

KIC 006280902

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})
006280902-01	OBS	No	0.712605	131.724439	11.8	3.038	7.9	6.9	1.86	7306	0.74	27213.11
006280902-02	OBS	No	369.864379	288.300762	539.3	25.194	8.0	7.1	1.86	7306	5.31	6.52
006280902-04	OBS	No	203.048803	275.158293	639.0	54.153	8.5	7.4	1.86	7306	8.85	14.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006280902-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006280902-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED—HALO_GHOST
006280902-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED

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

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

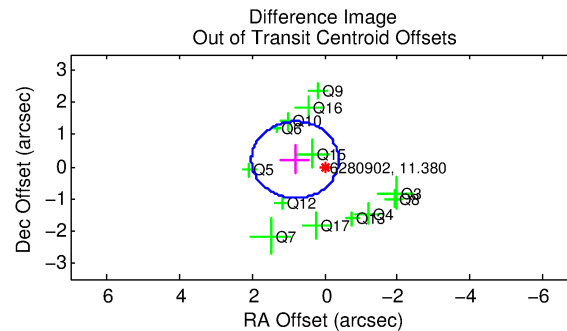
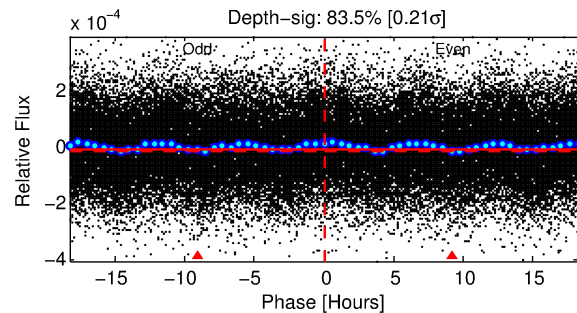
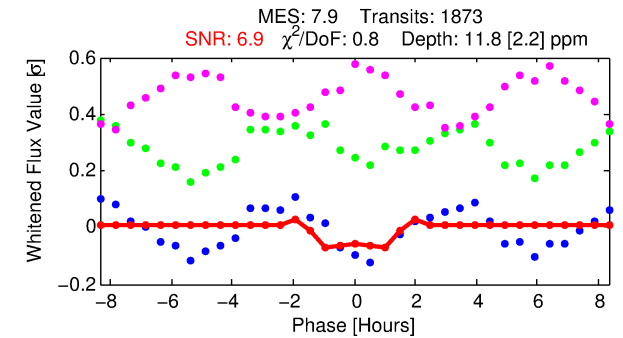
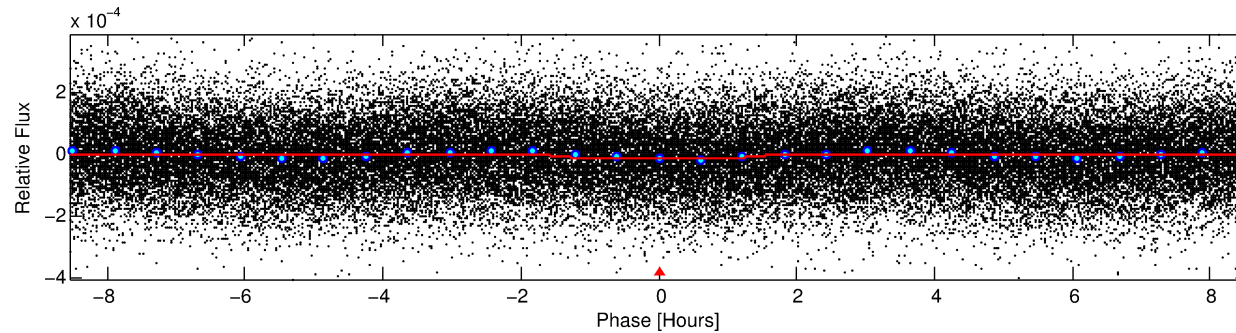
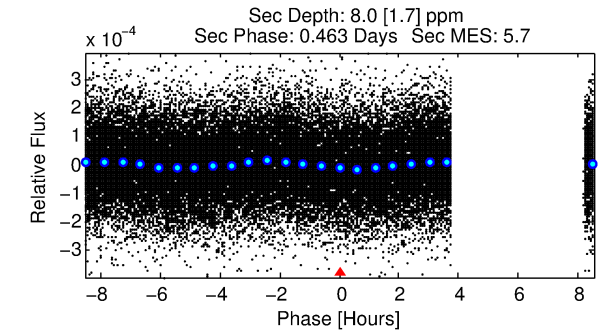
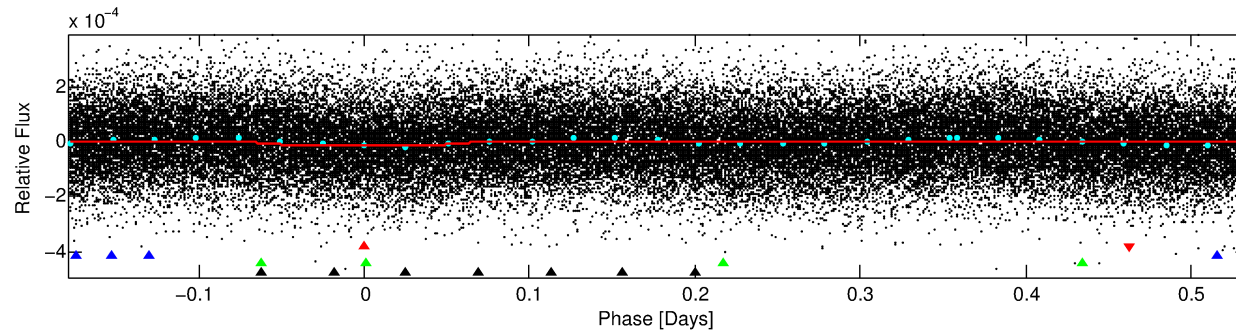
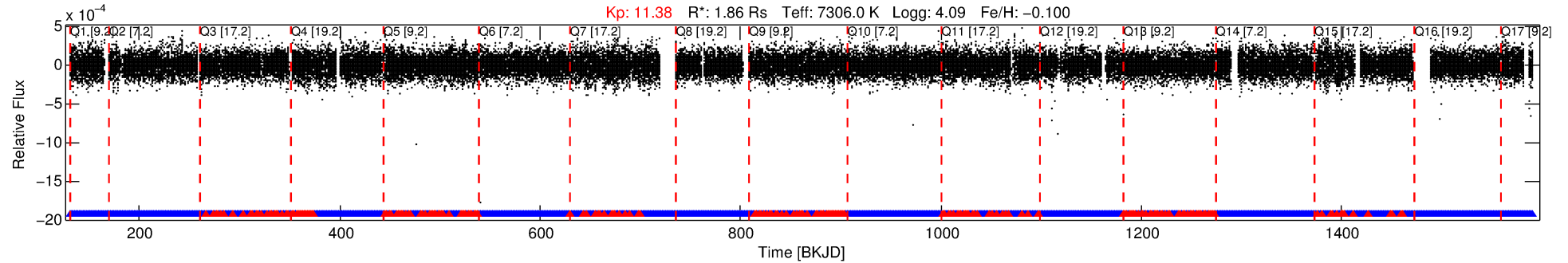
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006280902-01

No Significant Match Found

DV One-Page Summary

KIC: 6280902 Candidate: 1 of 4 Period: 0.713 d



DV Fit Results:

Period = 0.71261 [0.00001] d
Epoch = 131.7244 [0.0028] BKJD
Rp/R* = 0.0037 [0.0009]
a/R* = 1.23 [0.62]
b = 0.90 [0.32]
Seff = 27213.11 [10293.66]
Teq = 3275 [310] K
Rp = 0.74 [0.29] Re
a = 0.0181 [0.0043] AU
Ag = 2.60 [1.65] [0.97σ]
Teffp = 6430 [916] K [3.26σ]

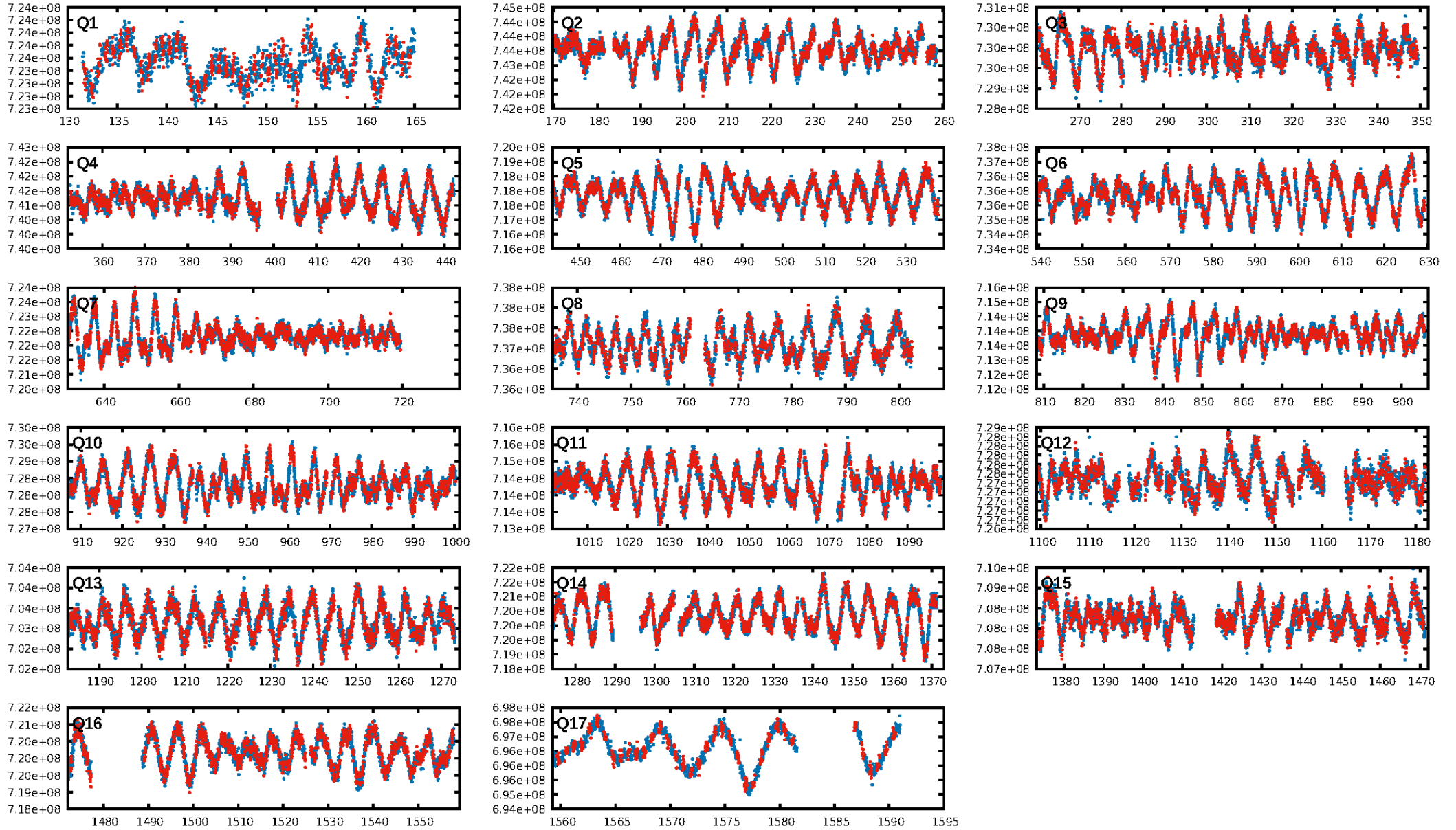
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [89.53σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.85e-11
RollingBand-fgt: 0.87 [1551/1789]
GhostDiagnostic-chr: 8.091
Centroid-sig: 21.8%
Centroid-so: 0.691 arcsec [1.27σ]
OotOffset-rm: 0.843 arcsec [2.11σ]
KicOffset-rm: 0.856 arcsec [2.13σ]
OotOffset-st: 2/3/4/4 [13]
KicOffset-st: 2/3/4/4 [13]
DiffImageQuality-fgm: 0.77 [10/13]
DiffImageOverlap-fno: 1.00 [17/17]

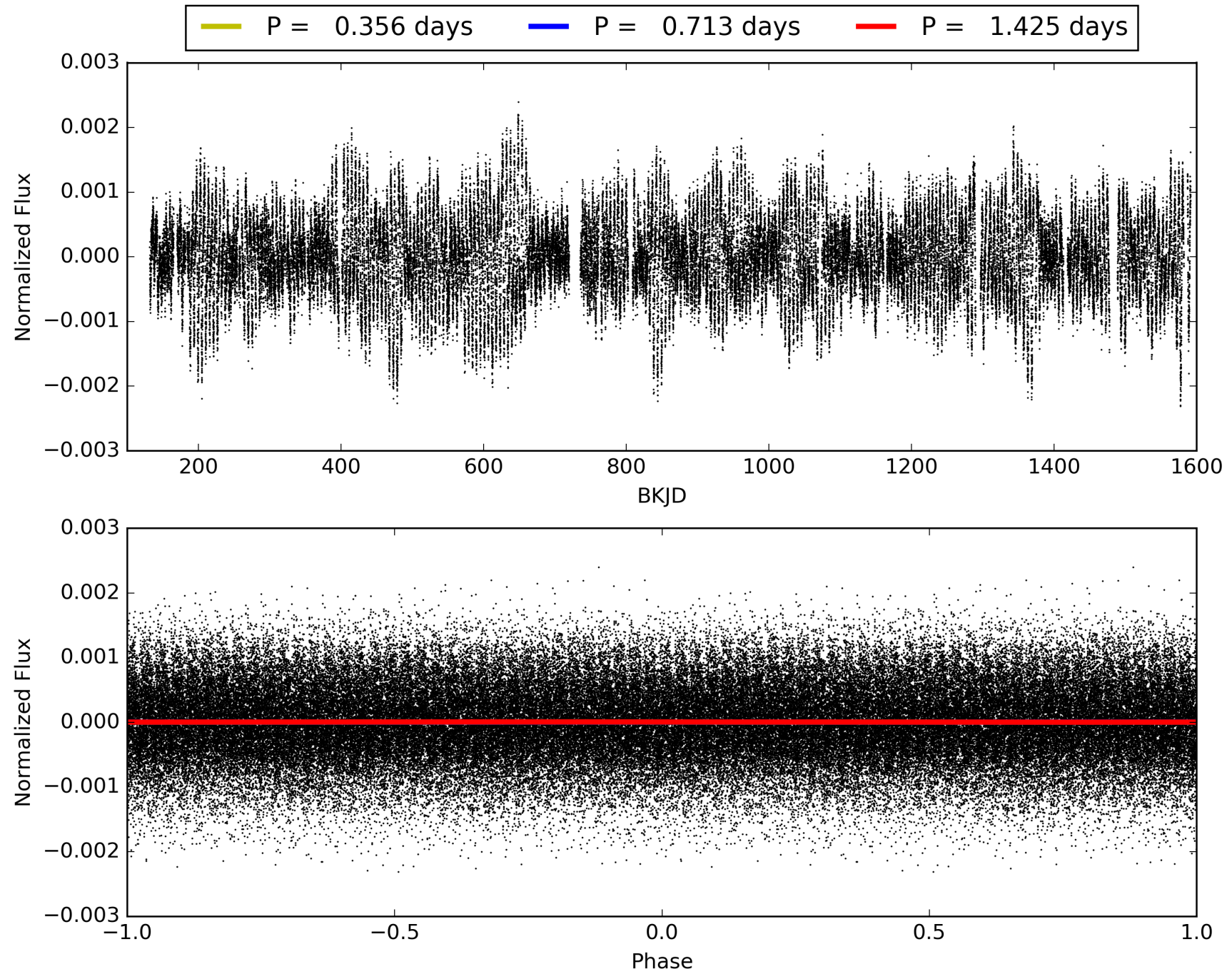
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:12:40 Z

