

KIC 006182093

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})
006182093-01	OBS	No	4.312083	133.472104	29.5	18.600	11.0	6.9	3.71	6628	2.05	6002.69
006182093-02	OBS	No	343.401848	363.901625	430.9	17.773	12.8	11.8	3.71	6628	8.44	17.52
006182093-03	OBS	No	4.310072	132.241843	46.8	37.171	11.9	10.4	3.71	6628	2.99	6006.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006182093-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
006182093-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006182093-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED

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 006182093-01

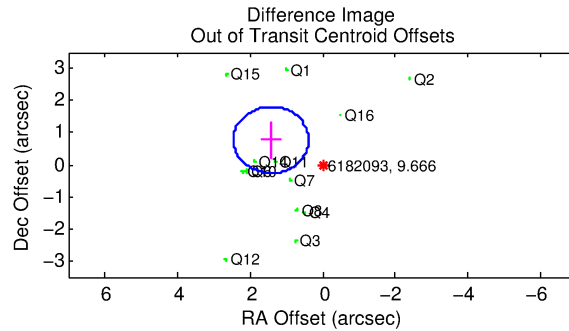
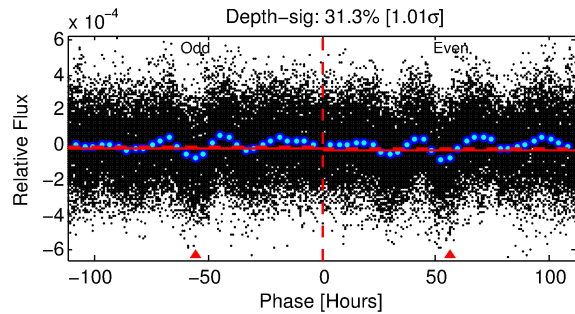
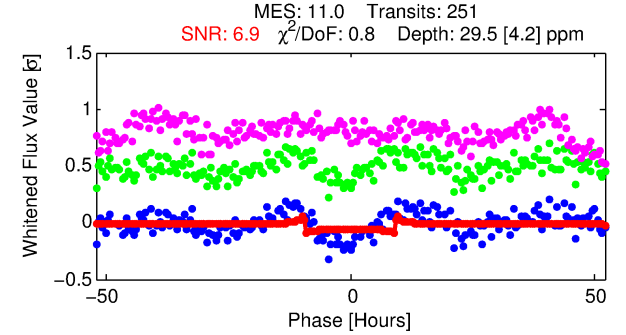
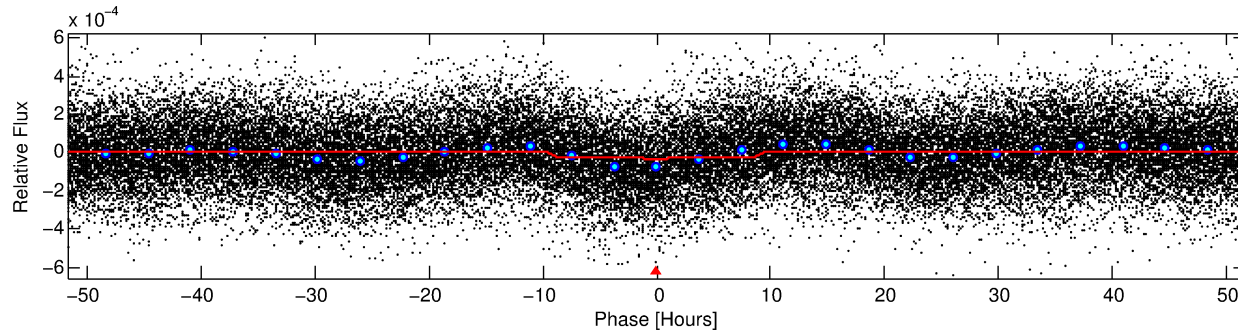
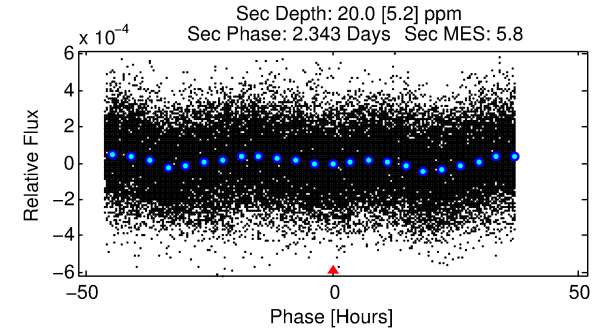
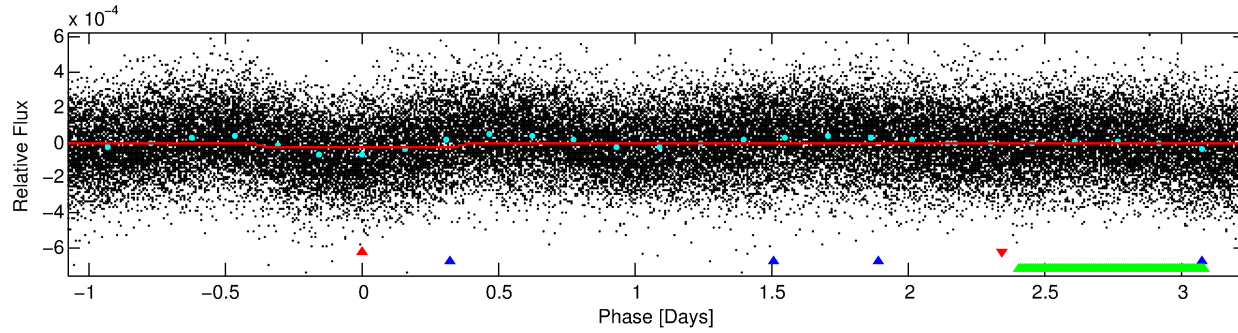
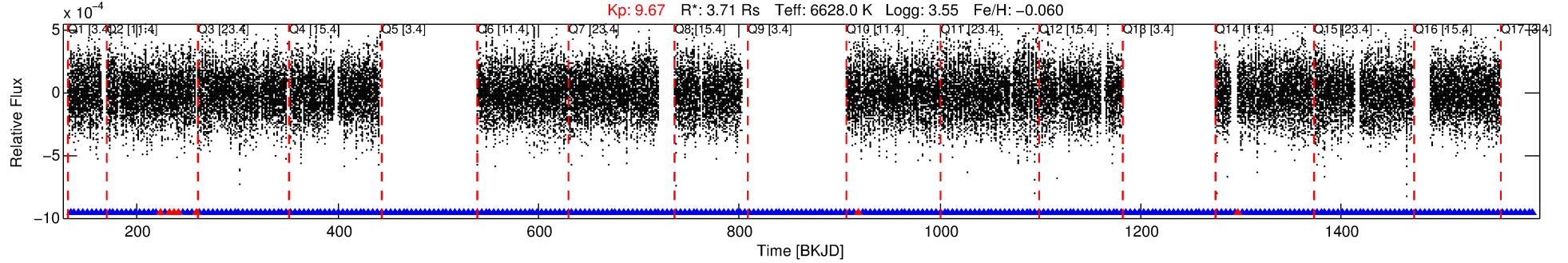
No Significant Match Found

DV One-Page Summary

KIC: 6182093 Candidate: 1 of 3 Period: 4.312 d

KOI: K06143 Corr: No Ephemeris Match

Kp: 9.67 R*: 3.71 Rs Teff: 6628.0 K Logg: 3.55 Fe/H: -0.060



DV Fit Results:

Period = 4.31208 [0.00005] d
Epoch = 133.4721 [0.0068] BKJD
Rp/R* = 0.0051 [0.0023]
a/R* = 1.80 [3.12]
b = 0.34 [6.59]
Seff = 6002.69 [3567.82]
Teff = 2244 [334] K
Rp = 2.05 [1.23] Re
a = 0.0629 [0.0233] AU
Ag = 10.39 [11.56] [0.81σ]
Teffp = 6230 [1486] K [2.62σ]

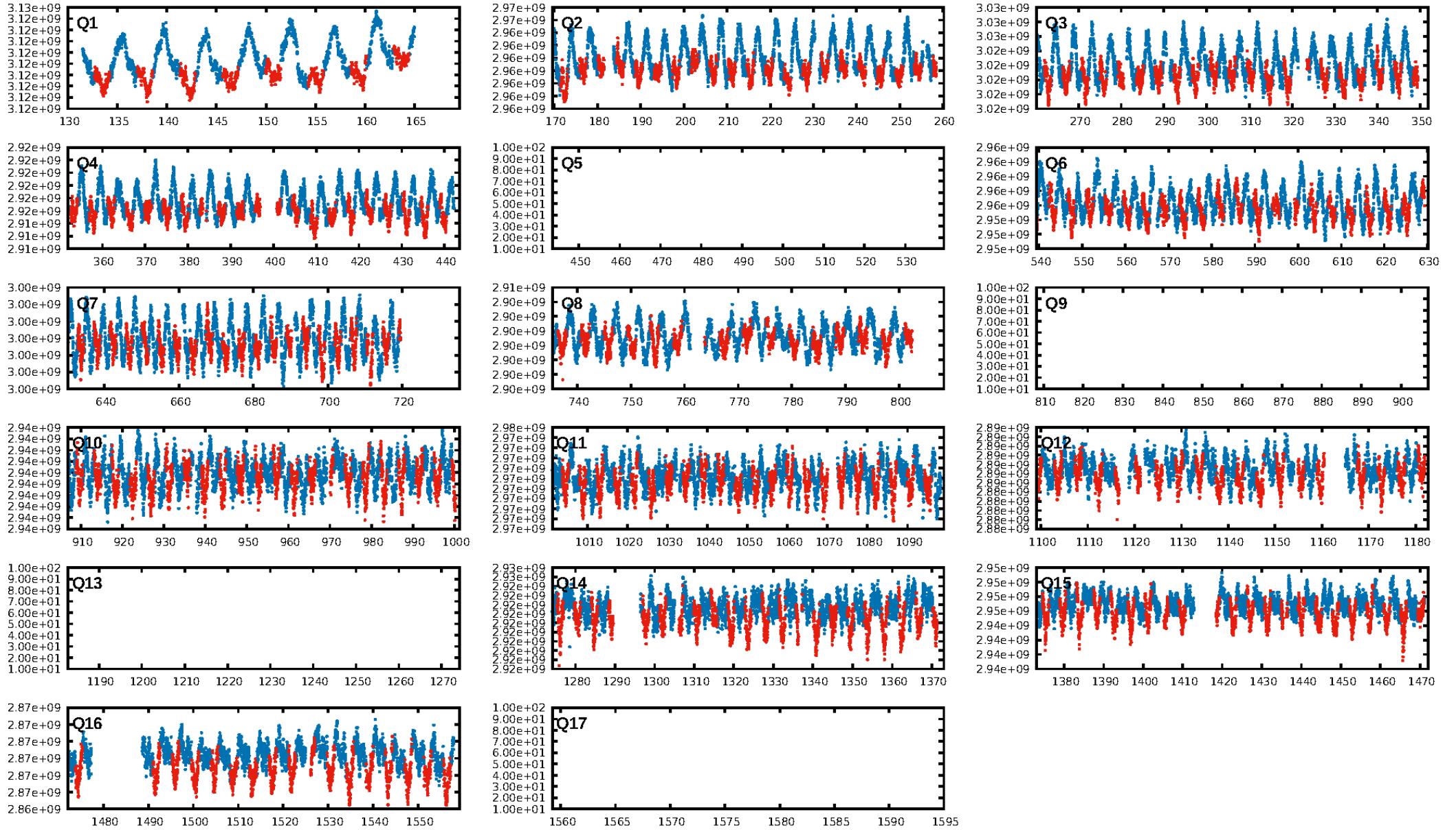
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: 100.0% [316.34σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [236/243]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.2%
Centroid-so: 1.744 arcsec [1.76σ]
OotOffset-rm: 1.618 arcsec [4.69σ]
KicOffset-rm: 2.484 arcsec [5.51σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 0.00 [0/13]
DiffImageOverlap-fno: 0.00 [0/13]

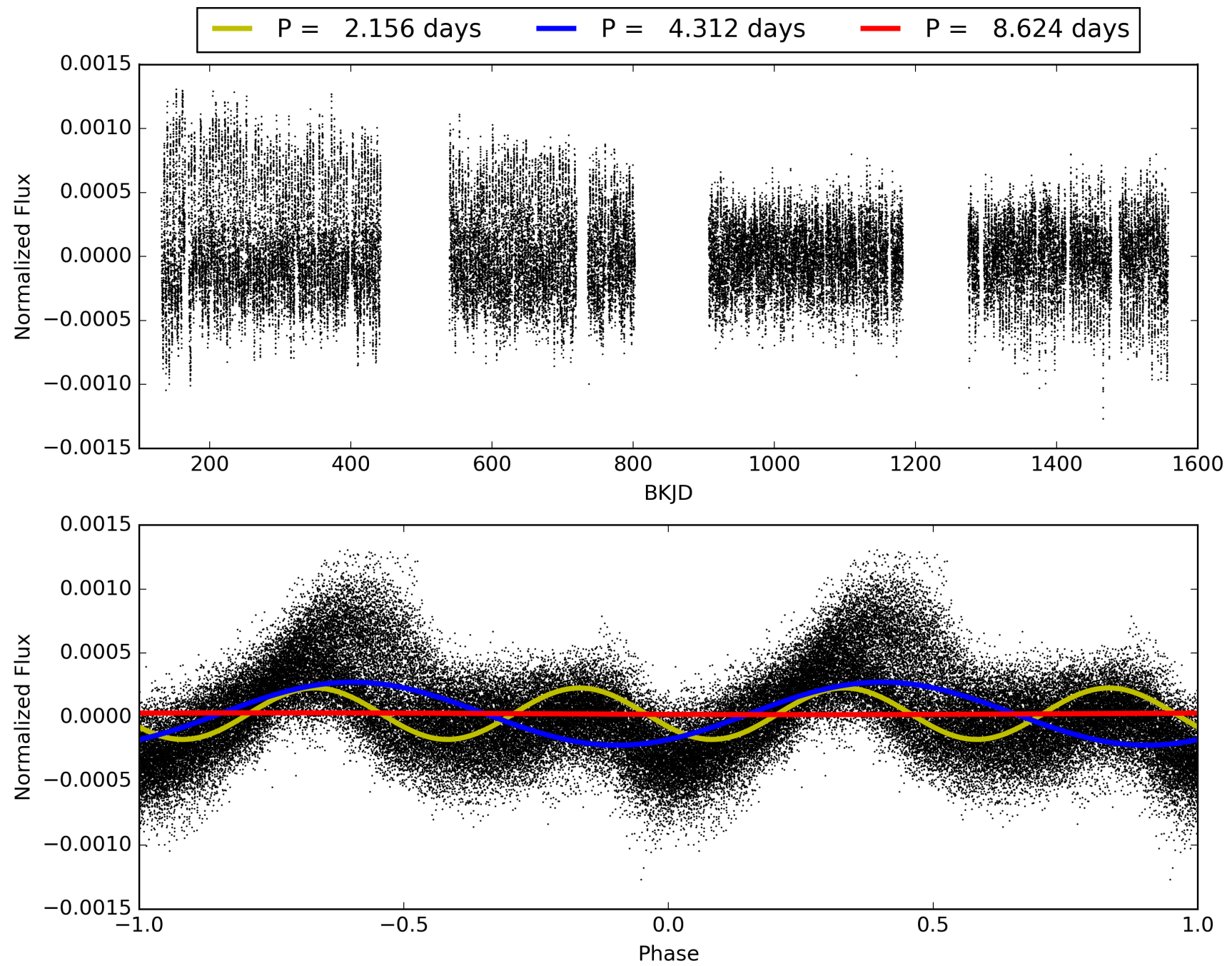
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:51:36 Z

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

TCE 006182093-01, PDC Light Curves

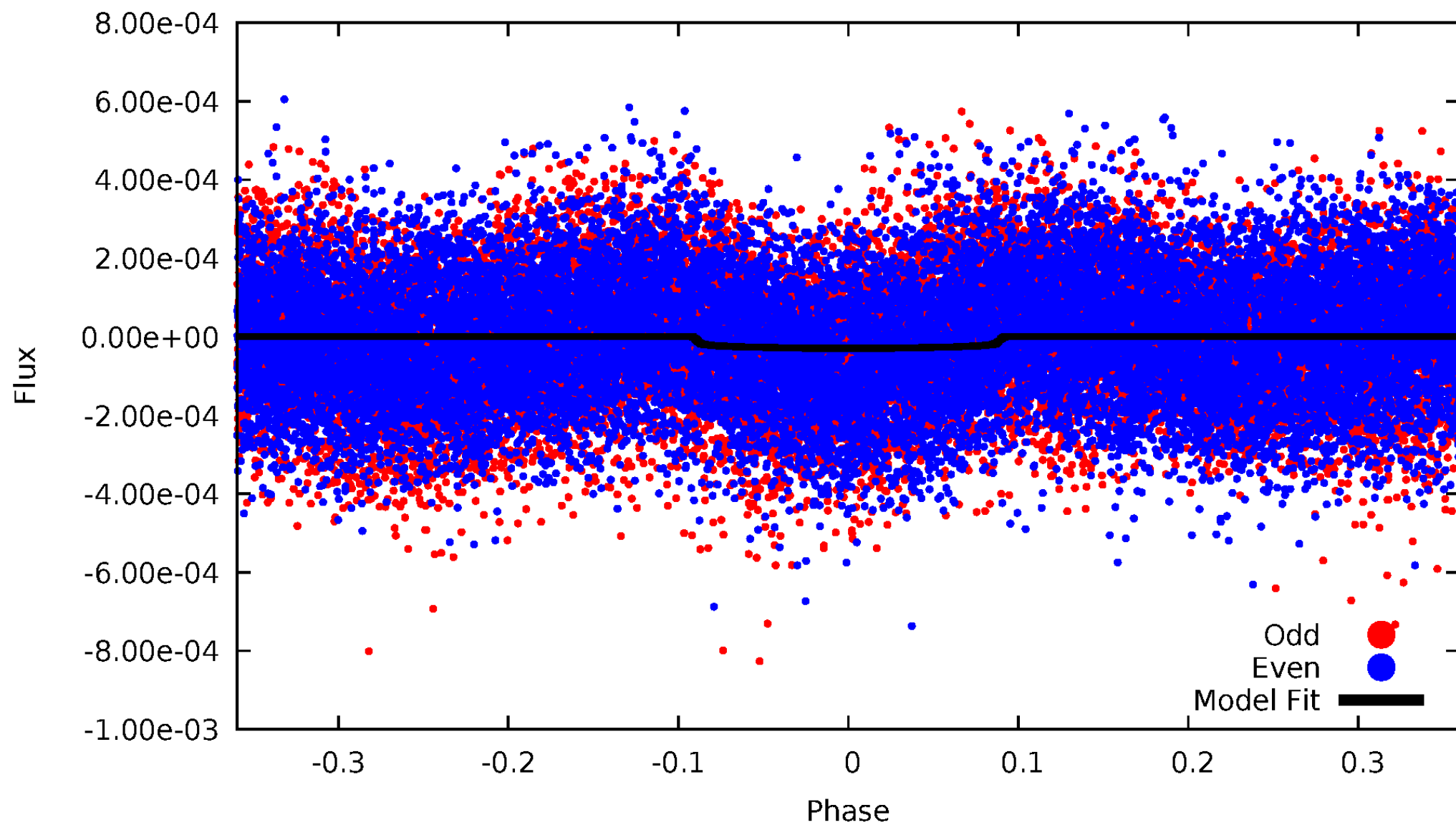


TCE 006182093-01



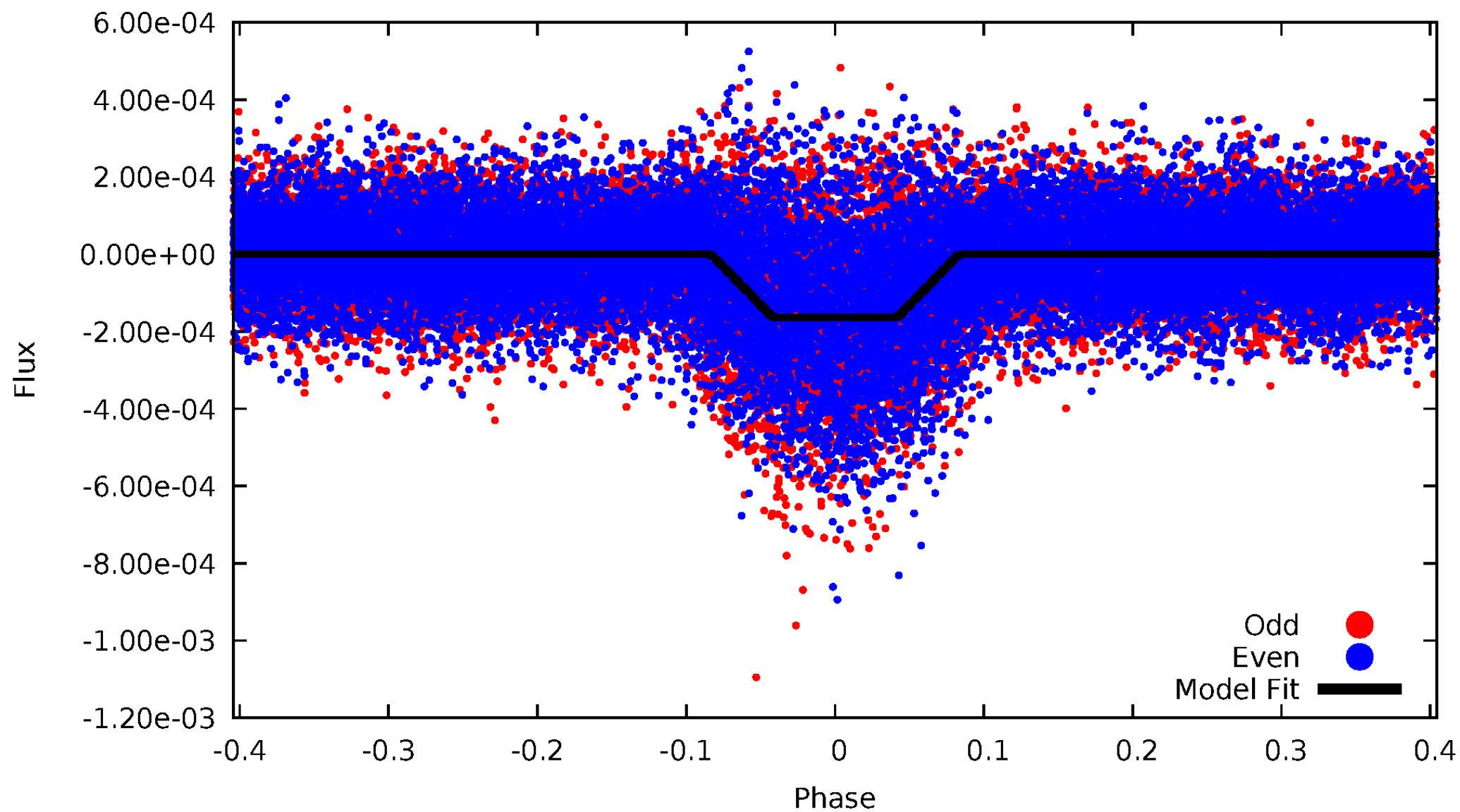
DV Odd/Even

TCE 006182093-01

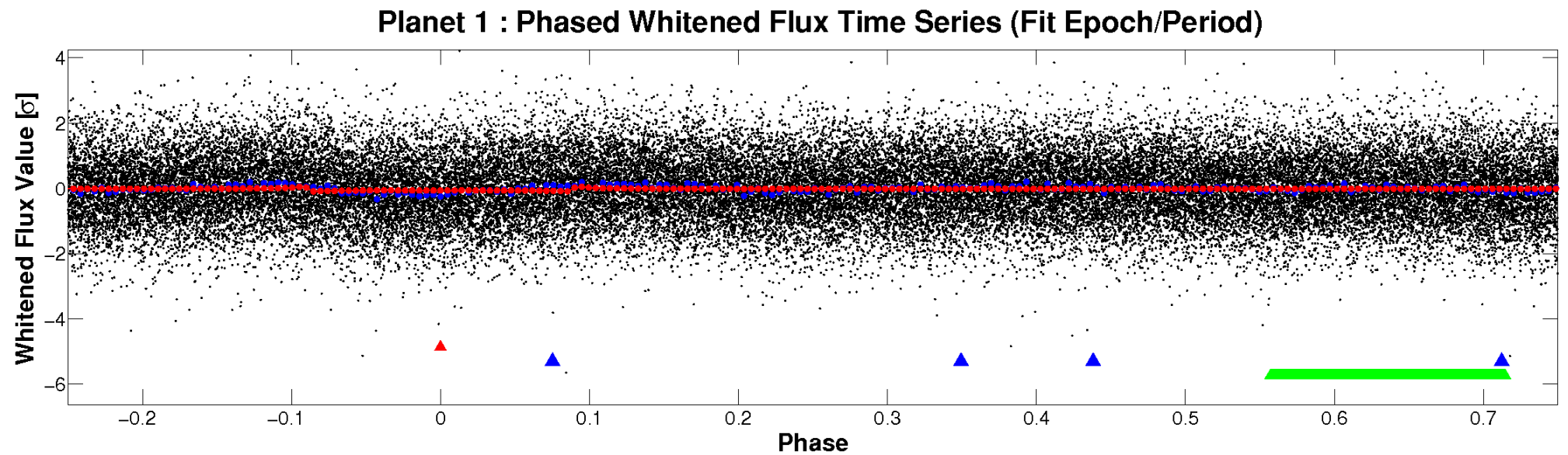
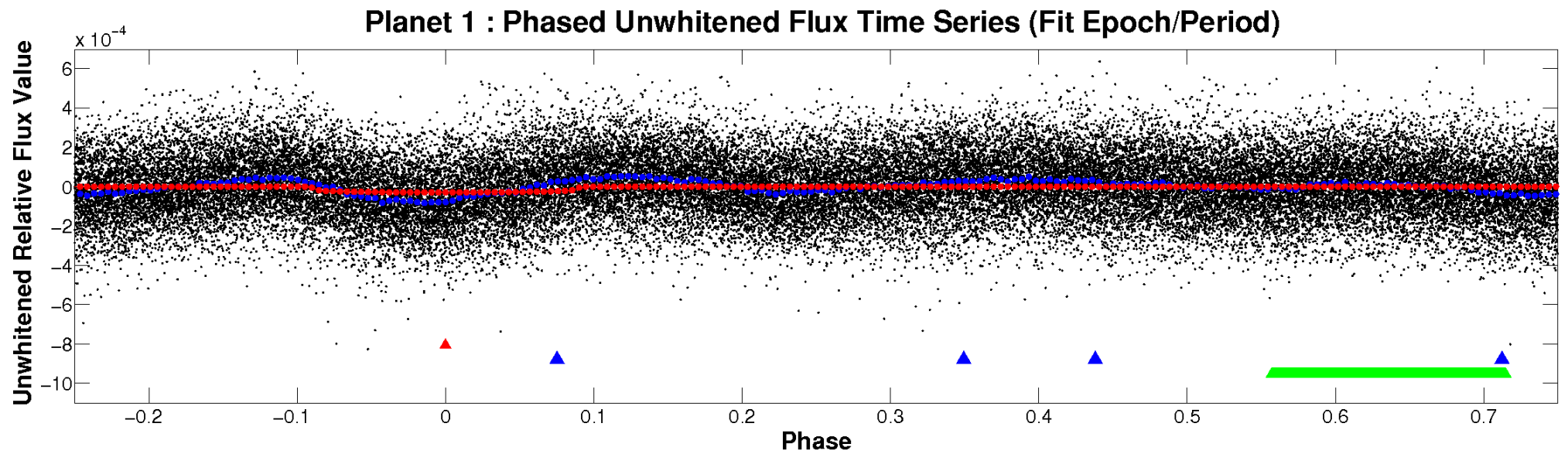


