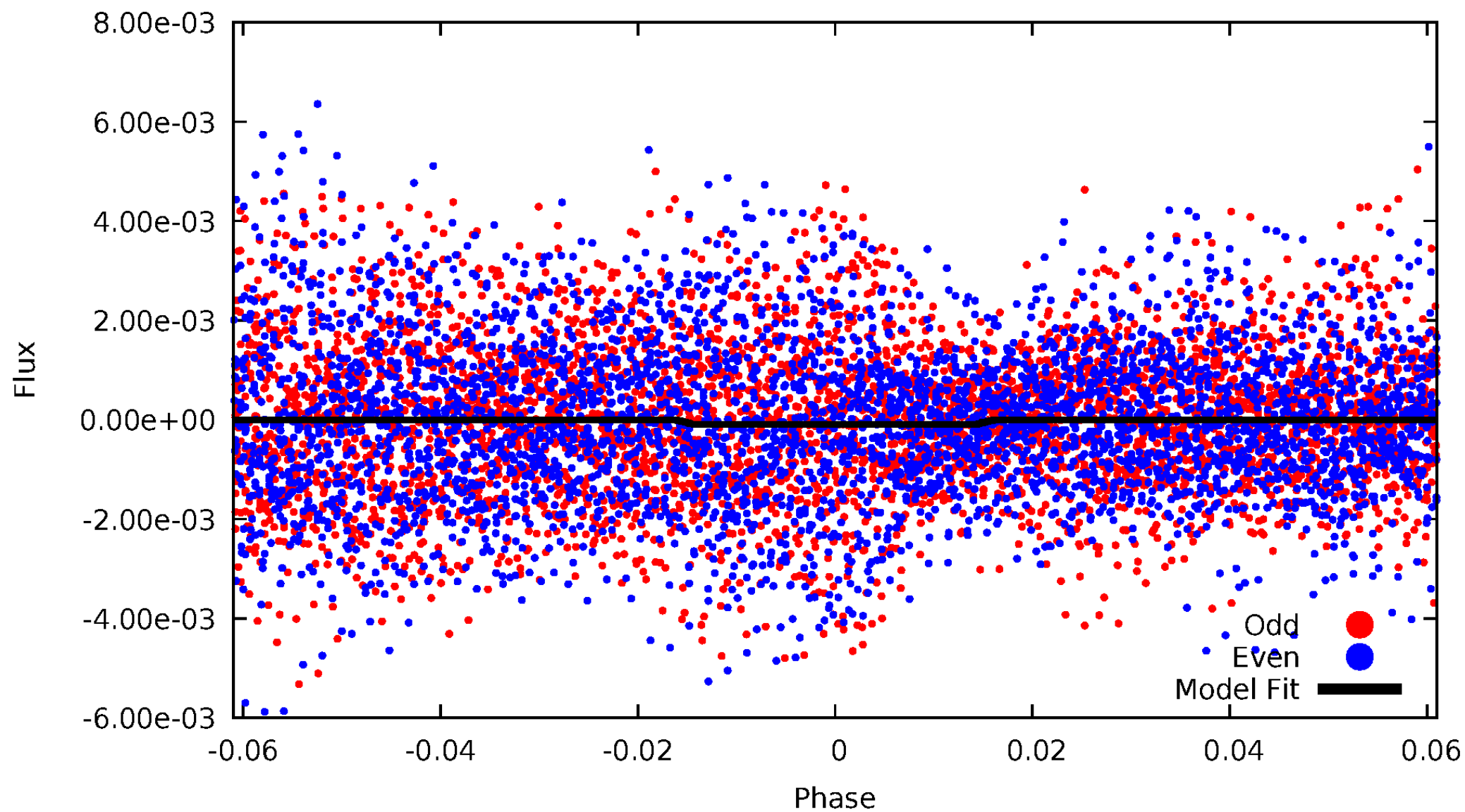
DV Odd/Even

TCE 003346027-02



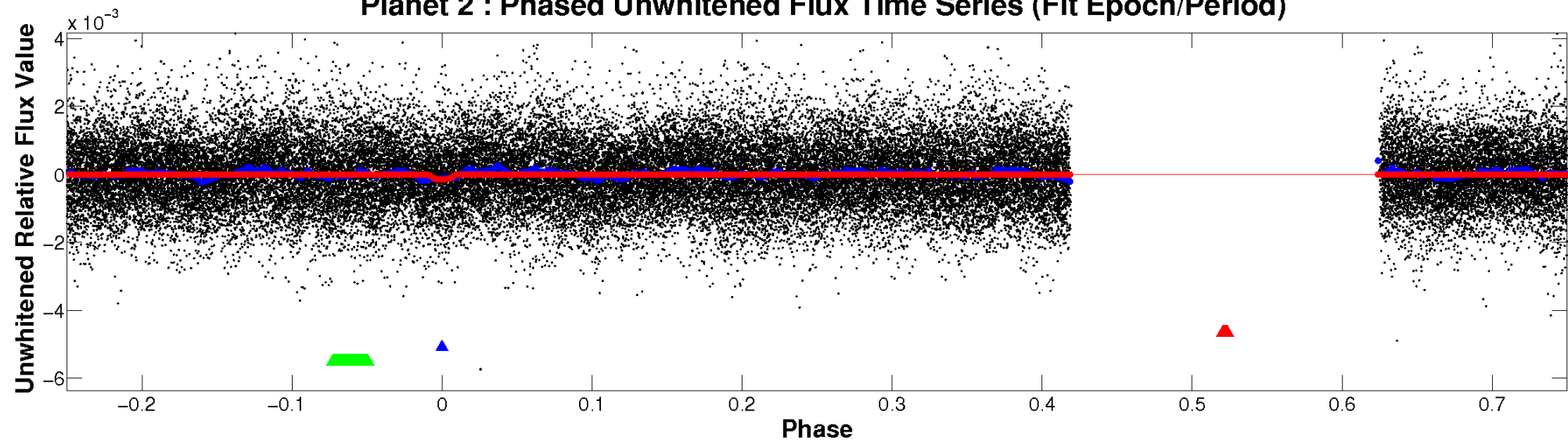
ALT Odd/Even

TCE 003346027-02

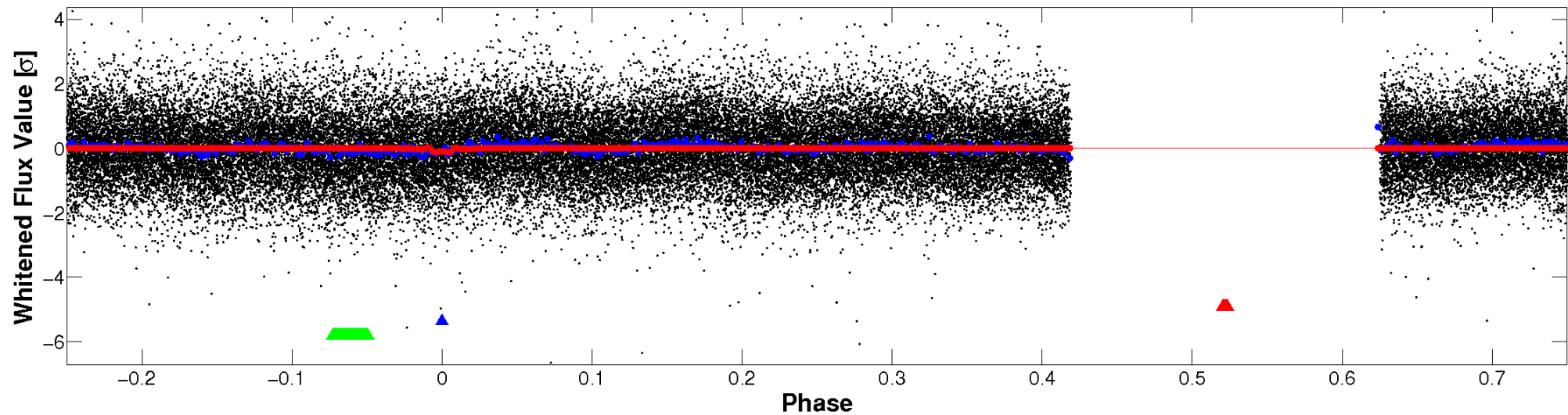


Non-Whitened Vs. Whitened Light Curve

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

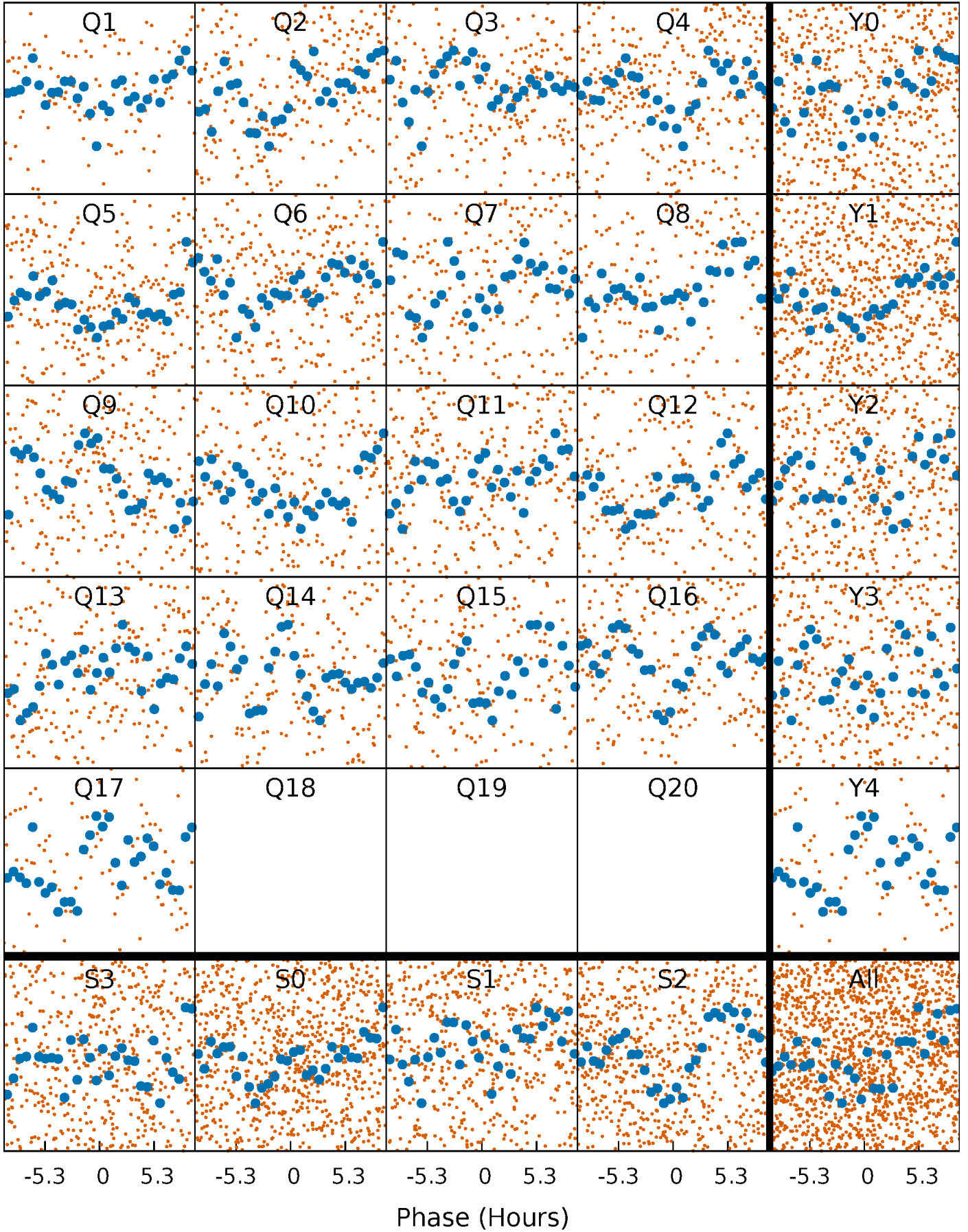


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



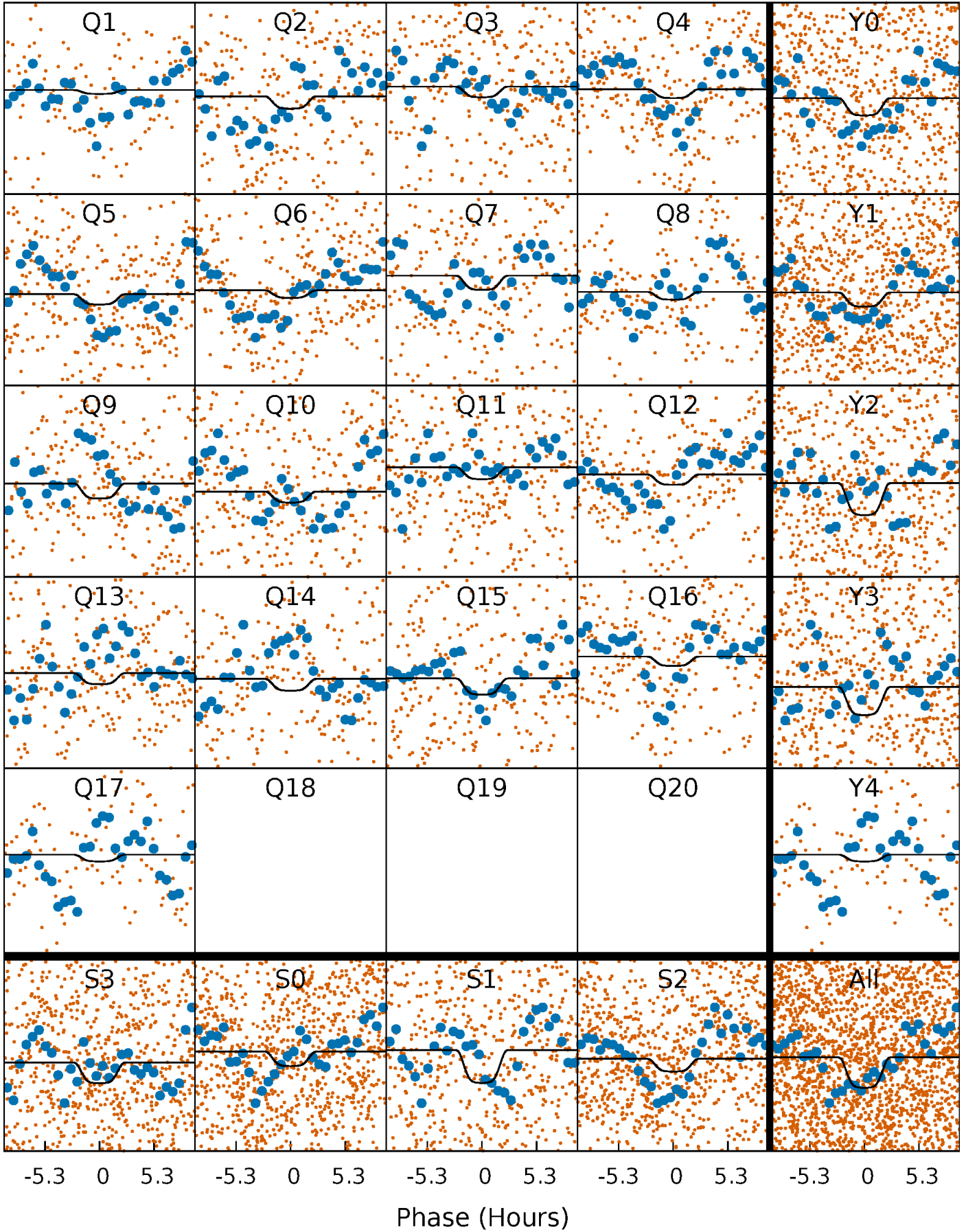
PDC Quarter-Phased Transit Curves

TCE 003346027-02 P= 10.447332 Days $T_0=135.367241$ (BKJD)