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

TCE 006280902-01, PDC Light Curves

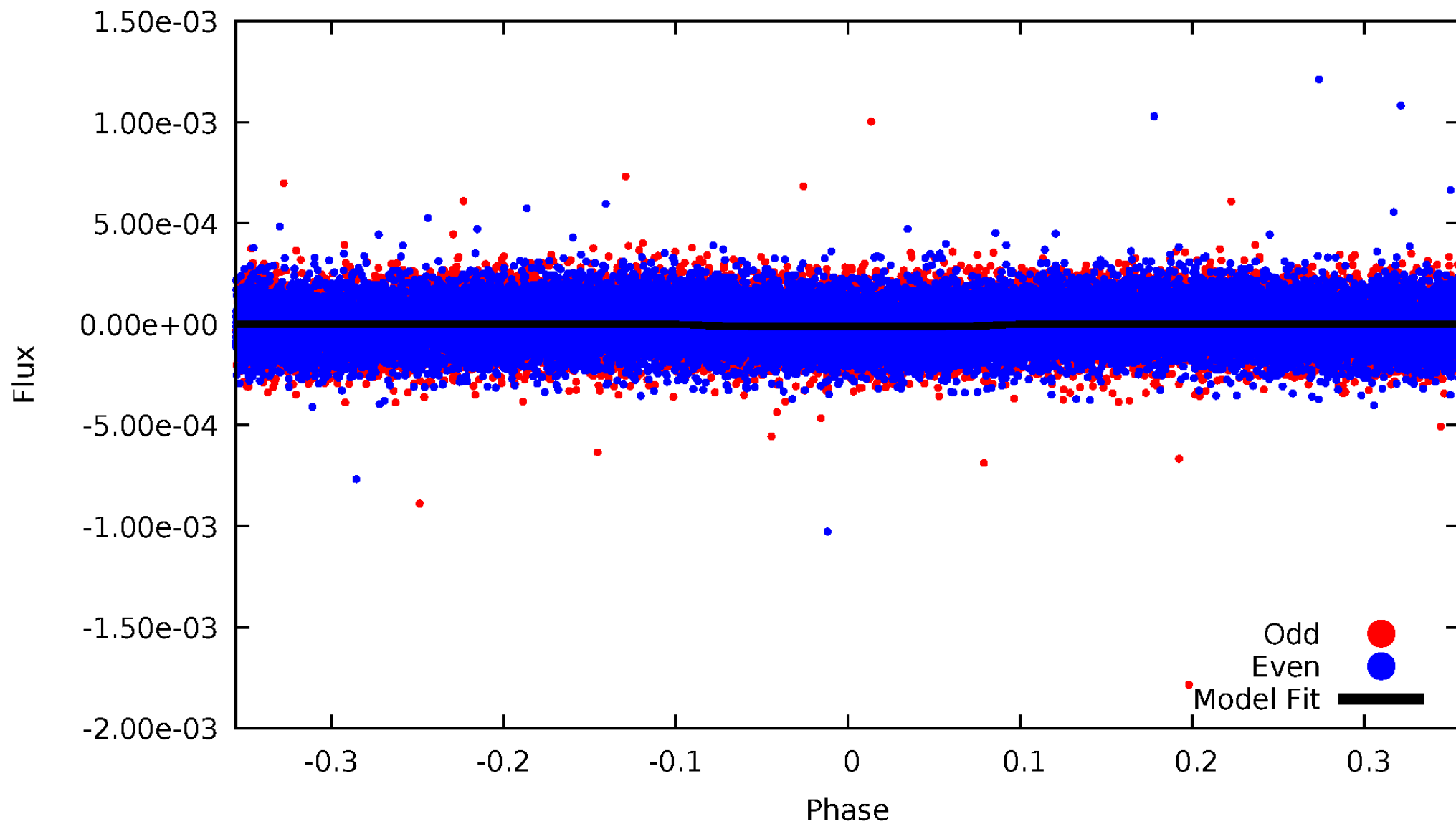


TCE 006280902-01



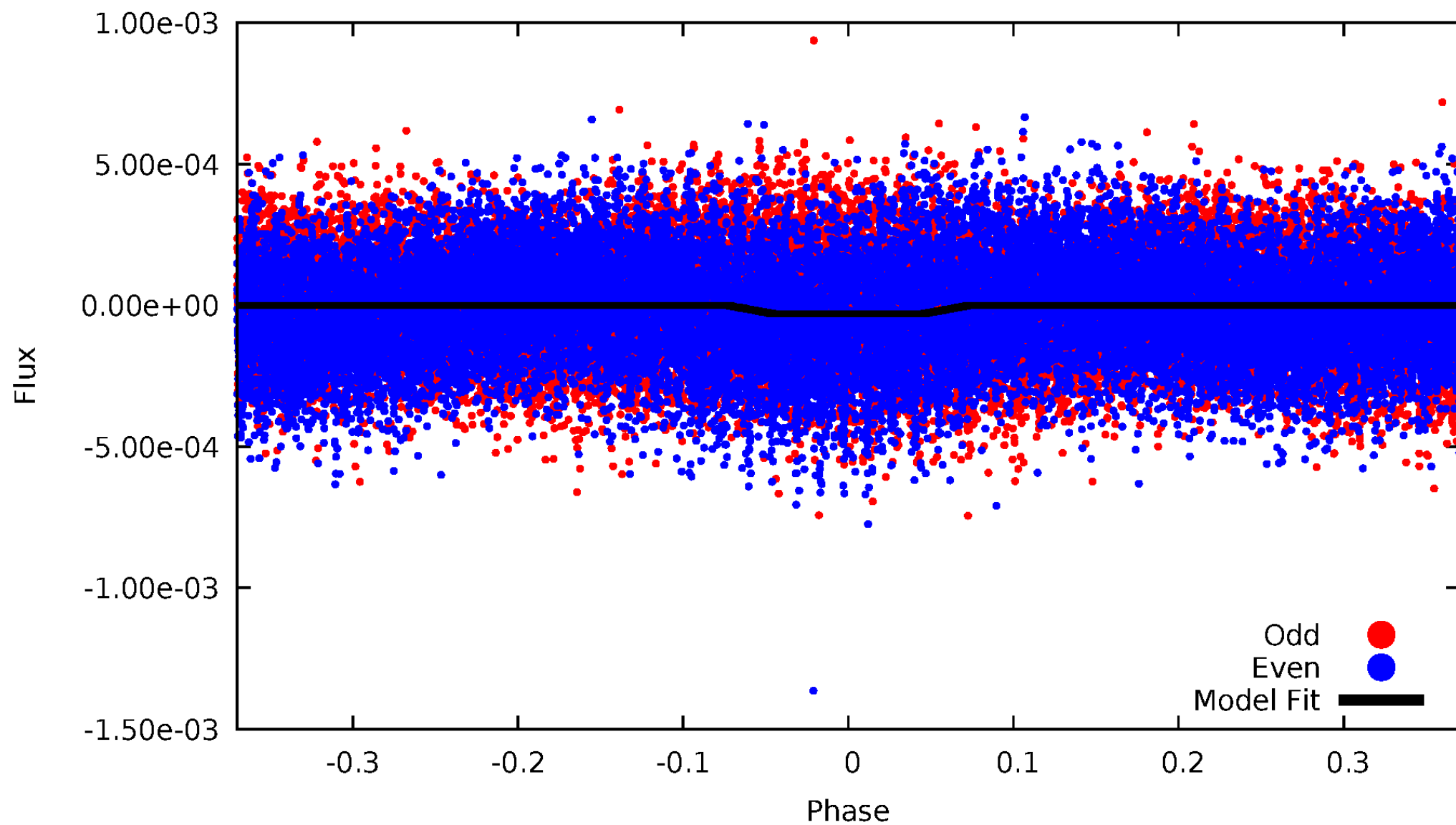
DV Odd/Even

TCE 006280902-01



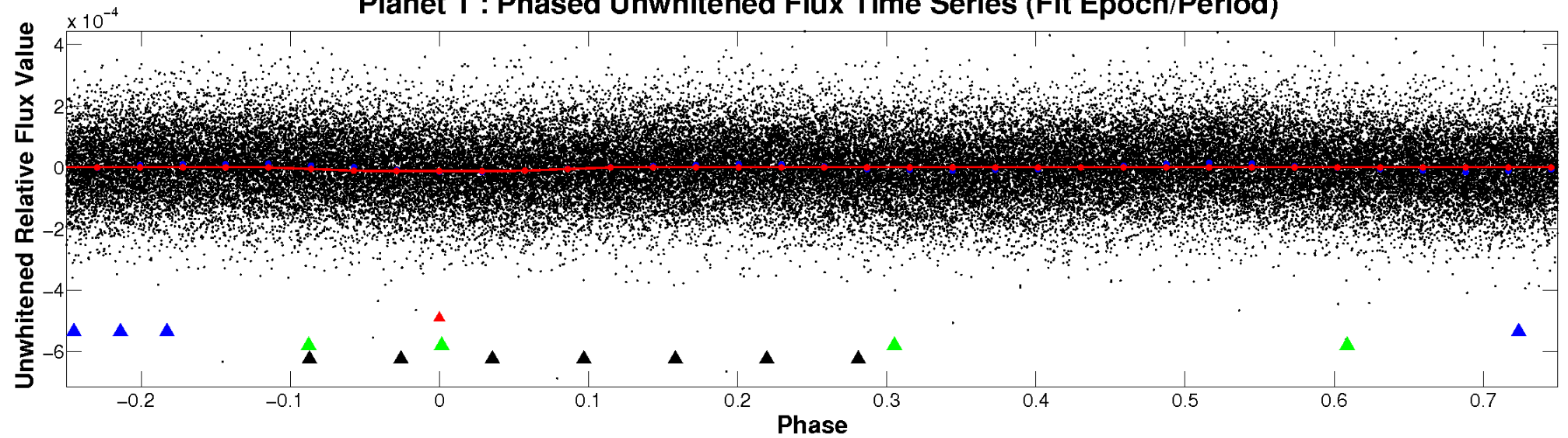
ALT Odd/Even

TCE 006280902-01

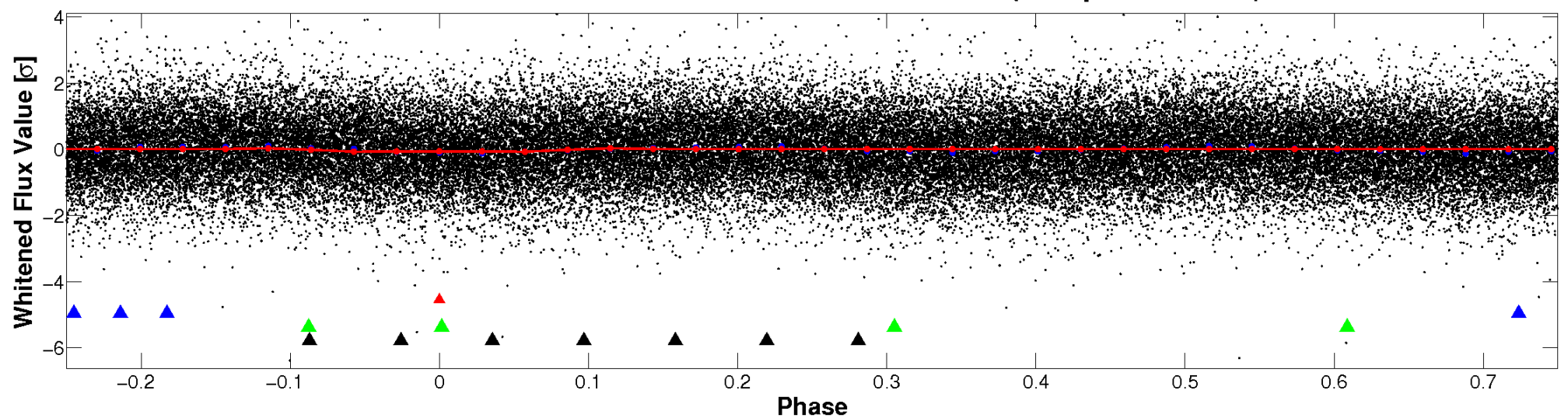


Non-Whitened Vs. Whitened Light Curve

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

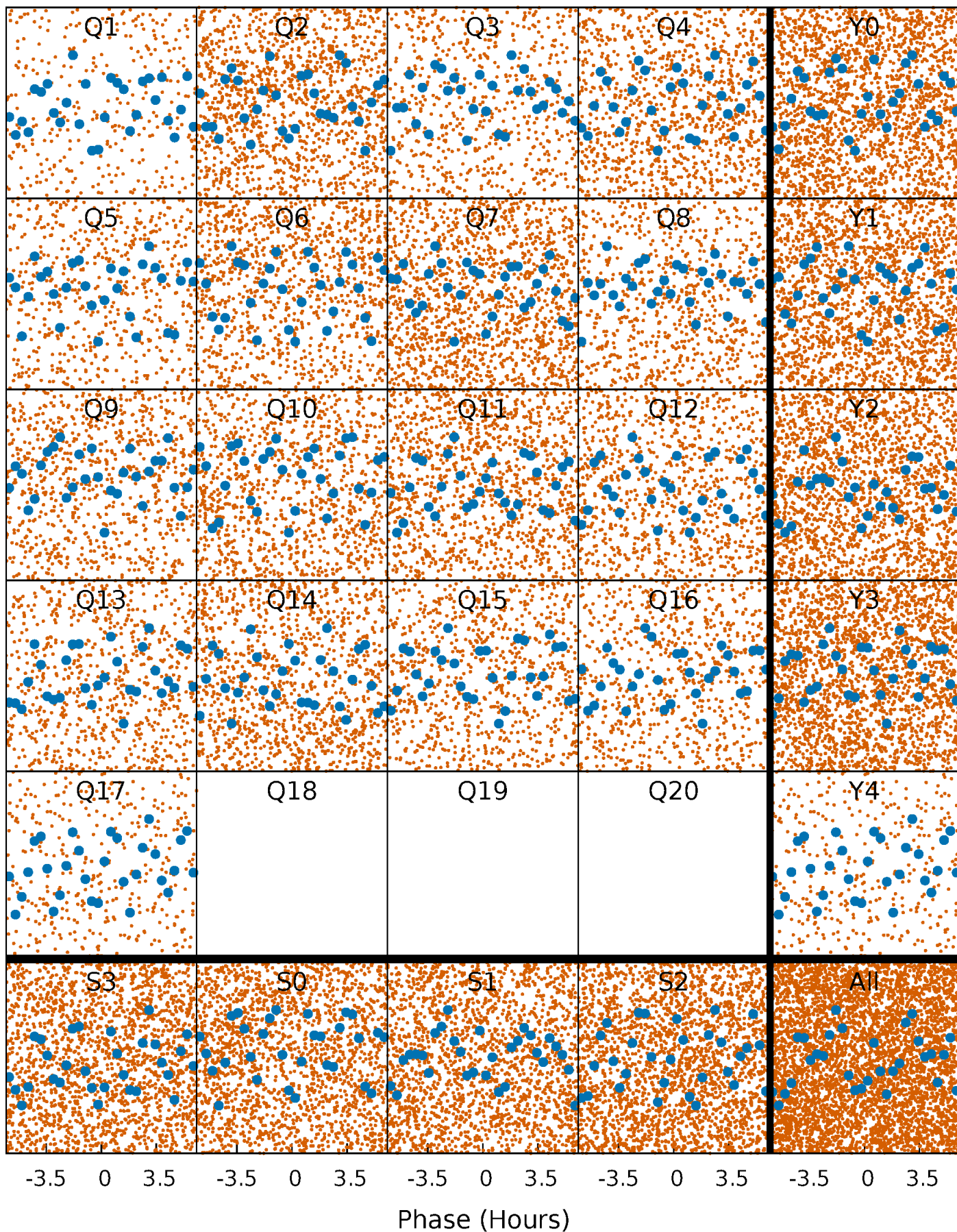


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



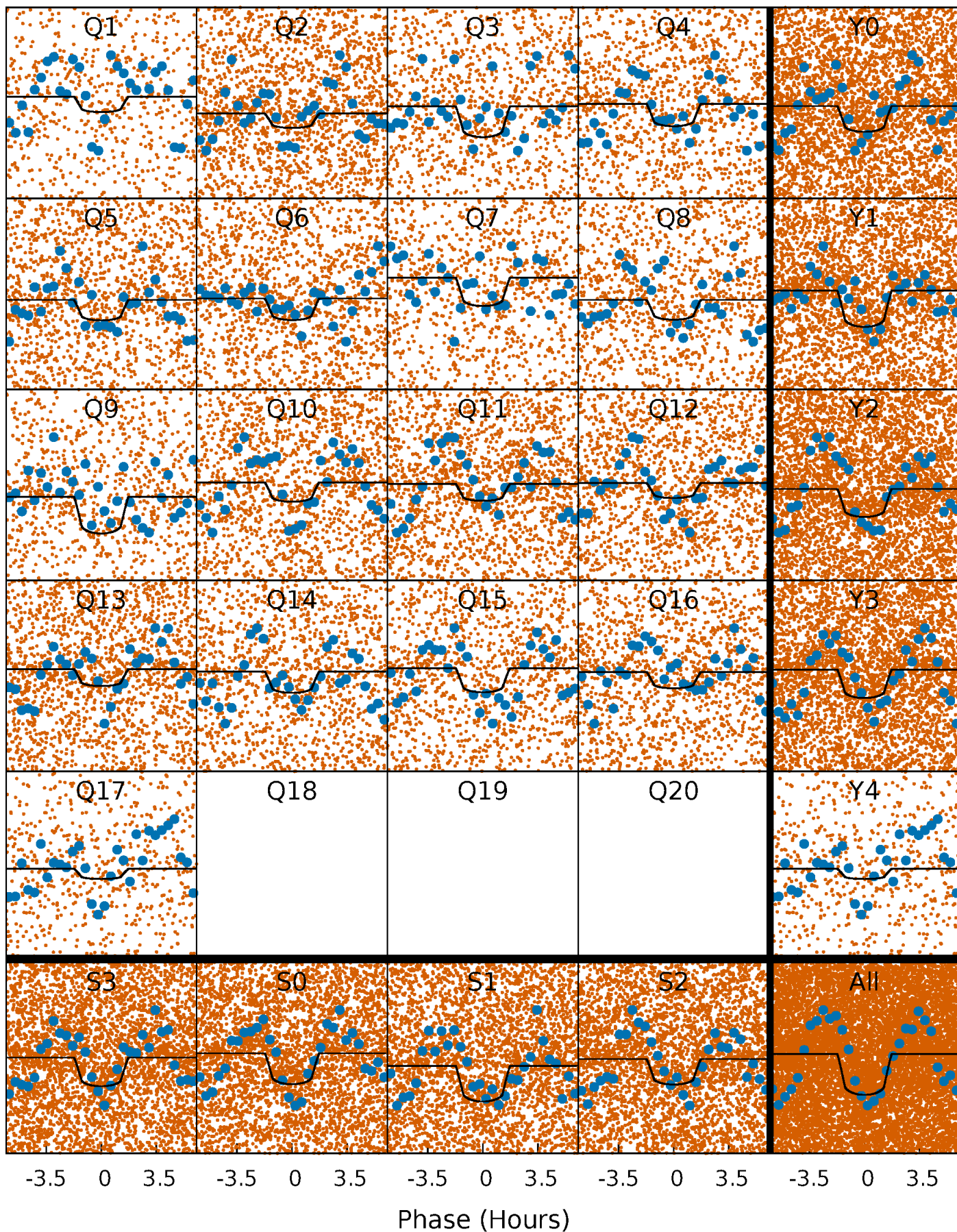
PDC Quarter-Phased Transit Curves

TCE 006280902-01 P= 0.712605 Days $T_0=131.724439$ (BKJD)



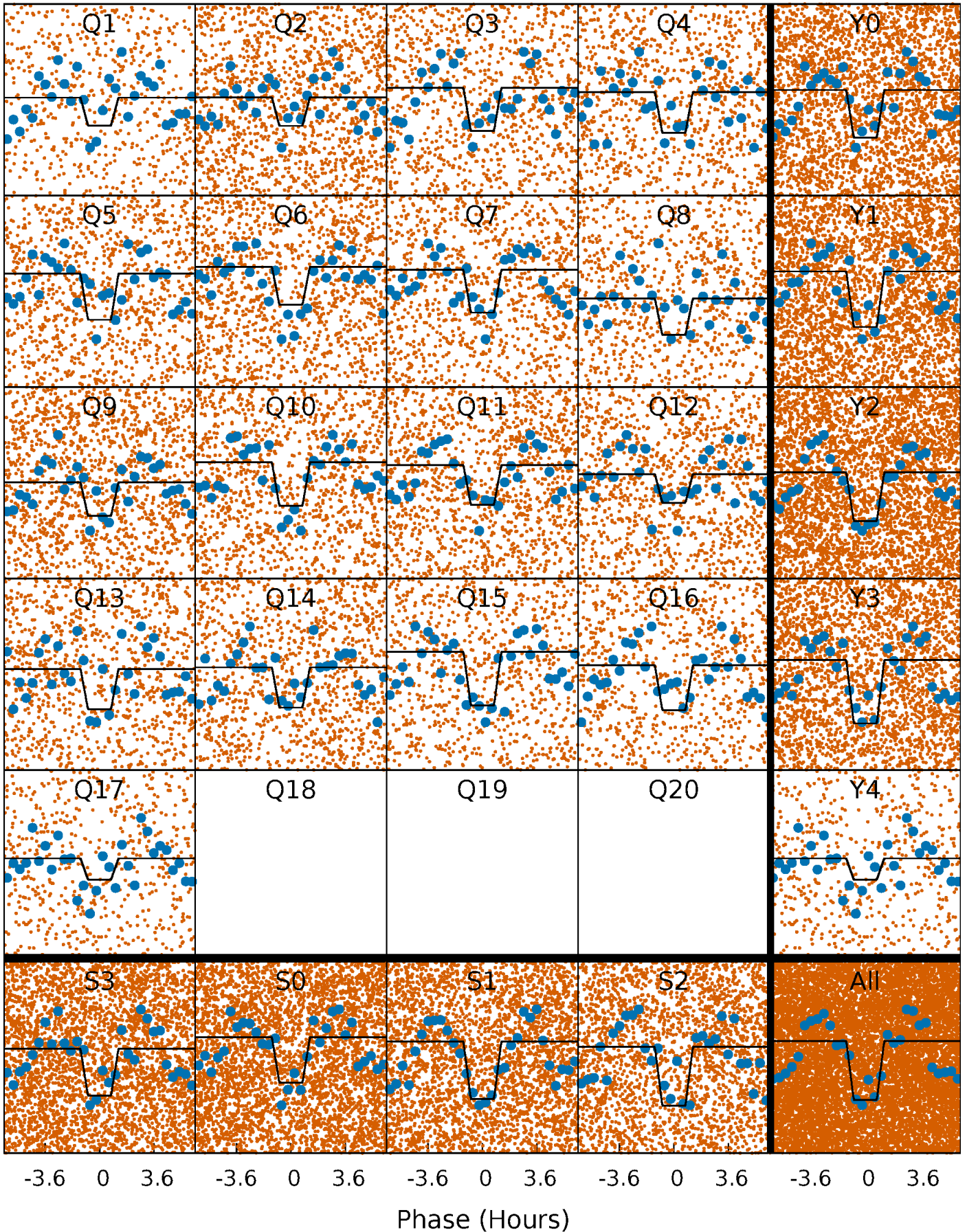
DV Quarter-Phased Transit Curves

TCE 006280902-01 P= 0.712605 Days $T_0=131.724439$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

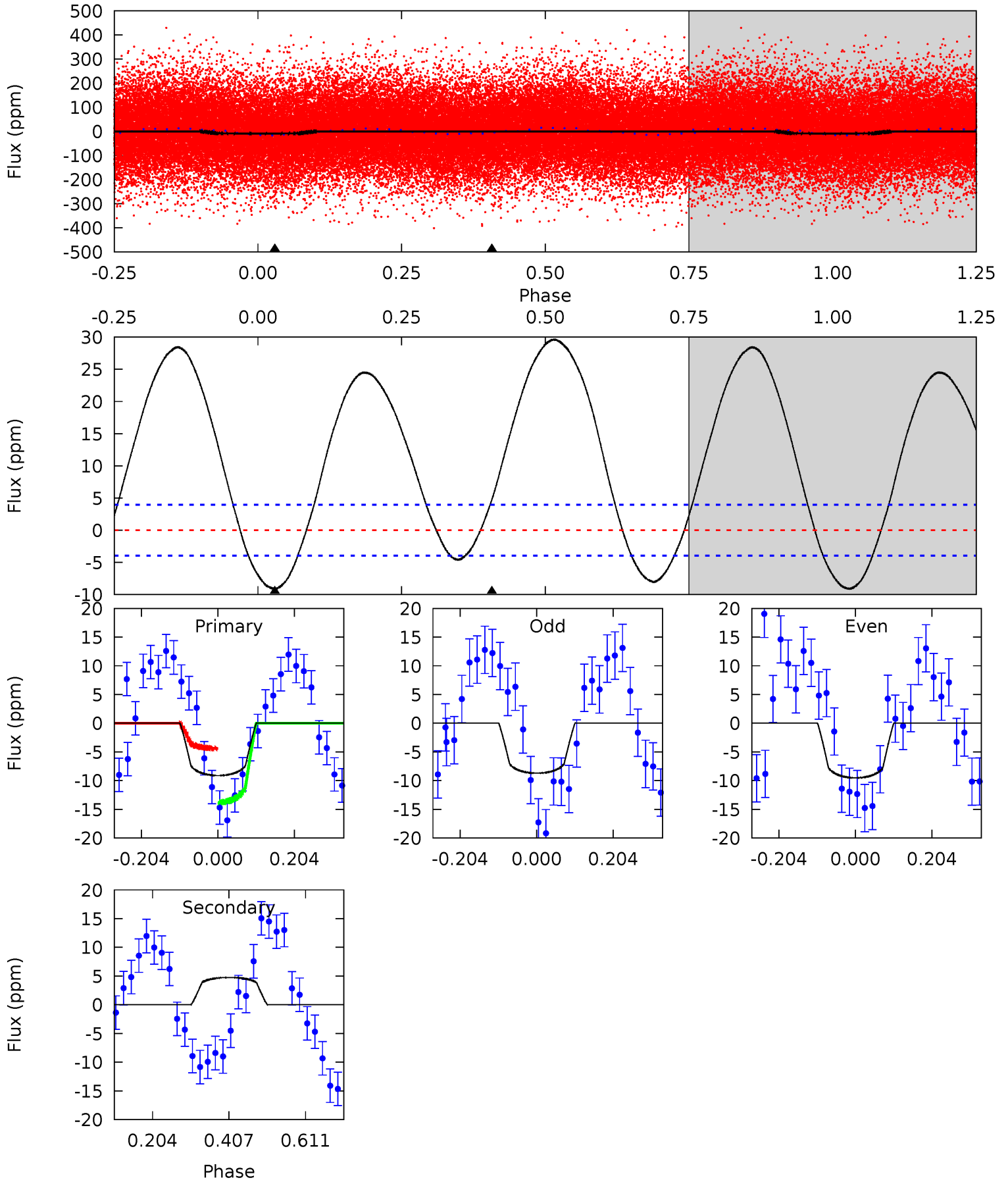
TCE 006280902-01 P= 0.712621 Days $T_0=131.723371$ (BKJD)



DV Model-Shift Uniqueness Test

006280902-01, P = 0.712605 Days, E = 131.011834 Days

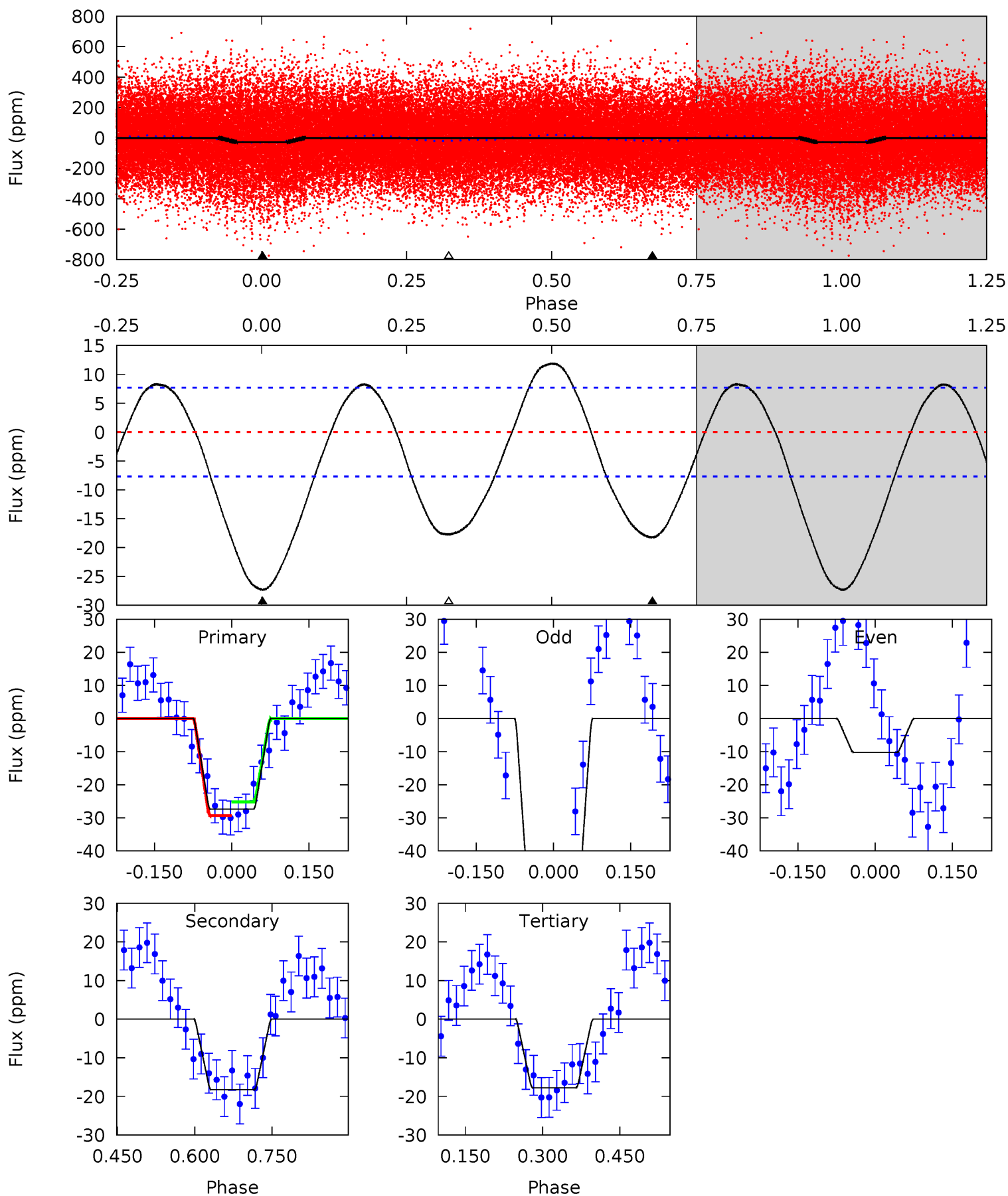
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	-5.32	0	0	4.41	1.27	11.1	10.2	10.2	-5.32	-5.32	0.45	0.88	0.76	5.23



Alt Model-Shift Uniqueness Test

006280902-01, P = 0.712621 Days, E = 131.010750 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	10.6	10.3	0	4.48	1.44	6.09	5.59	15.9	0.29	10.6	15.3	1.15	0.30	1.21



Stellar Parameters For KIC 006280902

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7306^{+228}_{-330}	$4.086^{+0.175}_{-0.175}$	$-0.100^{+0.250}_{-0.350}$	$1.864^{+0.547}_{-0.448}$	$1.542^{+0.211}_{-0.281}$	$0.336^{+0.312}_{-0.160}$
	+3%/-5%	+4%/-4%	+250%/-350%	+29%/-24%	+14%/-18%	+93%/-48%
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 006280902-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	5 ± 1	$0.74^{+0.23}_{-0.20}$	4544^{+375}_{-341}	-5786^{+526}_{-793}	$-1.471^{+0.644}_{-1.403}$
Alt.	-18 ± 2	$1.13^{+0.27}_{-0.23}$	4559^{+361}_{-309}	6067^{+749}_{-512}	$2.494^{+1.428}_{-0.810}$

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

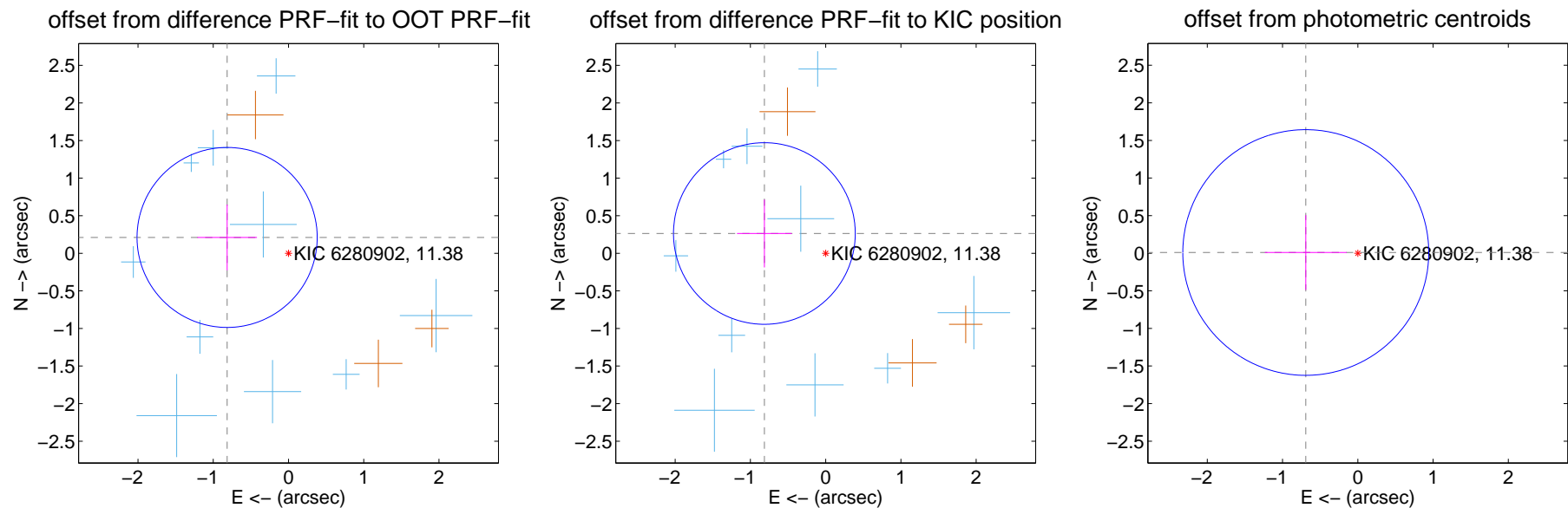
DV Centroid Data

Supplemental centroid analysis for 006280902-01. **Kepler magnitude: 11.38.** Transit SNR 6.88

There are 10 quarters with good PRF difference image offsets

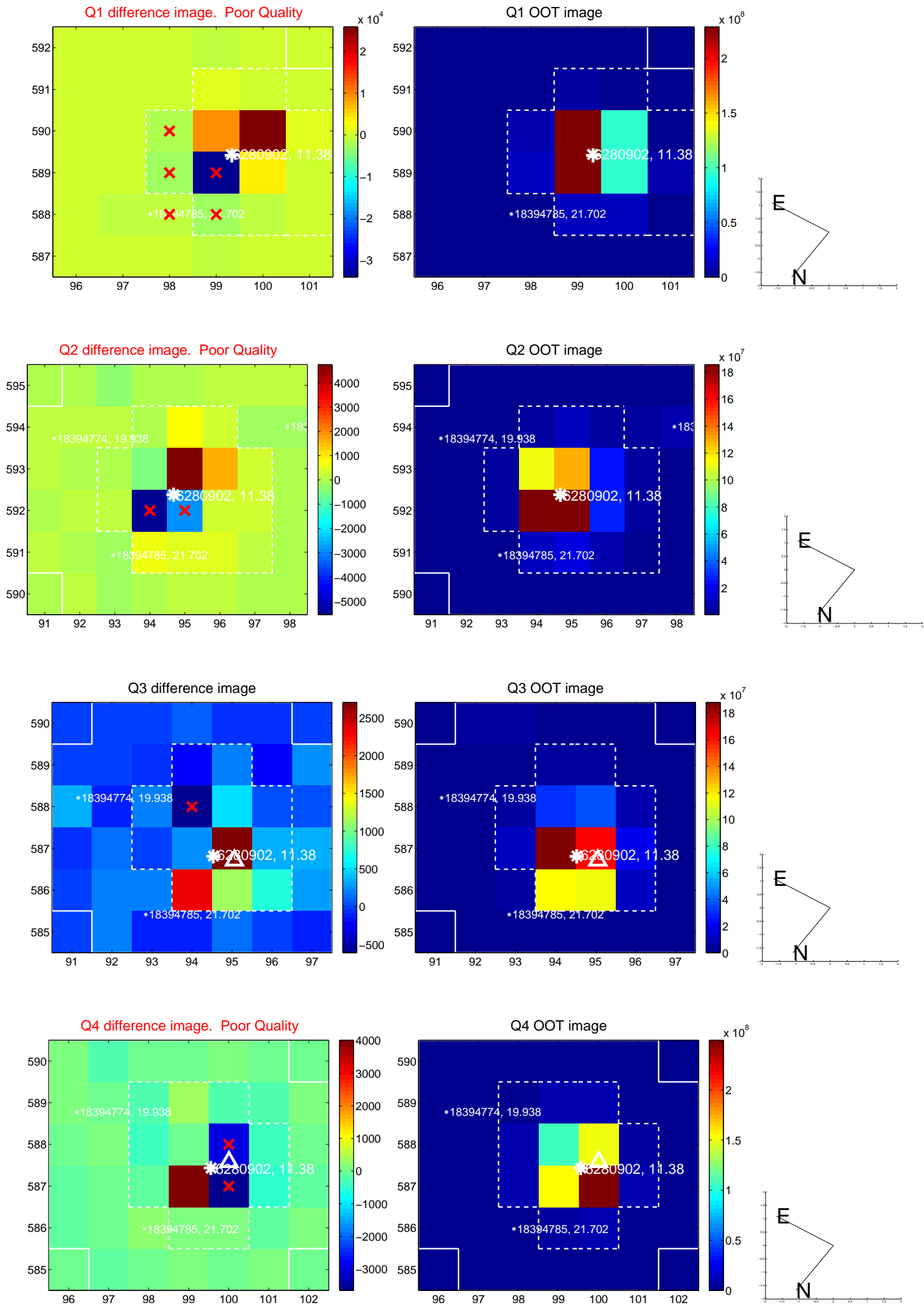
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.843 ± 0.399	2.11	0.816 ± 0.396	0.211 ± 0.437
PRF-fit source offset from KIC position	0.856 ± 0.403	2.13	0.815 ± 0.364	0.263 ± 0.451
photometric centroid source offset	0.69 ± 0.54	1.27	0.69 ± 0.54	0.01 ± 0.50

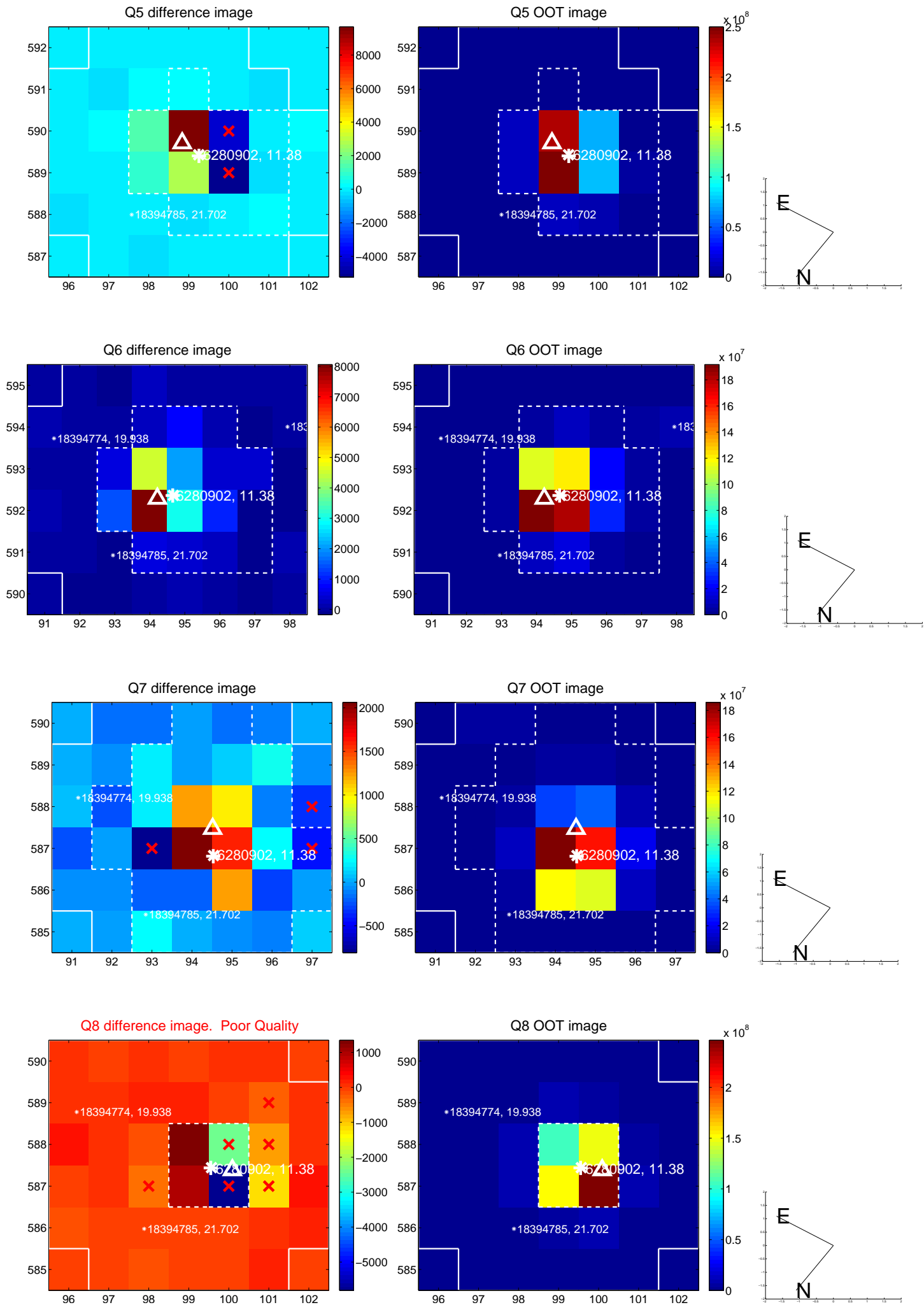


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

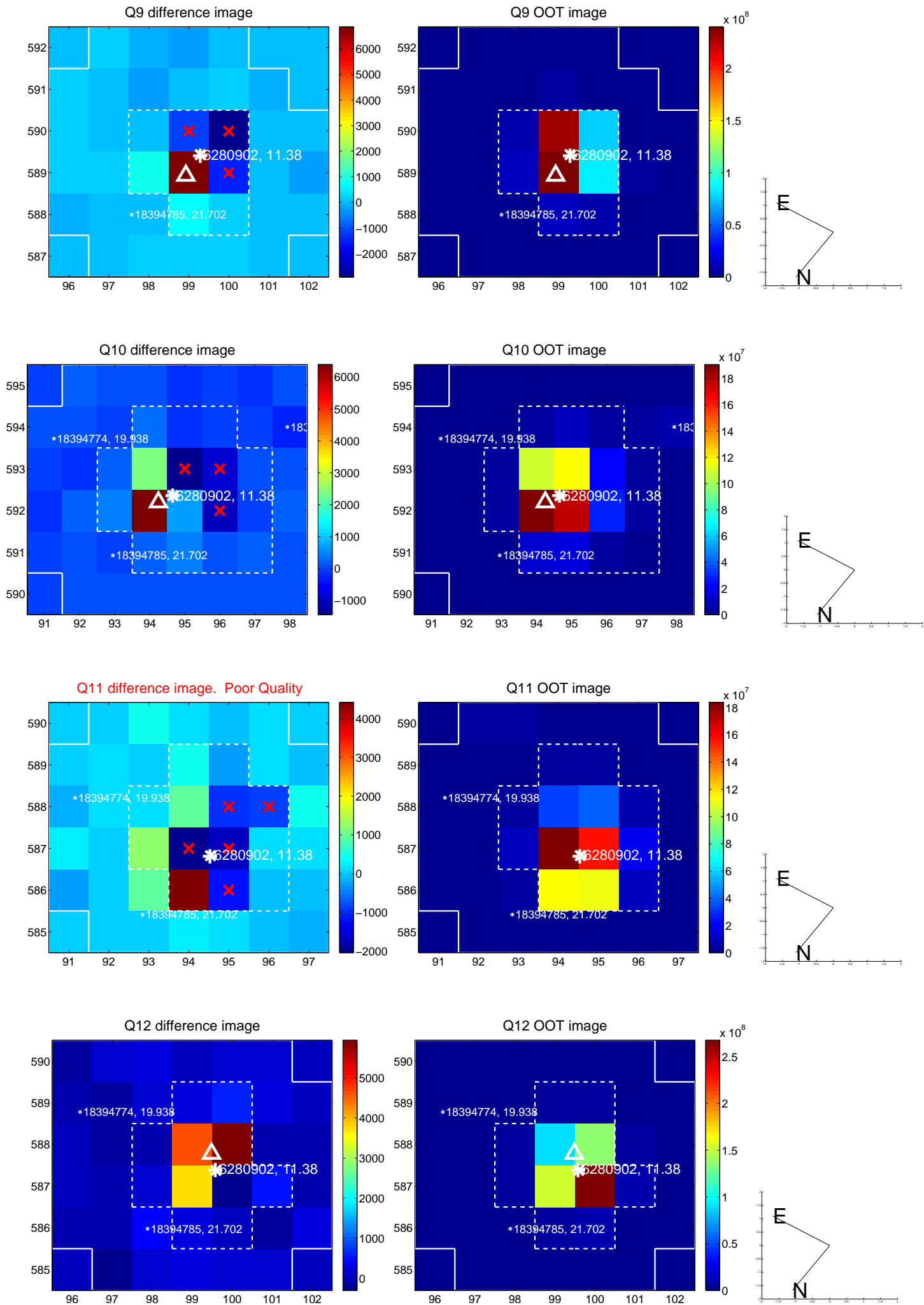
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