ALT Odd/Even

TCE 006182093-01

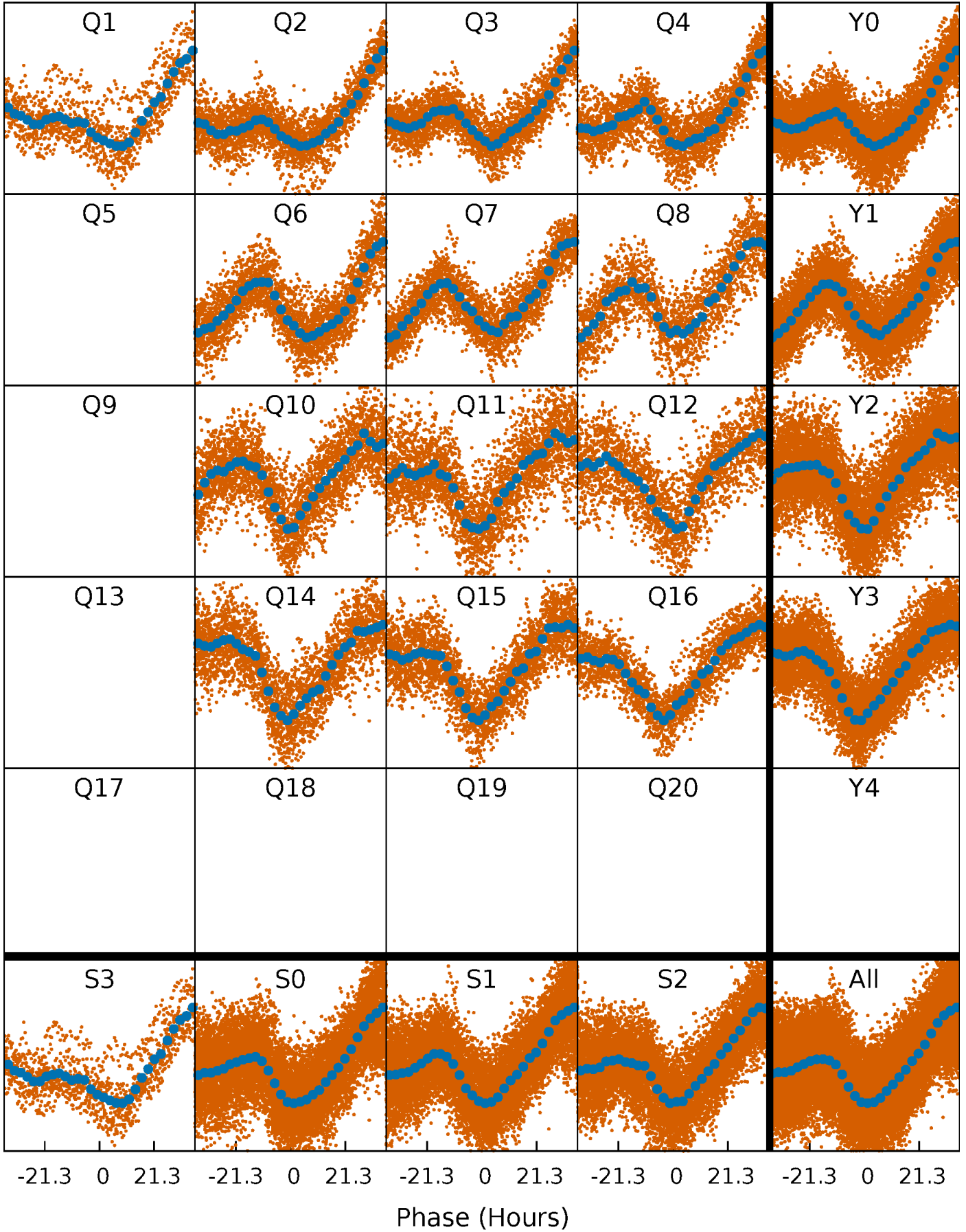


Non-Whitened Vs. Whitened Light Curve



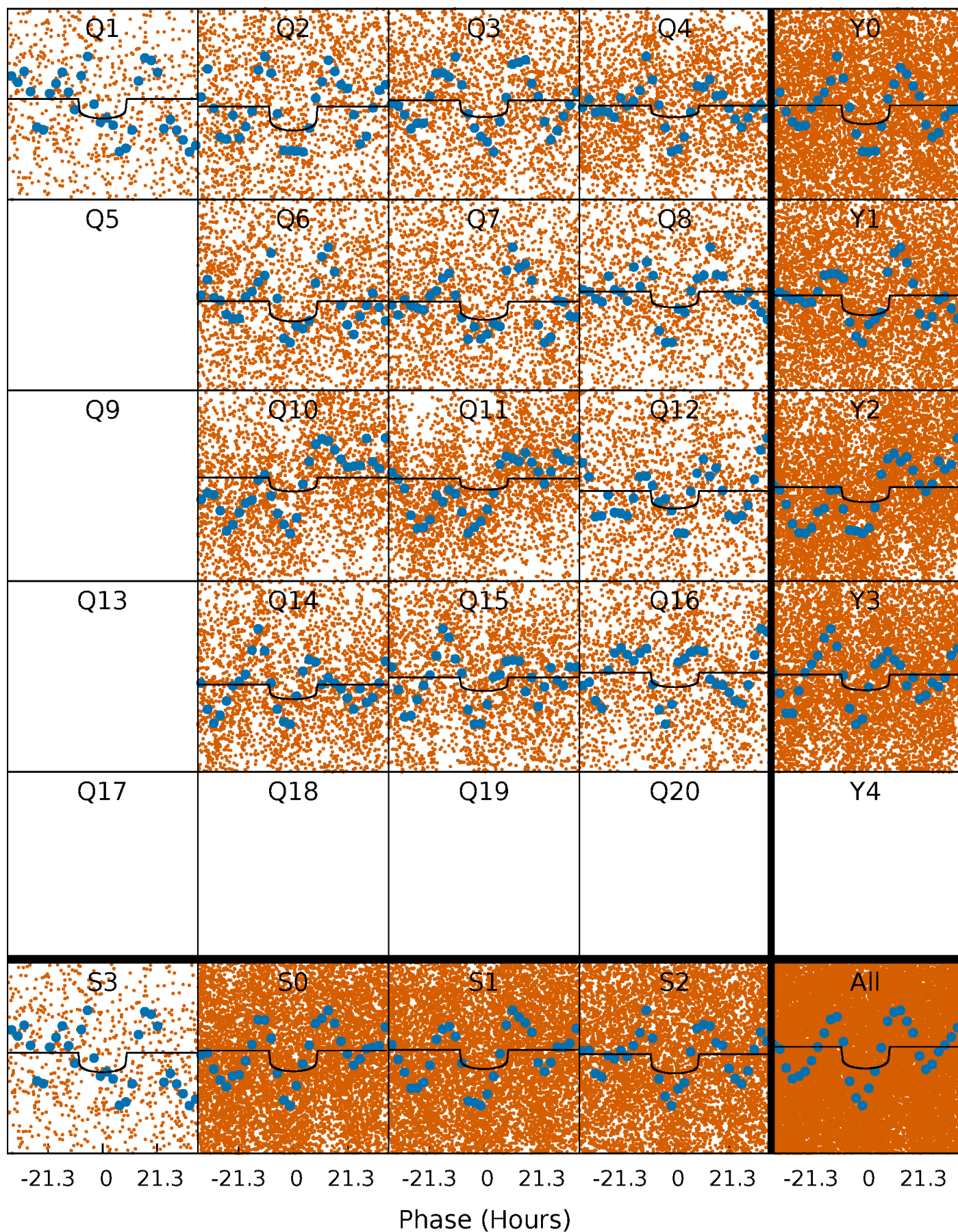
PDC Quarter-Phased Transit Curves

TCE 006182093-01 P= 4.312083 Days $T_0=133.472104$ (BKJD)



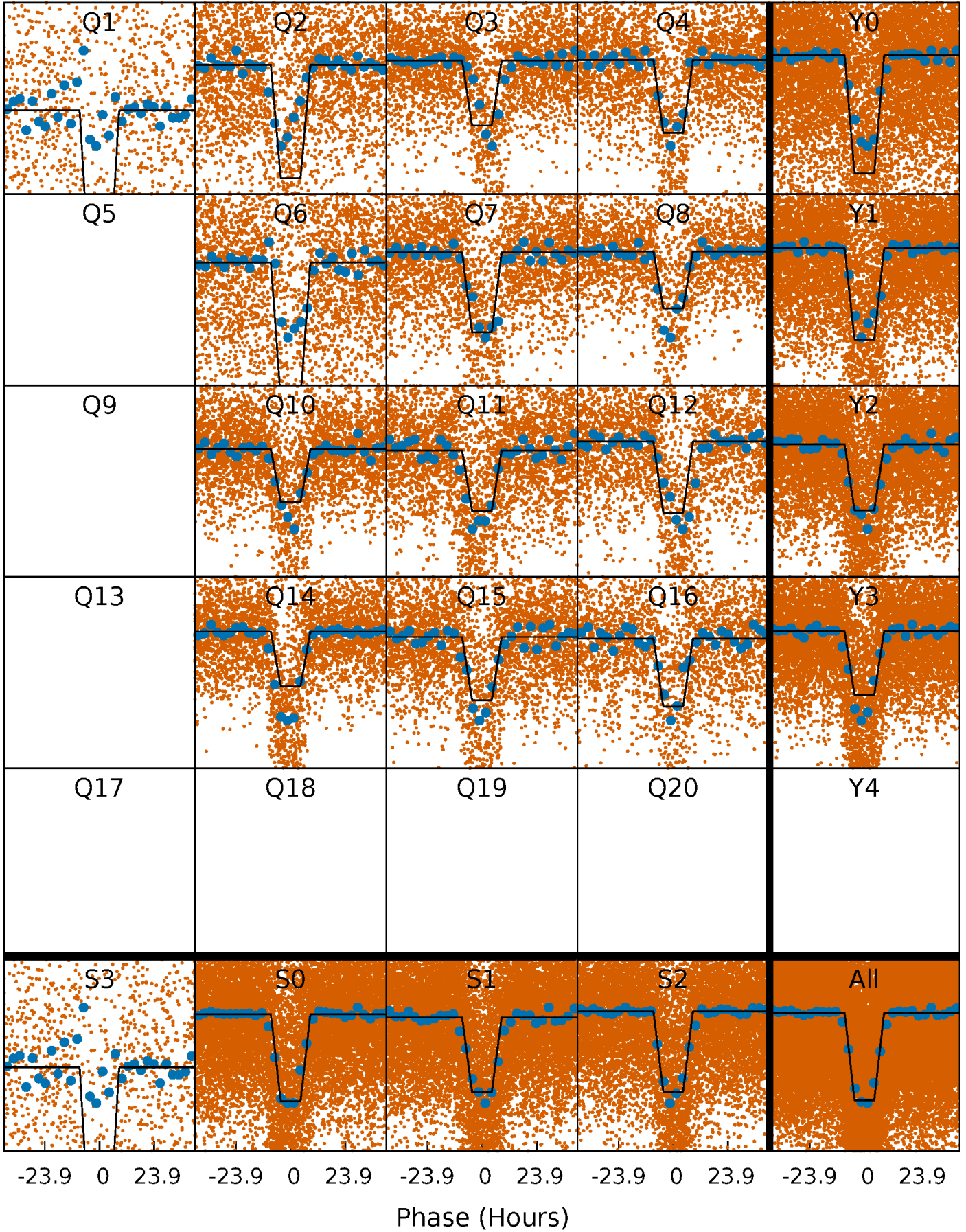
DV Quarter-Phased Transit Curves

TCE 006182093-01 P= 4.312083 Days $T_0=133.472104$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

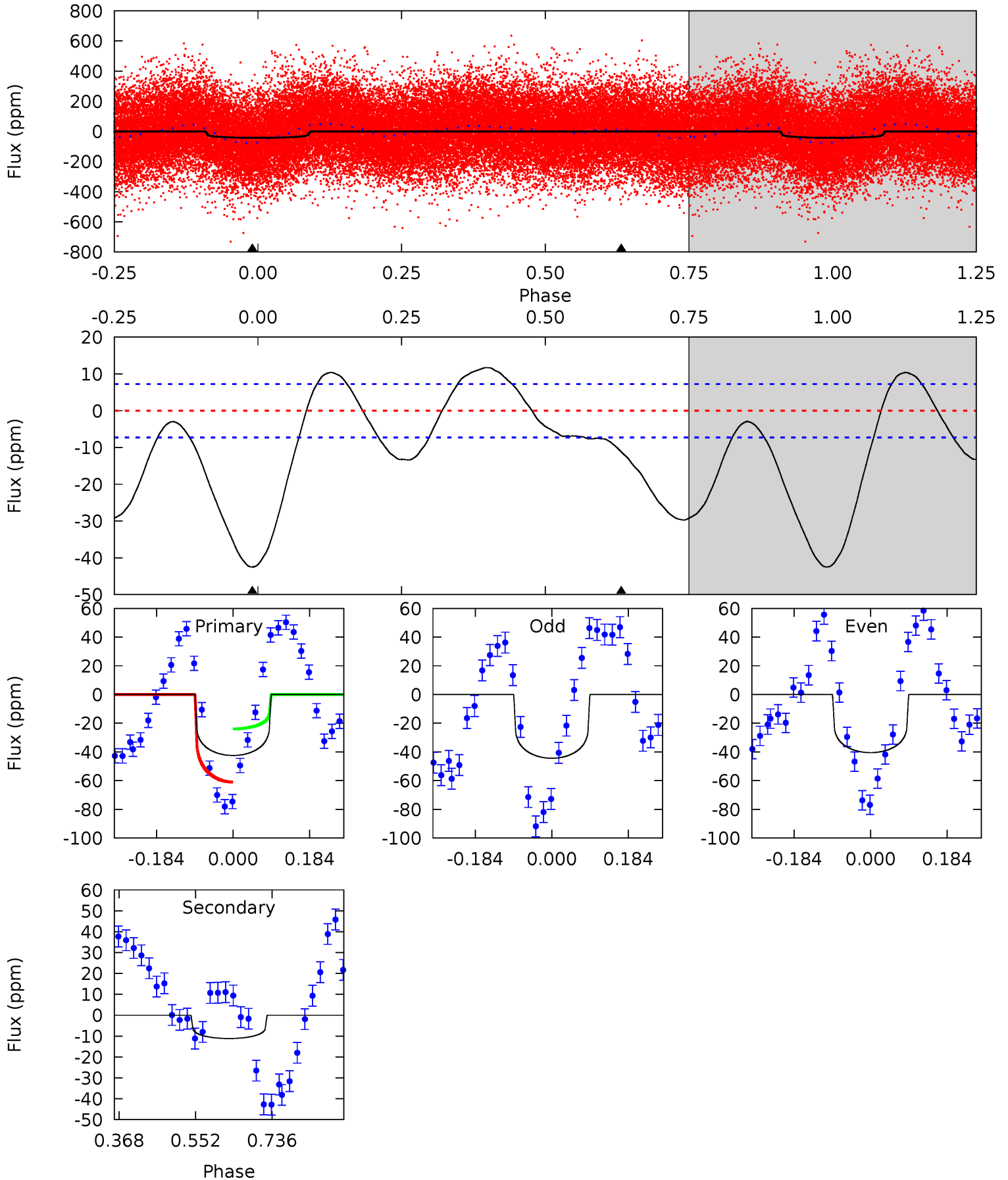
TCE 006182093-01 P= 4.311565 Days $T_0=133.520591$ (BKJD)



DV Model-Shift Uniqueness Test

006182093-01, P = 4.312083 Days, E = 129.160021 Days

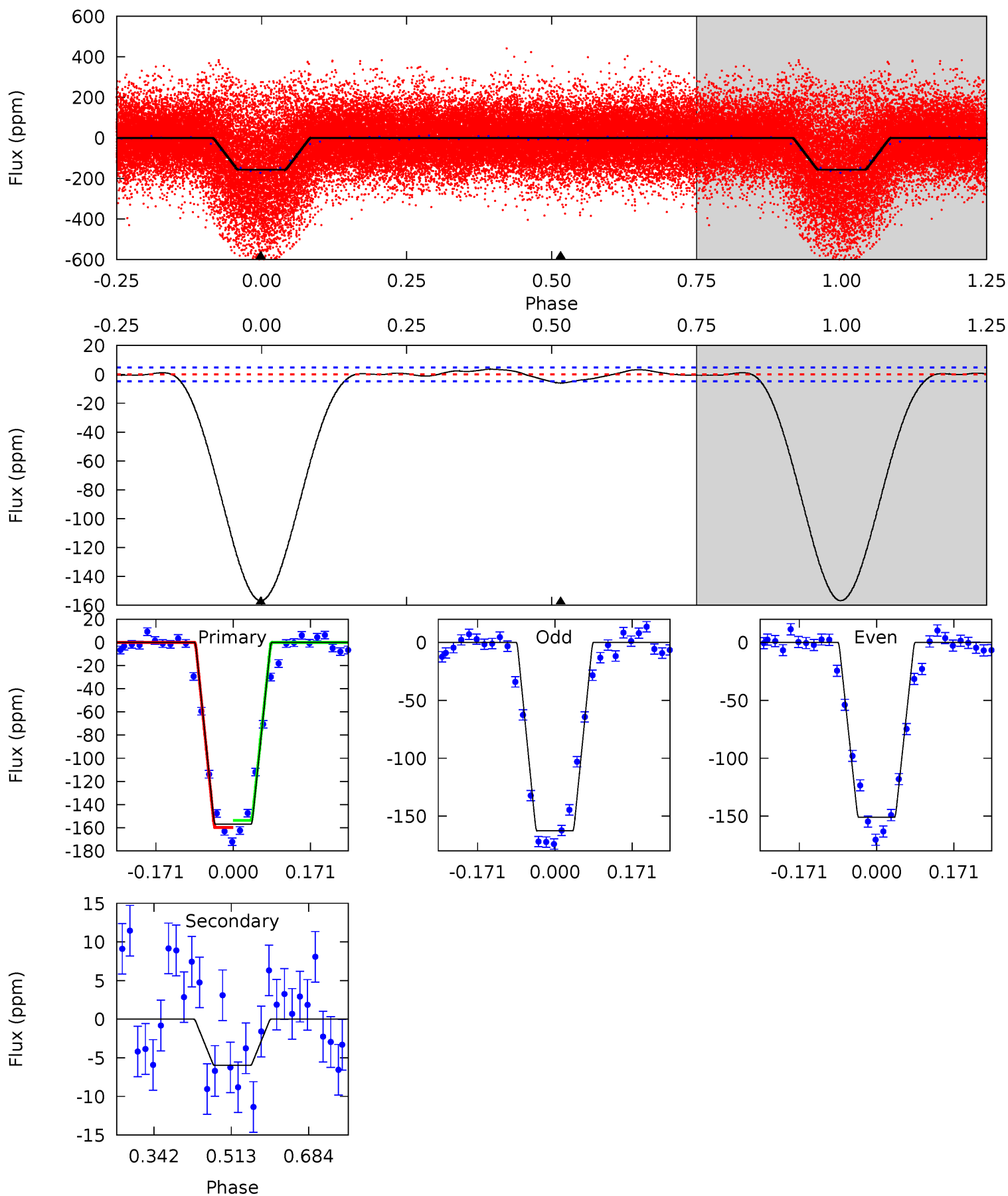
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.0	6.83	0	0	4.44	1.33	5.63	26.0	26.0	6.83	6.83	1.20	0.96	0.22	11.4



Alt Model-Shift Uniqueness Test

006182093-01, P = 4.311565 Days, E = 129.209026 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
145.2	5.54	0	0	4.45	1.37	0.78	145.2	145.2	5.54	5.54	5.39	1.00	0.02	2.79



Stellar Parameters For KIC 006182093

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6628^{+149}_{-183}	$3.552^{+0.340}_{-0.080}$	$-0.060^{+0.300}_{-0.250}$	$3.709^{+0.365}_{-1.458}$	$1.787^{+0.149}_{-0.348}$	$0.049^{+0.127}_{-0.009}$
	+2%/-3%	+10%/-2%	+500%/-417%	+10%/-39%	+8%/-19%	+257%/-19%
Source	PHO1	FLK73	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 006182093-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-11 ± 2	$1.94^{+0.85}_{-0.85}$	3077^{+153}_{-283}	5285^{+1892}_{-809}	$6.169^{+13.940}_{-3.137}$
Alt.	-6 ± 1	$4.91^{+1.13}_{-1.06}$	3095^{+151}_{-264}	2998^{+402}_{-535}	$0.528^{+0.353}_{-0.184}$

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

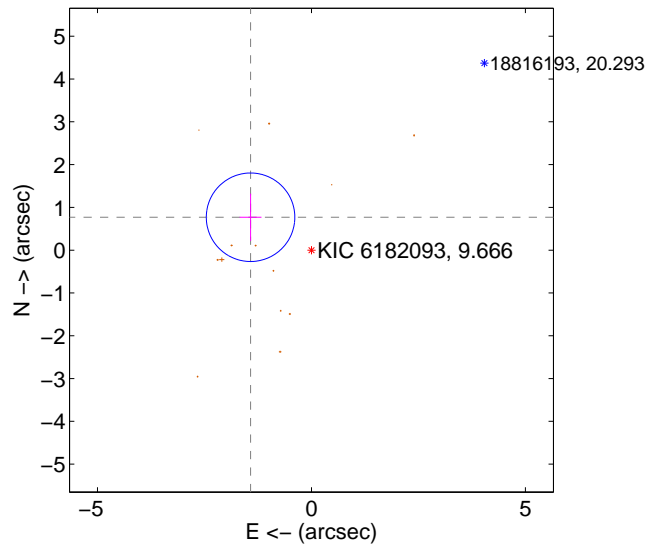
Supplemental centroid analysis for 006182093-01. **Kepler magnitude: 9.67.** Transit SNR 6.85

There are 0 quarters with good PRF difference image offsets

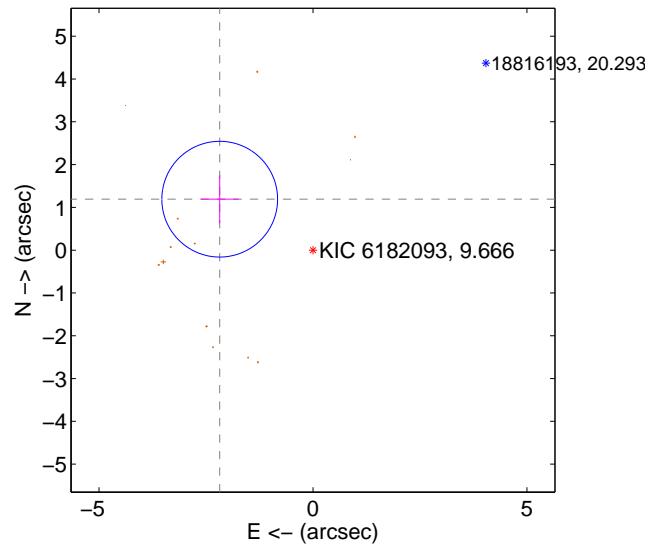
The direct PRF centroid is offset from the target star catalog position by about 0.71 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.618 ± 0.345	4.69	1.423 ± 0.255	0.769 ± 0.550
PRF-fit source offset from KIC position	2.484 ± 0.451	5.51	2.179 ± 0.443	1.191 ± 0.561
photometric centroid source offset	1.74 ± 0.99	1.76	-1.68 ± 1.00	0.48 ± 0.83

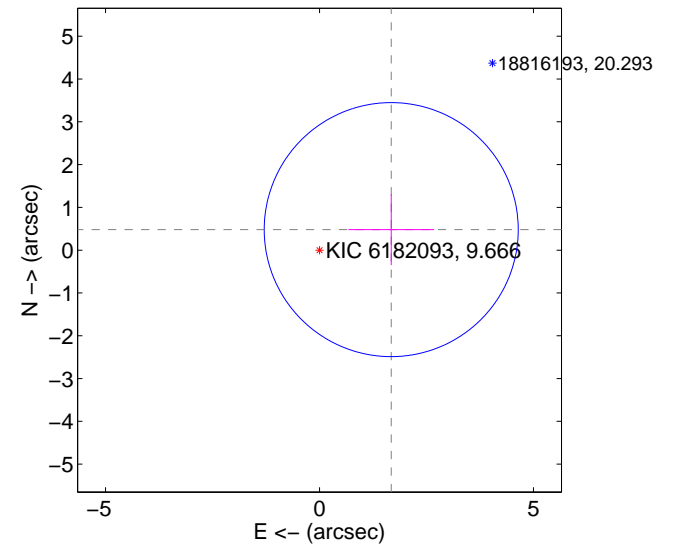
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

