

KIC 005881213

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})
005881213-01	OBS	No	123.324329	240.066414	50.8	0.993	38.0	14.1	1.36	5812	1.04	8.12
005881213-02	OBS	No	102.322172	195.588619	36.4	1.732	20.9	12.4	1.36	5812	0.88	10.41
005881213-03	OBS	No	414.360946	186.937127	44.7	4.415	18.0	12.1	1.36	5812	1.09	1.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005881213-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
005881213-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
005881213-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

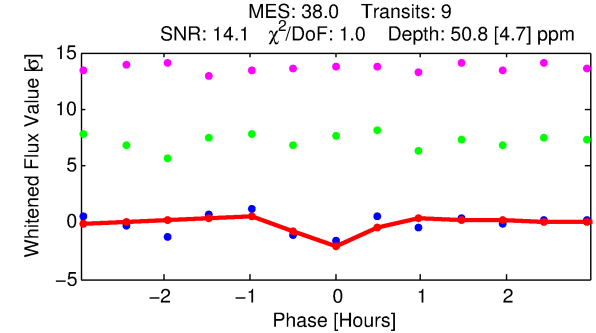
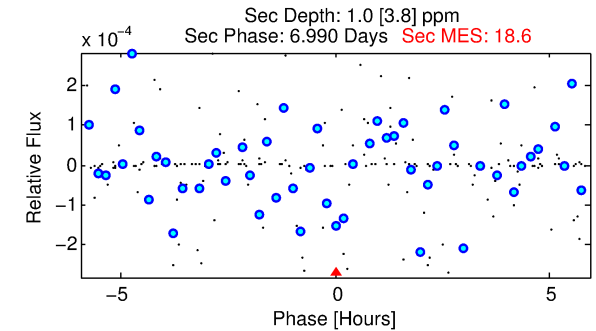
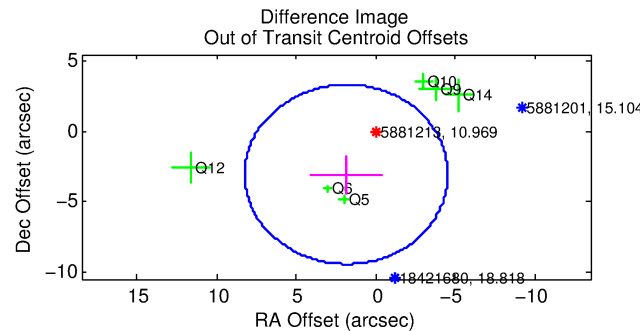
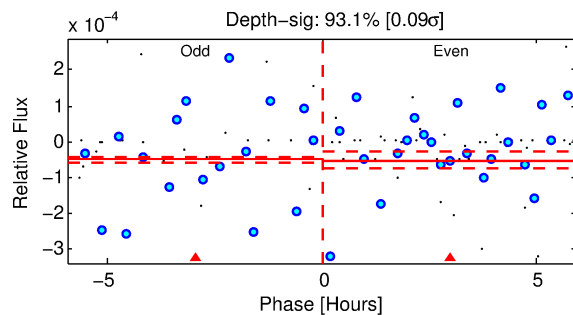
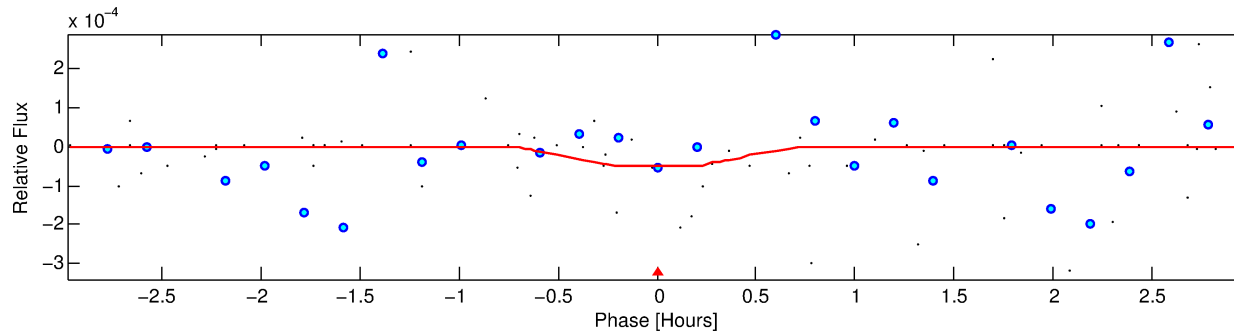
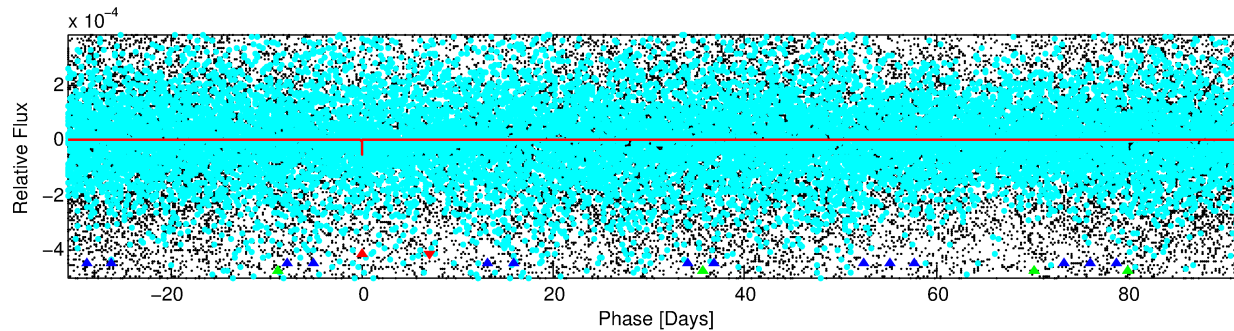
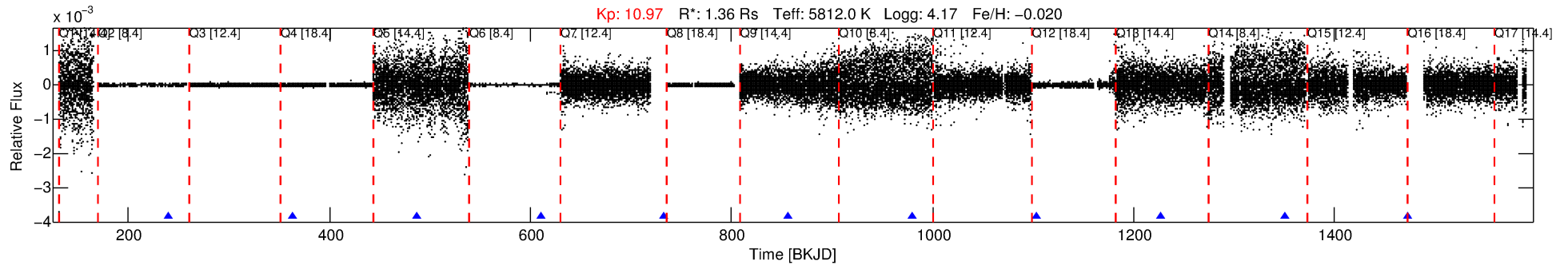
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005881213-01

No Significant Match Found

DV One-Page Summary

KIC: 5881213 Candidate: 1 of 3 Period: 123.324 d



DV Fit Results:

Period = 123.32433 [0.00063] d
Epoch = 240.0664 [0.0030] BKJD
Rp/R* = 0.0070 [0.0074]
a/R* = 693.75 [3240.10]
b = 0.69 [3.57]
Seff = 8.12 [4.03]
Teq = 430 [53] K
Rp = 1.05 [1.14] Re
a = 0.4841 [0.1403] AU
Ag = 116.74 [512.20] [0.23 σ]
Teffp = 2187 [2386] K [0.74 σ]

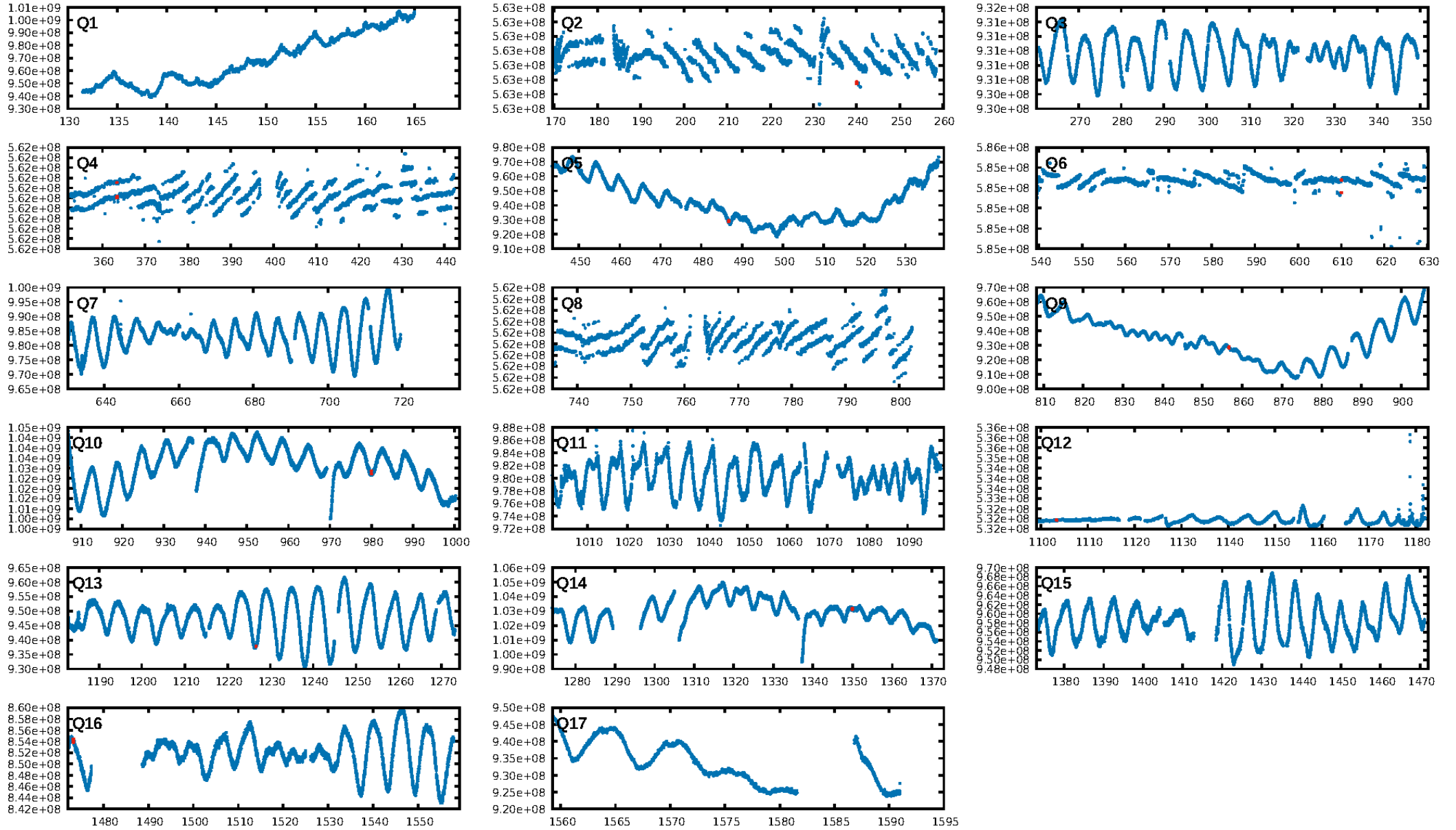
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [252.50 σ]
LongPeriod-sig: 100.0% [1543.45 σ]
ModelChiSquare2-sig: 28.1%
ModelChiSquareGof-sig: 92.6%
Bootstrap-pfa: 8.76e-31
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -0.865
Centroid-sig: 73.5%
Centroid-so: 1.952 arcsec [0.25 σ]
OotOffset-rm: 3.576 arcsec [1.68 σ]
KicOffset-rm: 1.491 arcsec [0.70 σ]
OotOffset-st: 3/0/1/2 [6]
KicOffset-st: 3/0/1/2 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 1.00 [8/8]

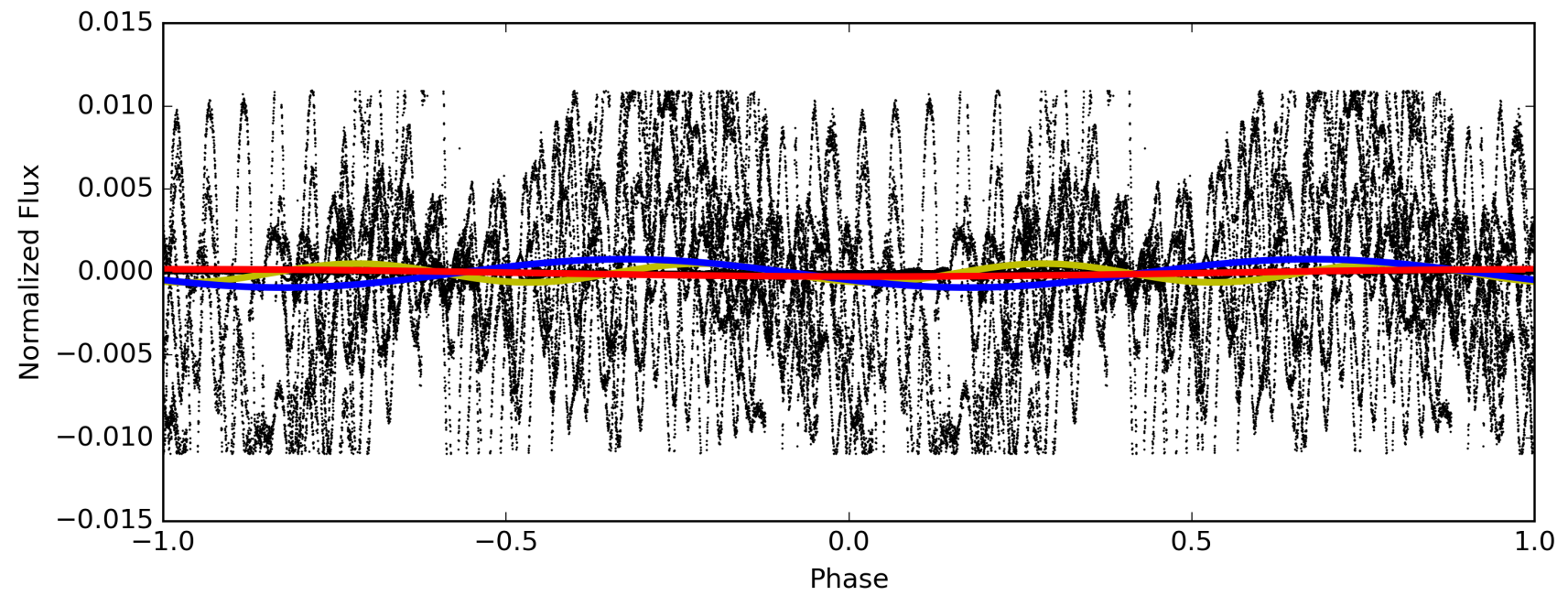
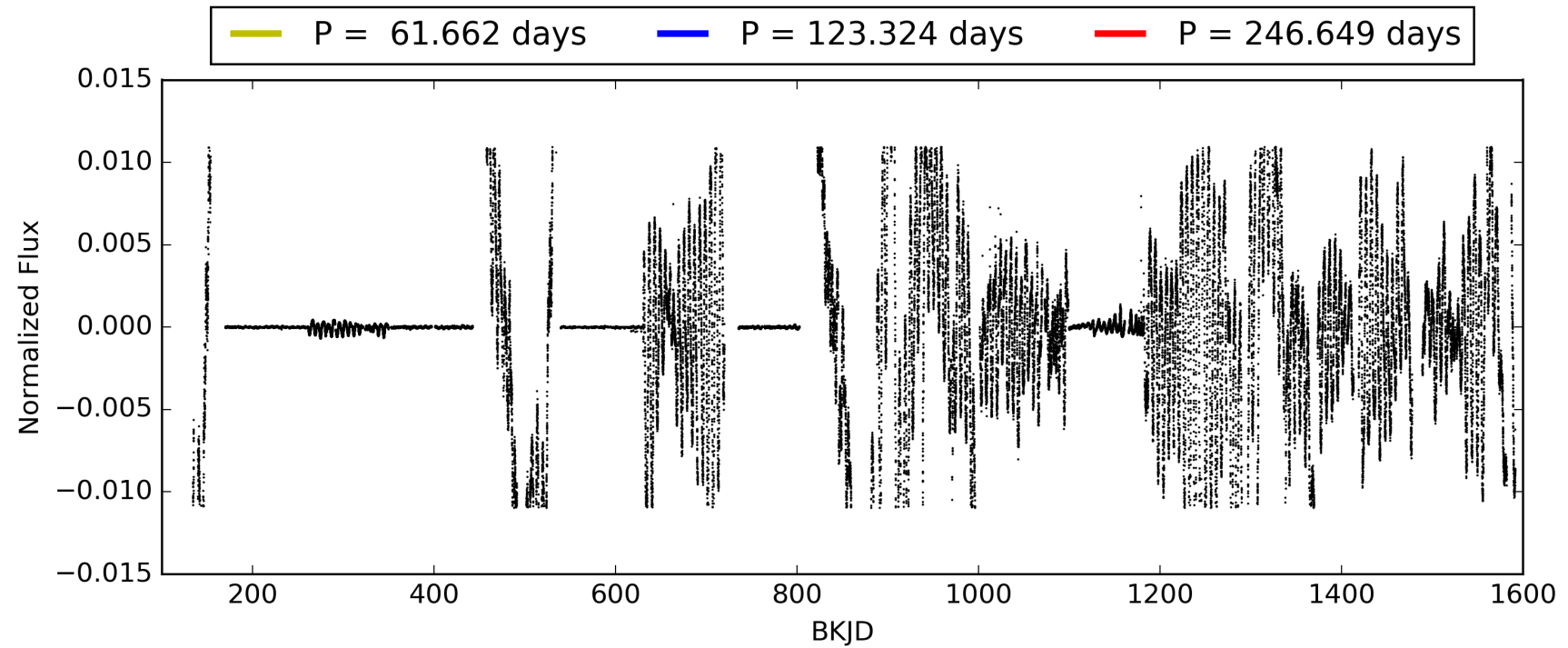
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:10:02 Z

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

TCE 005881213-01, PDC Light Curves

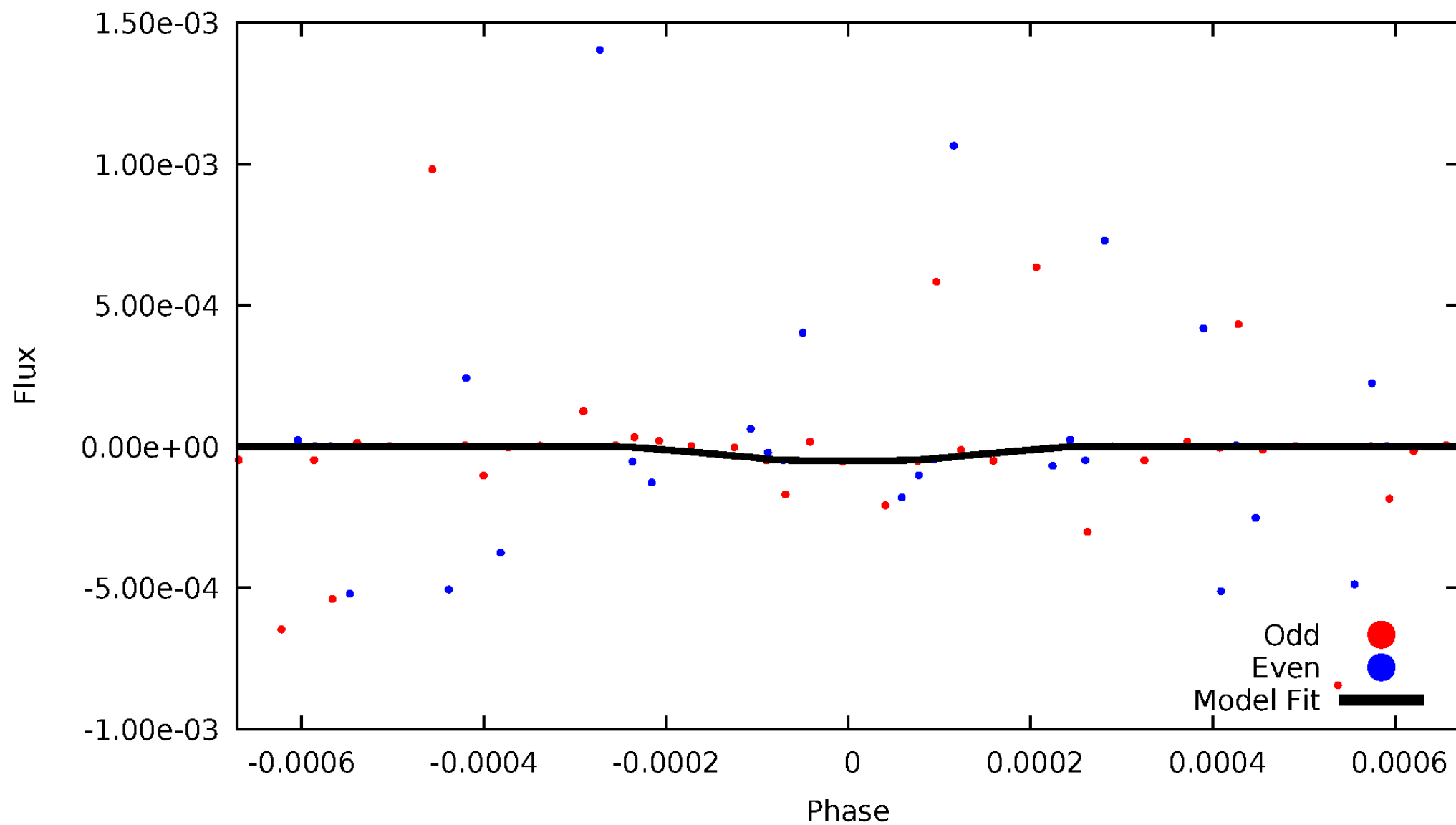


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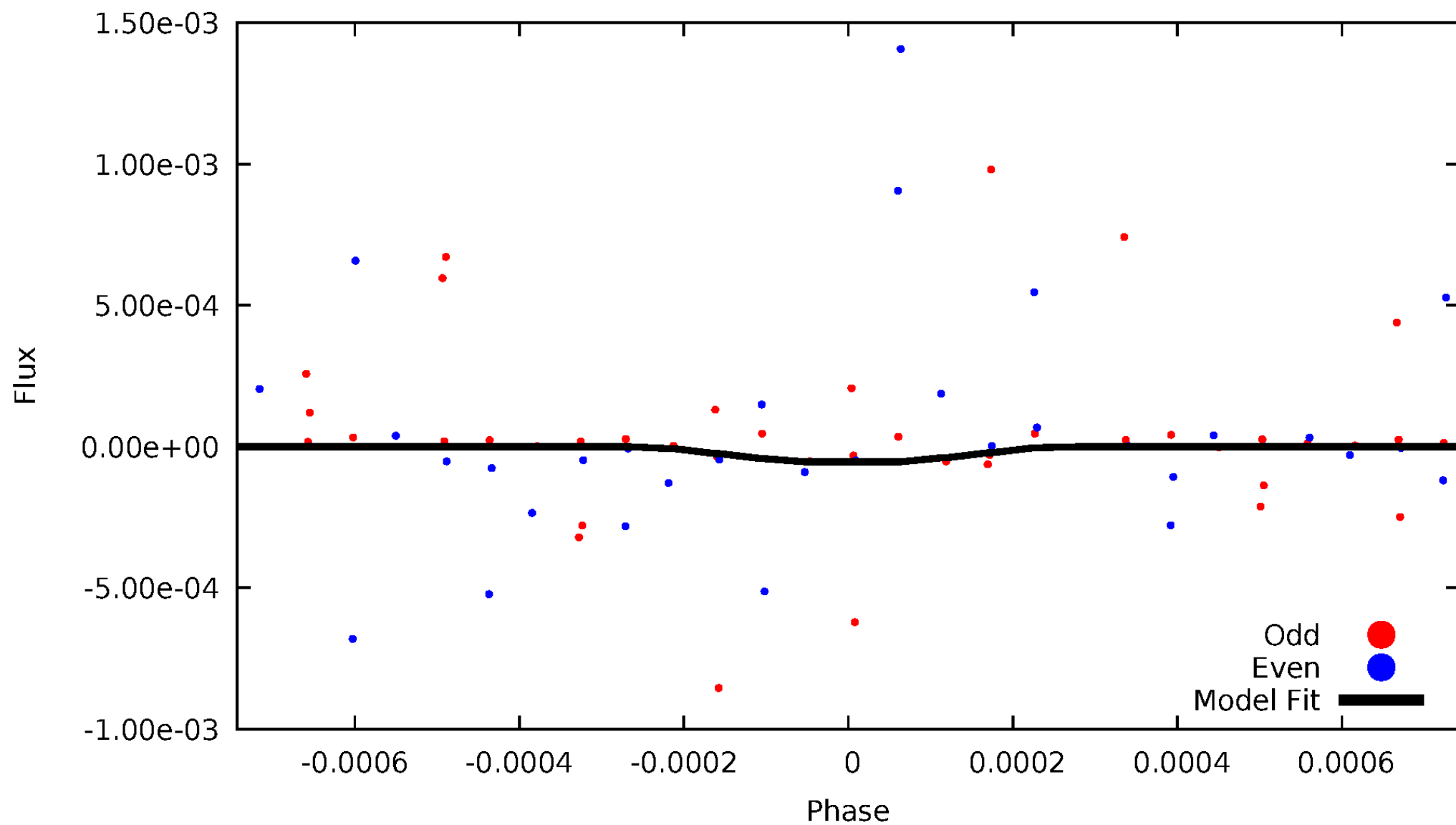
DV Odd/Even