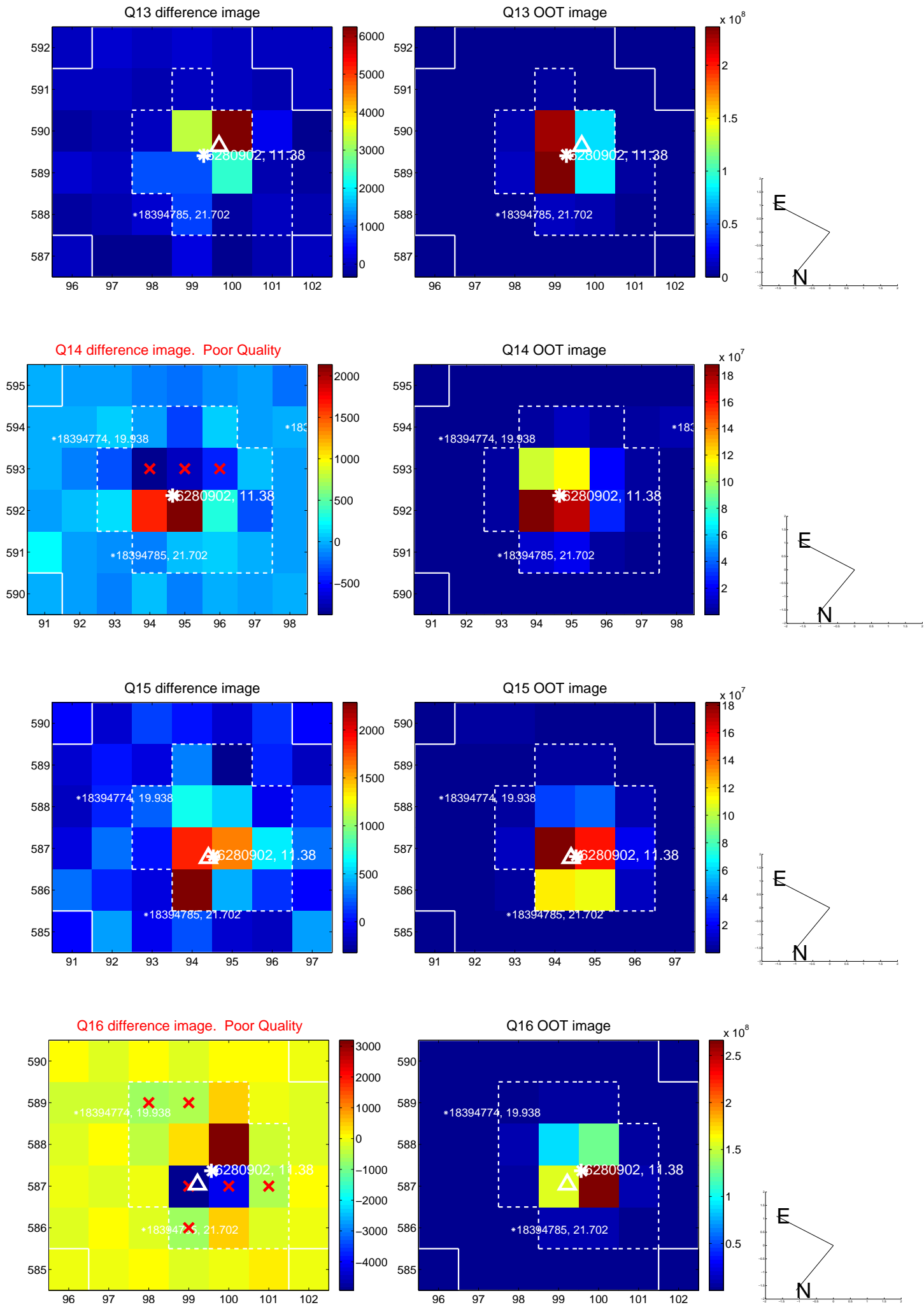
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



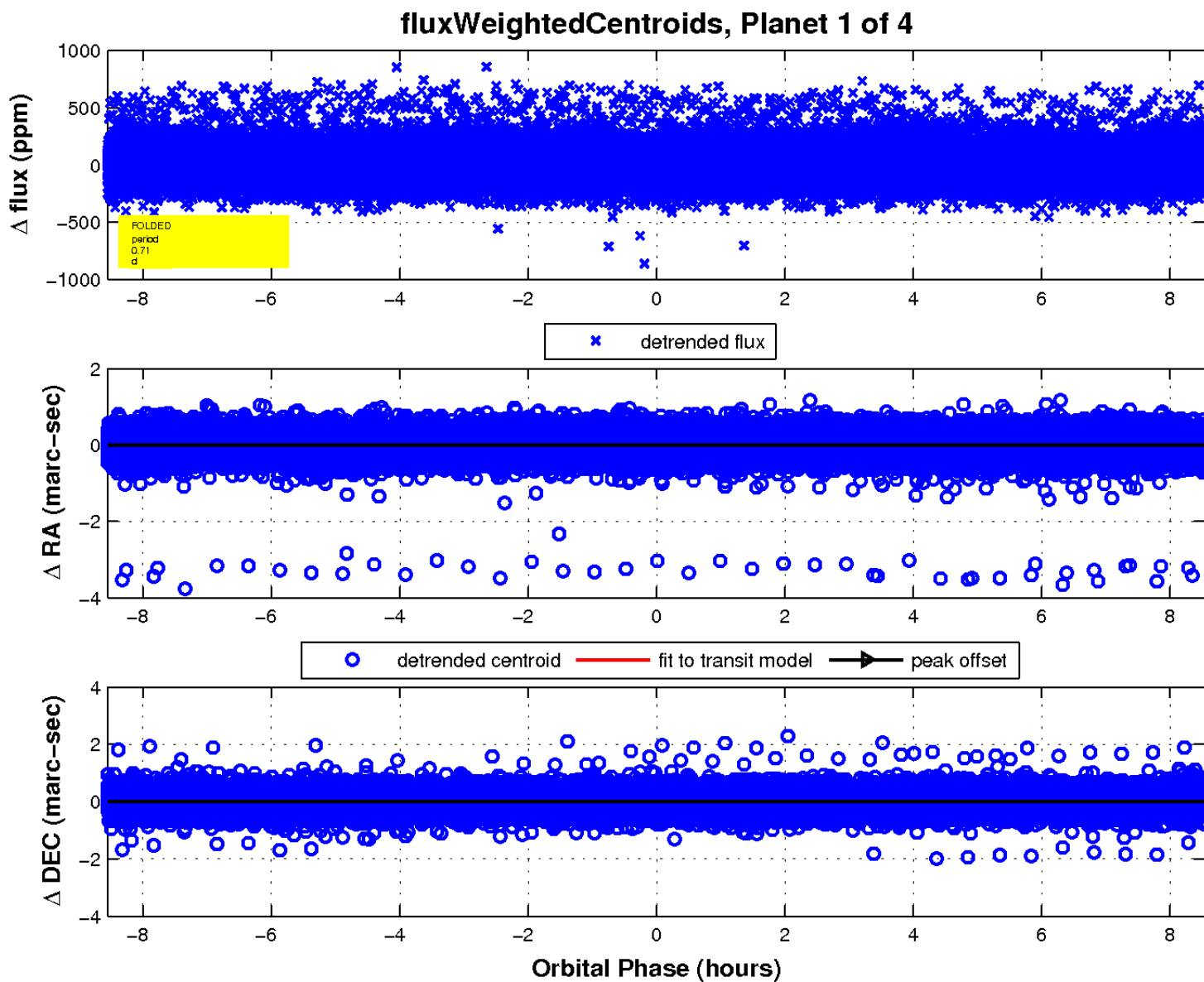
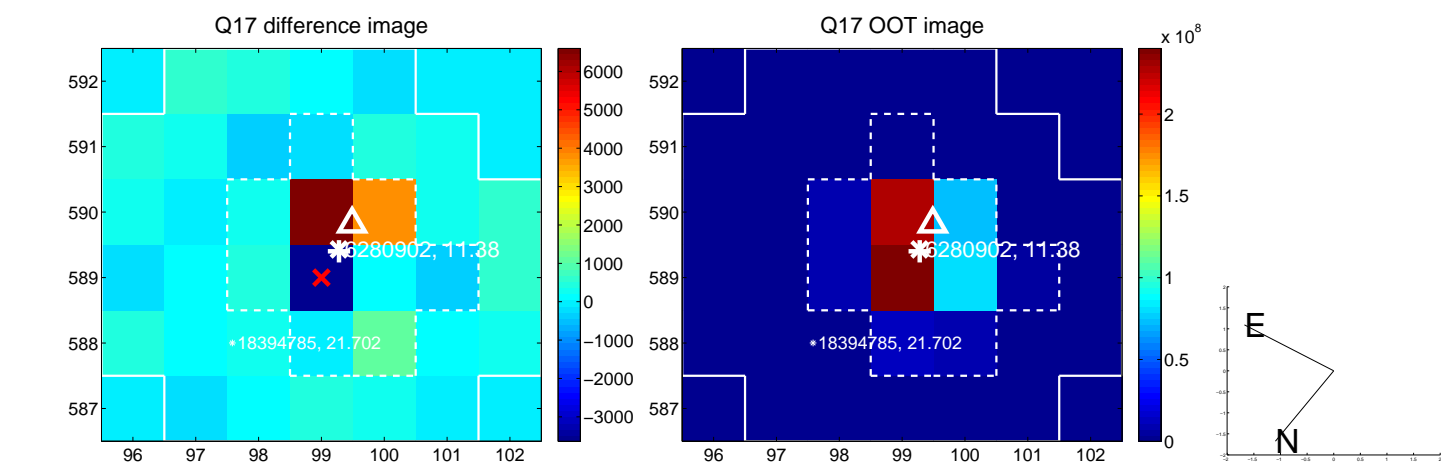
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

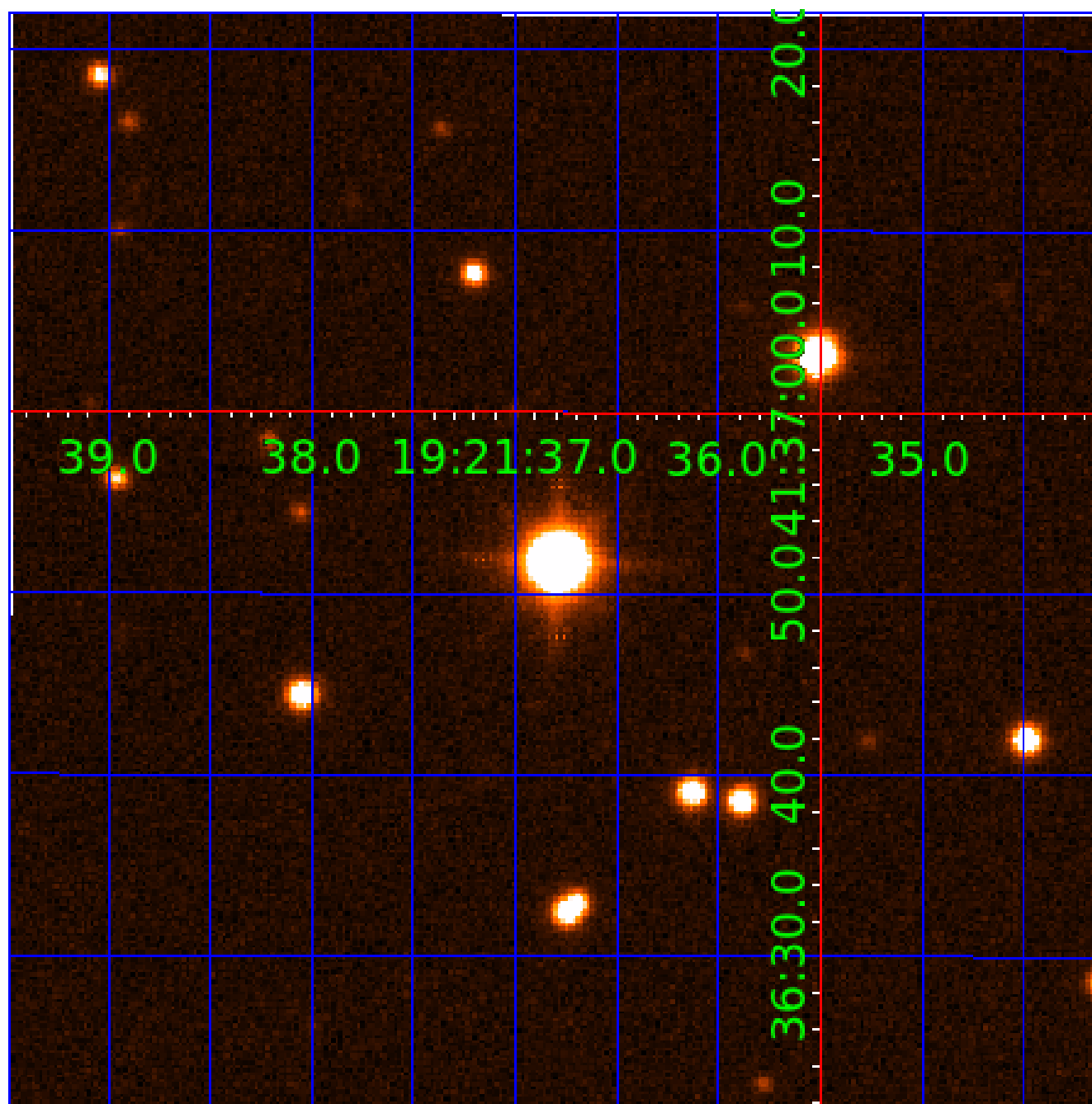


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006280902

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})
006280902-01	OBS	No	0.712605	131.724439	11.8	3.038	7.9	6.9	1.86	7306	0.74	27213.11
006280902-02	OBS	No	369.864379	288.300762	539.3	25.194	8.0	7.1	1.86	7306	5.31	6.52
006280902-04	OBS	No	203.048803	275.158293	639.0	54.153	8.5	7.4	1.86	7306	8.85	14.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006280902-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006280902-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED—HALO_GHOST
006280902-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED

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

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

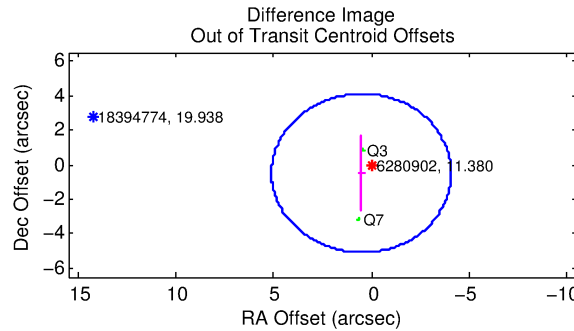
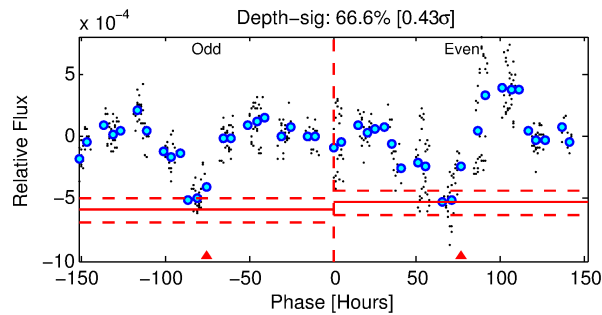
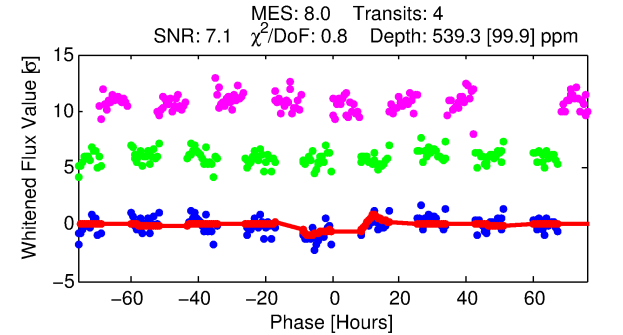
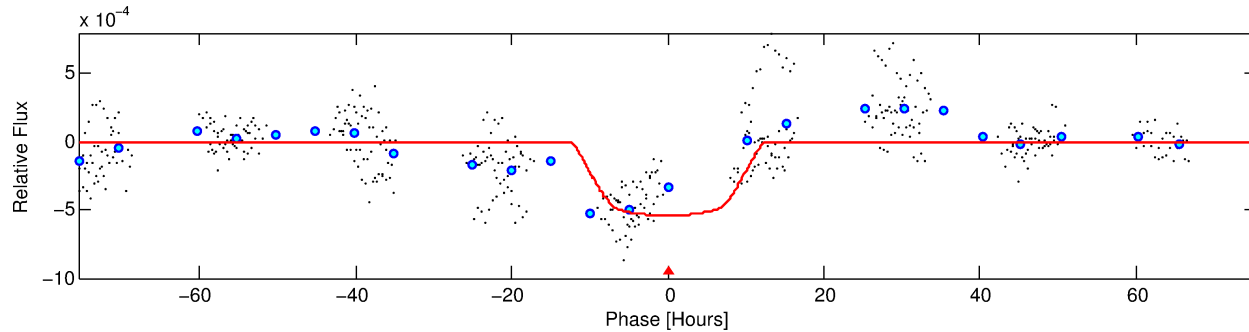
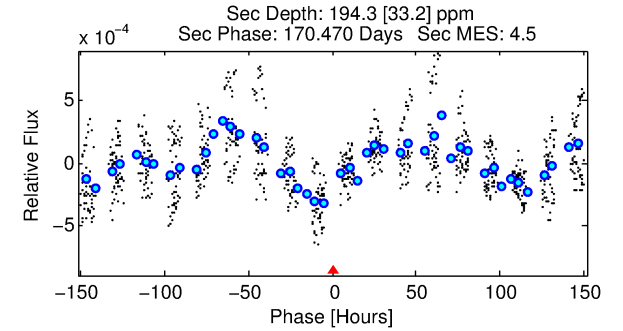
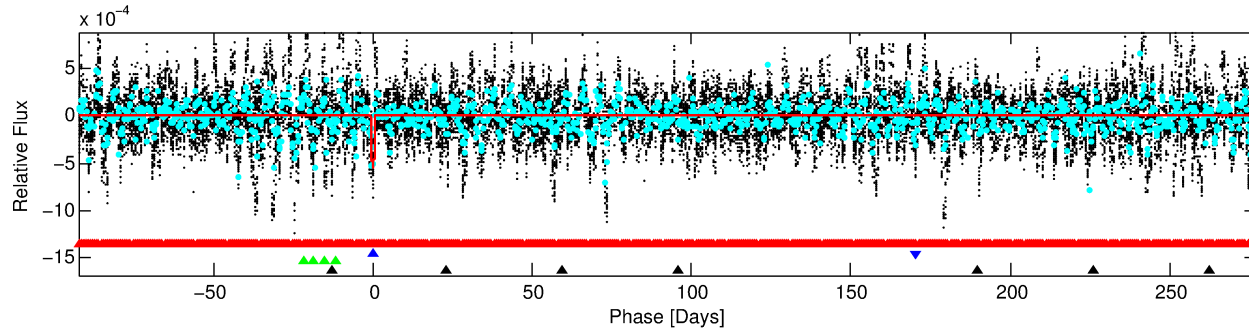
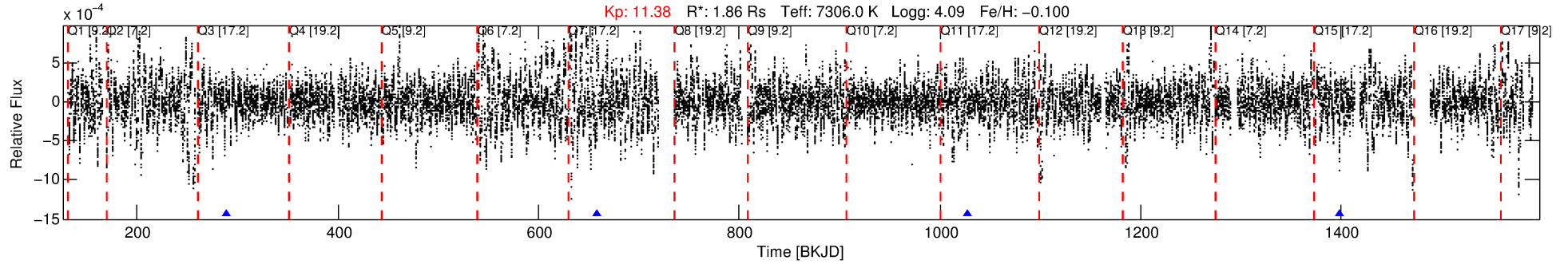
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006280902-02

No Significant Match Found

DV One-Page Summary

KIC: 6280902 Candidate: 2 of 4 Period: 369.864 d



DV Fit Results:

Period = 369.86438 [0.01425] d
Epoch = 288.3008 [0.0420] BKJD
 R_p/R^* = 0.0261 [0.0027]
 a/R^* = 42.59 [6.77]
 b = 0.95 [0.01]
 S_{eff} = 6.52 [2.47]
 T_{eq} = 408 [39] K
 R_p = 5.31 [1.65] R_e
 a = 1.1660 [0.2767] AU
 A_g = 5156.78 [2205.28] [2.34σ]
 T_{eff} = 5339 [433] K [11.35σ]

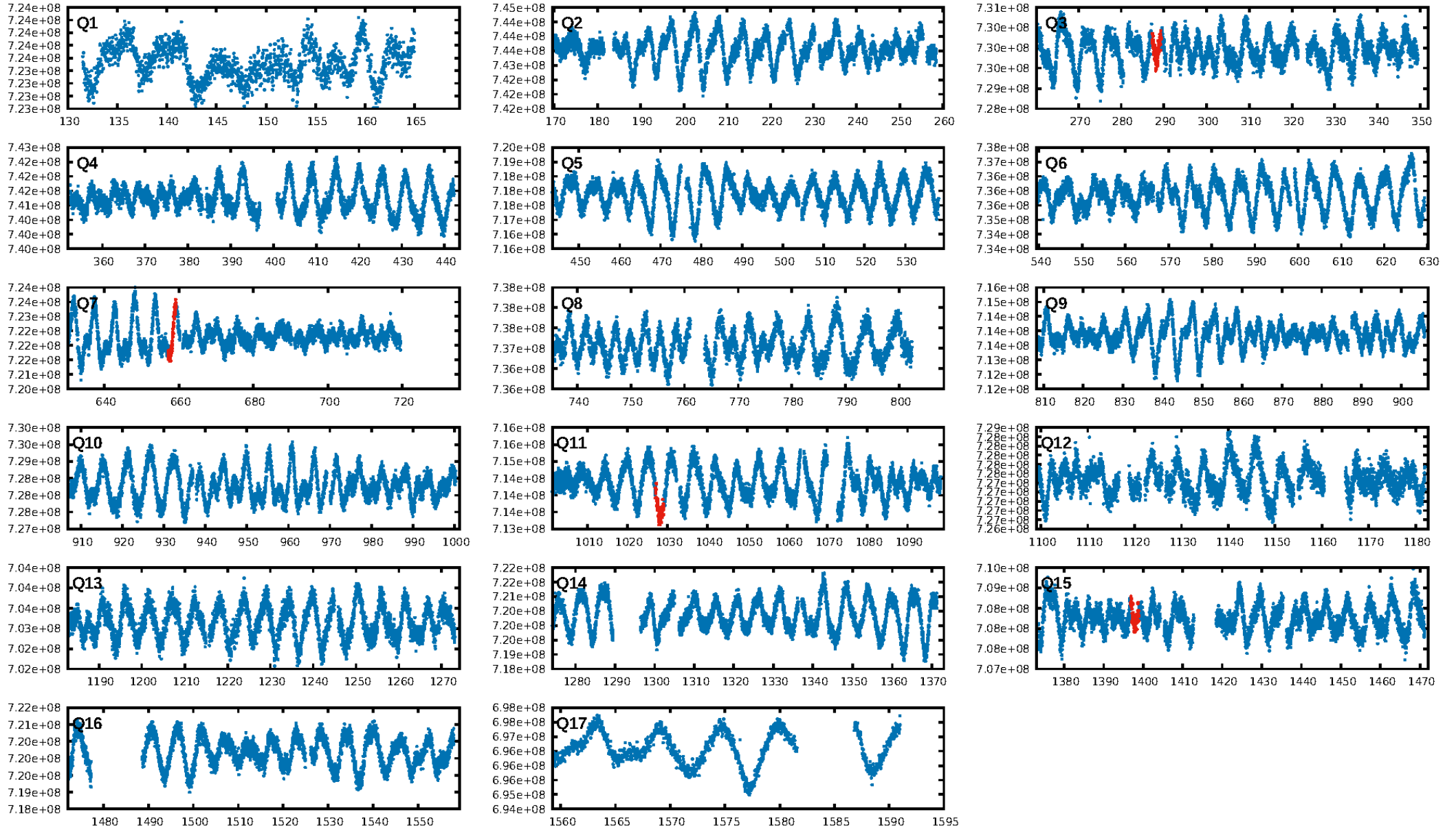
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [67.03σ]
LongPeriod-sig: 99.3% [2.71σ]
ModelChiSquare2-sig: 93.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.50e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.1744
Centroid-sig: 88.1%
Centroid-so: 0.058 arcsec [0.28σ]
OotOffset-rm: 0.713 arcsec [0.47σ]
OotOffset-st: 0.2/0/0 [2]
KicOffset-rm: 0.671 arcsec [0.47σ]
KicOffset-st: 0.2/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/2]

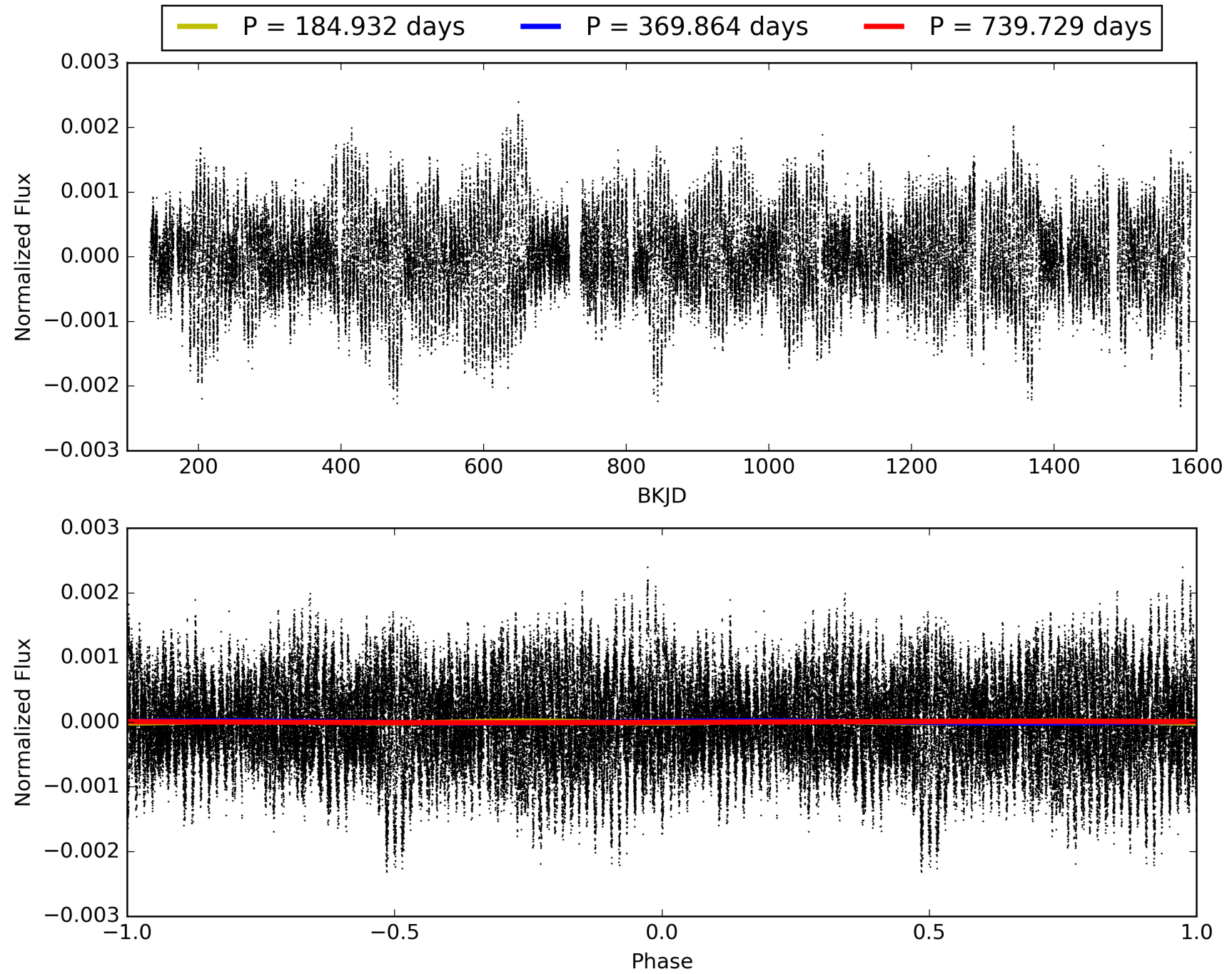
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:12:51 Z