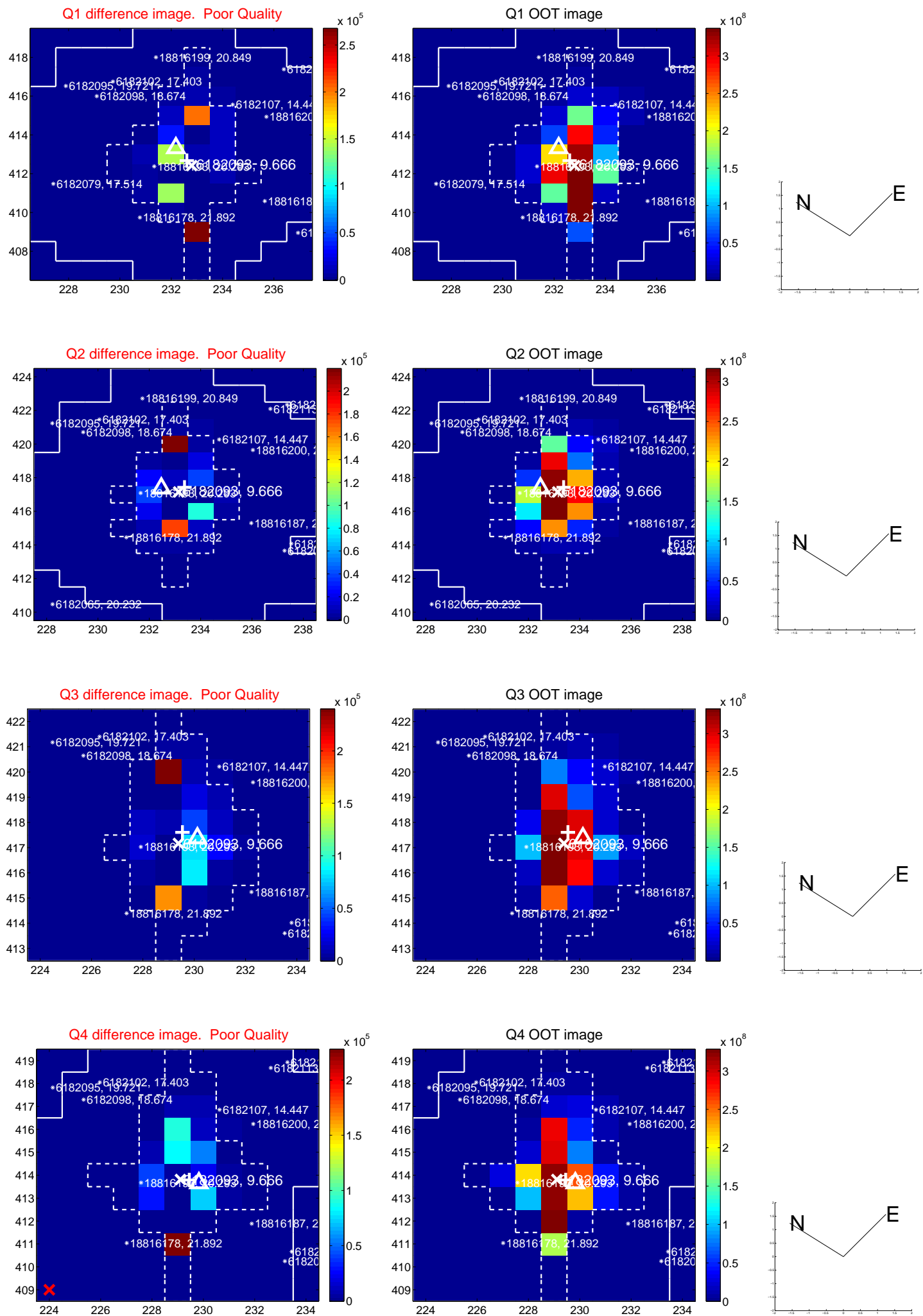


offset from photometric centroids

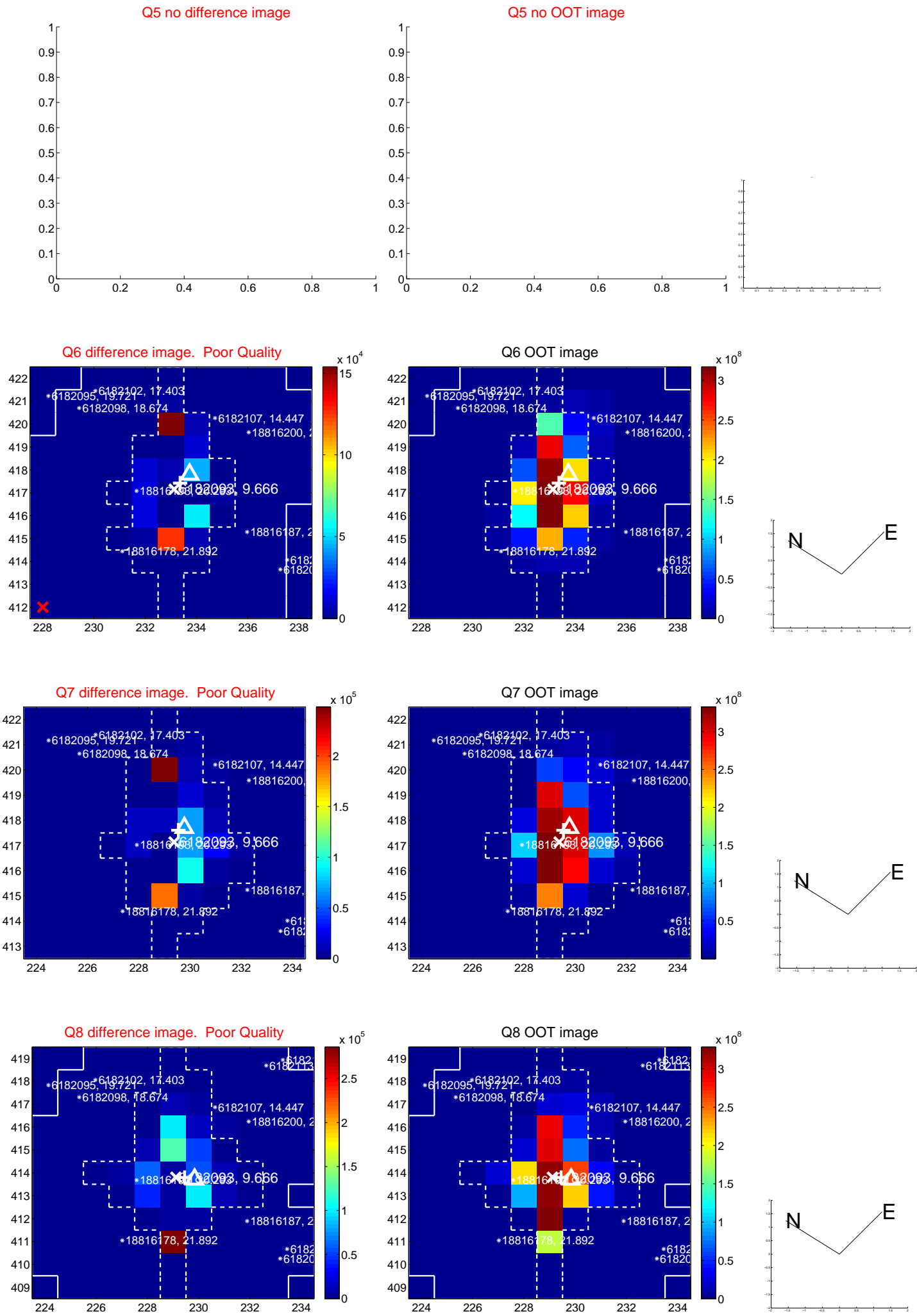


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

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

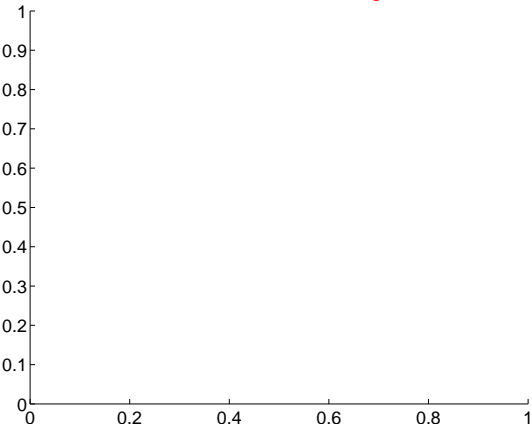


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

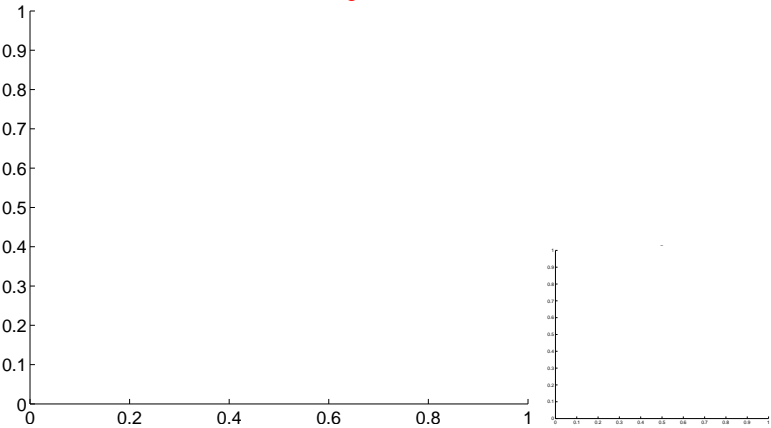


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

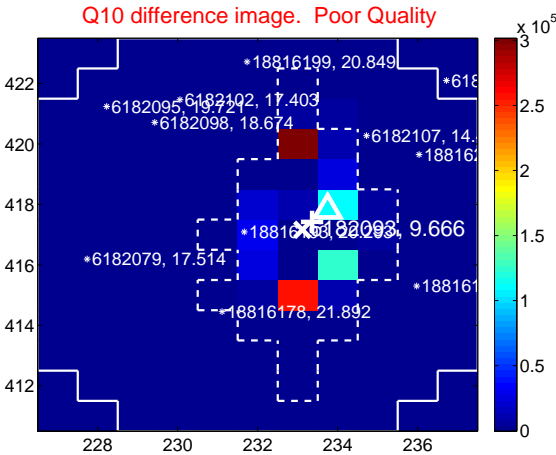
Q9 no difference image



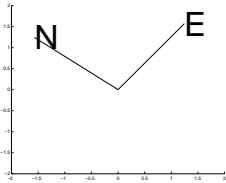
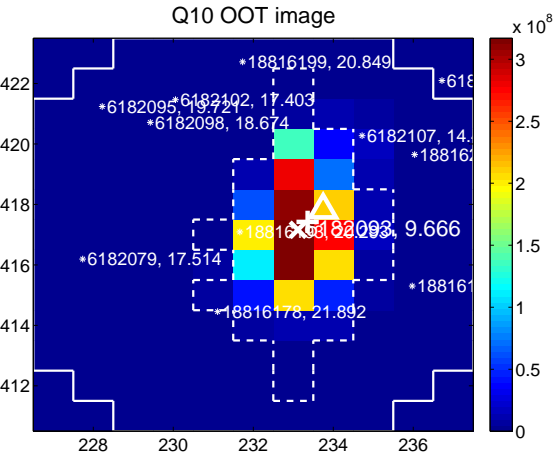
Q9 no OOT image



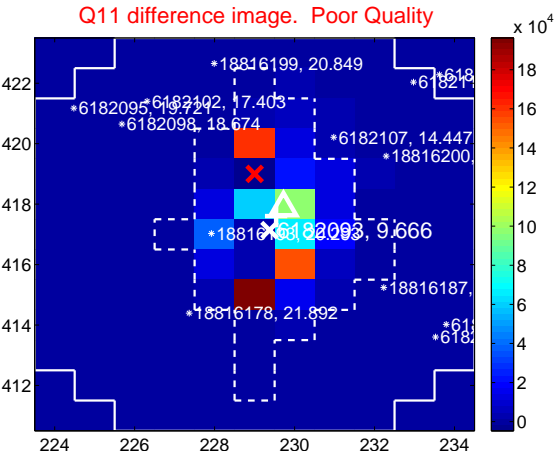
Q10 difference image. Poor Quality



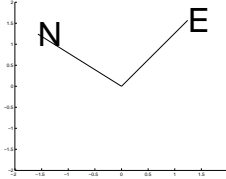
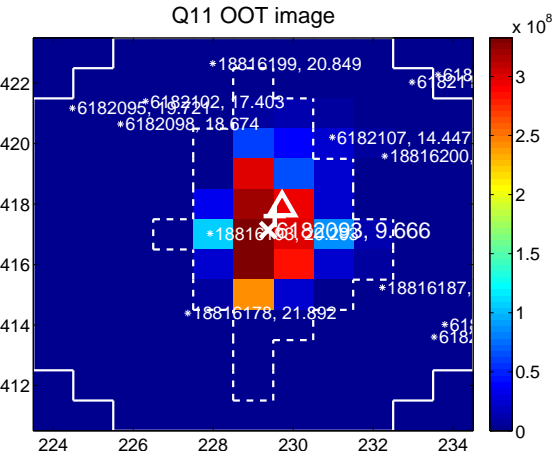
Q10 OOT image



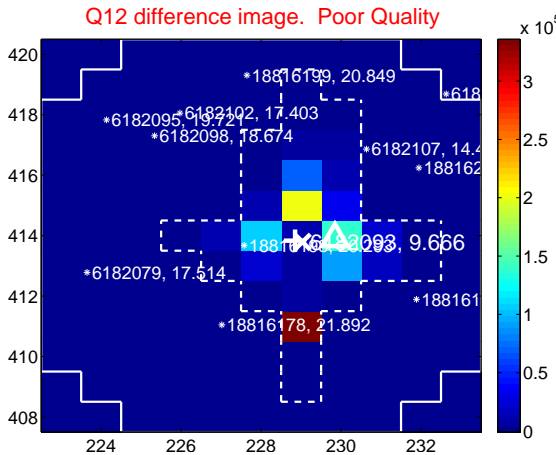
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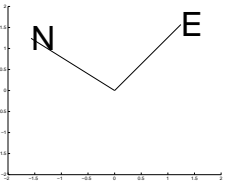
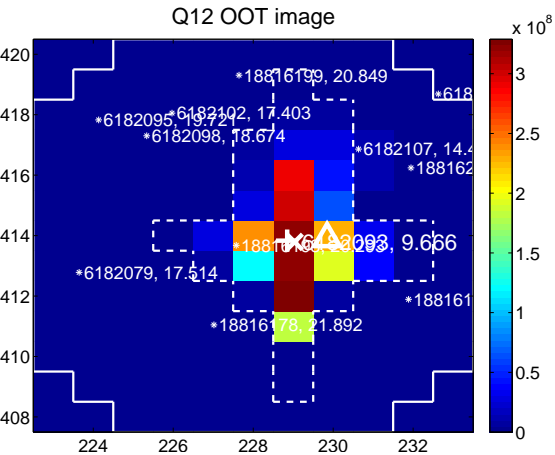
Q11 OOT image



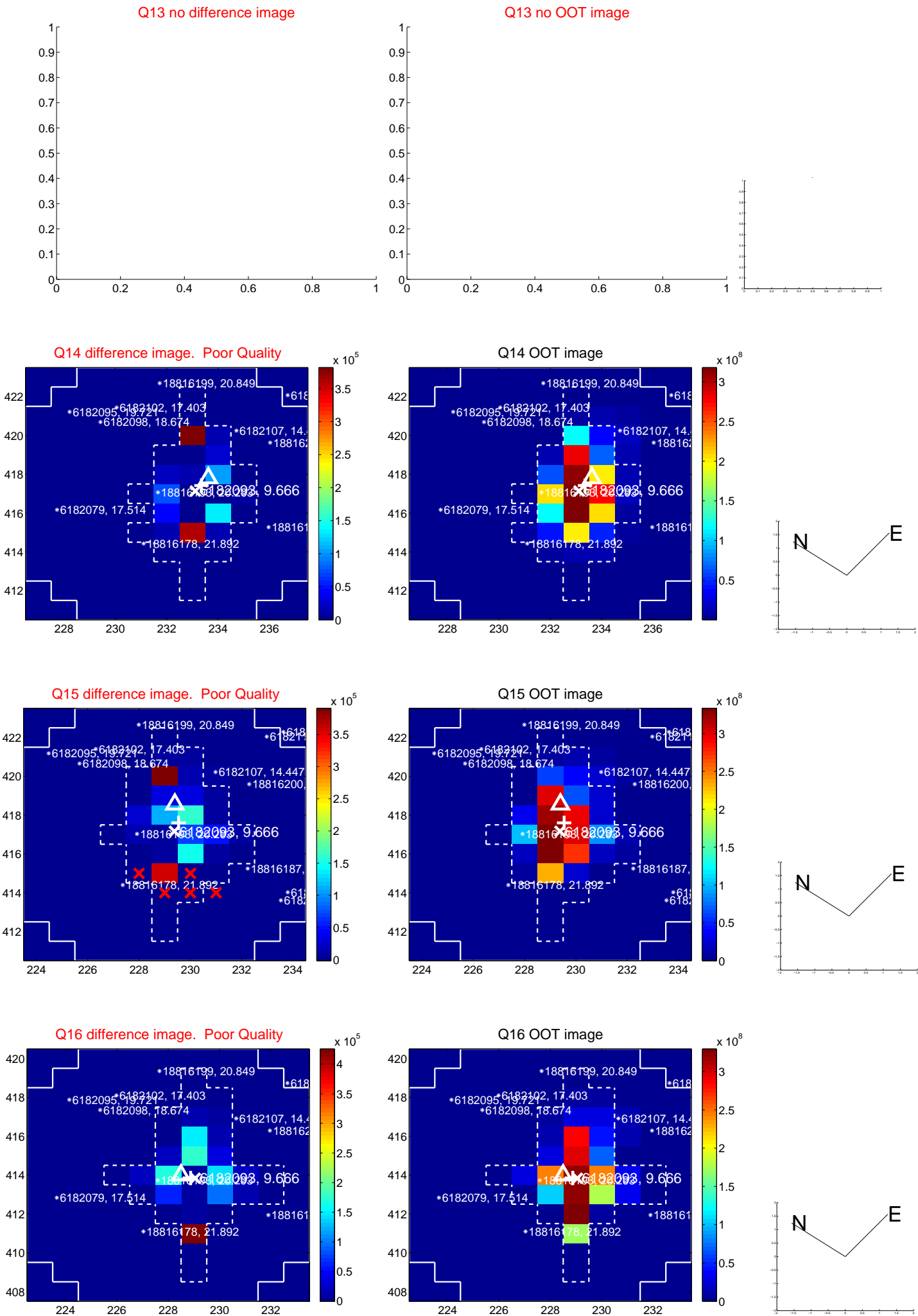
Q12 difference image. Poor Quality



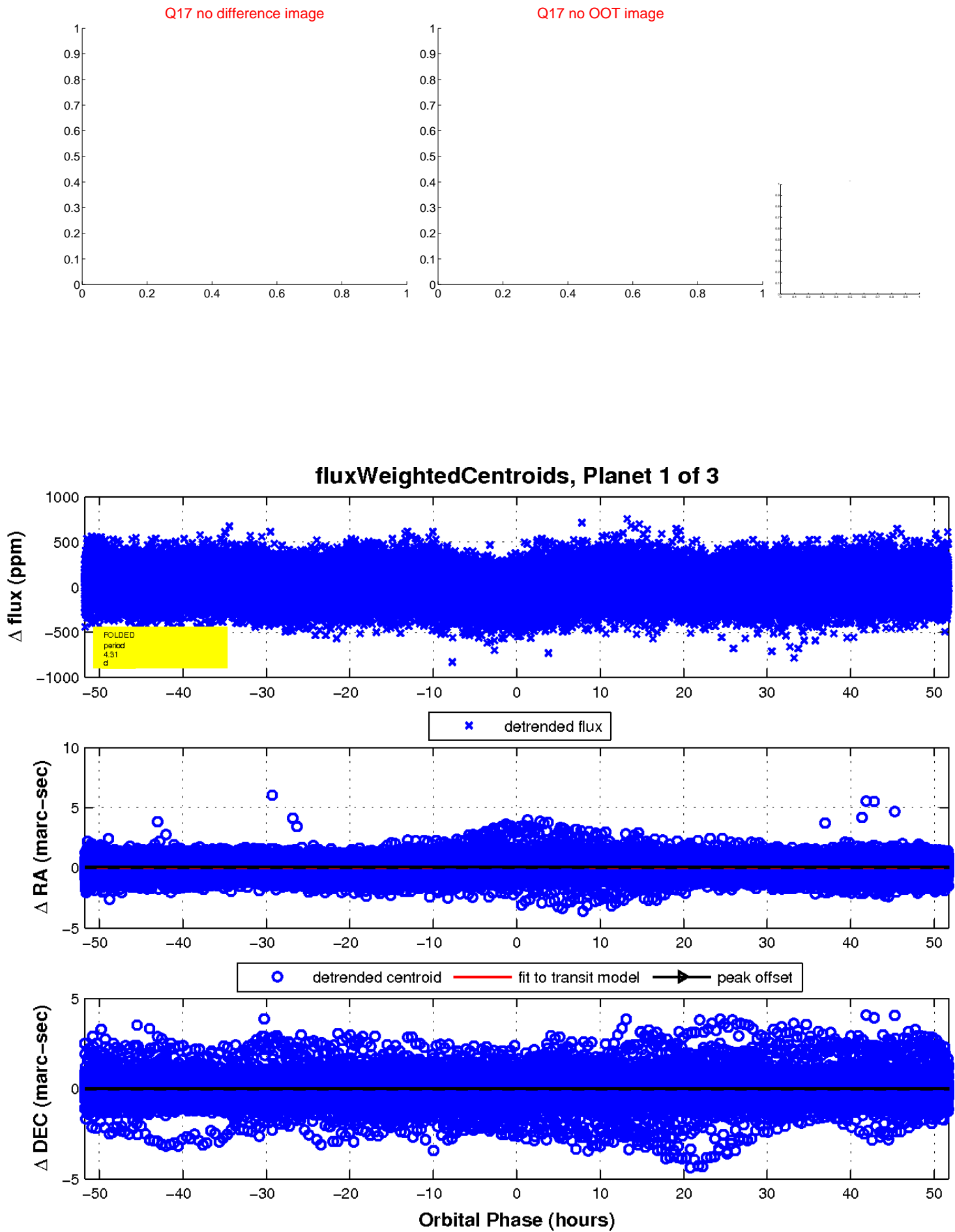
Q12 OOT image



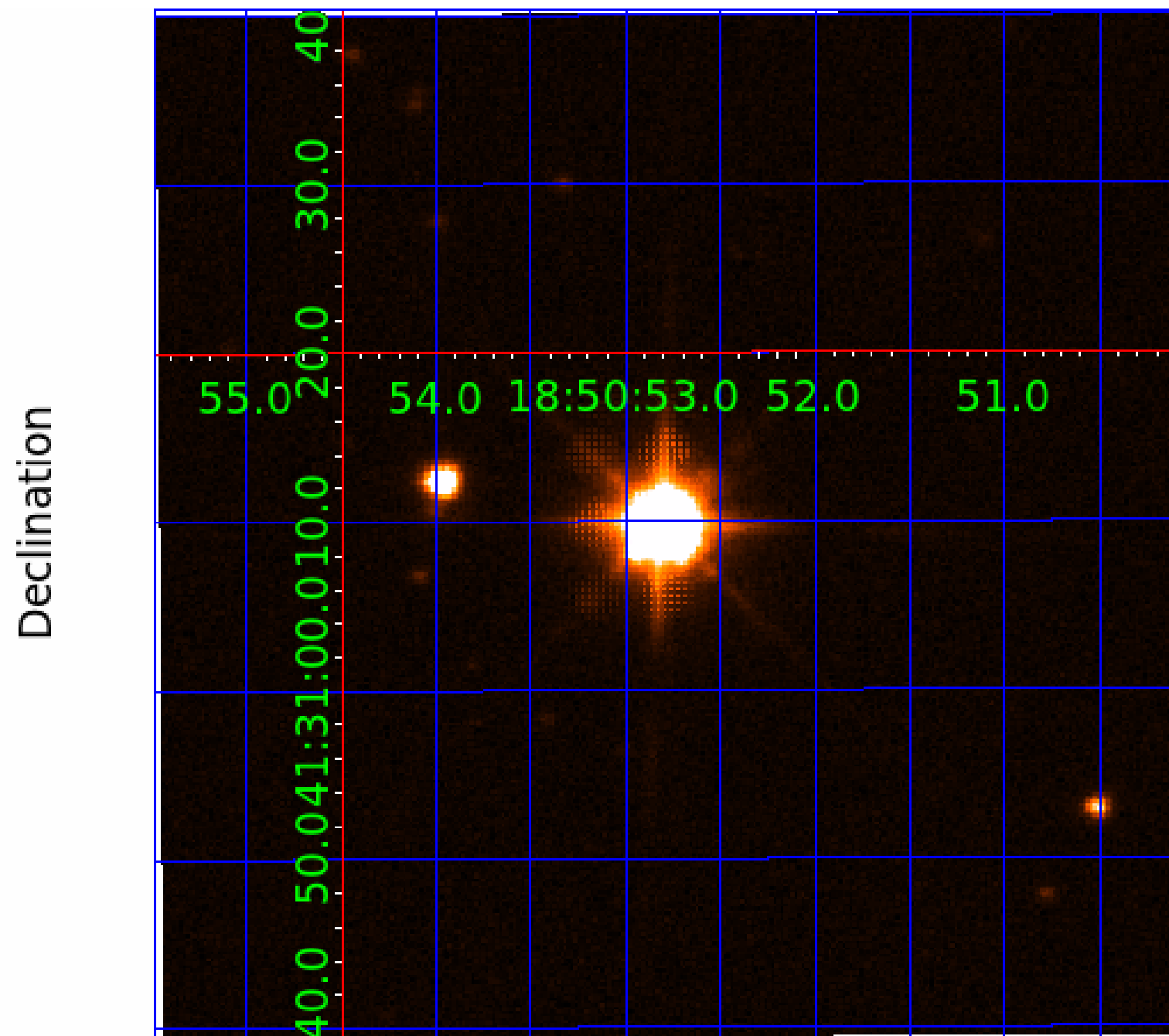
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006182093

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})
006182093-01	OBS	No	4.312083	133.472104	29.5	18.600	11.0	6.9	3.71	6628	2.05	6002.69
006182093-02	OBS	No	343.401848	363.901625	430.9	17.773	12.8	11.8	3.71	6628	8.44	17.52
006182093-03	OBS	No	4.310072	132.241843	46.8	37.171	11.9	10.4	3.71	6628	2.99	6006.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006182093-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
006182093-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006182093-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED

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 006182093-02

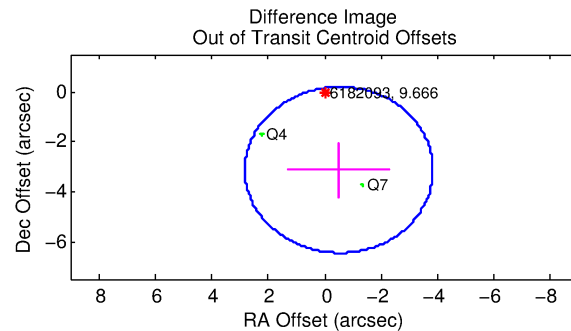
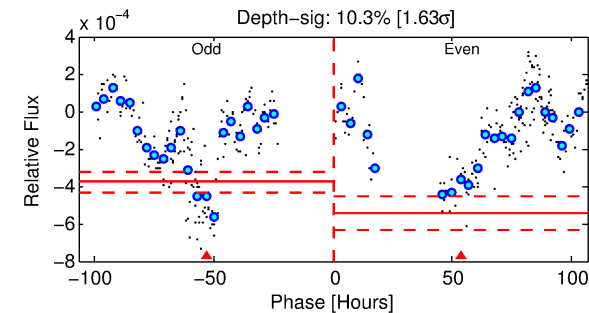
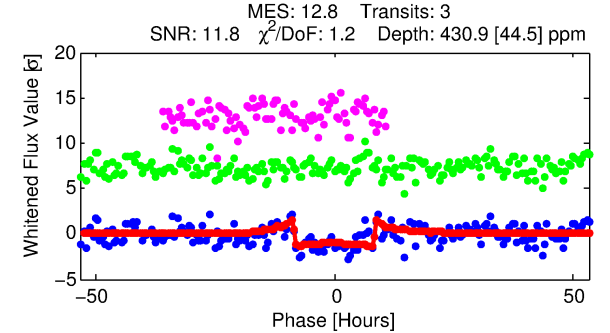
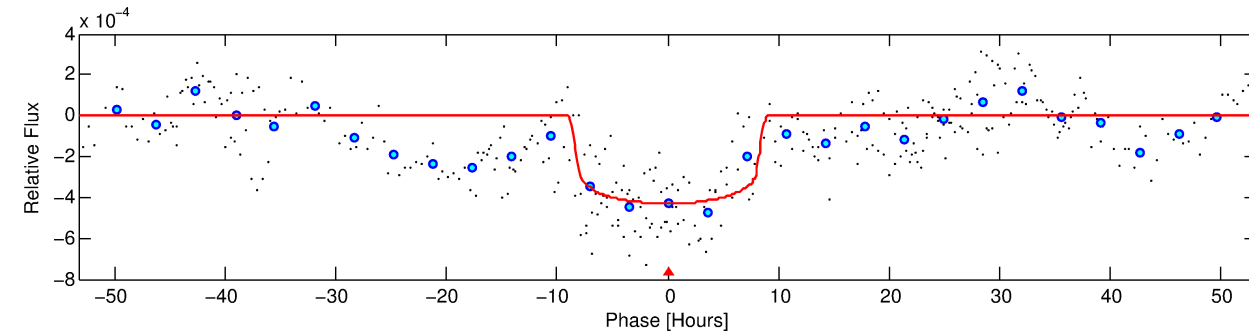
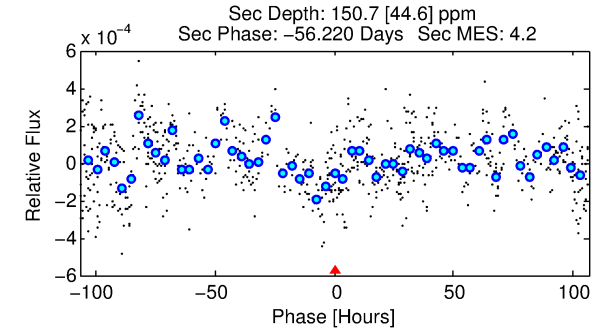
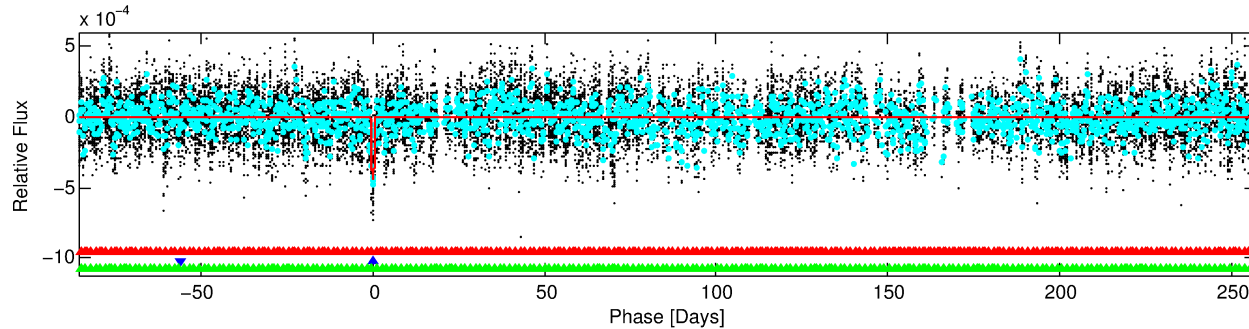
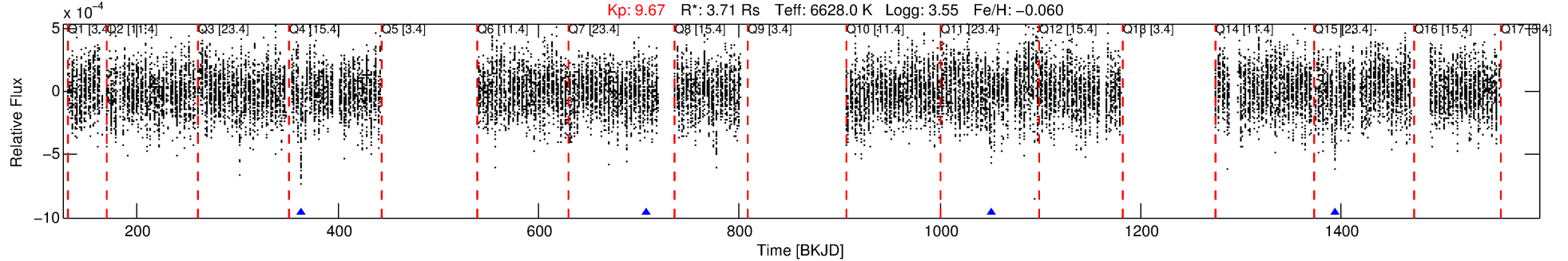
No Significant Match Found