TCE 005881213-01



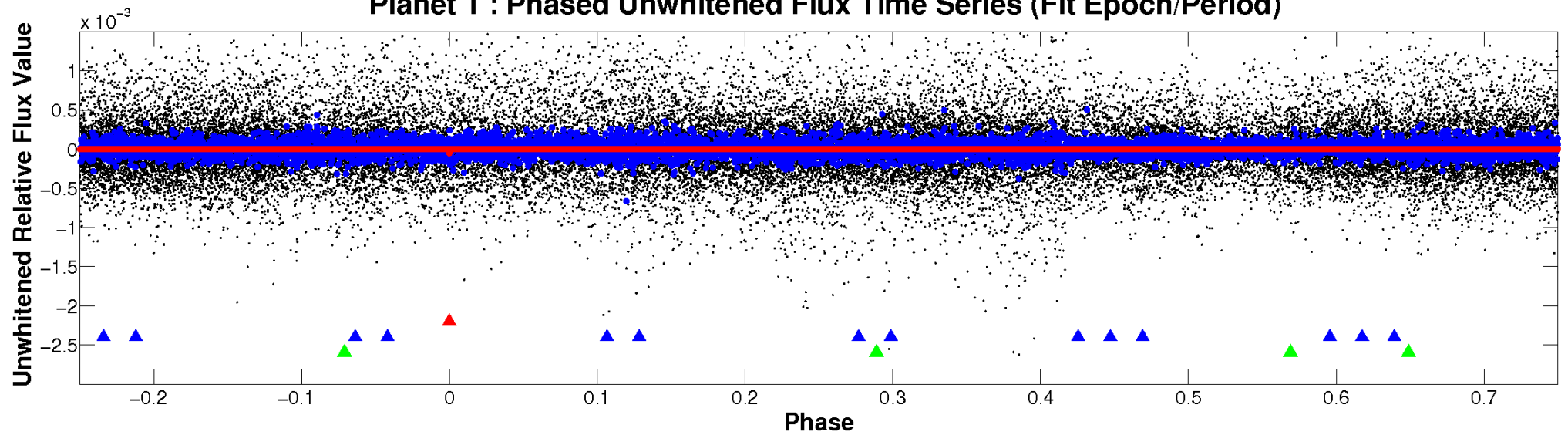
ALT Odd/Even

TCE 005881213-01

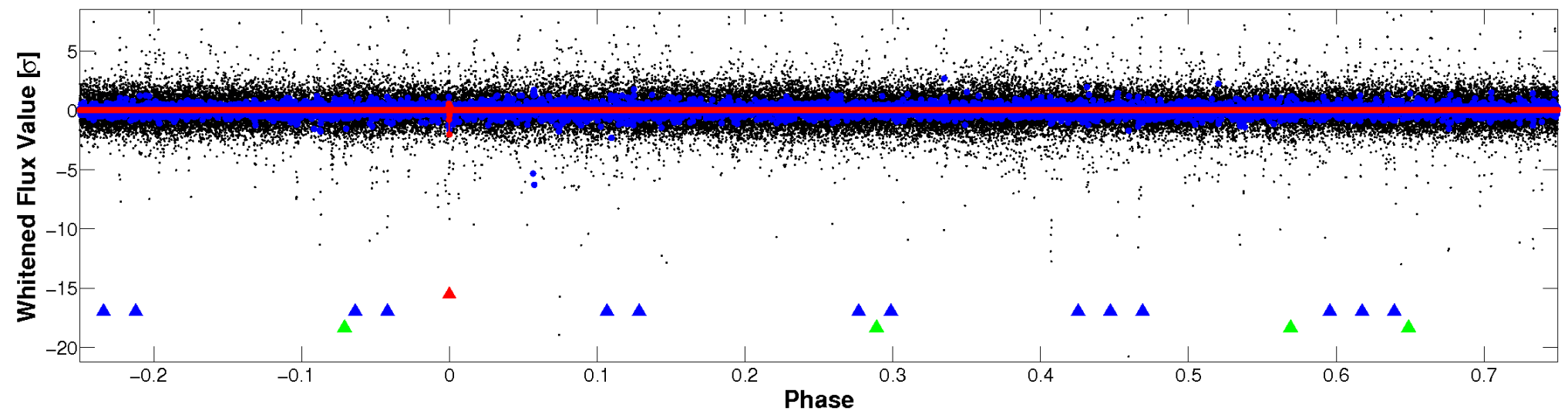


Non-Whitened Vs. Whitened Light Curve

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

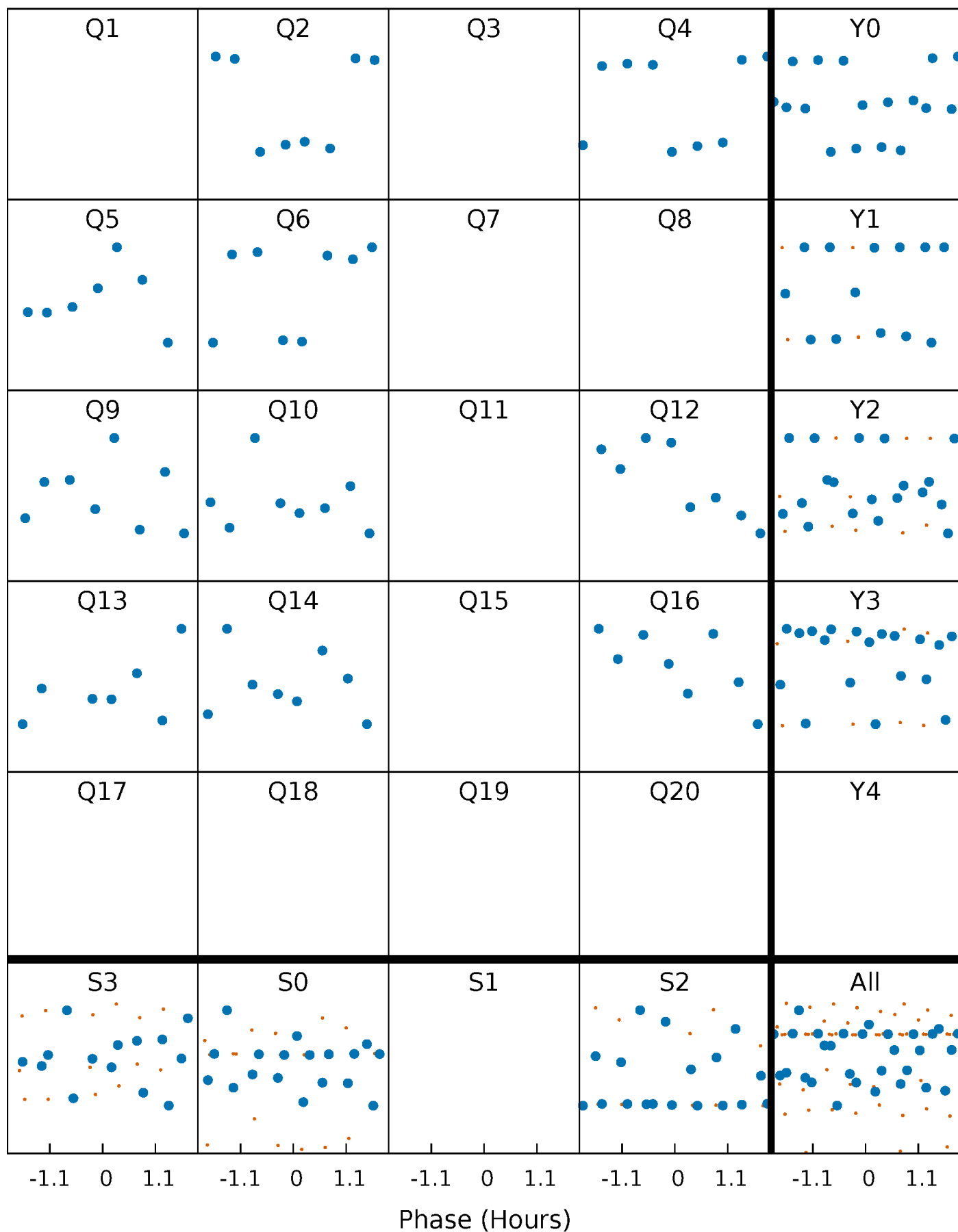


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



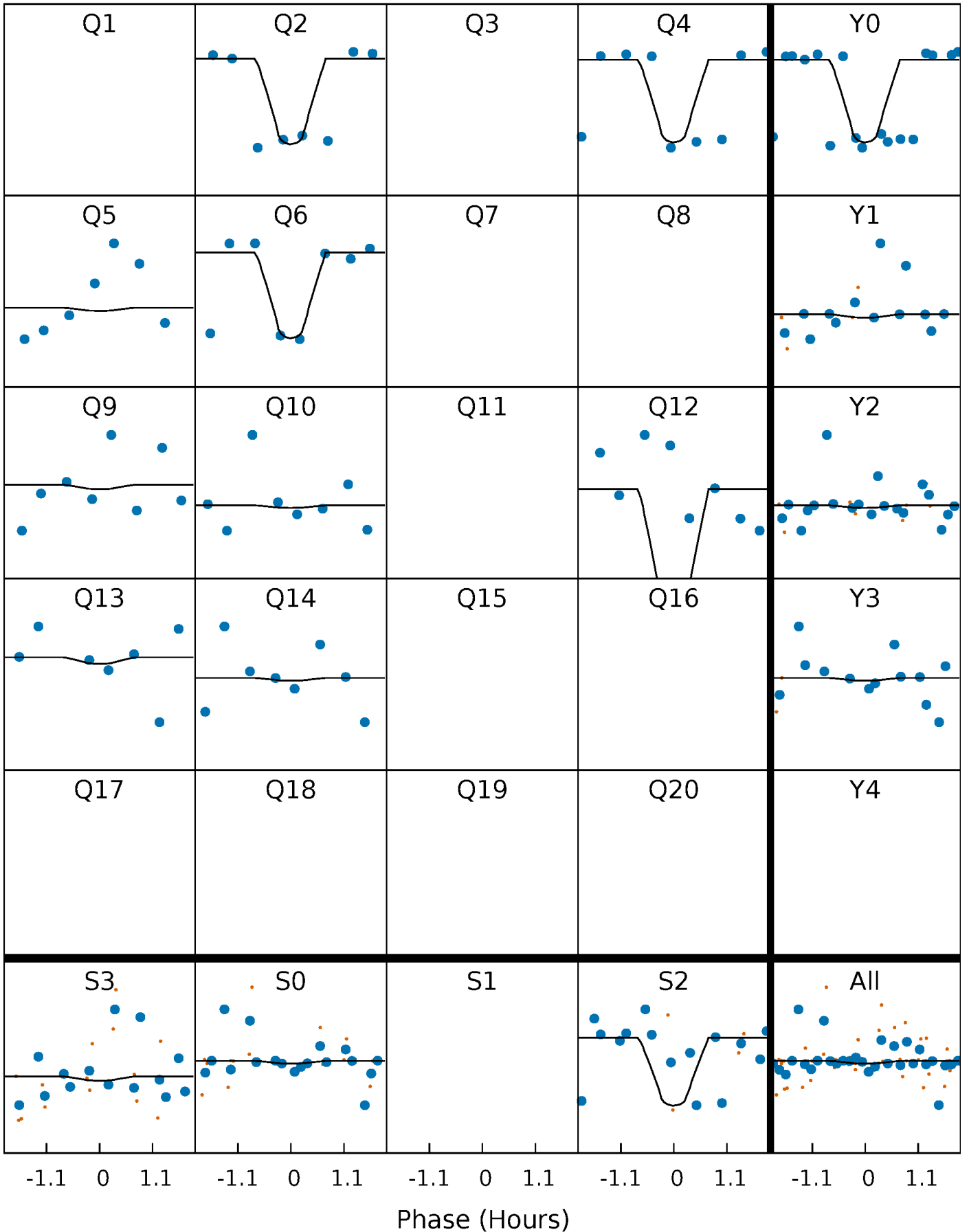
PDC Quarter-Phased Transit Curves

TCE 005881213-01 P=123.324329 Days $T_0=240.066414$ (BKJD)



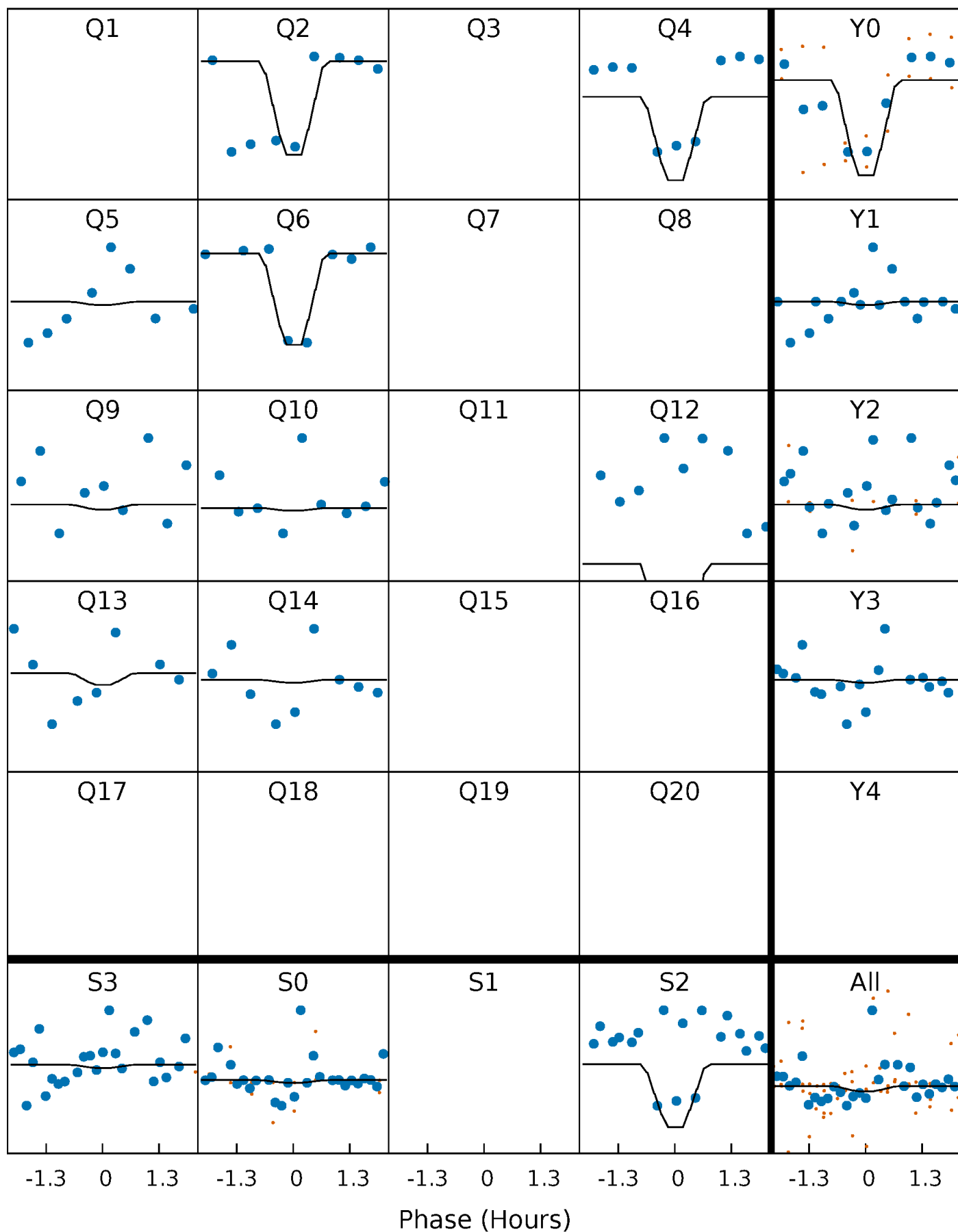
DV Quarter-Phased Transit Curves

TCE 005881213-01 P=123.324329 Days $T_0=240.066414$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

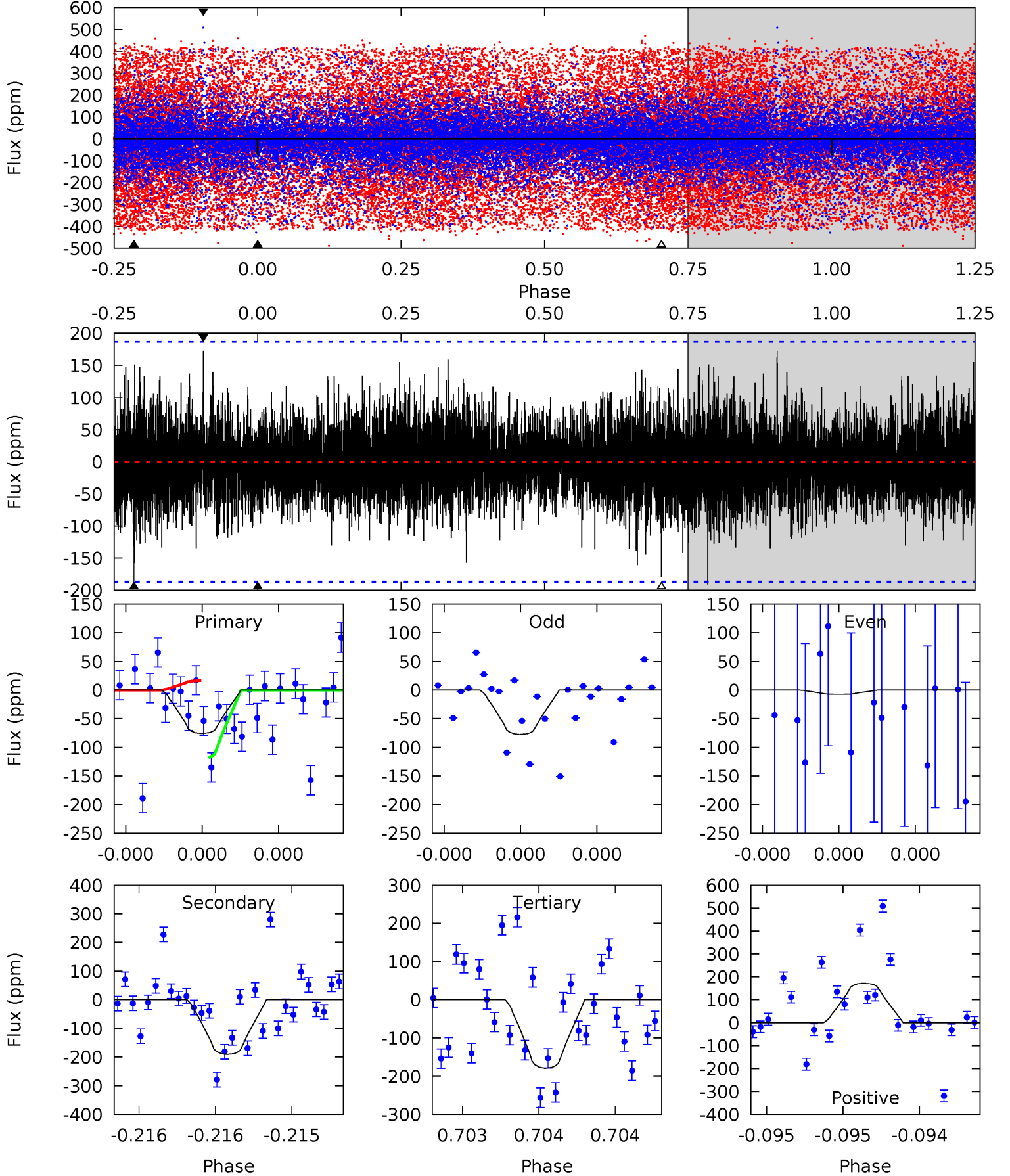
TCE 005881213-01 P=123.312254 Days $T_0=240.097374$ (BKJD)



DV Model-Shift Uniqueness Test

005881213-01, P = 123.324329 Days, E = 116.742085 Days

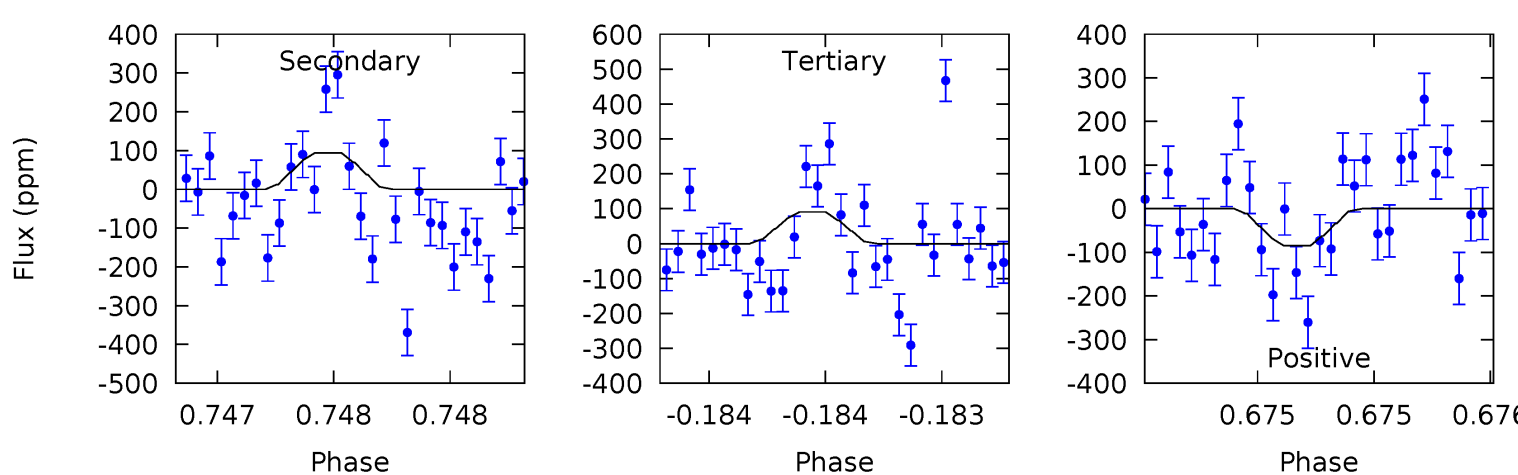
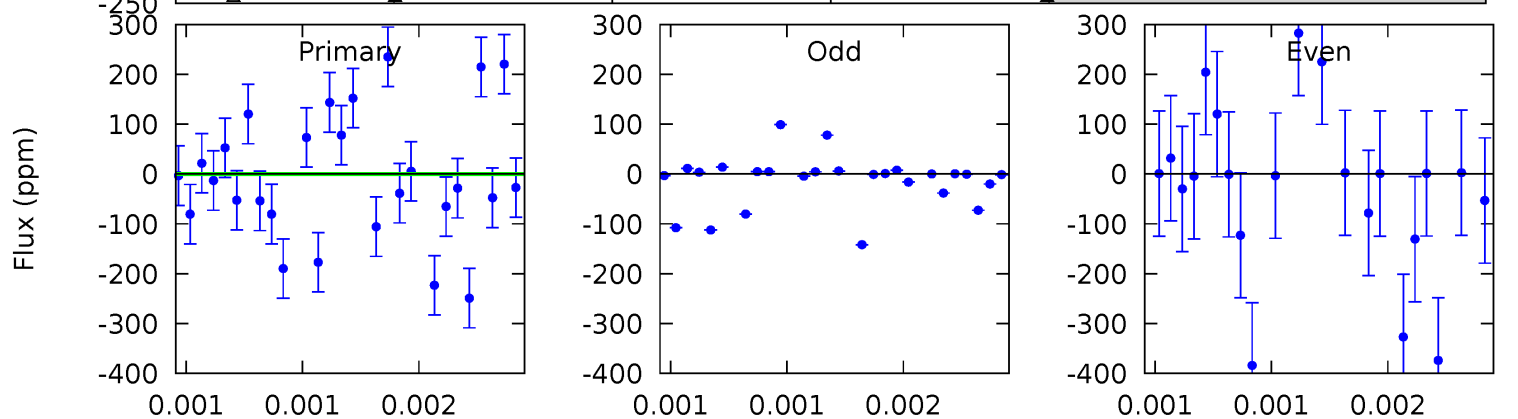
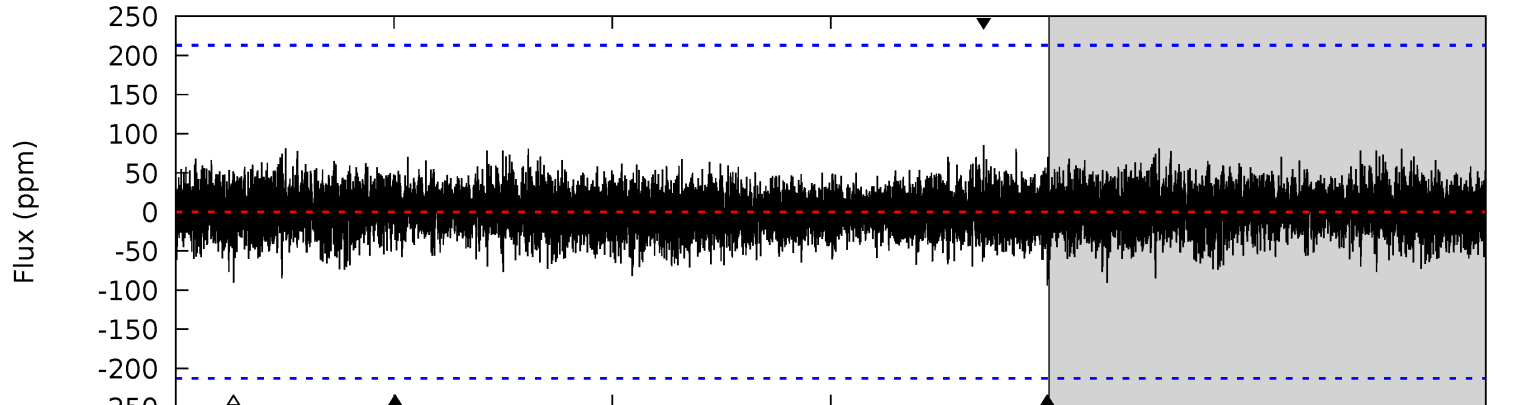
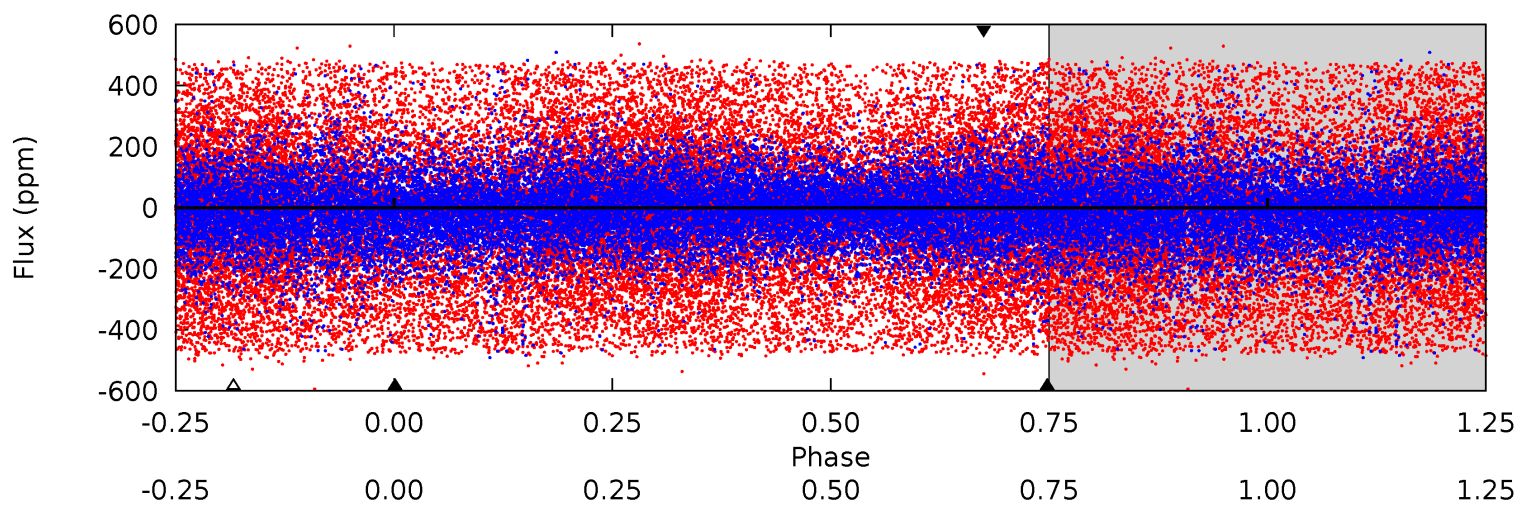
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.27	5.71	5.37	5.16	5.58	3.49	1.23	-3.10	-2.89	0.34	0.55	0.98	-1.20	0.47	1.60



Alt Model-Shift Uniqueness Test

005881213-01, P = 123.312254 Days, E = 116.785120 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.70	2.47	2.37	2.22	5.57	3.48	0.57	-1.67	-1.53	0.10	0.25	0.07	5.16	0.47	0.58



Stellar Parameters For KIC 005881213

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5812^{+176}_{-193}	$4.166^{+0.286}_{-0.154}$	$-0.020^{+0.250}_{-0.300}$	$1.364^{+0.387}_{-0.387}$	$0.994^{+0.153}_{-0.115}$	$0.551^{+0.980}_{-0.255}$
	+3%/-3%	+7%/-4%	+1250%/-1500%	+28%/-28%	+15%/-12%	+178%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005881213-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-191 ± 33	$1.26^{+1.00}_{-0.79}$	592^{+46}_{-50}	7379^{+8038}_{-1937}	15459^{+97890}_{-10757}
Alt.	-94 ± 38	$1.25^{+1.07}_{-0.74}$	591^{+46}_{-52}	5949^{+5054}_{-1396}	7184^{+45229}_{-5167}

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

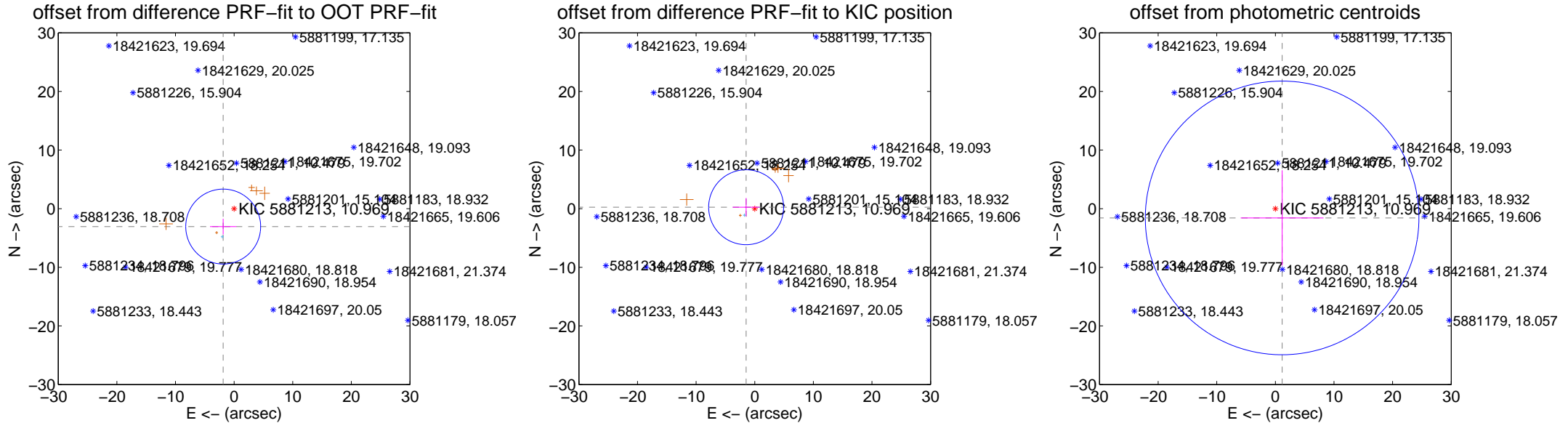
DV Centroid Data

Supplemental centroid analysis for 005881213-01. **Kepler magnitude: 10.97.** Transit SNR 14.08