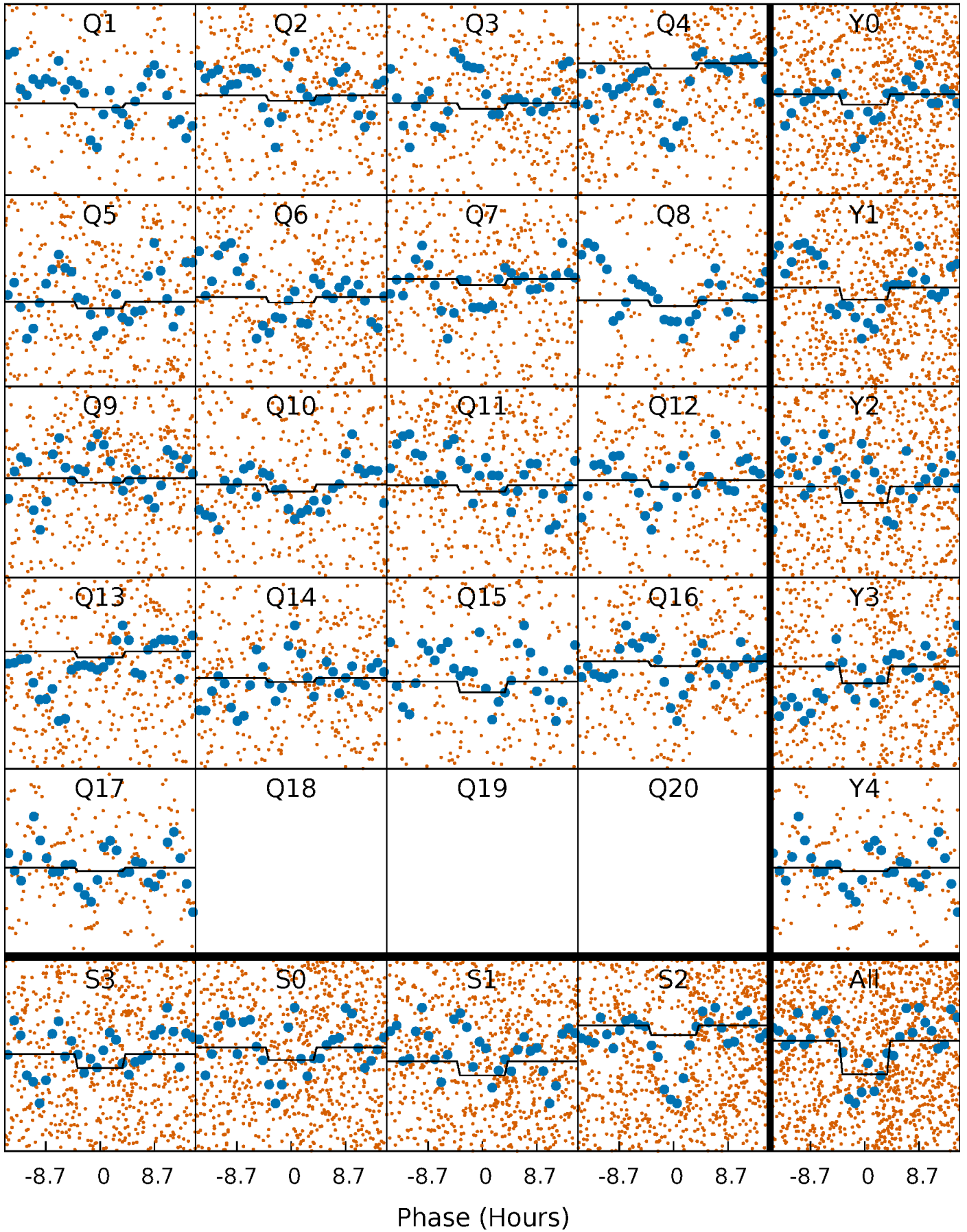
DV Quarter-Phased Transit Curves

TCE 003346027-02 P= 10.447332 Days $T_0=135.367241$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

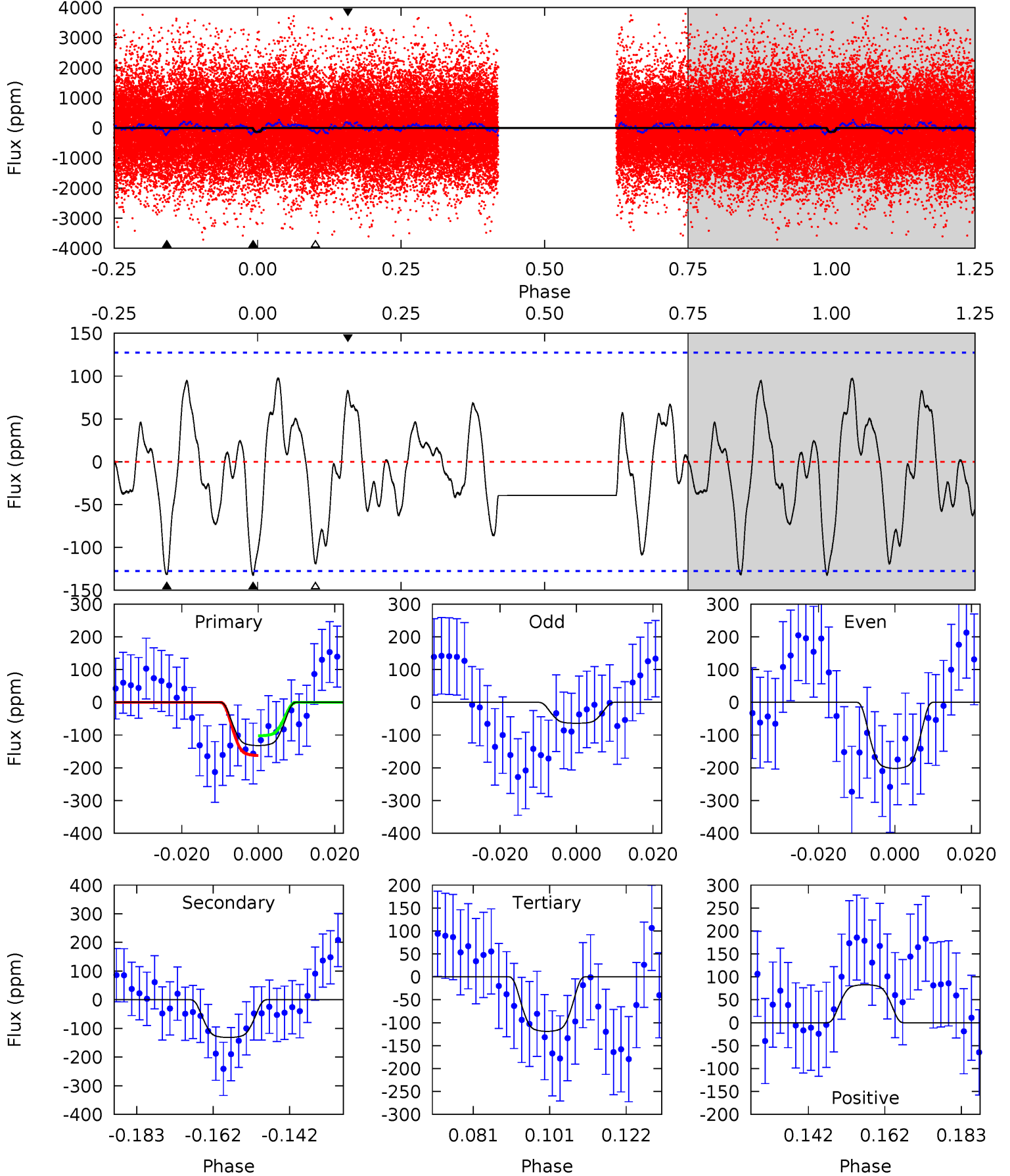
TCE 003346027-02 P= 10.446675 Days $T_0=135.398255$ (BKJD)



DV Model-Shift Uniqueness Test

003346027-02, P = 10.447332 Days, E = 124.919909 Days

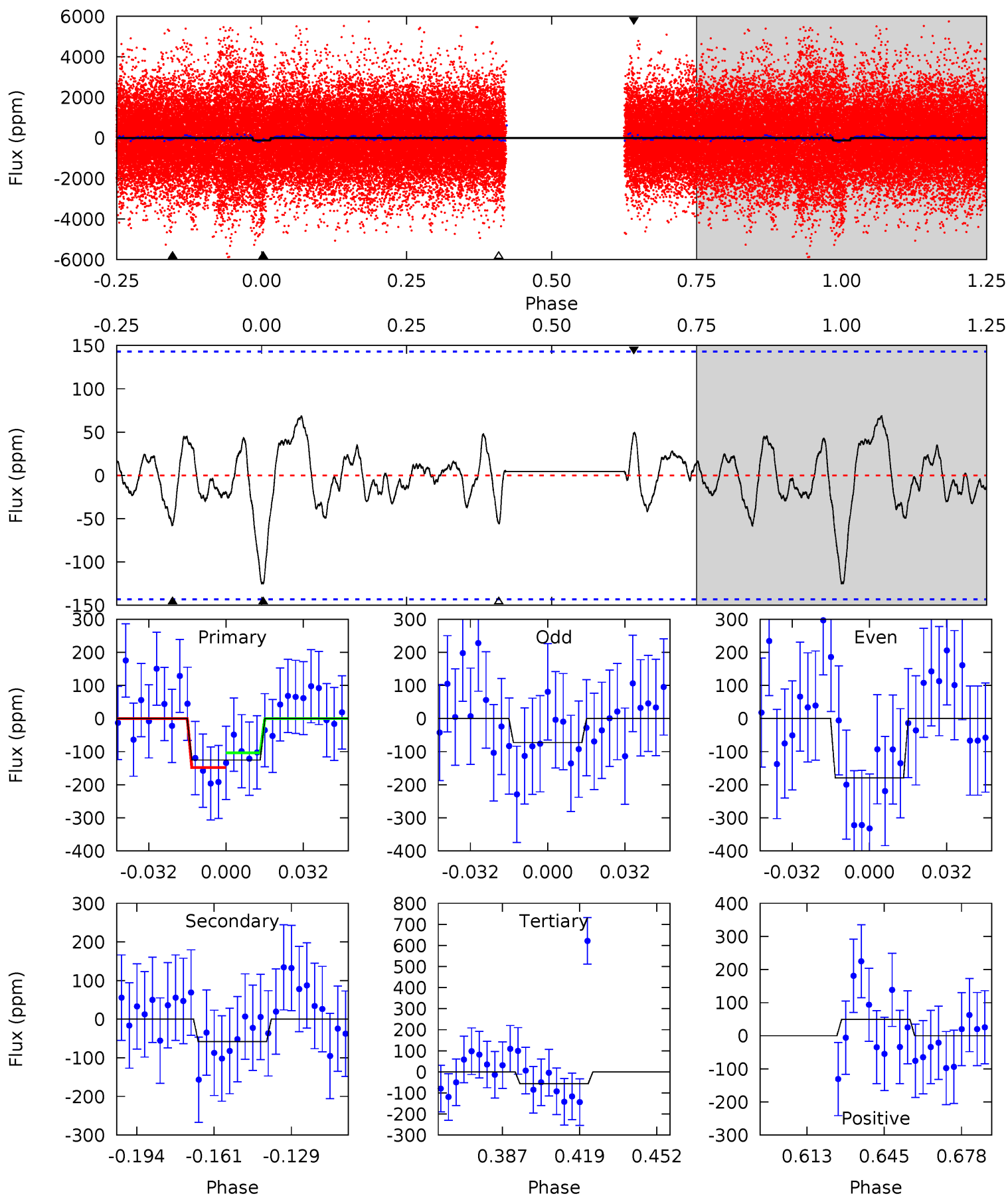
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.07	5.05	4.56	3.17	4.89	2.32	1.79	0.50	1.89	0.49	1.88	2.64	0.68	0.42	1.16



Alt Model-Shift Uniqueness Test

003346027-02, P = 10.446675 Days, E = 124.951580 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.20	1.96	1.88	1.66	4.80	2.14	0.81	2.32	2.54	0.07	0.29	1.79	0.63	0.35	0.74



Stellar Parameters For KIC 003346027

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7372^{+232}_{-310}	$4.263^{+0.087}_{-0.203}$	$-0.320^{+0.250}_{-0.350}$	$1.424^{+0.481}_{-0.206}$	$1.362^{+0.222}_{-0.201}$	$0.664^{+0.270}_{-0.366}$
	+3%/-4%	+2%/-5%	+78%/-109%	+34%/-14%	+16%/-15%	+41%/-55%
Source	KIC0	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 003346027-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-132 ± 26	$2.29^{+0.53}_{-0.45}$	1708^{+136}_{-93}	6490^{+792}_{-631}	142^{+82}_{-51}
Alt.	-58 ± 30	$1.58^{+0.52}_{-0.42}$	1708^{+123}_{-103}	6323^{+1433}_{-1165}	123^{+150}_{-69}

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 $A_{obs} \gg 1.0$

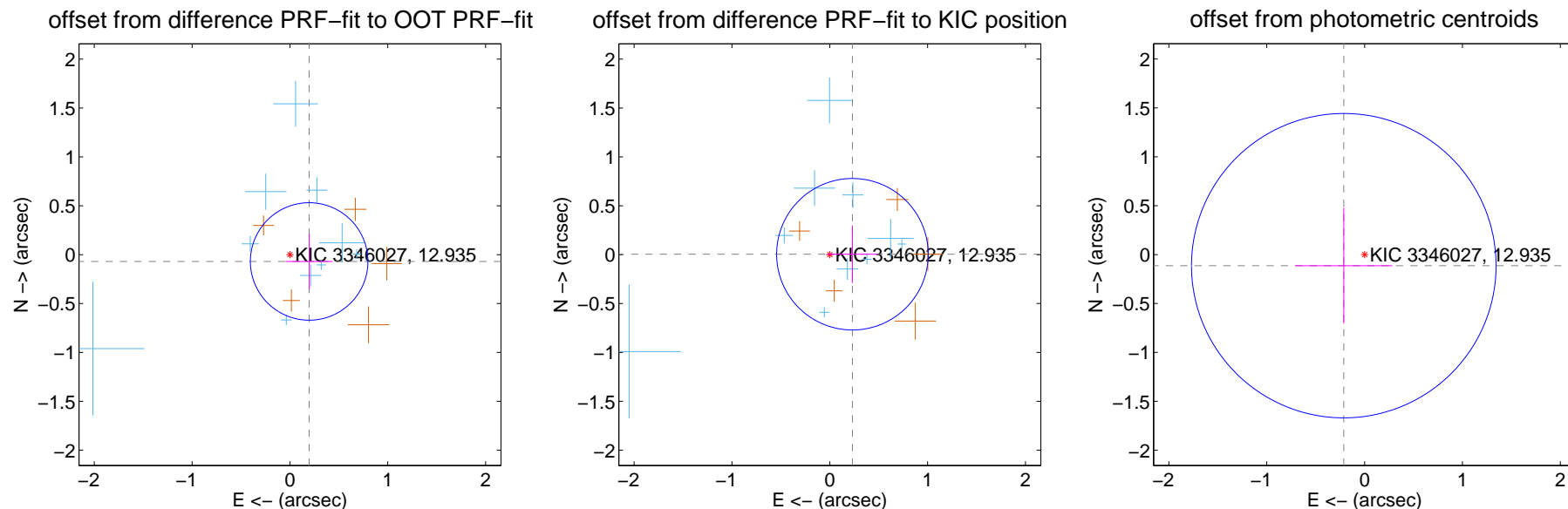
DV Centroid Data

Supplemental centroid analysis for 003346027-02. Kepler magnitude: 12.94. Transit SNR 3.37

There are 11 quarters with good PRF difference image offsets

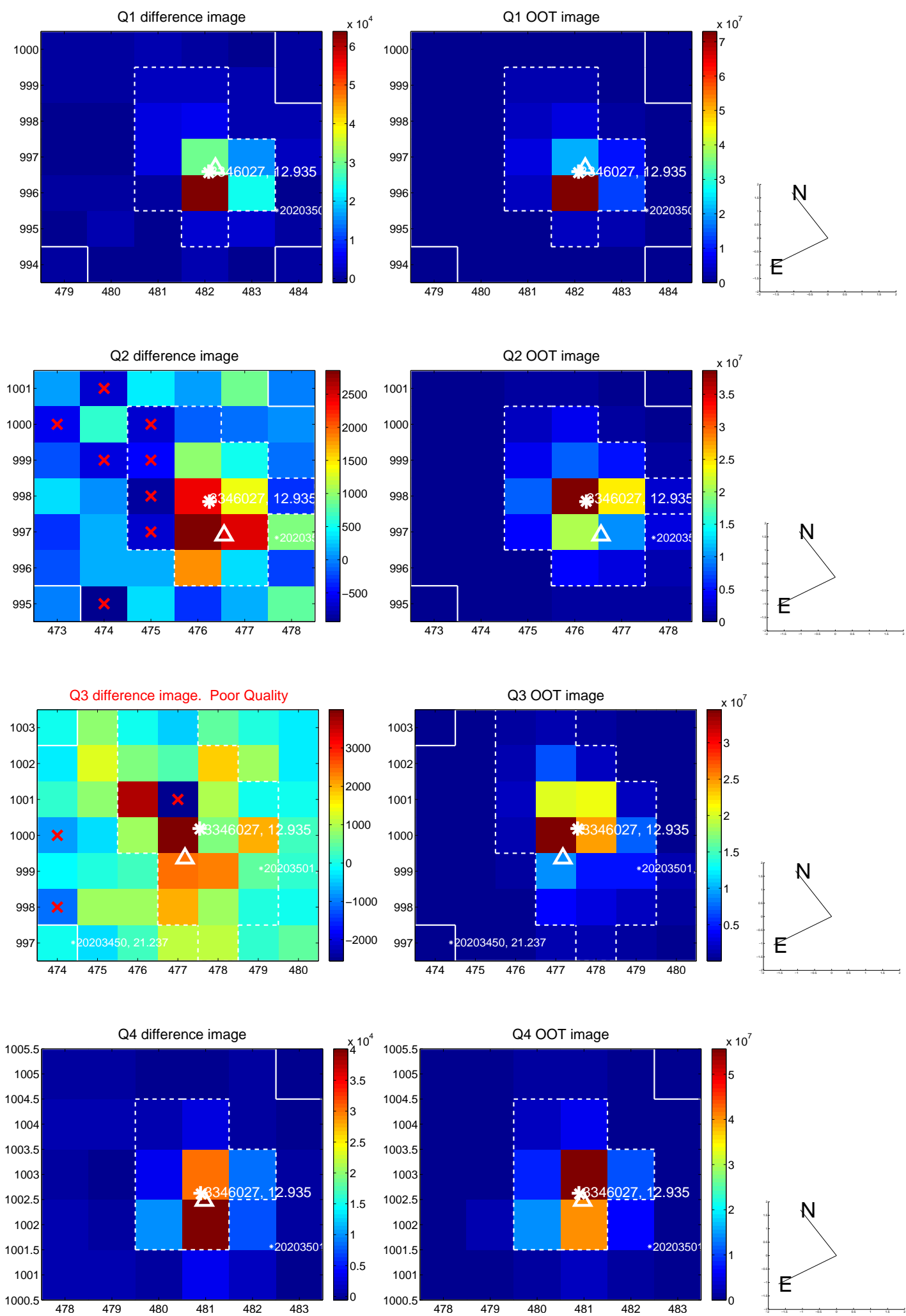
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.208 ± 0.200	1.04	-0.196 ± 0.240	-0.070 ± 0.285
PRF-fit source offset from KIC position	0.232 ± 0.258	0.90	-0.231 ± 0.256	0.004 ± 0.294
photometric centroid source offset	0.24 ± 0.52	0.46	0.21 ± 0.50	-0.11 ± 0.59