DV One-Page Summary

KIC: 6182093 Candidate: 2 of 3 Period: 343.402 d

KOI: K06143 Corr: No Ephemeris Match

Kp: 9.67 R*: 3.71 Rs Teff: 6628.0 K Logg: 3.55 Fe/H: -0.060



DV Fit Results:

Period = 343.40185 [0.00443] d
Epoch = 363.9016 [0.0071] BKJD
Rp/R* = 0.0208 [0.0017]
a/R* = 97.18 [30.68]
b = 0.78 [0.16]
Seff = 17.52 [10.41]
Teq = 522 [78] K
Rp = 8.44 [3.39] Re
a = 1.1652 [0.4309] AU
Ag = 1580.55 [1066.62] [1.48σ]
Teffp = 5086 [452] K [9.95σ]

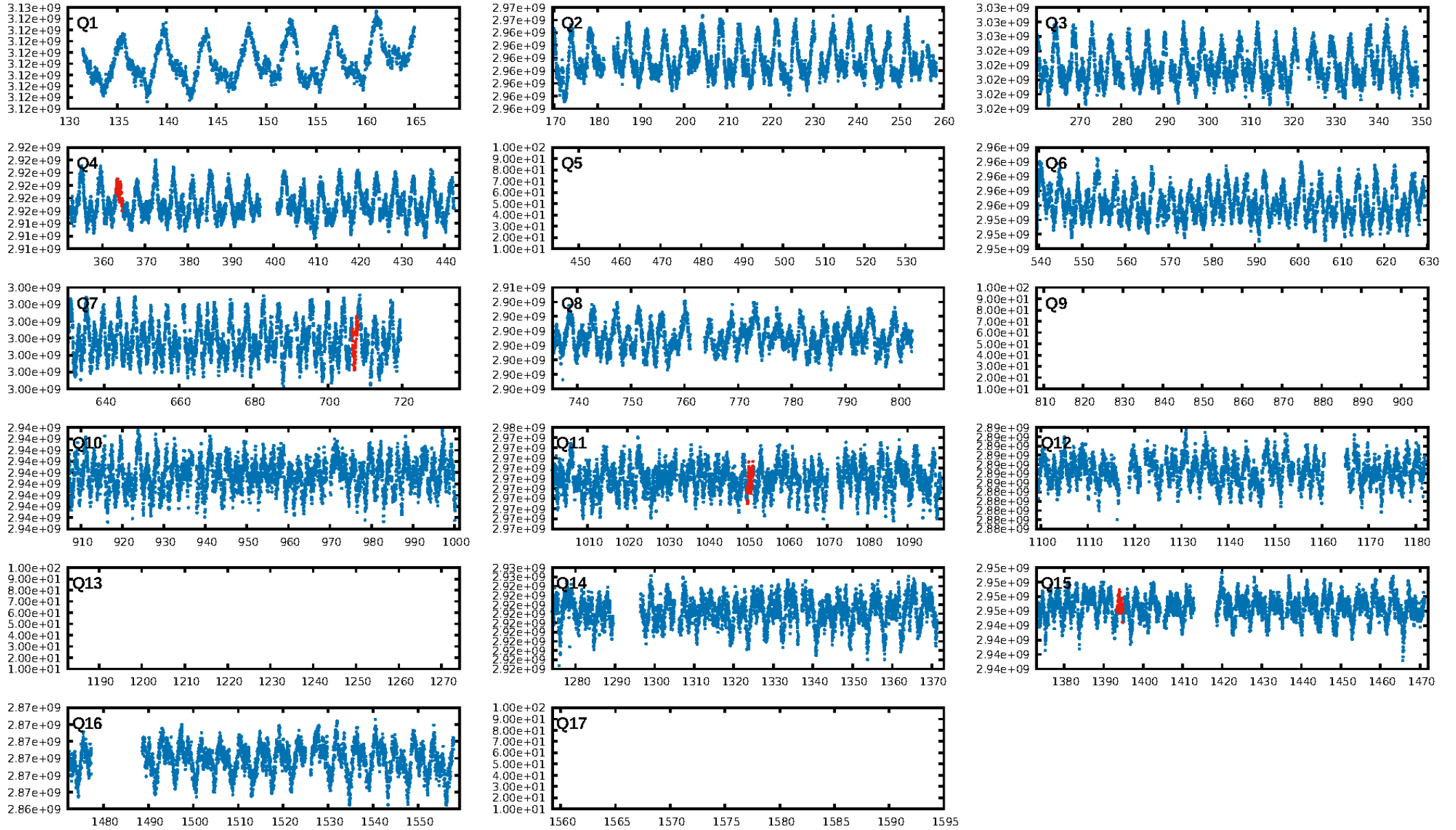
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [316.34σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.1%
ModelChiSquareGof-sig: 96.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 24.1%
Centroid-so: 0.780 arcsec [1.53σ]
OotOffset-rm: 3.172 arcsec [2.86σ]
KicOffset-rm: 3.198 arcsec [5.68σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.00 [0/3]

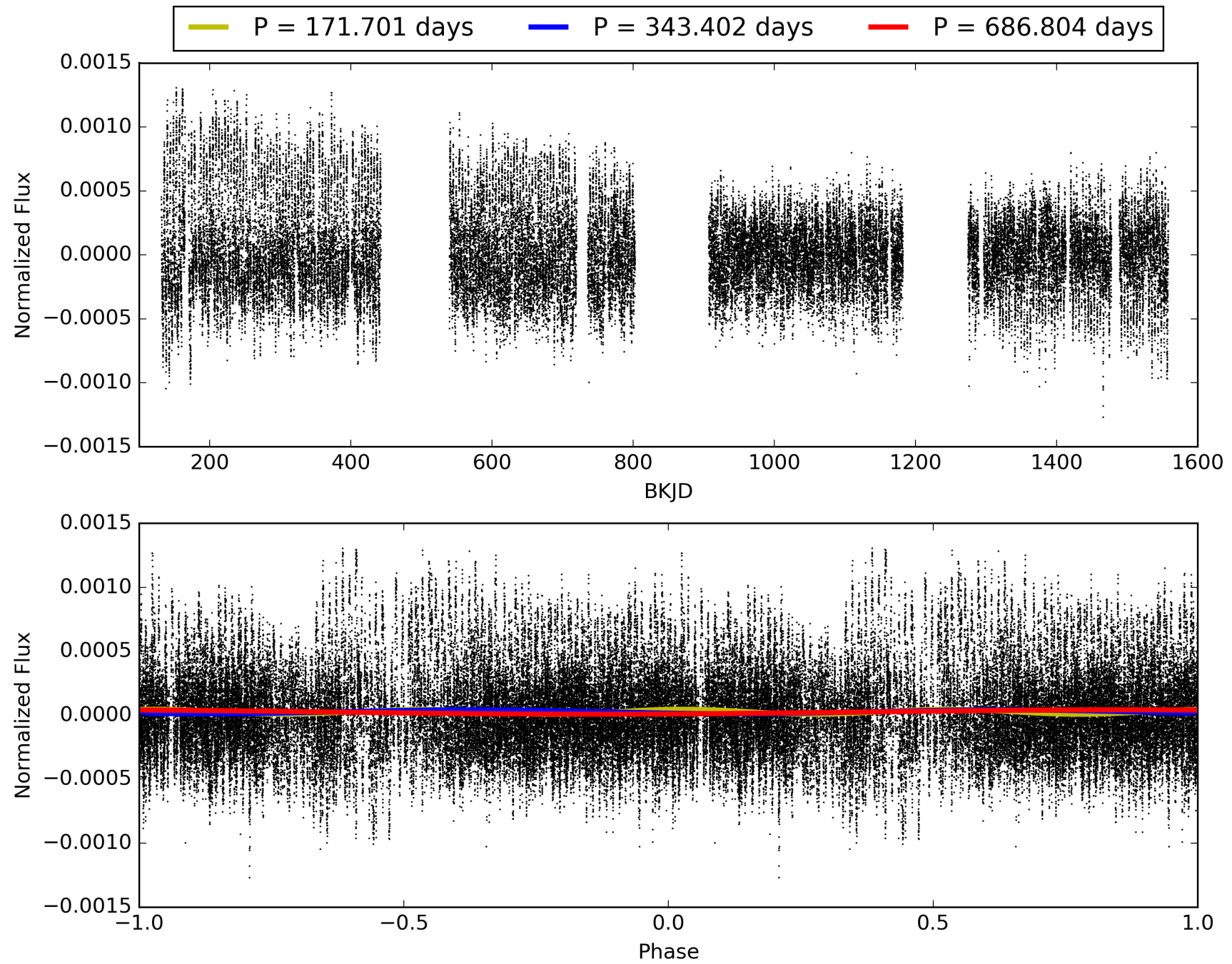
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:51:46 Z

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

TCE 006182093-02, PDC Light Curves

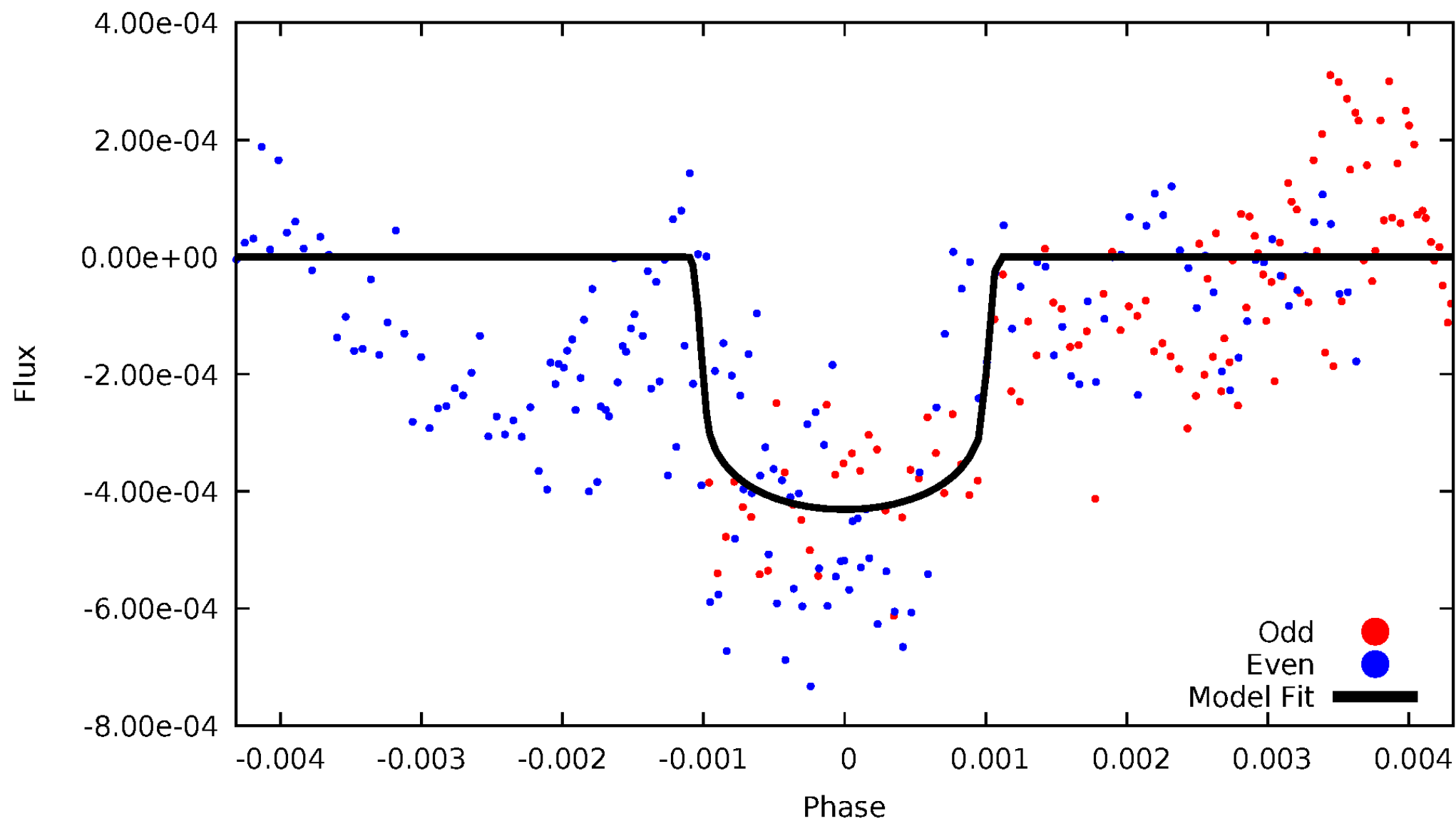


TCE 006182093-02



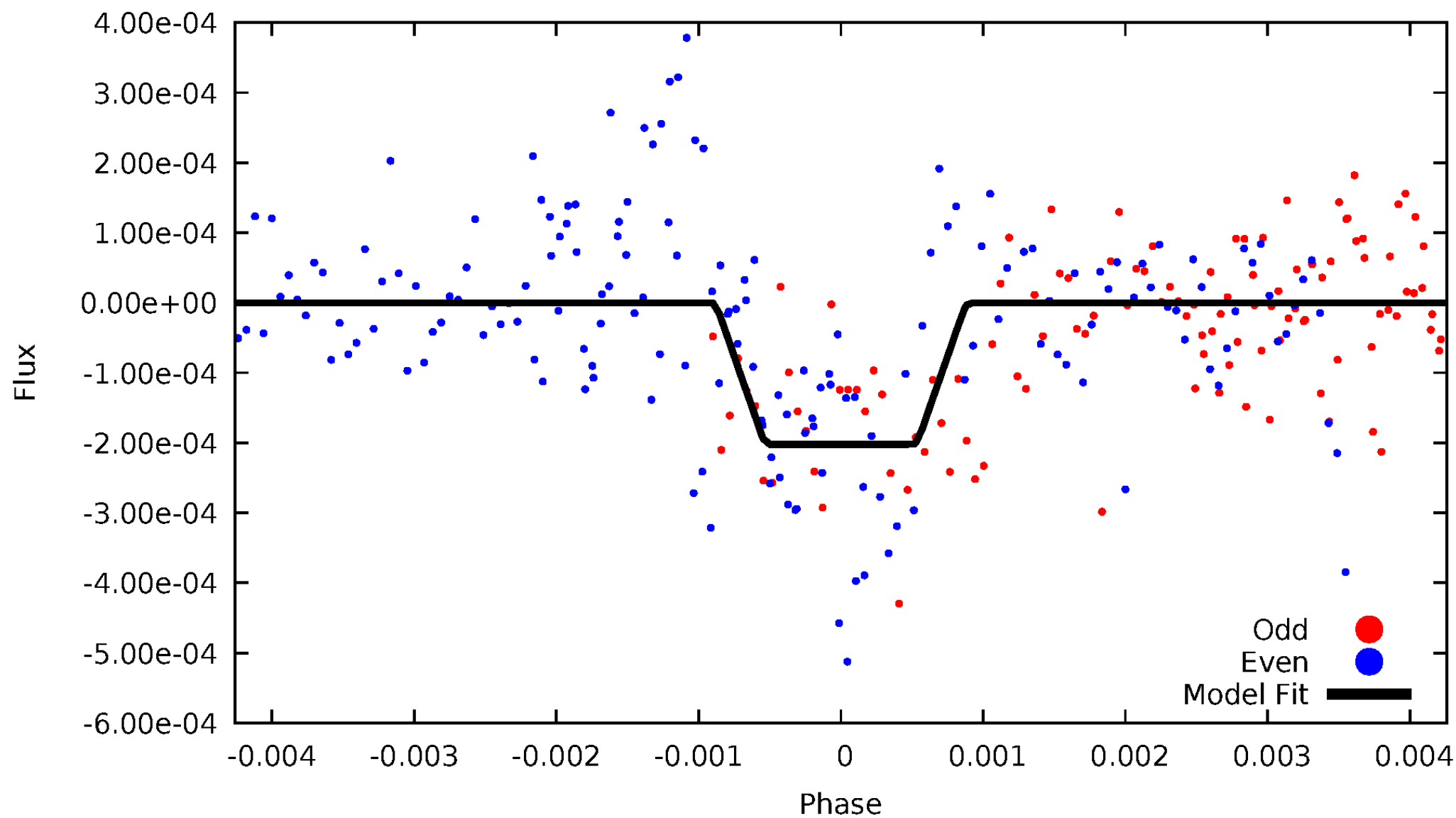
DV Odd/Even

TCE 006182093-02



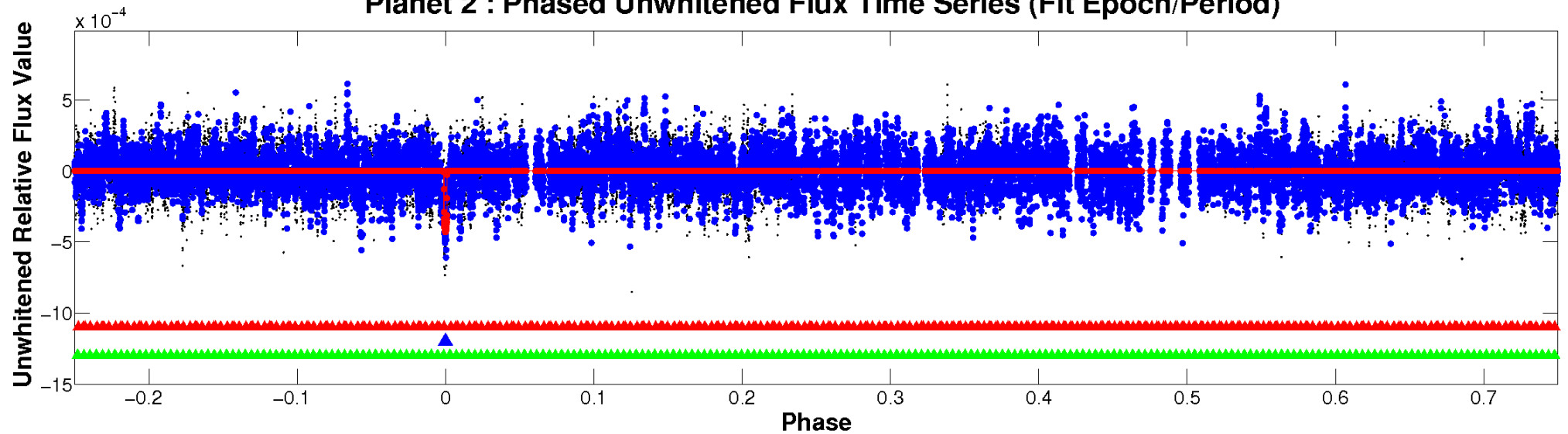
ALT Odd/Even

TCE 006182093-02

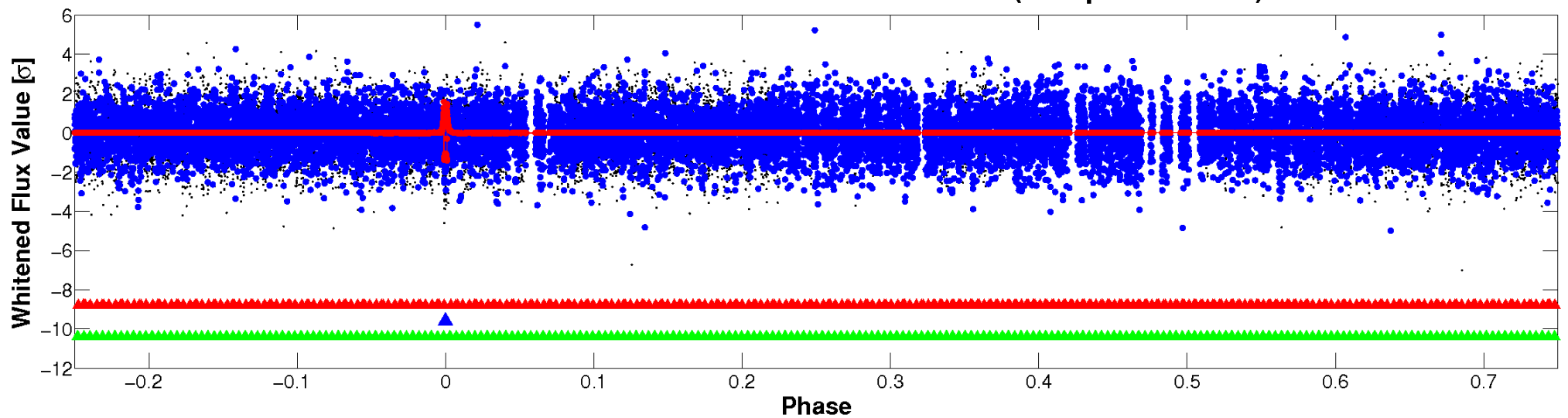


Non-Whitened Vs. Whitened Light Curve

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

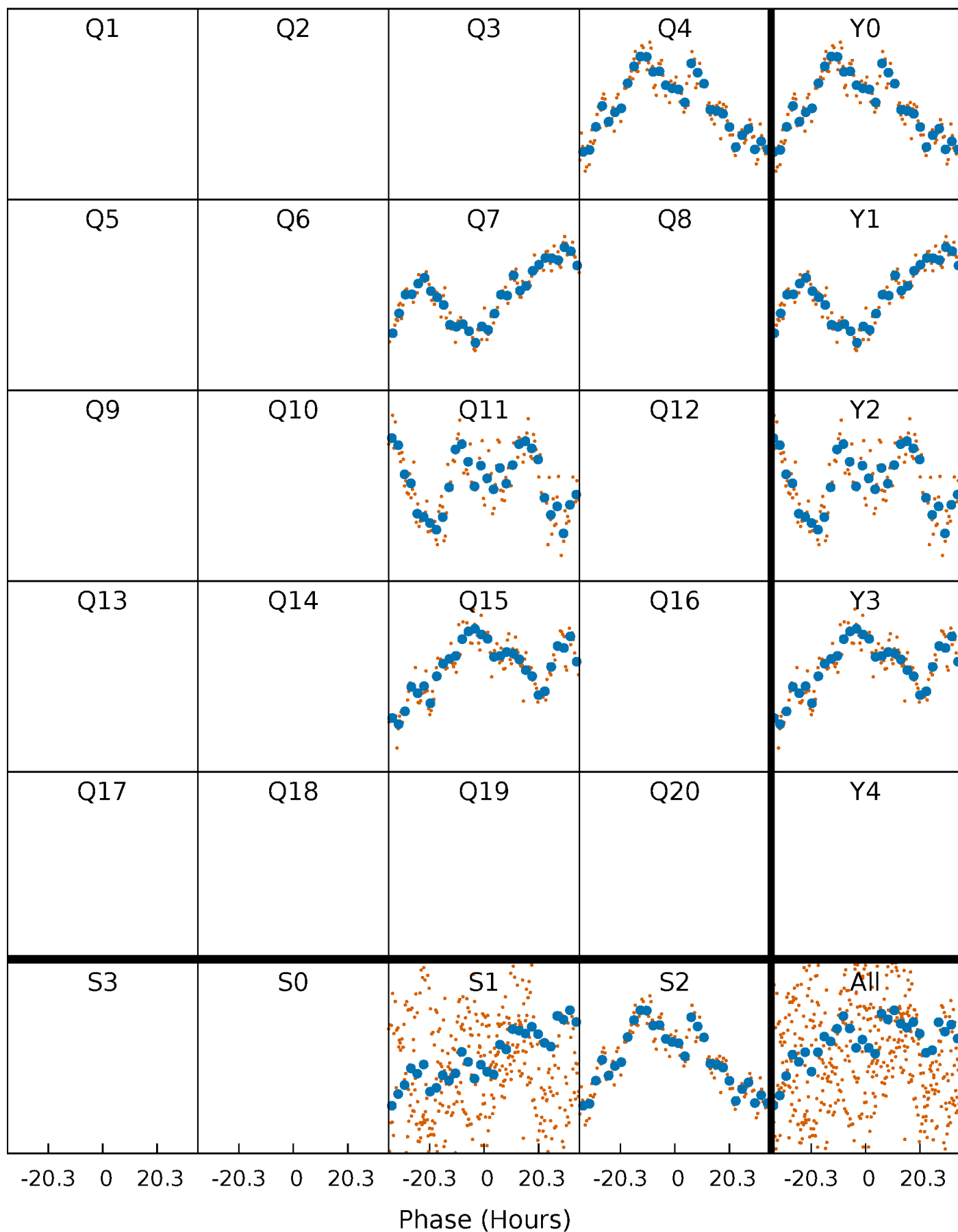


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



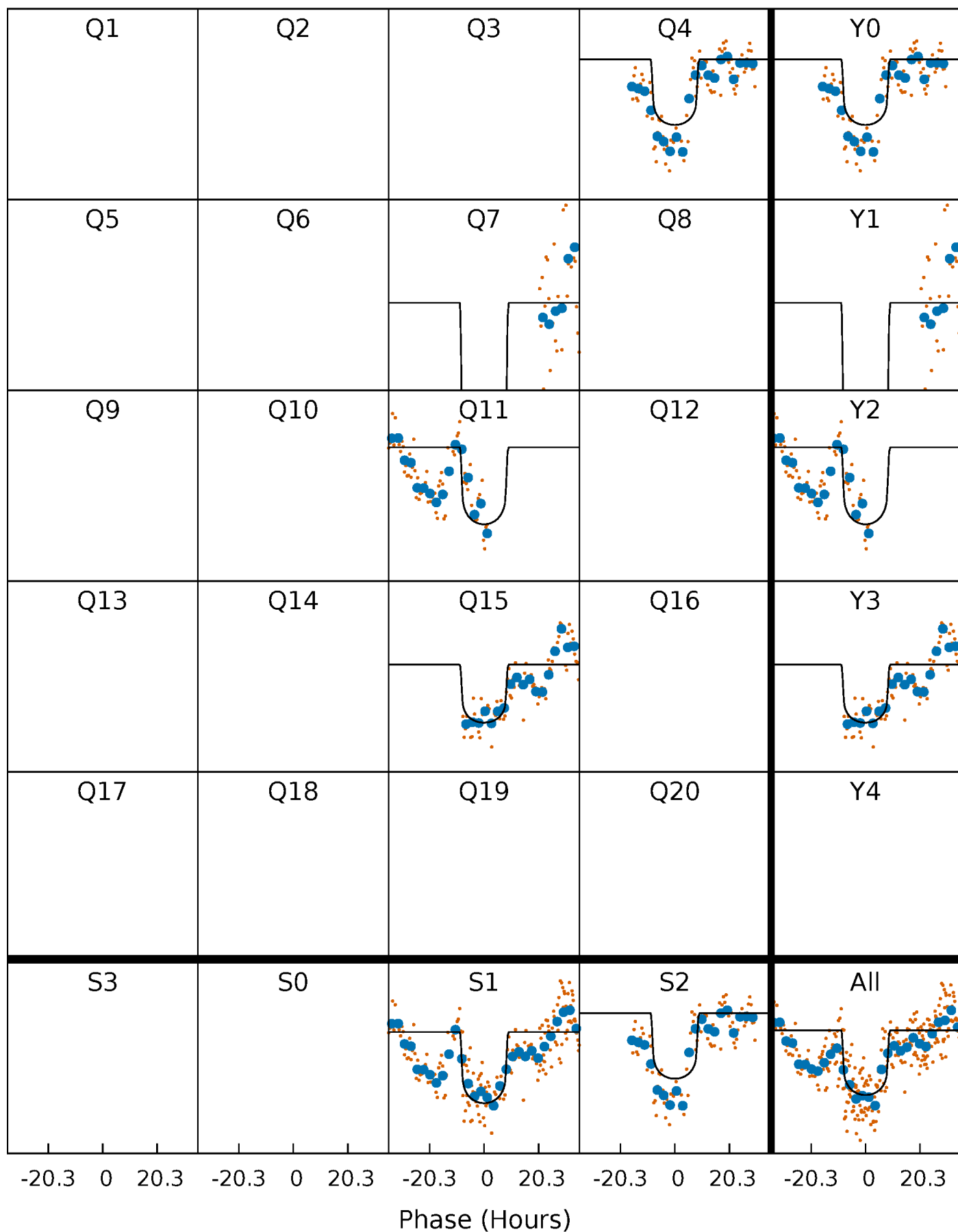
PDC Quarter-Phased Transit Curves

TCE 006182093-02 P=343.401848 Days $T_0=363.901625$ (BKJD)