There are 1 quarters with good PRF difference image offsets

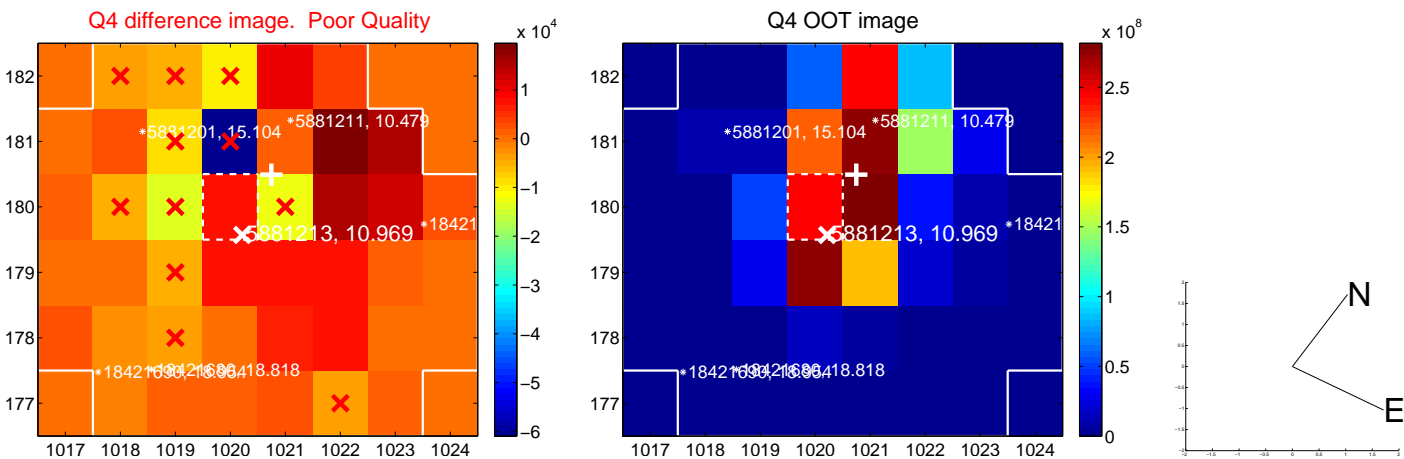
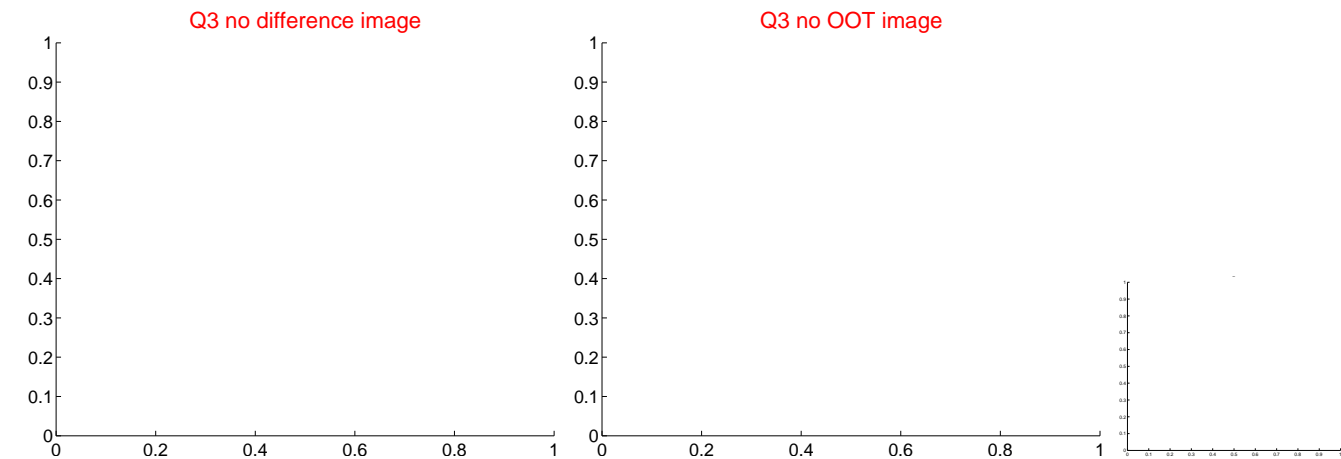
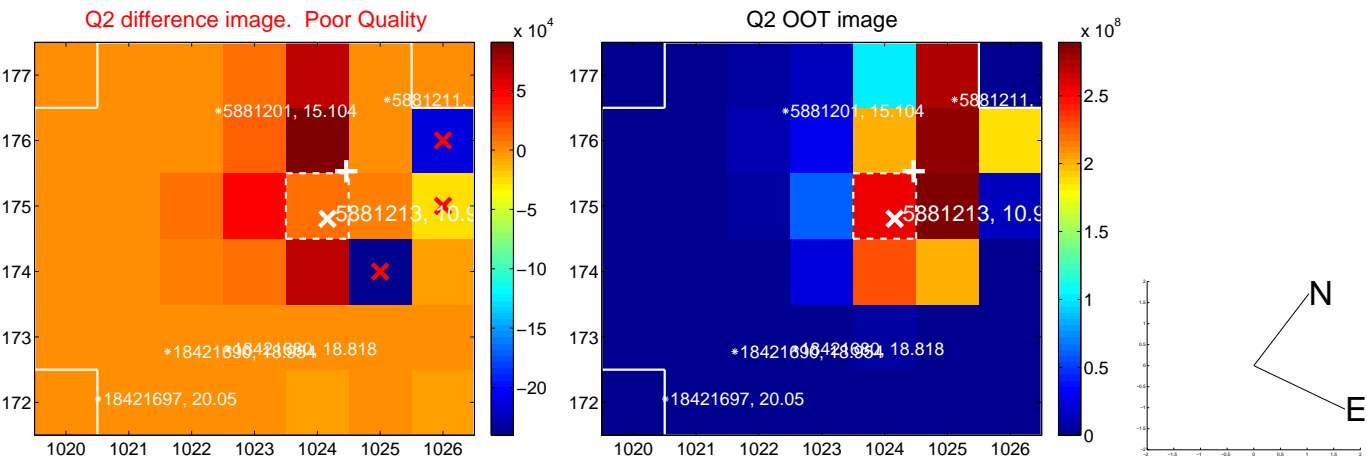
The OOT PRF centroid is offset from the target star catalog position by about 3.08 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.576 ± 2.130	1.68	1.862 ± 2.247	-3.053 ± 1.340
PRF-fit source offset from KIC position	1.491 ± 2.131	0.70	1.471 ± 2.320	0.248 ± 1.567
photometric centroid source offset	1.95 ± 7.78	0.25	-1.15 ± 7.07	-1.58 ± 8.13

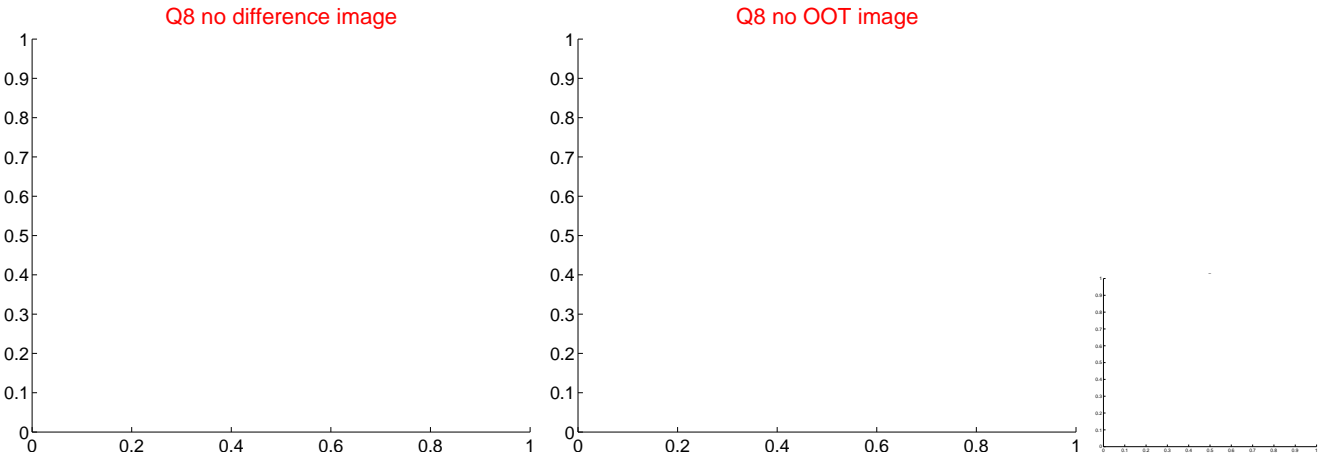
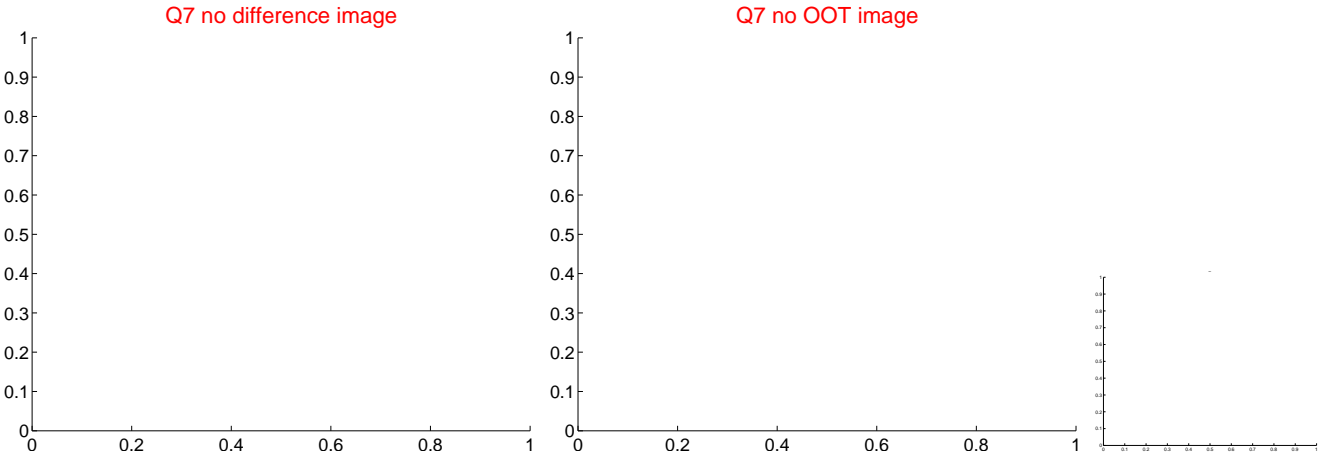
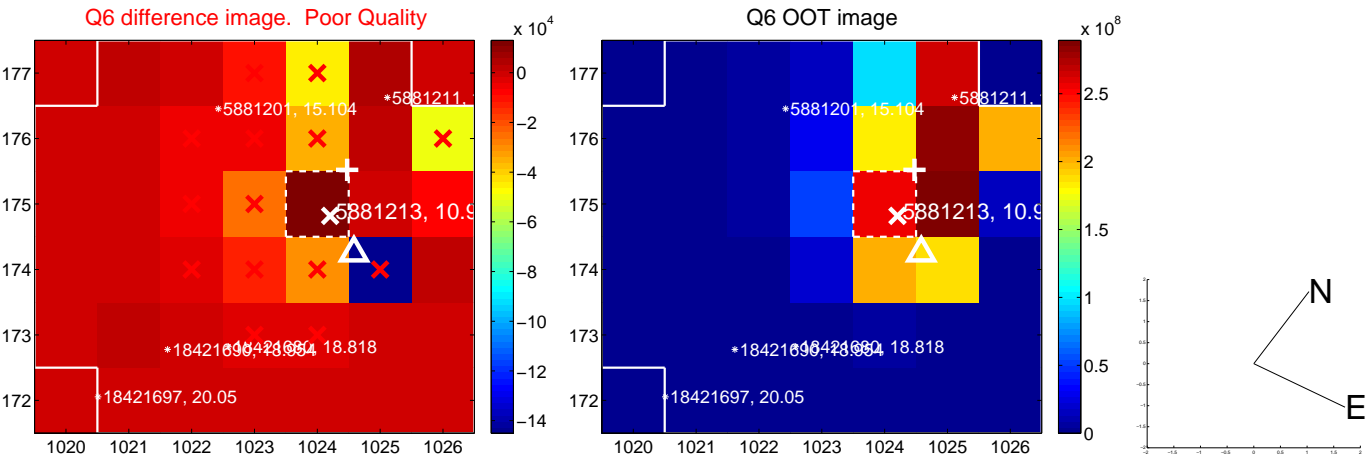
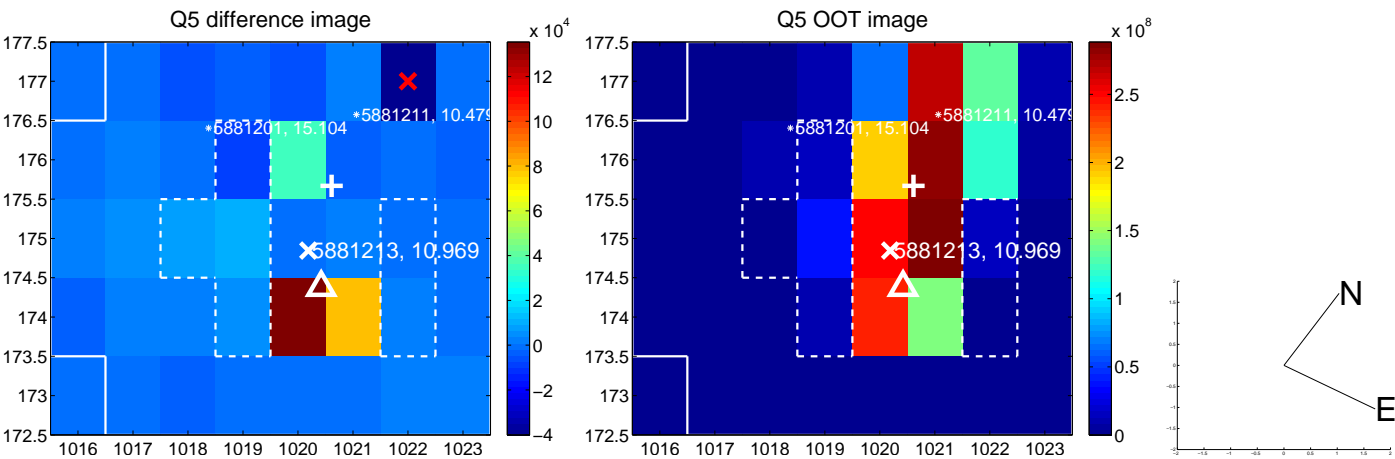


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

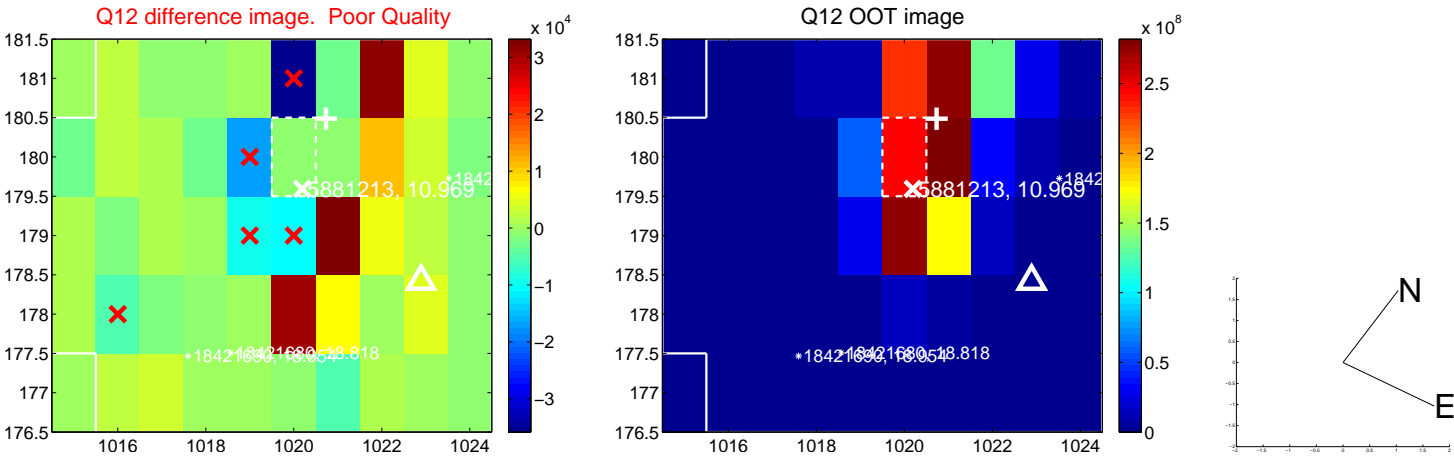
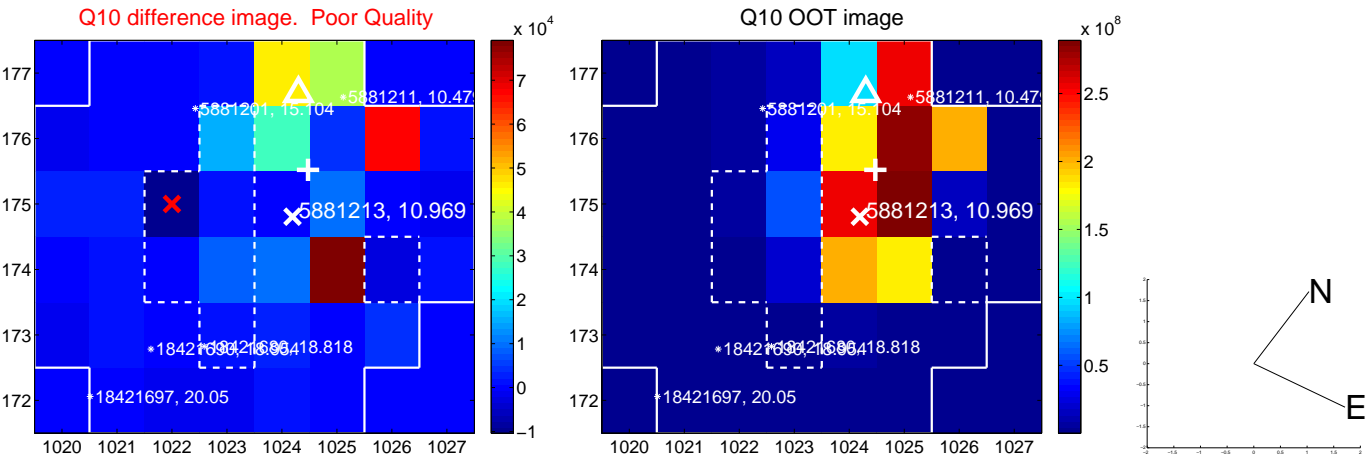
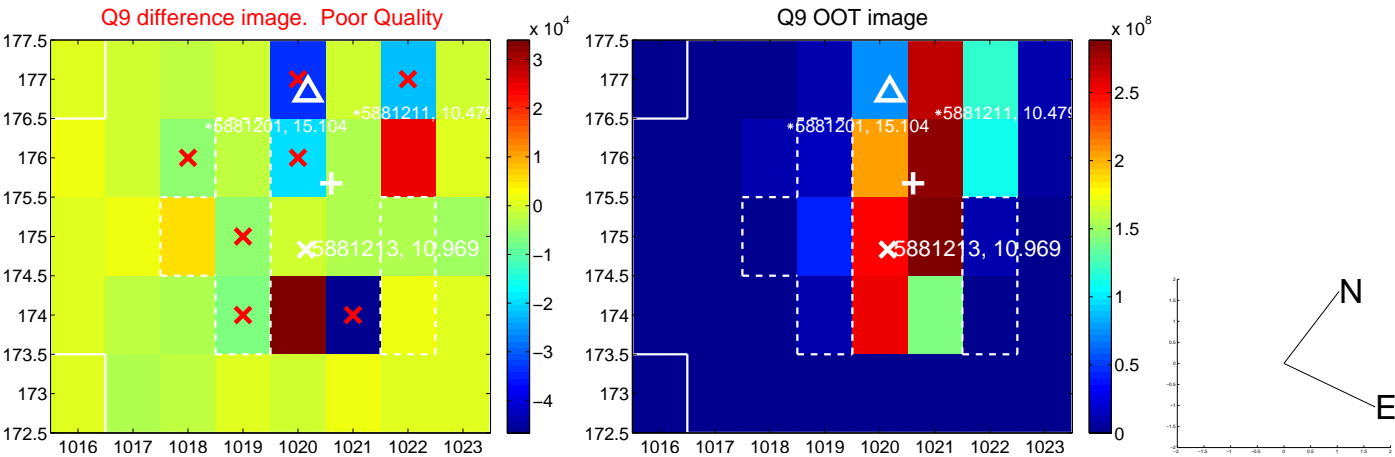
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



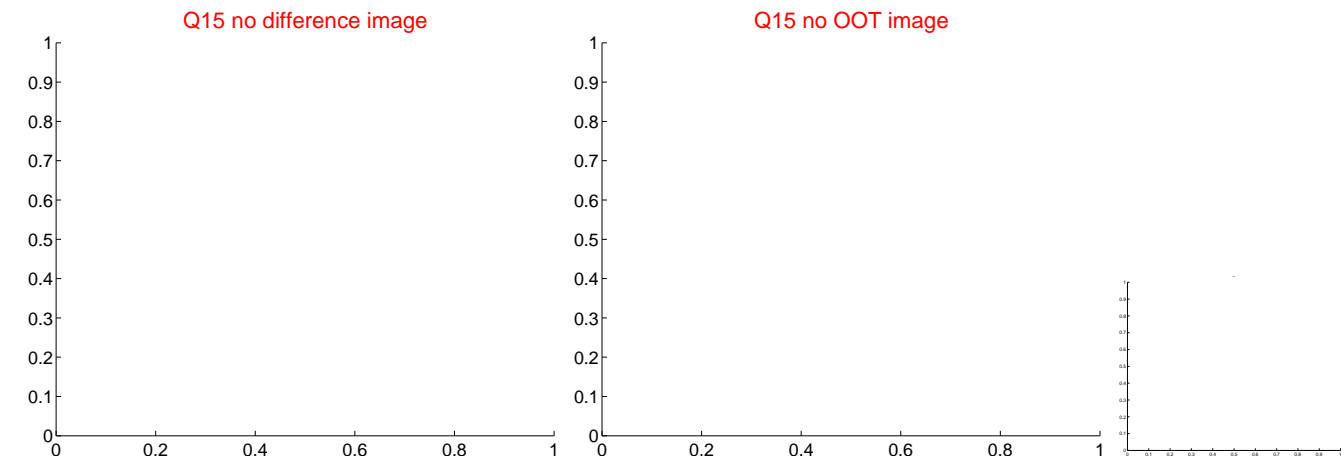
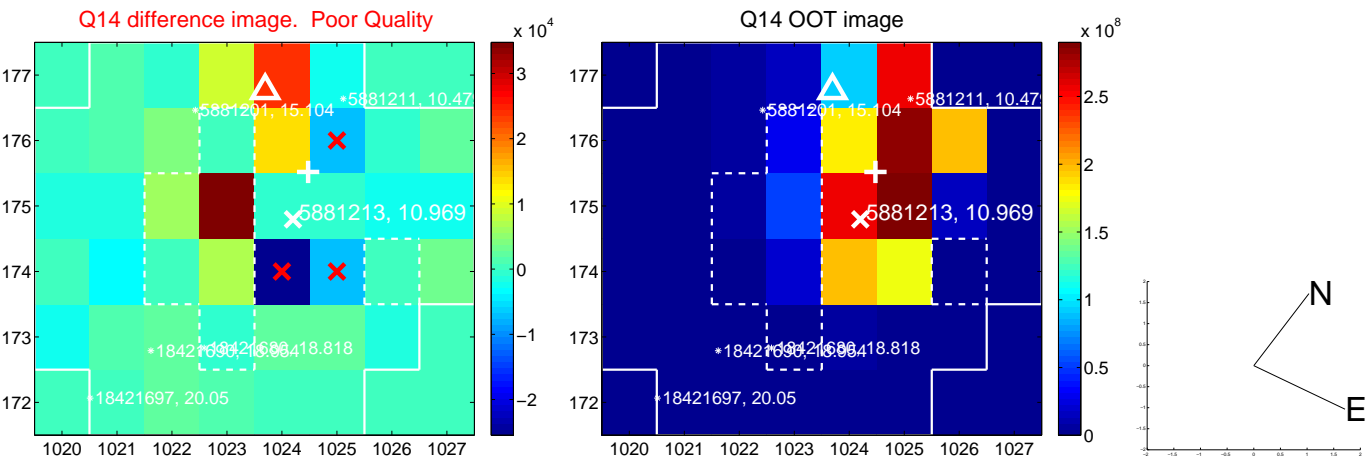
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



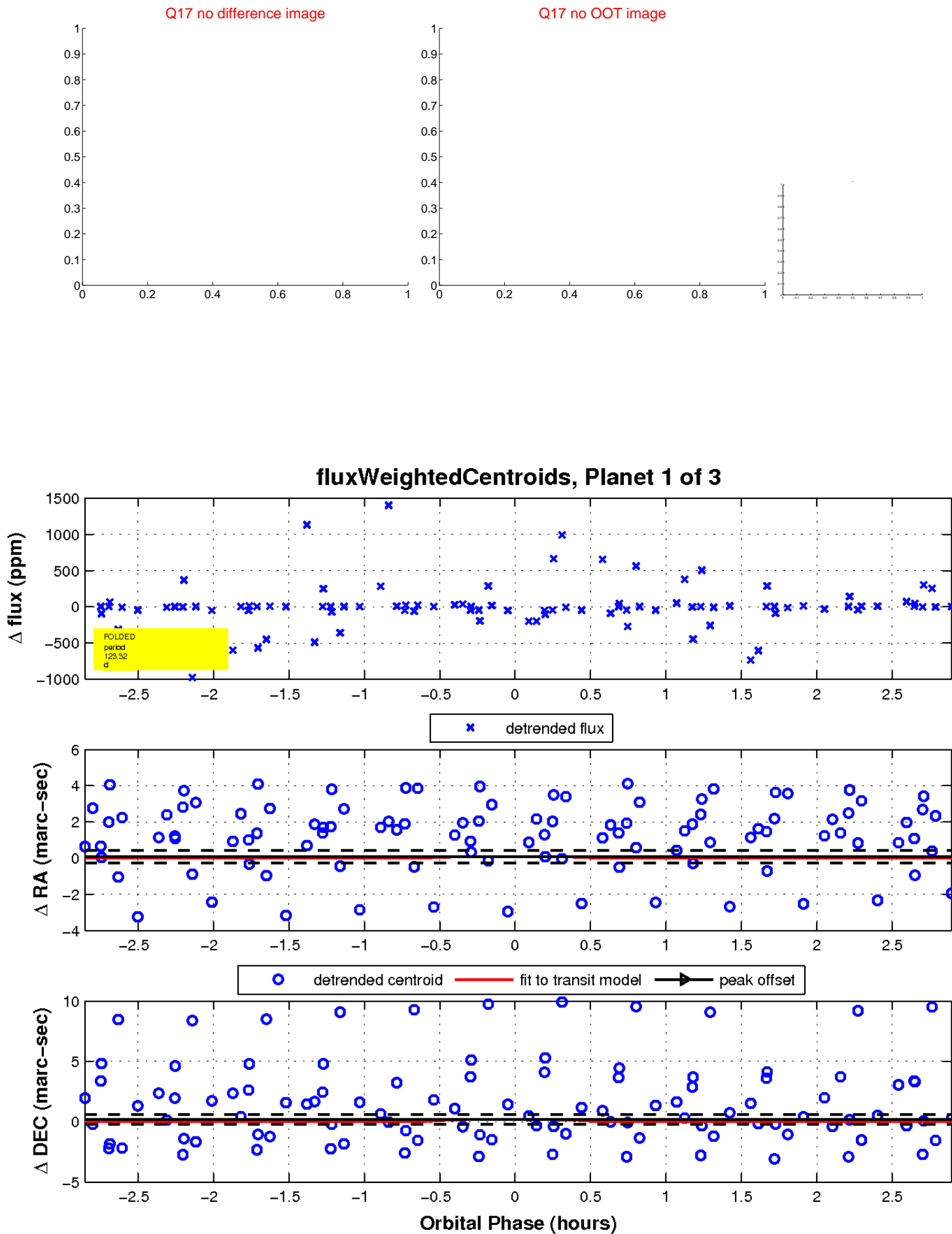
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



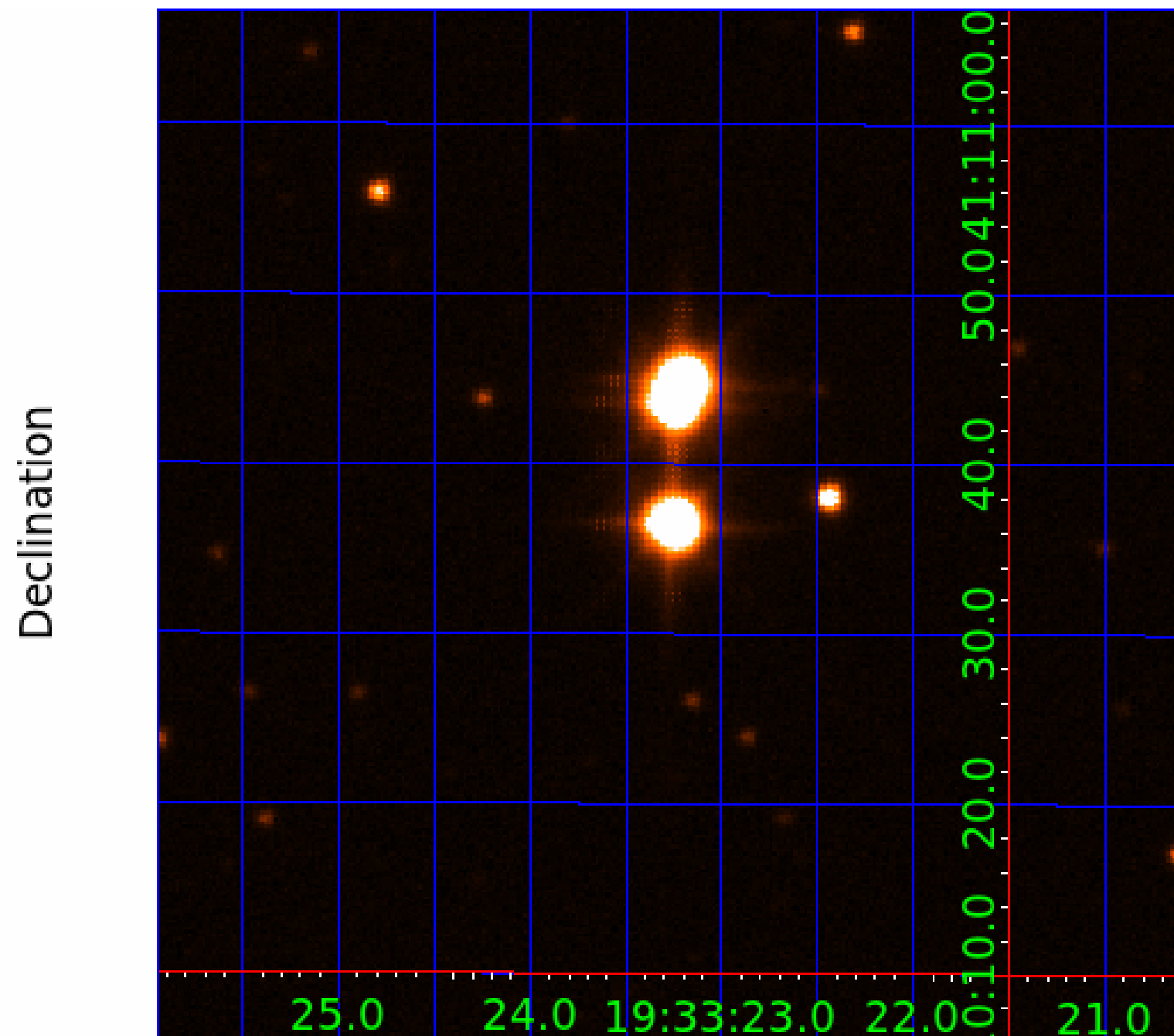
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005881213

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})
005881213-01	OBS	No	123.324329	240.066414	50.8	0.993	38.0	14.1	1.36	5812	1.04	8.12
005881213-02	OBS	No	102.322172	195.588619	36.4	1.732	20.9	12.4	1.36	5812	0.88	10.41
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005881213-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
005881213-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
005881213-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