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

TCE 006280902-02, PDC Light Curves

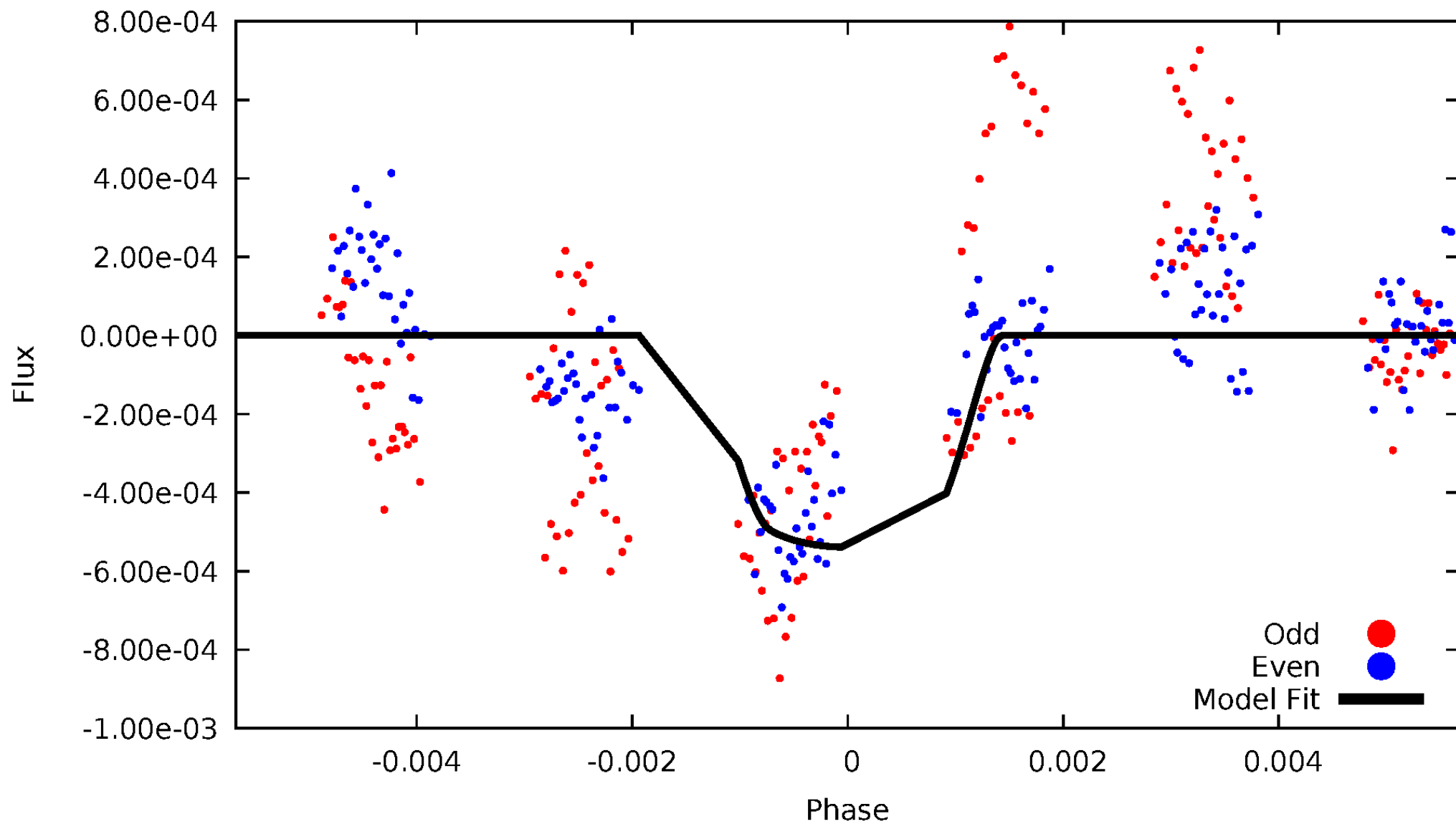


TCE 006280902-02



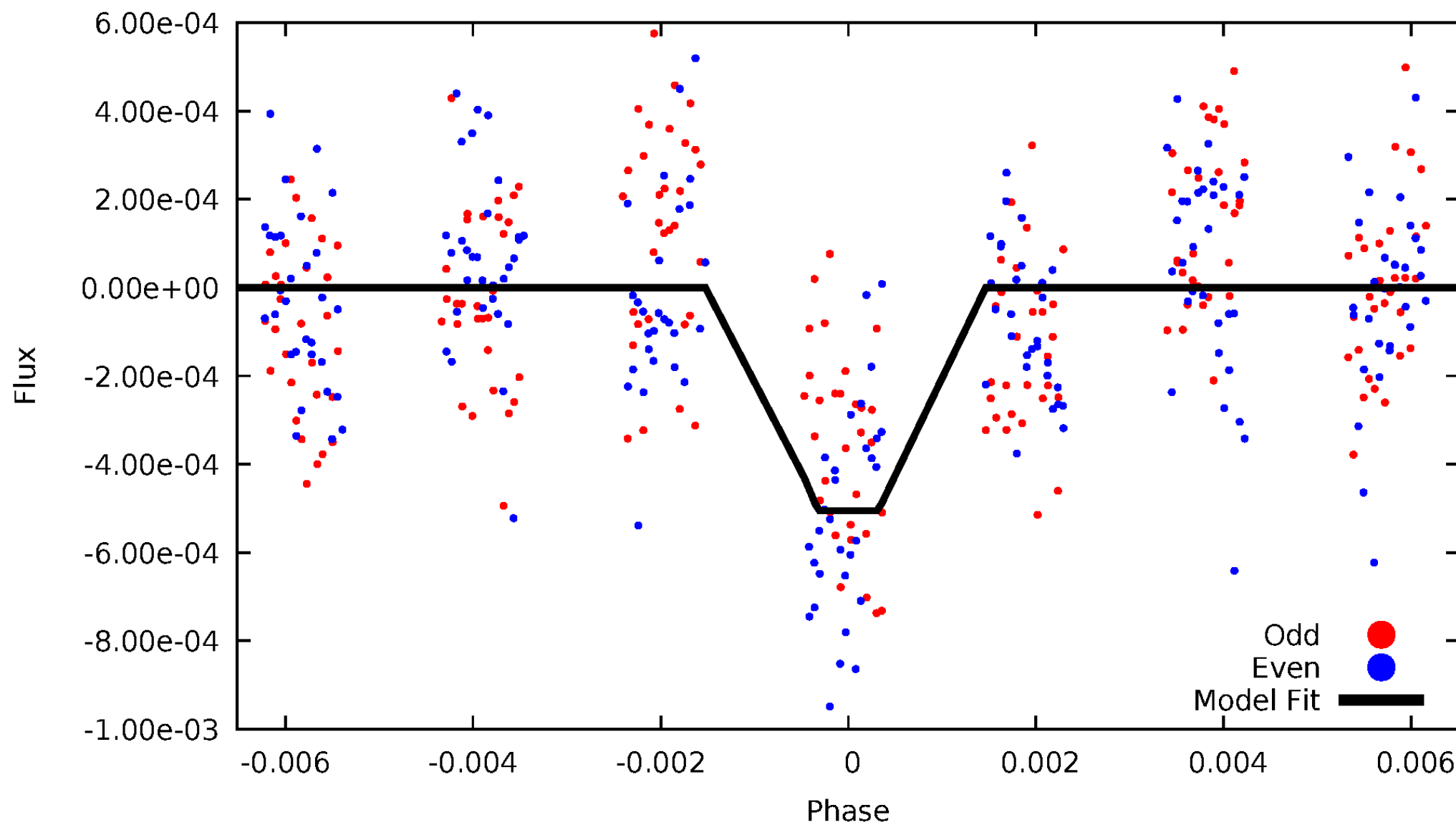
DV Odd/Even

TCE 006280902-02



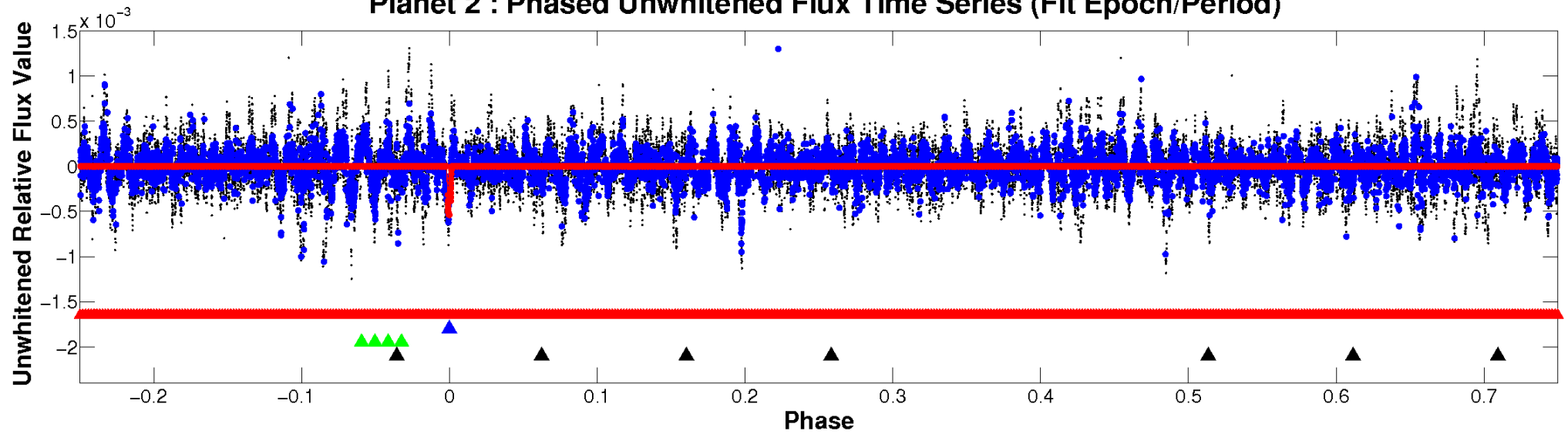
ALT Odd/Even

TCE 006280902-02

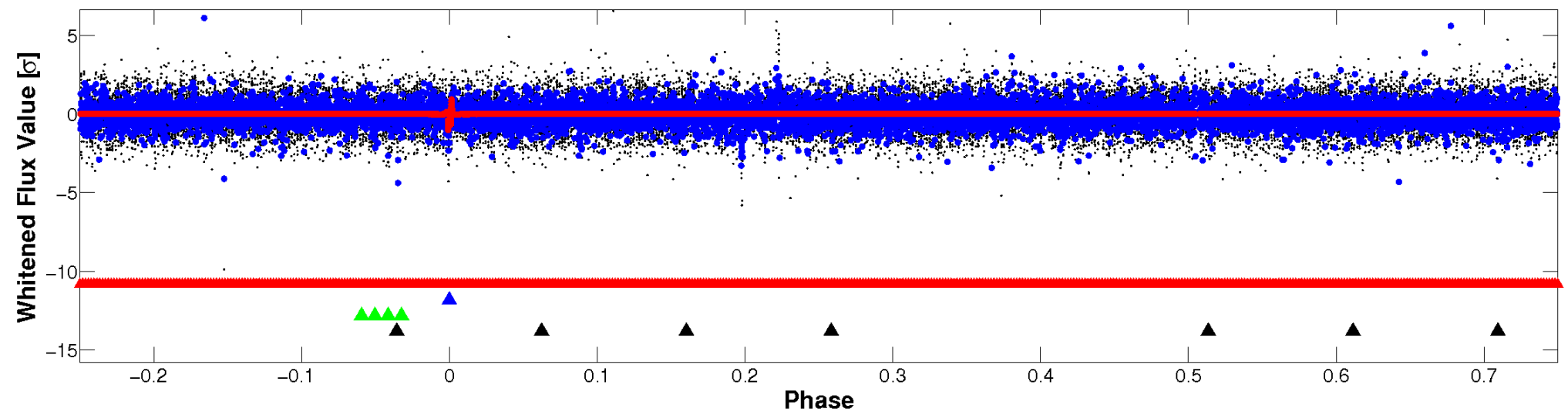


Non-Whitened Vs. Whitened Light Curve

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

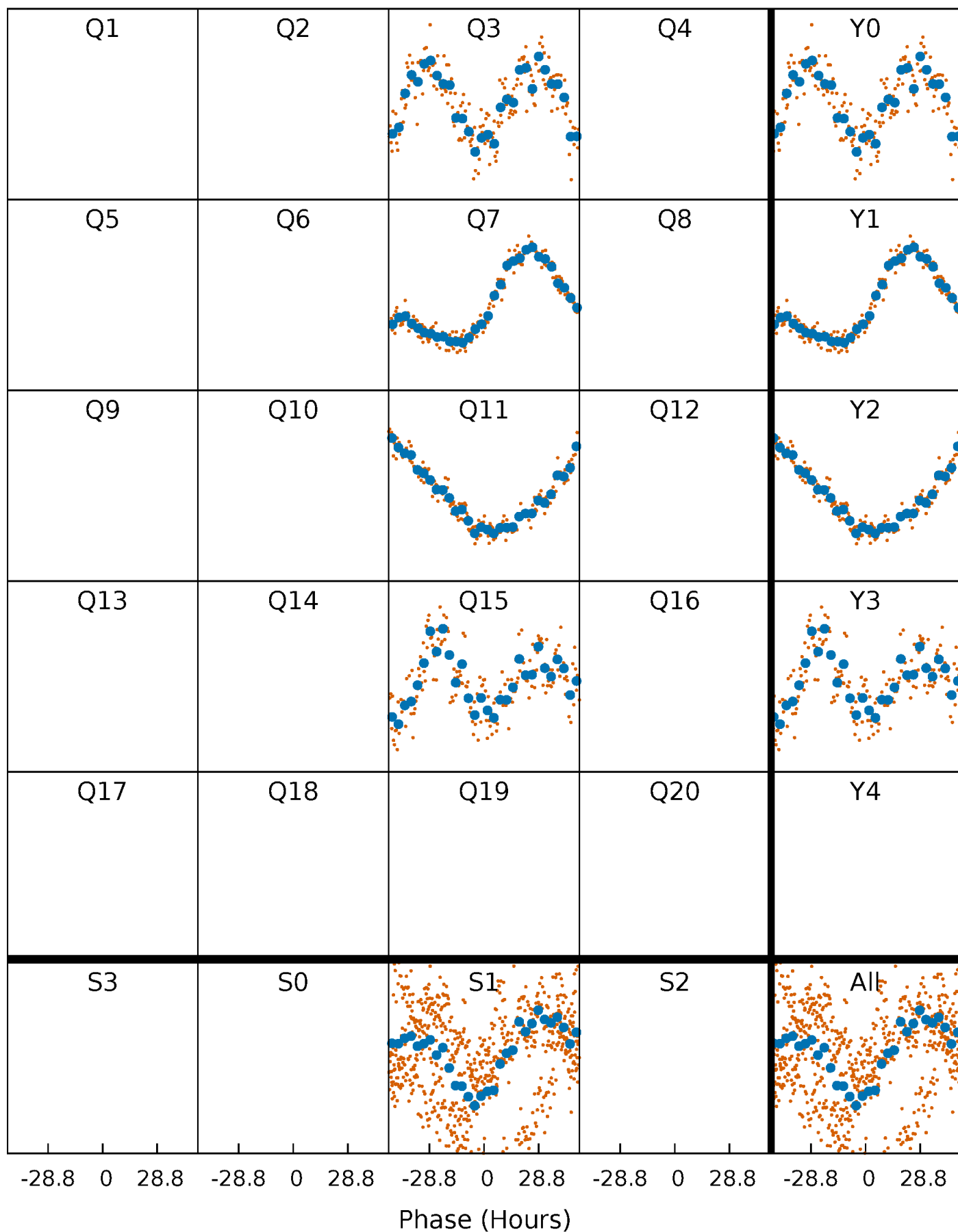


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



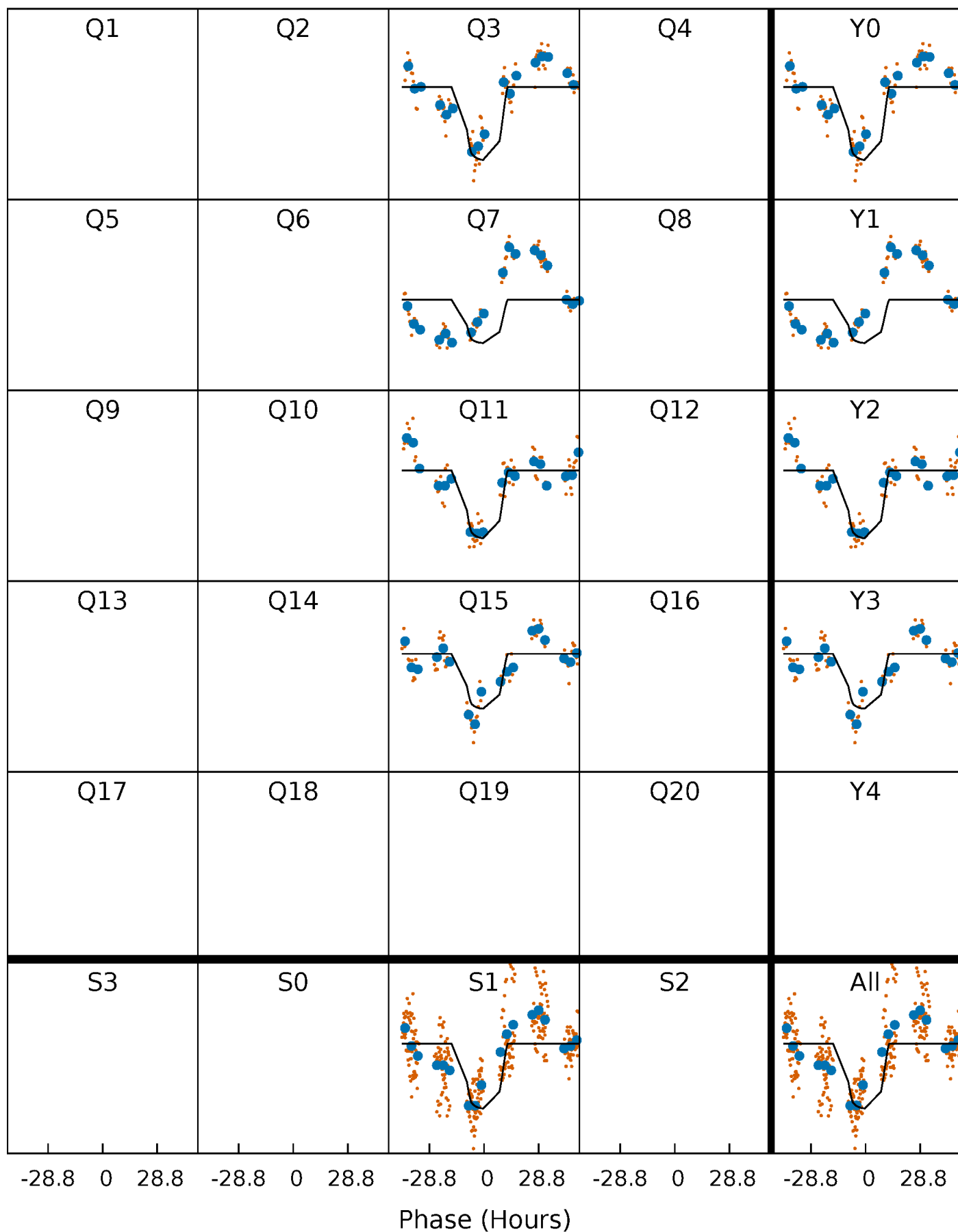
PDC Quarter-Phased Transit Curves

TCE 006280902-02 $P=369.864379$ Days $T_0=288.300762$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006280902-02 $P=369.864379$ Days $T_0=288.300762$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

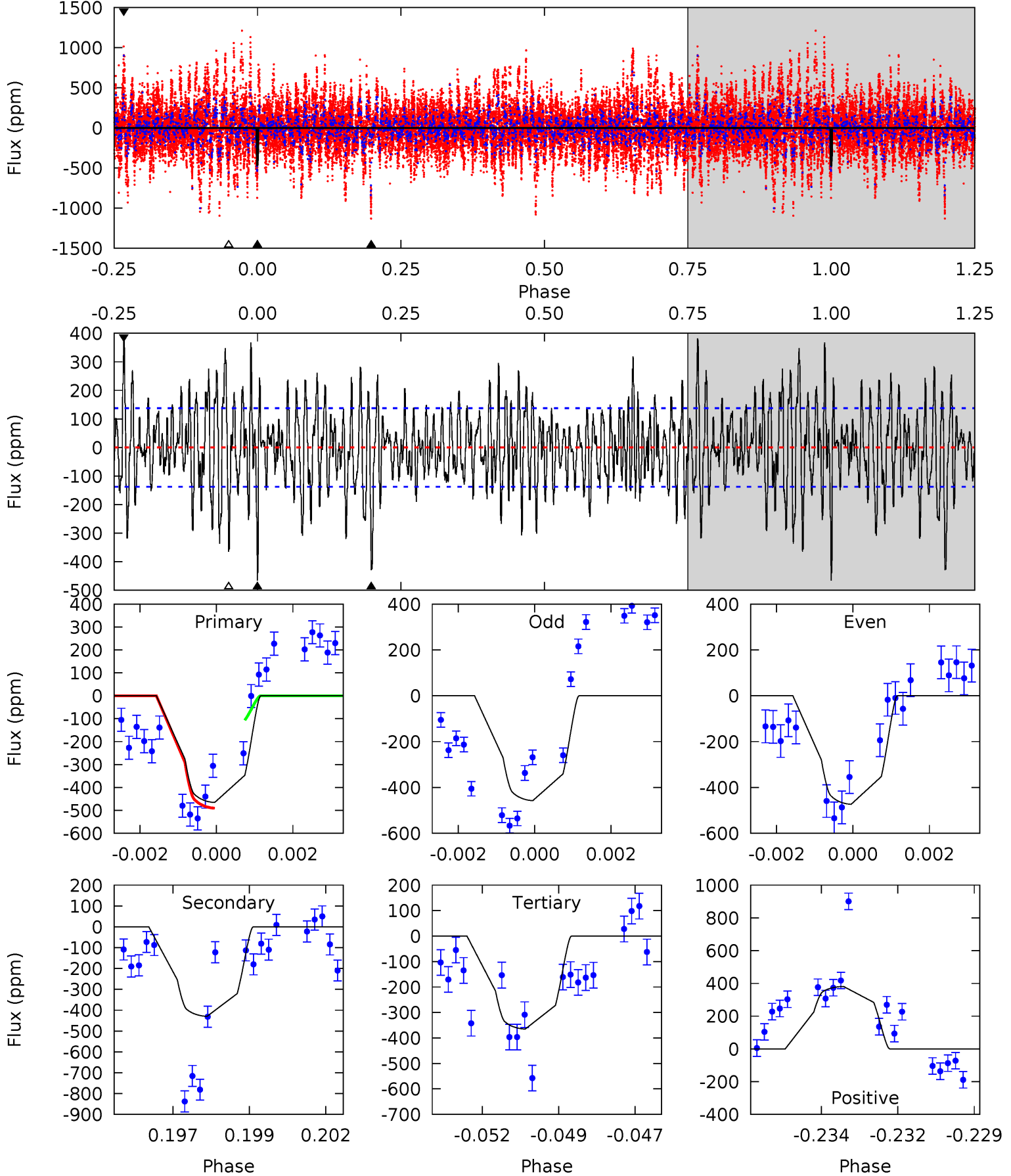
TCE 006280902-02 $P=369.847436$ Days $T_0=288.148066$ (BKJD)



DV Model-Shift Uniqueness Test

006280902-02, P = 369.864379 Days, E = 288.300762 Days

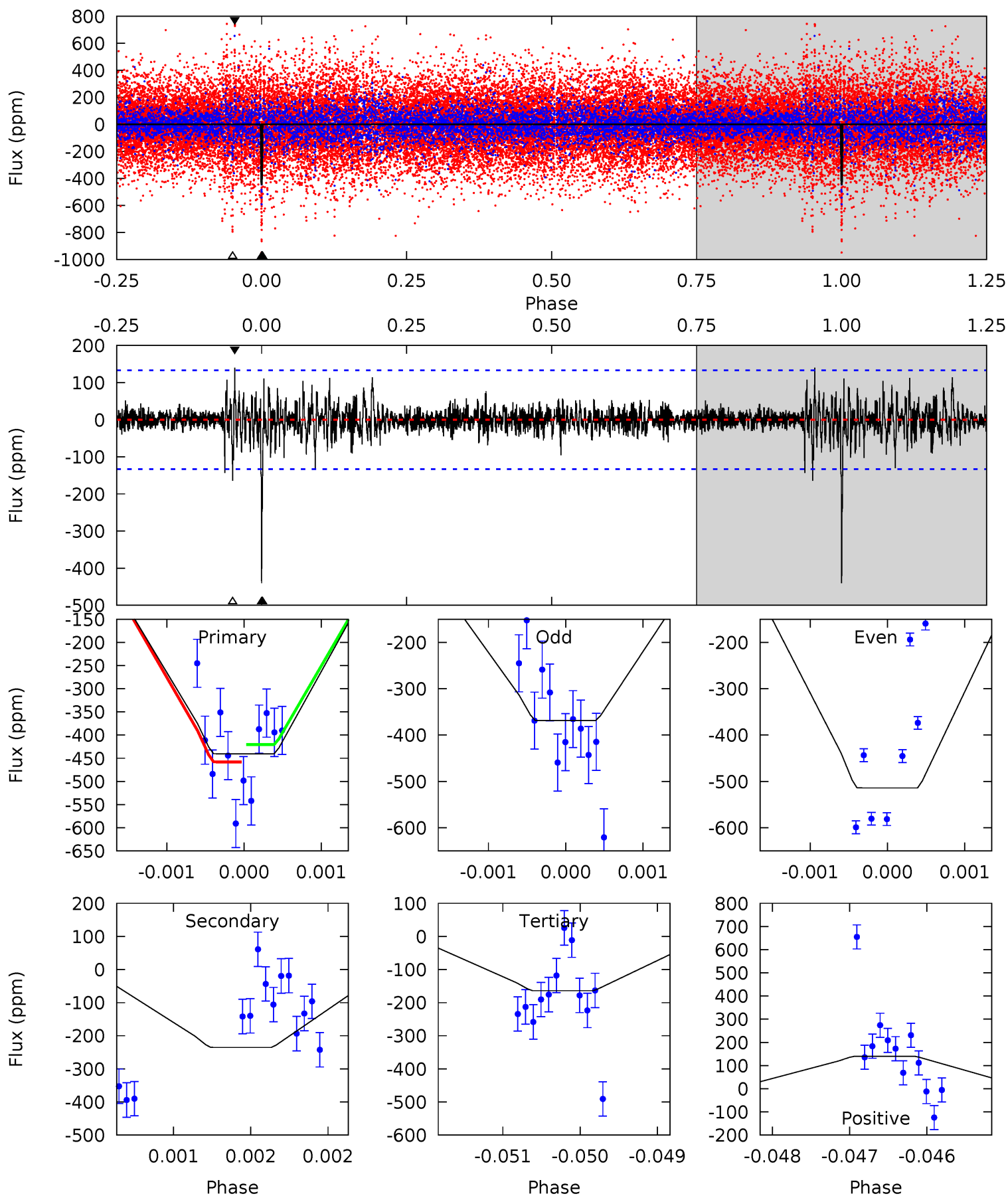
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	16.5	14.0	14.7	5.29	3.03	4.60	3.87	3.24	2.49	1.86	0.30	0.98	0.45	7.20



Alt Model-Shift Uniqueness Test

006280902-02, P = 369.847436 Days, E = 288.148066 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	9.71	6.76	5.77	5.50	3.36	1.09	11.4	12.4	2.95	3.94	3.00	1.00	0.24	0.77



Stellar Parameters For KIC 006280902

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7306^{+228}_{-330}	$4.086^{+0.175}_{-0.175}$	$-0.100^{+0.250}_{-0.350}$	$1.864^{+0.547}_{-0.448}$	$1.542^{+0.211}_{-0.281}$	$0.336^{+0.312}_{-0.160}$
	+3%/-5%	+4%/-4%	+250%/-350%	+29%/-24%	+14%/-18%	+93%/-48%
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 006280902-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-430 ± 26	$5.24^{+1.03}_{-0.92}$	565^{+46}_{-39}	6419^{+500}_{-410}	11471^{+5181}_{-3415}
Alt.	-235 ± 24	$4.51^{+1.01}_{-0.75}$	568^{+44}_{-39}	5943^{+456}_{-396}	8363^{+3794}_{-2574}

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

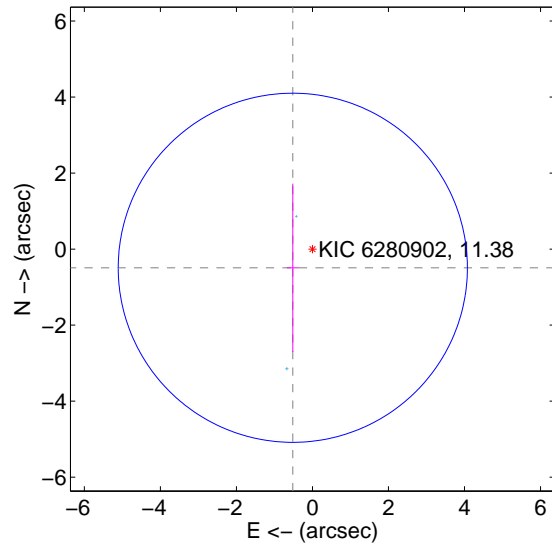
Supplemental centroid analysis for 006280902-02. **Kepler magnitude: 11.38.** Transit SNR 7.14