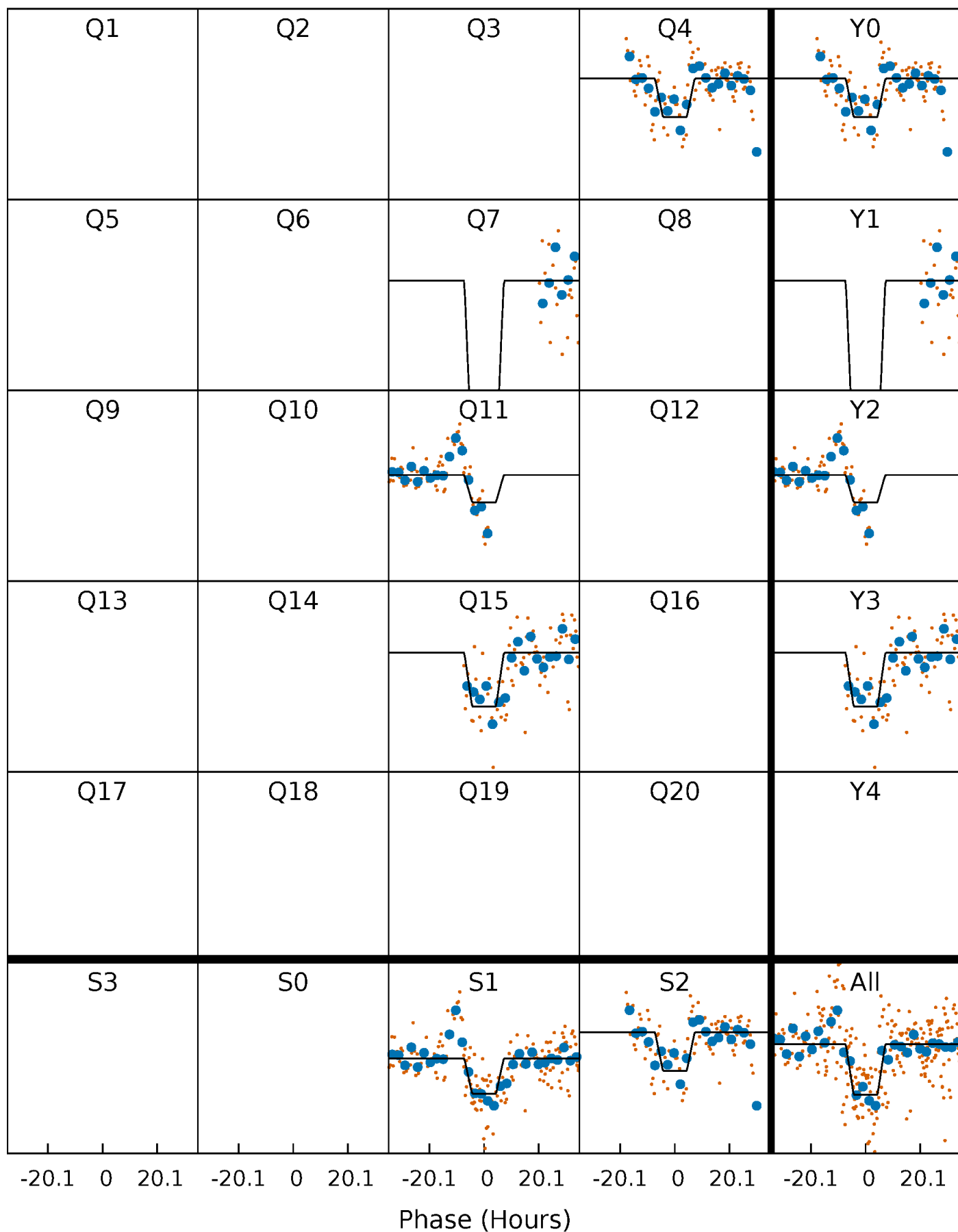
DV Quarter-Phased Transit Curves

TCE 006182093-02 $P=343.401848$ Days $T_0=363.901625$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

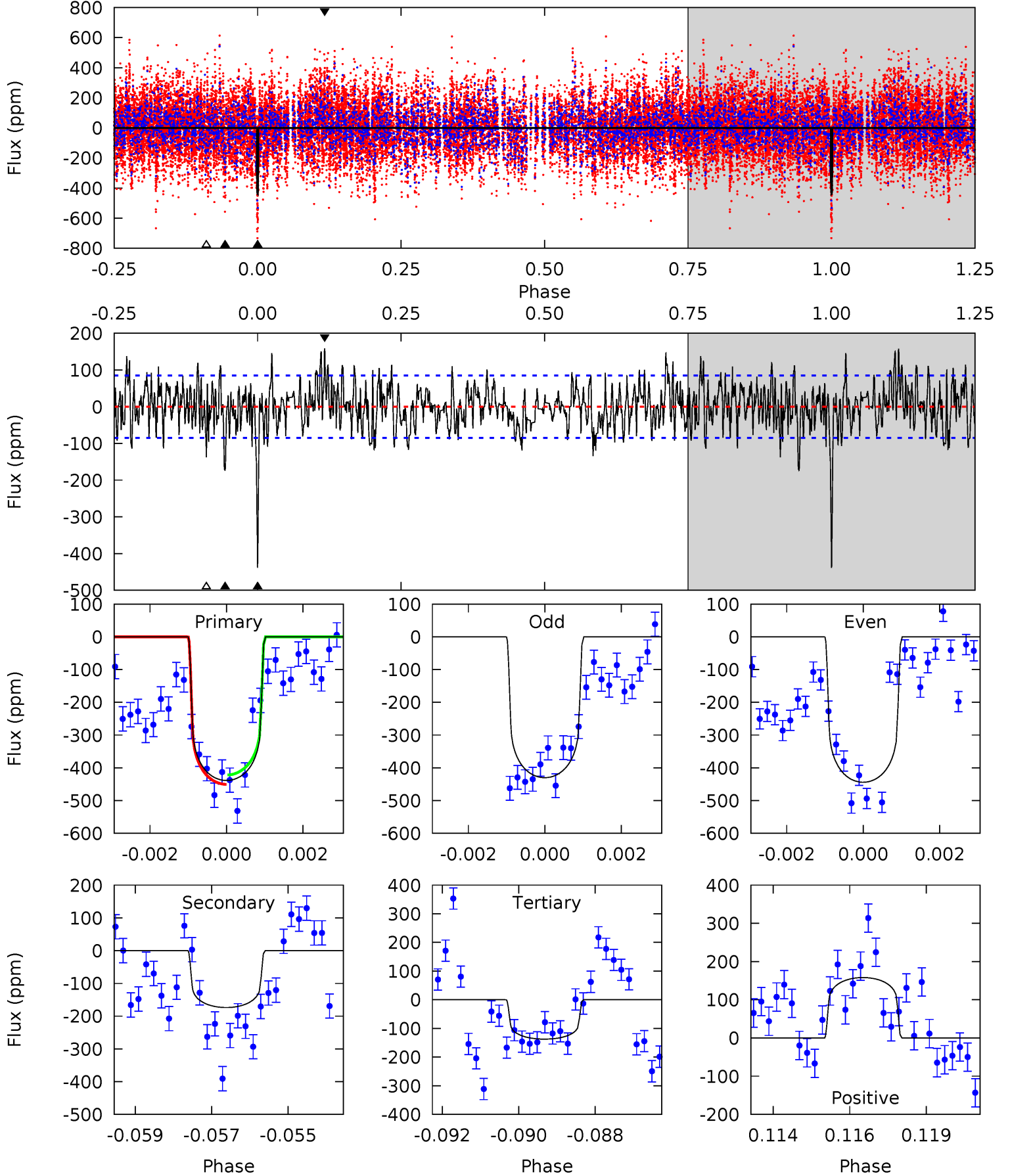
TCE 006182093-02 $P=343.385976$ Days $T_0=363.928757$ (BKJD)



DV Model-Shift Uniqueness Test

006182093-02, $P = 343.401848$ Days, $E = 20.499777$ Days

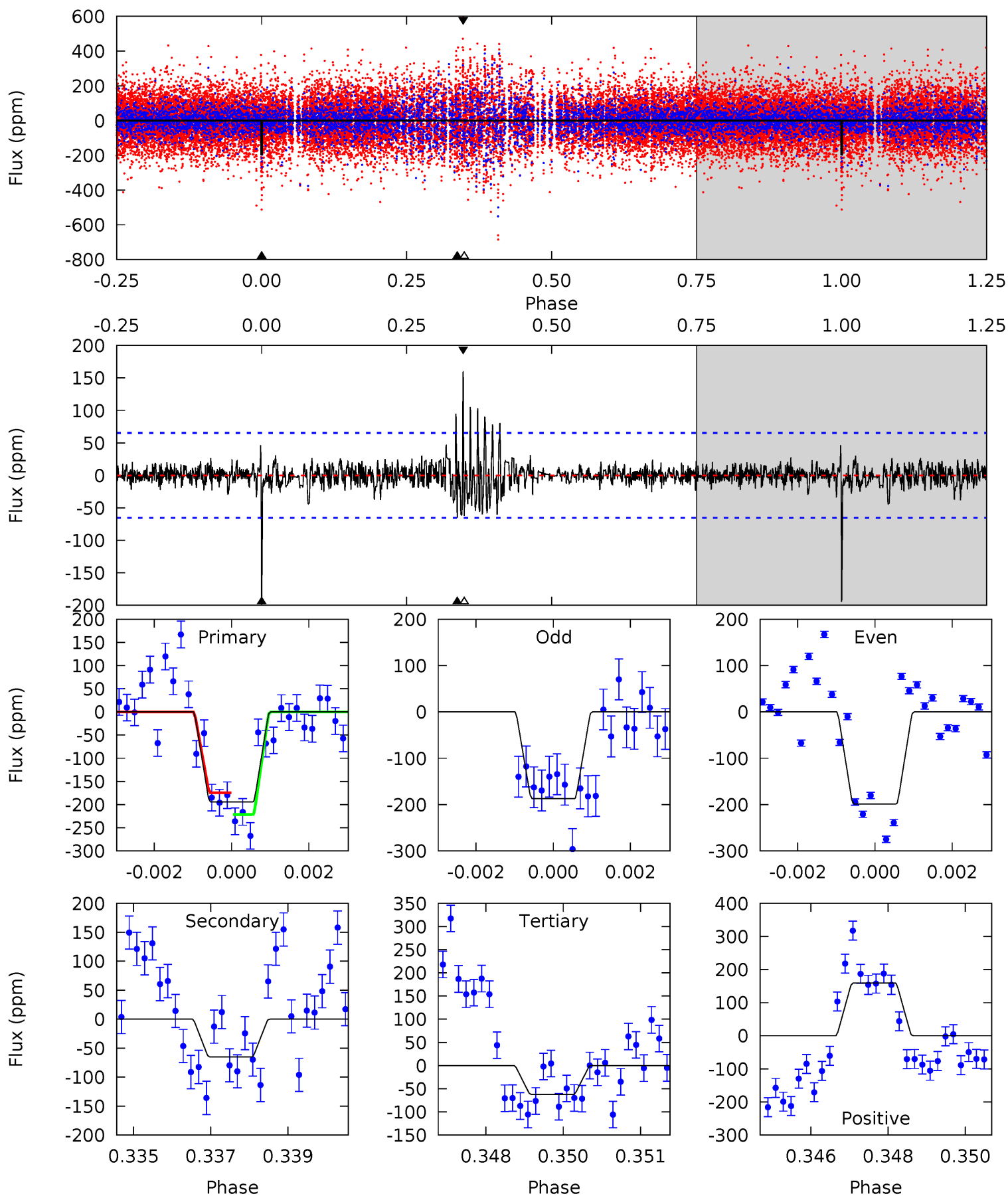
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.5	10.9	8.60	9.90	5.31	3.06	3.07	18.9	17.6	2.27	0.98	0.43	0.99	0.26	0.88



Alt Model-Shift Uniqueness Test

006182093-02, $P = 343.385976$ Days, $E = 20.542781$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	5.32	5.10	13.0	5.34	3.12	1.26	10.8	2.89	0.22	-7.69	0.45	1.08	0.45	1.84



Stellar Parameters For KIC 006182093

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6628^{+149}_{-183}	$3.552^{+0.340}_{-0.080}$	$-0.060^{+0.300}_{-0.250}$	$3.709^{+0.365}_{-1.458}$	$1.787^{+0.149}_{-0.348}$	$0.049^{+0.127}_{-0.009}$
	+2%/-3%	+10%/-2%	+500%/-417%	+10%/-39%	+8%/-19%	+257%/-19%
Source	PHO1	FLK73	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 006182093-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-174 ± 16	$8.07^{+1.10}_{-1.69}$	714^{+38}_{-66}	5305^{+275}_{-224}	2023^{+1082}_{-492}
Alt.	-65 ± 12	$5.49^{+0.93}_{-1.18}$	715^{+40}_{-65}	5028^{+377}_{-288}	1611^{+950}_{-481}

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 $A_{obs} \gg 1.0$

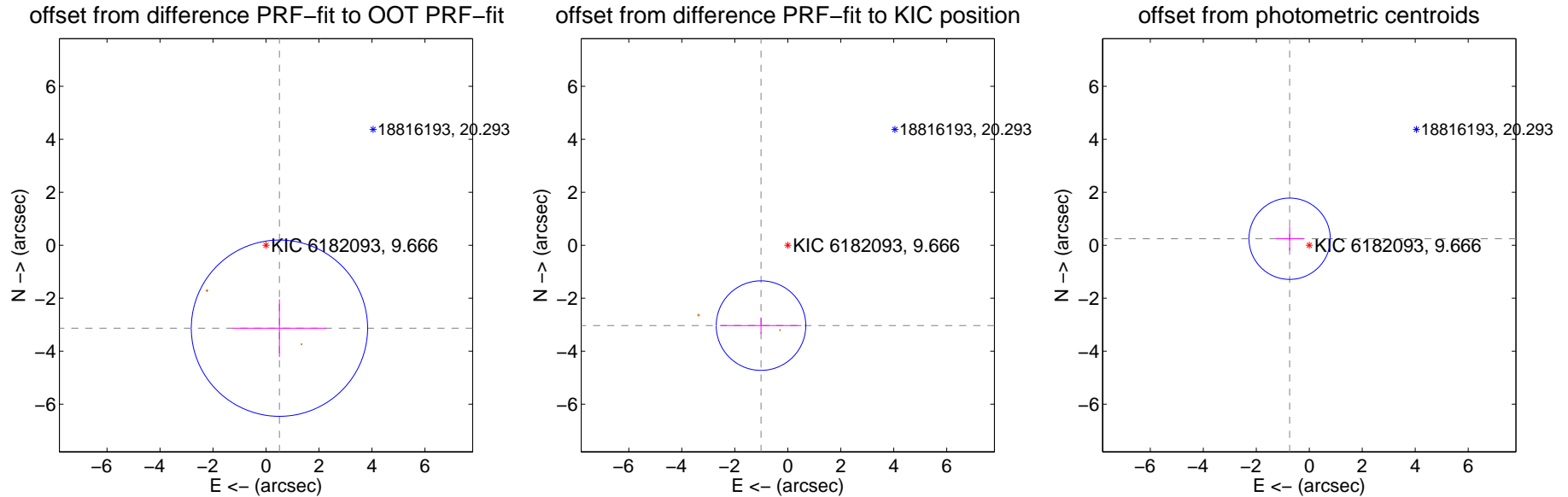
DV Centroid Data

Supplemental centroid analysis for 006182093-02. **Kepler magnitude: 9.67.** Transit SNR 11.78

There are 0 quarters with good PRF difference image offsets

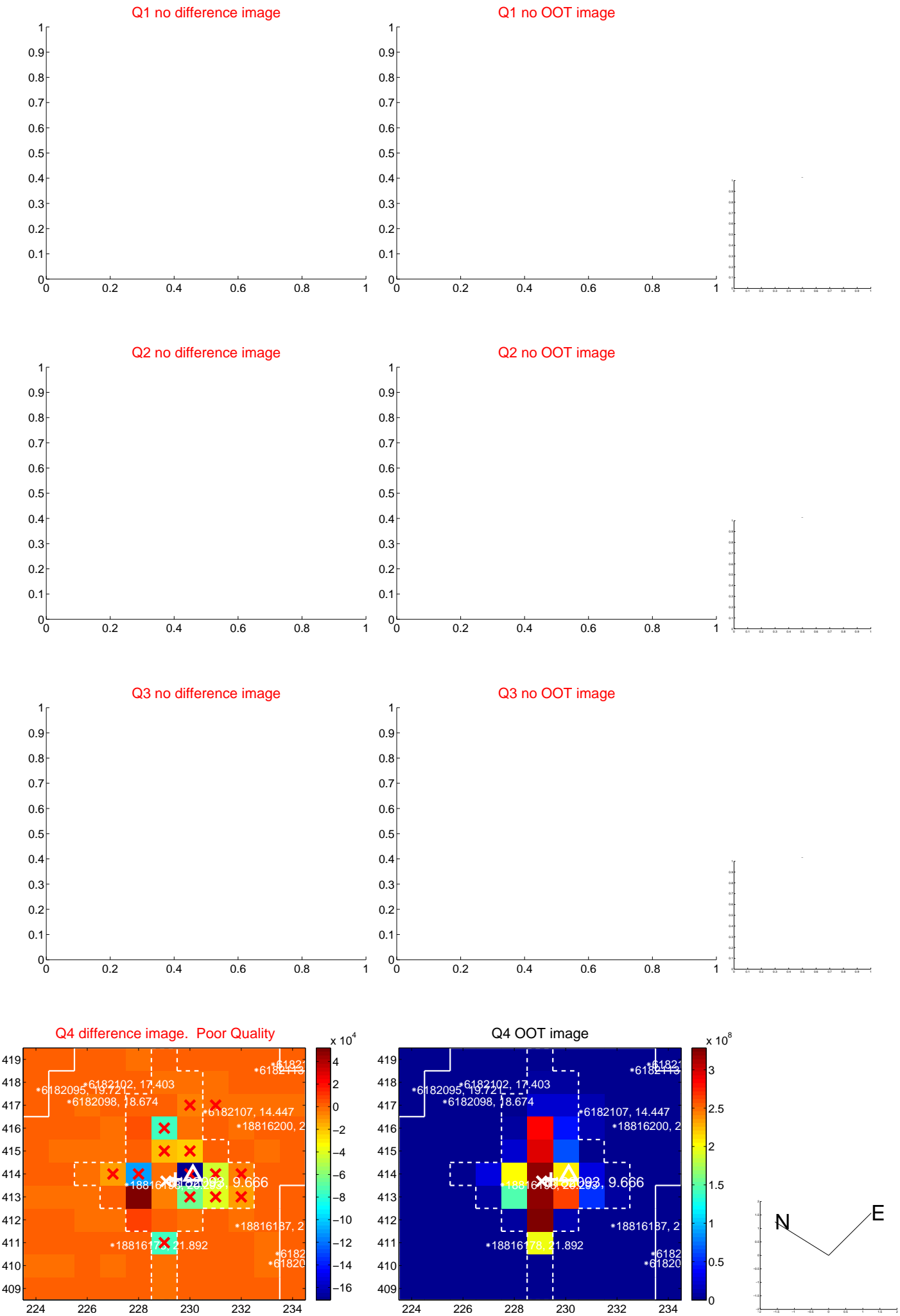
The direct PRF centroid is offset from the target star catalog position by about 1.72 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.172 ± 1.109	2.86	-0.509 ± 1.766	-3.131 ± 1.086
PRF-fit source offset from KIC position	3.198 ± 0.564	5.68	1.010 ± 1.522	-3.034 ± 0.310
photometric centroid source offset	0.78 ± 0.51	1.53	0.74 ± 0.52	0.25 ± 0.45



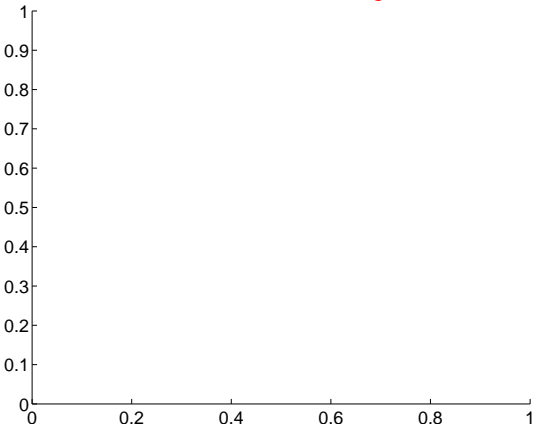
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

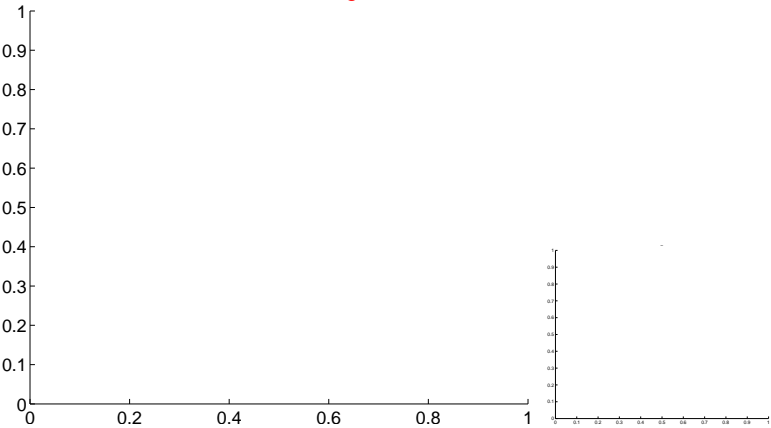


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

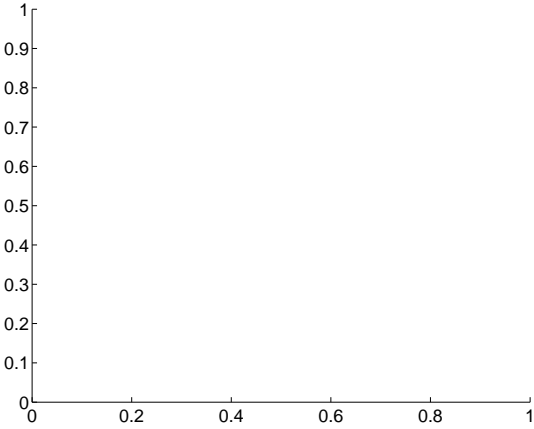
Q5 no difference image



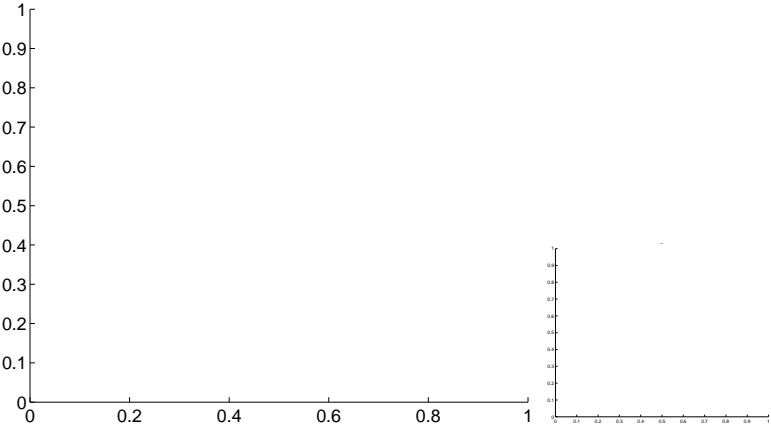
Q5 no OOT image



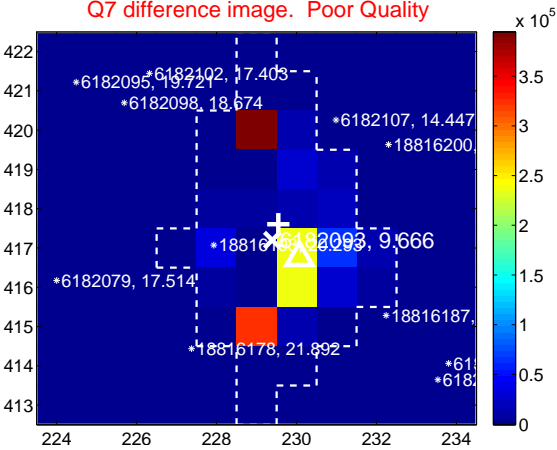
Q6 no difference image



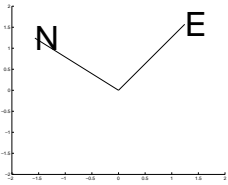
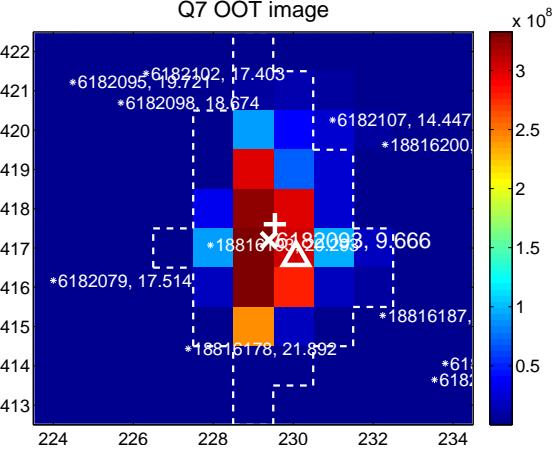
Q6 no OOT image