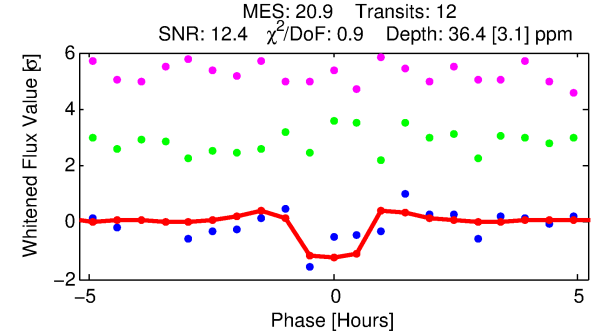
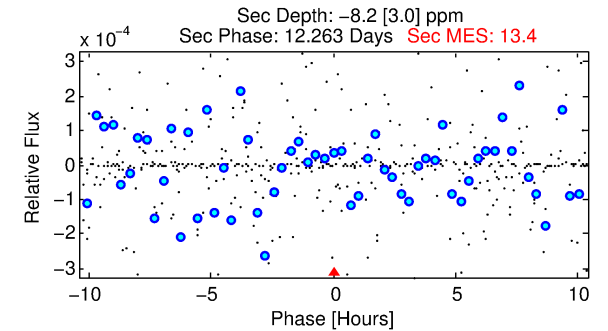
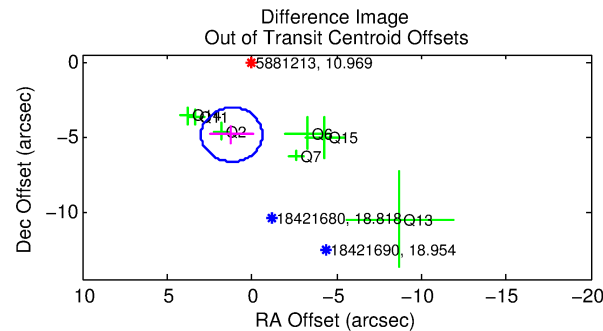
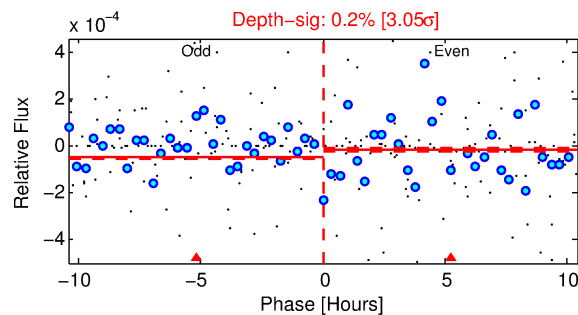
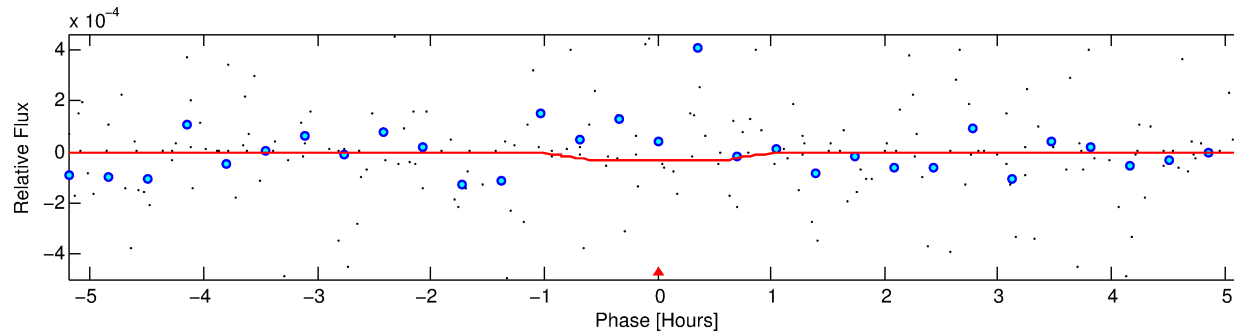
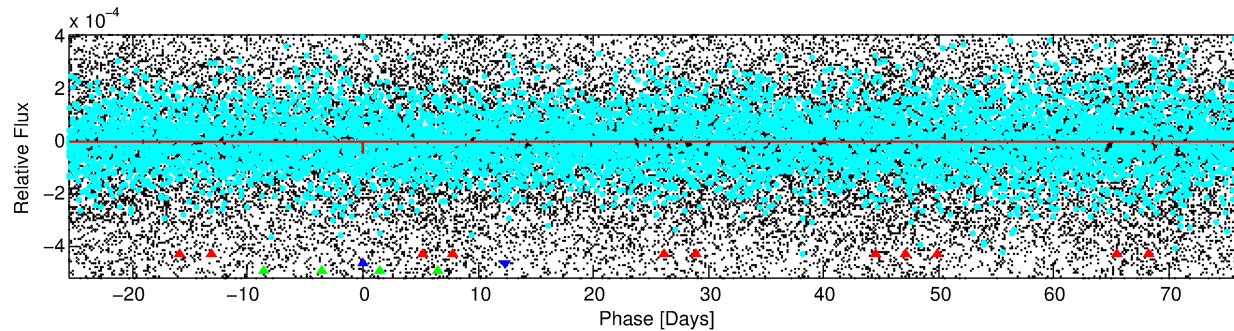
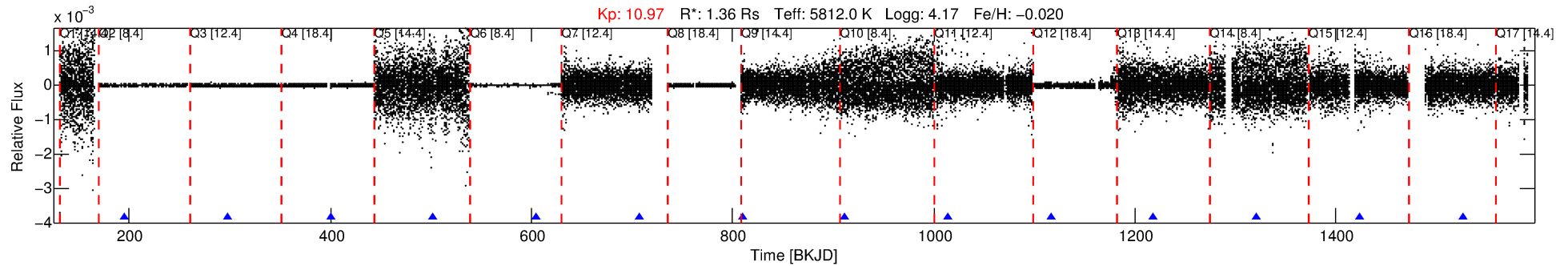
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005881213-02

No Significant Match Found

DV One-Page Summary

KIC: 5881213 Candidate: 2 of 3 Period: 102.322 d



DV Fit Results:

Period = 102.32217 [0.00060] d
Epoch = 195.5886 [0.0030] BKJD
Rp/R* = 0.0059 [0.0052]
a/R* = 336.83 [1363.52]
b = 0.67 [3.28]
Seff = 10.41 [5.16]
Teff = 458 [57] K
Rp = 0.87 [0.81] Re
a = 0.4275 [0.1239] AU
Ag = N/A
Teffp = N/A

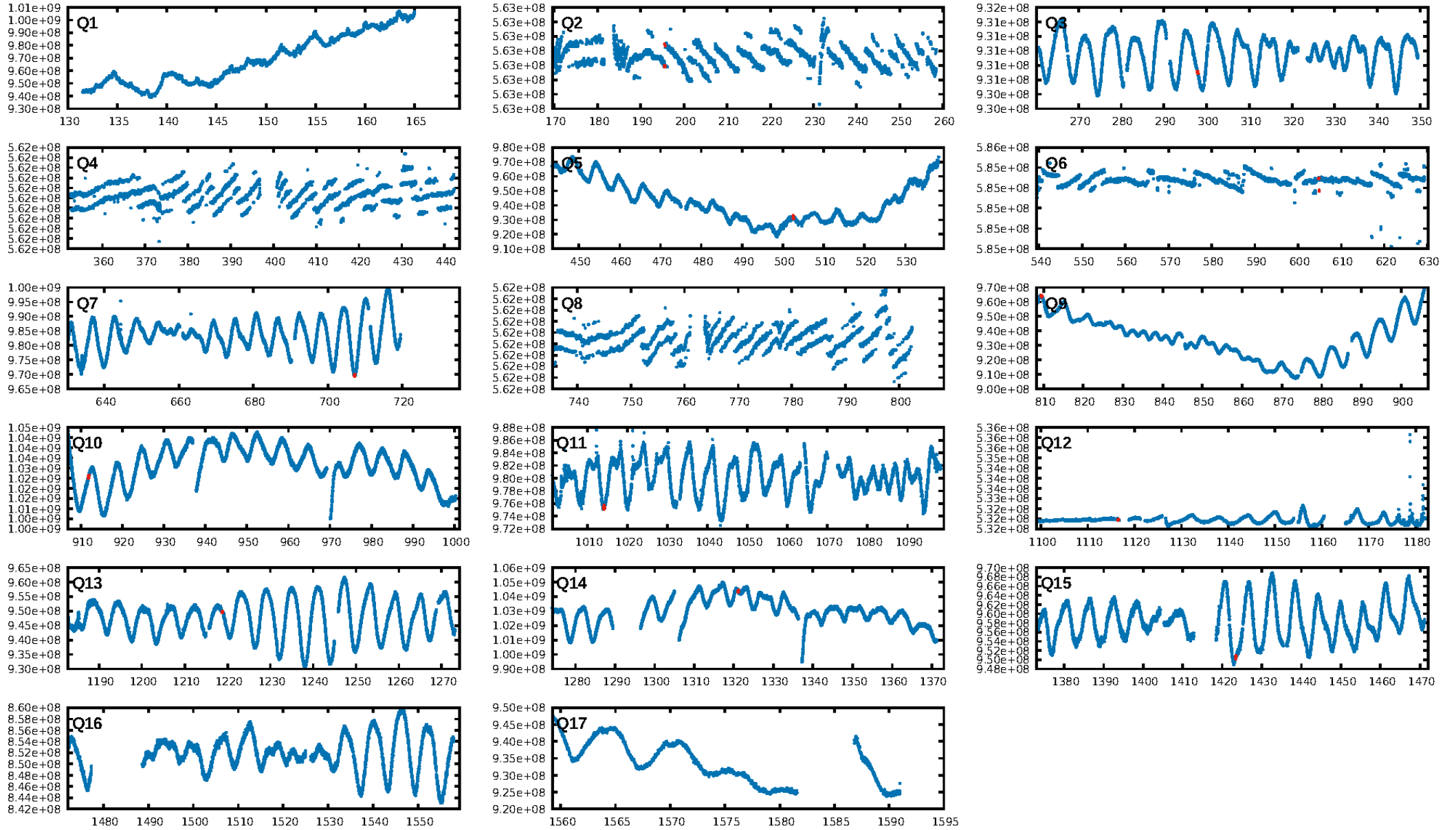
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [252.50 σ]
ModelChiSquare2-sig: 18.8%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 2.51e-11
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: 0.3925
Centroid-sig: 73.5%
Centroid-so: 5.207 arcsec [0.58 σ]
OotOffset-rm: 5.012 arcsec [8.33 σ]
KicOffset-rm: 1.902 arcsec [2.29 σ]
OotOffset-st: 3/3/0/1 [7]
KicOffset-st: 3/3/0/1 [7]
DiffImageQuality-fgm: 0.29 [2/7]
DiffImageOverlap-fno: 1.00 [11/11]

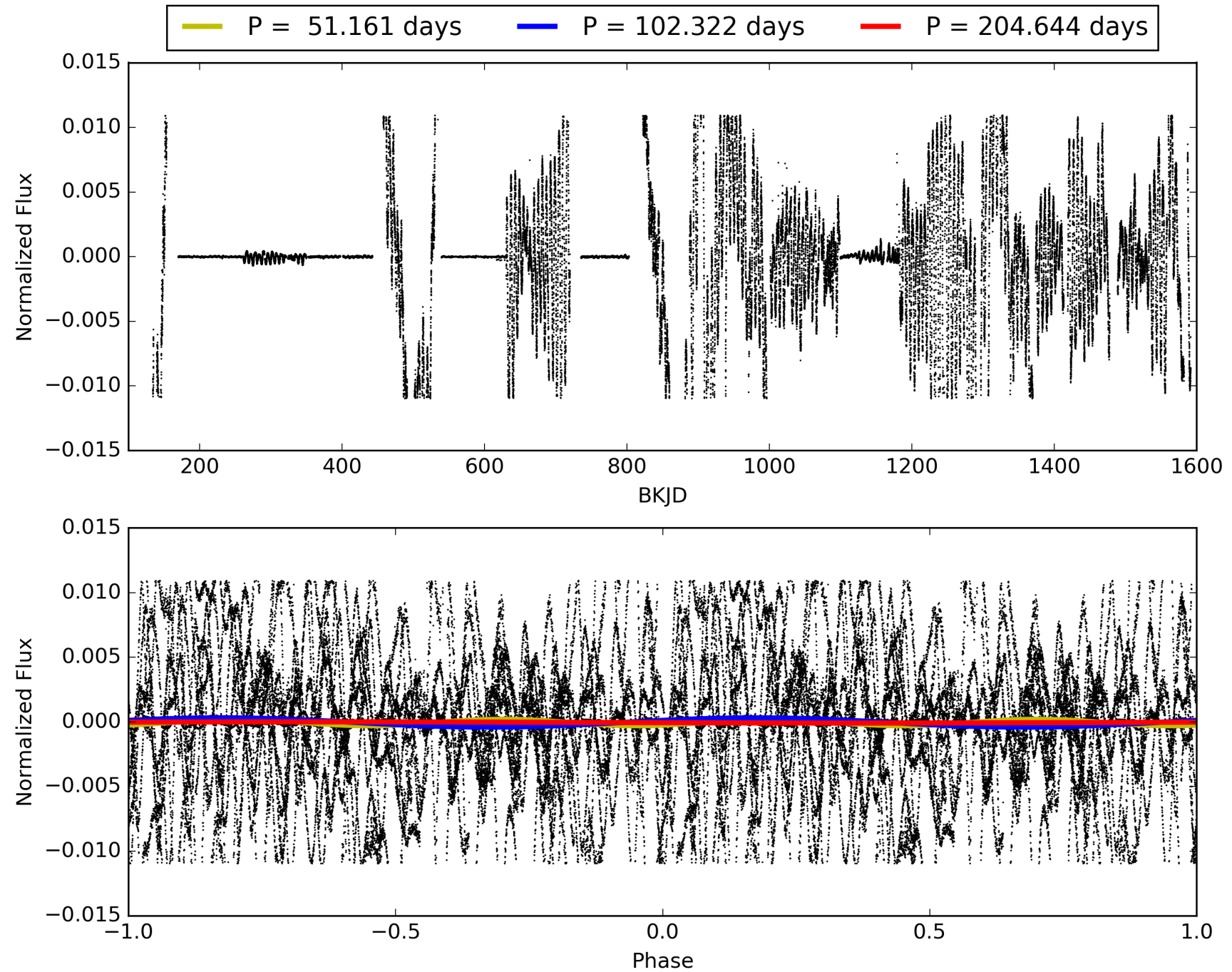
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005881213-02, PDC Light Curves

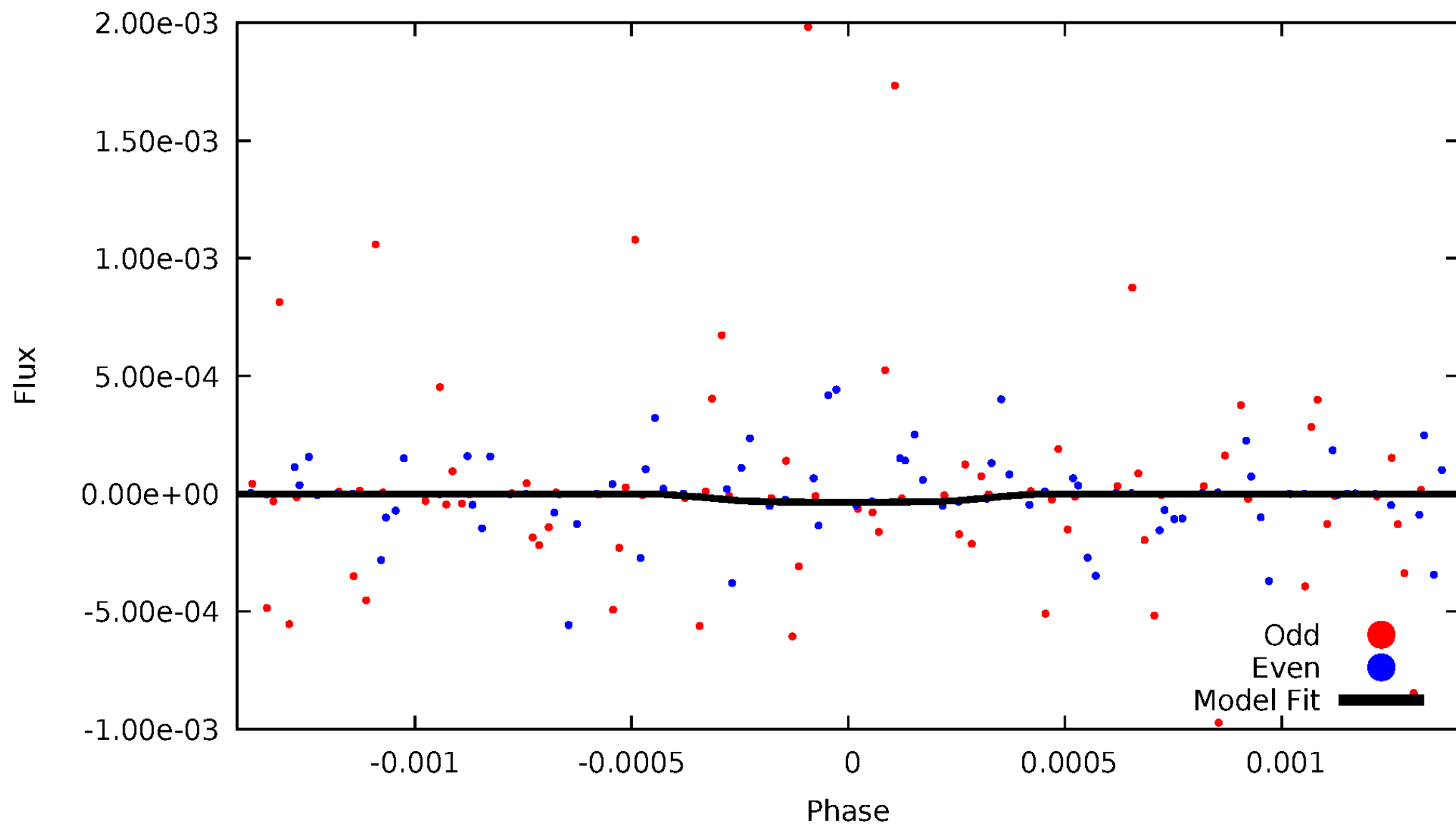


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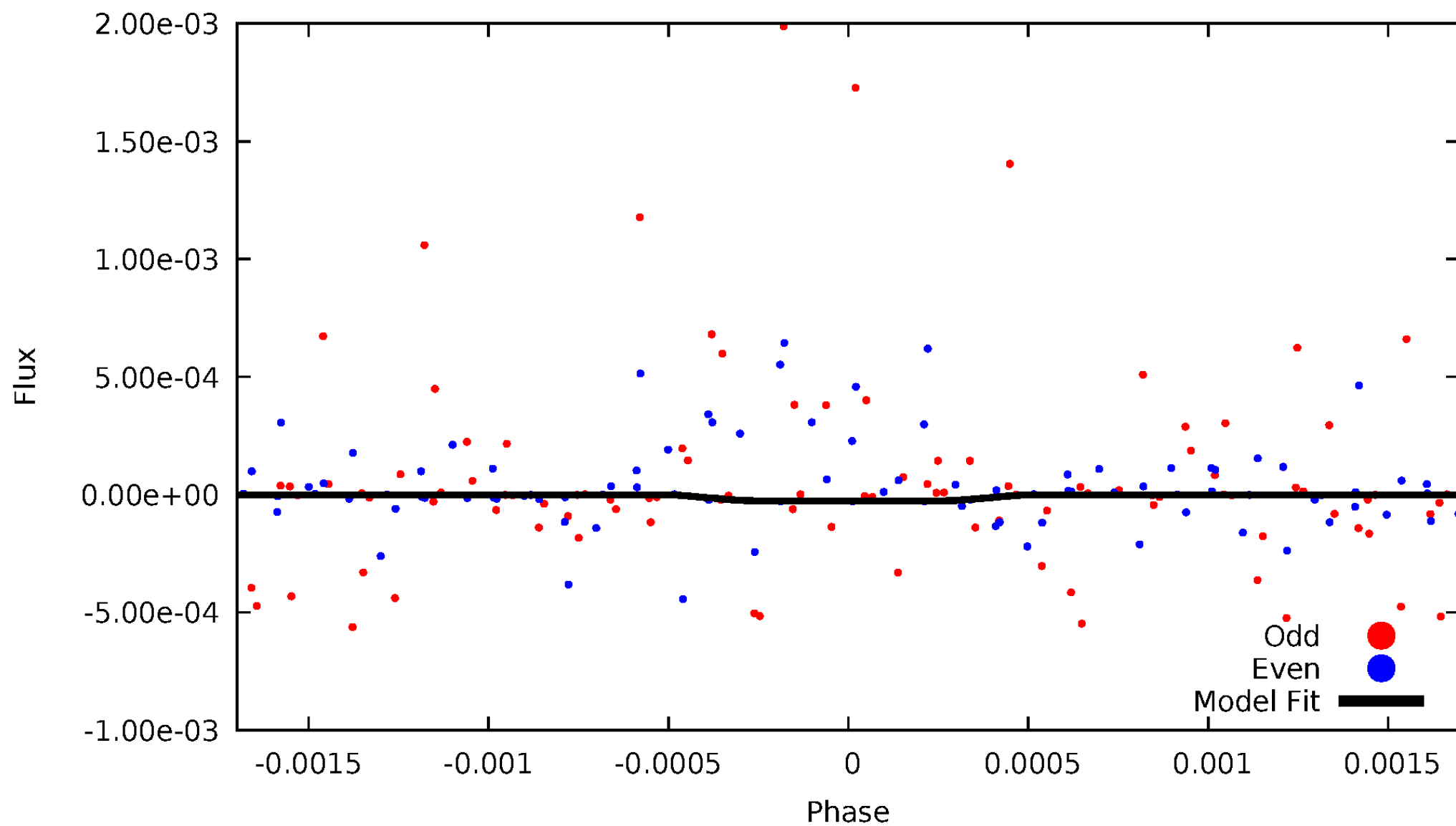
DV Odd/Even

TCE 005881213-02



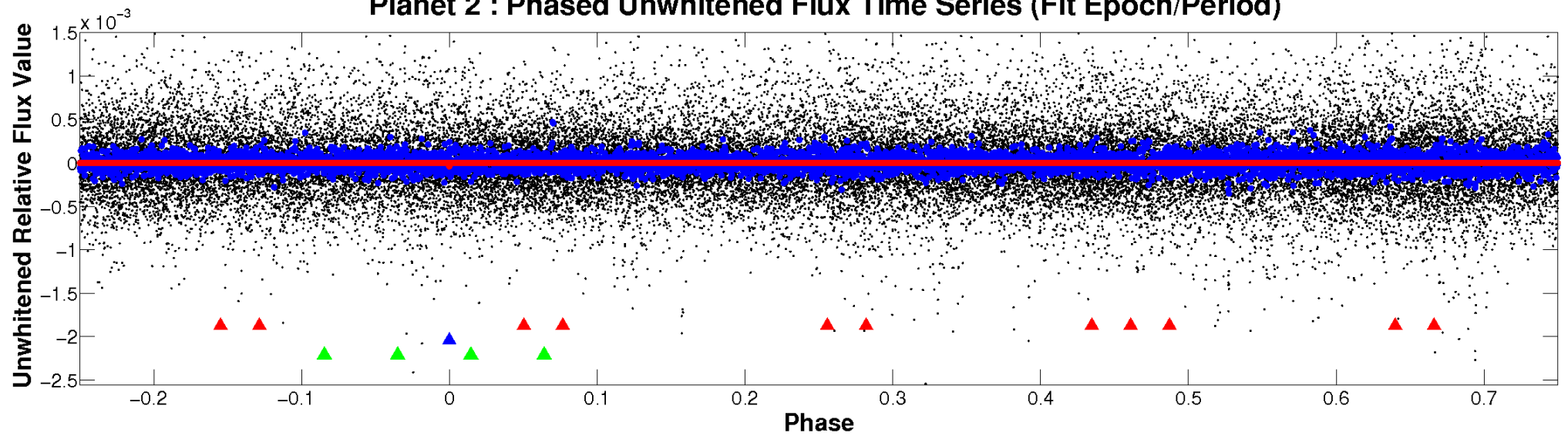
ALT Odd/Even

TCE 005881213-02

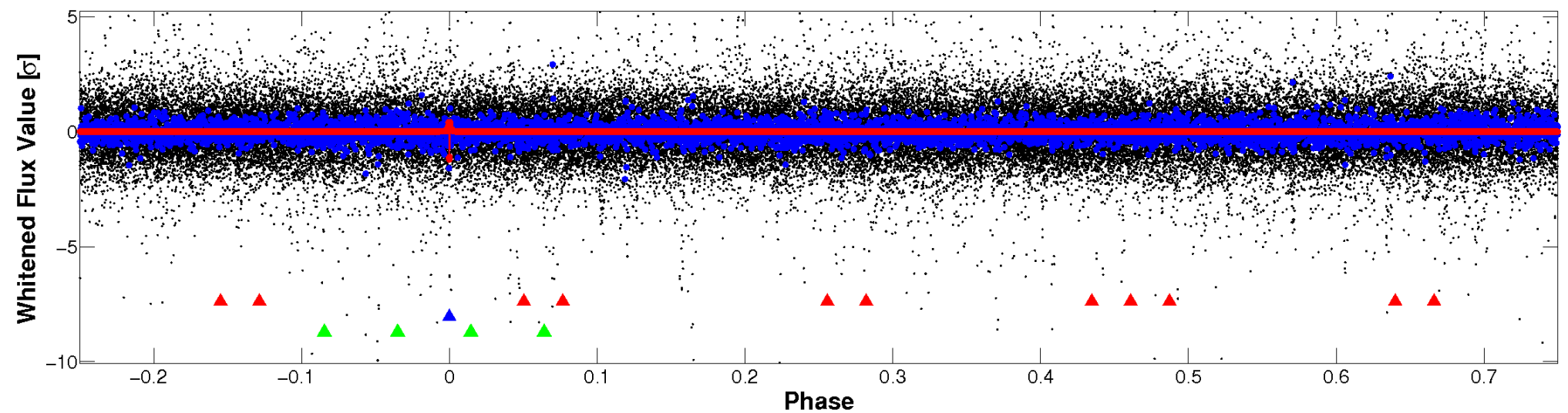


Non-Whitened Vs. Whitened Light Curve

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

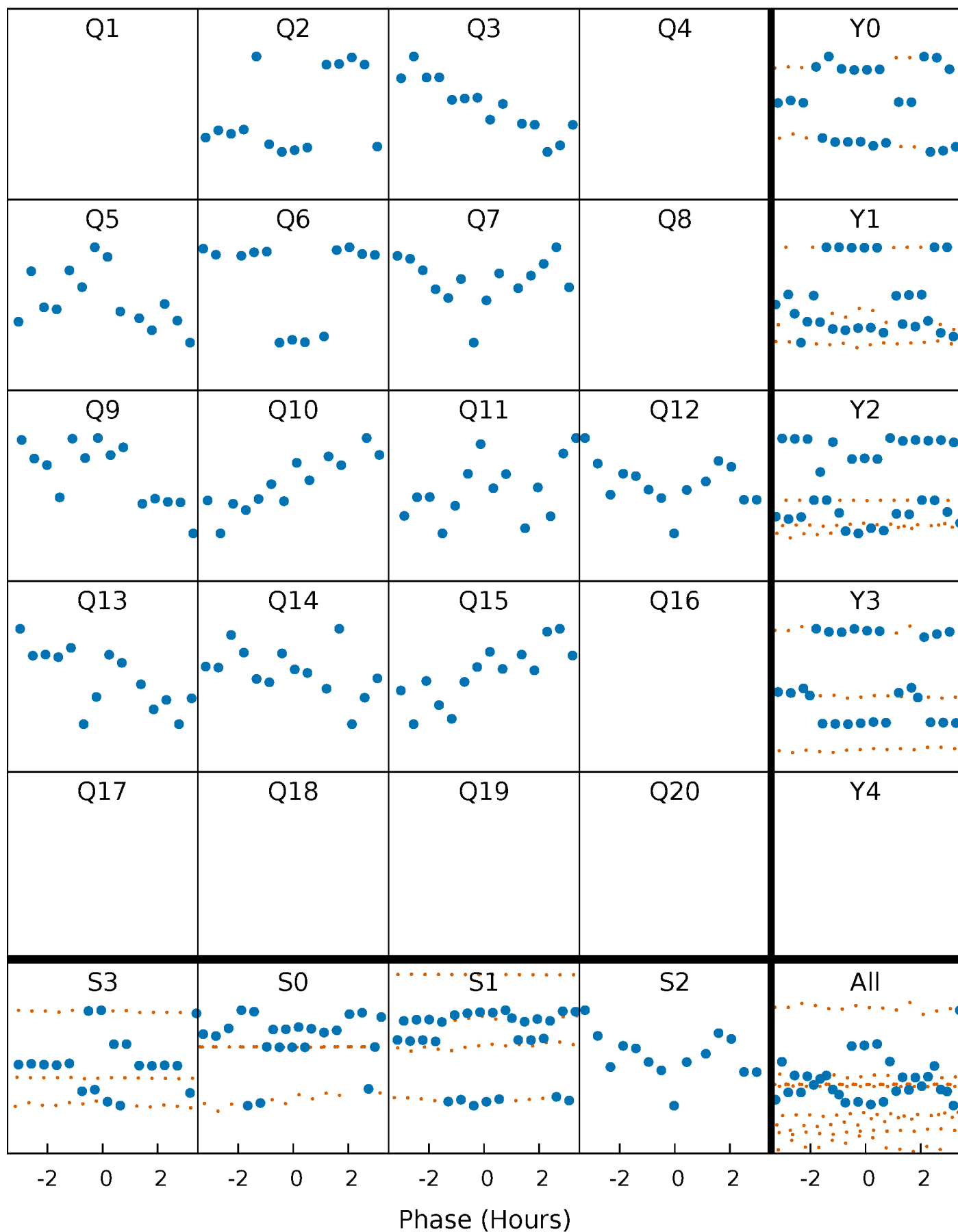


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



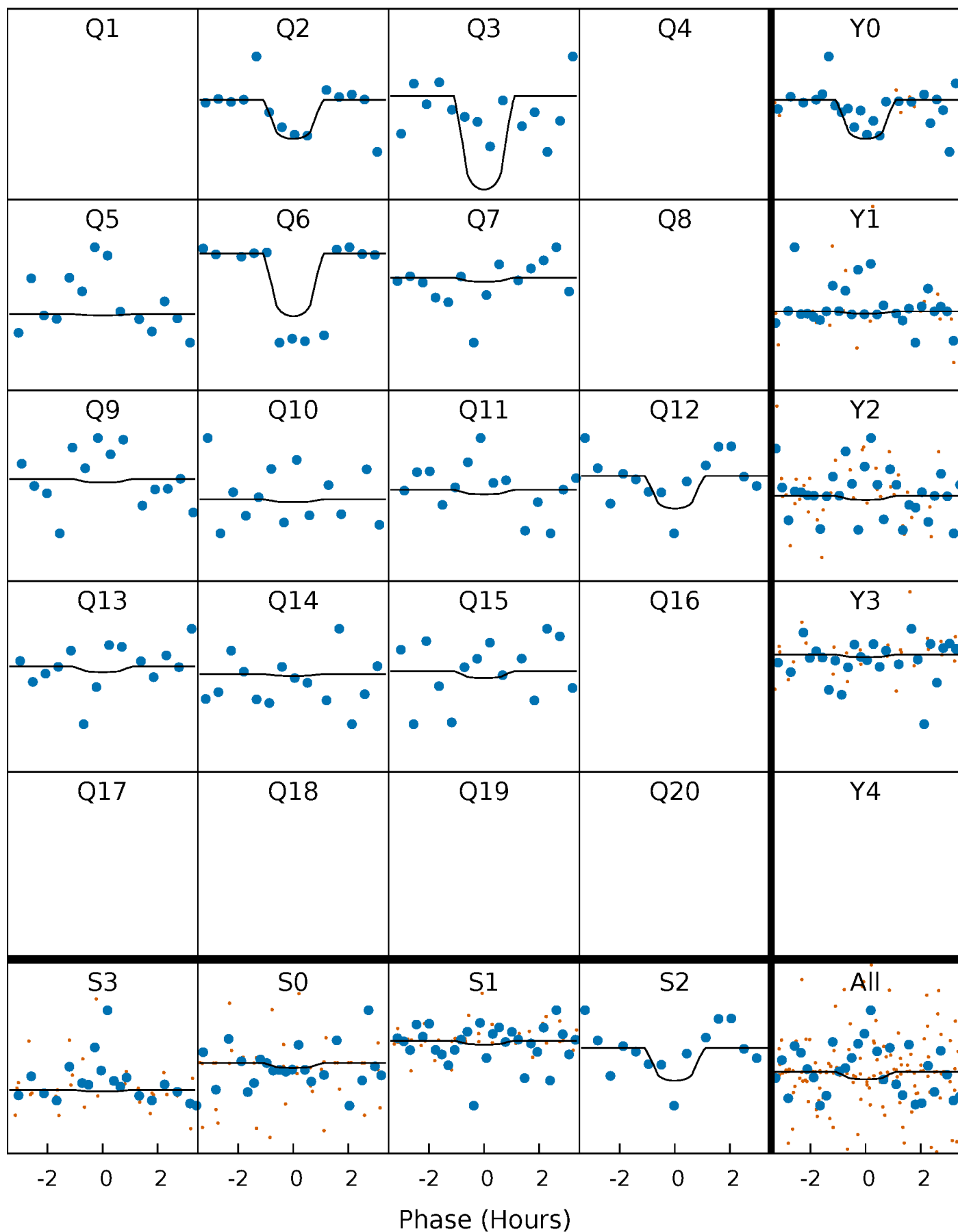
PDC Quarter-Phased Transit Curves

TCE 005881213-02 P=102.322172 Days $T_0=195.588619$ (BKJD)