There are 2 quarters with good PRF difference image offsets

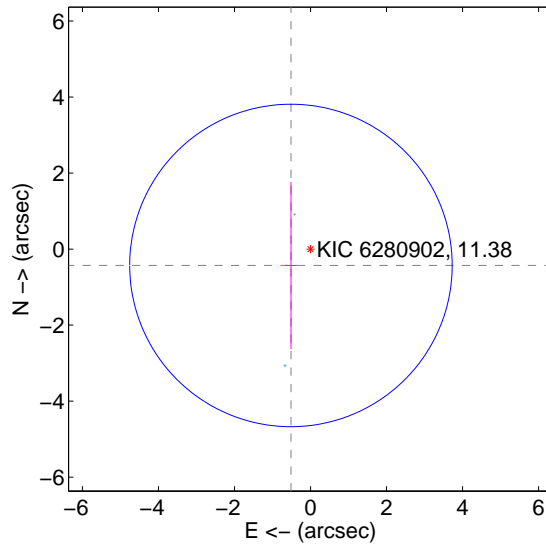
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.713 ± 1.531	0.47	0.517 ± 0.158	-0.492 ± 2.215
PRF-fit source offset from KIC position	0.671 ± 1.414	0.47	0.515 ± 0.157	-0.430 ± 2.198
photometric centroid source offset	0.06 ± 0.21	0.28	-0.06 ± 0.21	-0.00 ± 0.29

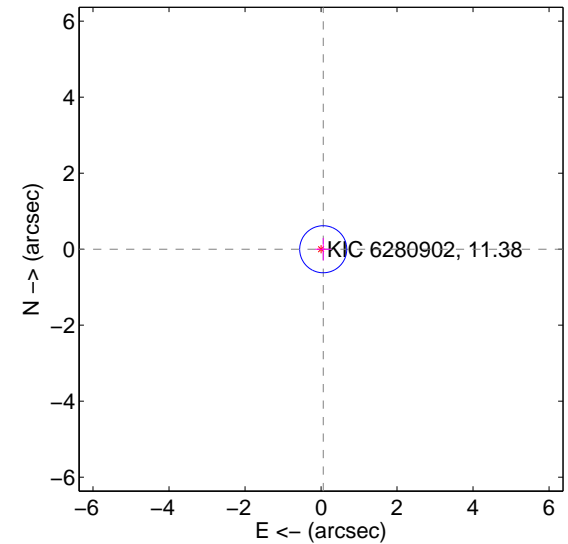
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

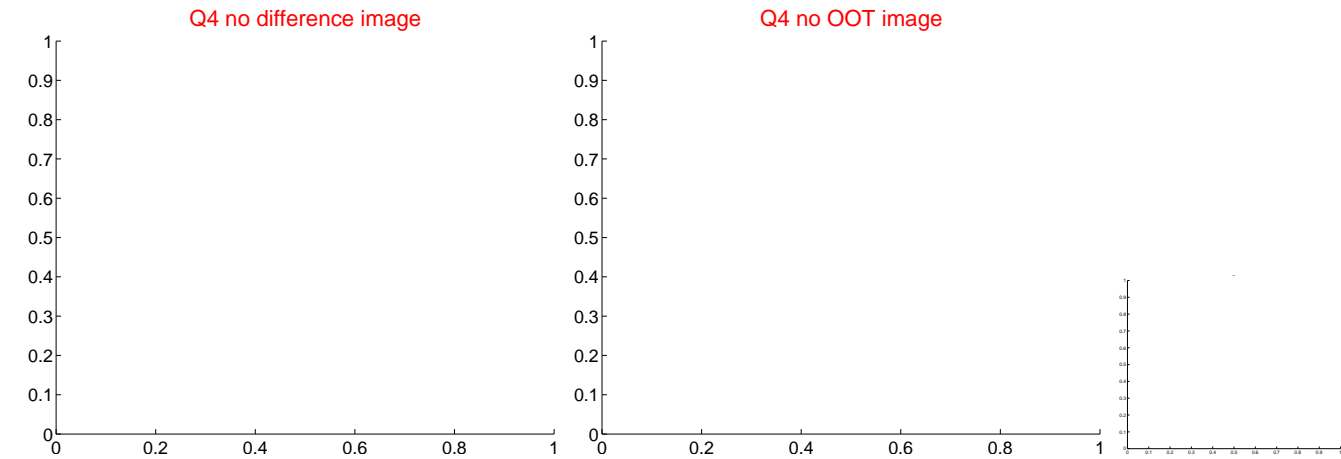
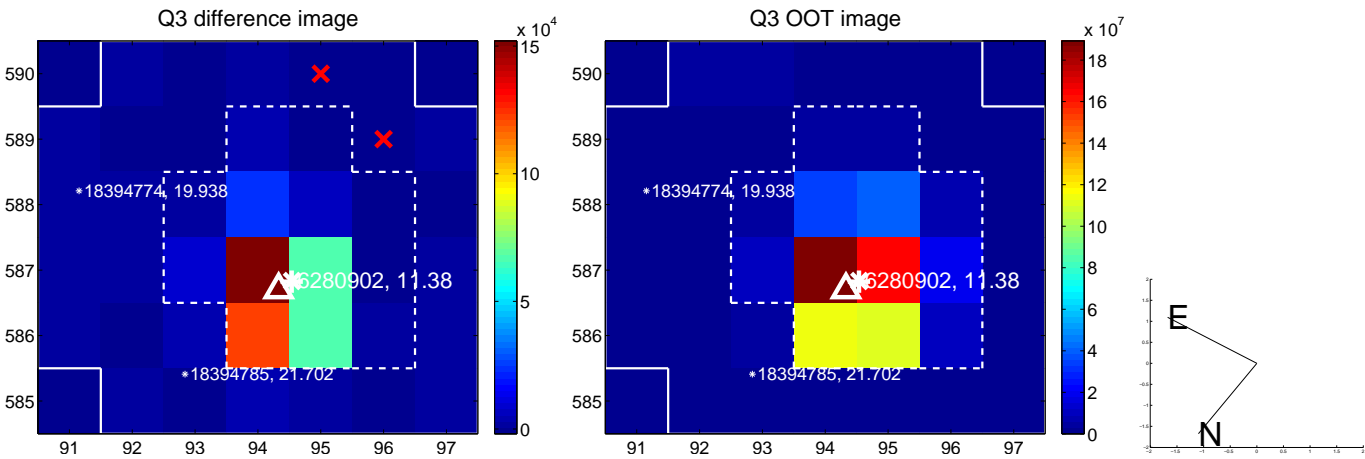
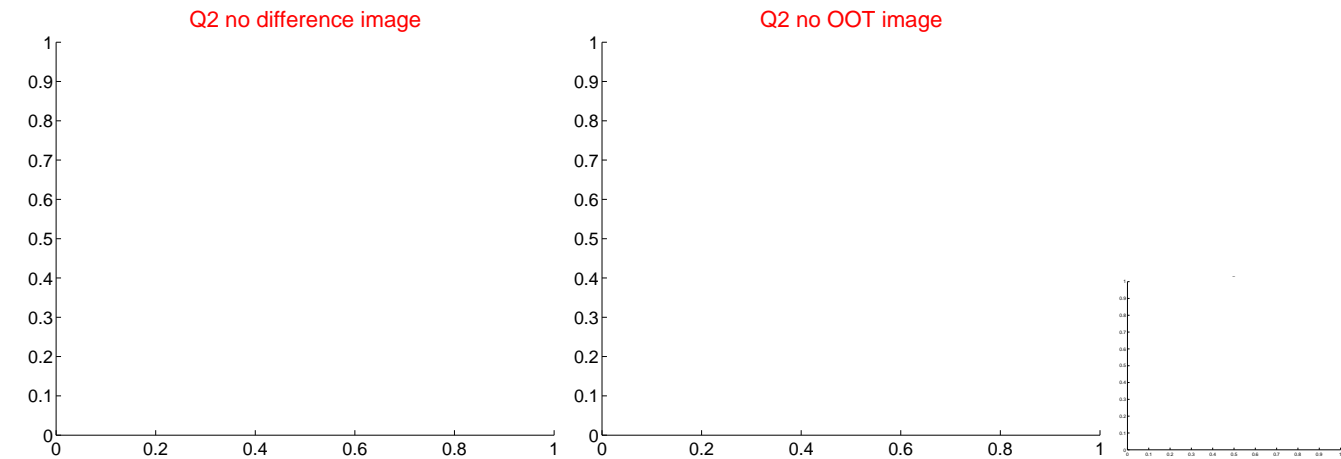
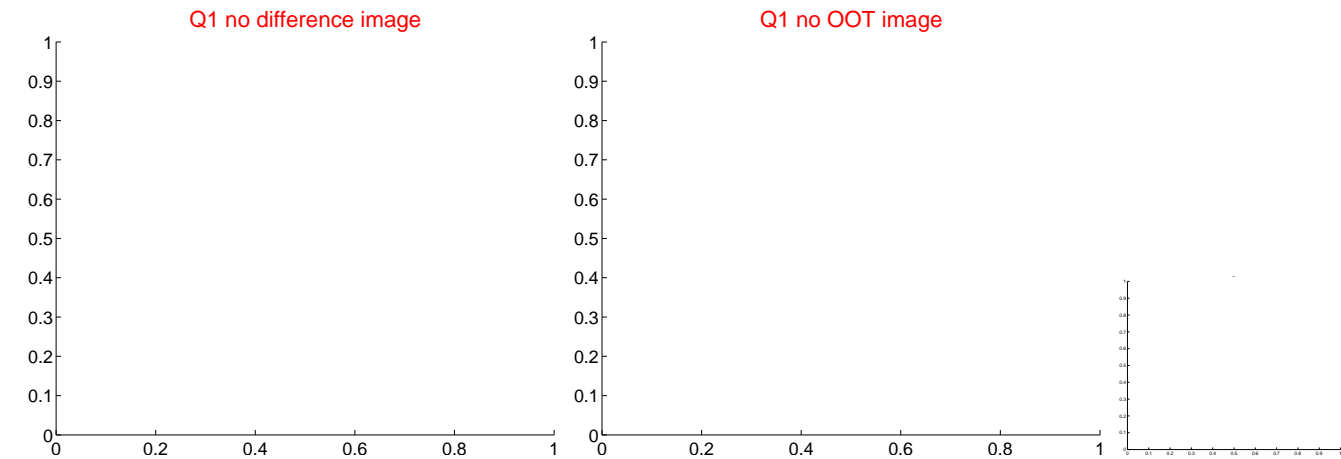


offset from photometric centroids

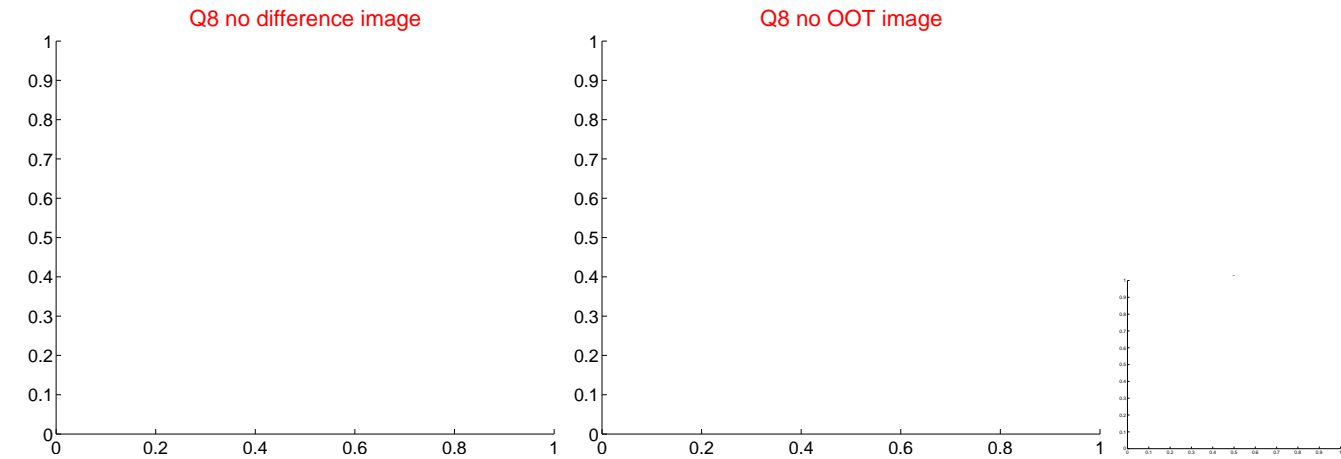
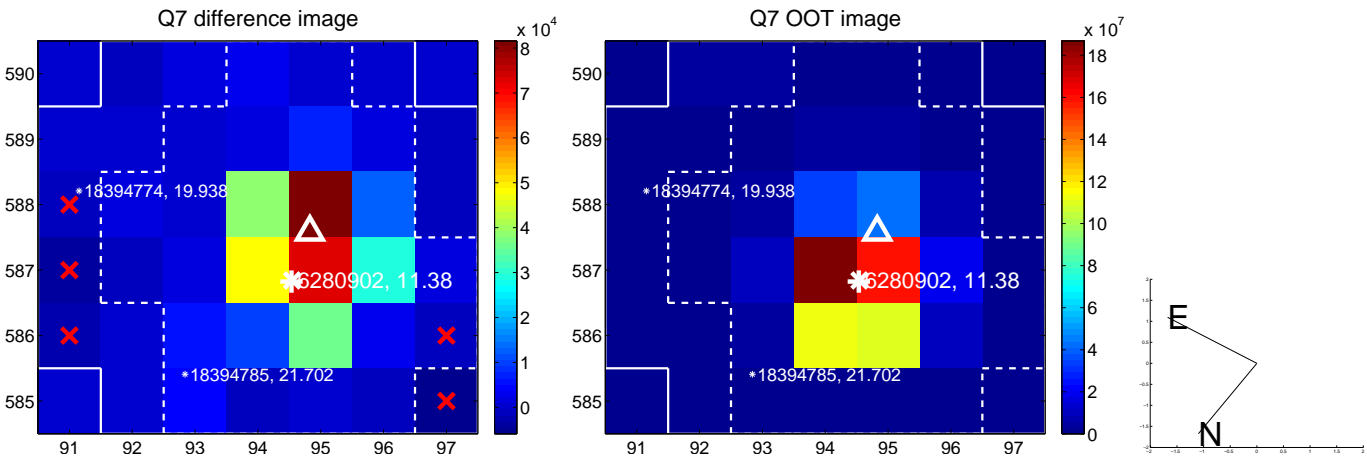
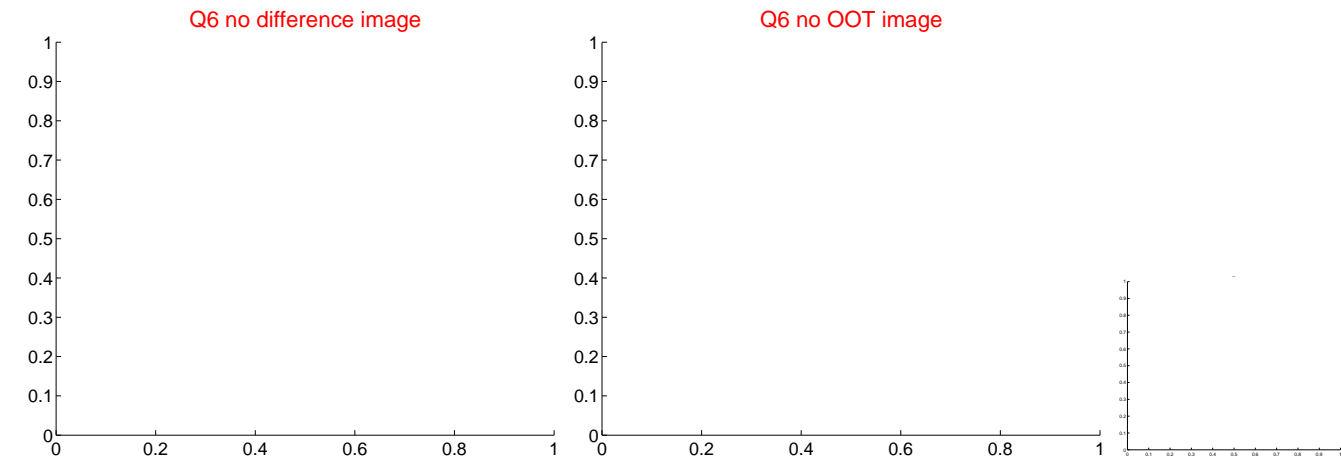
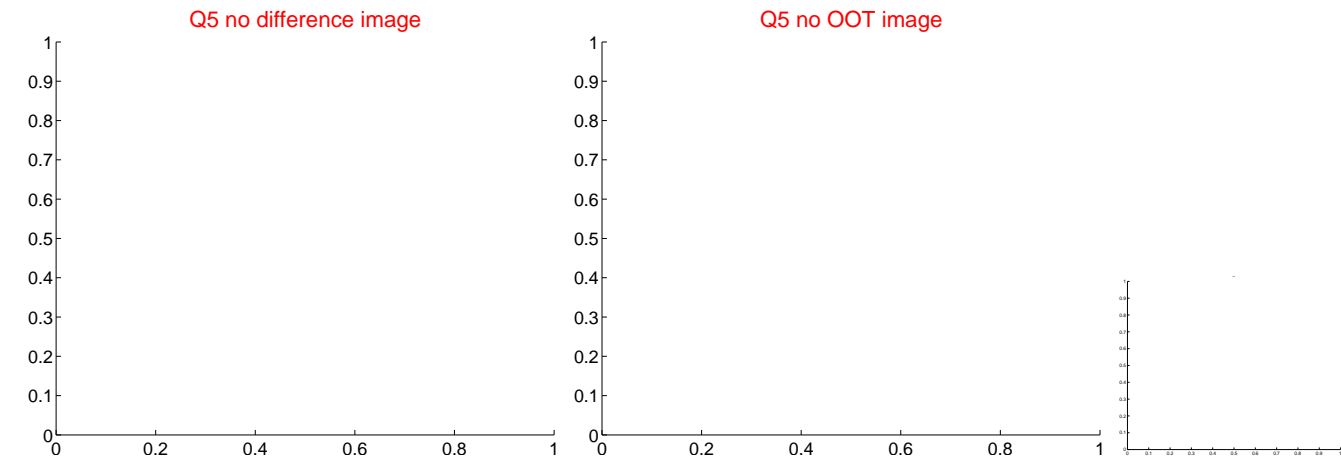


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

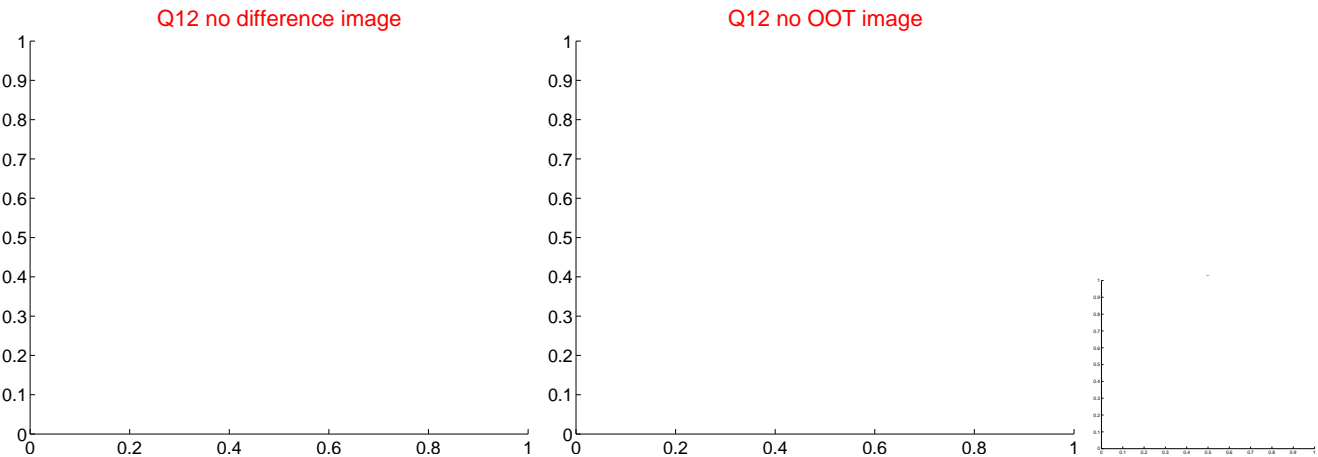
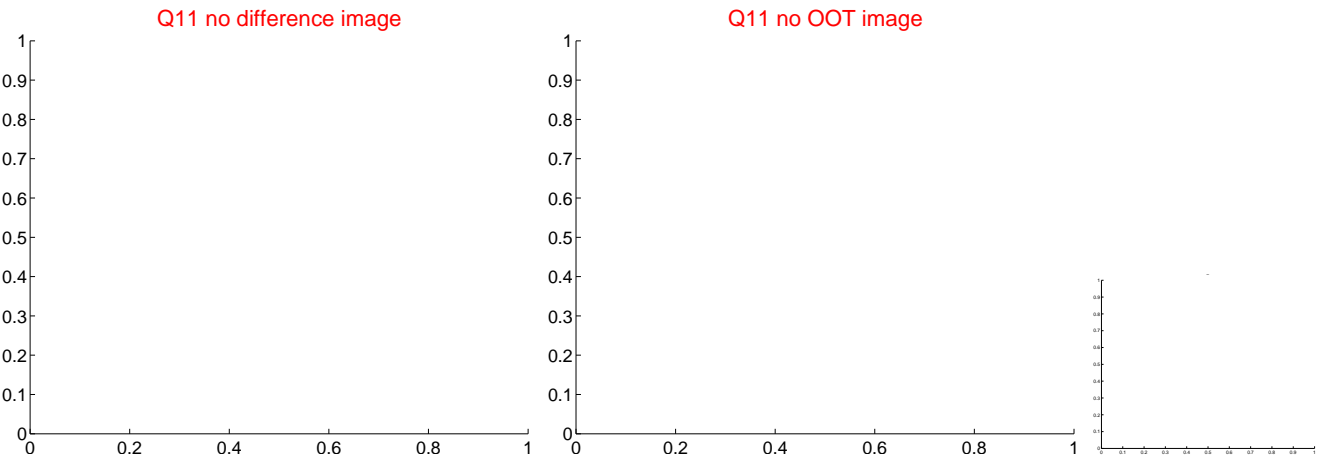
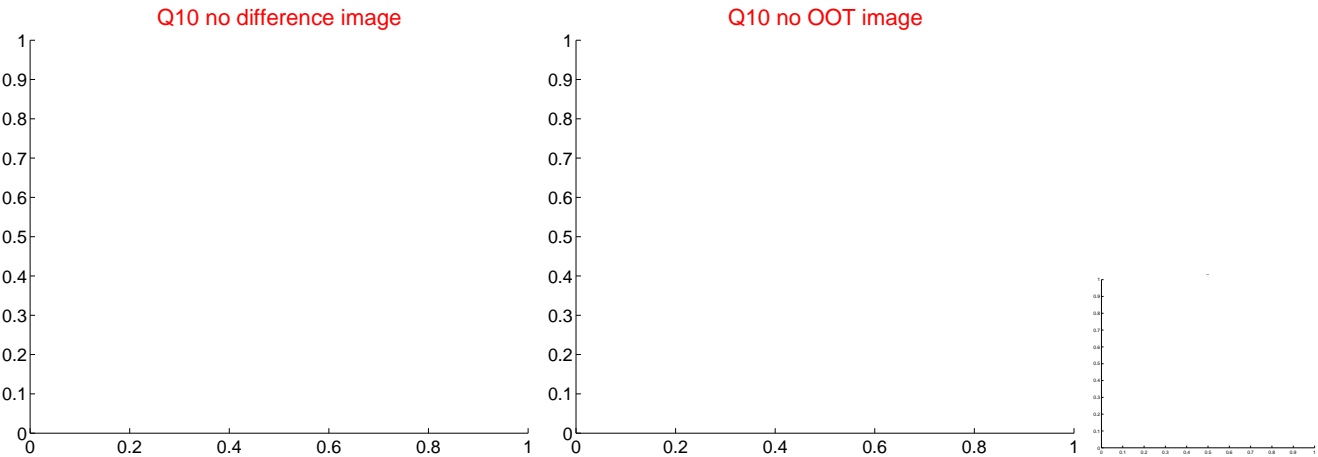
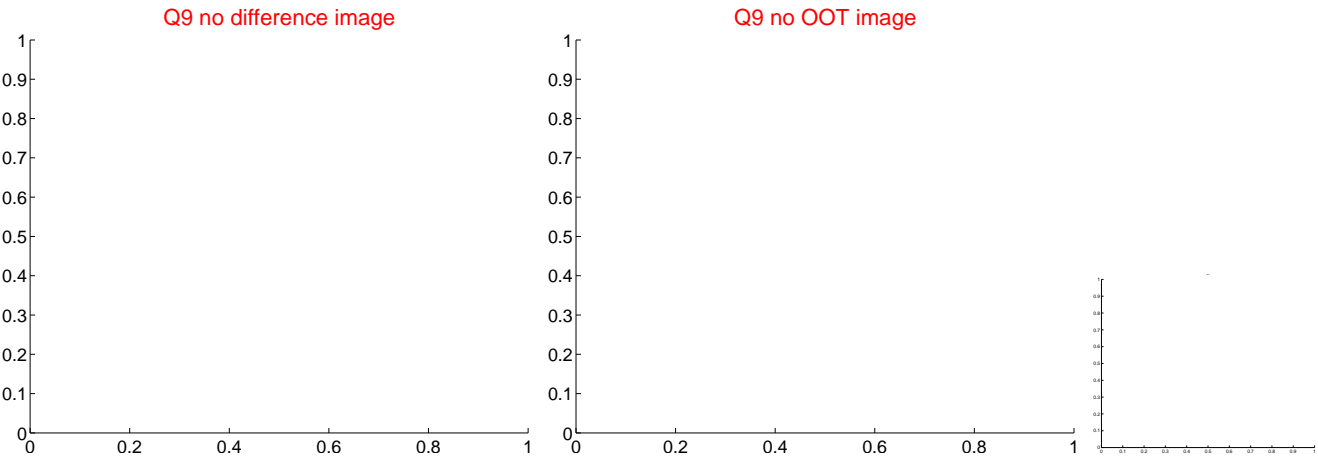
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



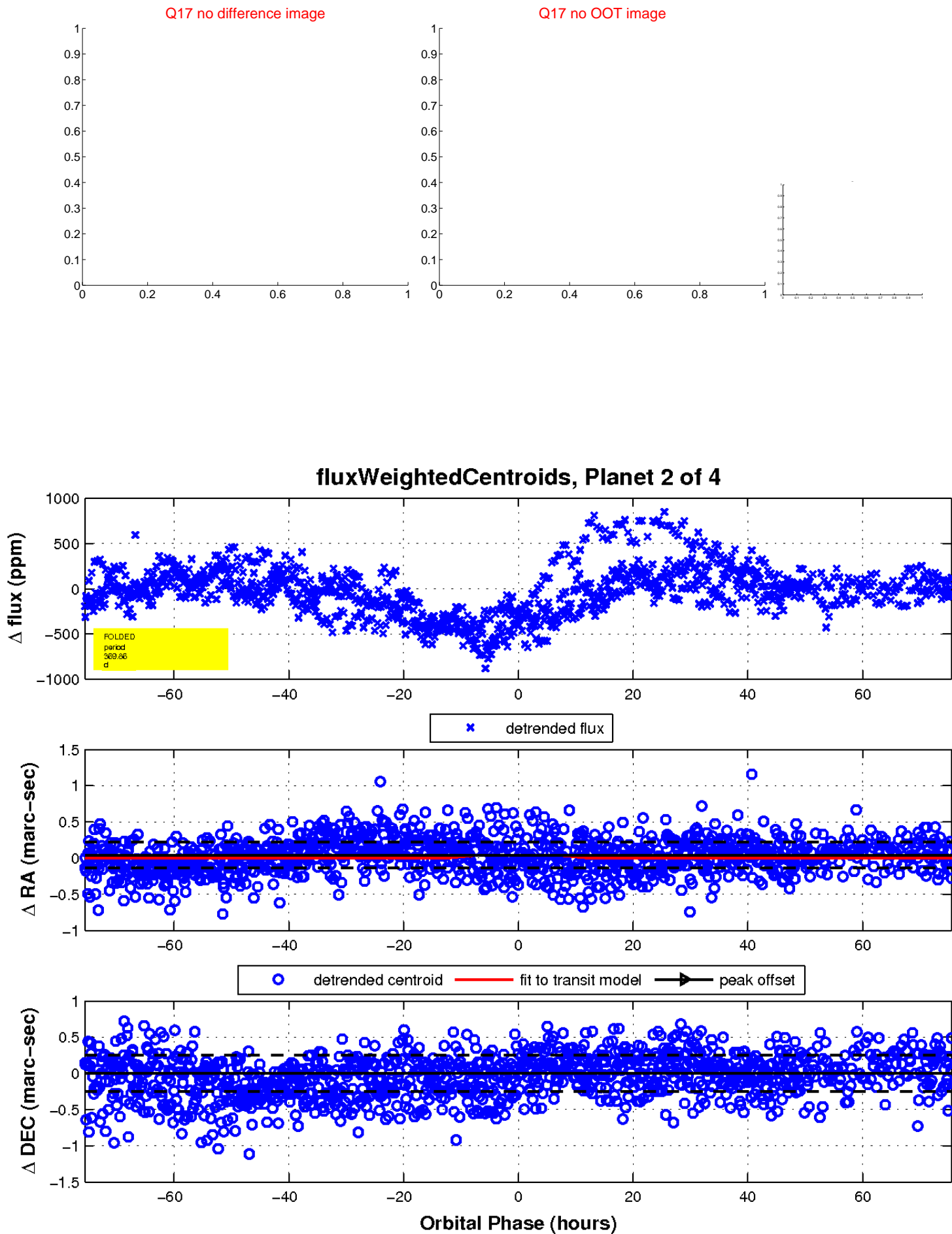
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