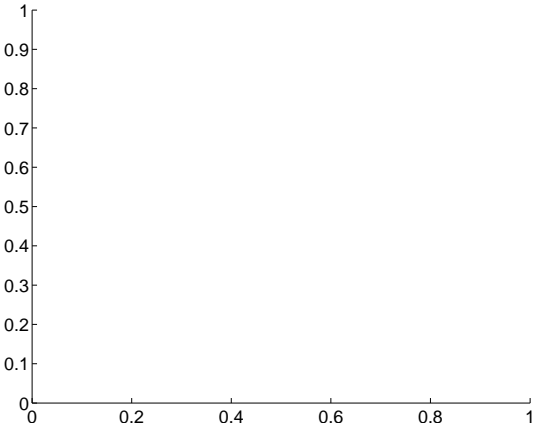
Q7 difference image. Poor Quality



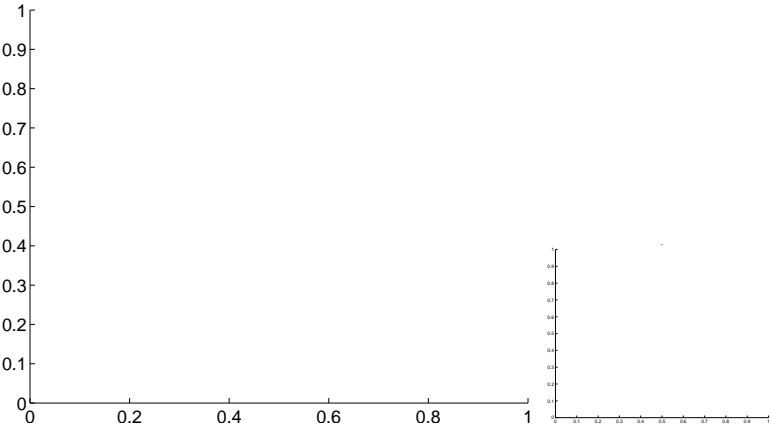
Q7 OOT image



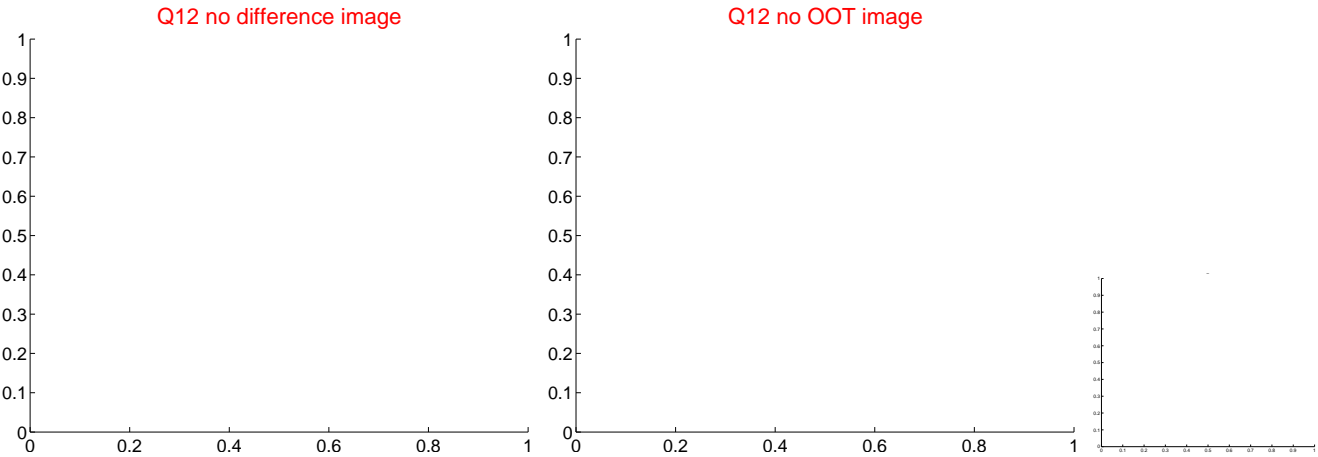
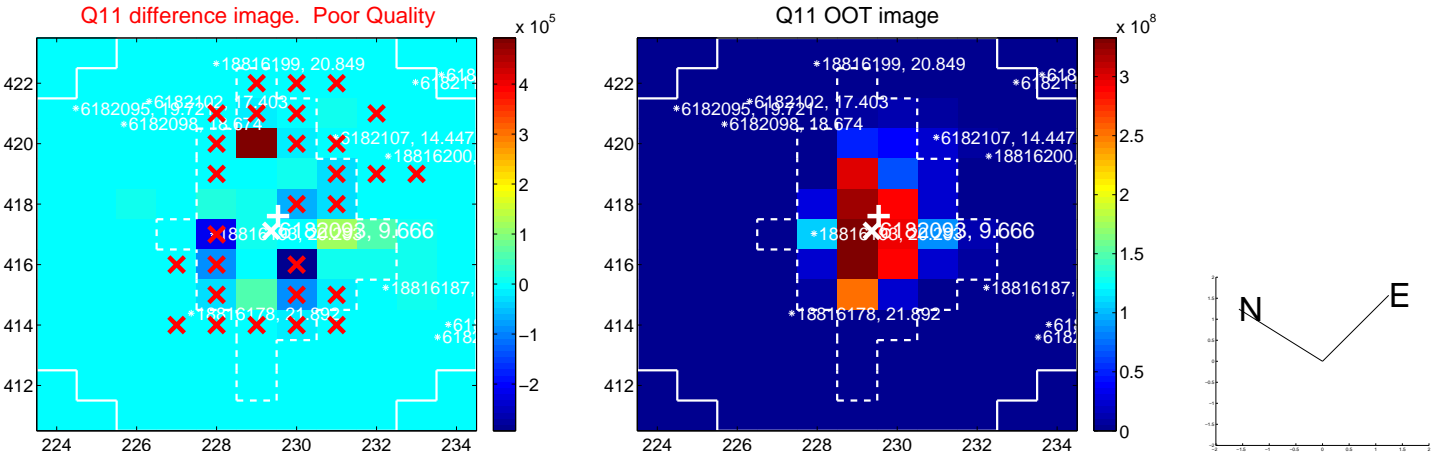
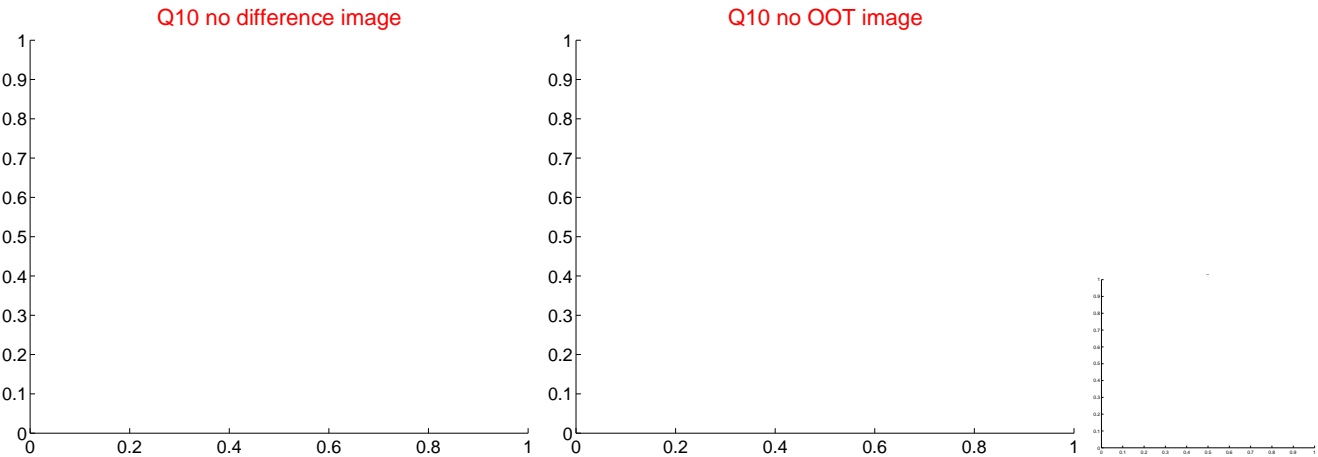
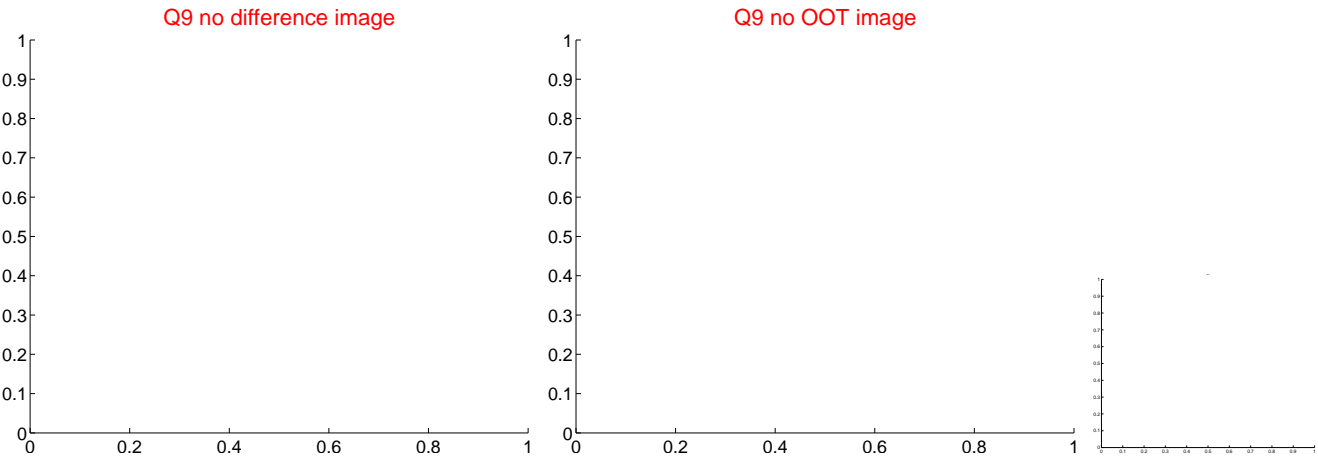
Q8 no difference image



Q8 no OOT image



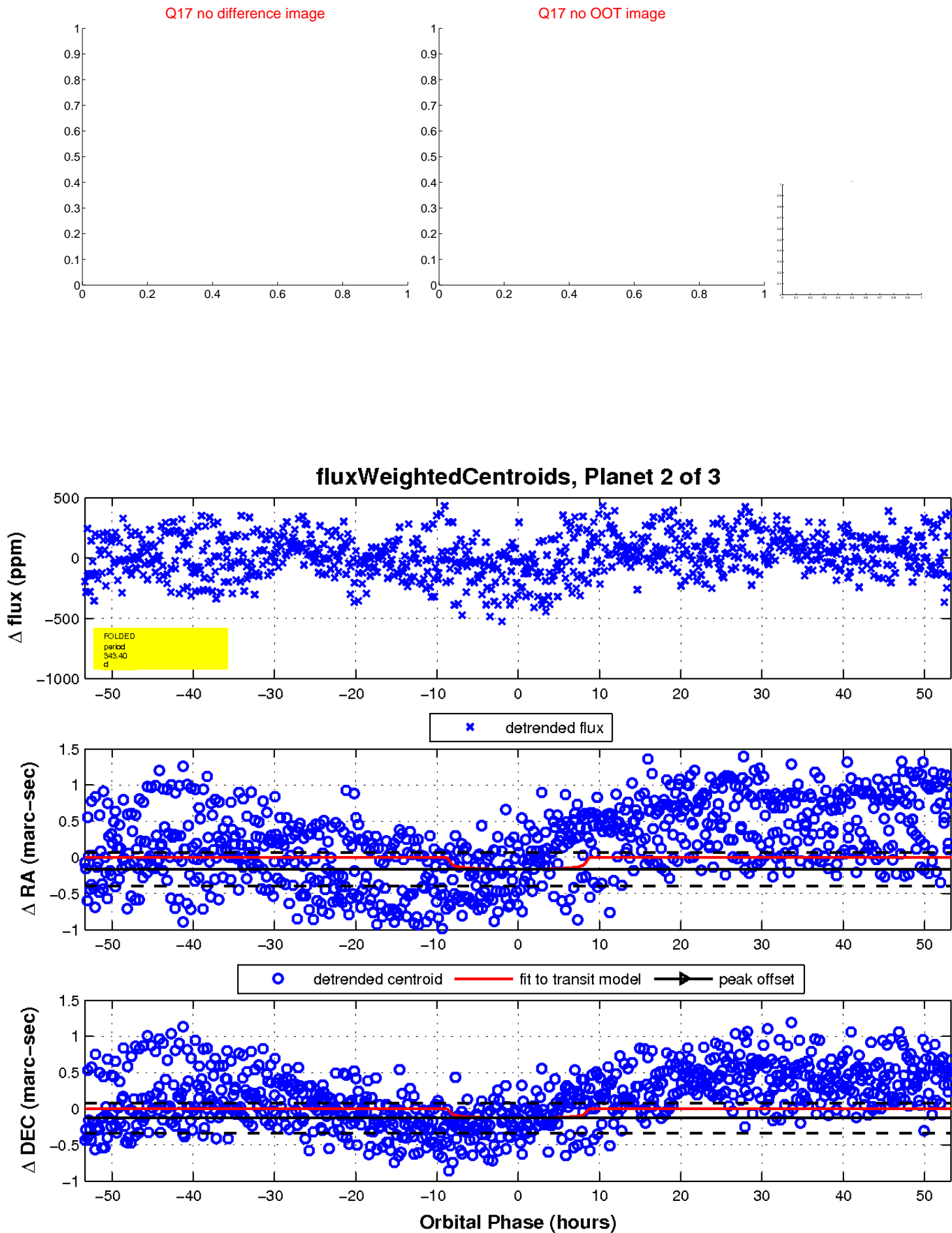
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



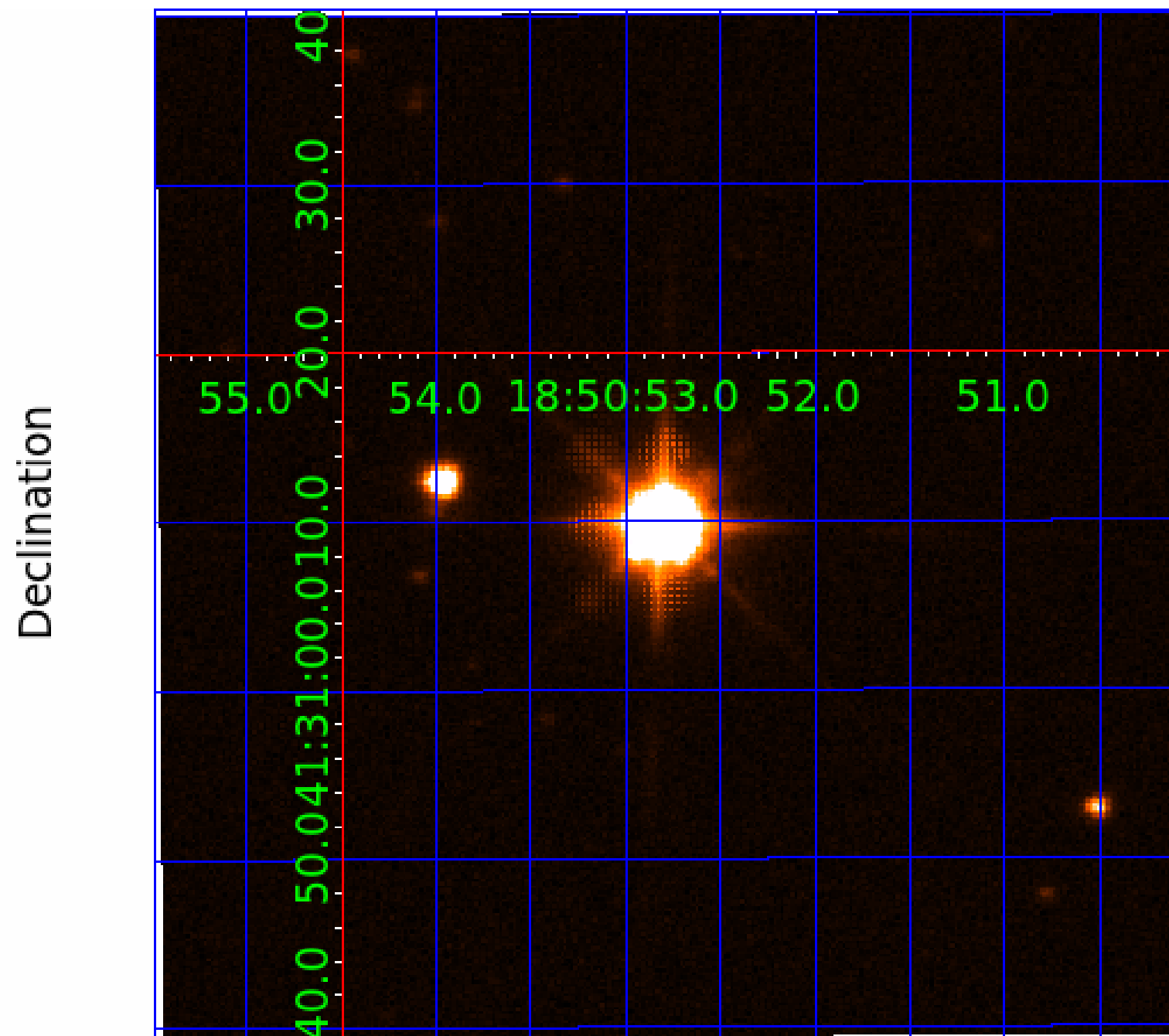
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006182093

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})
006182093-01	OBS	No	4.312083	133.472104	29.5	18.600	11.0	6.9	3.71	6628	2.05	6002.69
006182093-02	OBS	No	343.401848	363.901625	430.9	17.773	12.8	11.8	3.71	6628	8.44	17.52
006182093-03	OBS	No	4.310072	132.241843	46.8	37.171	11.9	10.4	3.71	6628	2.99	6006.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006182093-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
006182093-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006182093-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—SWEET_NTL—LPP_DV—LPP_ALT—CENT_SATURATED

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 006182093-03

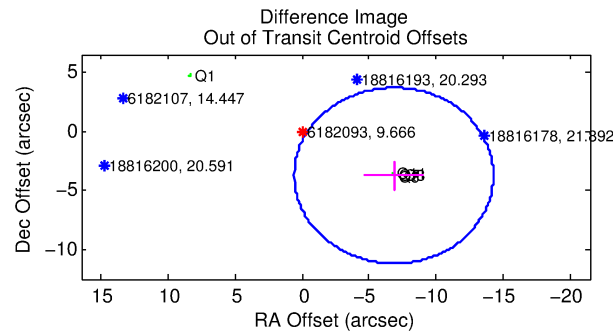
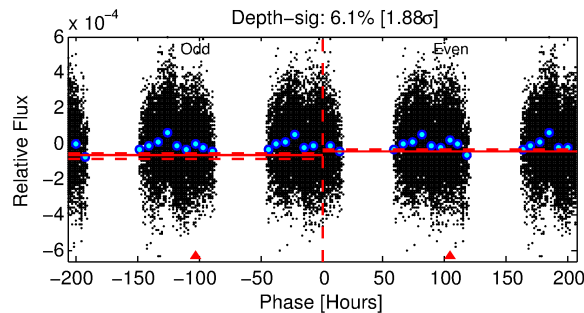
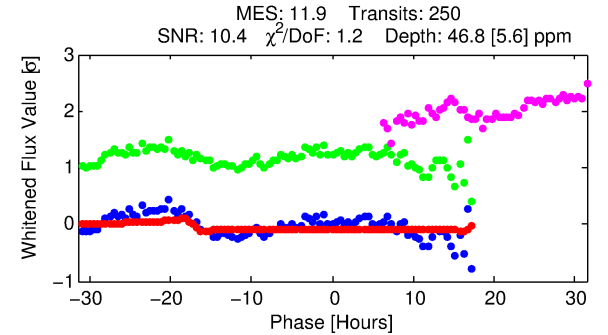
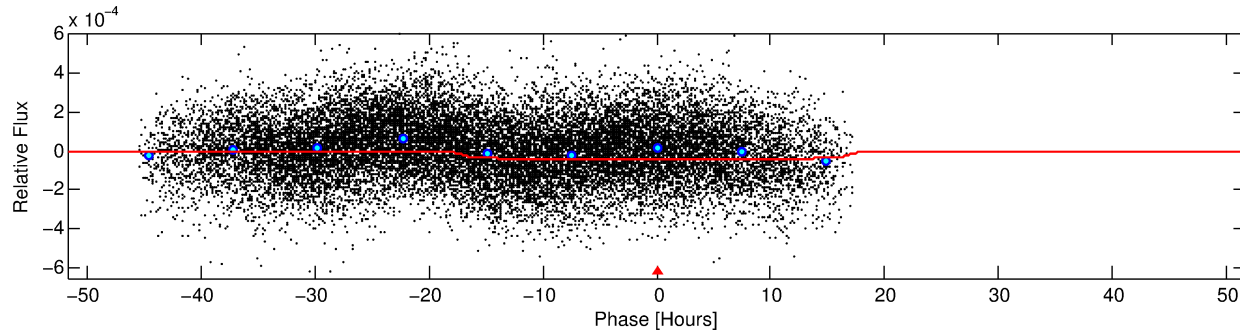
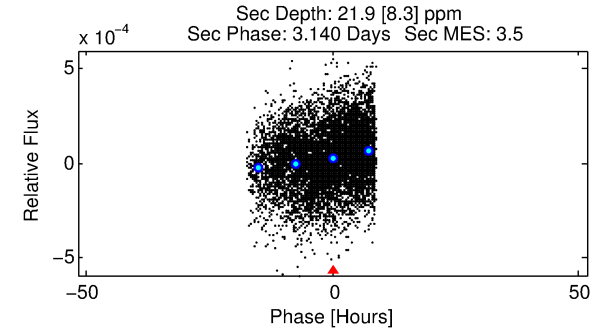
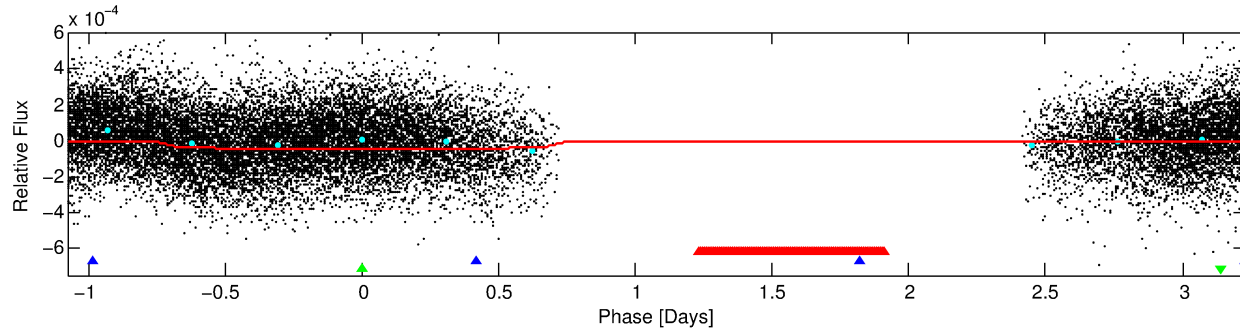
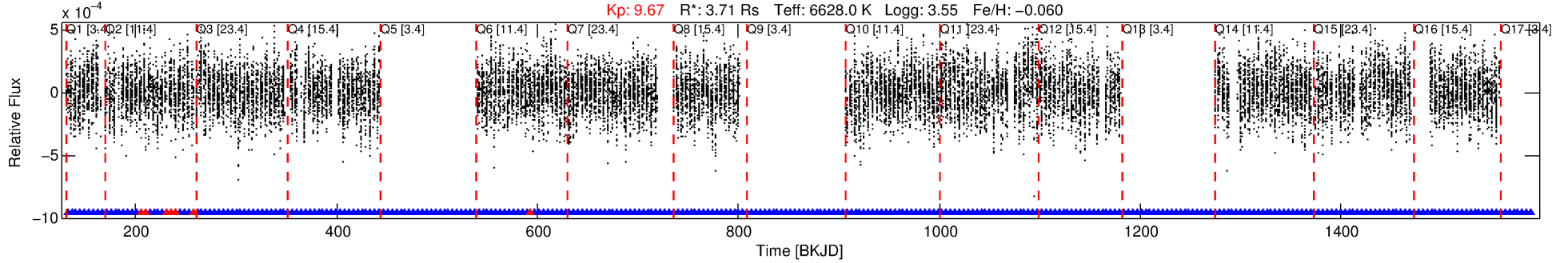
No Significant Match Found

DV One-Page Summary

KIC: 6182093 Candidate: 3 of 3 Period: 4.310 d

KOI: K06143 Corr: No Ephemeris Match

Kp: 9.67 R*: 3.71 Rs Teff: 6628.0 K Logg: 3.55 Fe/H: -0.060



DV Fit Results:

Period = 4.31007 [0.00015] d
Epoch = 132.2418 [0.0567] BKJD
Rp/R* = 0.0074 [0.0005]
a/R* = 1.03 [0.01]
b = 0.91 [0.05]
Seff = 6006.43 [3570.04]
Teq = 2245 [334] K
Rp = 2.99 [1.19] Re
a = 0.0629 [0.0233] AU
Ag = 5.33 [3.80] [1.14σ]
Teffp = 5275 [557] K [4.67σ]

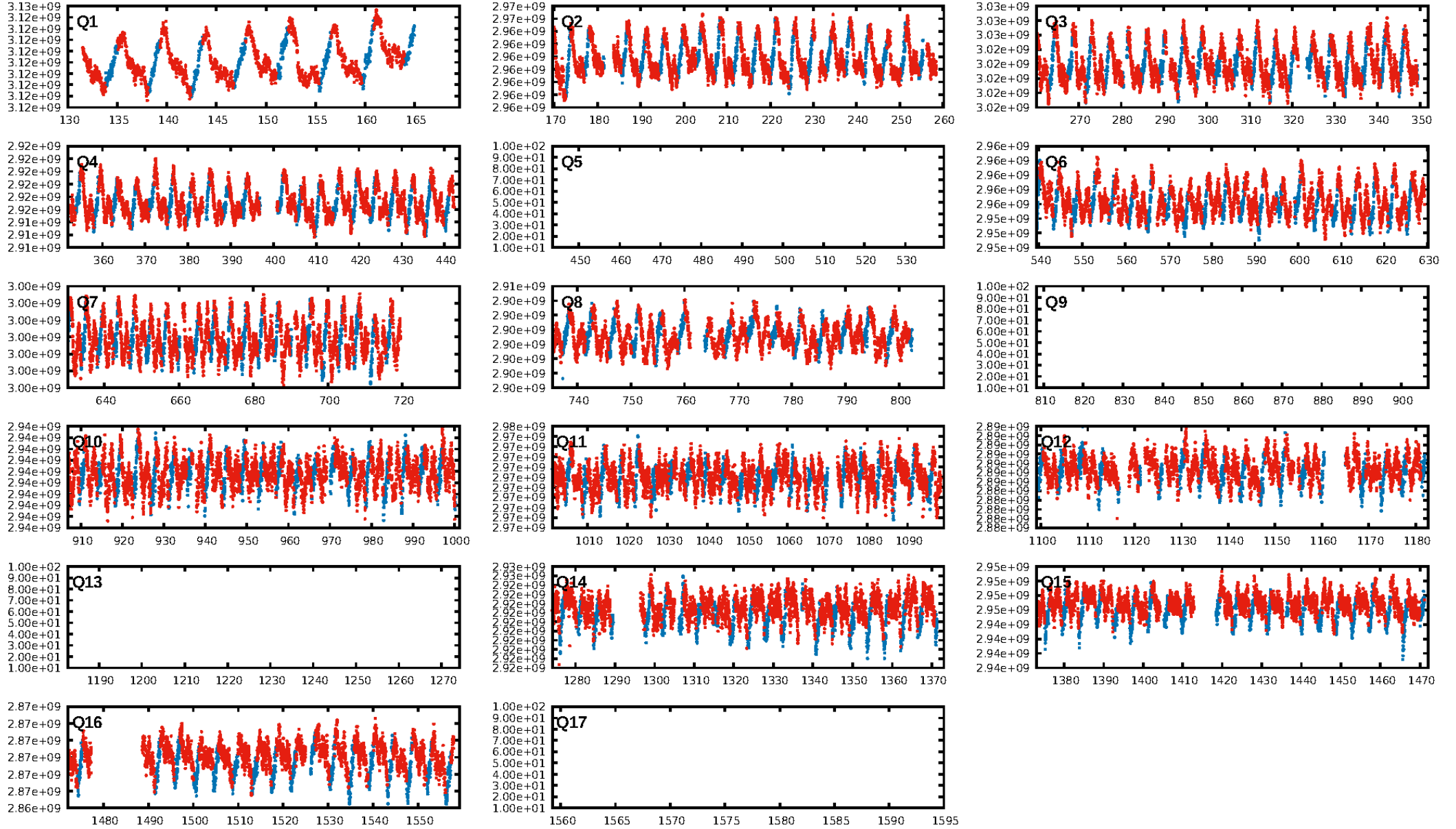
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [235/242]
GhostDiagnostic-chr: N/A
Centroid-sig: 14.4%
Centroid-so: 0.654 arcsec [1.29σ]
OotOffset-rm: 7.809 arcsec [3.15σ]
KicOffset-rm: 5.909 arcsec [1.88σ]
OotOffset-st: 0/3/1/1 [5]
KicOffset-st: 0/3/1/1 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 0.00 [0/13]