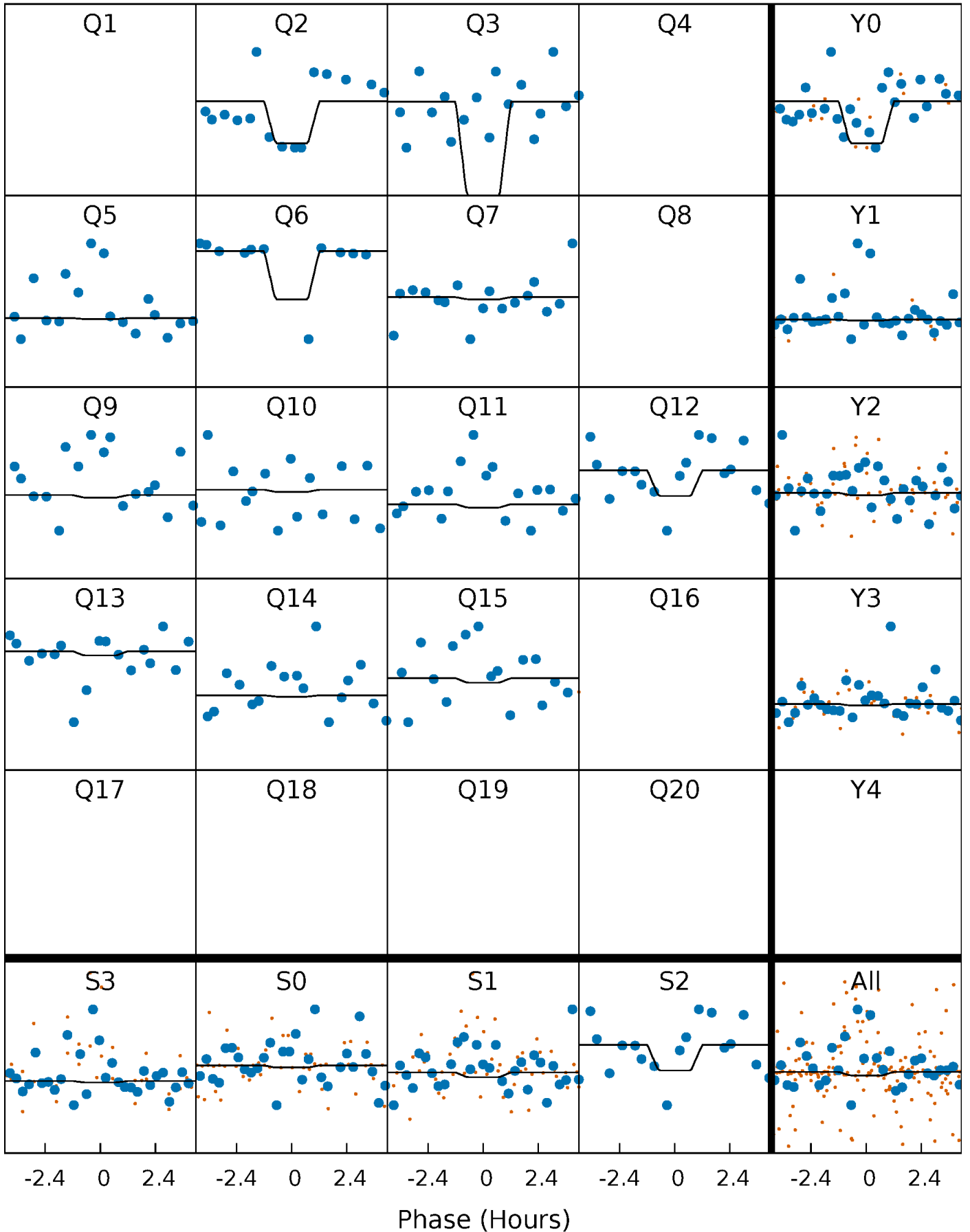
DV Quarter-Phased Transit Curves

TCE 005881213-02 P=102.322172 Days $T_0=195.588619$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

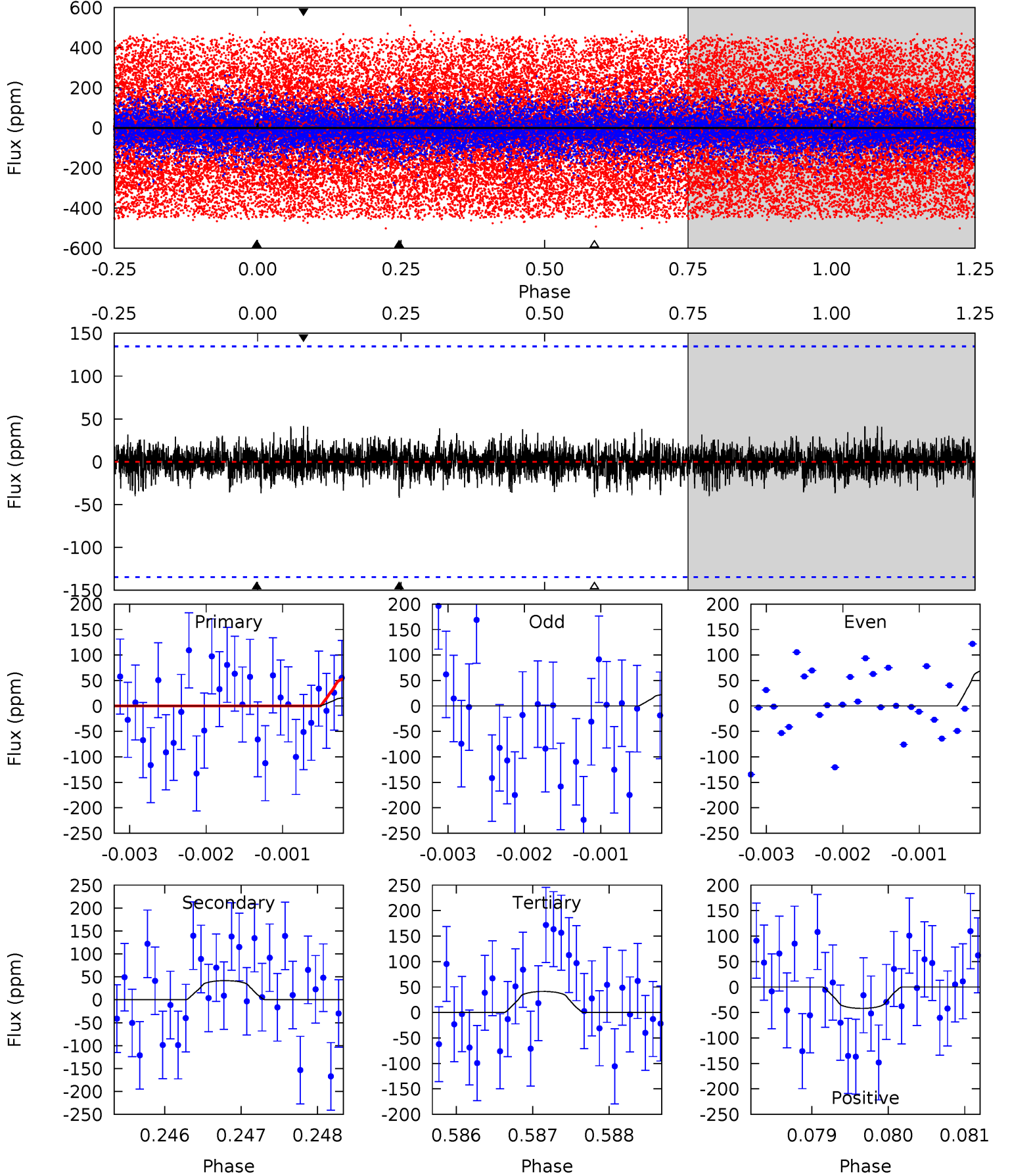
TCE 005881213-02 P=102.323693 Days $T_0=195.592984$ (BKJD)



DV Model-Shift Uniqueness Test

005881213-02, P = 102.322172 Days, E = 93.266447 Days

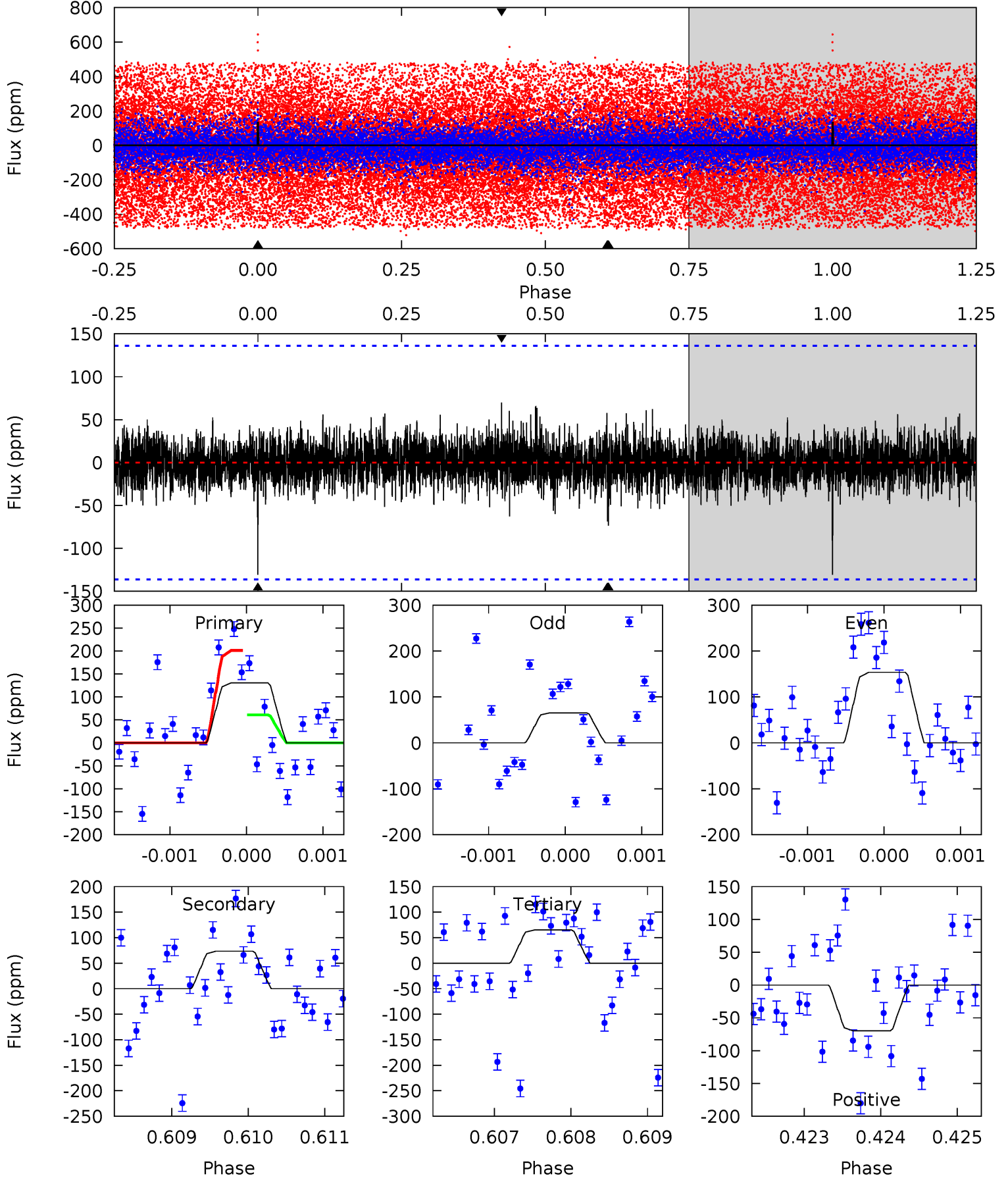
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.70	1.69	1.68	1.70	5.47	3.33	0.47	-0.98	-1.01	0.02	-0.01	0.90	-6.41	0.50	0.98



Alt Model-Shift Uniqueness Test

005881213-02, P = 102.323693 Days, E = 93.269291 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.25	2.95	2.62	2.80	5.46	3.31	0.69	2.63	2.45	0.33	0.15	1.64	-18.5	0.35	2.78



Stellar Parameters For KIC 005881213

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5812^{+176}_{-193}	$4.166^{+0.286}_{-0.154}$	$-0.020^{+0.250}_{-0.300}$	$1.364^{+0.387}_{-0.387}$	$0.994^{+0.153}_{-0.115}$	$0.551^{+0.980}_{-0.255}$
	+3%/-3%	+7%/-4%	+1250%/-1500%	+28%/-28%	+15%/-12%	+178%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005881213-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-42 ± 25	$0.97^{+0.69}_{-0.63}$	632^{+48}_{-52}	5688^{+4477}_{-1402}	4248^{+31116}_{-3120}
Alt.	-74 ± 25	$0.86^{+0.69}_{-0.54}$	631^{+47}_{-57}	6809^{+6930}_{-1655}	9217^{+66591}_{-6377}

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 $A_{obs} \gg 1.0$

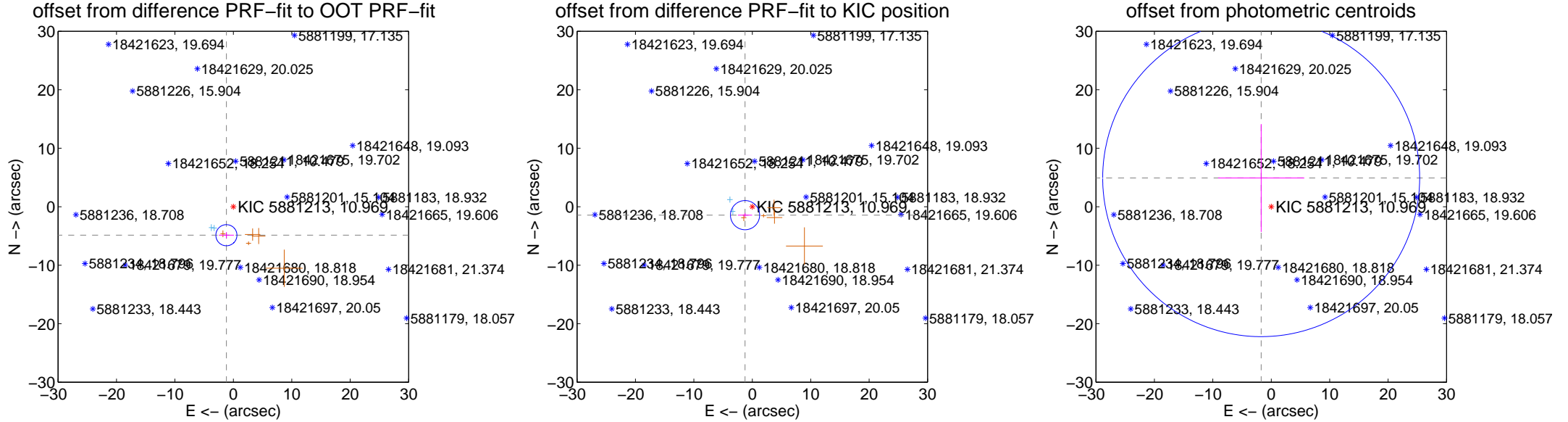
DV Centroid Data

Supplemental centroid analysis for 005881213-02. **Kepler magnitude: 10.97.** Transit SNR 12.36

There are 2 quarters with good PRF difference image offsets

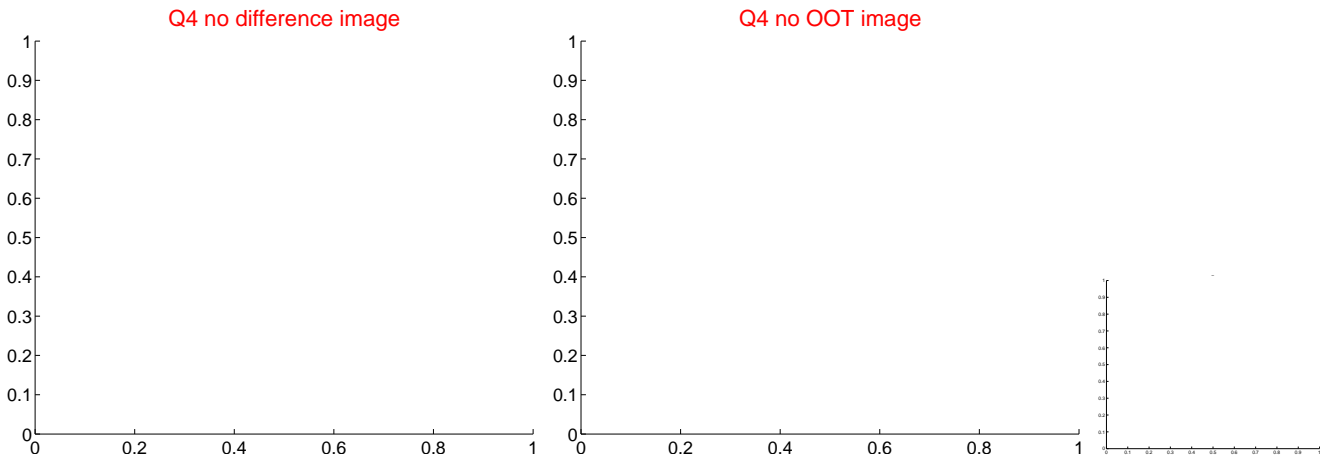
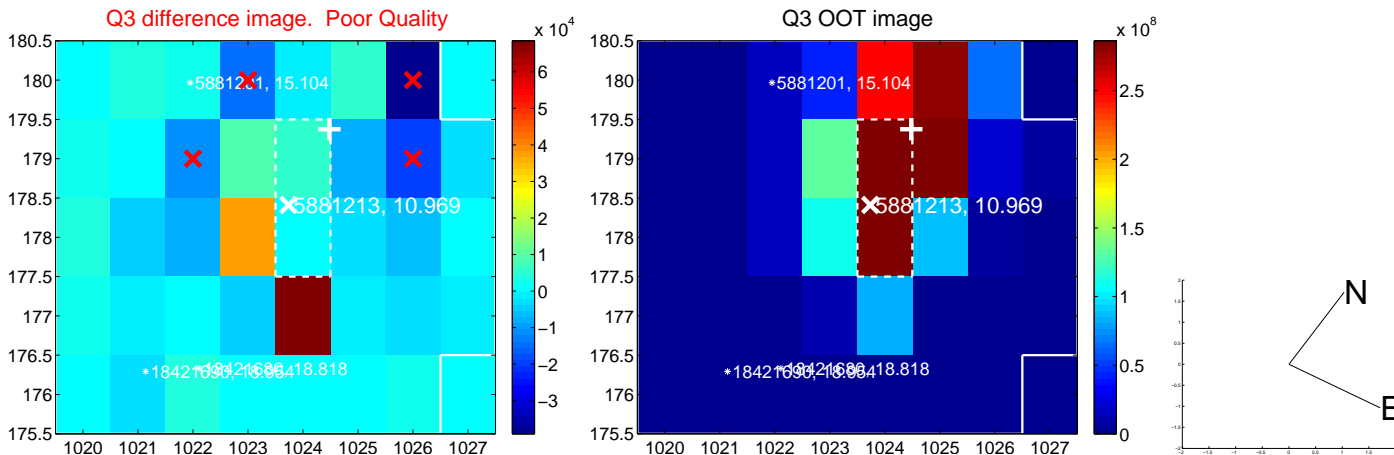
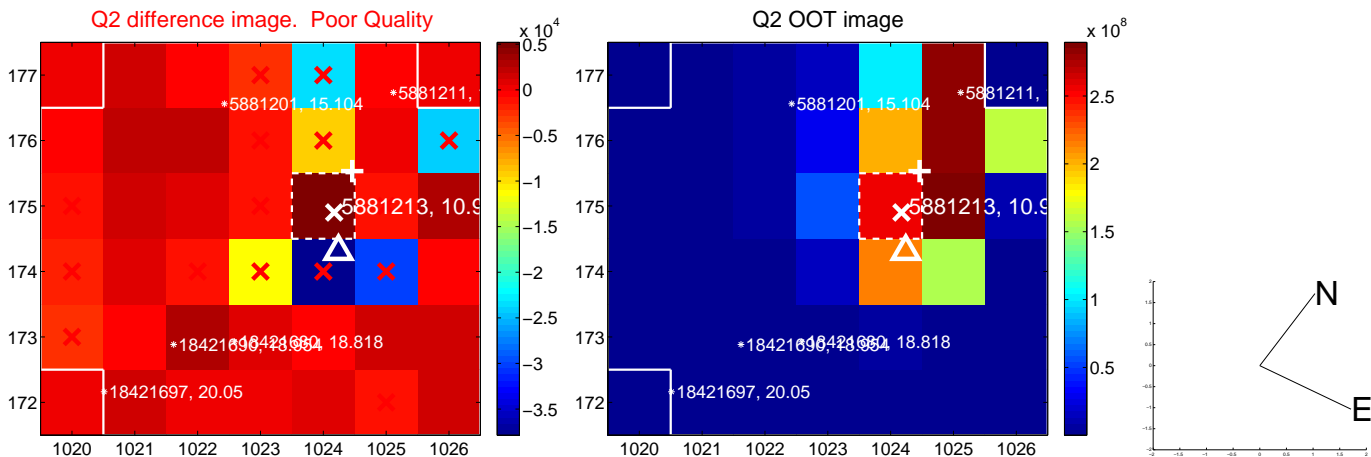
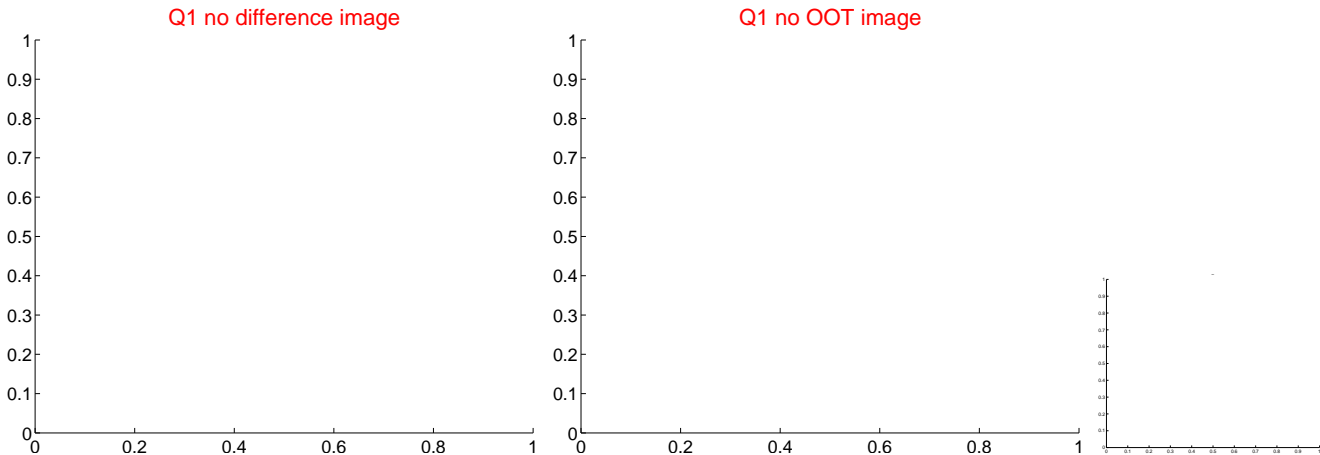
The OOT PRF centroid is offset from the target star catalog position by about 4.88 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.012 ± 0.602	8.33	1.188 ± 1.286	-4.869 ± 0.534
PRF-fit source offset from KIC position	1.902 ± 0.831	2.29	1.242 ± 1.207	-1.440 ± 0.349
photometric centroid source offset	5.21 ± 9.04	0.58	1.72 ± 7.38	4.91 ± 9.23