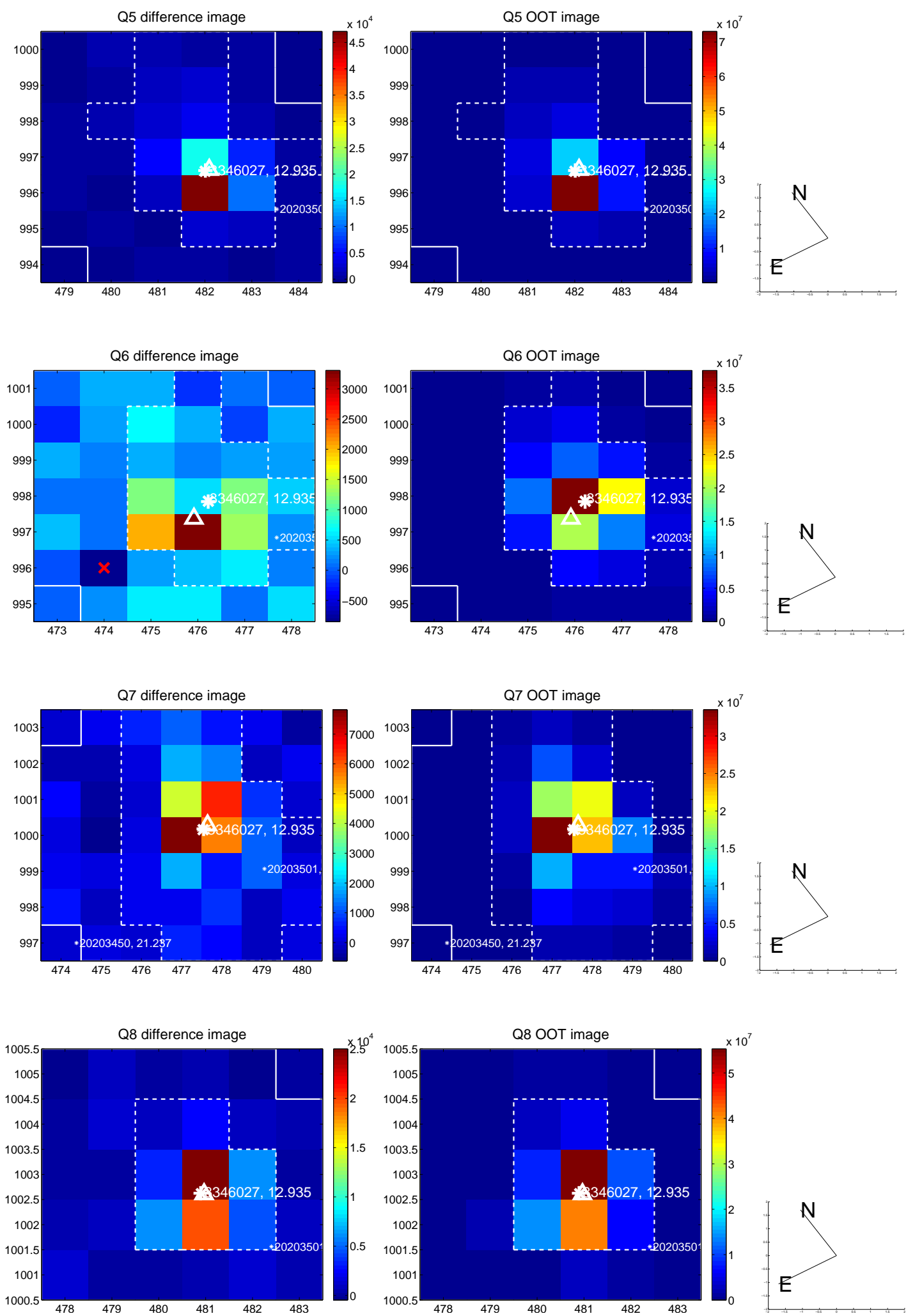


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

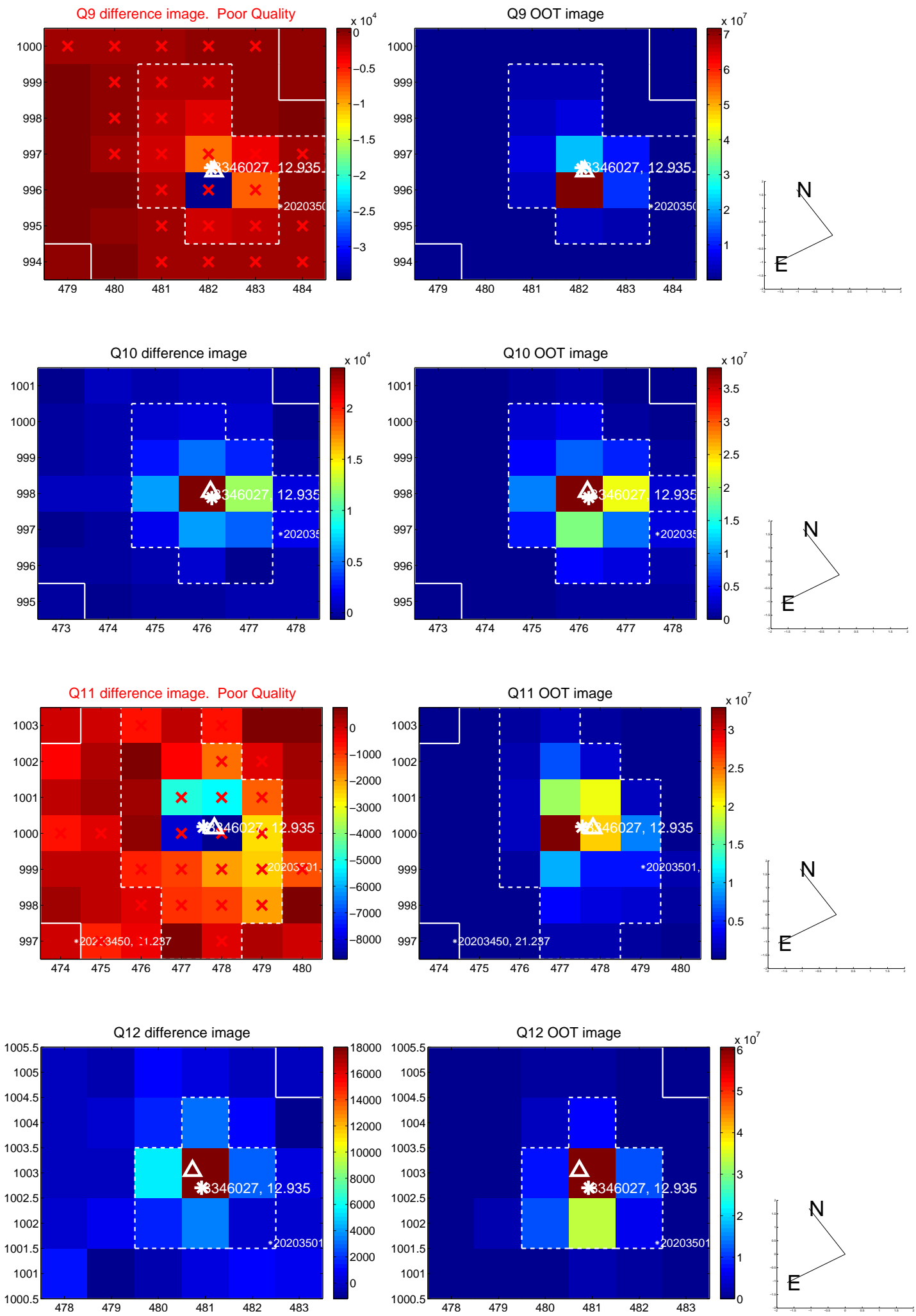
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



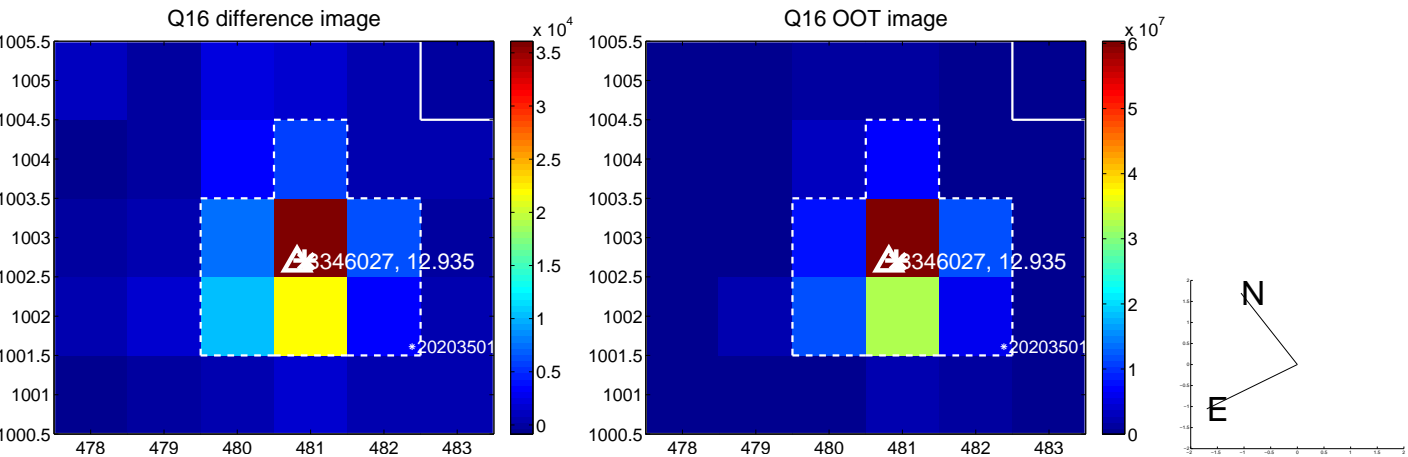
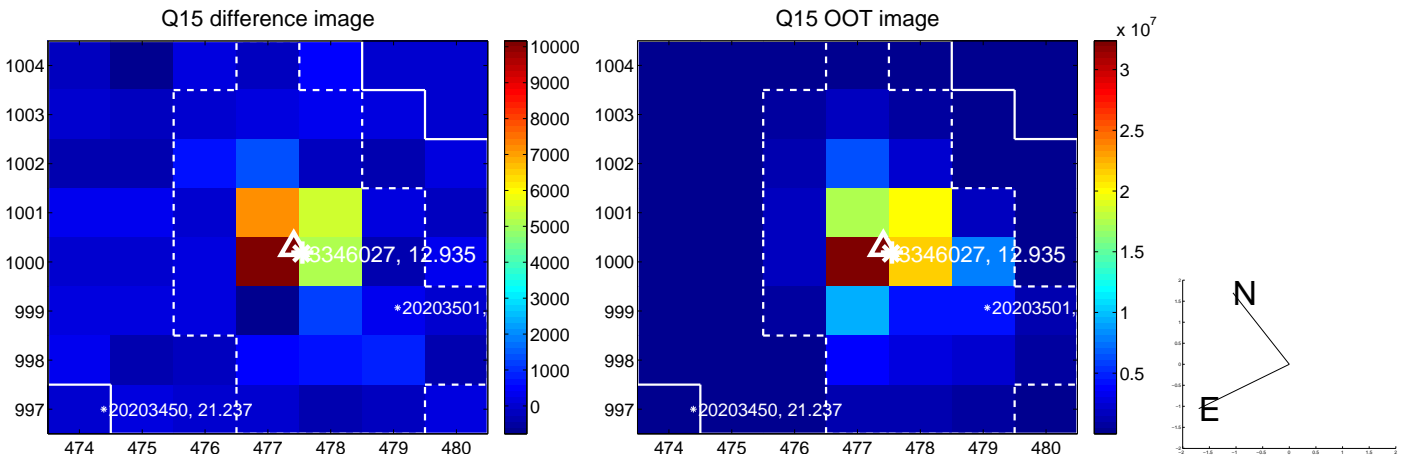
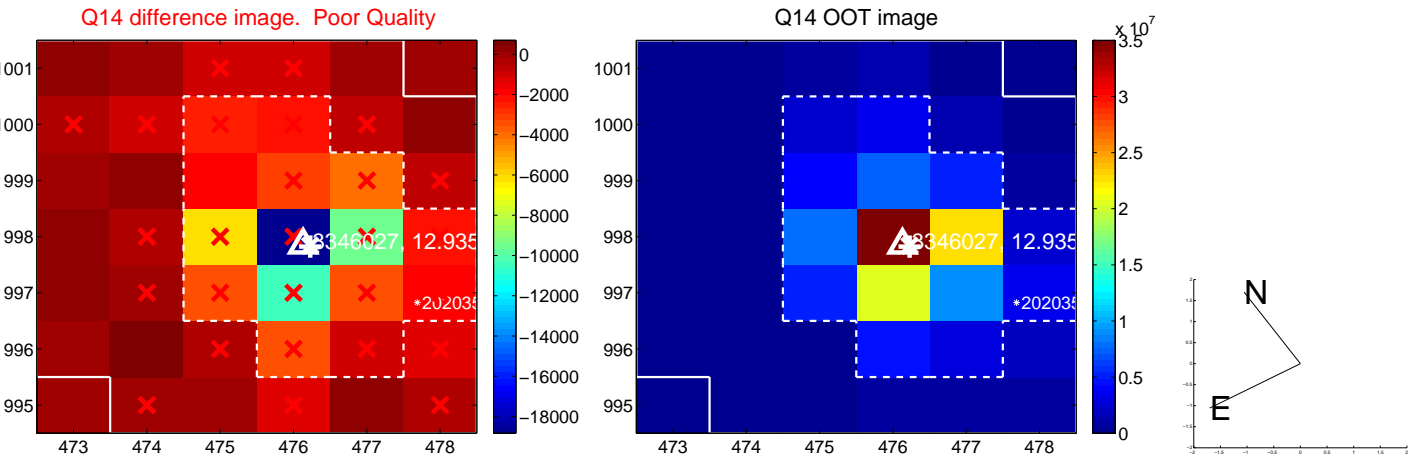
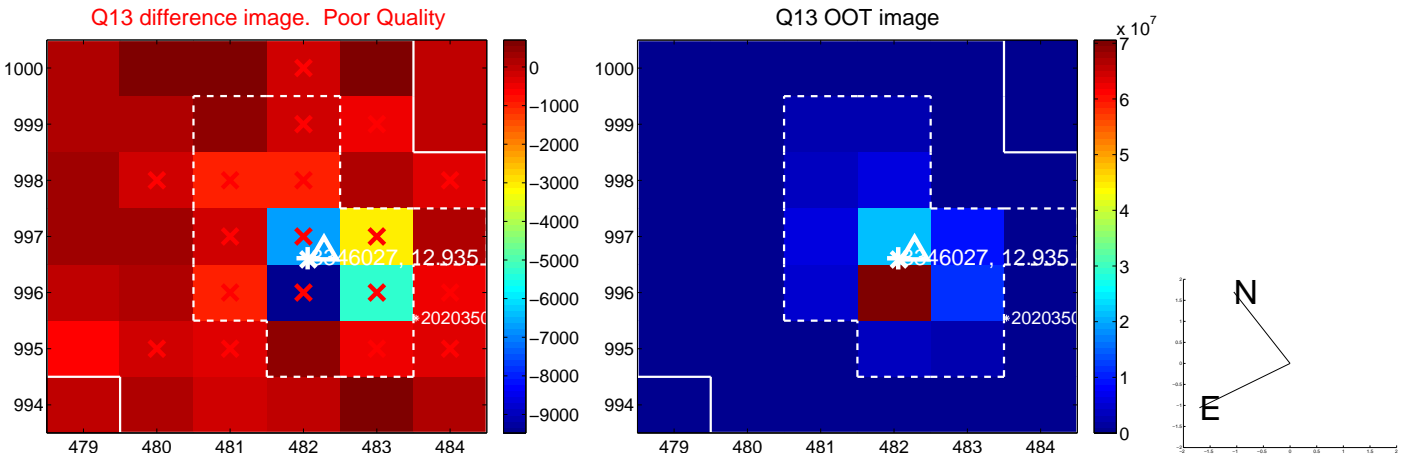
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