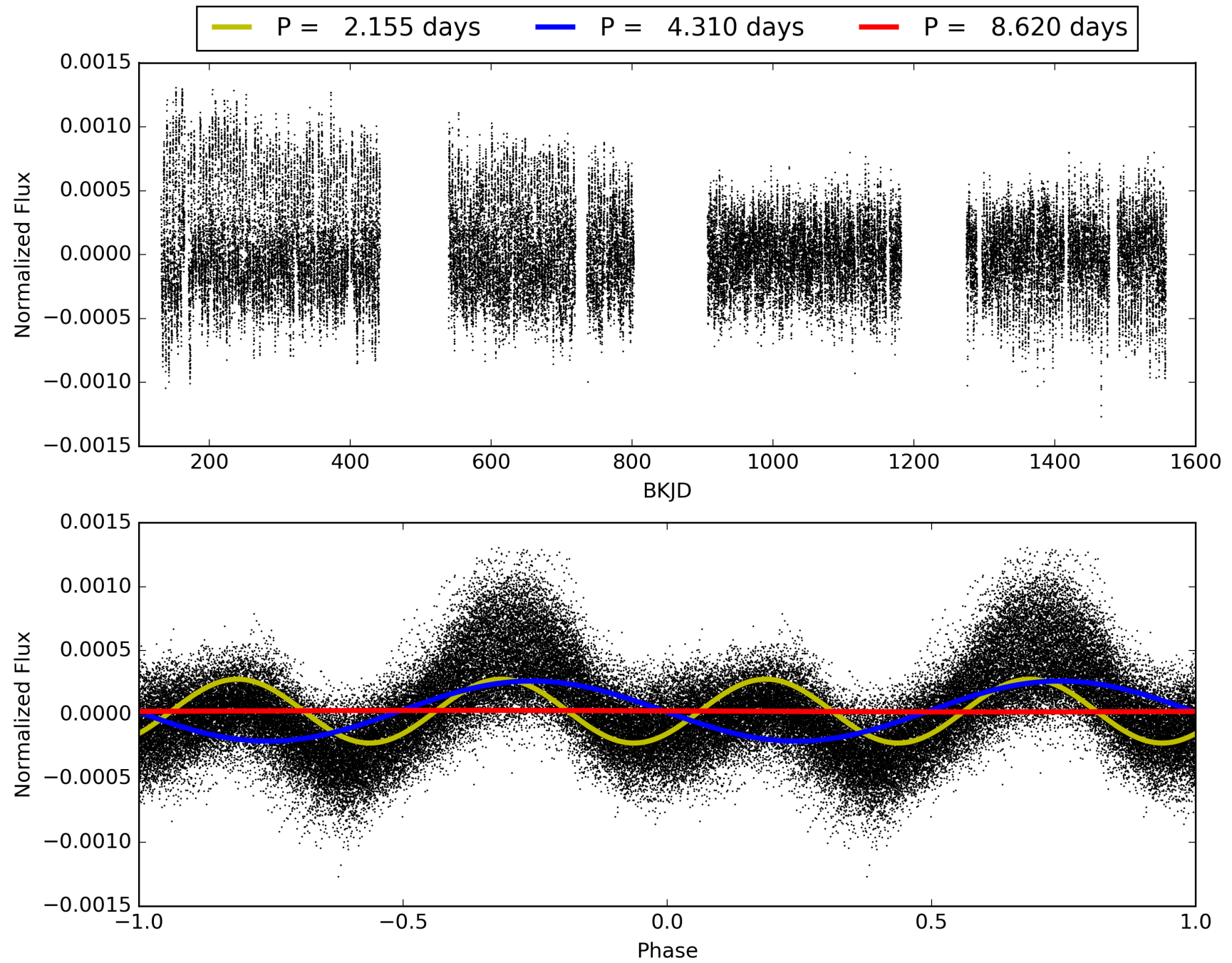
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:51:55 Z

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

TCE 006182093-03, PDC Light Curves

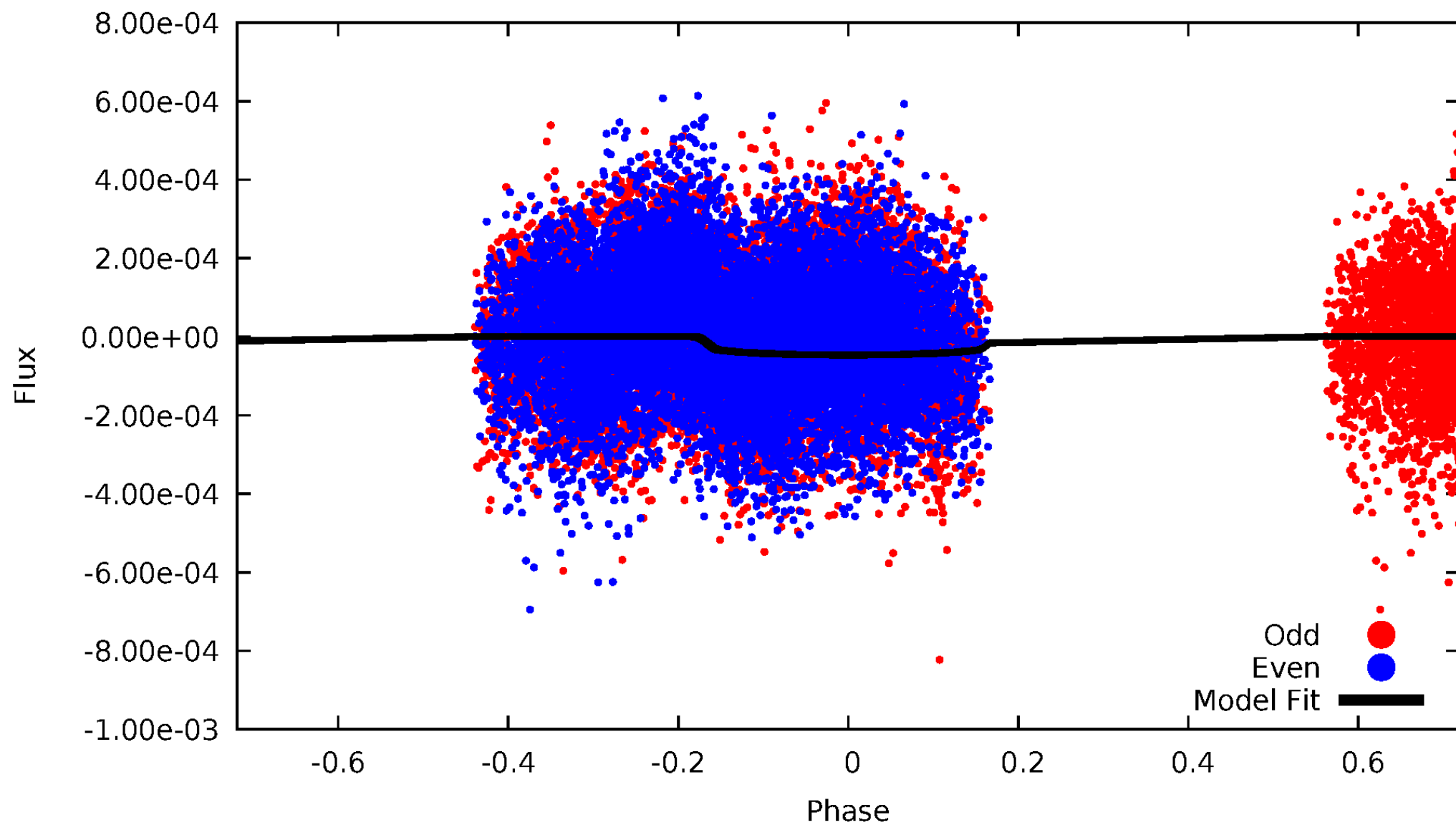


TCE 006182093-03



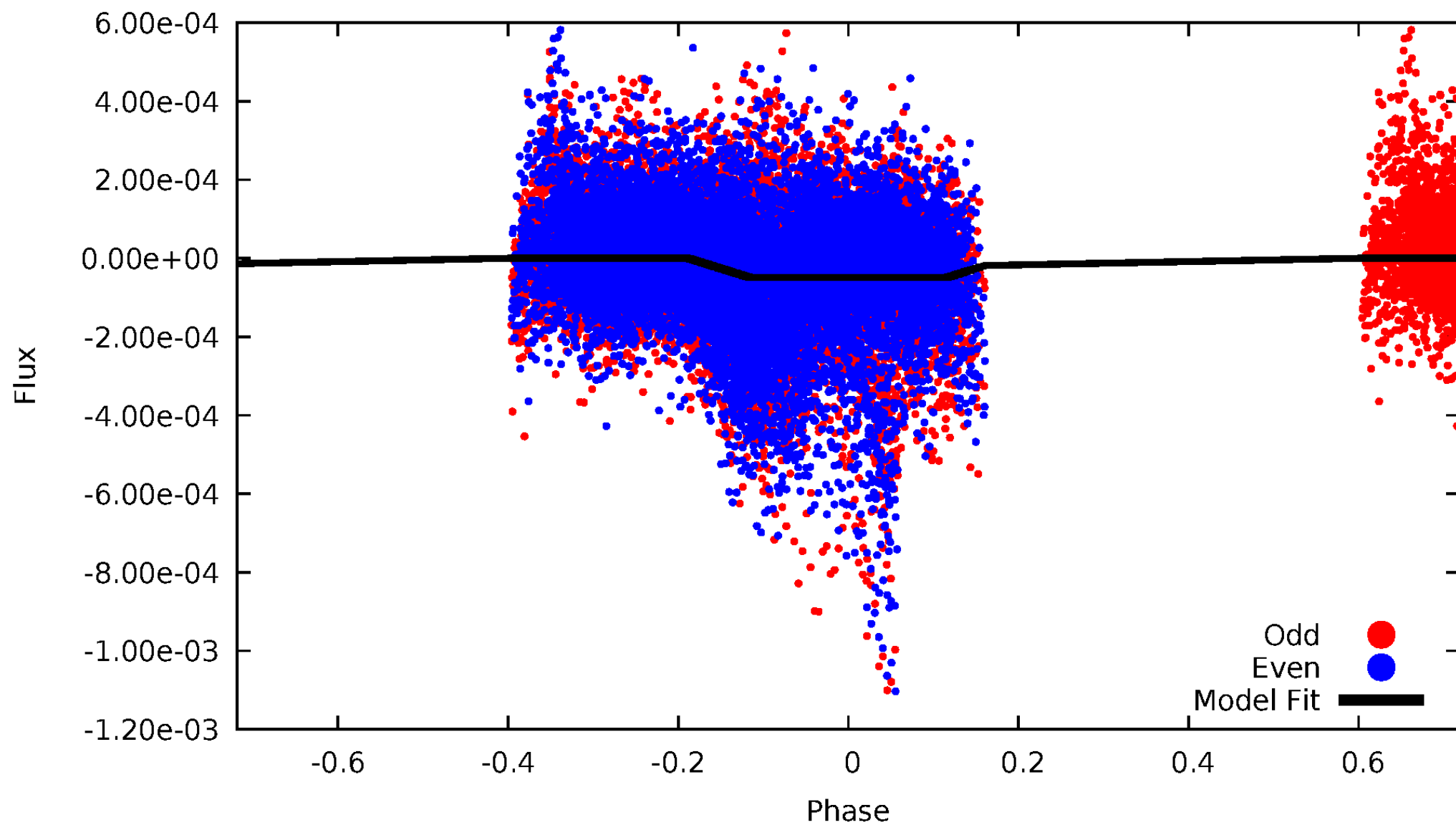
DV Odd/Even

TCE 006182093-03



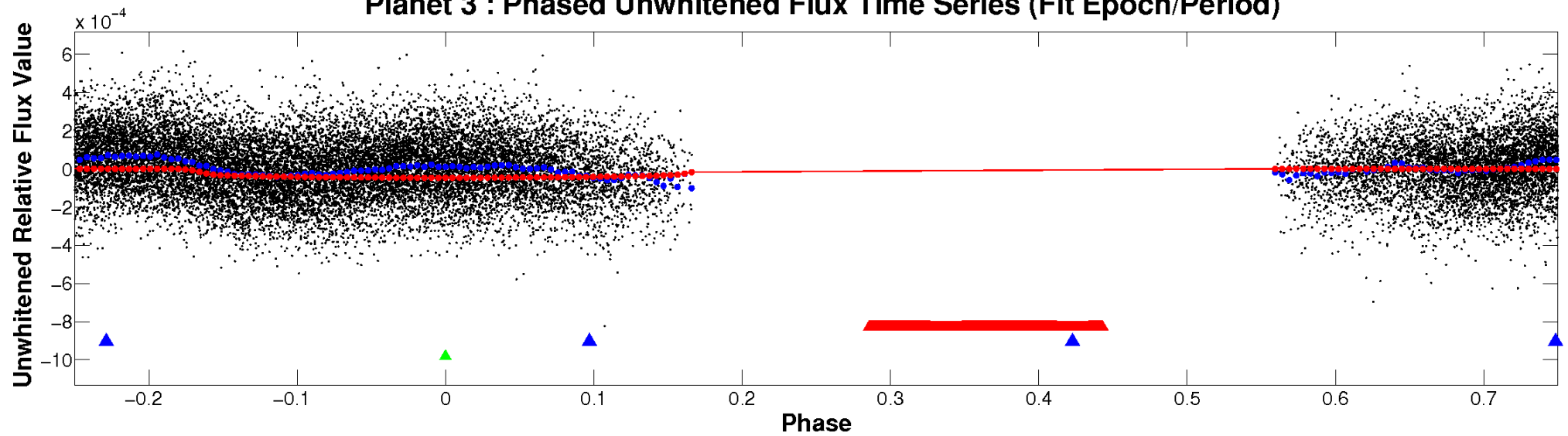
ALT Odd/Even

TCE 006182093-03

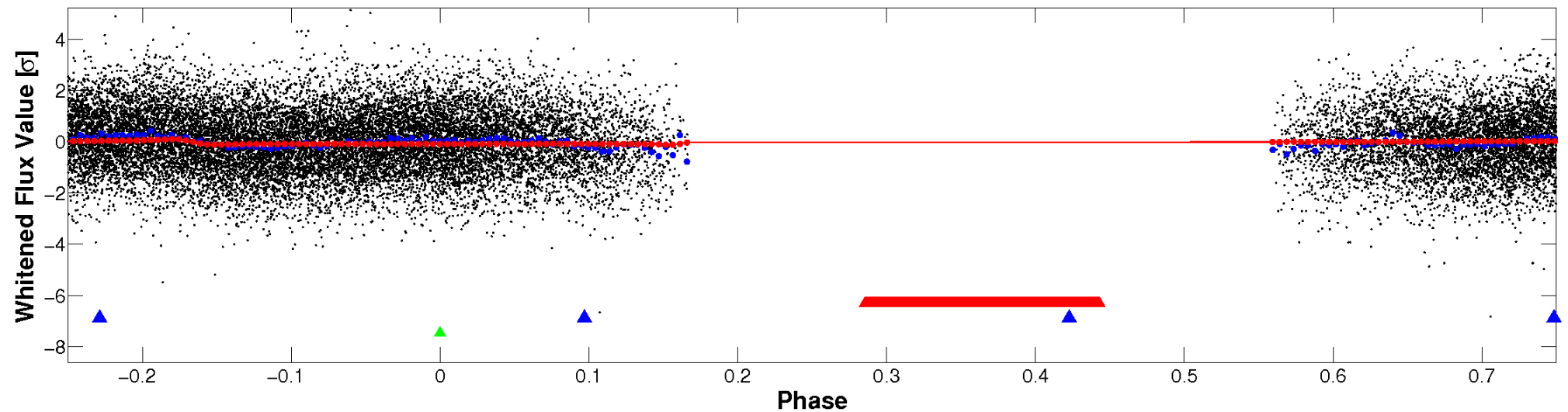


Non-Whitened Vs. Whitened Light Curve

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

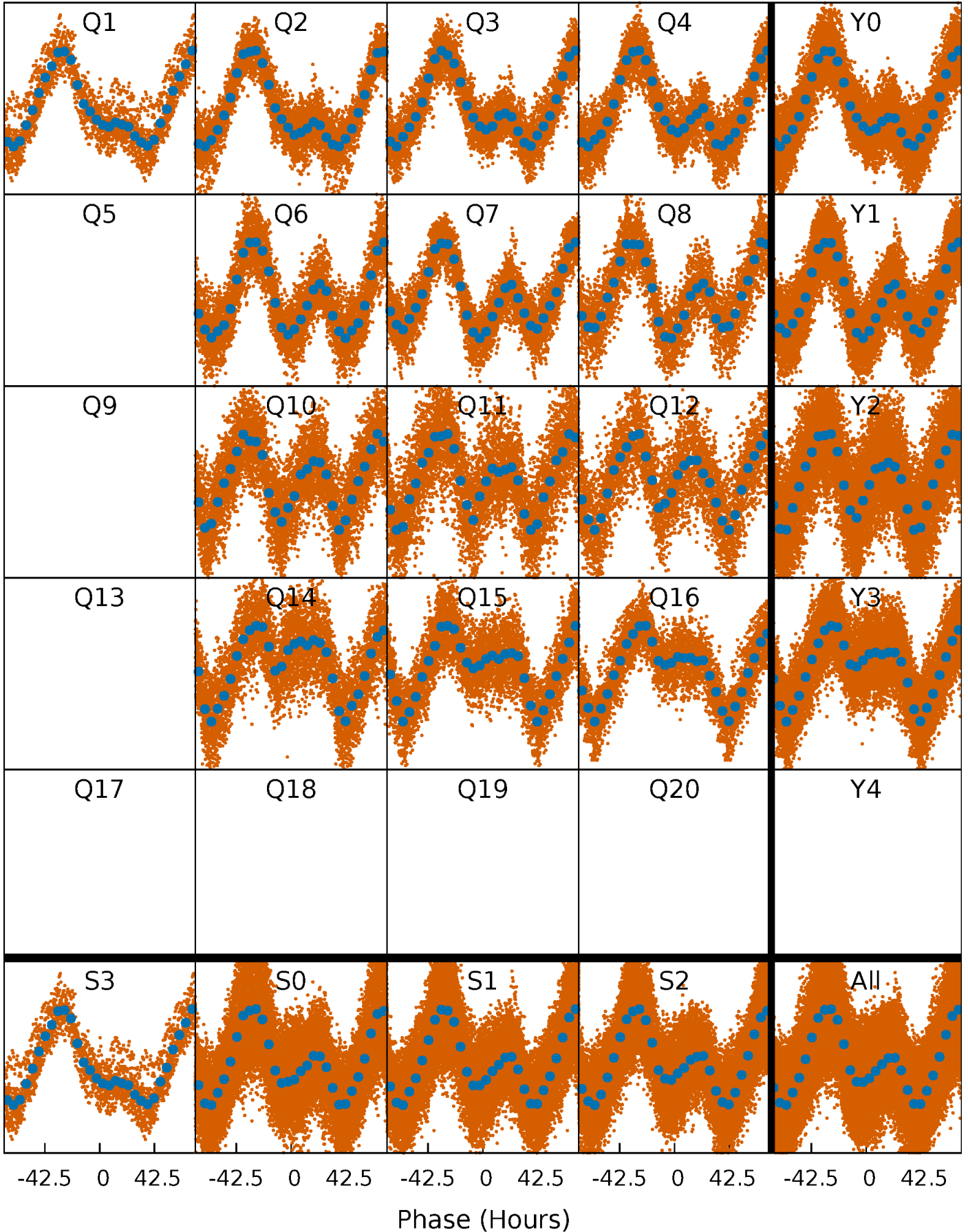


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



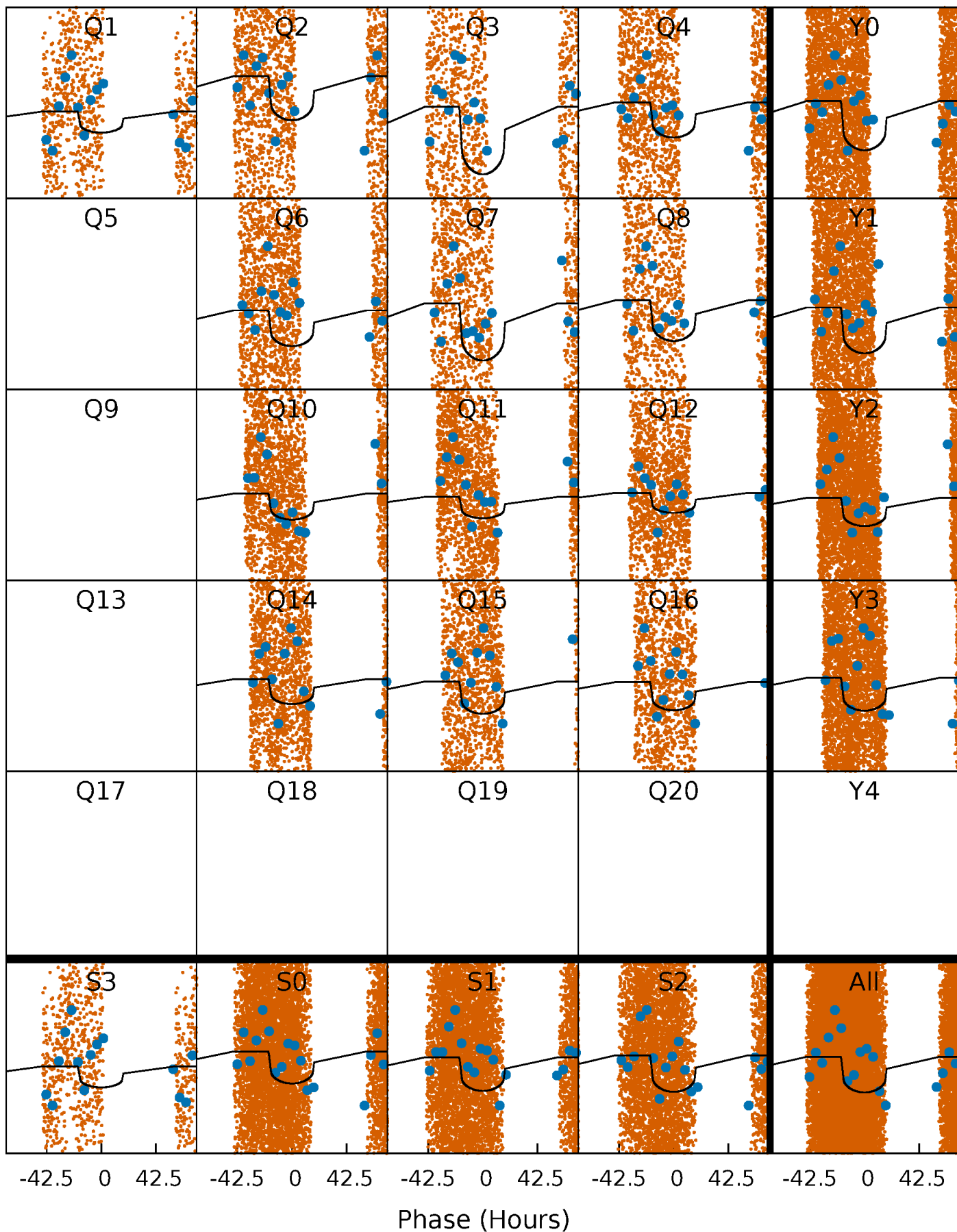
PDC Quarter-Phased Transit Curves

TCE 006182093-03 P= 4.310072 Days $T_0=132.241843$ (BKJD)



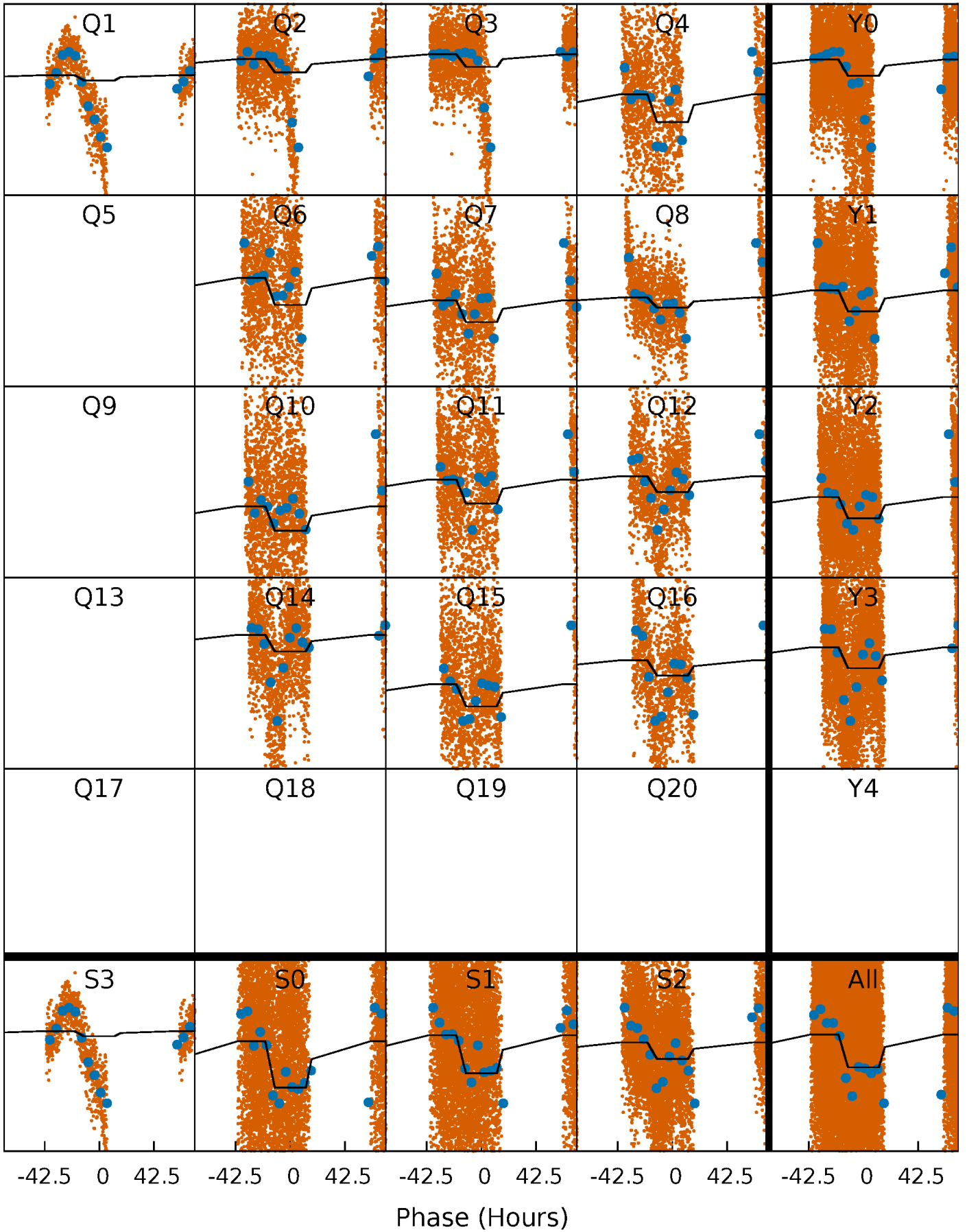
DV Quarter-Phased Transit Curves

TCE 006182093-03 P= 4.310072 Days $T_0=132.241843$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