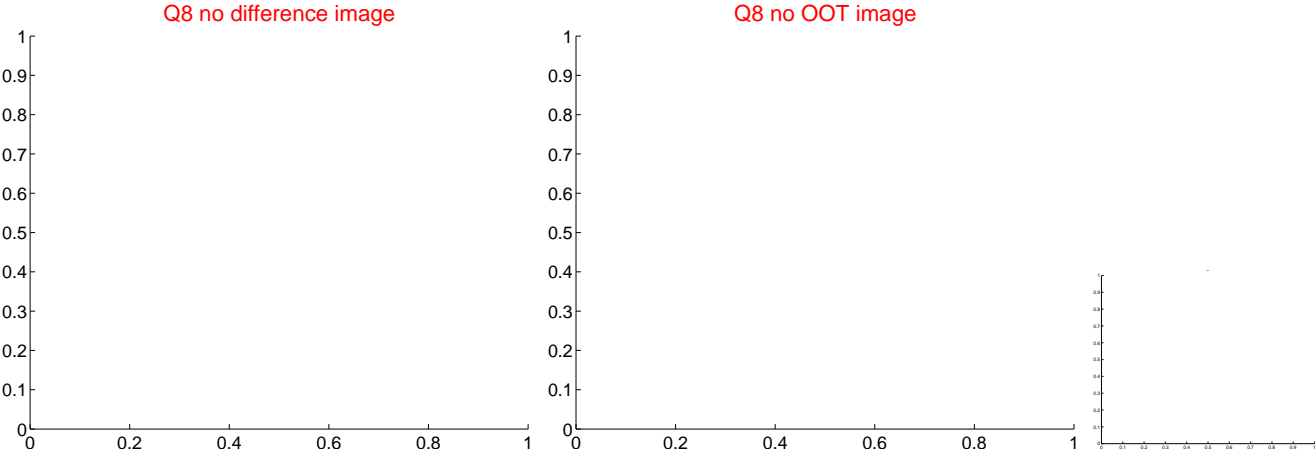
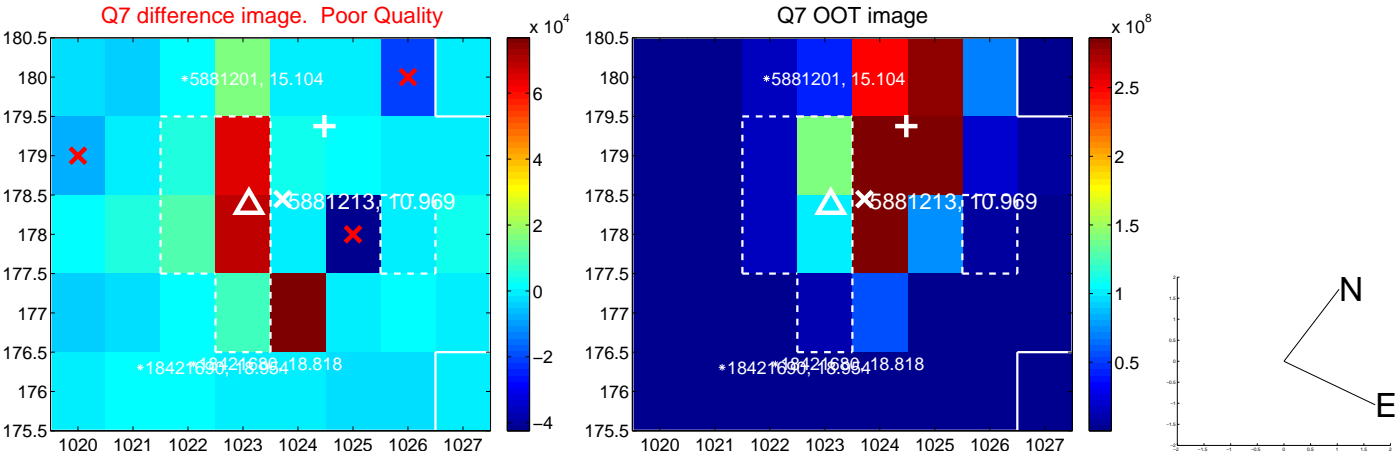
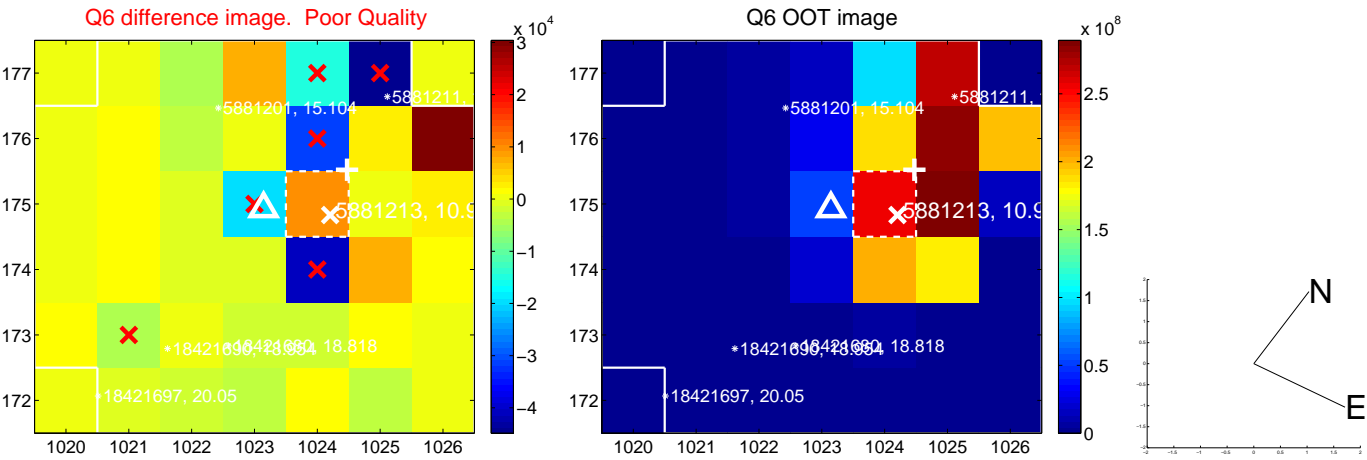
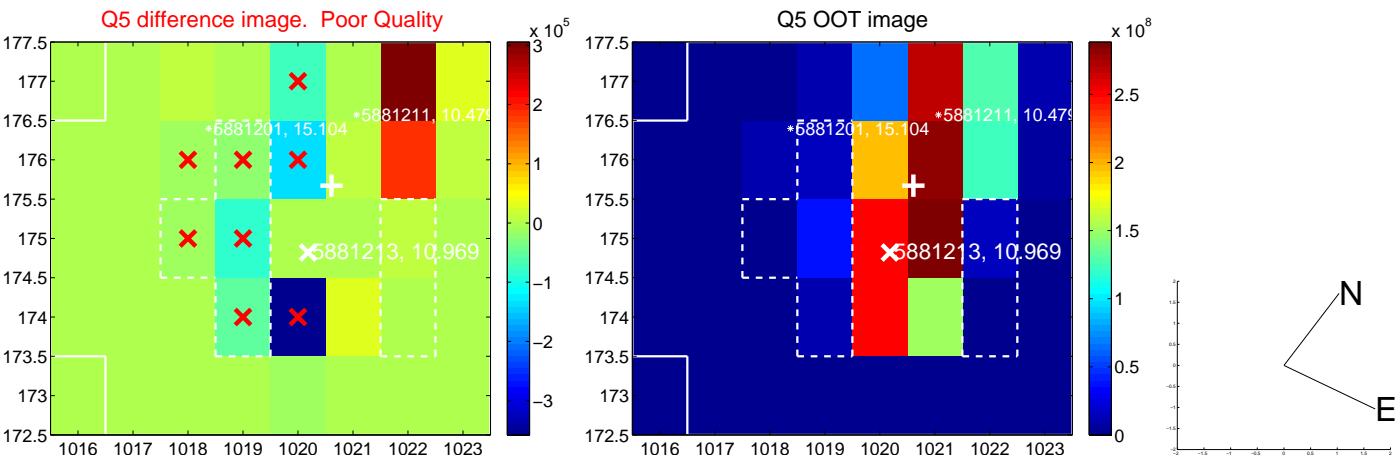


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

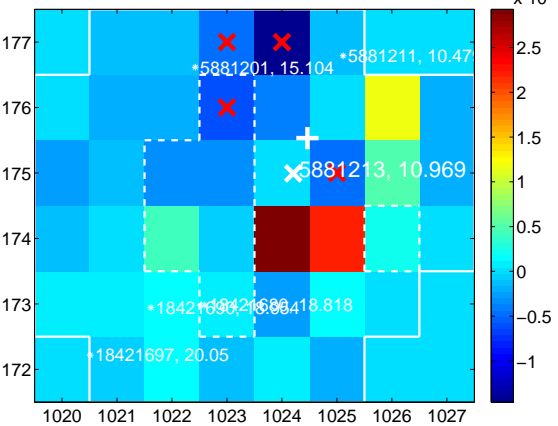
Q9 no difference image



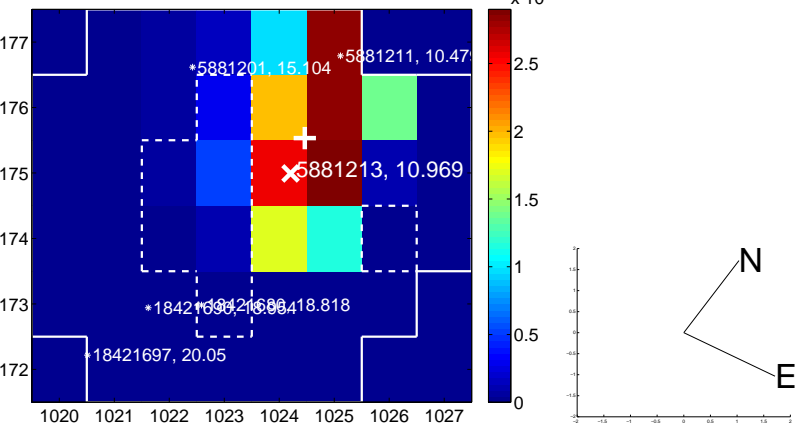
Q9 no OOT image



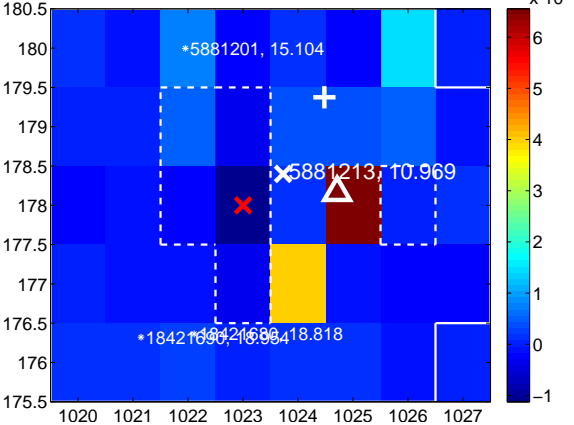
Q10 difference image. Poor Quality



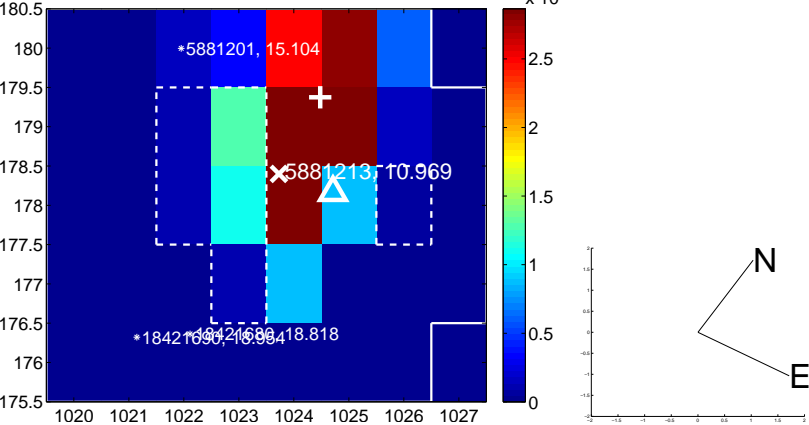
Q10 OOT image



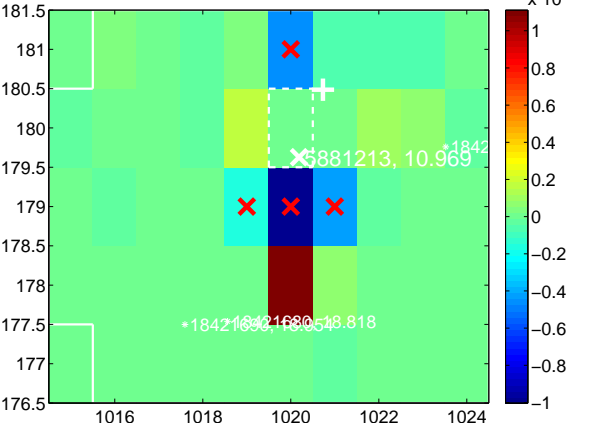
Q11 difference image



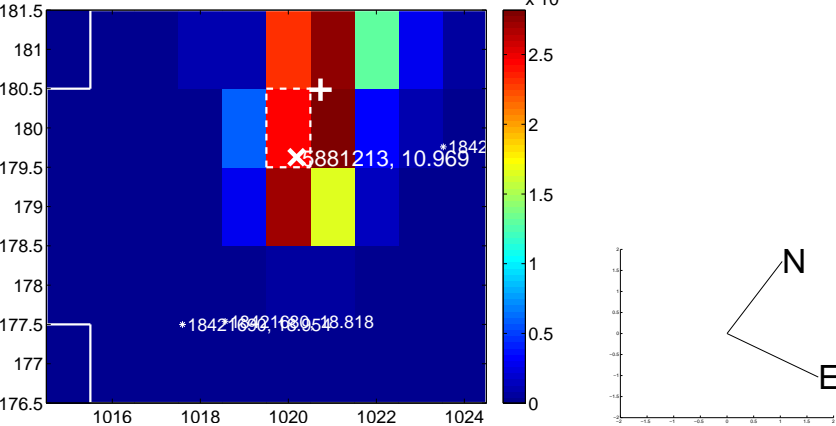
Q11 OOT image



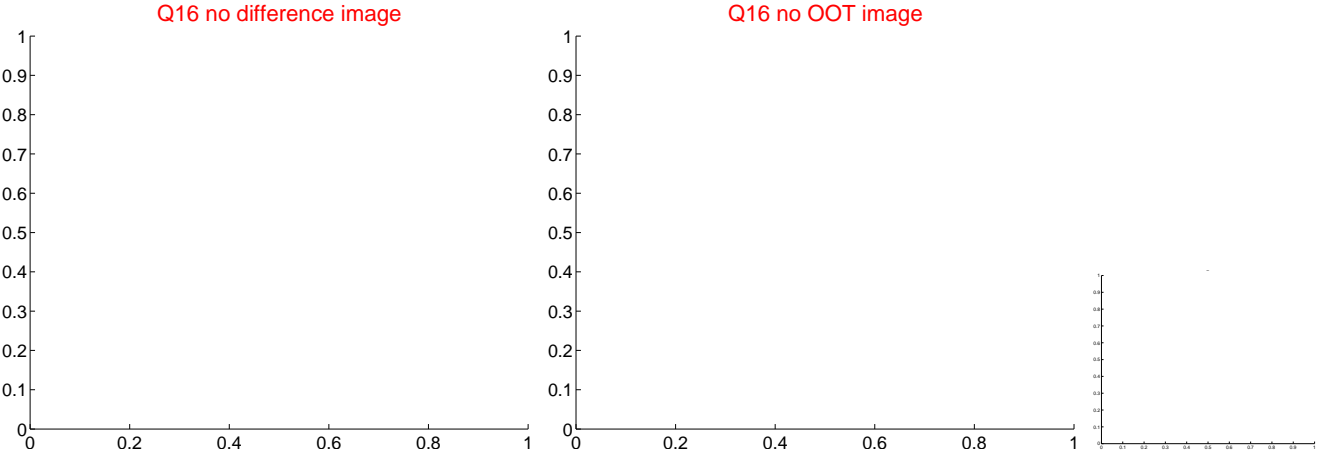
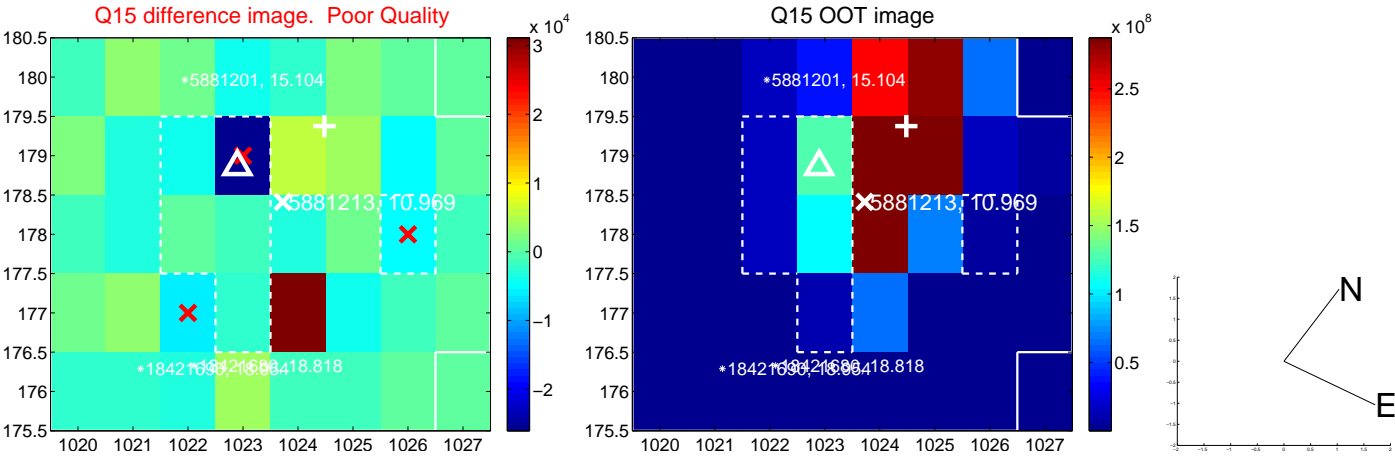
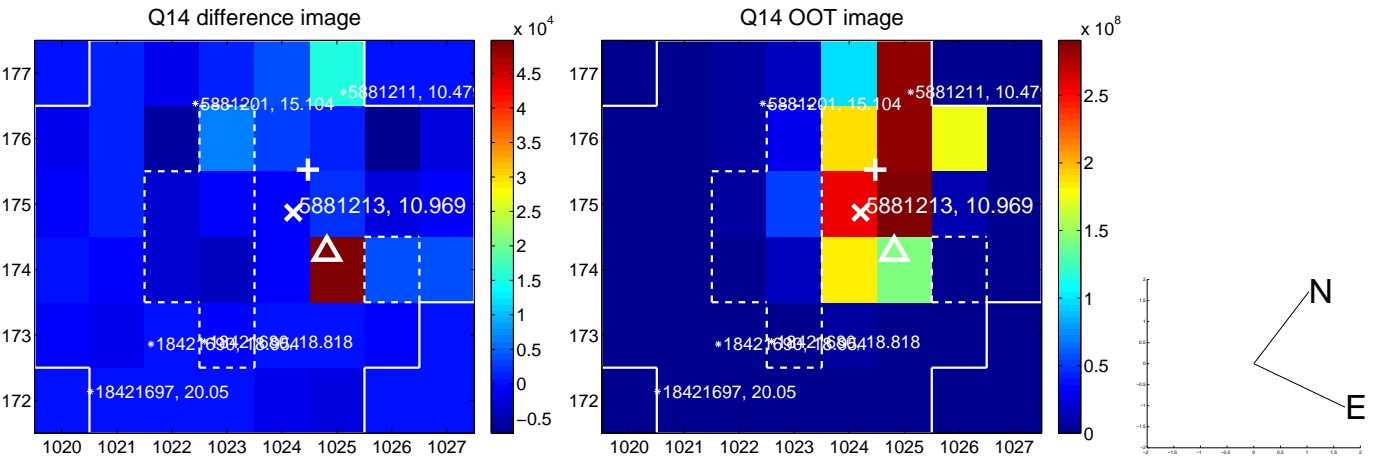
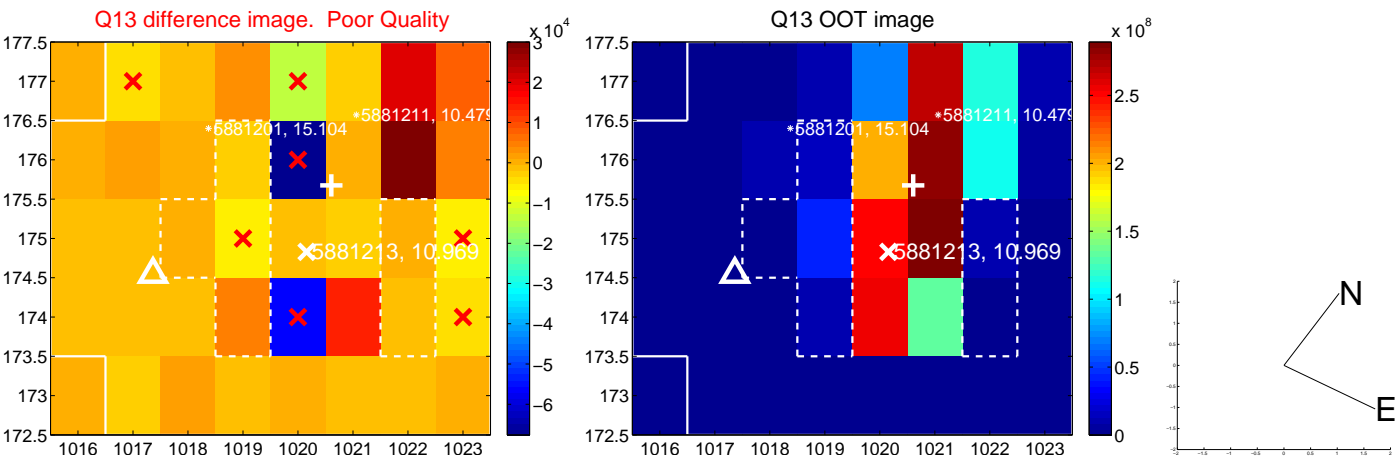
Q12 difference image. Poor Quality



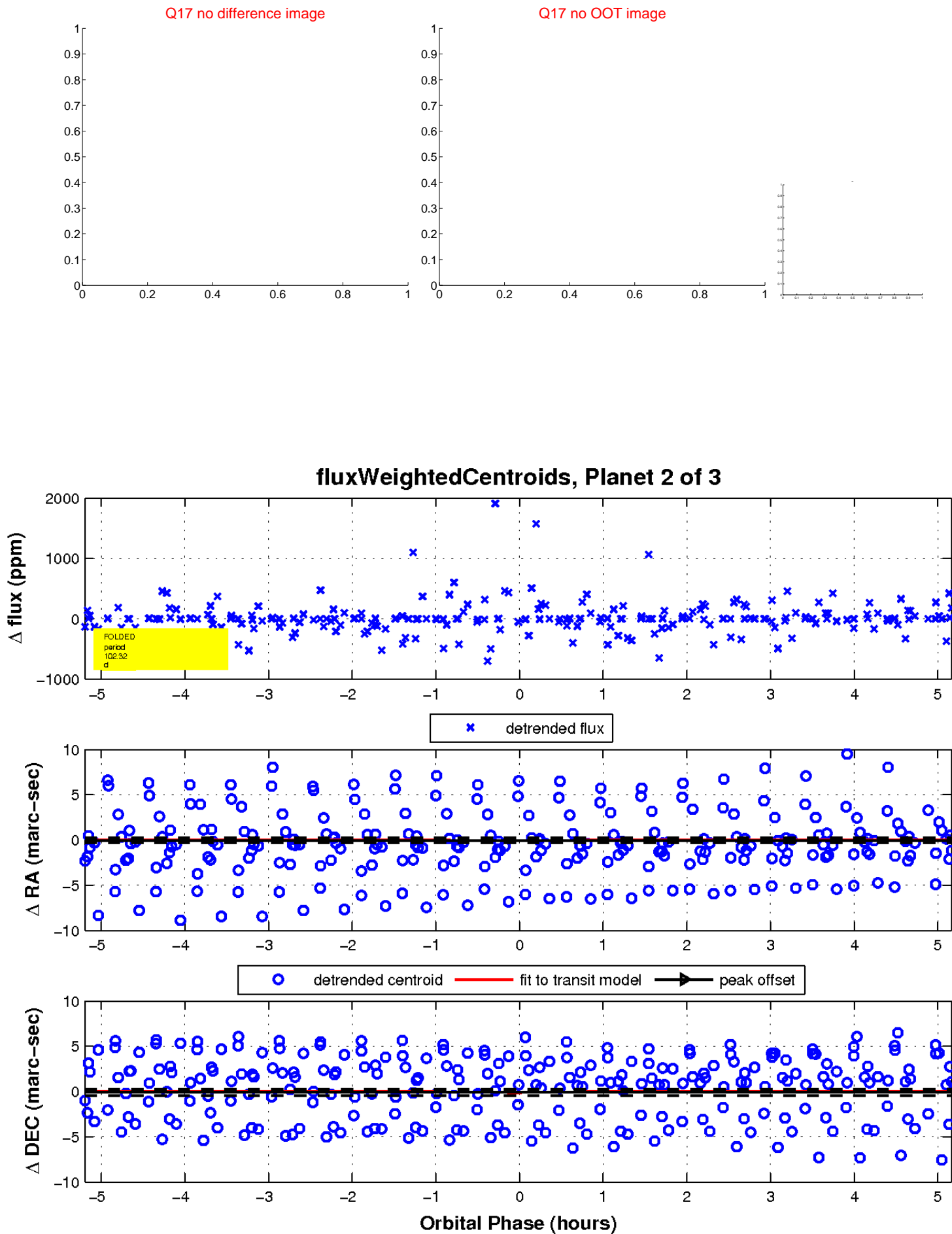
Q12 OOT image



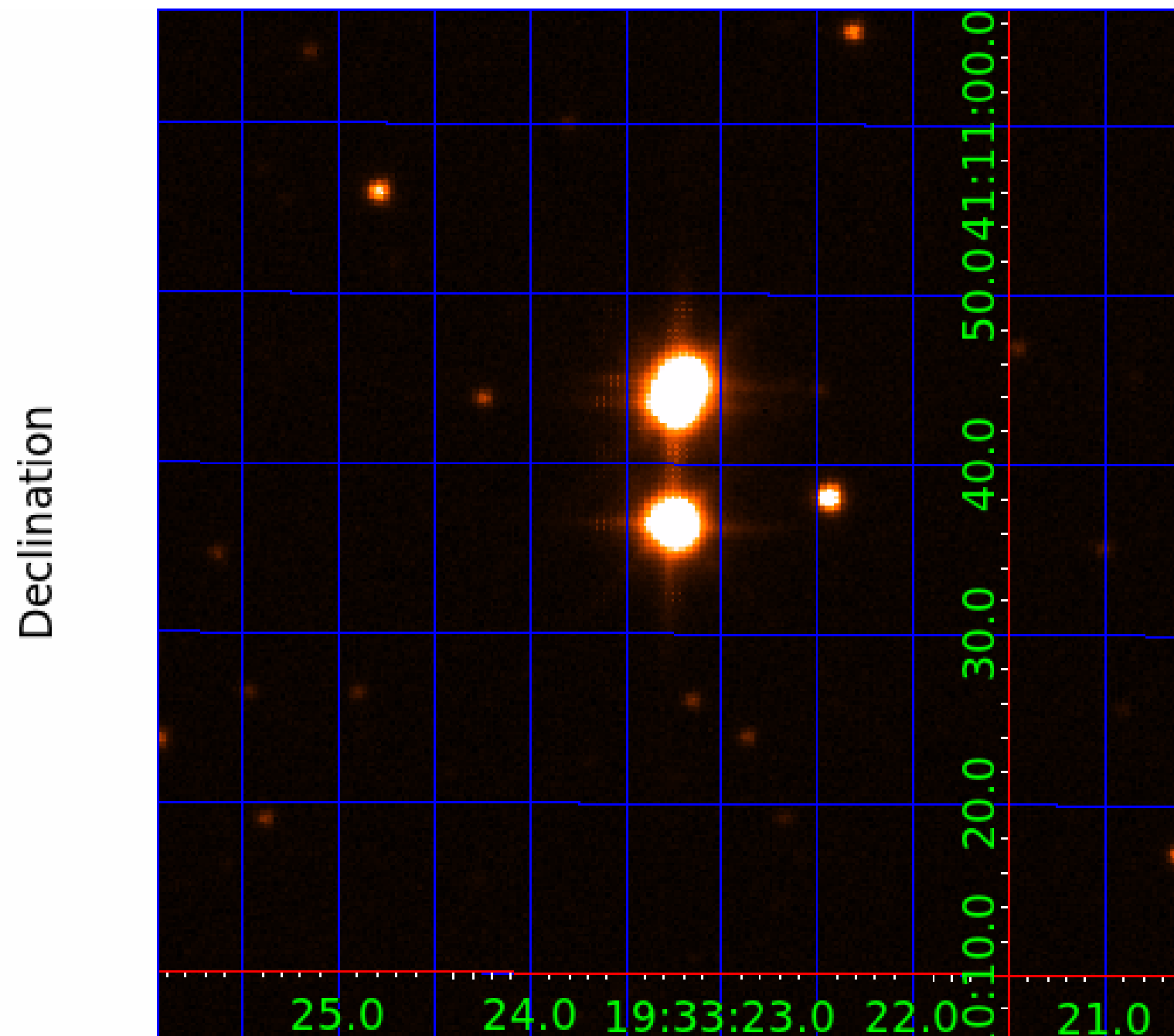
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005881213

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})
005881213-01	OBS	No	123.324329	240.066414	50.8	0.993	38.0	14.1	1.36	5812	1.04	8.12
005881213-02	OBS	No	102.322172	195.588619	36.4	1.732	20.9	12.4	1.36	5812	0.88	10.41
005881213-03	OBS	No	414.360946	186.937127	44.7	4.415	18.0	12.1	1.36	5812	1.09	1.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005881213-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
005881213-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED
005881213-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