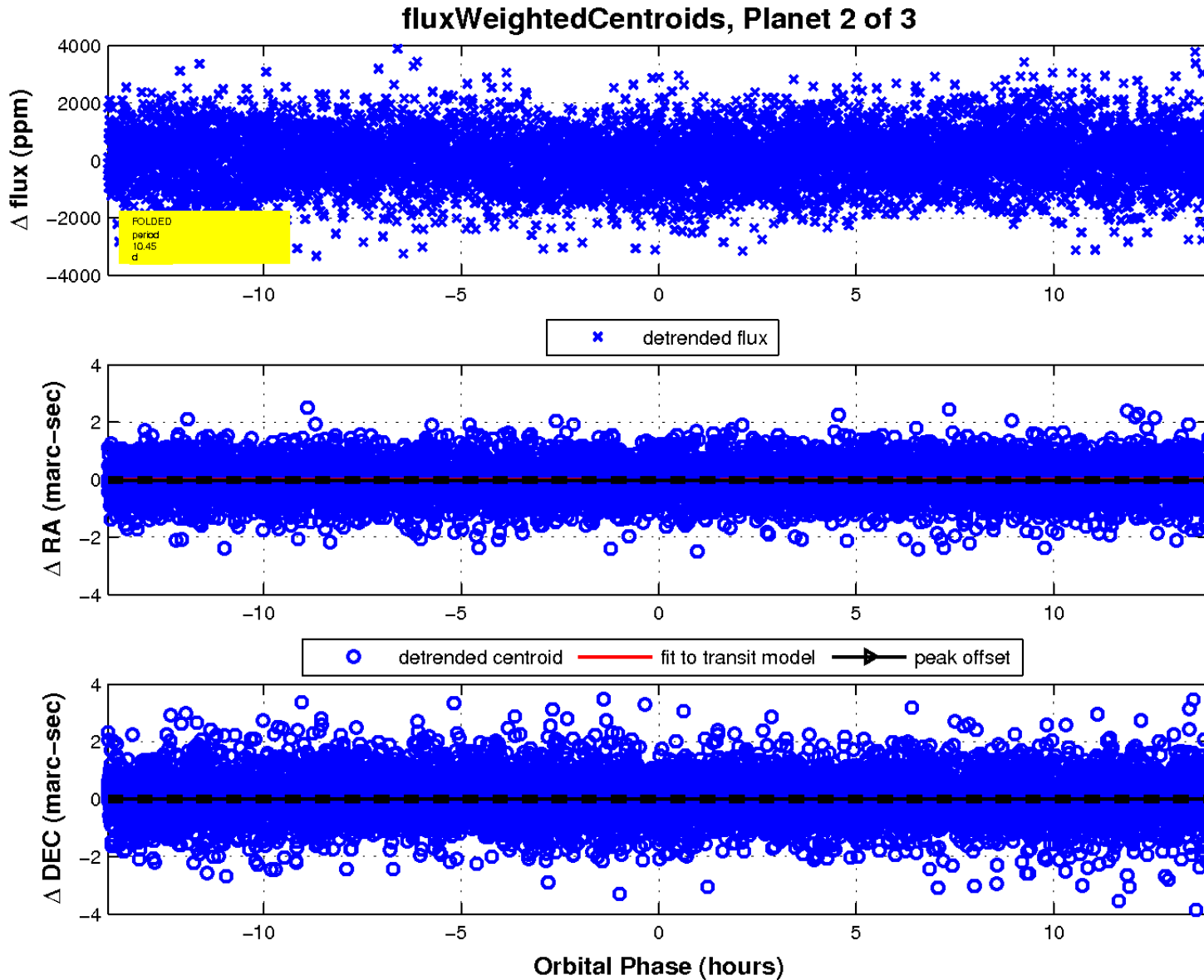
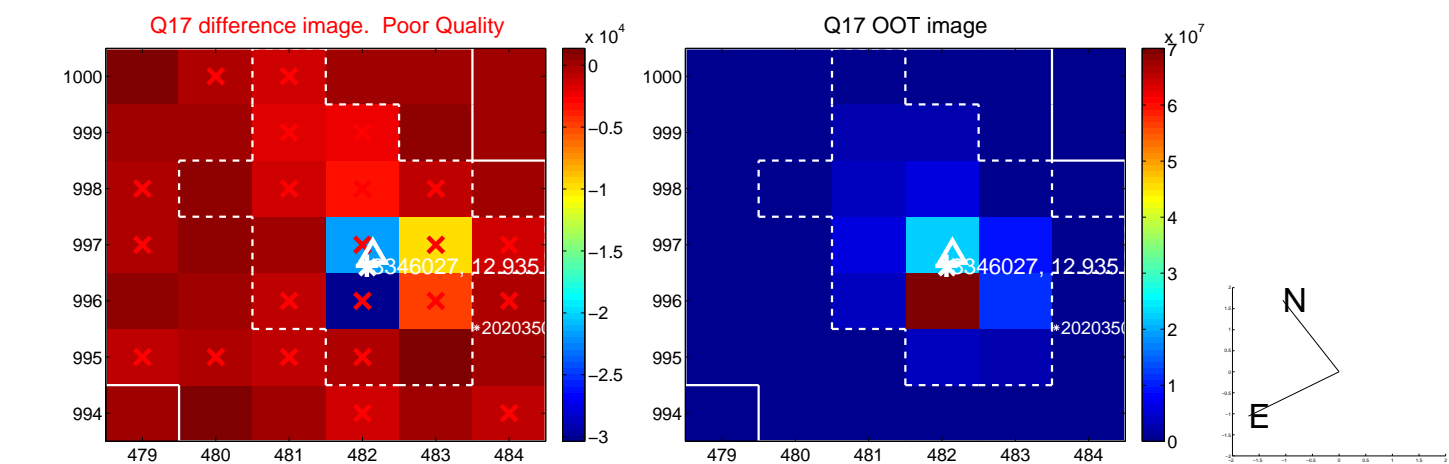
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

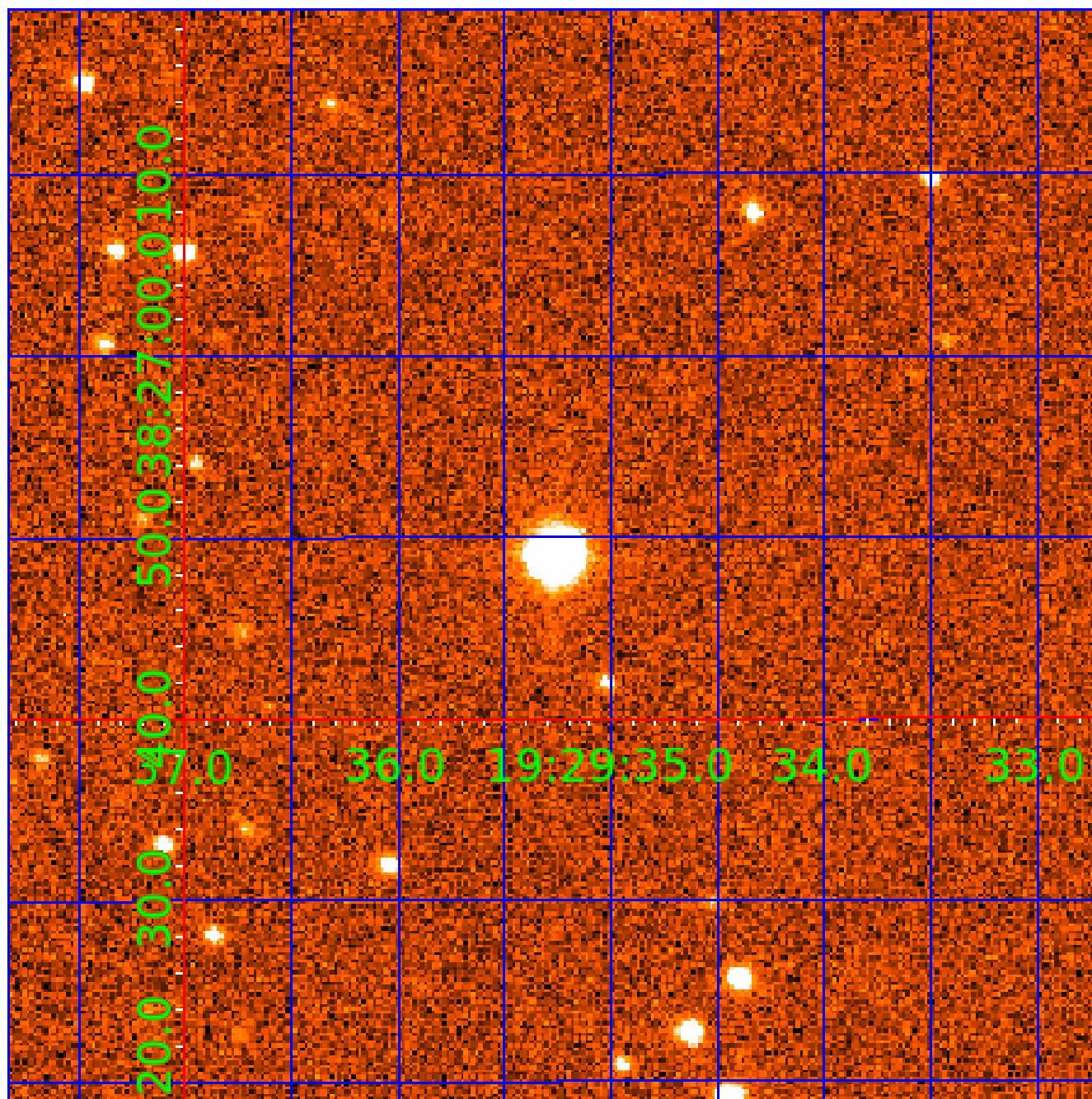


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003346027

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})
003346027-01	OBS	No	10.447092	140.837239	157.3	17.199	9.1	8.9	1.42	7372	1.90	500.70
003346027-02	OBS	No	10.447332	135.367241	144.8	4.647	8.4	3.4	1.42	7372	2.21	500.69
003346027-03	OBS	No	10.449097	134.605953	105.1	28.992	7.6	7.6	1.42	7372	1.69	500.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003346027-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
003346027-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
003346027-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

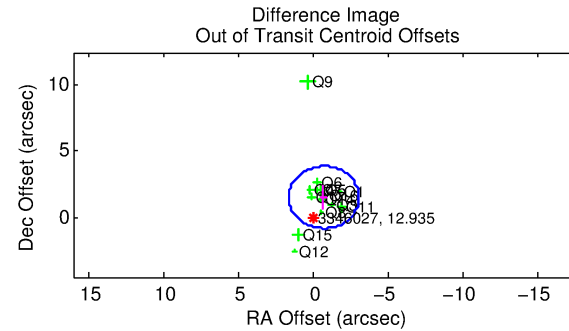
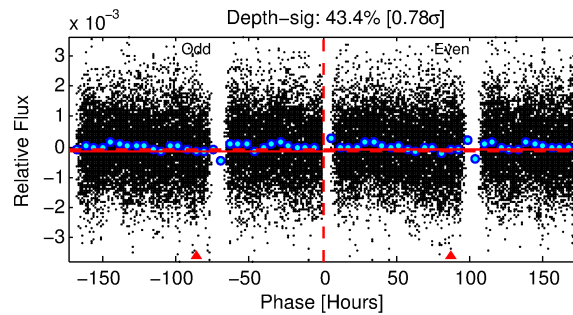
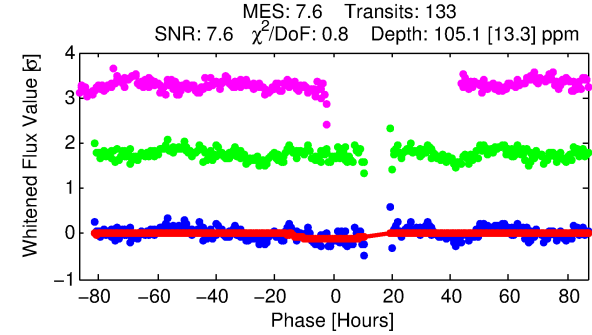
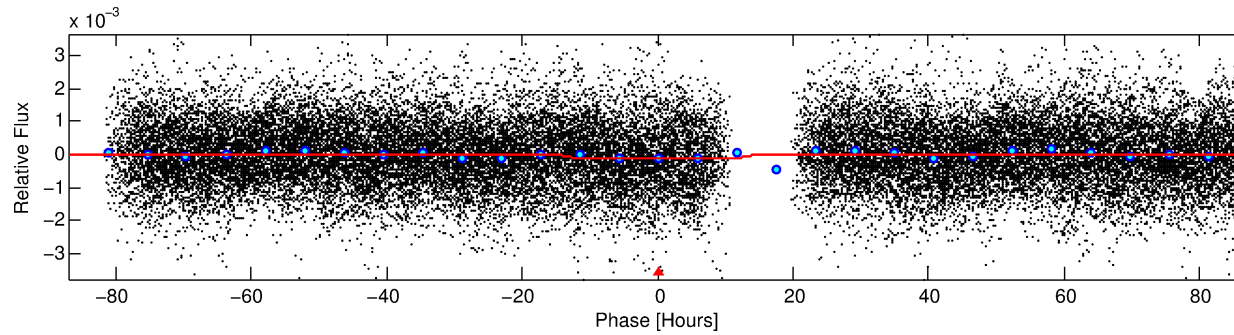
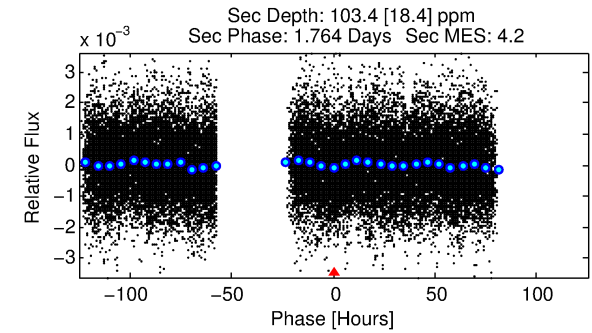
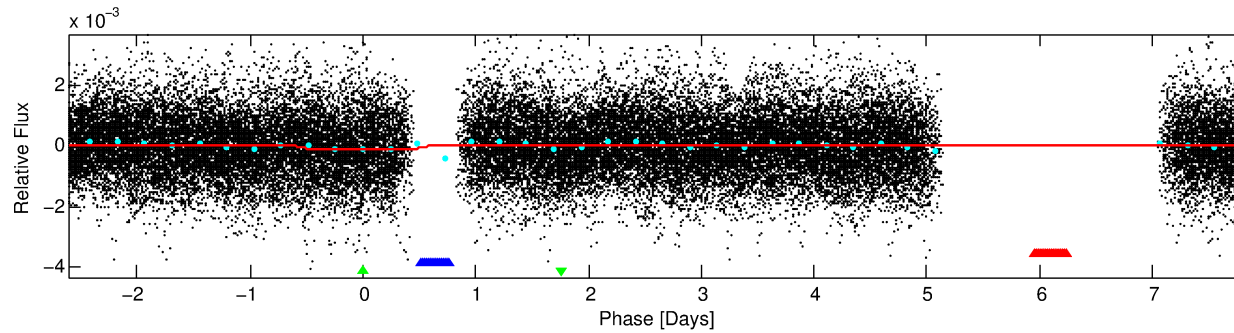
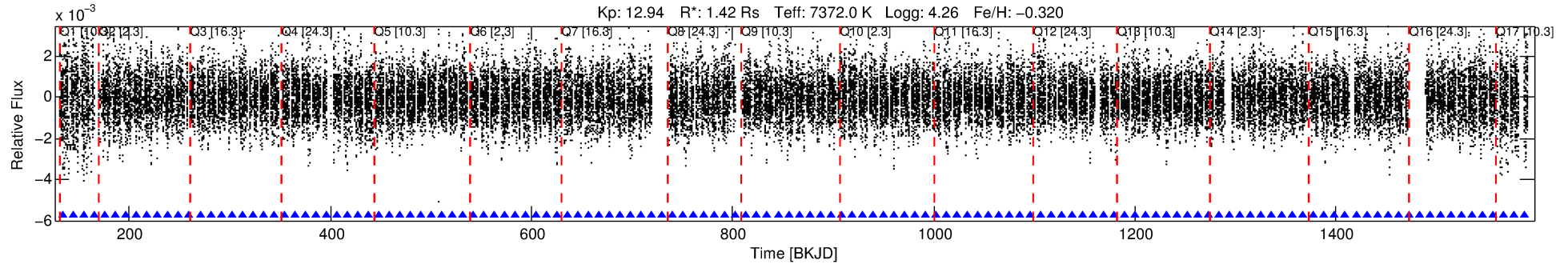
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003346027-03

No Significant Match Found

DV One-Page Summary

KIC: 3346027 Candidate: 3 of 3 Period: 10.449 d



DV Fit Results:

Period = 10.44910 [0.00074] d
Epoch = 134.6060 [0.1646] BKJD
Rp/R* = 0.0109 [0.0011]
a/R* = 1.59 [0.39]
b = 0.90 [0.12]
Seff = 500.58 [210.07]
Teq = 1206 [127] K
Rp = 1.69 [0.60] Re
a = 0.1035 [0.0284] AU
Ag = 214.24 [101.35] [2.10σ]
Teff = 7134 [576] K [10.05σ]