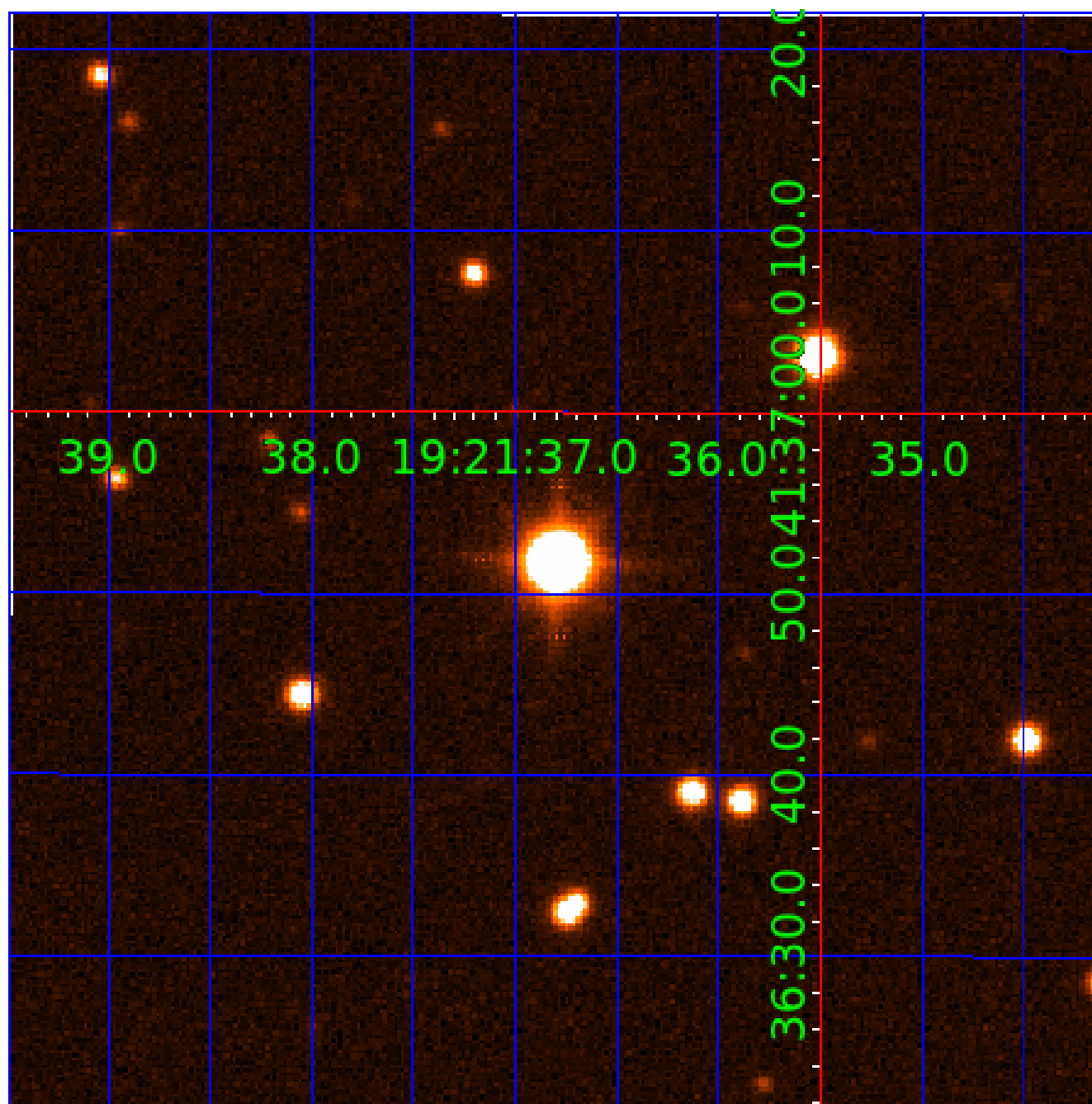


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006280902

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})
006280902-01	OBS	No	0.712605	131.724439	11.8	3.038	7.9	6.9	1.86	7306	0.74	27213.11
006280902-02	OBS	No	369.864379	288.300762	539.3	25.194	8.0	7.1	1.86	7306	5.31	6.52
006280902-04	OBS	No	203.048803	275.158293	639.0	54.153	8.5	7.4	1.86	7306	8.85	14.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006280902-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006280902-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED—HALO_GHOST
006280902-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_SATURATED

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

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

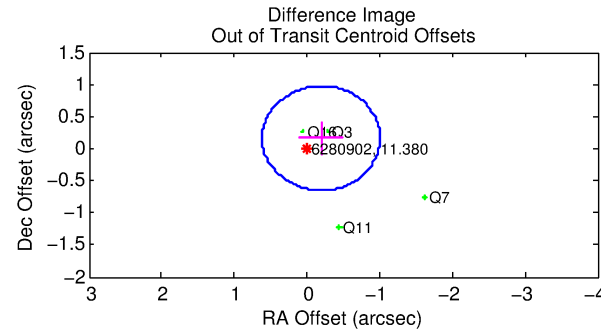
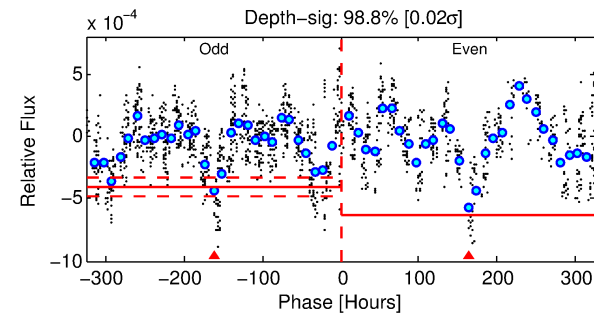
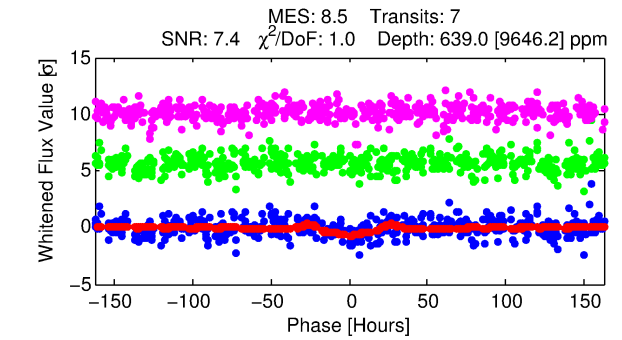
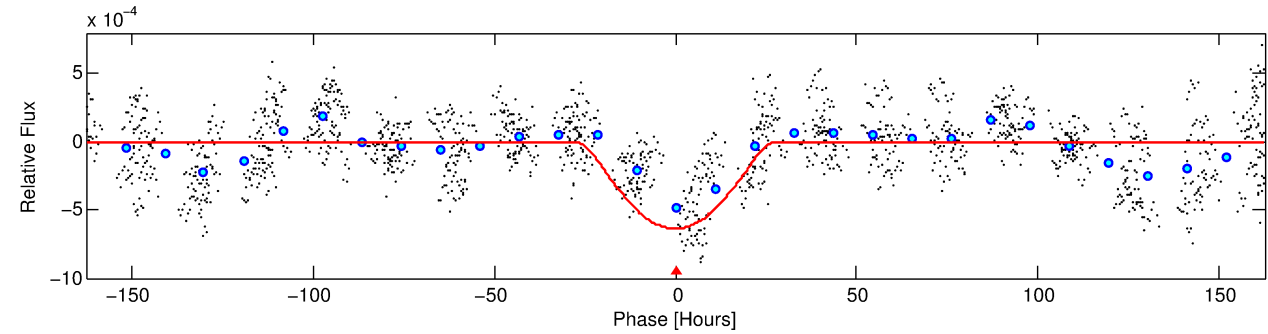
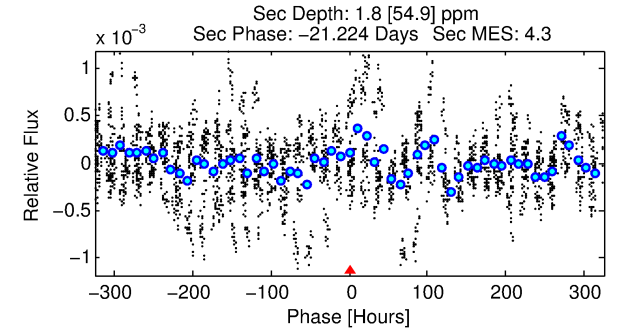
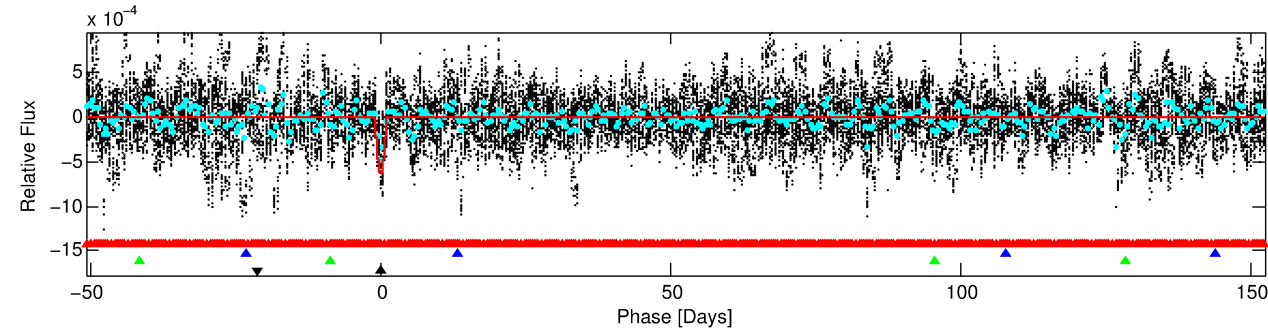
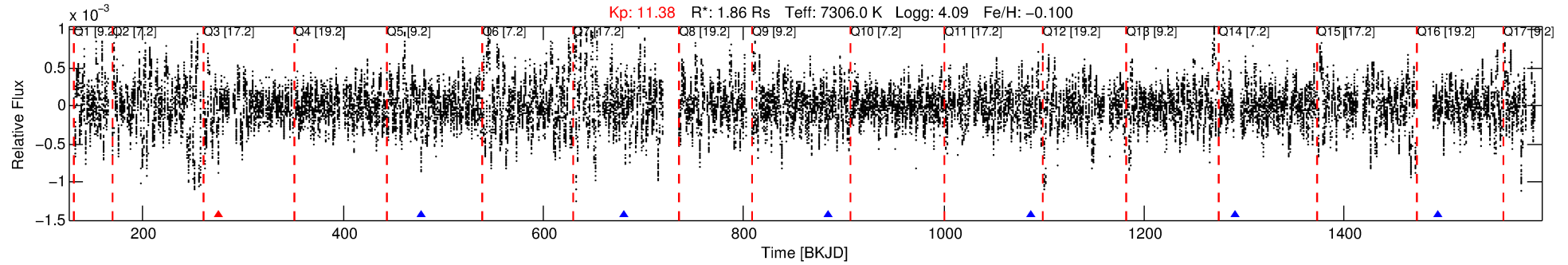
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006280902-04

No Significant Match Found

DV One-Page Summary

KIC: 6280902 Candidate: 4 of 4 Period: 203.049 d



DV Fit Results:

Period = 203.04880 [0.02443] d
Epoch = 275.1583 [0.0863] BKJD
Rp/R* = 0.0435 [0.0681]
a/R* = 8.60 [2.91]
b = 1.00 [0.36]
Seff = 14.51 [5.49]
Teq = 498 [47] K
Rp = 8.85 [14.09] Re
a = 0.7817 [0.1855] AU
Ag = 7.79 [236.99] [0.03 σ]
Teffp = 1286 [9777] K [0.08 σ]

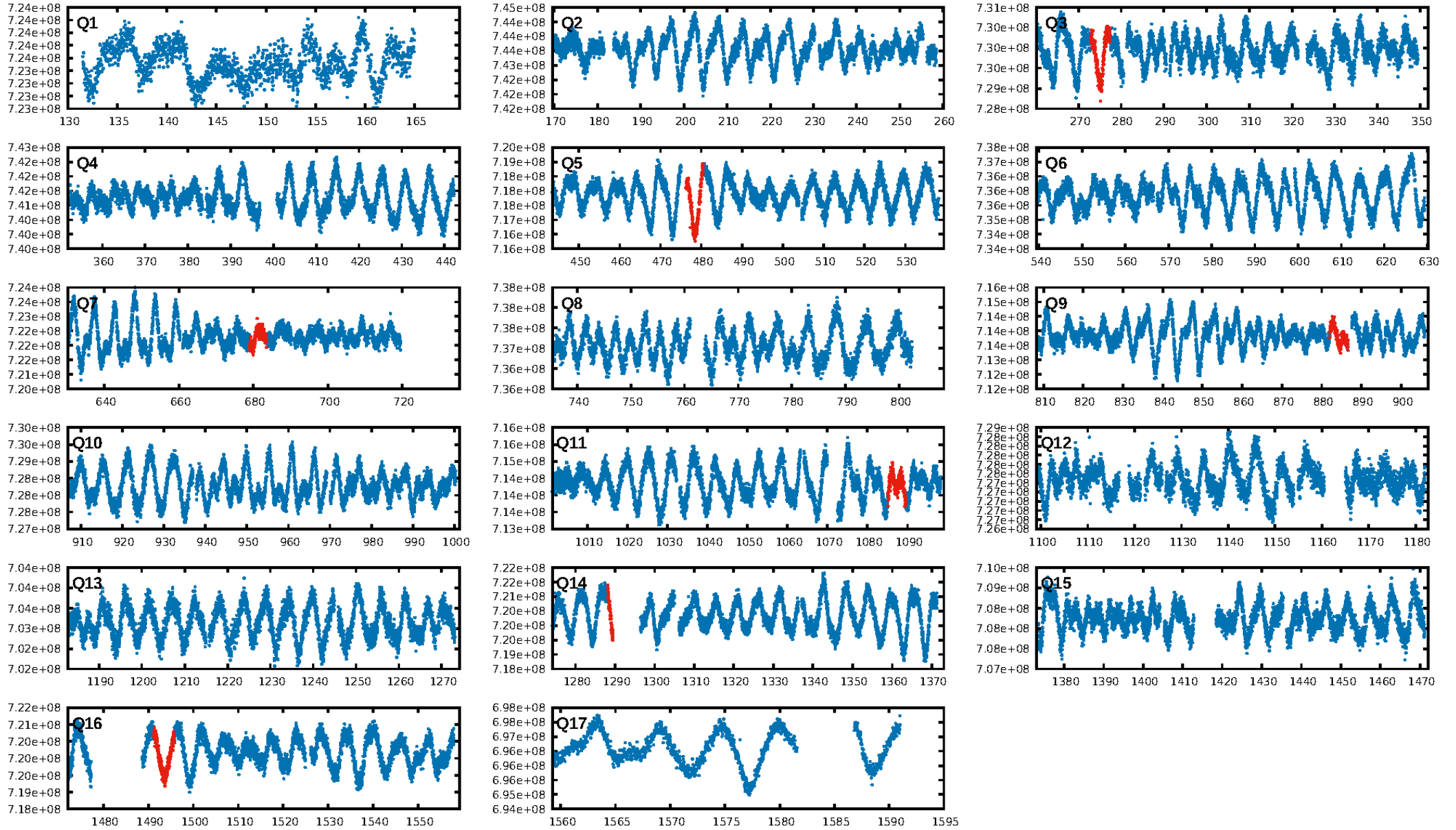
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [89.53 σ]
LongPeriod-sig: 100.0% [67.03 σ]
ModelChiSquare2-sig: 48.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.71e-10
RollingBand-fgt: 0.86 [6/7]
GhostDiagnostic-chr: 1.858
Centroid-sig: 89.3%
Centroid-so: 0.024 arcsec [0.19 σ]
OotOffset-rm: 0.250 arcsec [0.92 σ]
KicOffset-rm: 0.267 arcsec [1.00 σ]
OotOffset-st: 0/3/1/0 [4]
KicOffset-st: 0/3/1/0 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 0.00 [0/4]

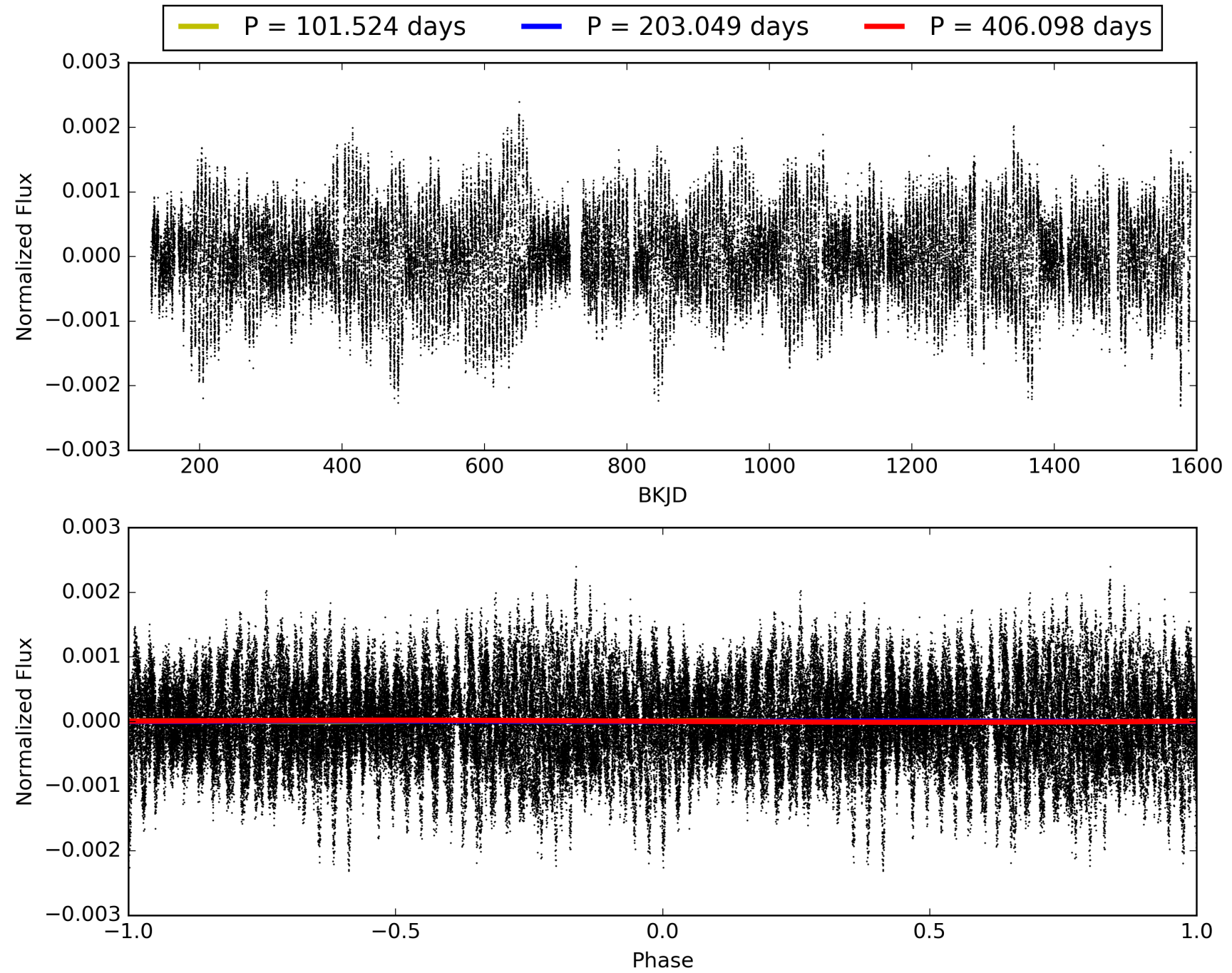
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:13:03 Z