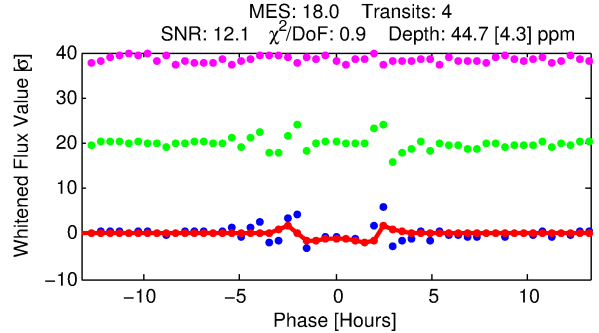
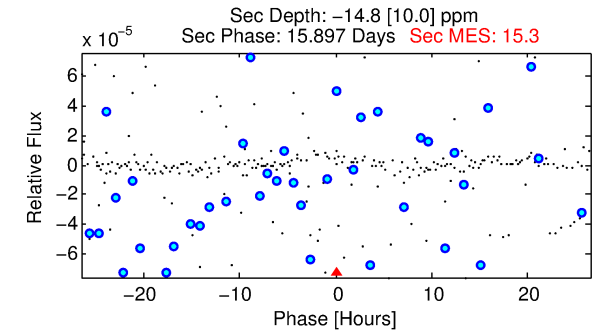
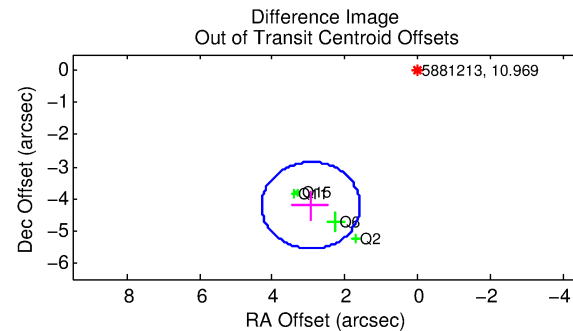
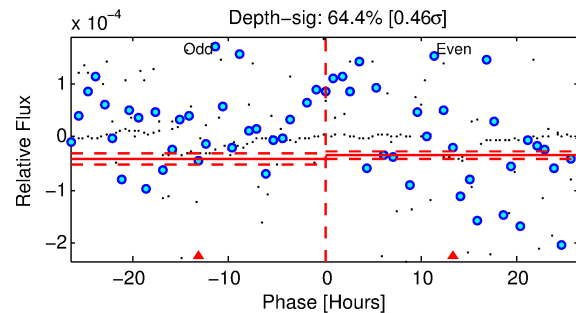
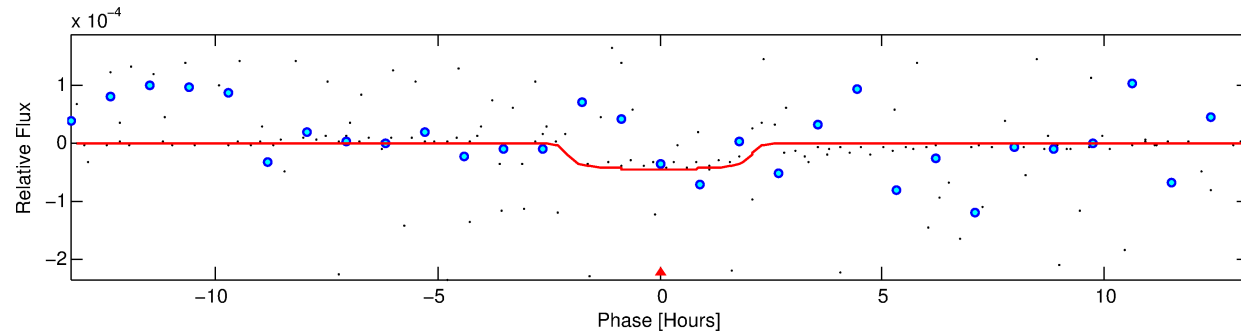
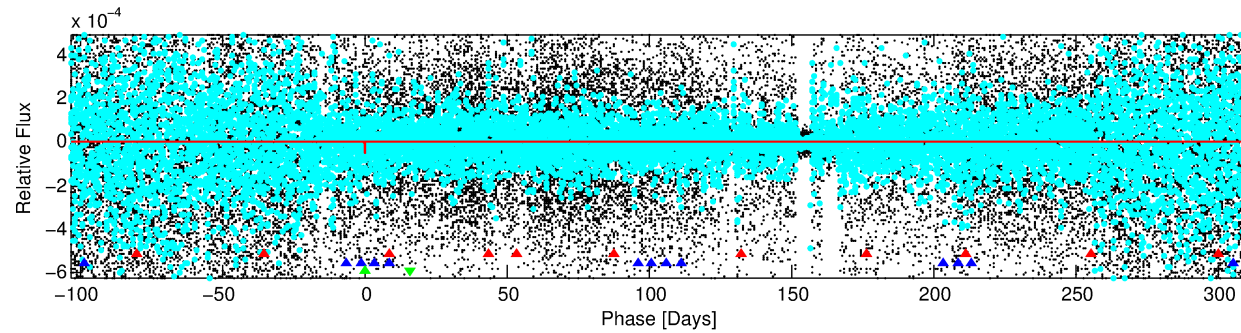
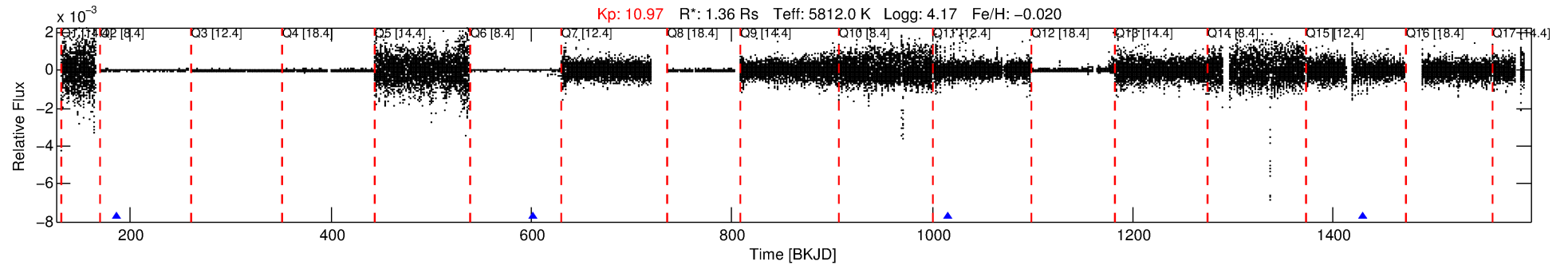
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005881213-03

No Significant Match Found

DV One-Page Summary

KIC: 5881213 Candidate: 3 of 3 Period: 414.361 d



DV Fit Results:

Period = 414.36095 [0.00595] d
Epoch = 186.9371 [0.0039] BKJD
Rp/R* = 0.0073 [0.0019]
a/R* = 318.83 [426.47]
b = 0.90 [0.27]
Seff = 1.61 [0.80]
Teq = 287 [36] K
Rp = 1.09 [0.41] Re
a = 1.0860 [0.3147] AU
Ag = N/A
Teffp = N/A

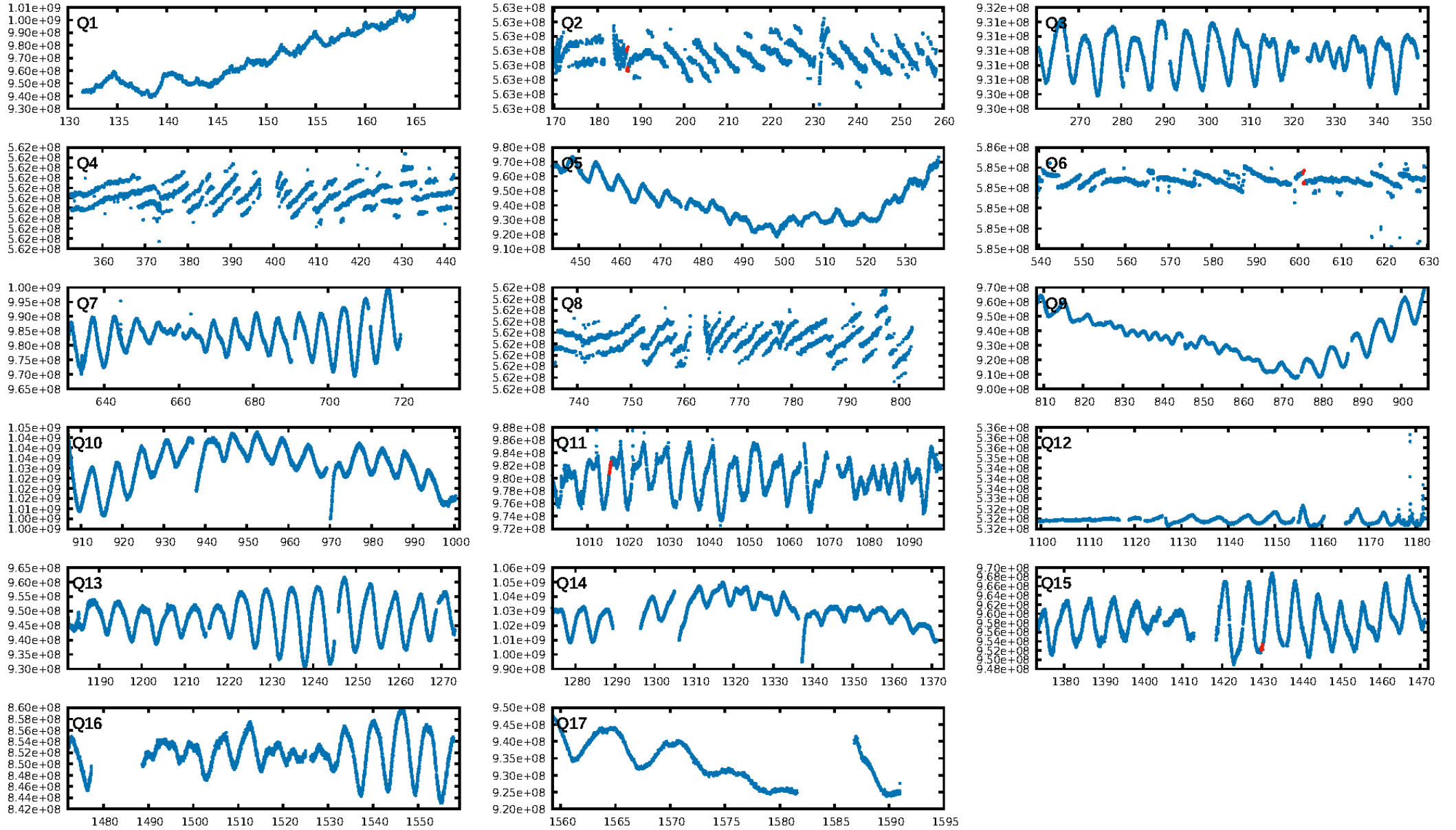
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1543.45σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.2%
ModelChiSquareGoF-sig: 99.7%
Bootstrap-pfa: 5.05e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.8741
Centroid-sig: 12.6%
Centroid-so: 13.381 arcsec [0.92σ]
OotOffset-rm: 5.135 arcsec [11.39σ]
KicOffset-rm: 3.267 arcsec [4.26σ]
OotOffset-st: 2/2/0/0 [4]
KicOffset-st: 2/2/0/0 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [4/4]

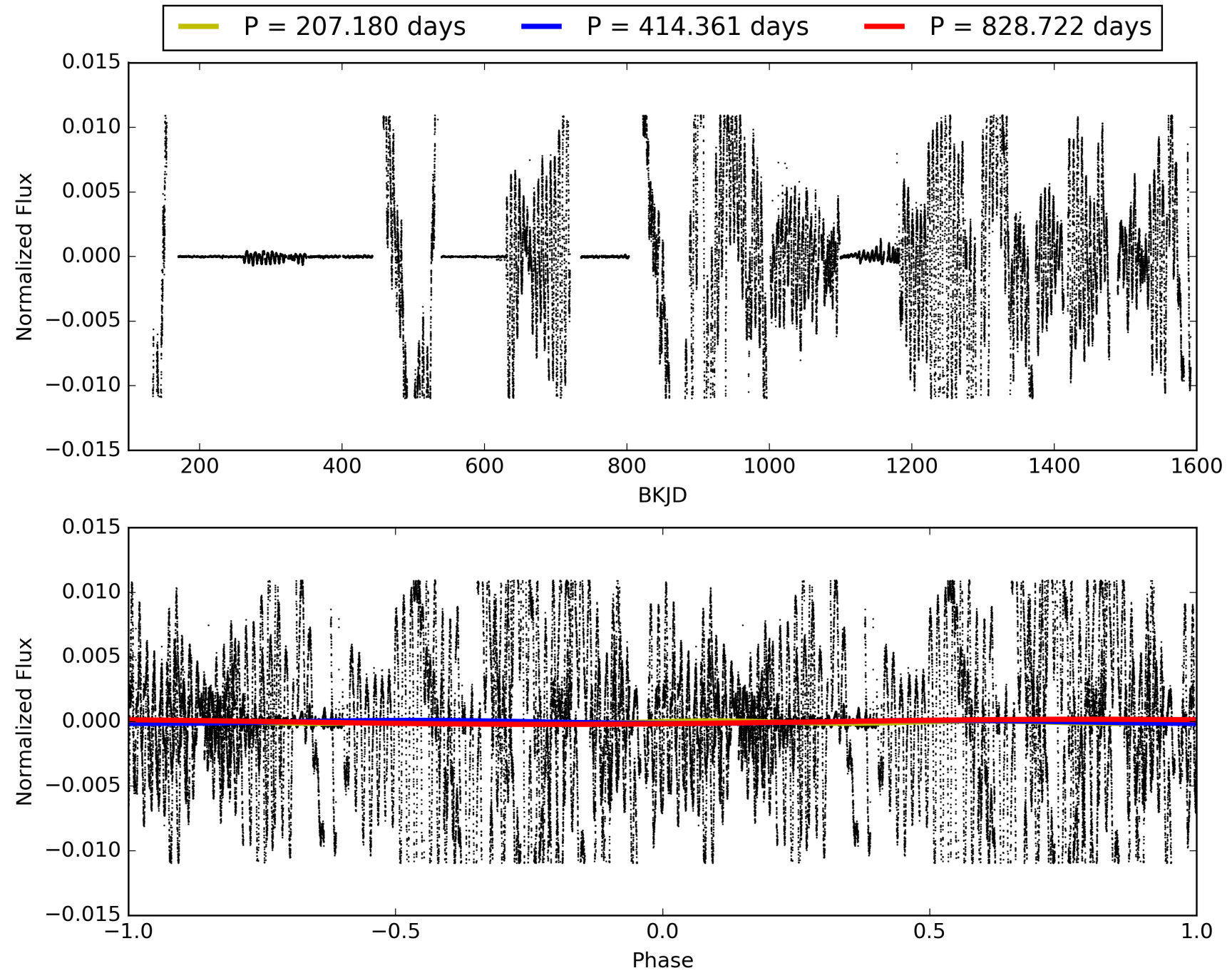
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:10:29 Z

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

TCE 005881213-03, PDC Light Curves

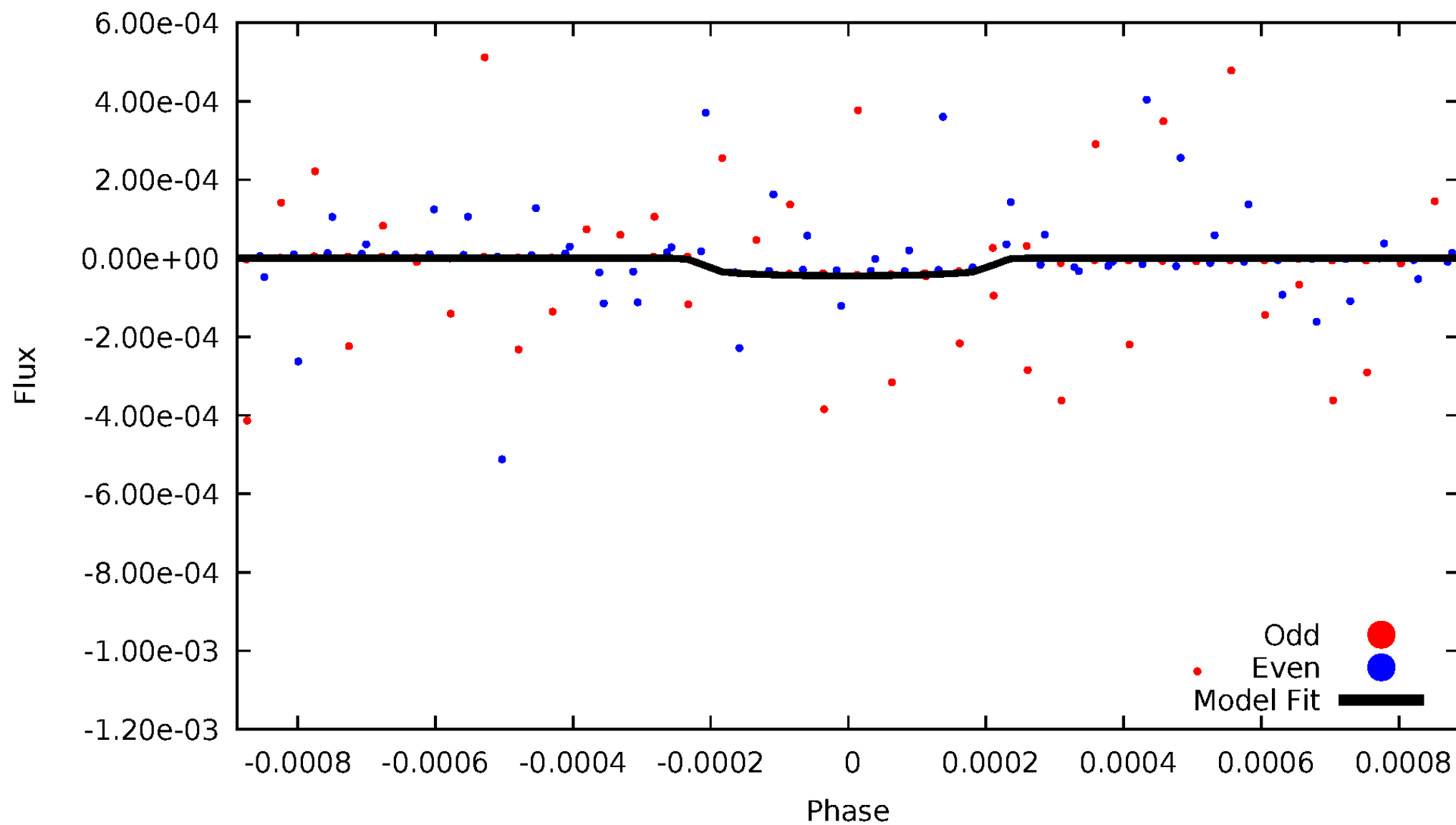


TCE 005881213-03



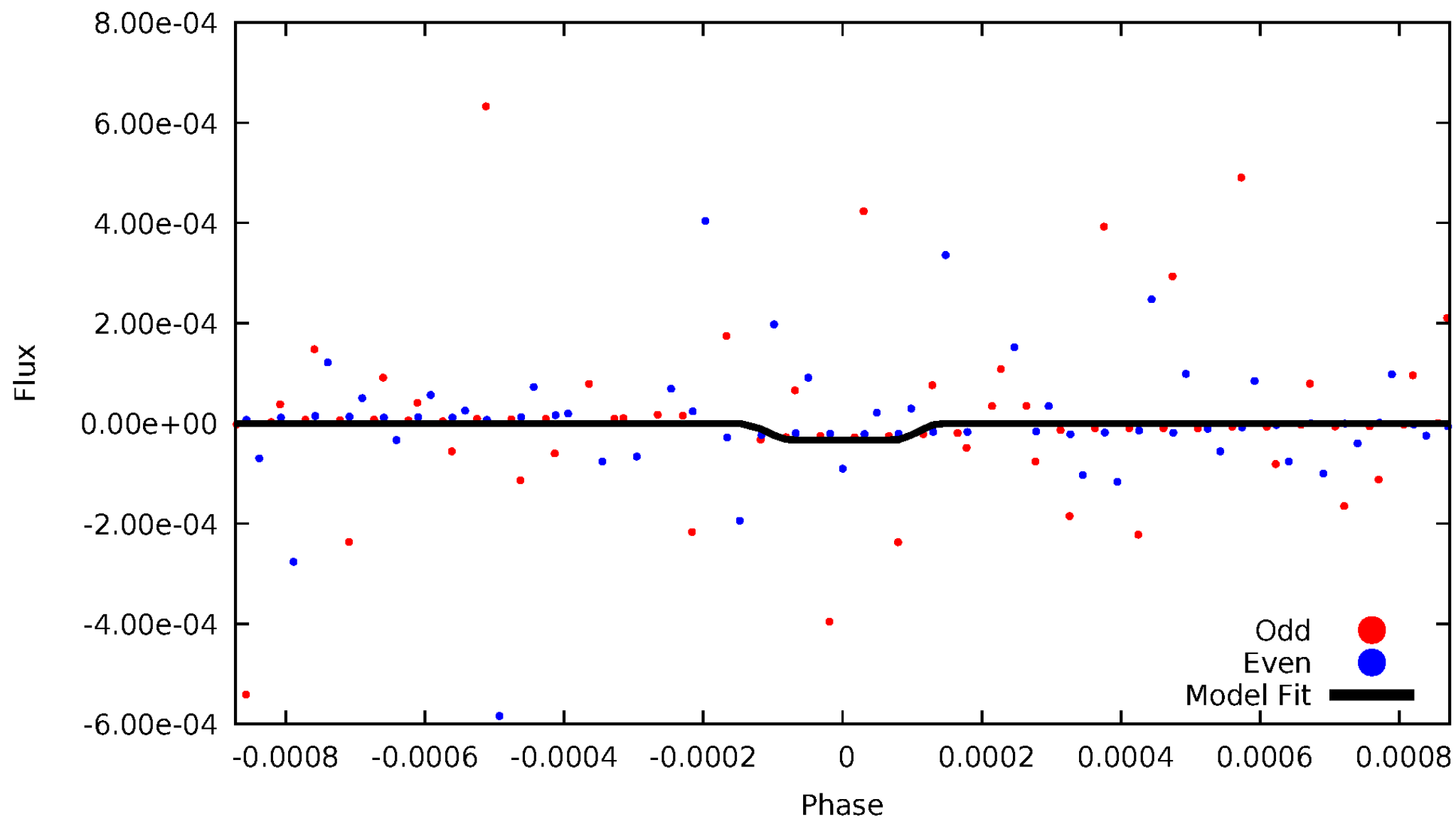
DV Odd/Even

TCE 005881213-03



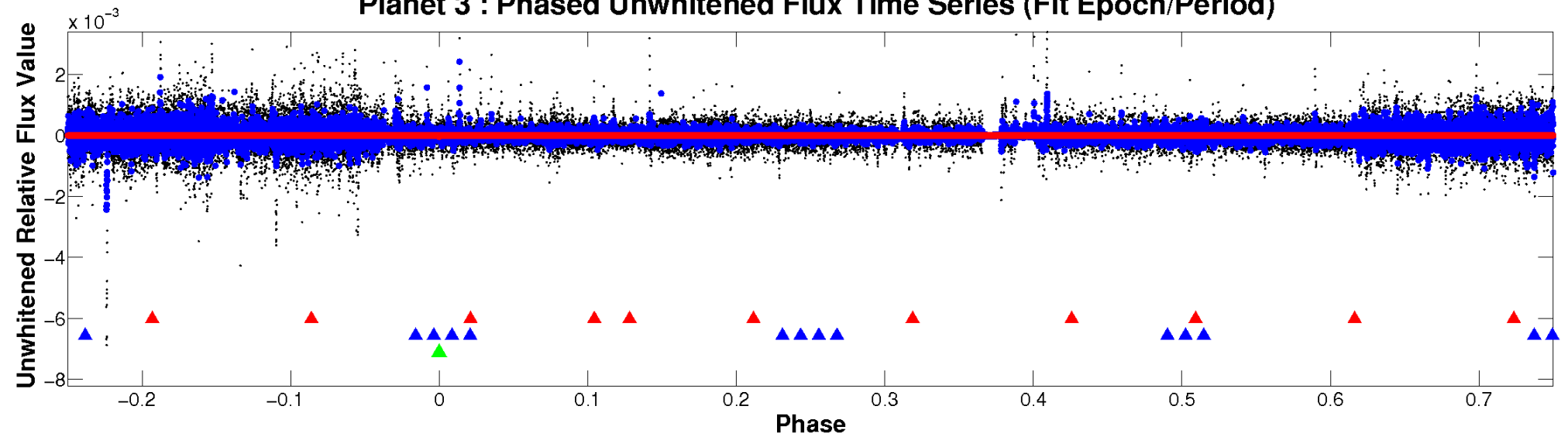
ALT Odd/Even

TCE 005881213-03

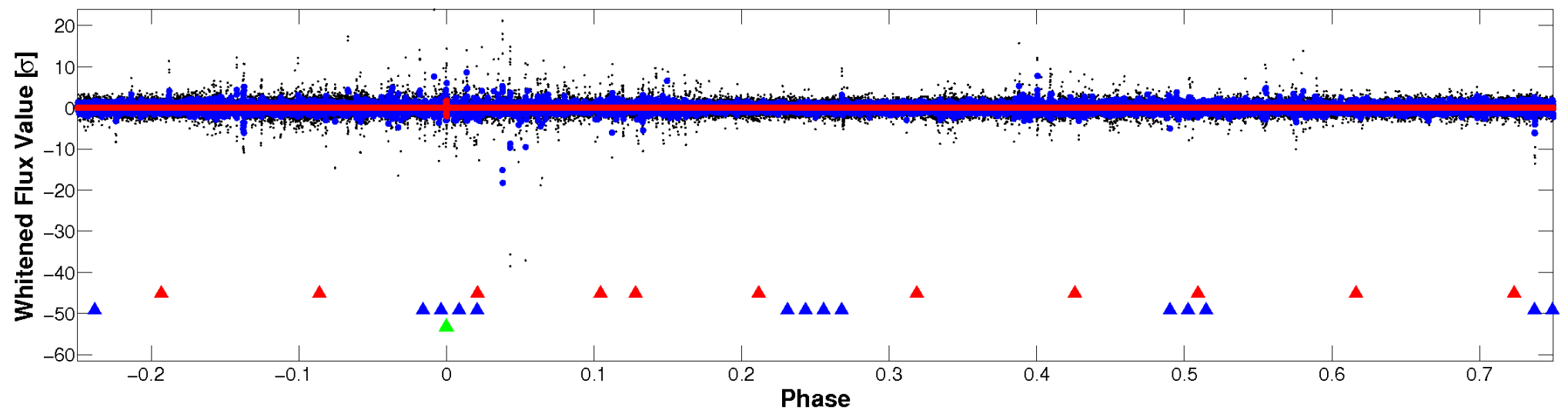


Non-Whitened Vs. Whitened Light Curve

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

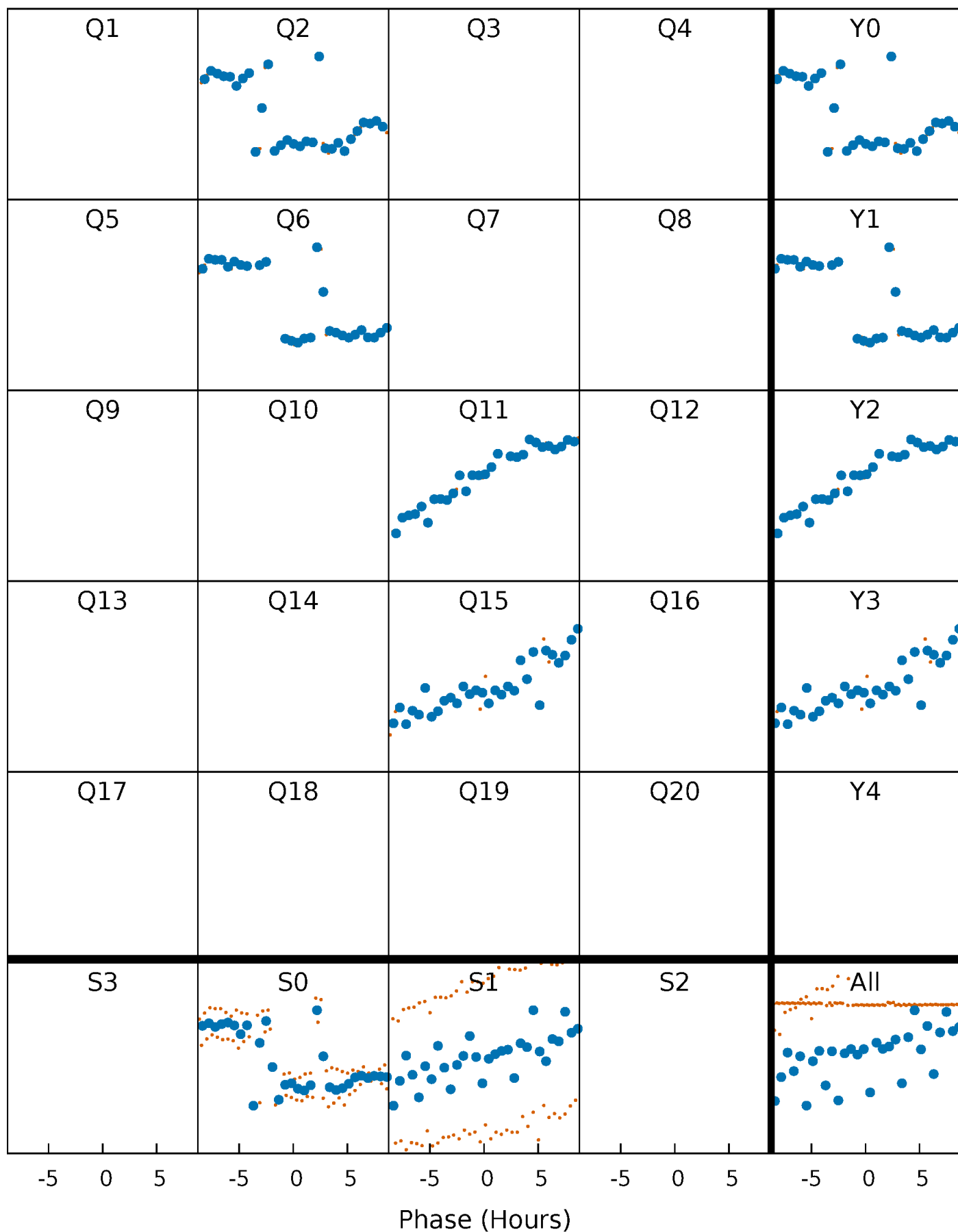


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



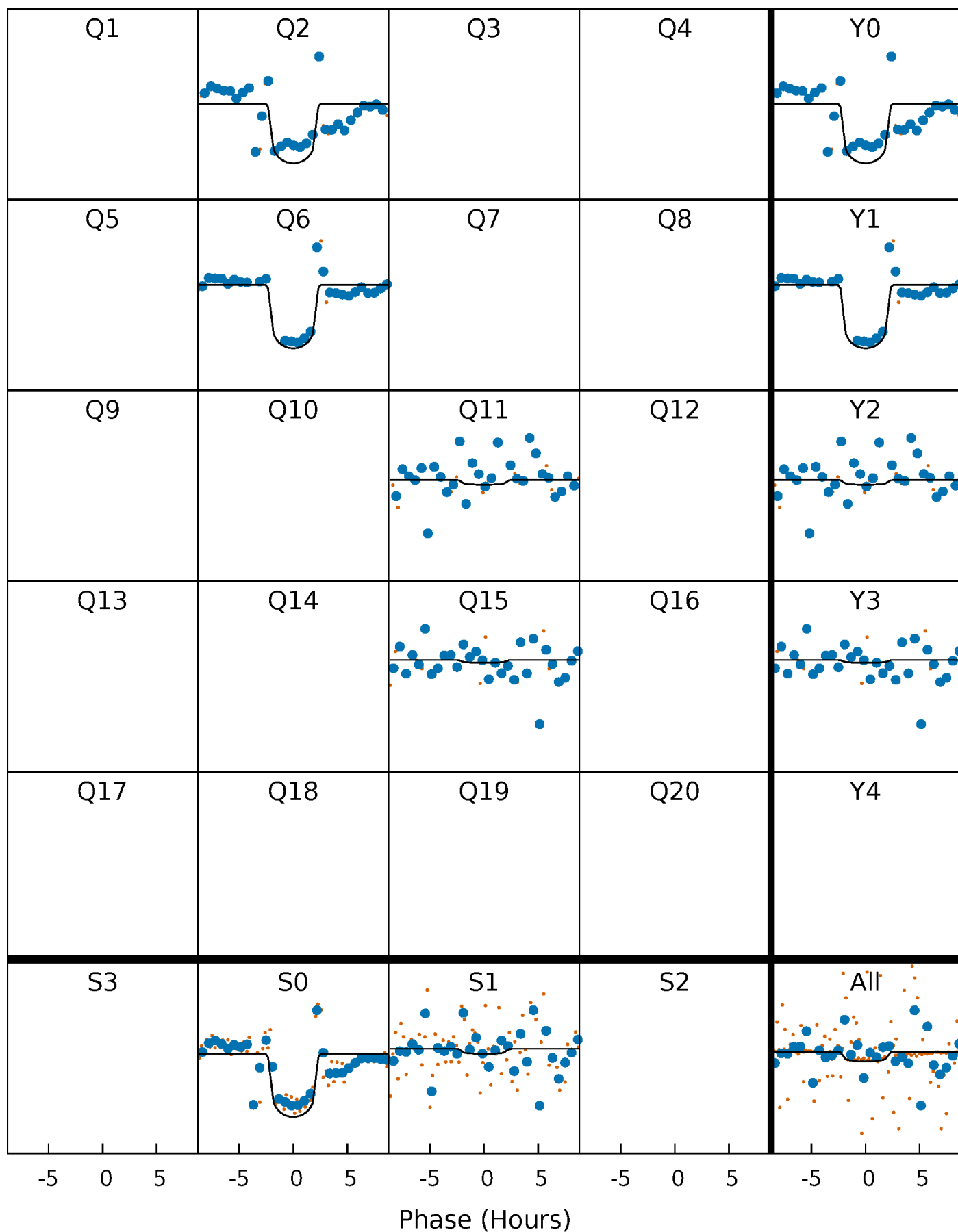
PDC Quarter-Phased Transit Curves

TCE 005881213-03 P=414.360946 Days $T_0=186.937127$ (BKJD)