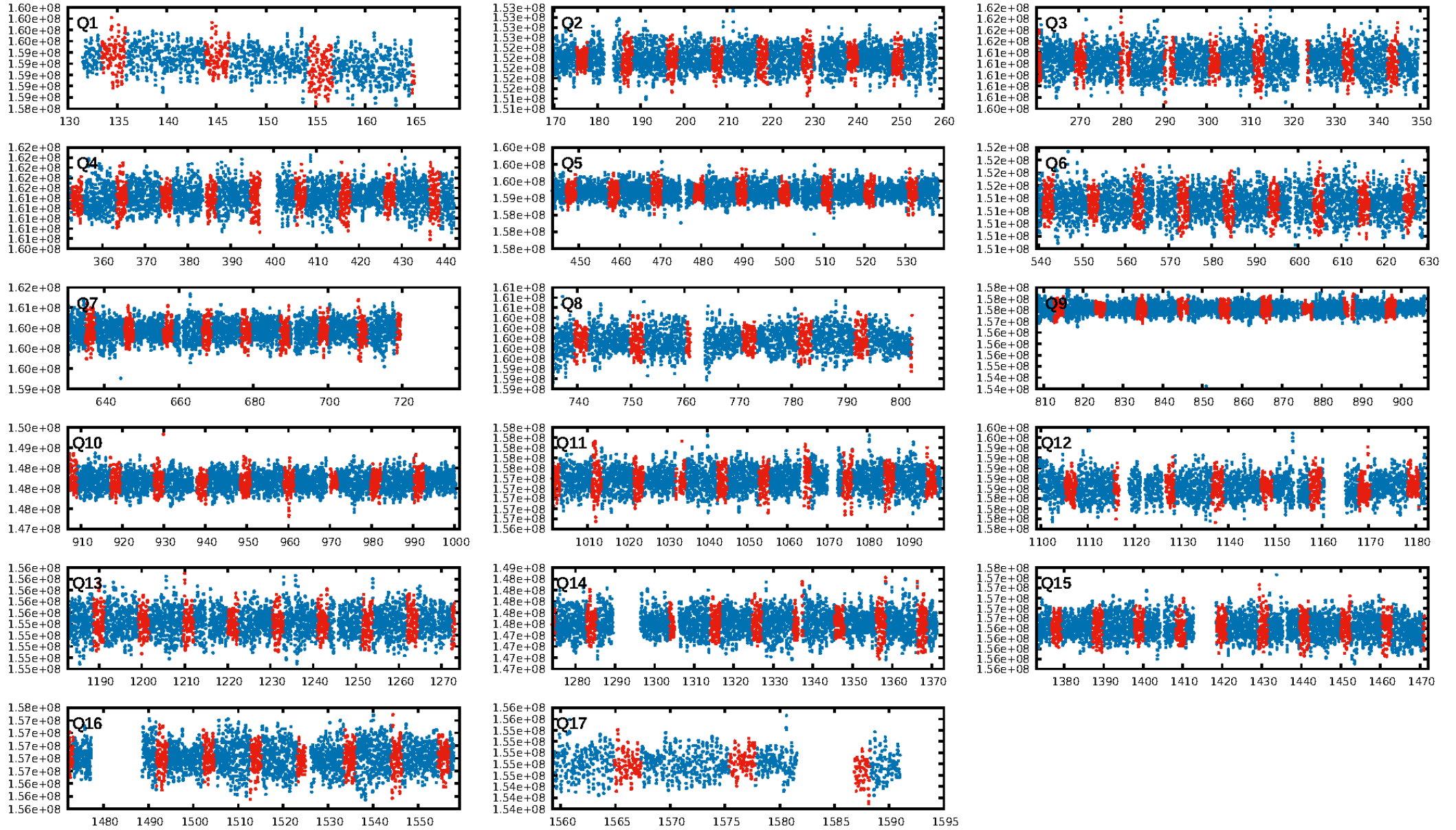
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.09e-13
RollingBand-fgt: 1.00 [127/127]
GhostDiagnostic-chr: 1.007
Centroid-sig: 0.1%
Centroid-so: 0.673 arcsec [2.02σ]
OotOffset-rm: 1.696 arcsec [2.16σ]
KicOffset-rm: 1.689 arcsec [2.36σ]
OotOffset-st: 2/4/4/4 [14]
KicOffset-st: 2/4/4/4 [14]
DiffImageQuality-fgm: 0.71 [10/14]
DiffImageOverlap-fno: 0.00 [0/17]

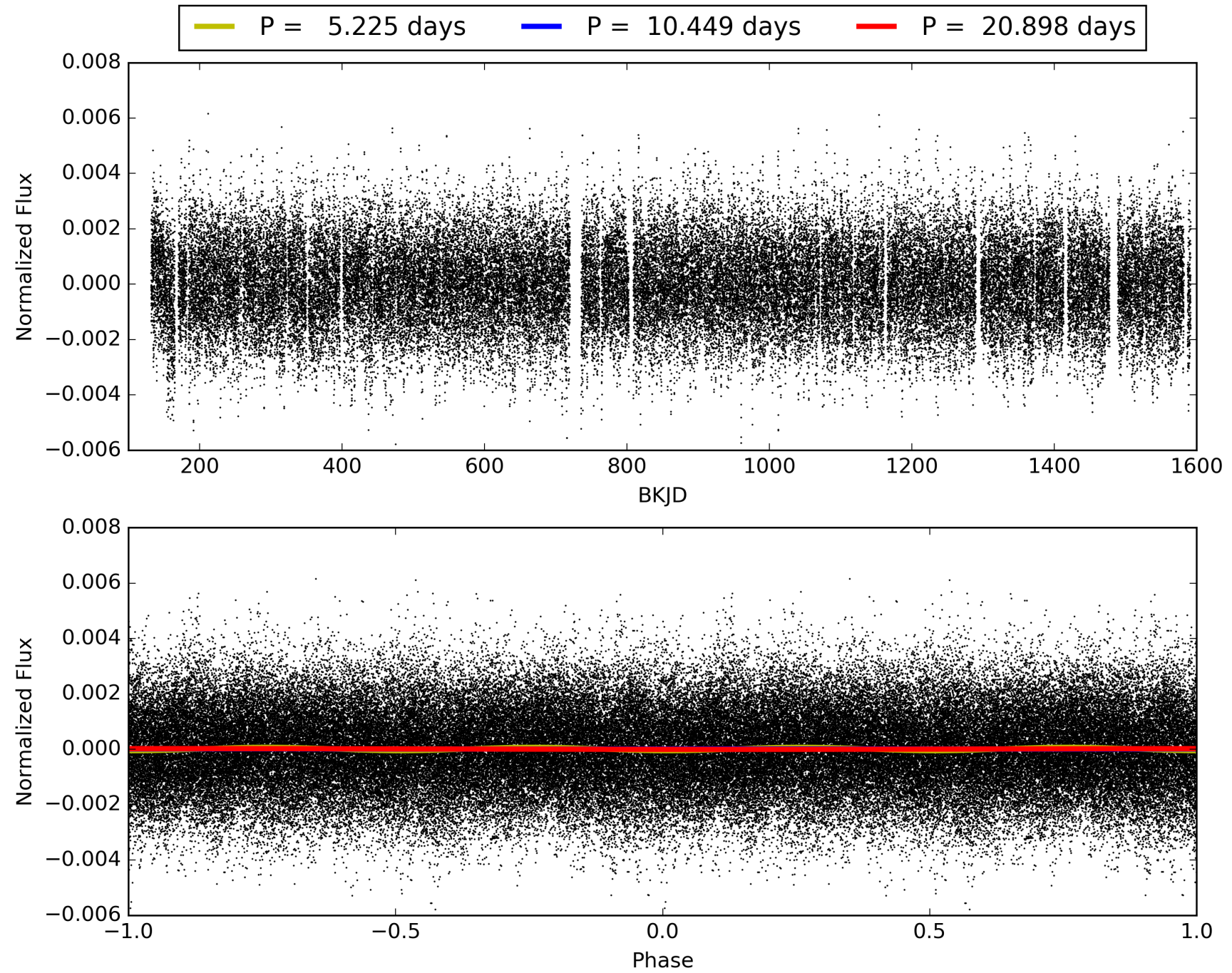
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:41:11 Z