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

TCE 006280902-04, PDC Light Curves

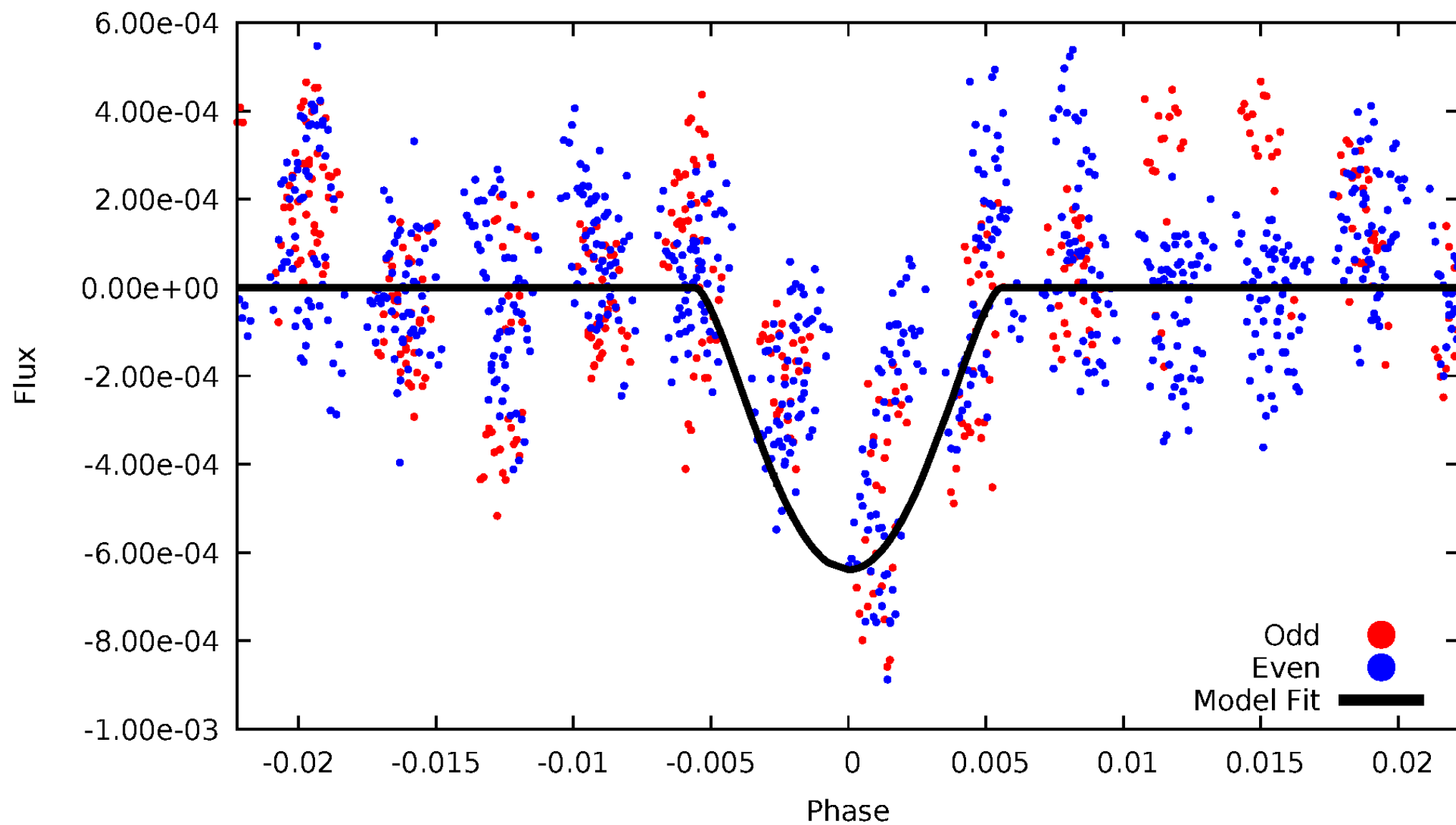


TCE 006280902-04



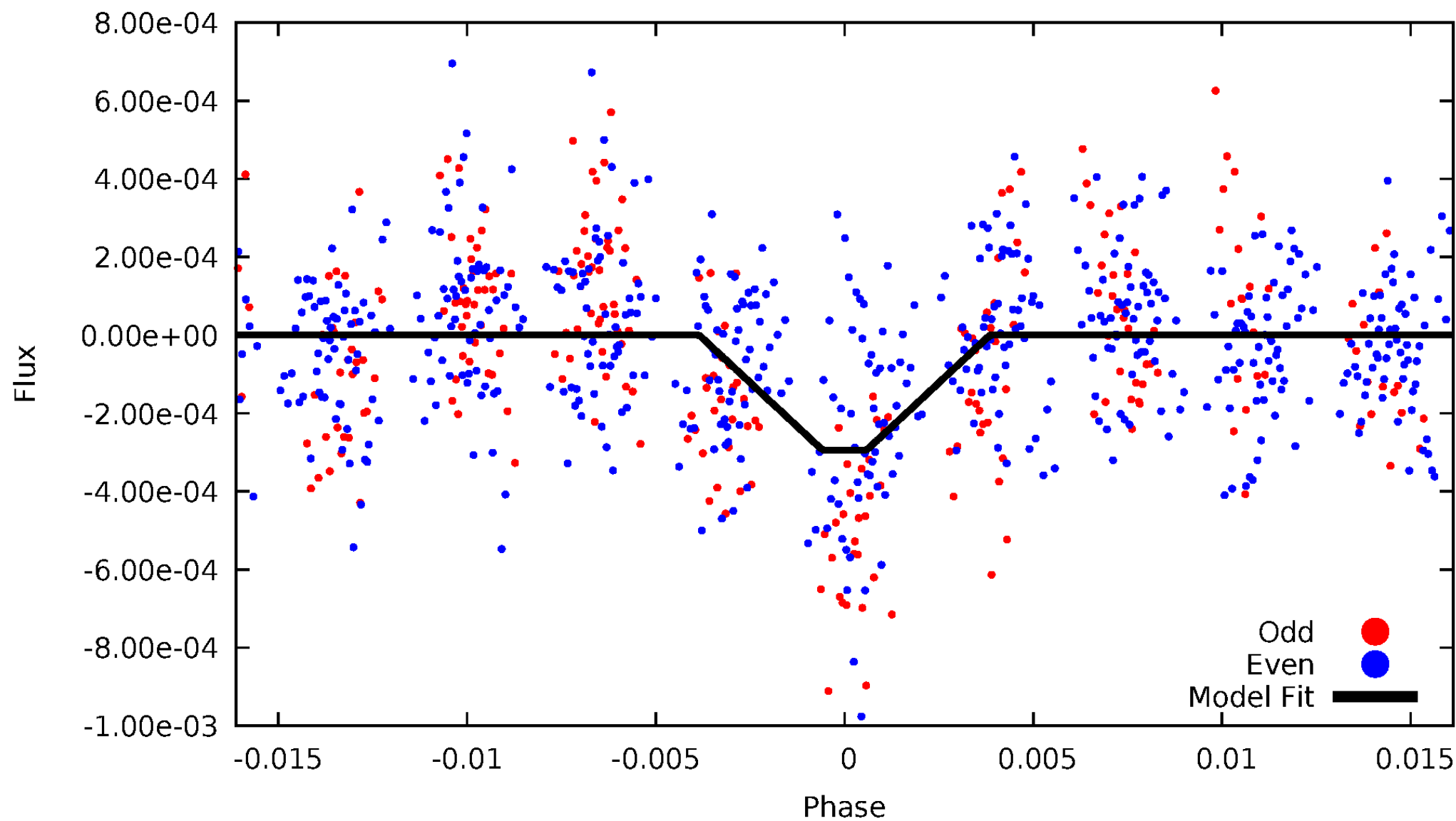
DV Odd/Even

TCE 006280902-04



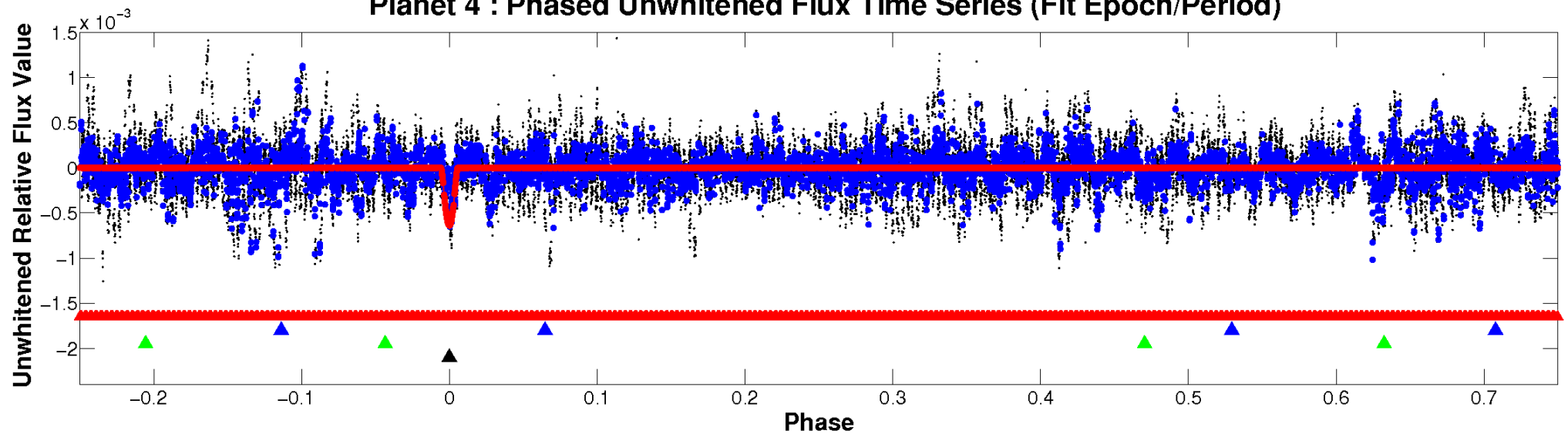
ALT Odd/Even

TCE 006280902-04

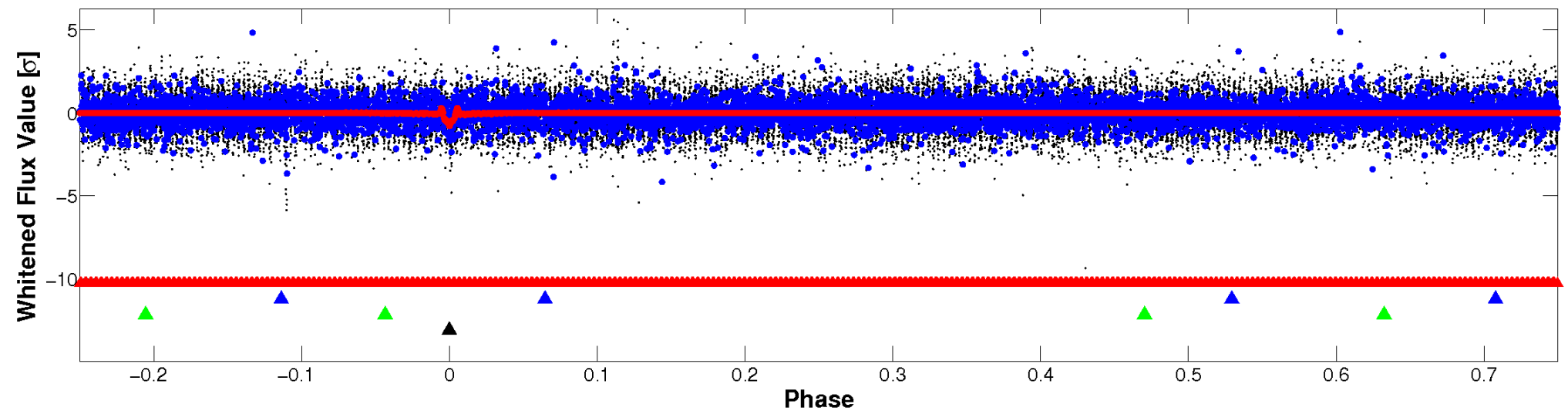


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

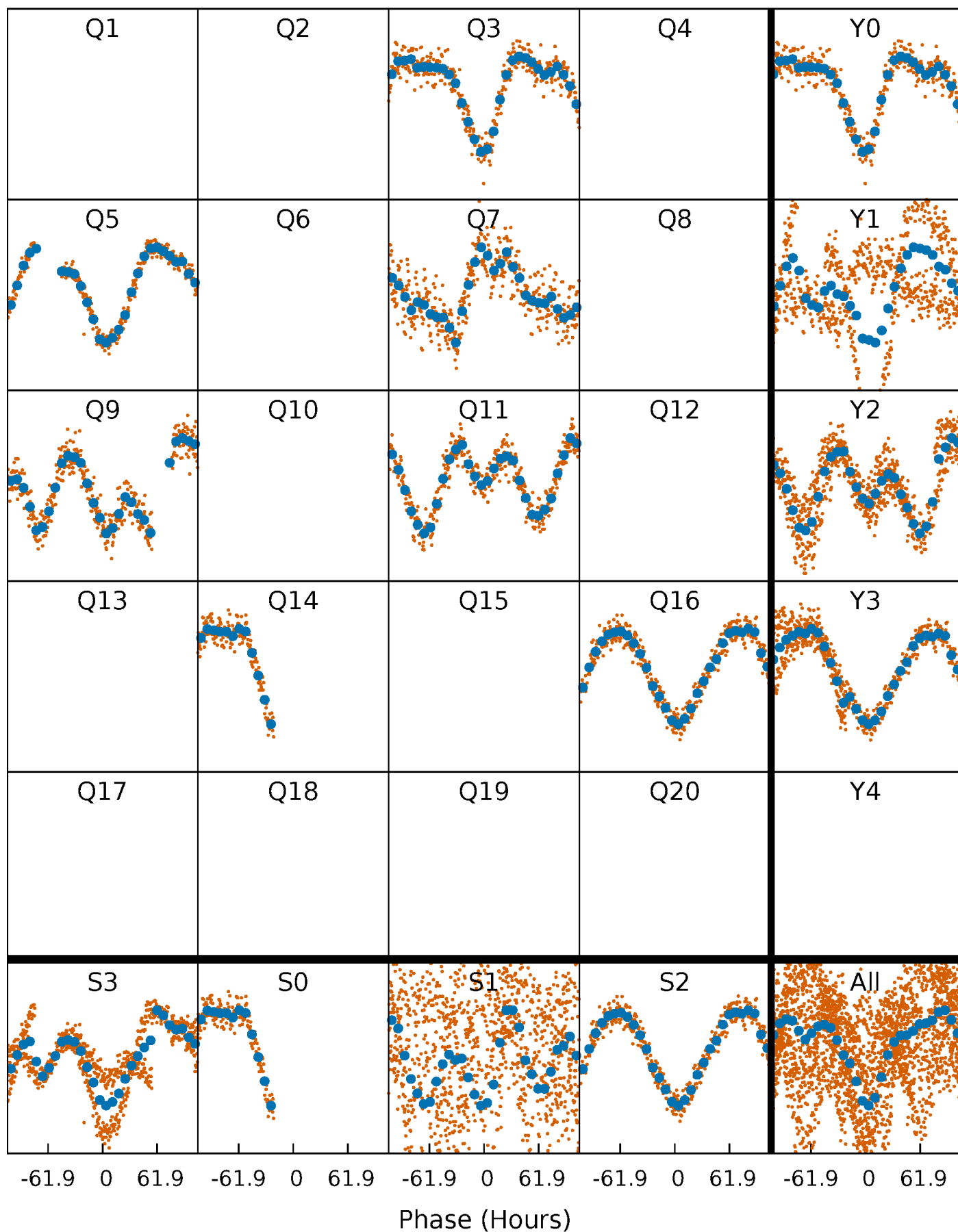


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



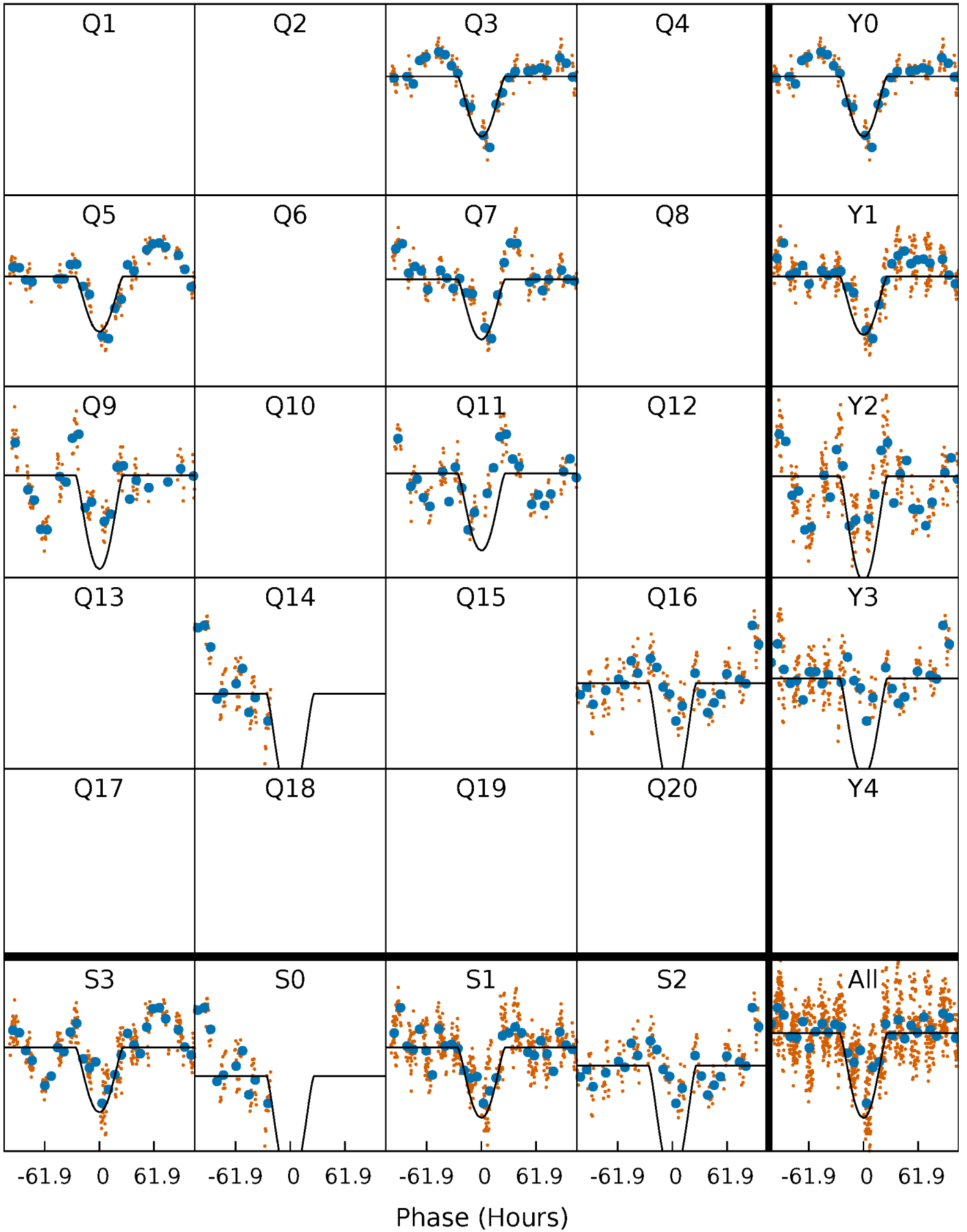
PDC Quarter-Phased Transit Curves

TCE 006280902-04 $P=203.048803$ Days $T_0=275.158293$ (BKJD)



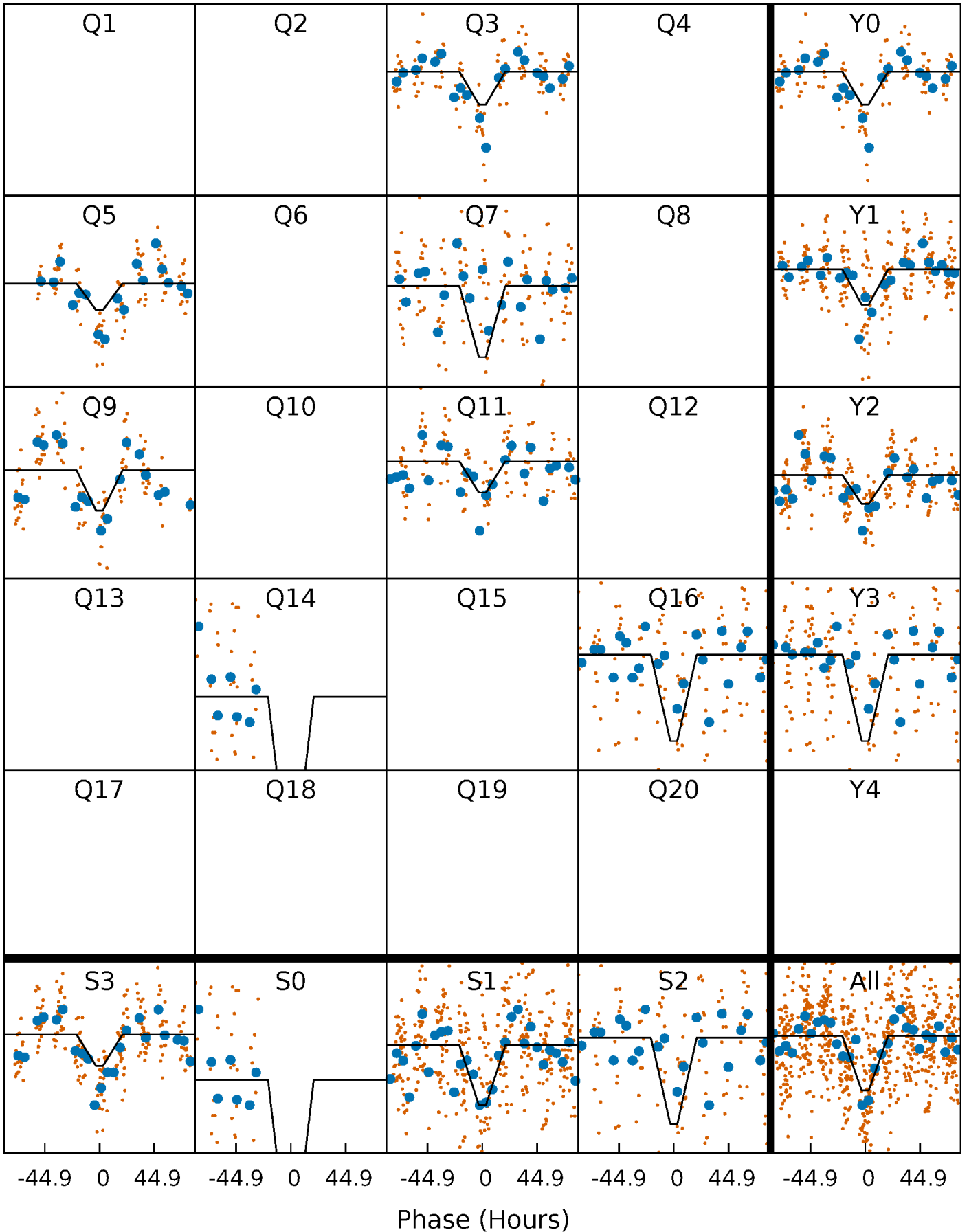
DV Quarter-Phased Transit Curves

TCE 006280902-04 $P=203.048803$ Days $T_0=275.158293$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

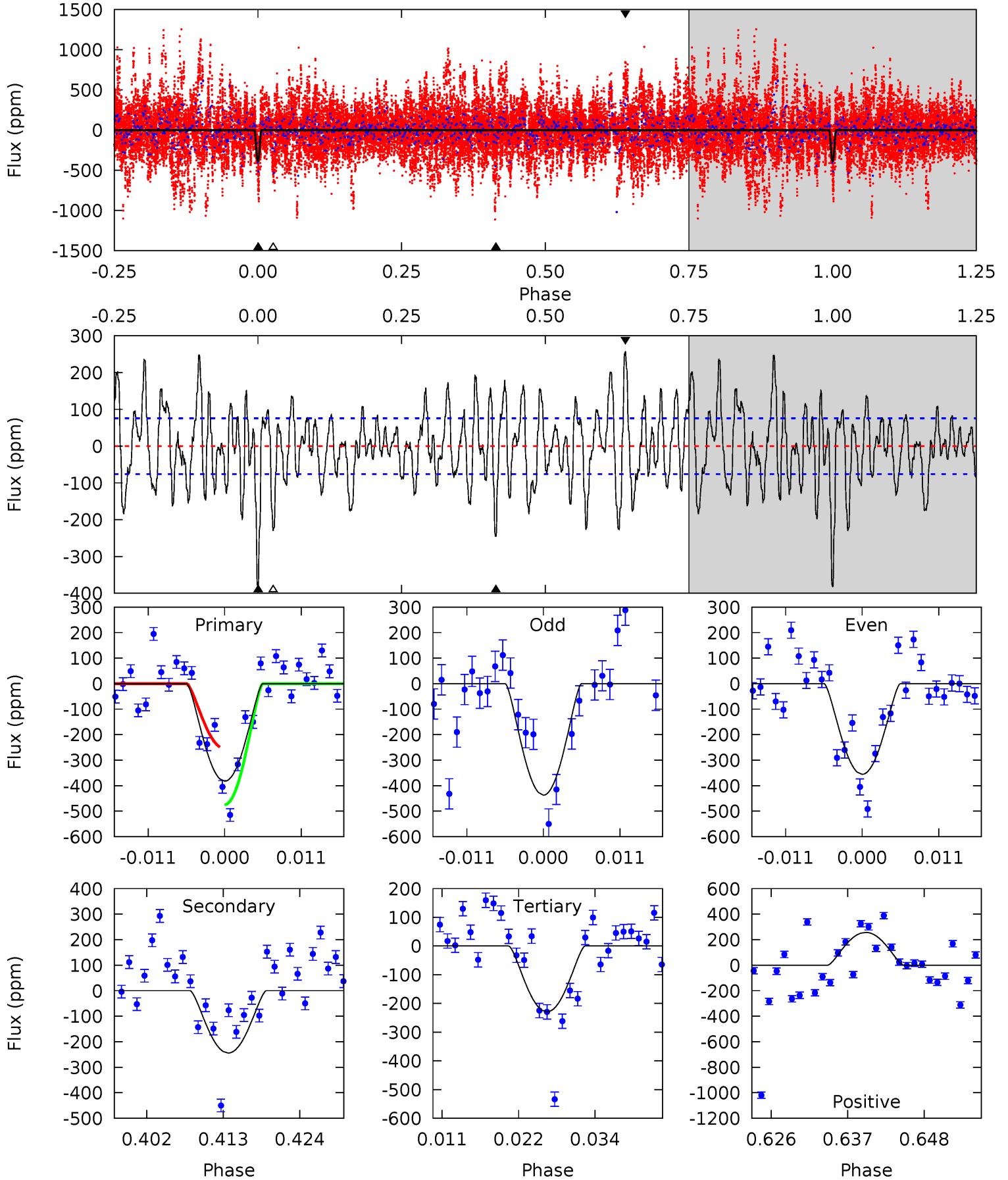
TCE 006280902-04 $P=203.041474$ Days $T_0=275.356986$ (BKJD)



DV Model-Shift Uniqueness Test

006280902-04, P = 203.048803 Days, E = 72.109490 Days

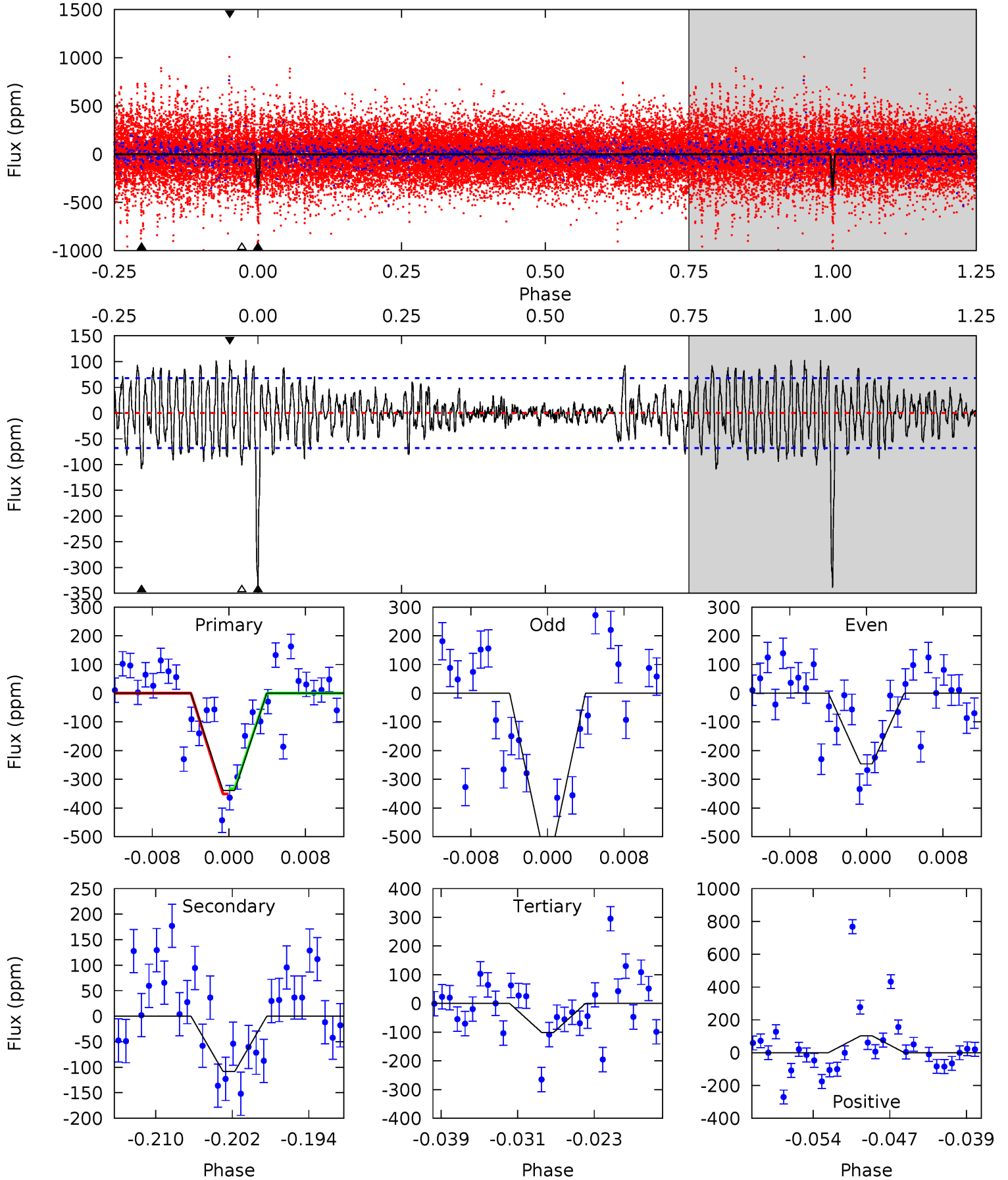
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	16.1	15.1	17.0	5.01	2.54	5.97	10.1	8.30	1.01	-0.83	2.61	0.97	0.40	7.28



Alt Model-Shift Uniqueness Test

006280902-04, P = 203.041474 Days, E = 72.315512 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	8.11	7.59	7.68	5.07	2.66	2.46	17.8	17.7	0.53	0.44	9.77	0.85	0.23	0.69



Stellar Parameters For KIC 006280902

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7306^{+228}_{-330}	$4.086^{+0.175}_{-0.175}$	$-0.100^{+0.250}_{-0.350}$	$1.864^{+0.547}_{-0.448}$	$1.542^{+0.211}_{-0.281}$	$0.336^{+0.312}_{-0.160}$
	+3%/-5%	+4%/-4%	+250%/-350%	+29%/-24%	+14%/-18%	+93%/-48%
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 006280902-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-244 ± 15	$13.63^{+12.71}_{-8.43}$	696^{+56}_{-54}	3865^{+1673}_{-757}	452^{+2522}_{-335}
Alt.	-109 ± 13	$10.56^{+11.00}_{-7.24}$	695^{+54}_{-51}	3642^{+2233}_{-712}	327^{+3025}_{-252}

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

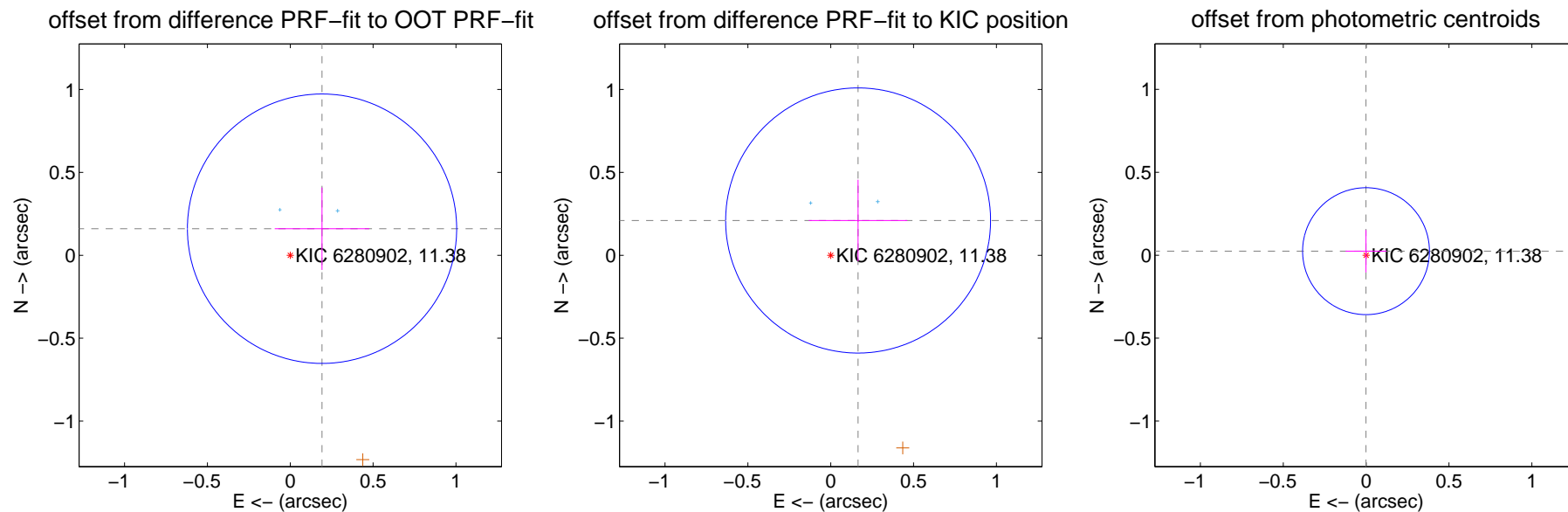
DV Centroid Data

Supplemental centroid analysis for 006280902-04. **Kepler magnitude: 11.38.** Transit SNR 7.37

There are 2 quarters with good PRF difference image offsets

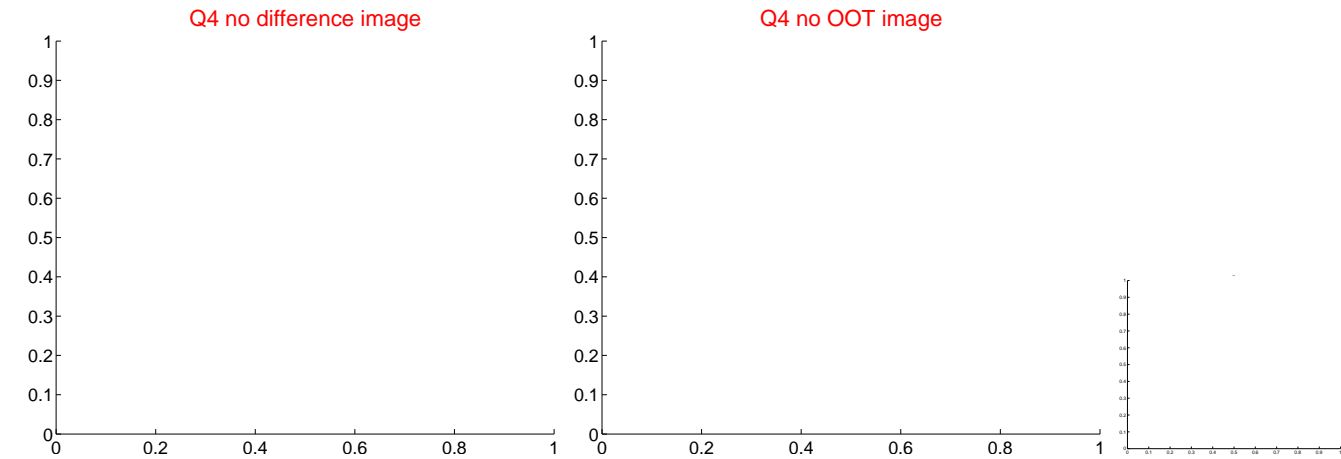
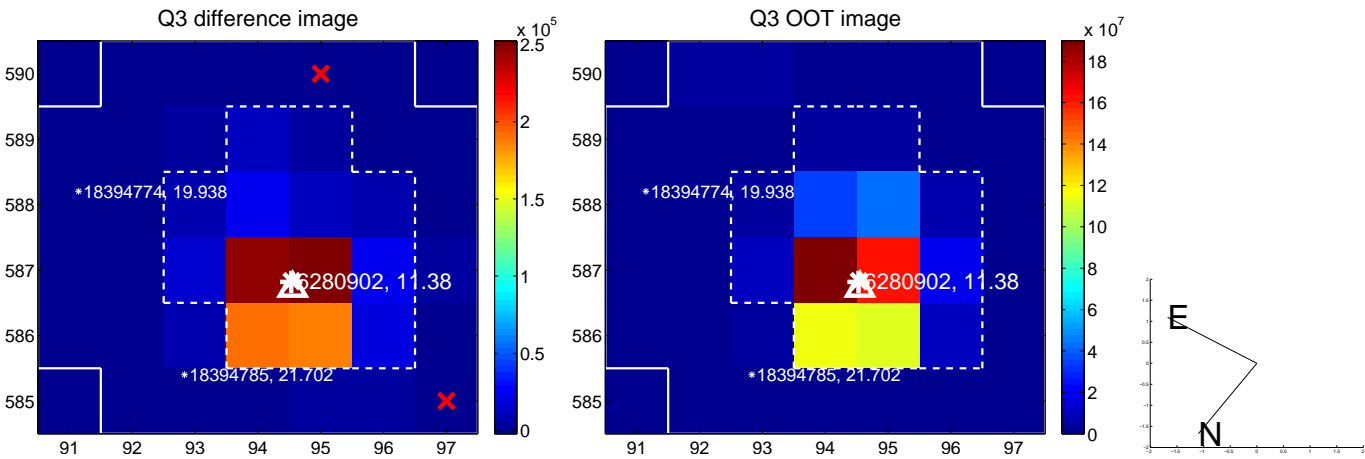
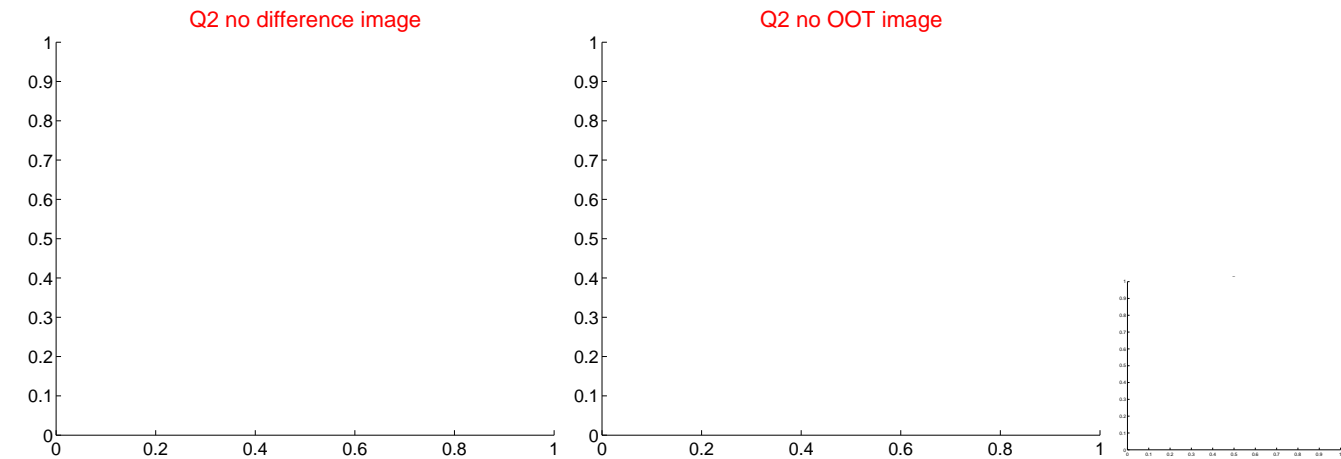
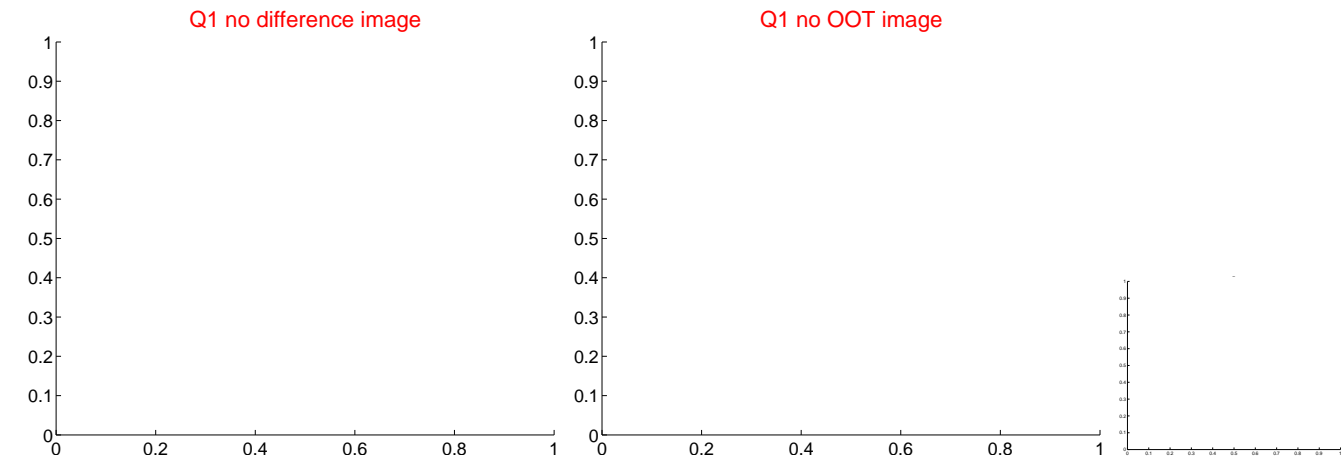
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.250 ± 0.271	0.92	-0.192 ± 0.285	0.160 ± 0.248
PRF-fit source offset from KIC position	0.267 ± 0.266	1.00	-0.165 ± 0.297	0.210 ± 0.246
photometric centroid source offset	0.02 ± 0.13	0.19	0.00 ± 0.12	0.02 ± 0.13