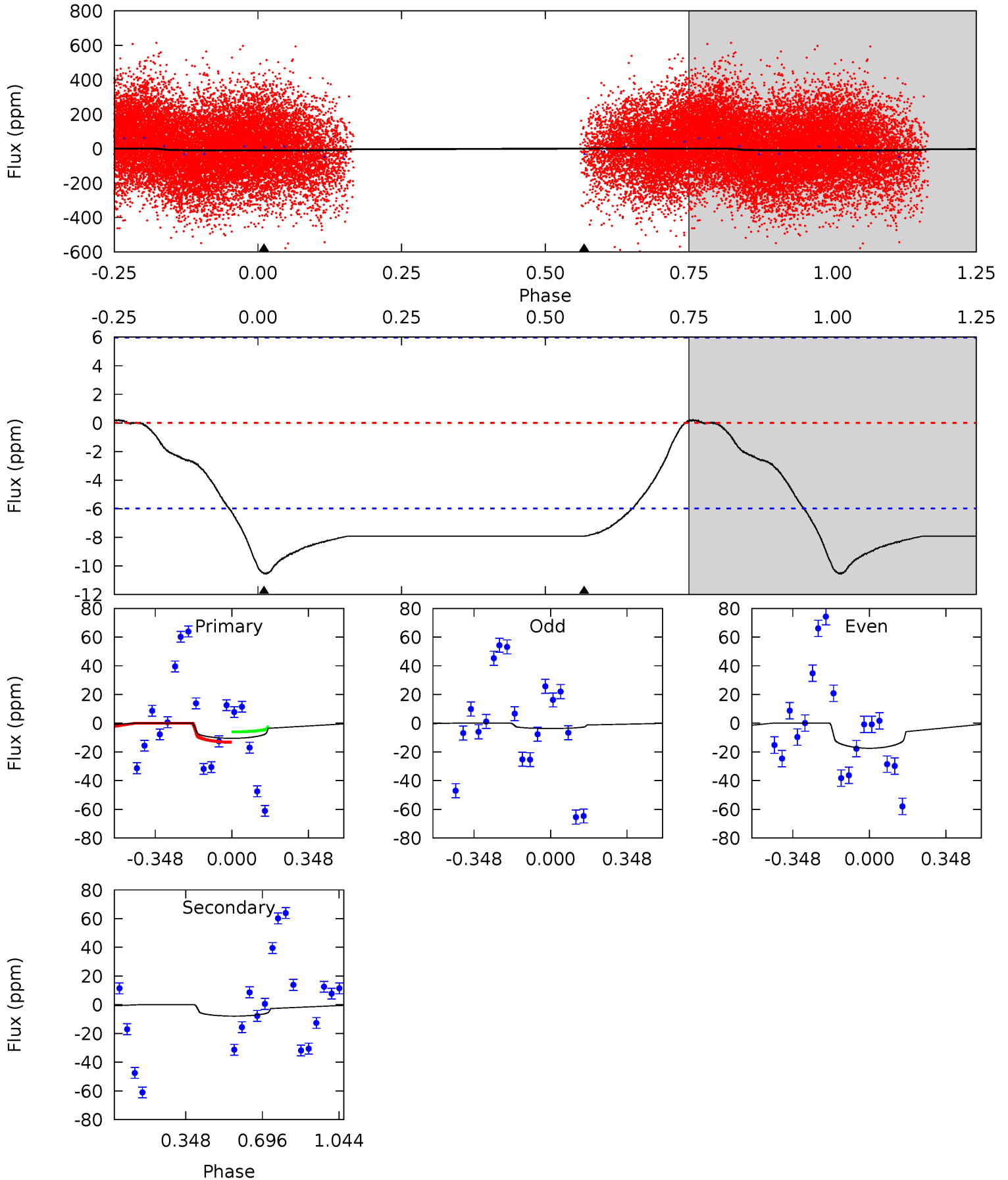
TCE 006182093-03 P= 4.310710 Days $T_0=132.056619$ (BKJD)



DV Model-Shift Uniqueness Test

006182093-03, P = 4.310072 Days, E = 127.931771 Days

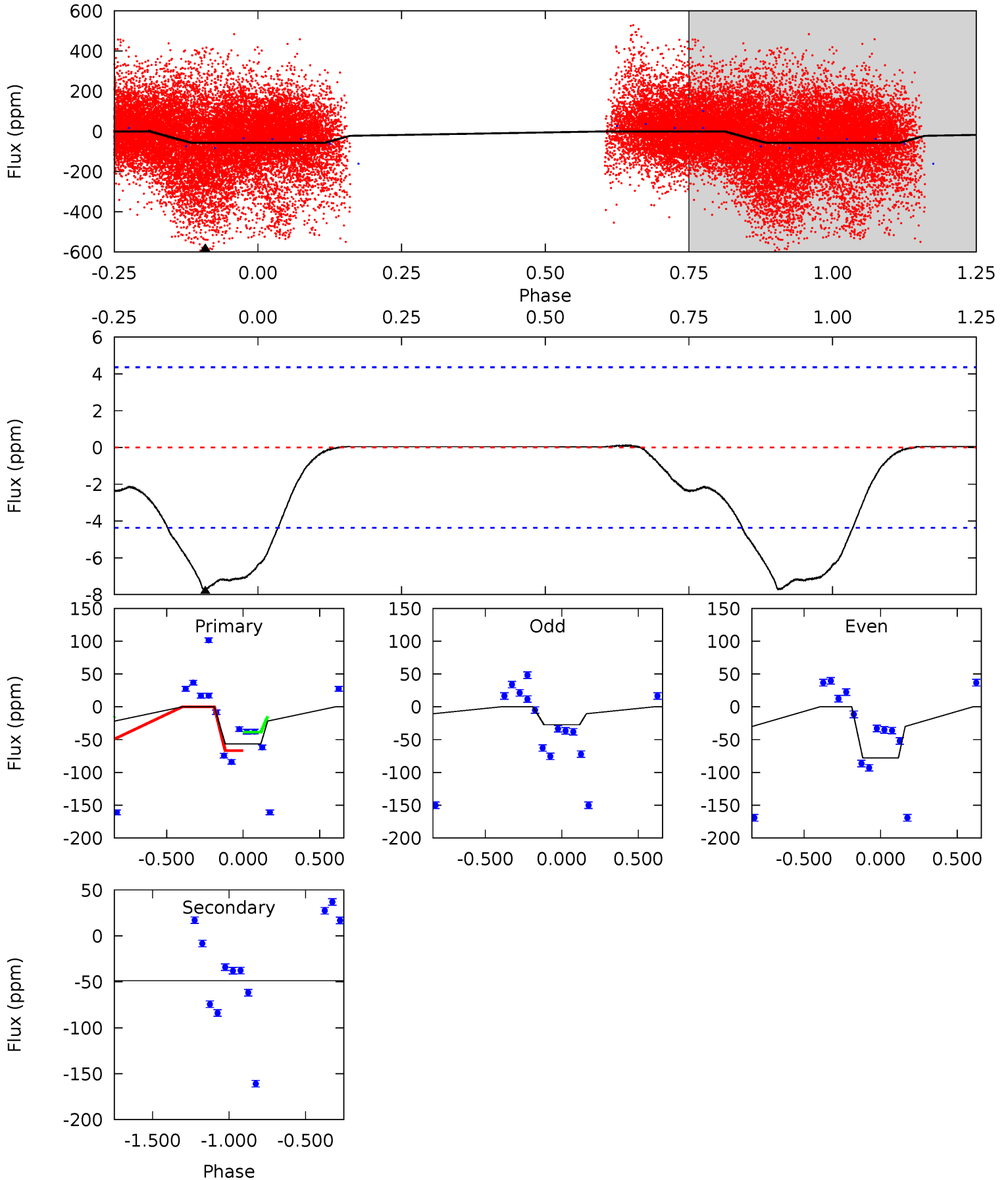
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.57	5.69	0	0	4.30	0.94	0.06	7.57	7.57	5.69	5.69	4.93	2.32	0.02	2.55



Alt Model-Shift Uniqueness Test

006182093-03, P = 4.310710 Days, E = 127.745909 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.45	0	0	0	4.21	0.67	0.22	7.45	7.45	0	0	3.33	0	0.01	3.31



Stellar Parameters For KIC 006182093

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6628^{+149}_{-183}	$3.552^{+0.340}_{-0.080}$	$-0.060^{+0.300}_{-0.250}$	$3.709^{+0.365}_{-1.458}$	$1.787^{+0.149}_{-0.348}$	$0.049^{+0.127}_{-0.009}$
	+2%/-3%	+10%/-2%	+500%/-417%	+10%/-39%	+8%/-19%	+257%/-19%
Source	PHO1	FLK73	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 006182093-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-8 ± 1	$2.89^{+0.38}_{-0.57}$	3089^{+144}_{-301}	4193^{+205}_{-213}	$2.096^{+1.123}_{-0.549}$
Alt.	0 ± 1	$2.70^{+0.37}_{-0.51}$	3082^{+149}_{-286}	-3117^{+5084}_{-362}	$0.005^{+0.304}_{-0.306}$

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 $A_{obs} \gg 1.0$

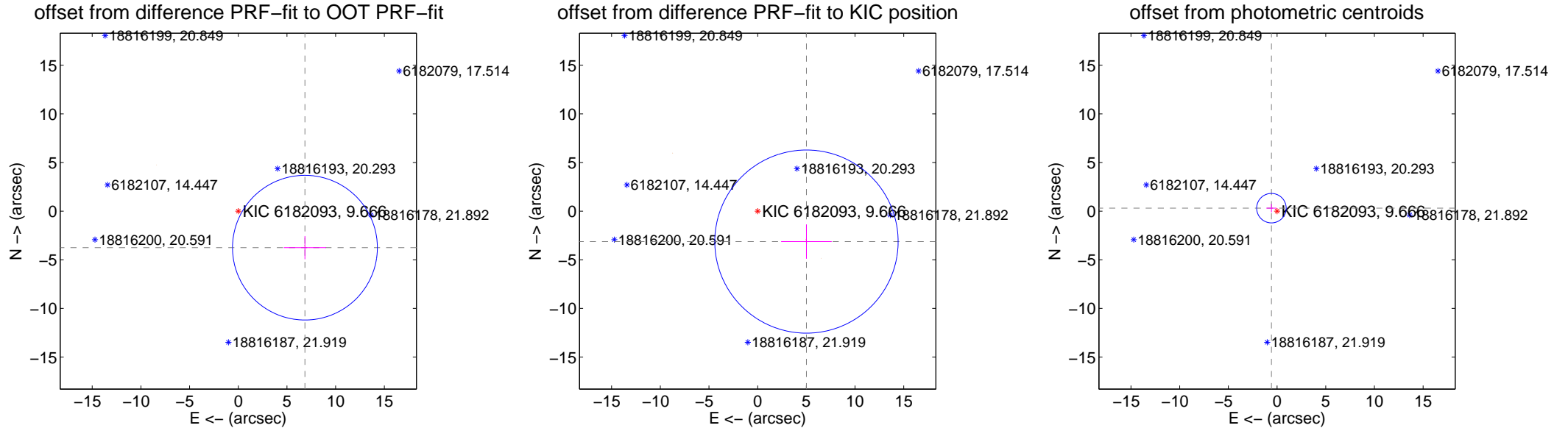
DV Centroid Data

Supplemental centroid analysis for 006182093-03. **Kepler magnitude: 9.67.** Transit SNR 10.45

There are 0 quarters with good PRF difference image offsets

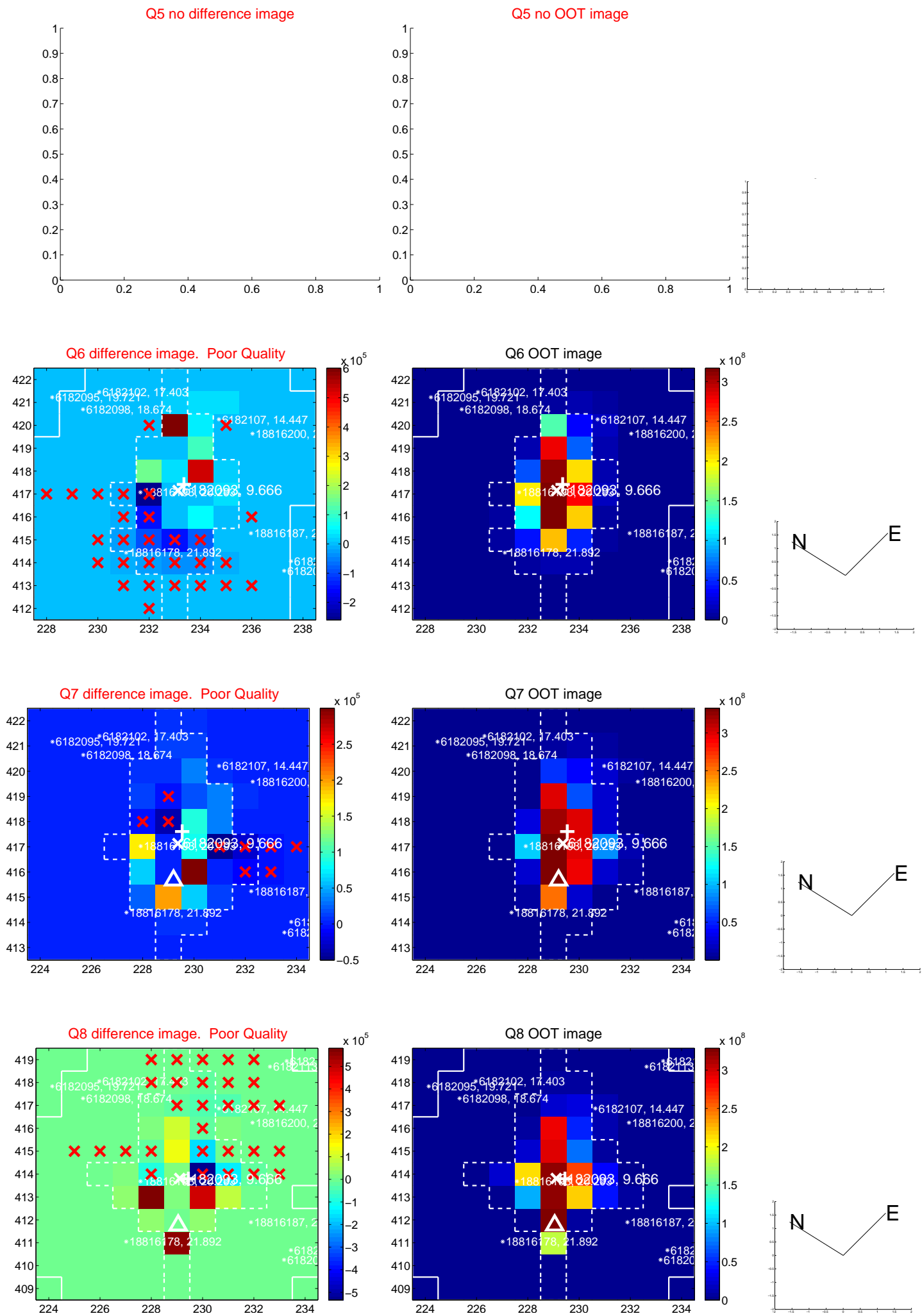
The direct PRF centroid is offset from the target star catalog position by about 1.98 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.809 ± 2.479	3.15	-6.845 ± 2.174	-3.757 ± 1.195
PRF-fit source offset from KIC position	5.909 ± 3.138	1.88	-5.011 ± 2.598	-3.131 ± 1.767
photometric centroid source offset	0.65 ± 0.50	1.29	0.58 ± 0.52	0.31 ± 0.43

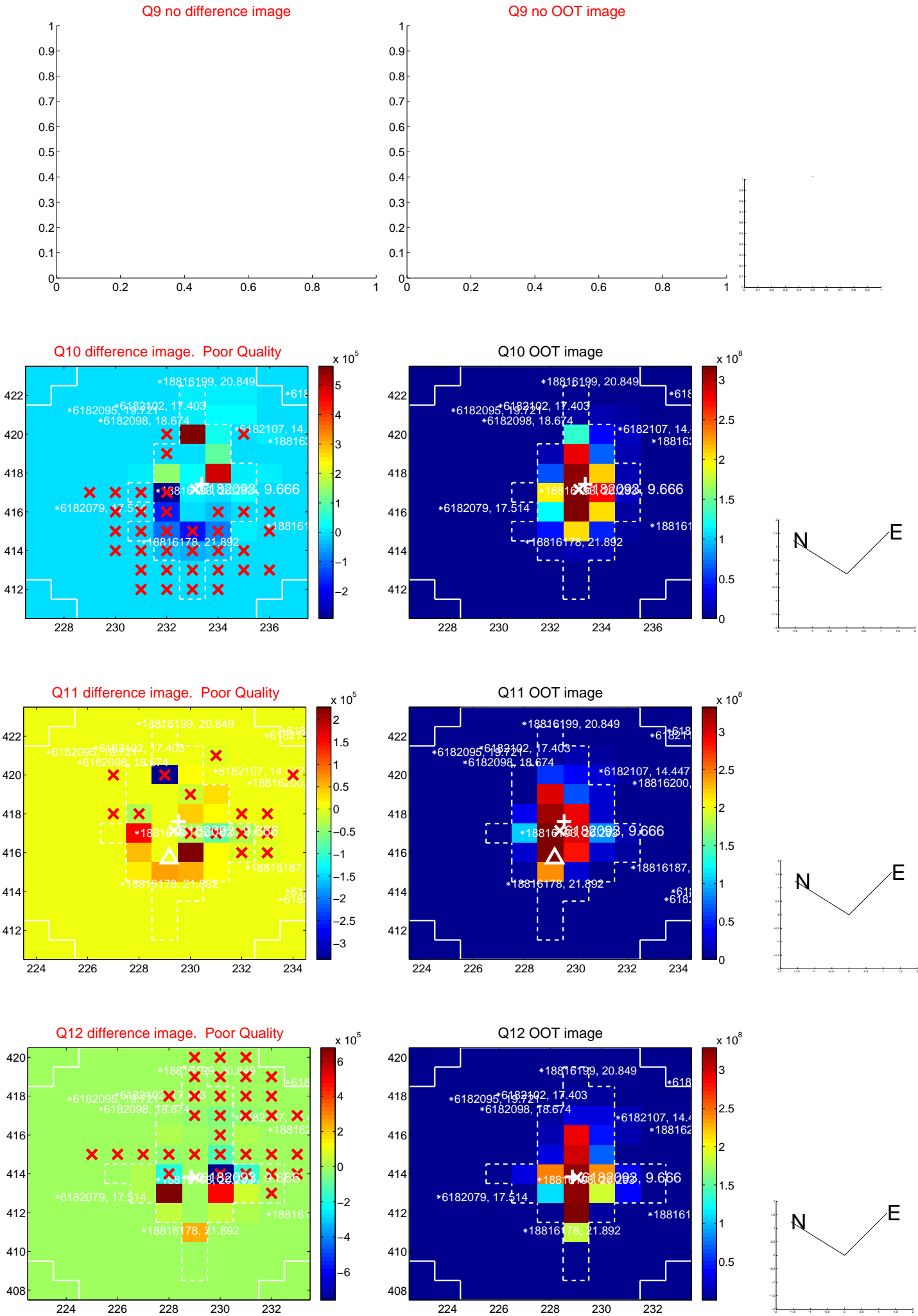


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

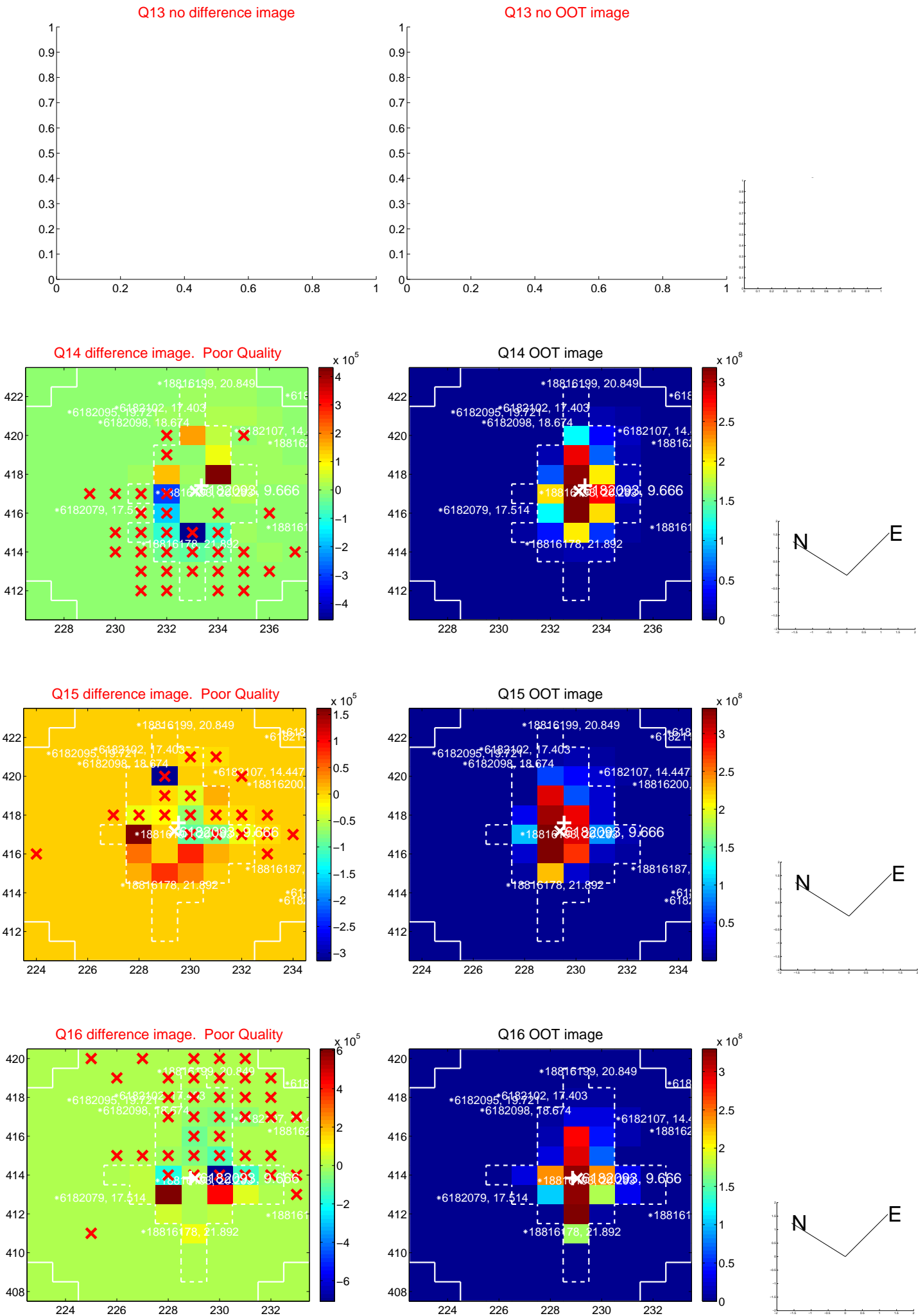
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



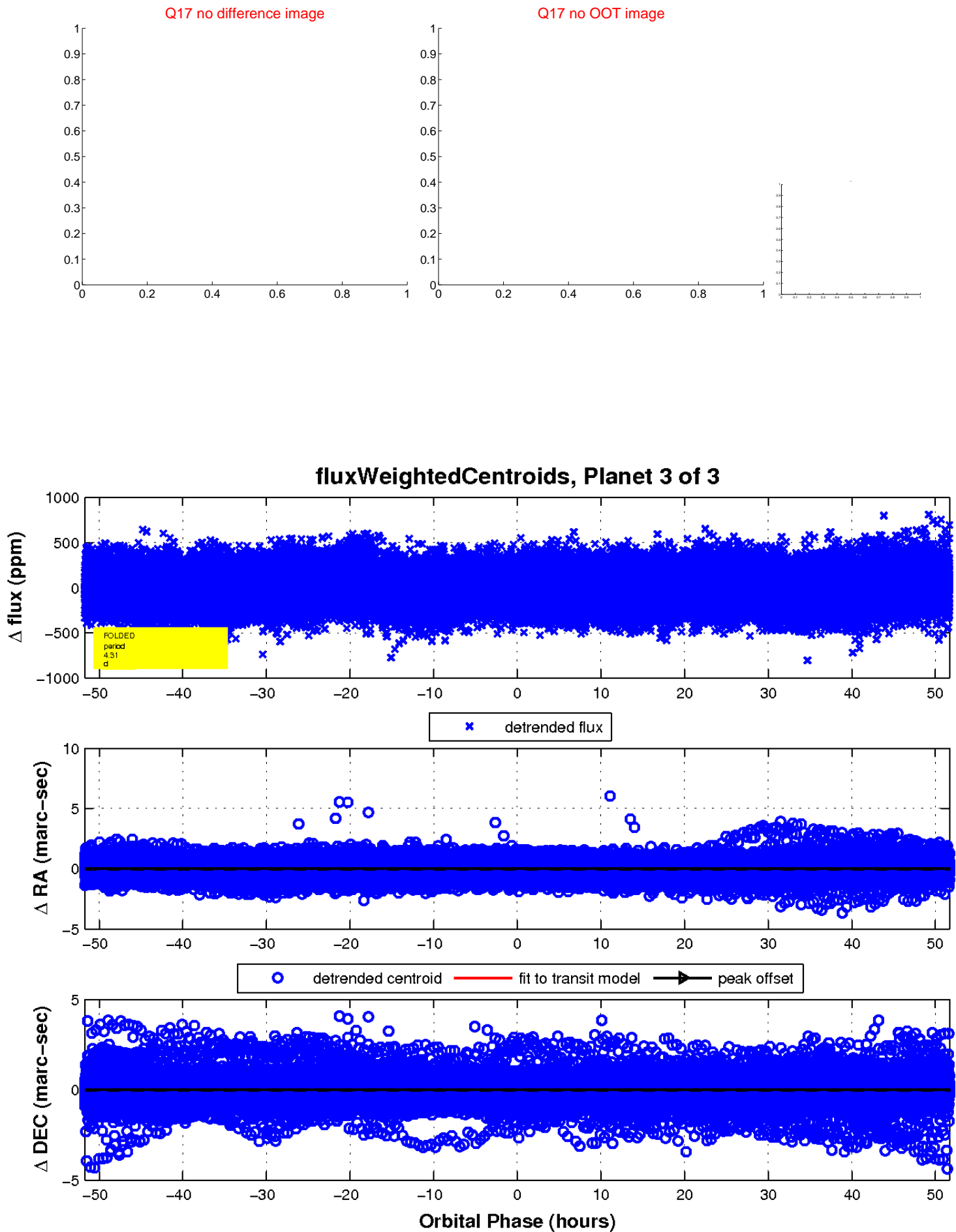
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