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

TCE 003346027-03, PDC Light Curves

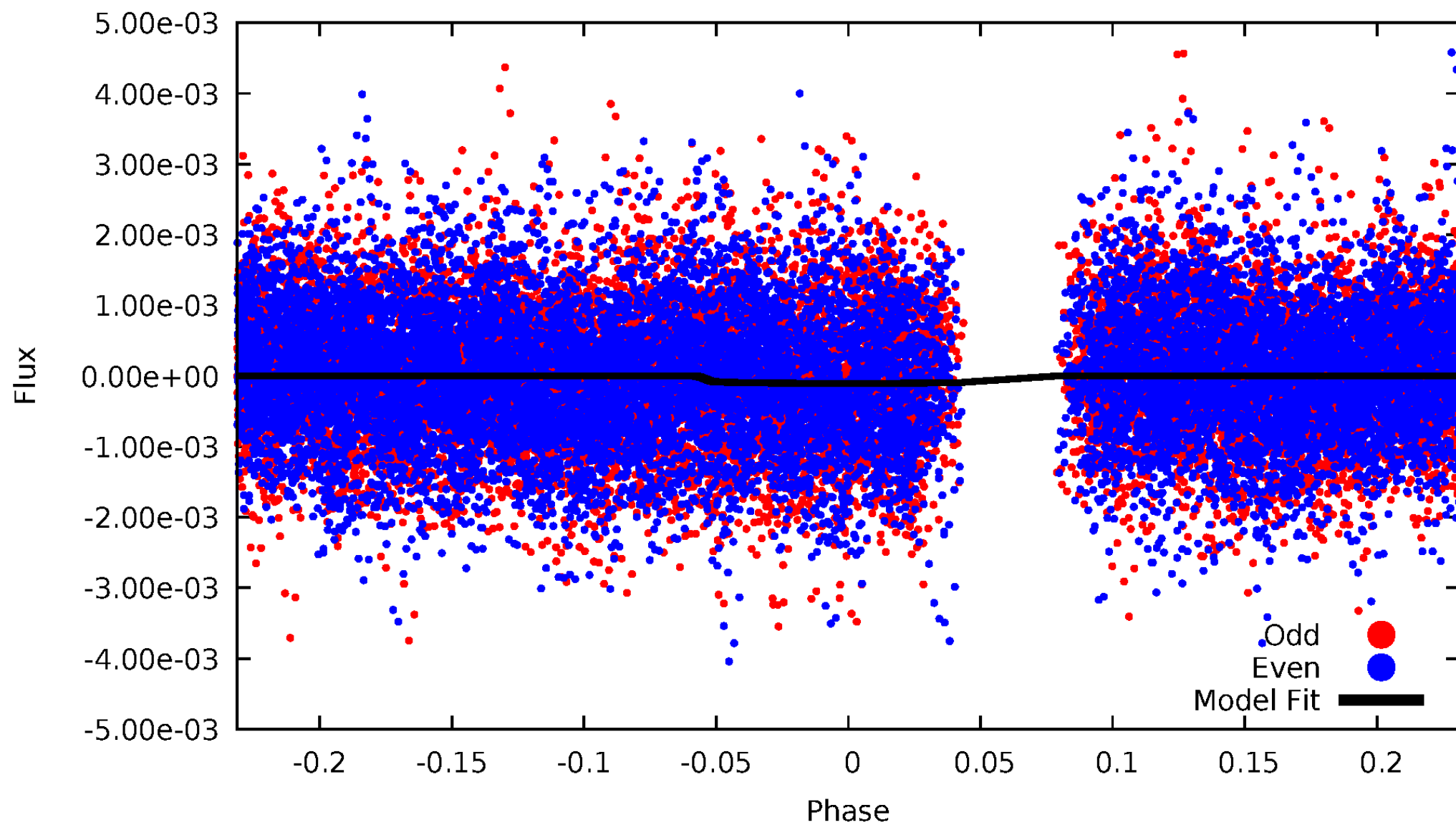


TCE 003346027-03



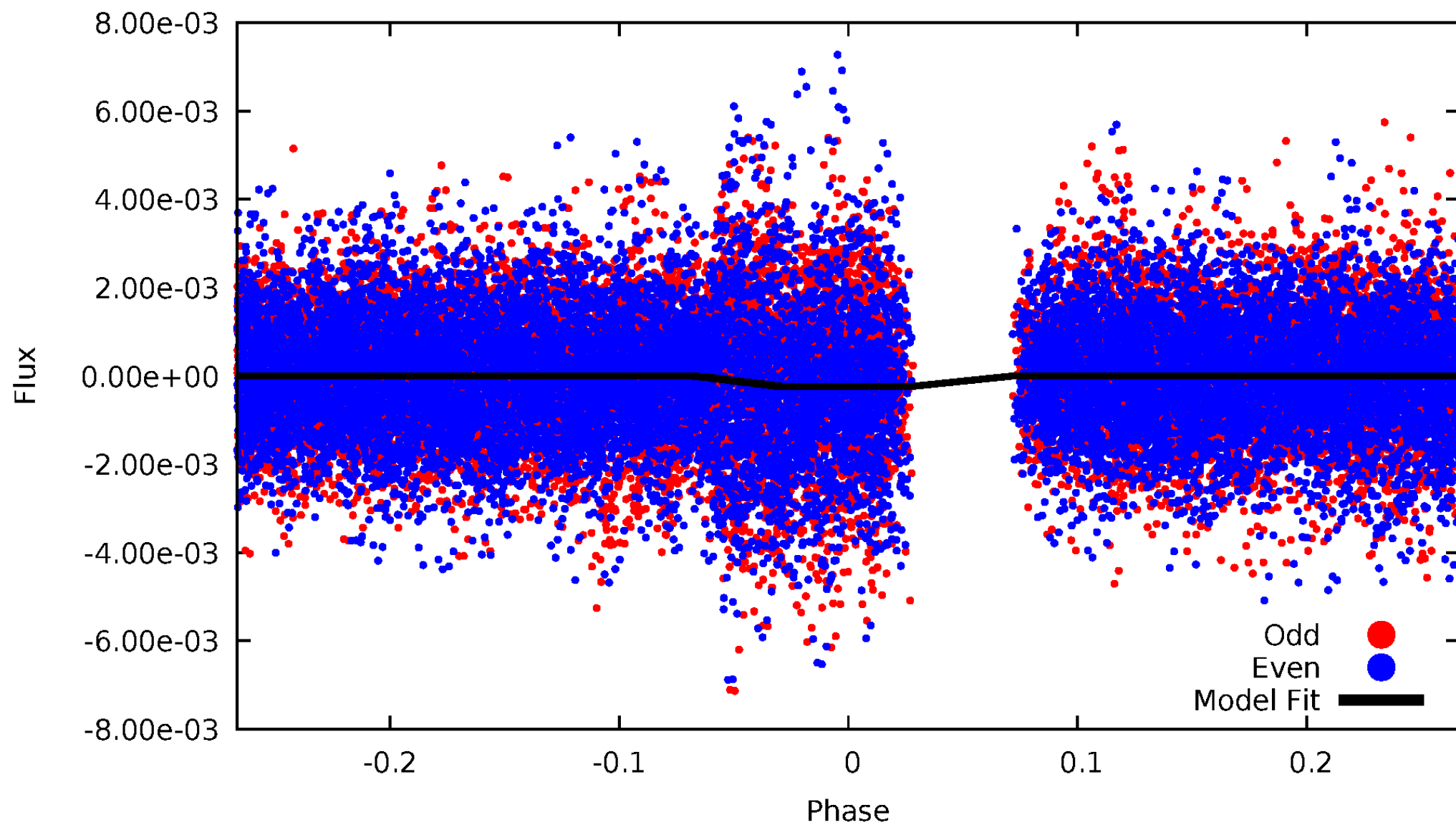
DV Odd/Even

TCE 003346027-03



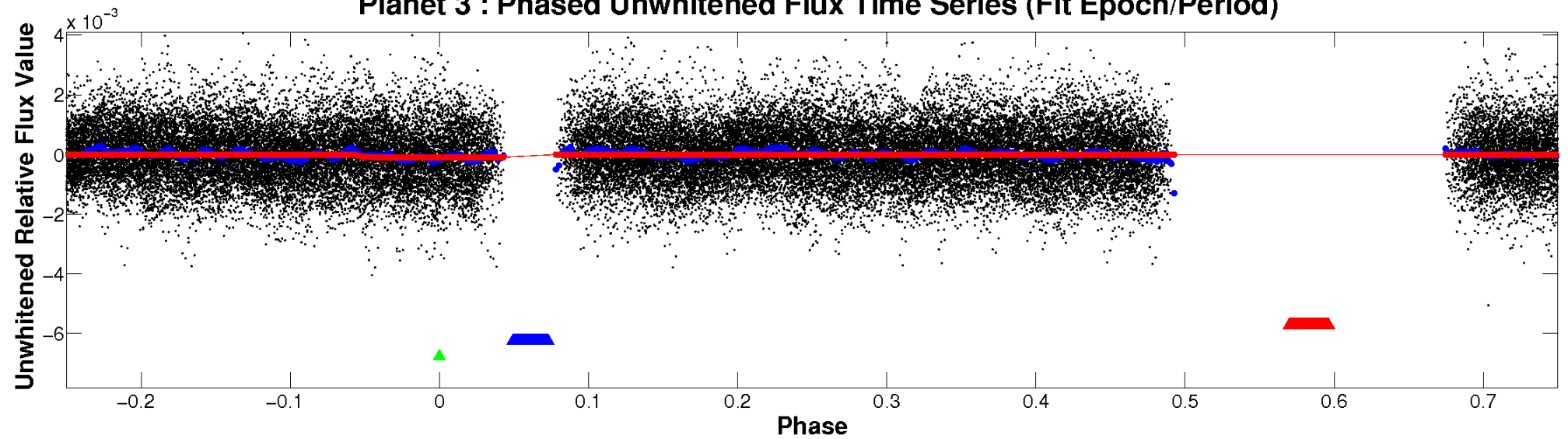
ALT Odd/Even

TCE 003346027-03

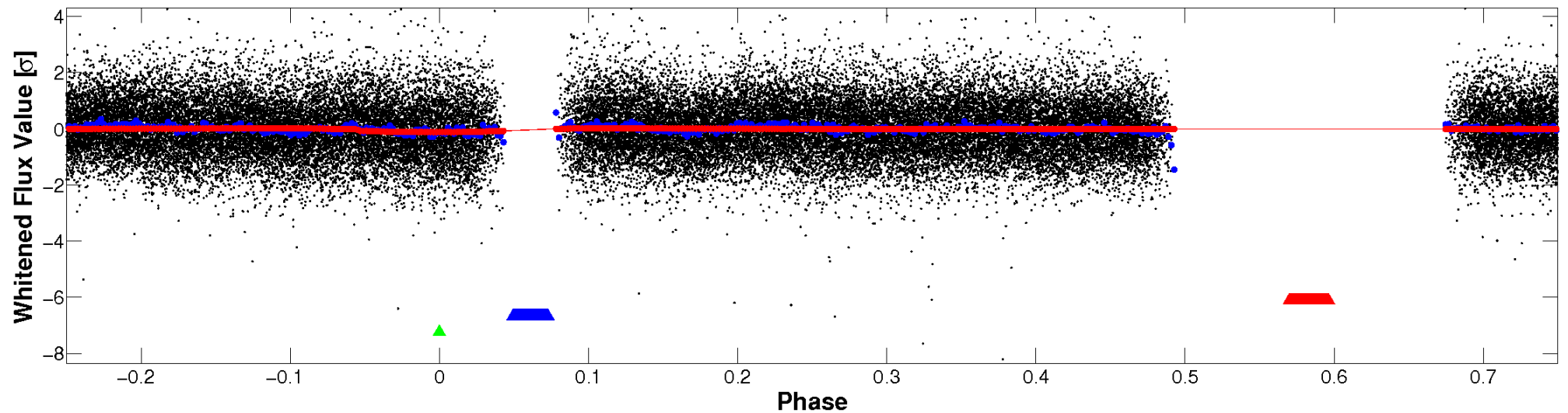


Non-Whitened Vs. Whitened Light Curve

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

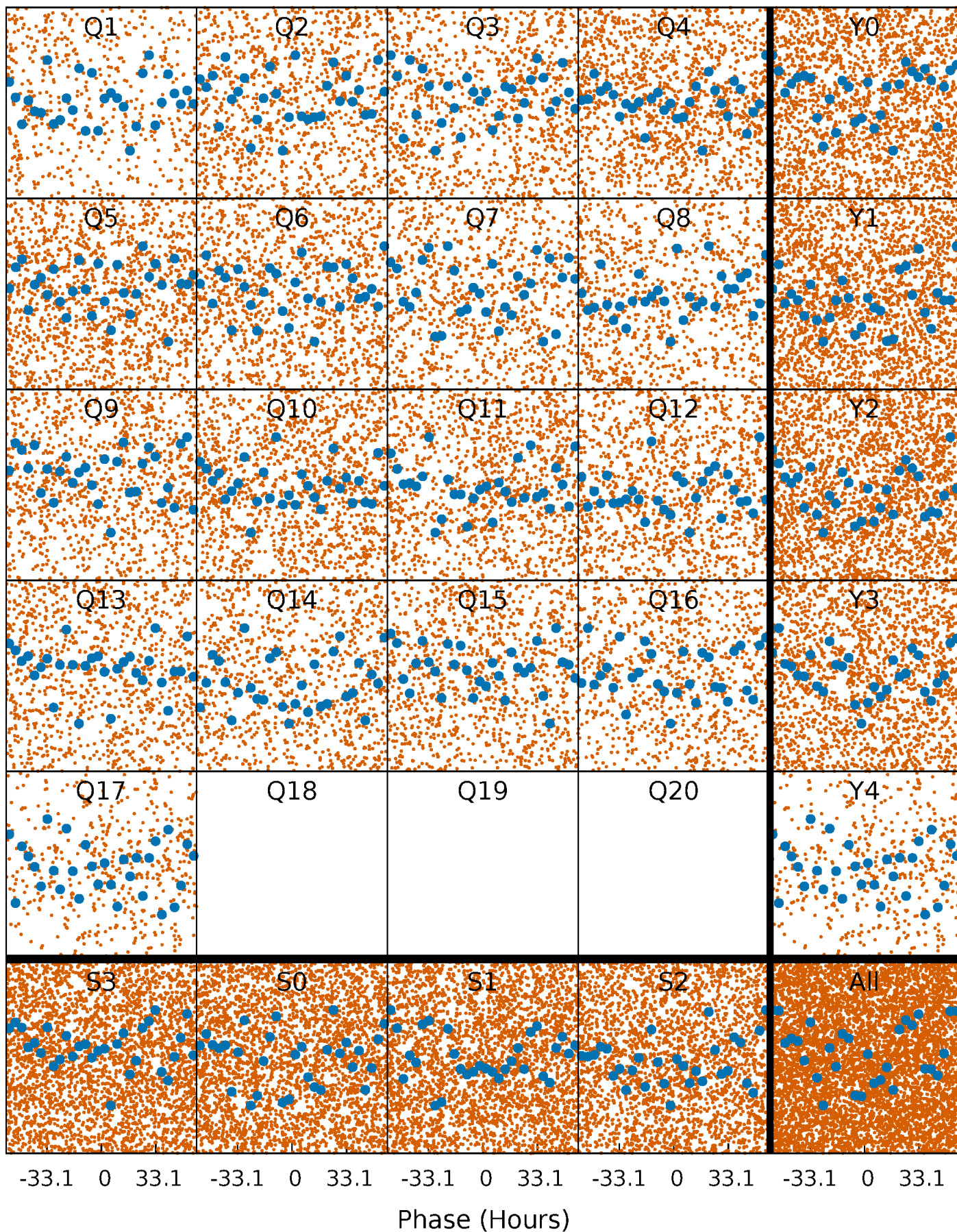


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



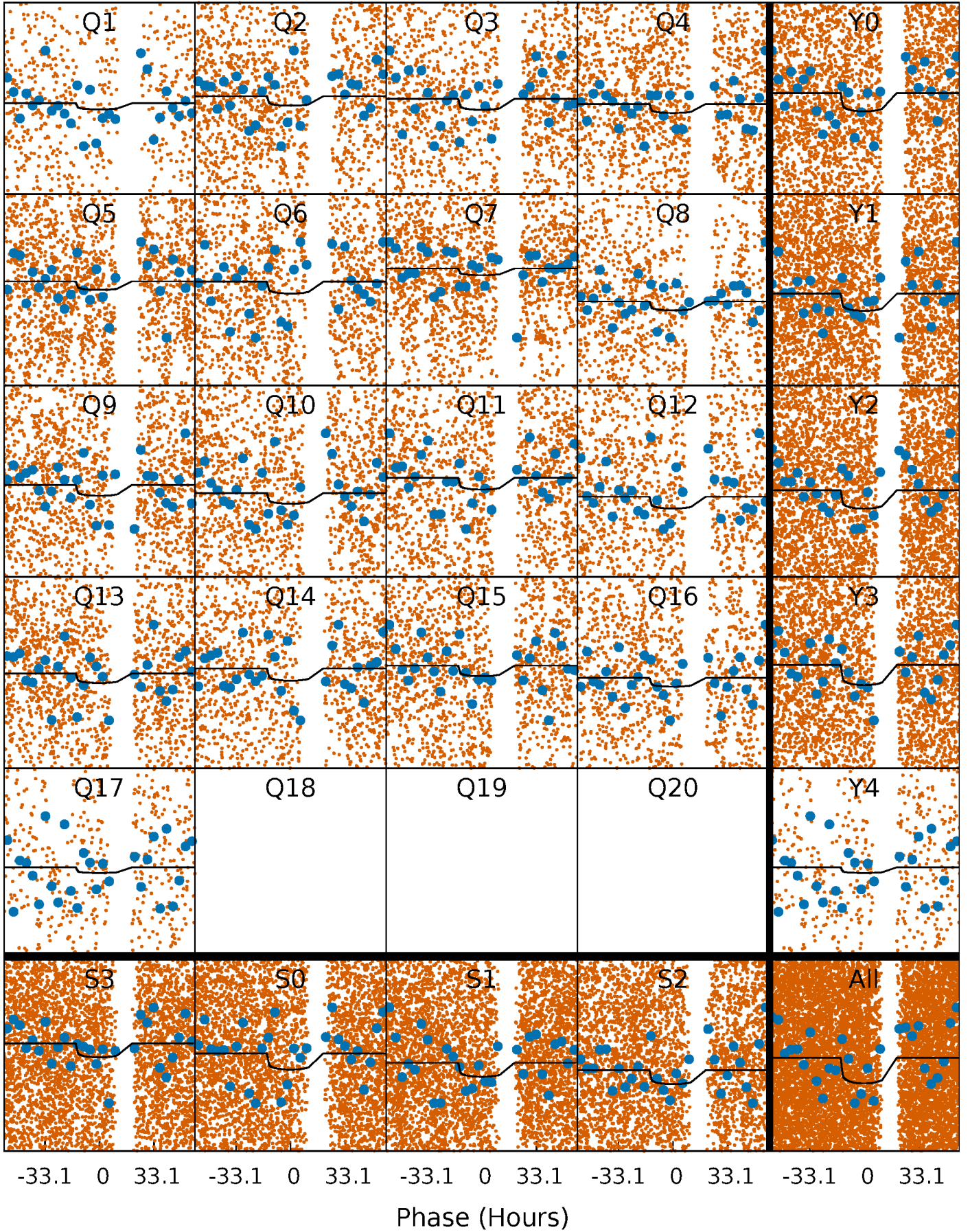
PDC Quarter-Phased Transit Curves

TCE 003346027-03 P= 10.449097 Days $T_0=134.605953$ (BKJD)



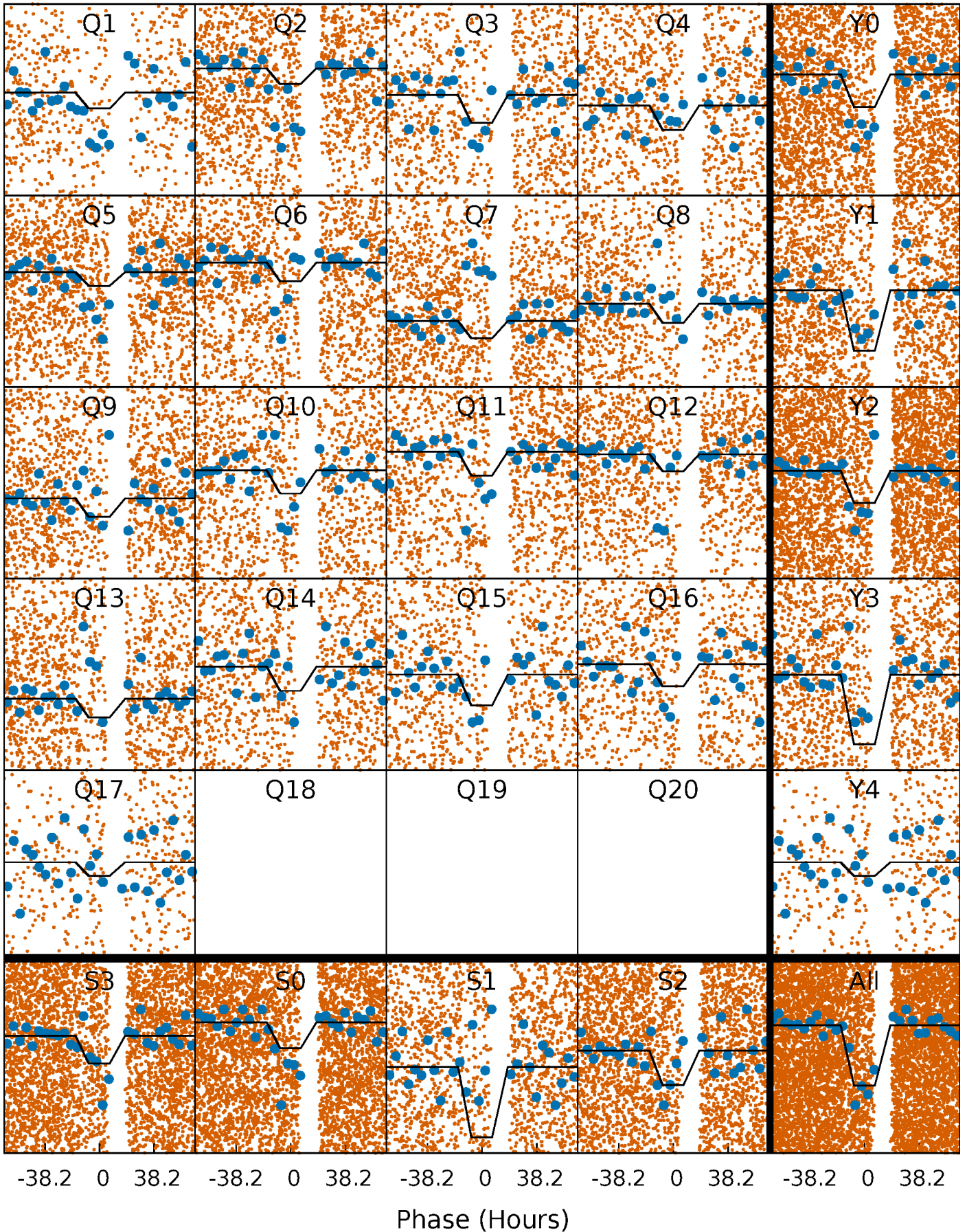
DV Quarter-Phased Transit Curves

TCE 003346027-03 P= 10.449097 Days $T_0=134.605953$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

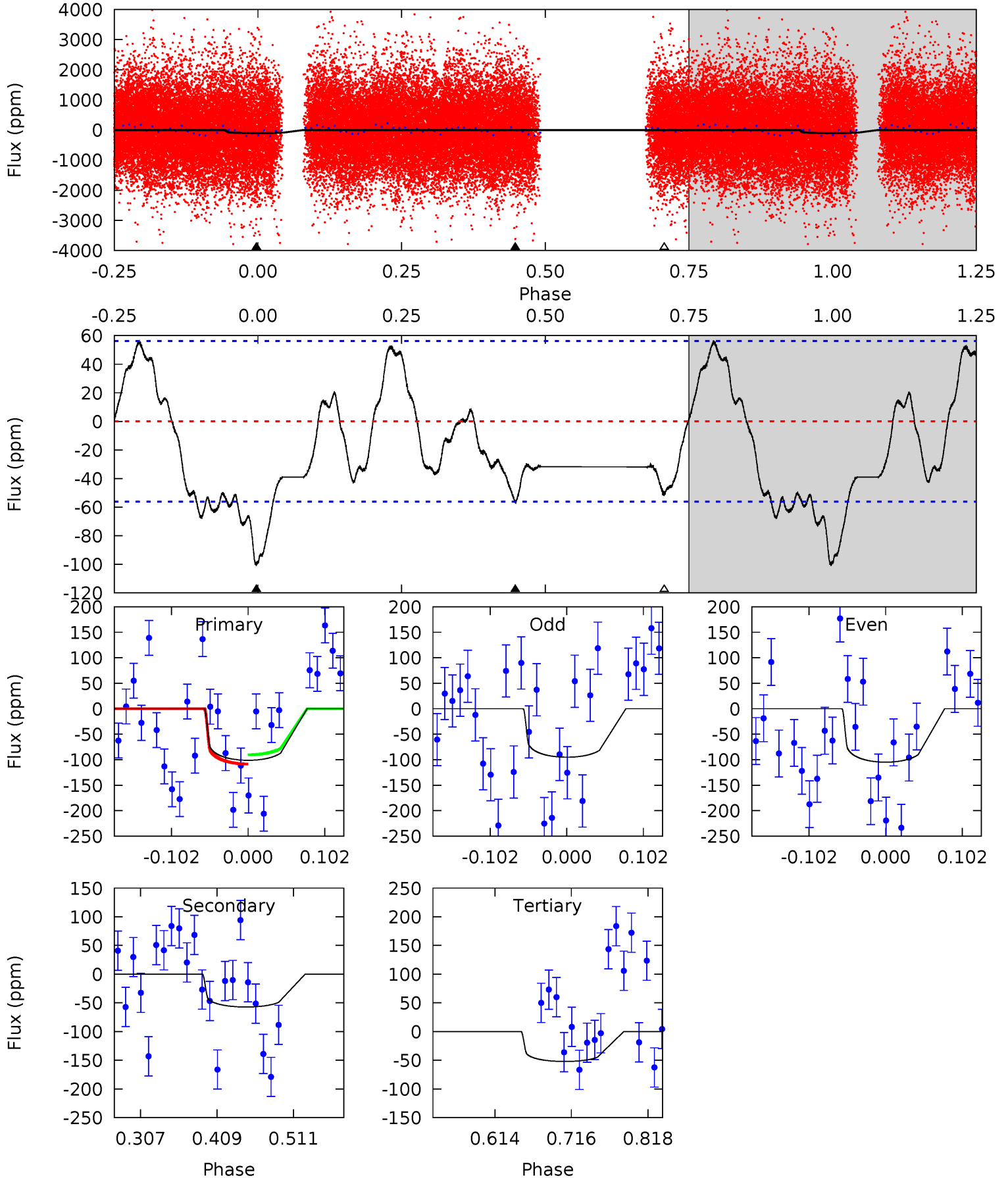
TCE 003346027-03 P= 10.448461 Days $T_0=134.767017$ (BKJD)