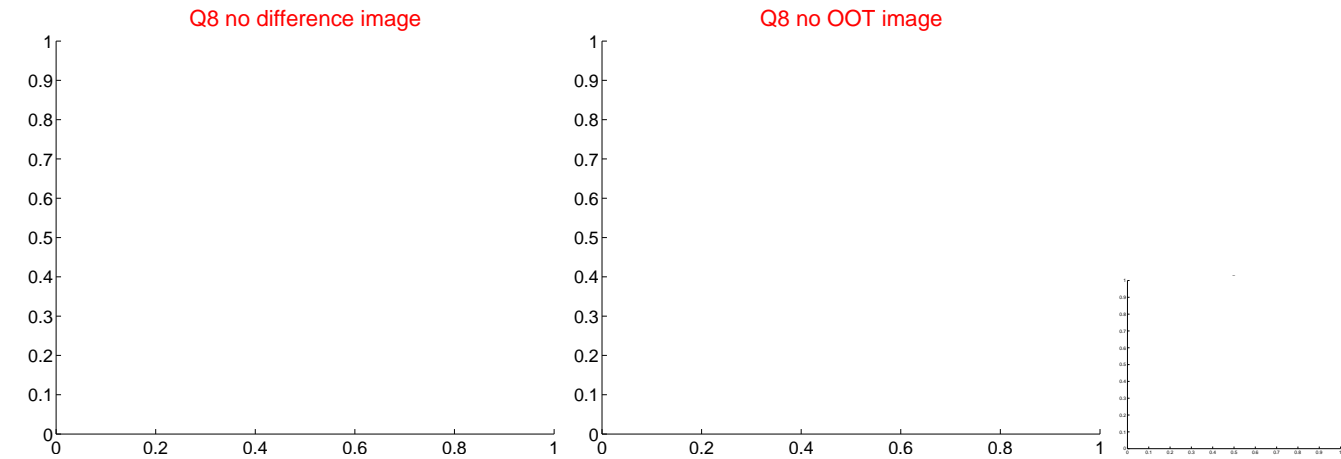
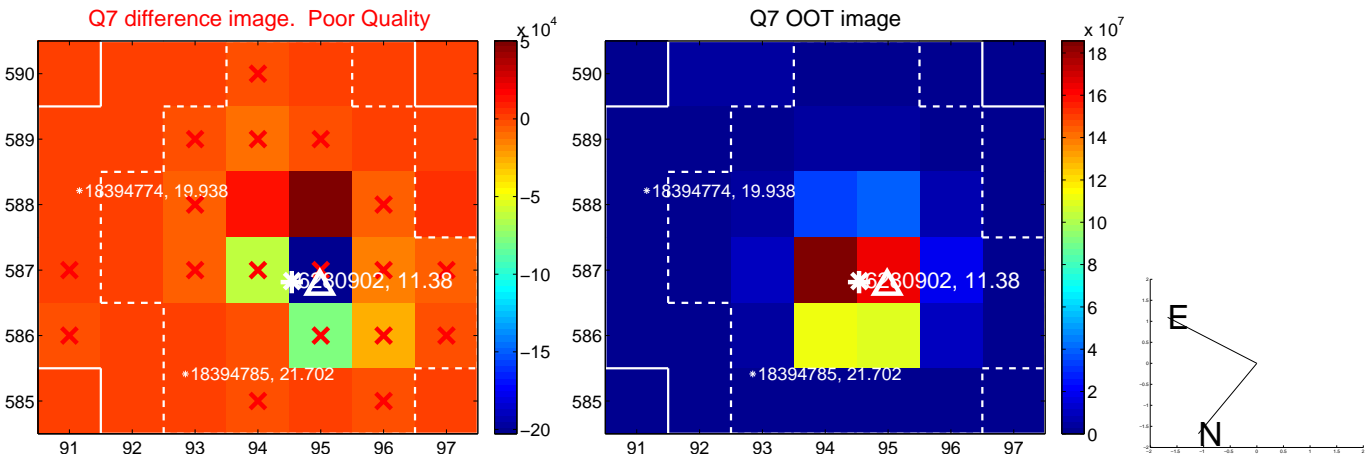
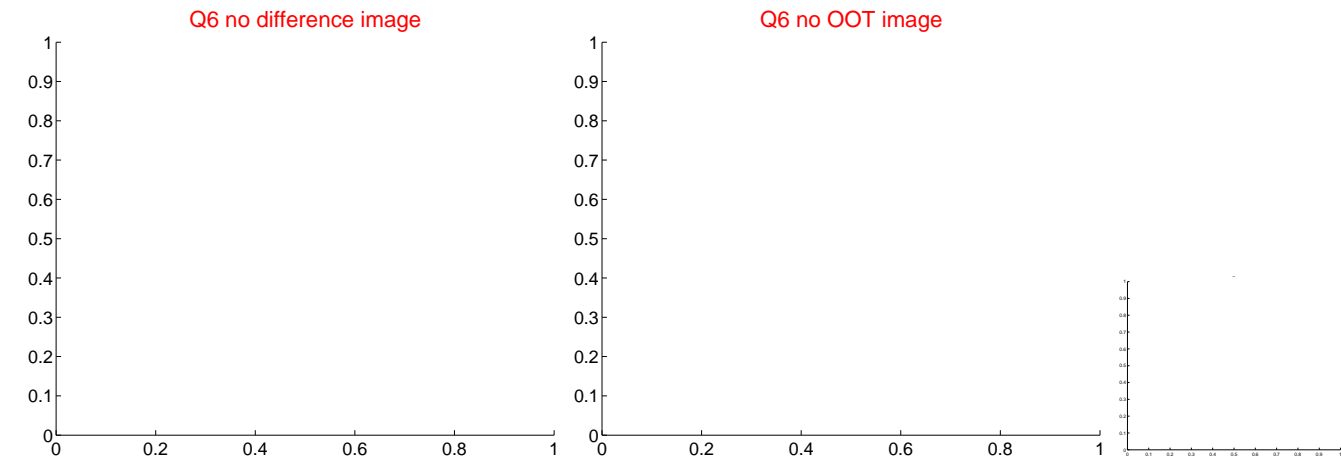
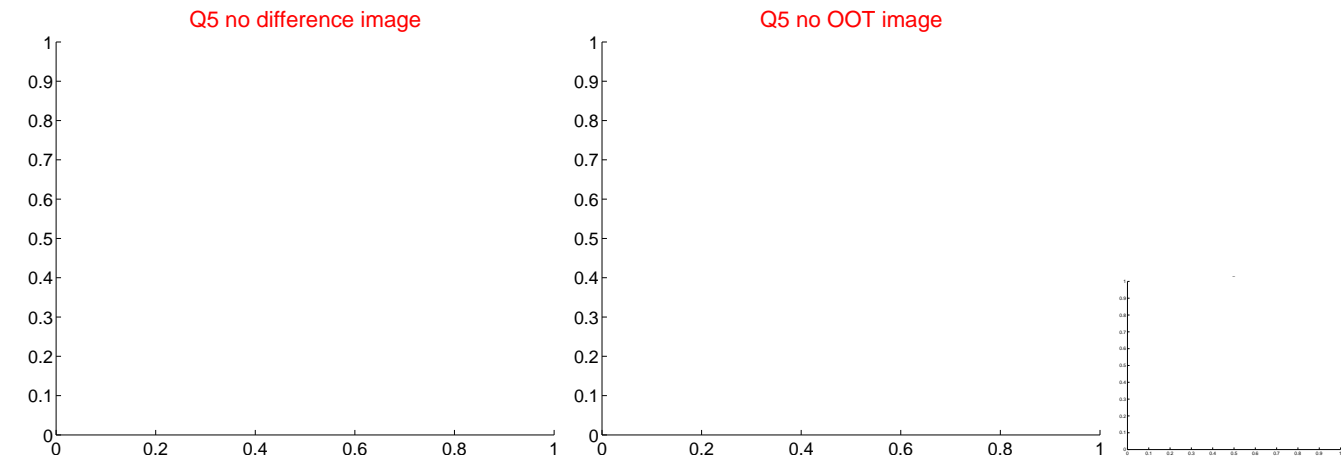


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

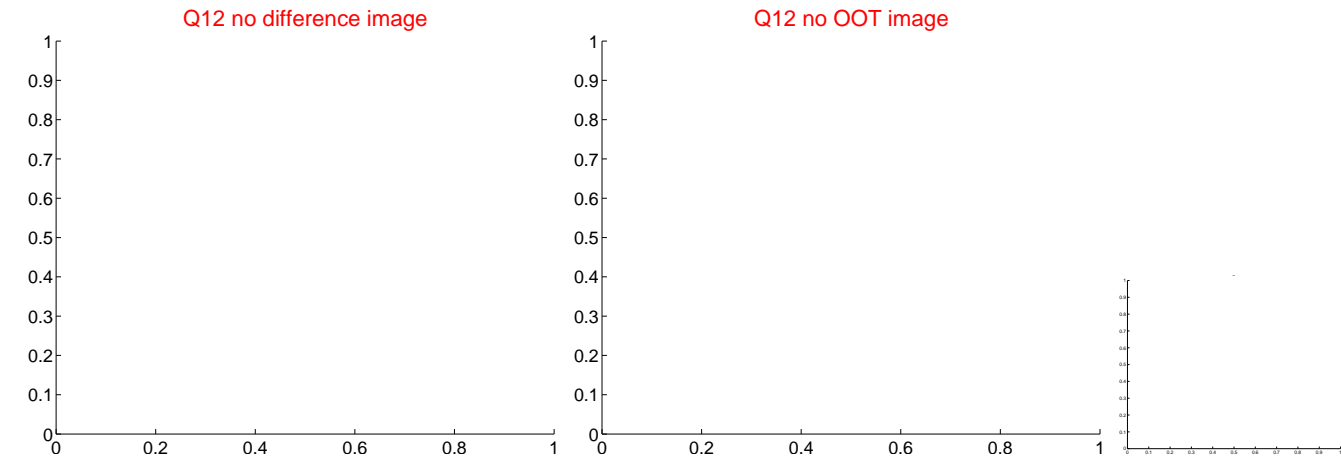
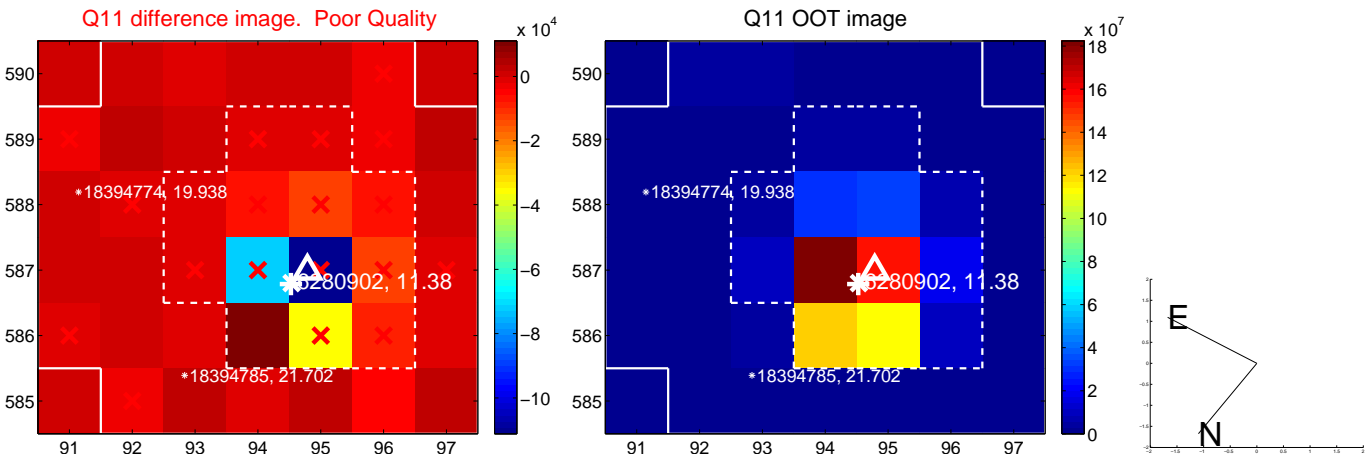
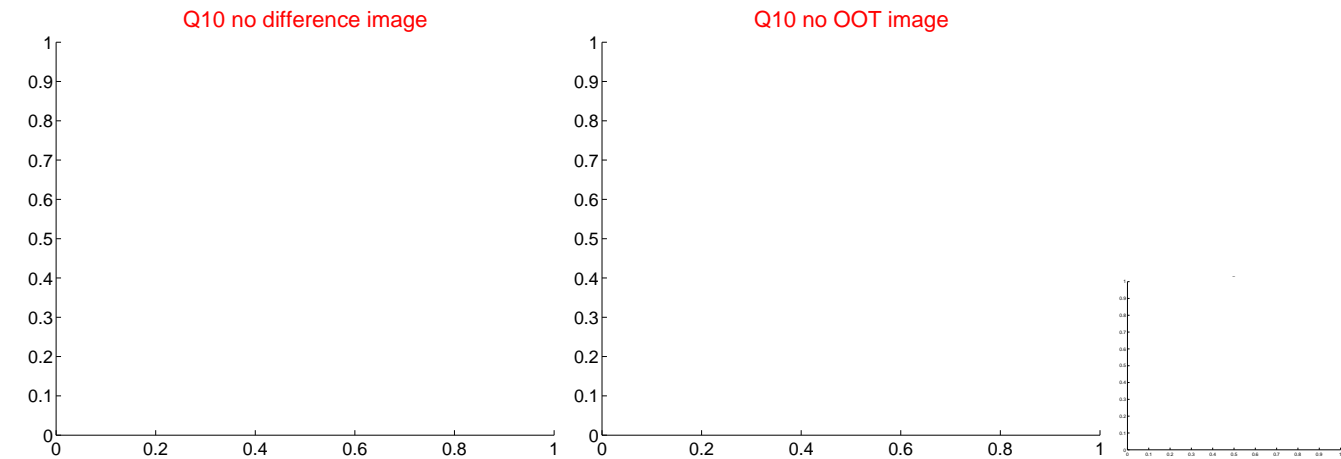
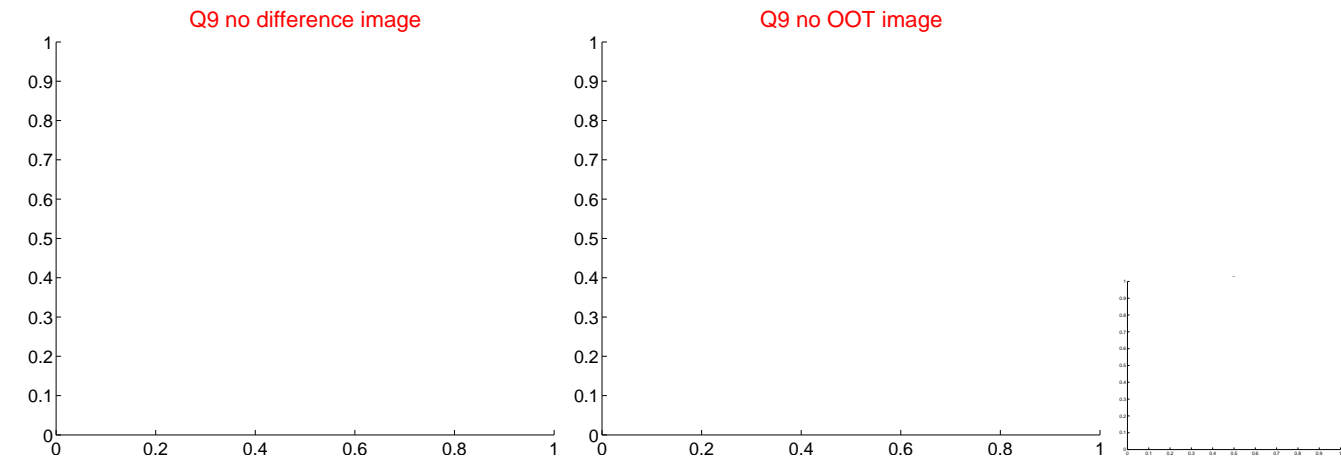
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



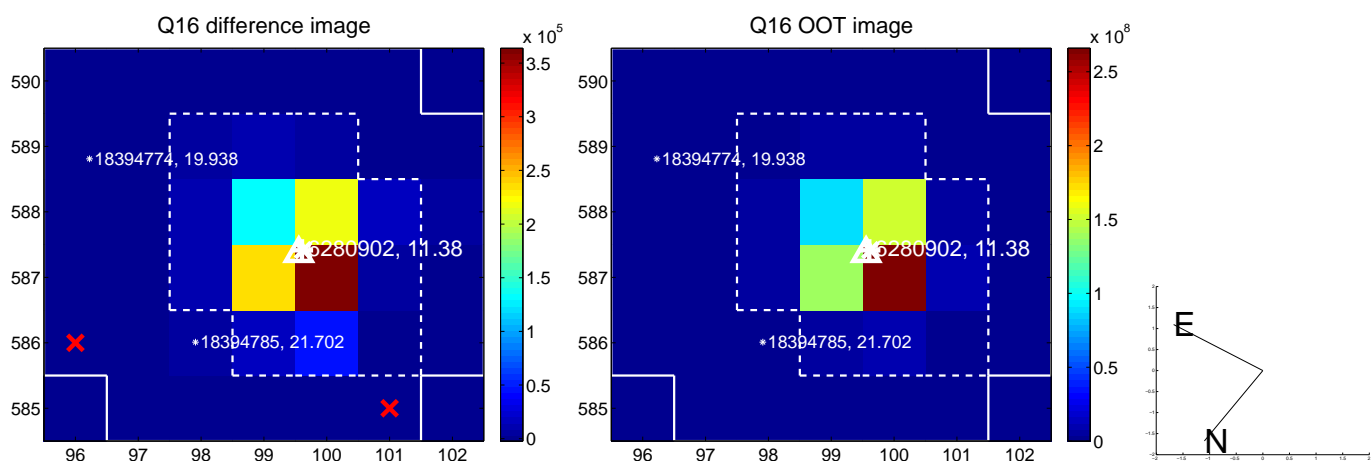
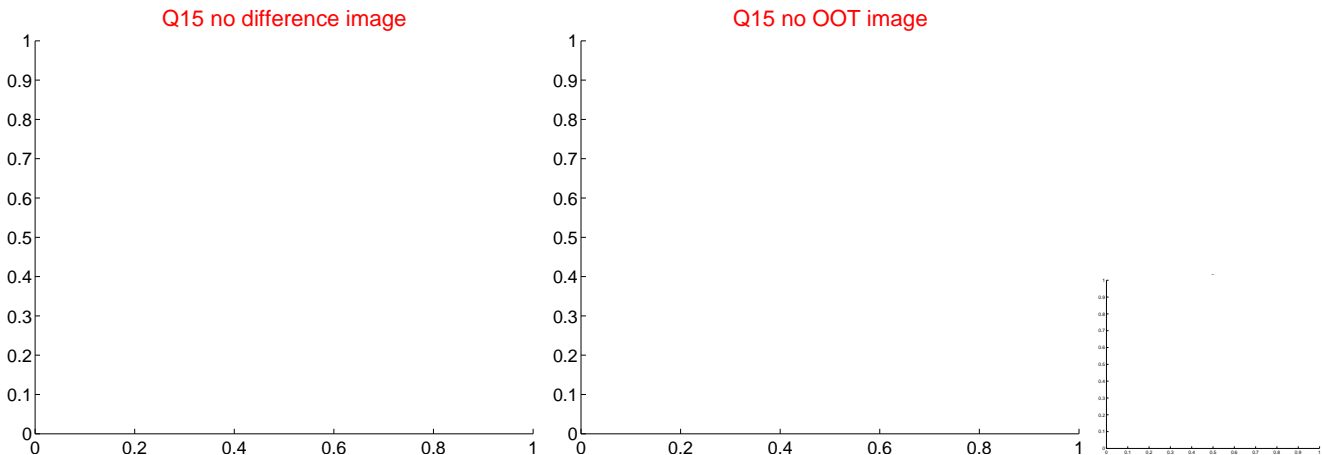
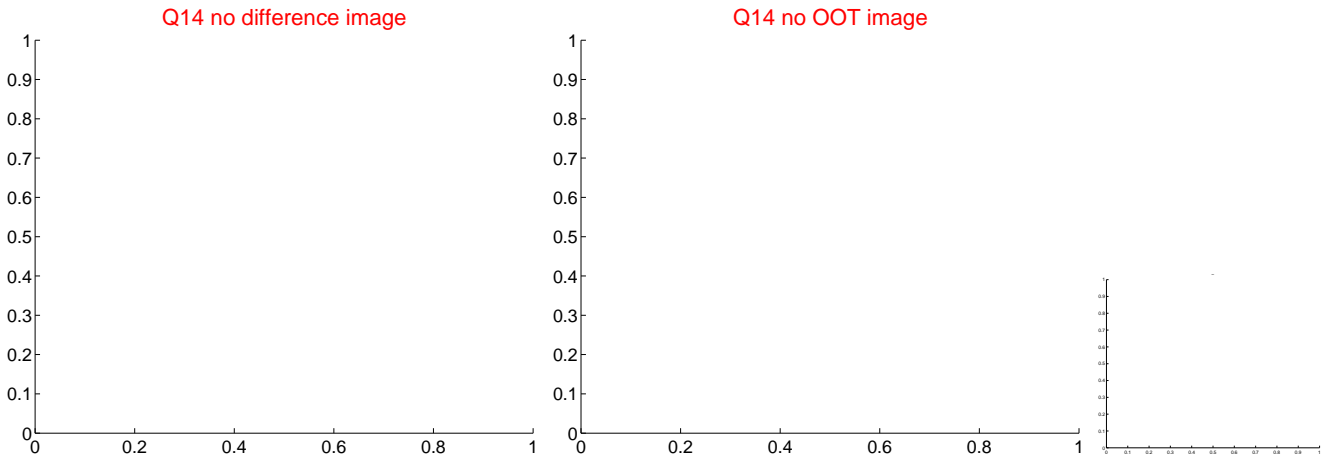
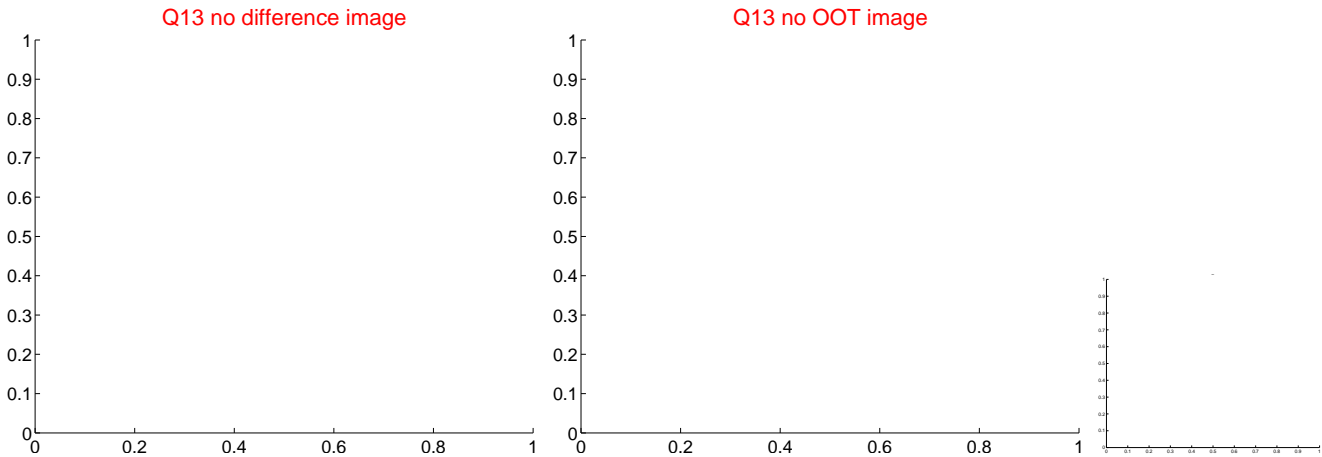
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



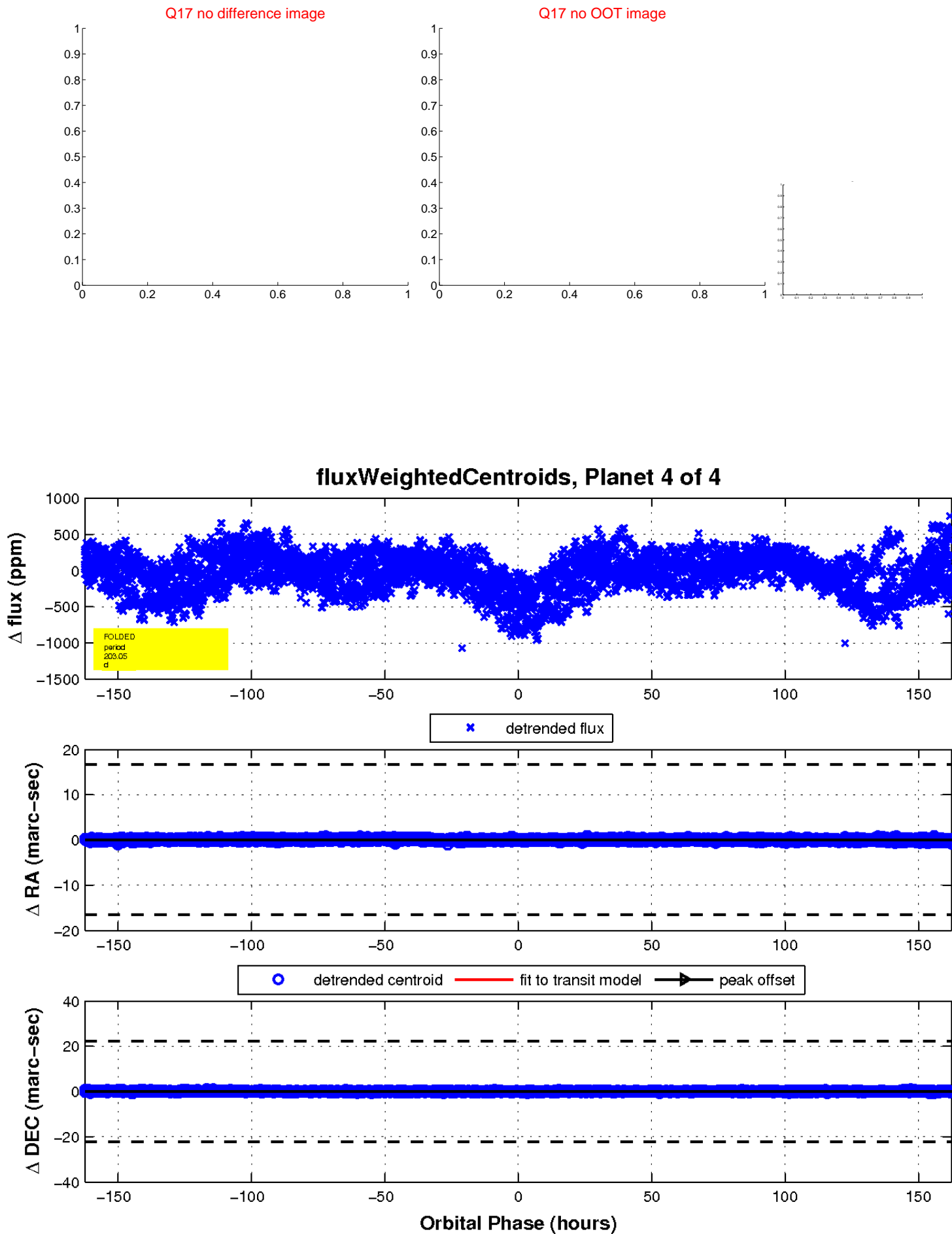
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



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



UKIRT Image

Declination