DV Model-Shift Uniqueness Test

003346027-03, P = 10.449097 Days, E = 124.156856 Days

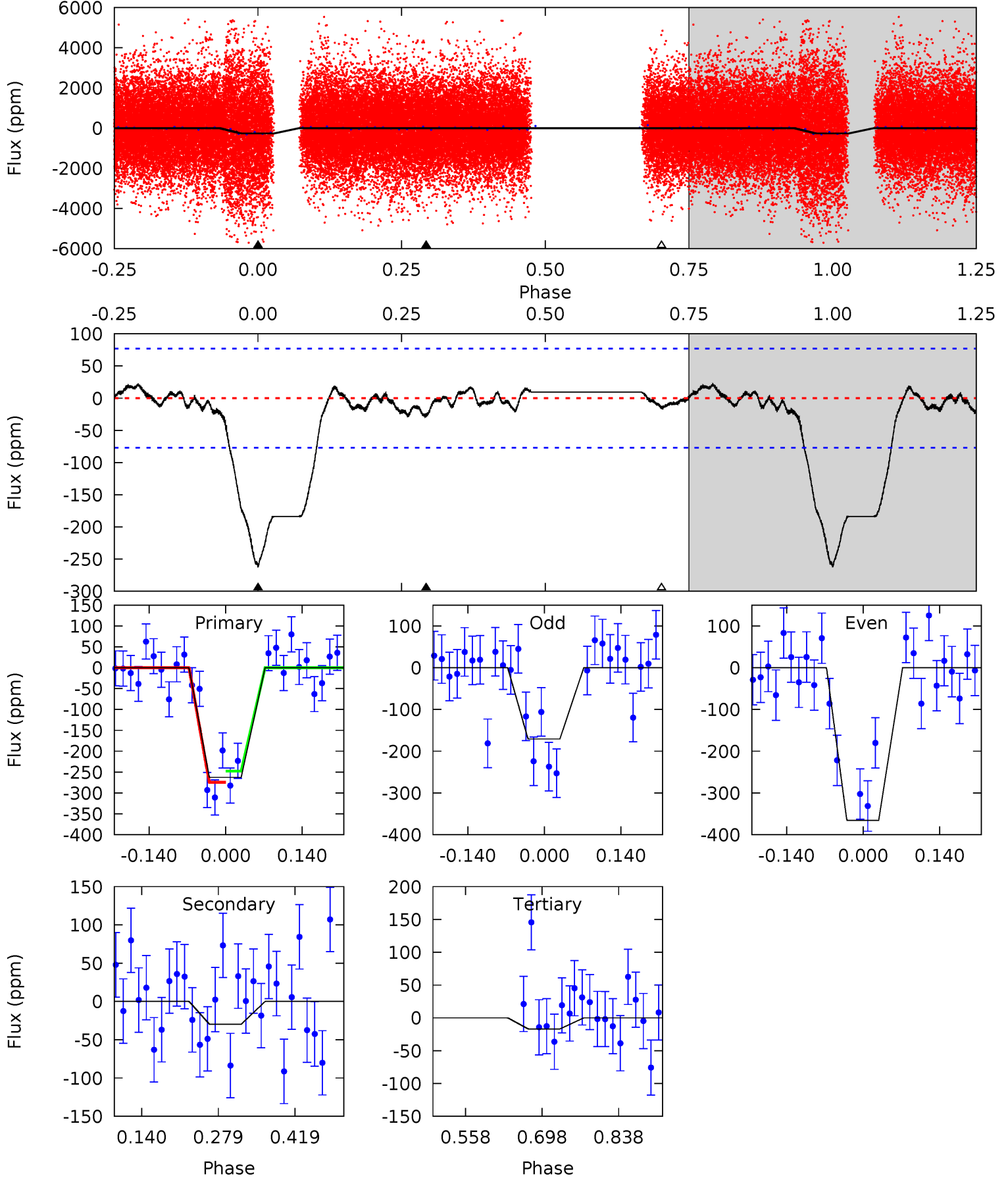
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.21	4.64	4.23	0	4.56	1.63	2.53	3.98	8.21	0.41	4.64	0.40	1.18	0.36	0.70



Alt Model-Shift Uniqueness Test

003346027-03, P = 10.448461 Days, E = 124.318556 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	1.73	0.98	0	4.49	1.48	0.59	14.4	15.3	0.75	1.73	5.63	0.57	0.08	0.65



Stellar Parameters For KIC 003346027

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7372^{+232}_{-310}	$4.263^{+0.087}_{-0.203}$	$-0.320^{+0.250}_{-0.350}$	$1.424^{+0.481}_{-0.206}$	$1.362^{+0.222}_{-0.201}$	$0.664^{+0.270}_{-0.366}$
	+3%/-4%	+2%/-5%	+78%/-109%	+34%/-14%	+16%/-15%	+41%/-55%
Source	KIC0	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 003346027-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-57 ± 12	$1.74^{+0.32}_{-0.25}$	1707^{+133}_{-104}	6049^{+520}_{-487}	108^{+52}_{-35}
Alt.	-30 ± 17	$2.44^{+0.47}_{-0.30}$	1712^{+124}_{-101}	4514^{+513}_{-602}	29^{+20}_{-16}

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 $A_{obs} \gg 1.0$

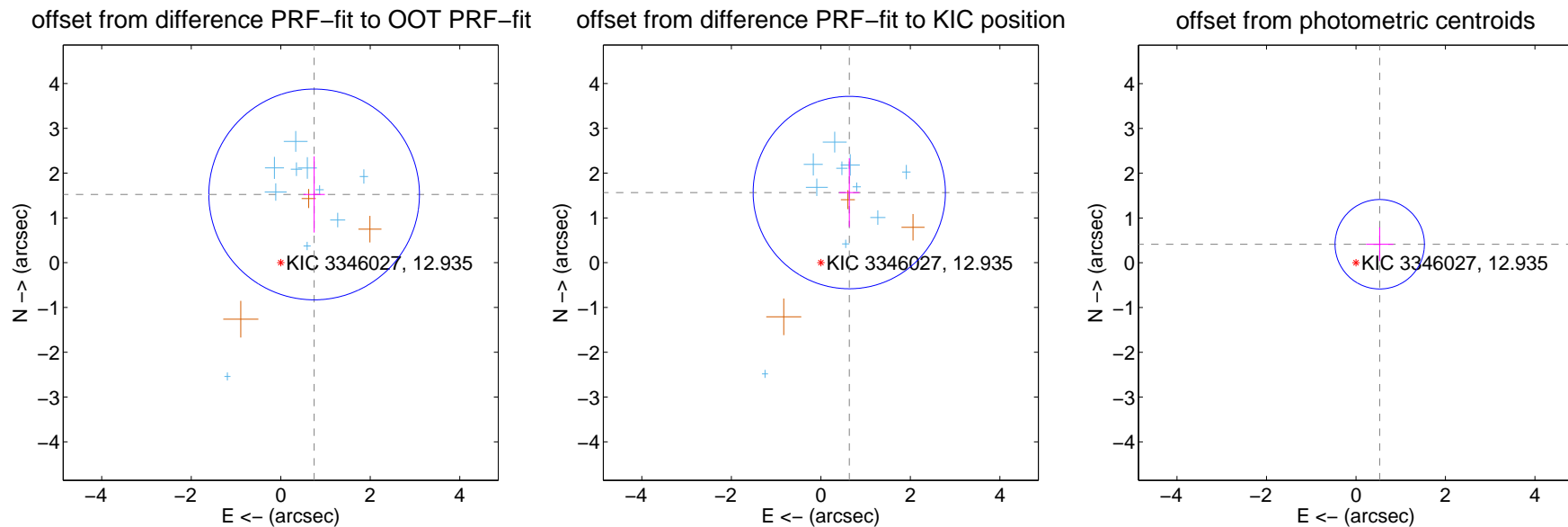
DV Centroid Data

Supplemental centroid analysis for 003346027-03. Kepler magnitude: 12.94. Transit SNR 7.63

There are 10 quarters with good PRF difference image offsets

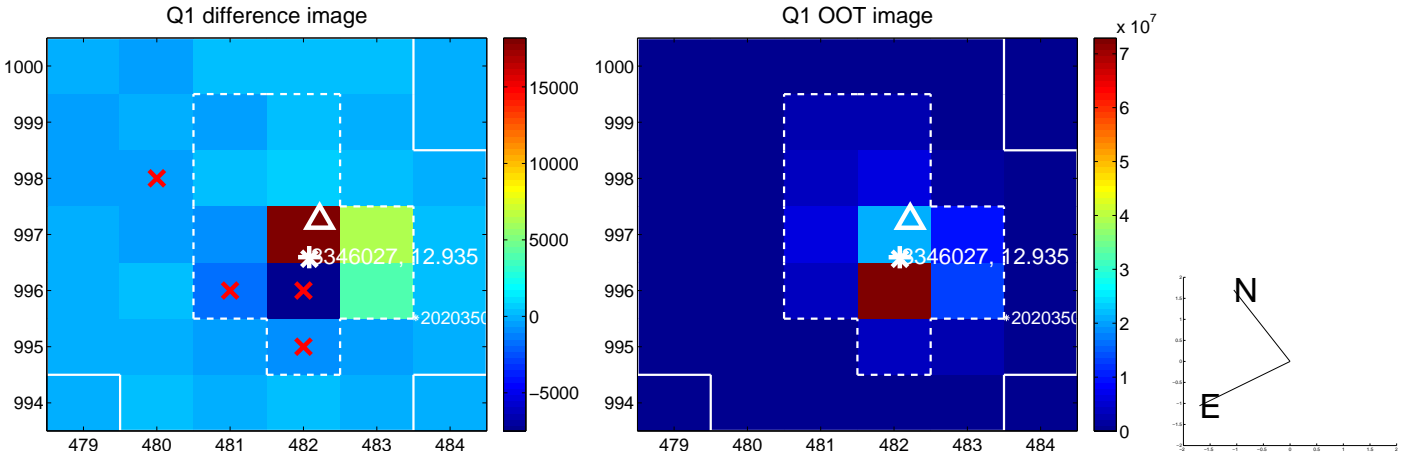
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.696 ± 0.784	2.16	-0.746 ± 0.239	1.523 ± 0.851
PRF-fit source offset from KIC position	1.689 ± 0.716	2.36	-0.635 ± 0.227	1.565 ± 0.767
photometric centroid source offset	0.67 ± 0.33	2.02	-0.53 ± 0.30	0.41 ± 0.38

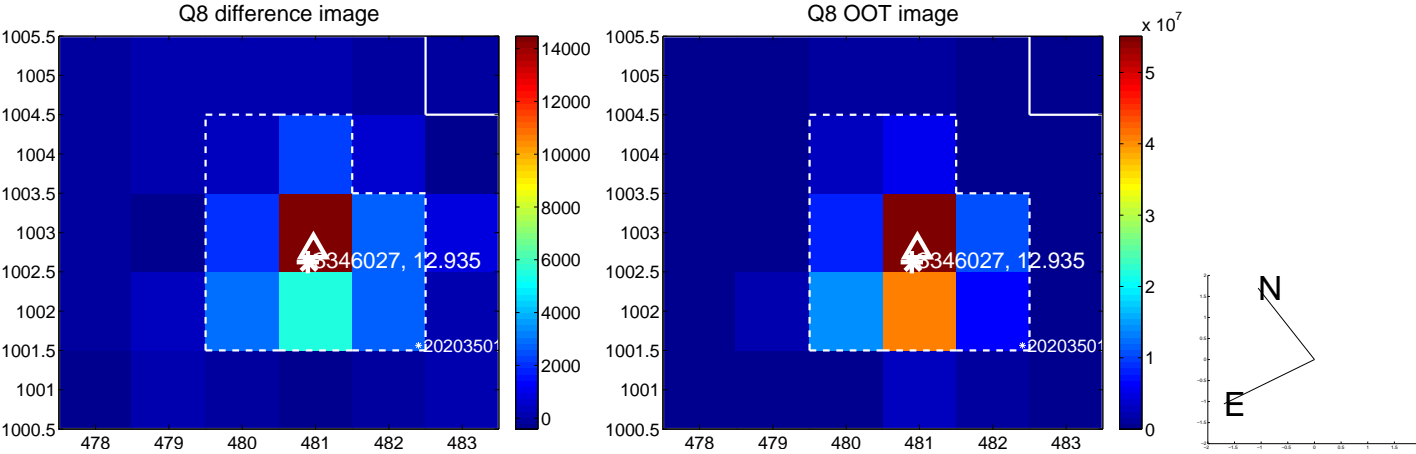
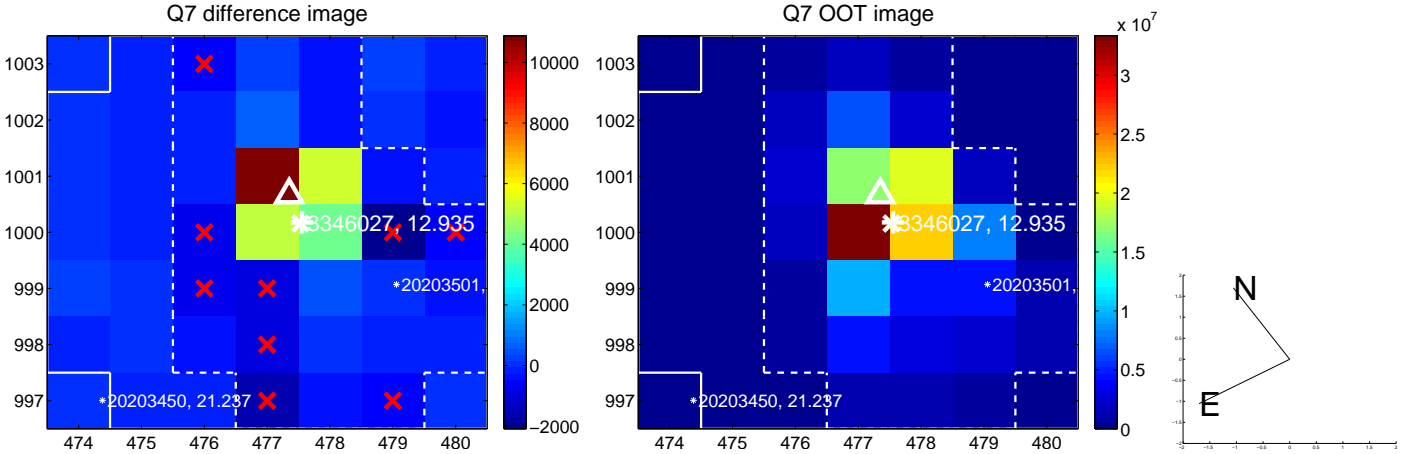
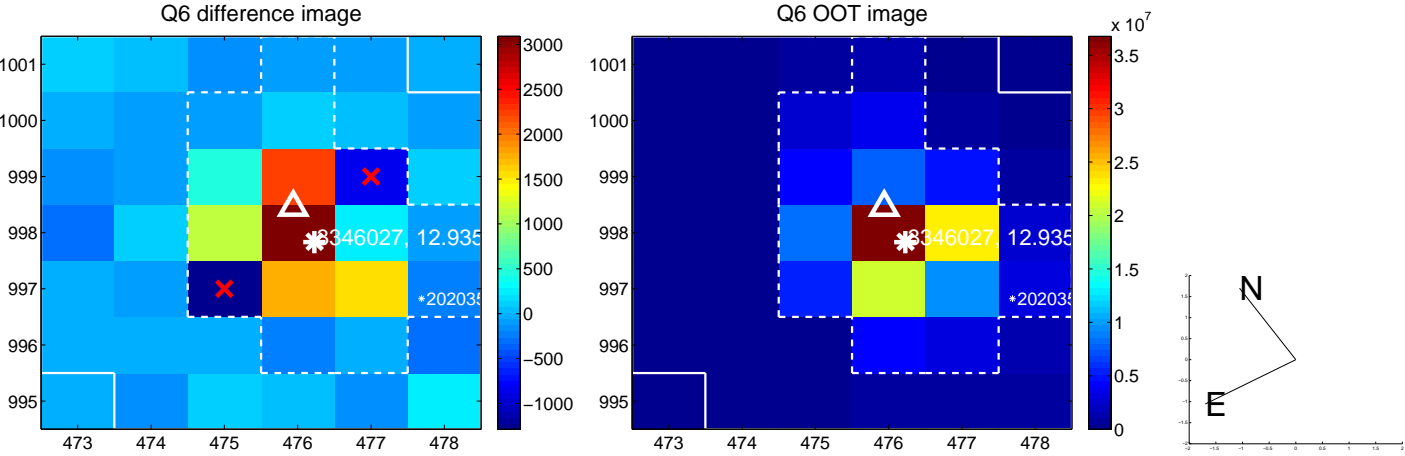
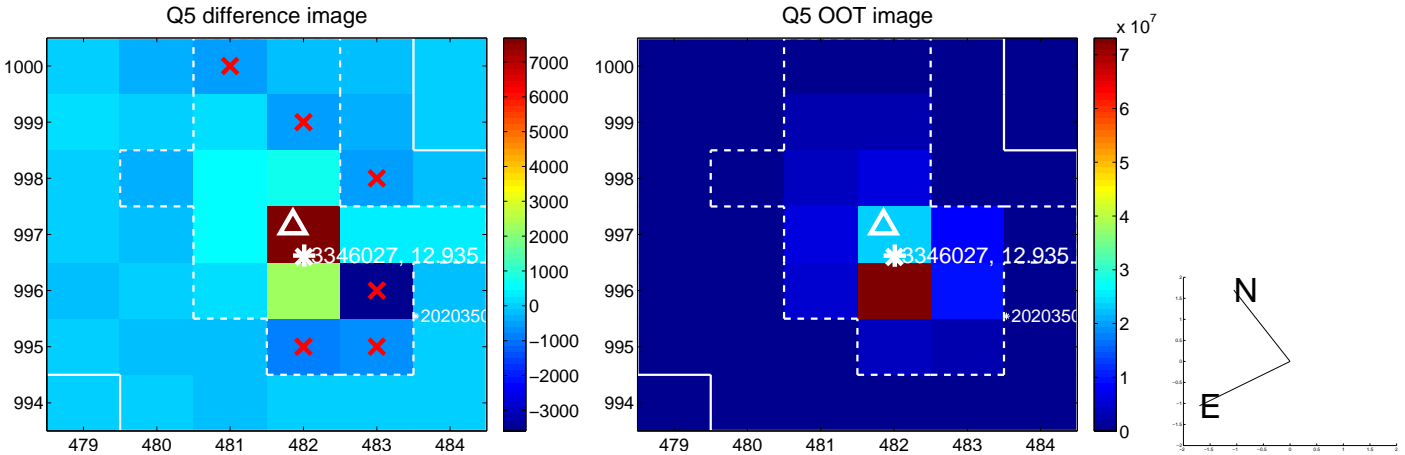


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

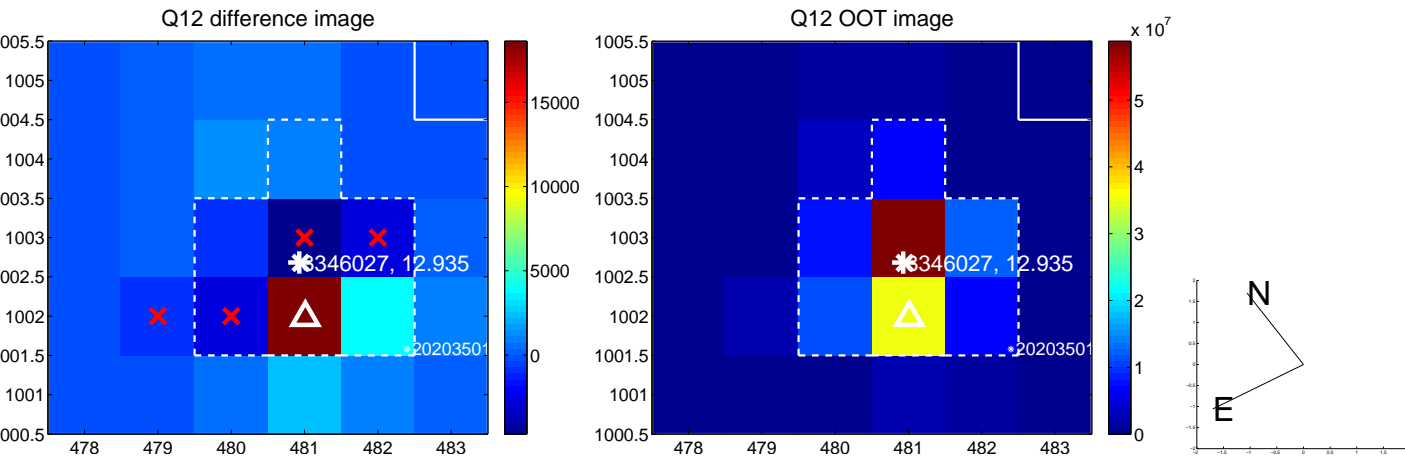
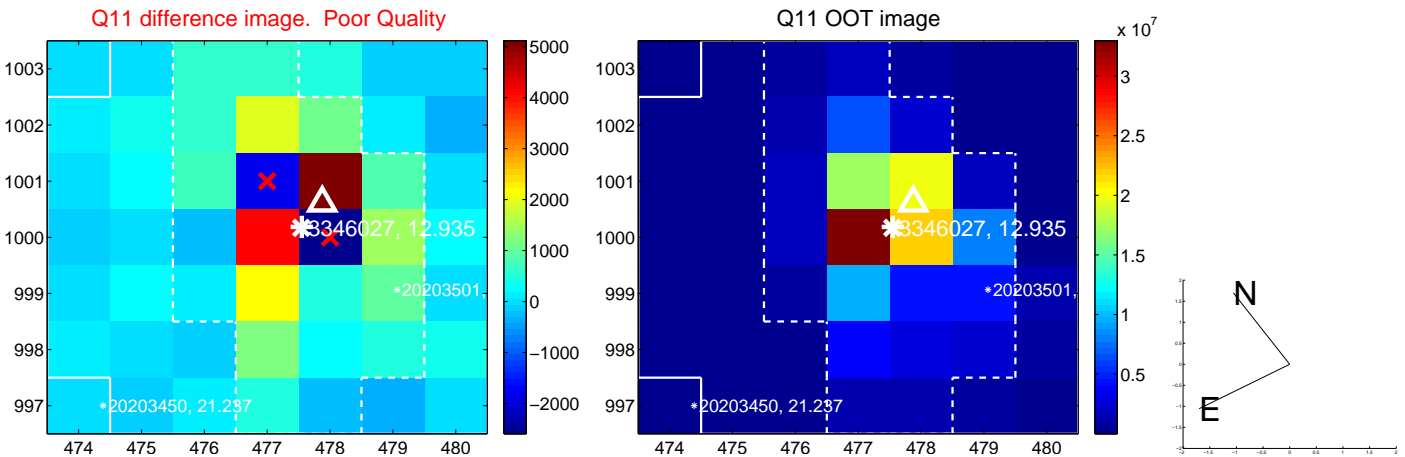
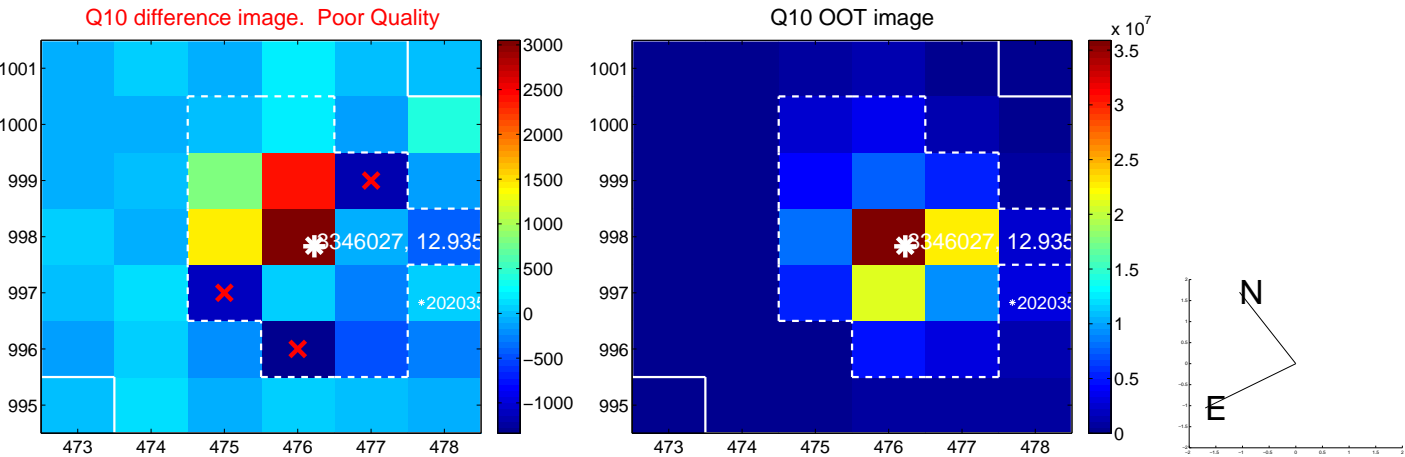
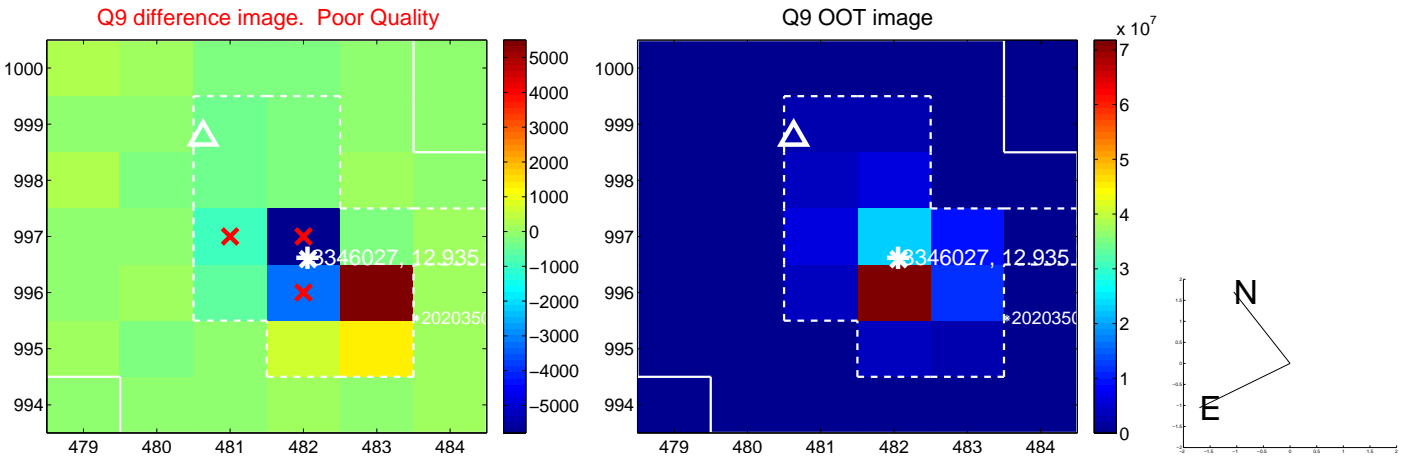
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



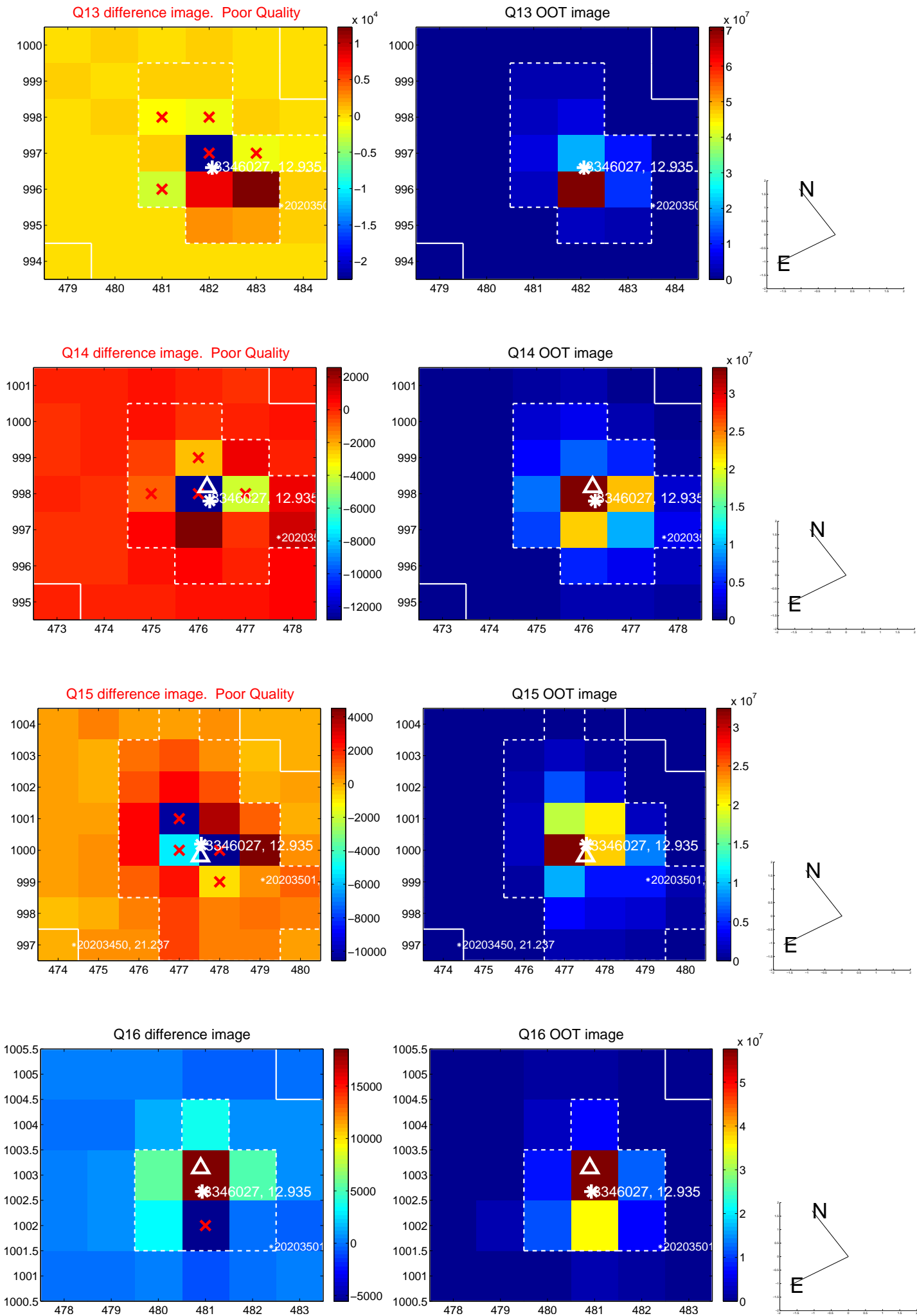
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



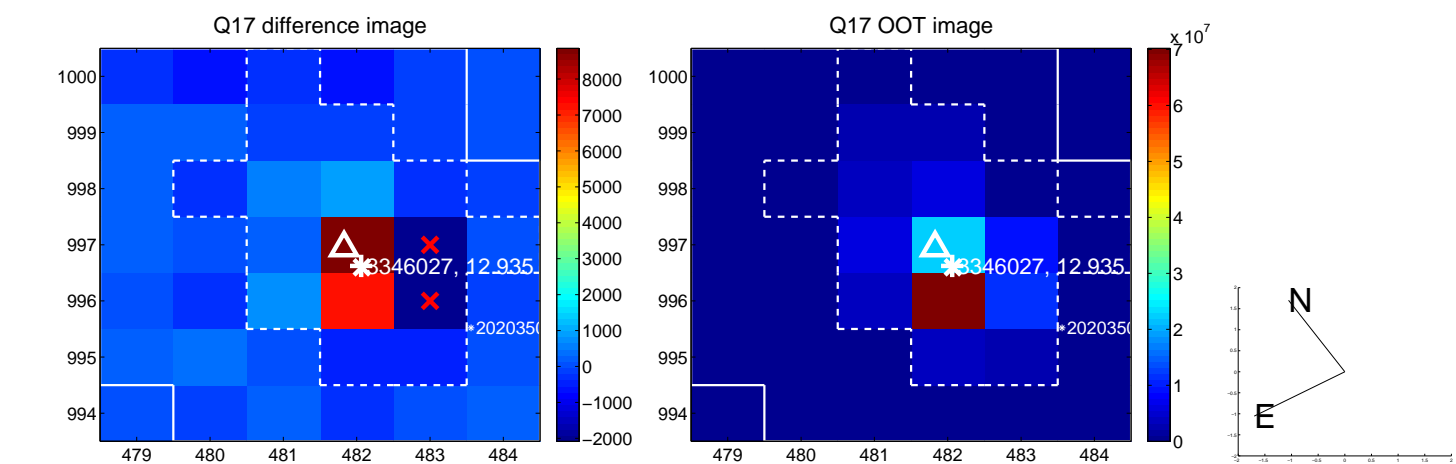
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



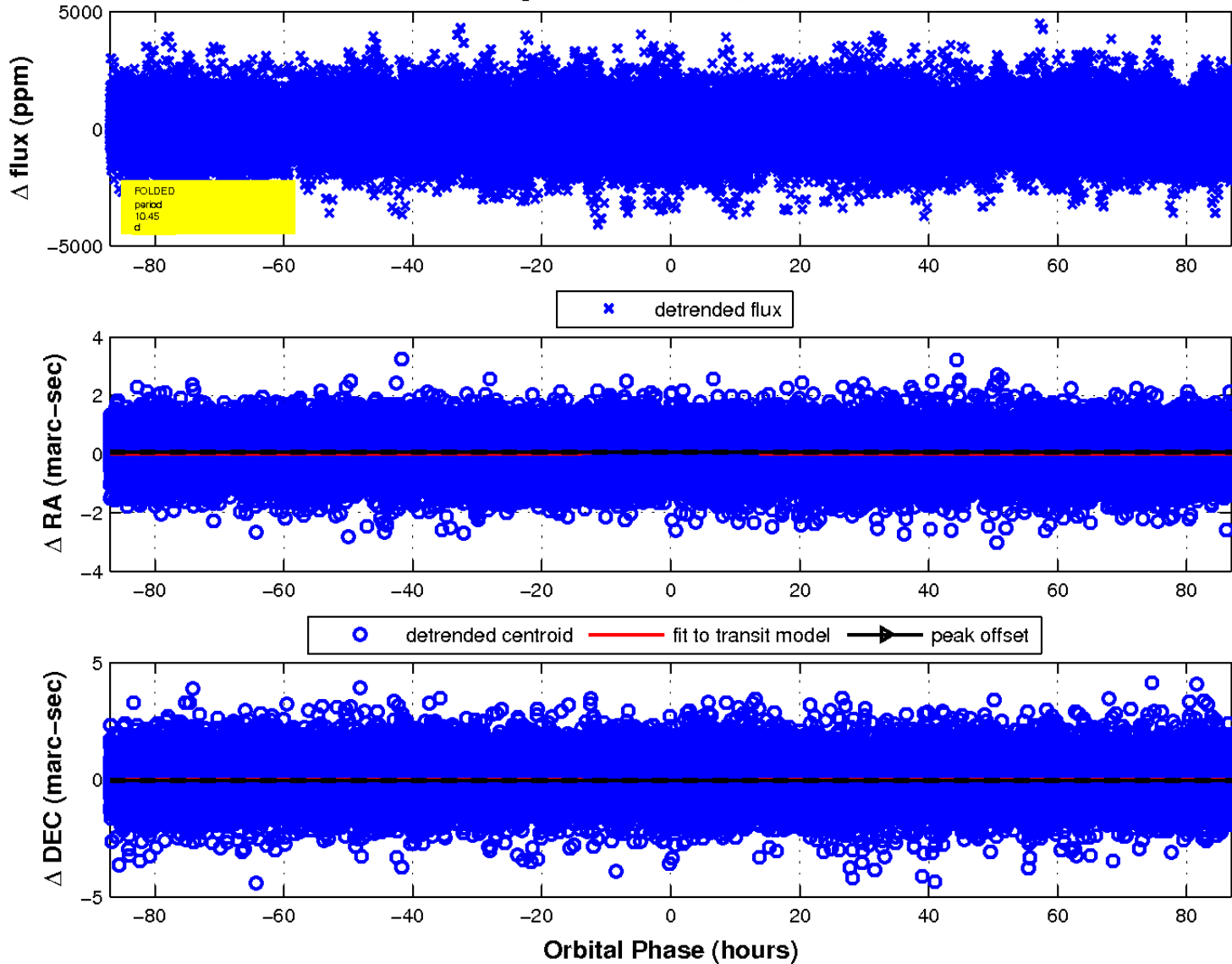
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