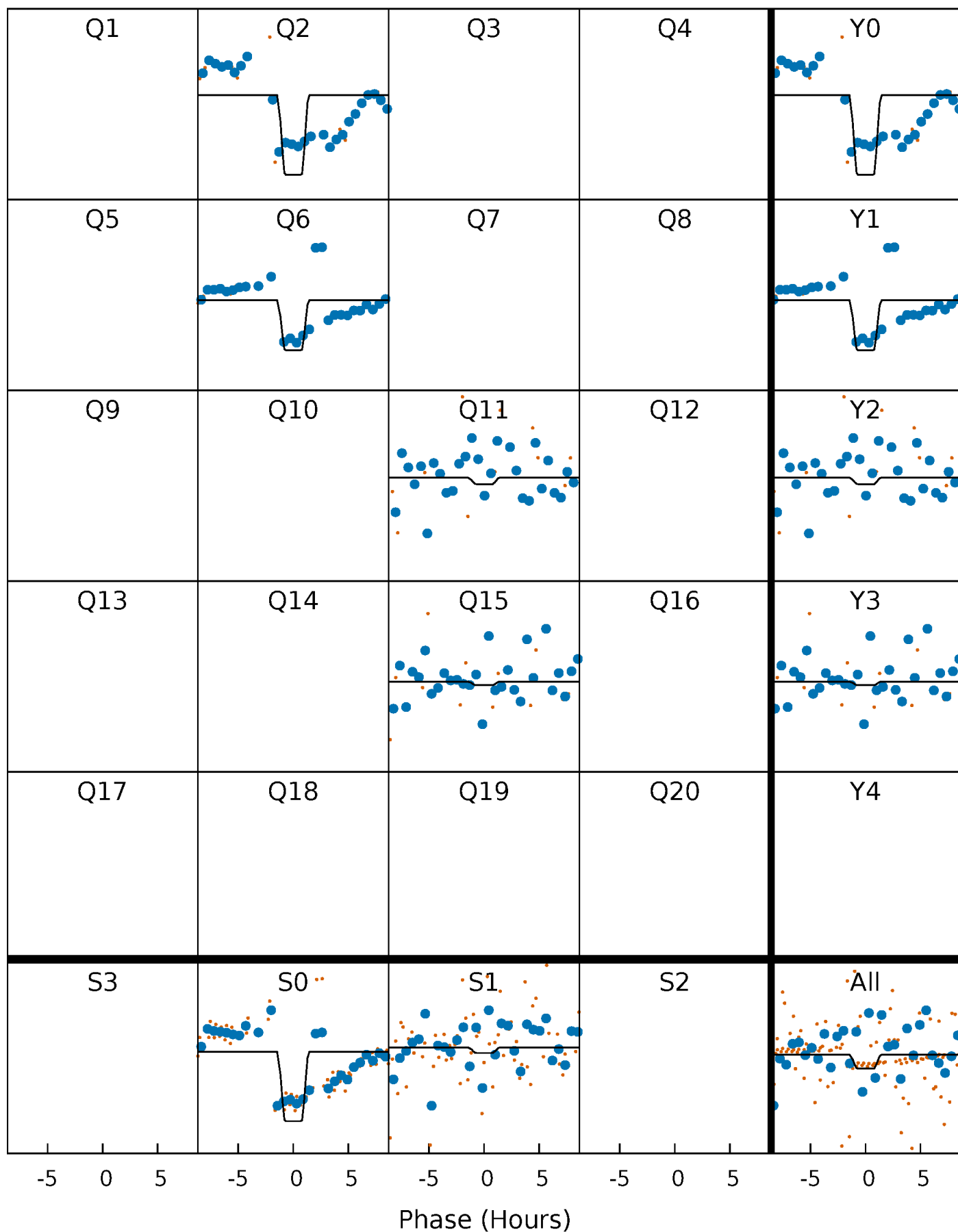
DV Quarter-Phased Transit Curves

TCE 005881213-03 P=414.360946 Days $T_0=186.937127$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

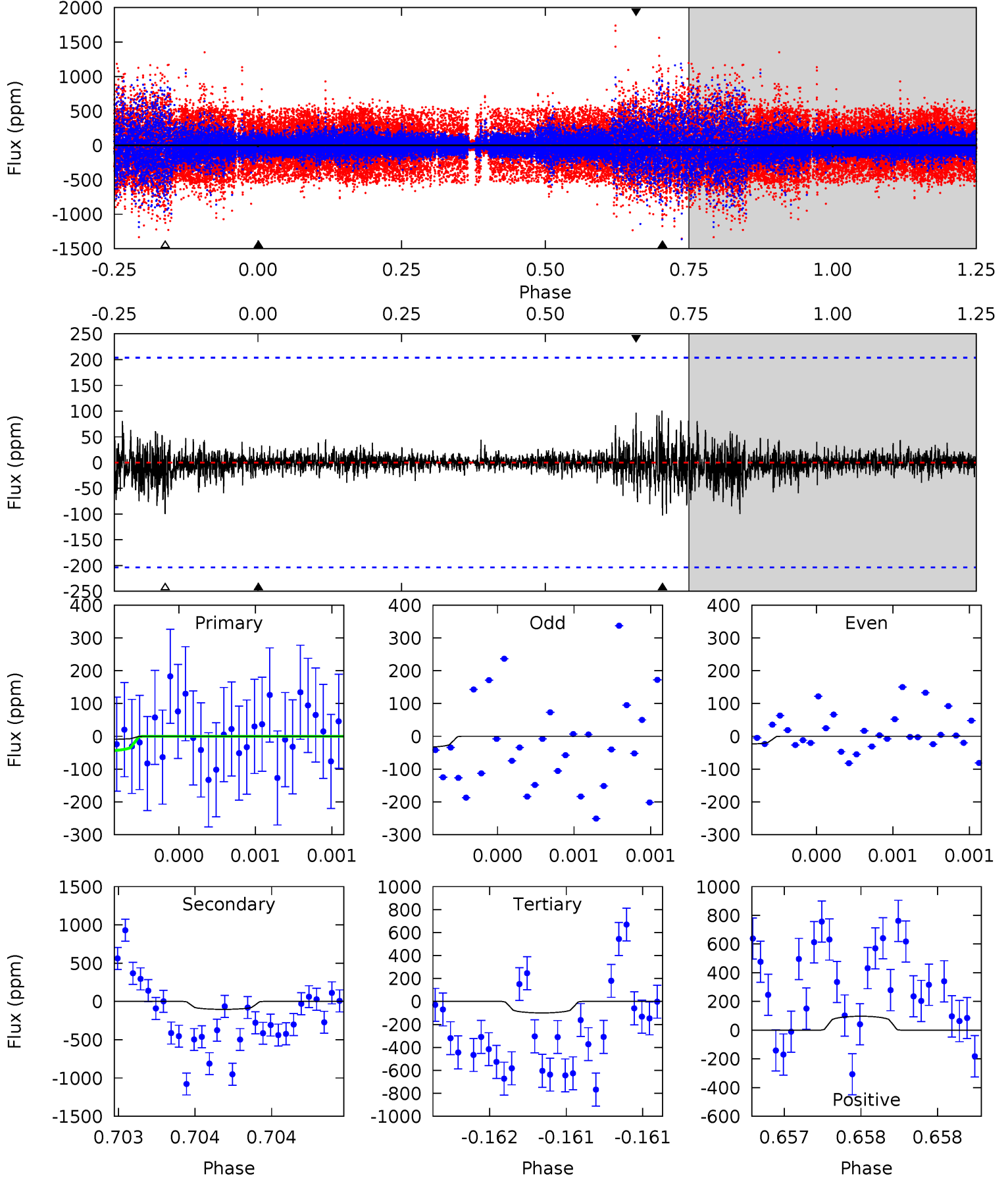
TCE 005881213-03 P=414.358541 Days $T_0=186.937589$ (BKJD)



DV Model-Shift Uniqueness Test

005881213-03, P = 414.360946 Days, E = 186.937127 Days

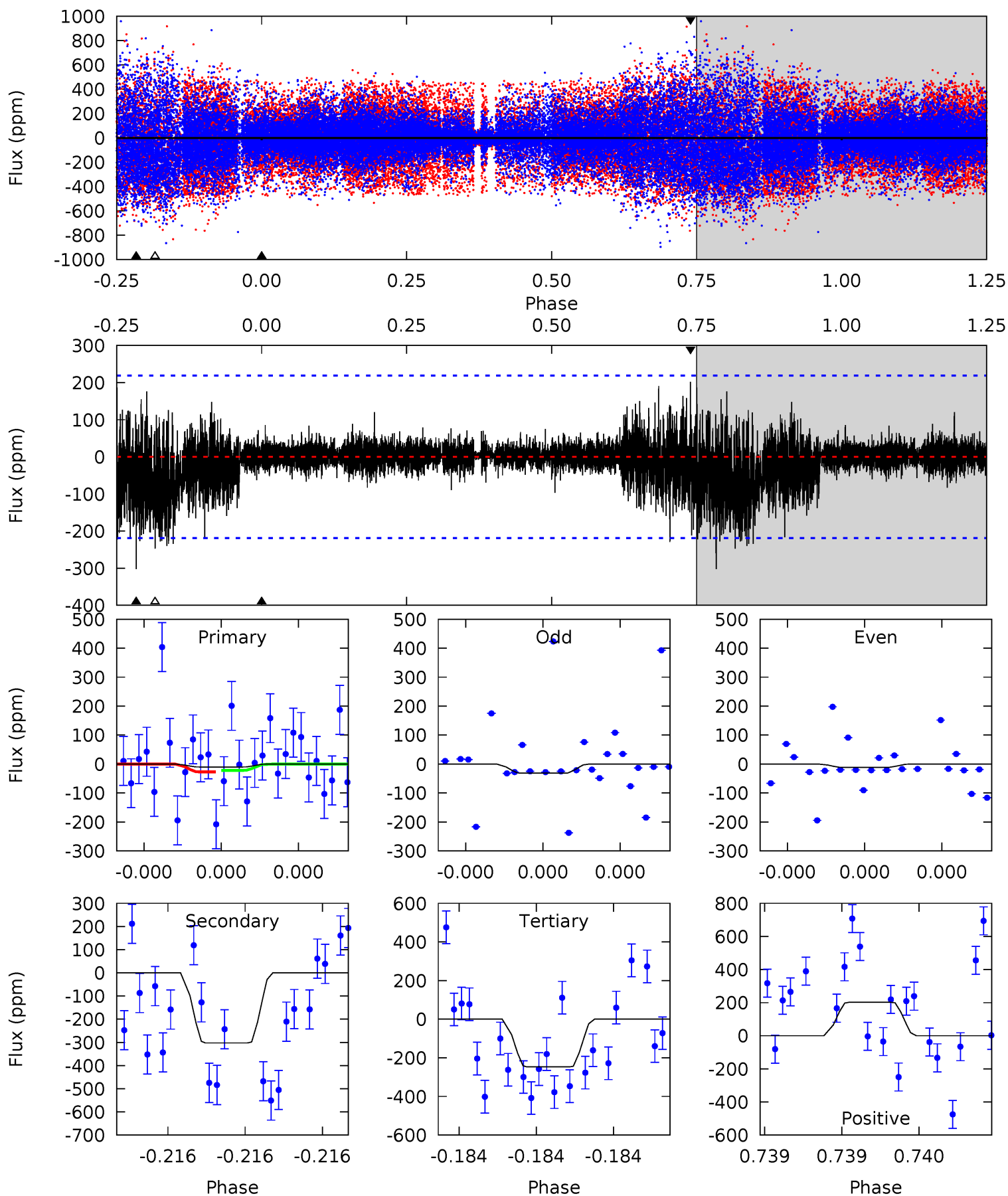
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.26	2.81	2.73	2.65	5.58	3.48	0.44	-2.48	-2.39	0.08	0.16	0.11	0.30	0.49	0.32



Alt Model-Shift Uniqueness Test

005881213-03, P = 414.358541 Days, E = 186.937589 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.26	7.86	6.42	5.25	5.69	3.66	1.03	-6.16	-4.98	1.44	2.61	0.25	0.39	0.40	0.05



Stellar Parameters For KIC 005881213

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5812^{+176}_{-193}	$4.166^{+0.286}_{-0.154}$	$-0.020^{+0.250}_{-0.300}$	$1.364^{+0.387}_{-0.387}$	$0.994^{+0.153}_{-0.115}$	$0.551^{+0.980}_{-0.255}$
	+3%/-3%	+7%/-4%	+1250%/-1500%	+28%/-28%	+15%/-12%	+178%/-46%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005881213-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-103 ± 37	$1.06^{+0.35}_{-0.32}$	395^{+32}_{-34}	6729^{+1501}_{-991}	57609^{+70064}_{-29137}
Alt.	-302 ± 38	$0.82^{+0.28}_{-0.28}$	397^{+31}_{-36}	11615^{+5113}_{-2398}	$286890^{+411708}_{-129774}$

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 $A_{obs} \gg 1.0$

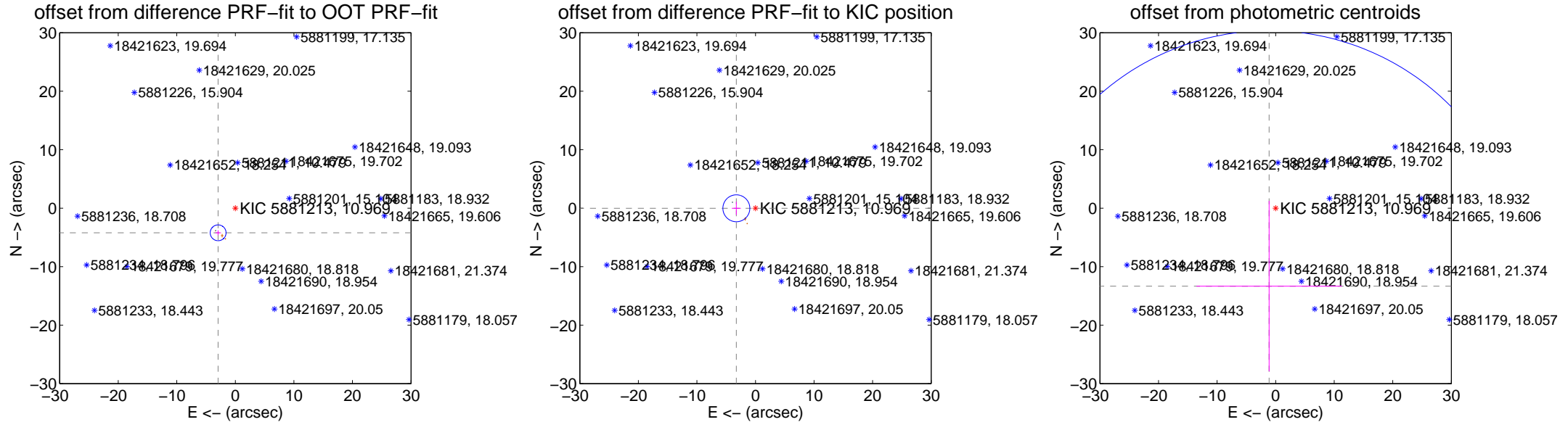
DV Centroid Data

Supplemental centroid analysis for 005881213-03. **Kepler magnitude: 10.97.** Transit SNR 12.07

There are 1 quarters with good PRF difference image offsets

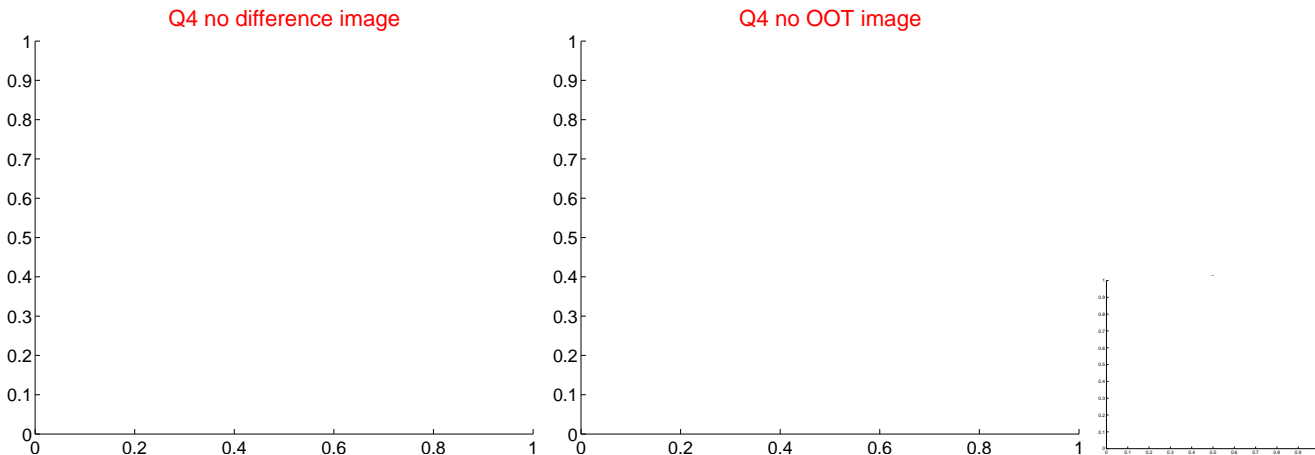
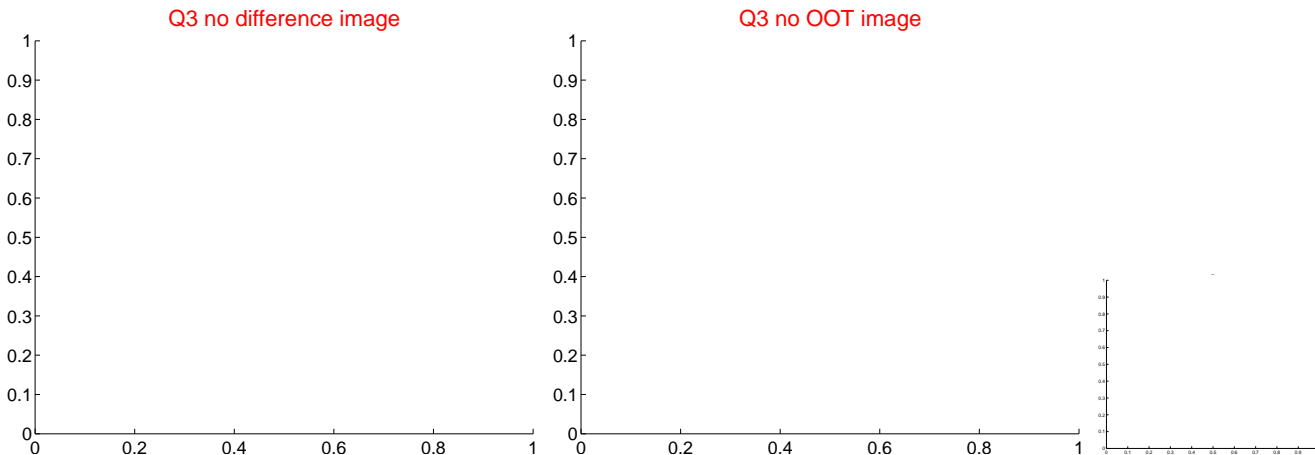
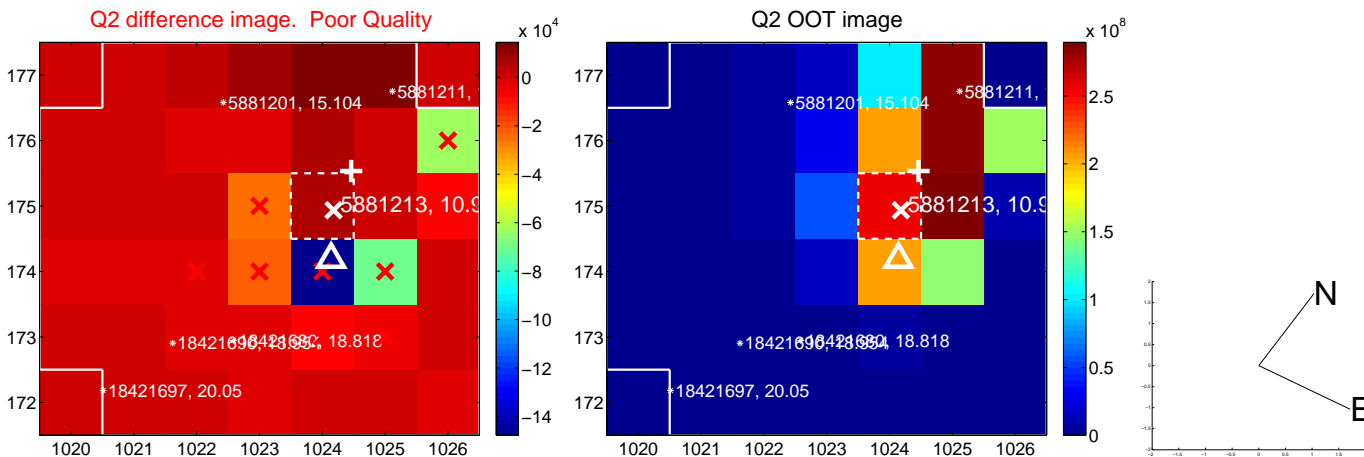
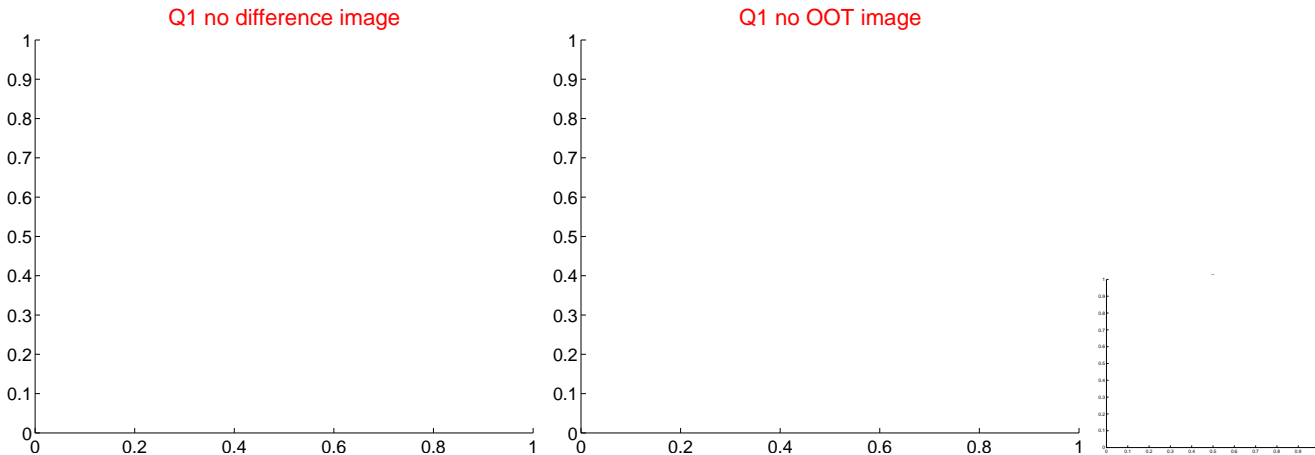
The OOT PRF centroid is offset from the target star catalog position by about 4.85 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.135 ± 0.451	11.39	2.939 ± 0.488	-4.210 ± 0.432
PRF-fit source offset from KIC position	3.267 ± 0.767	4.26	3.267 ± 0.767	-0.020 ± 1.117
photometric centroid source offset	13.38 ± 14.56	0.92	1.12 ± 12.41	-13.33 ± 14.58

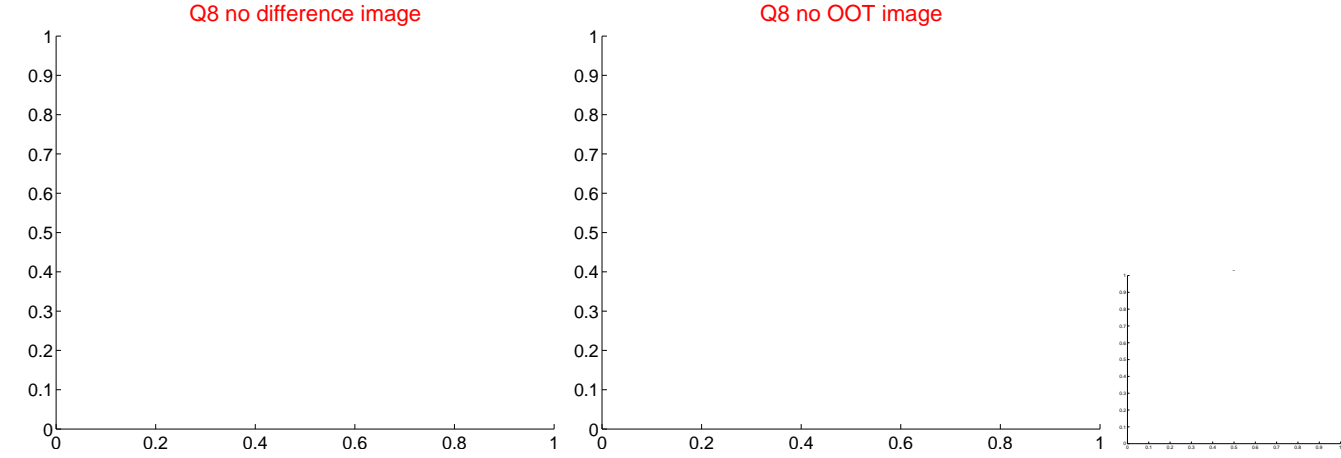
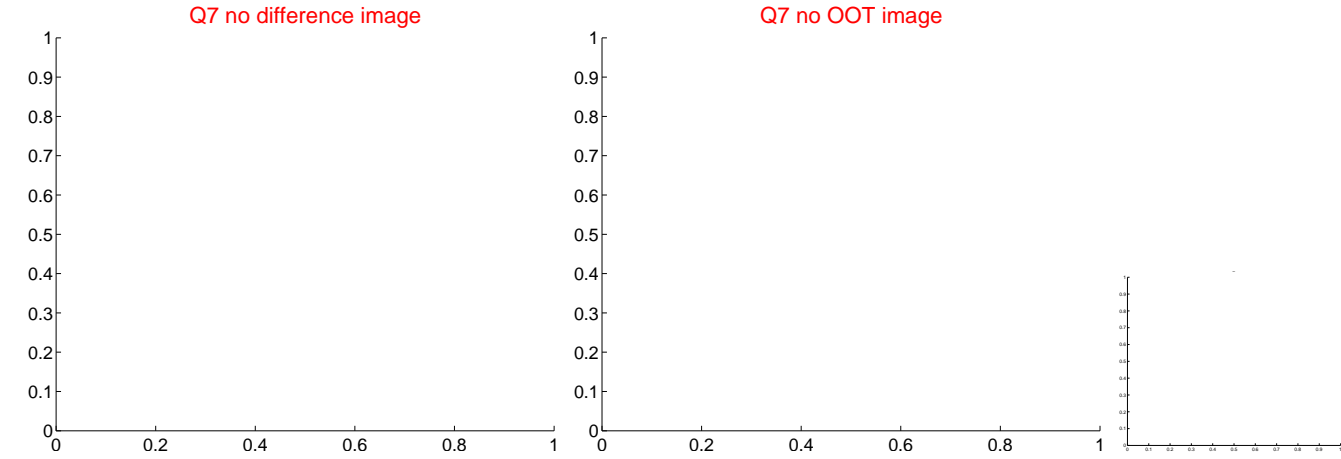
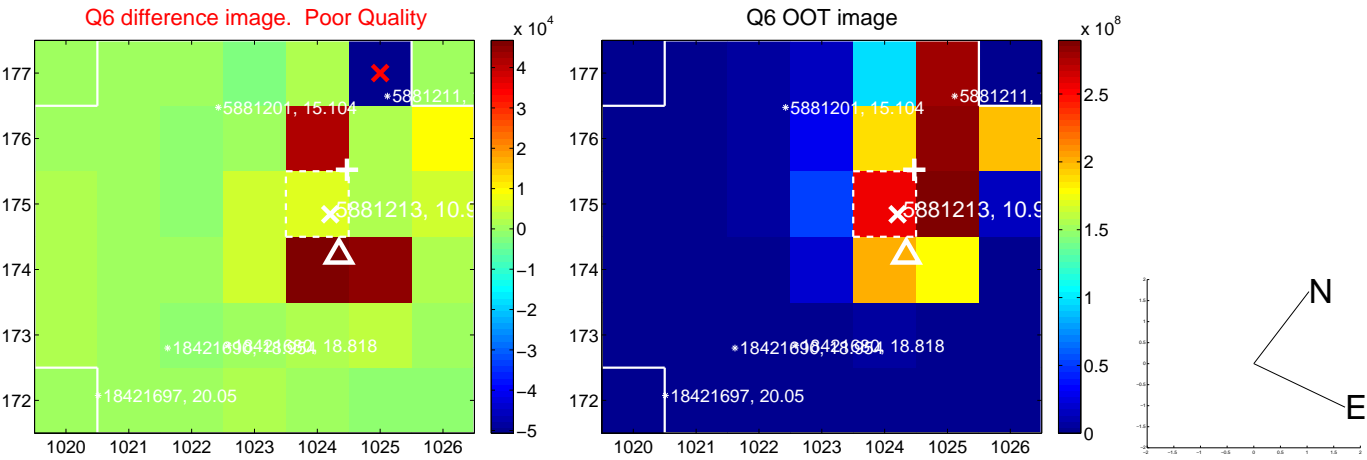


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

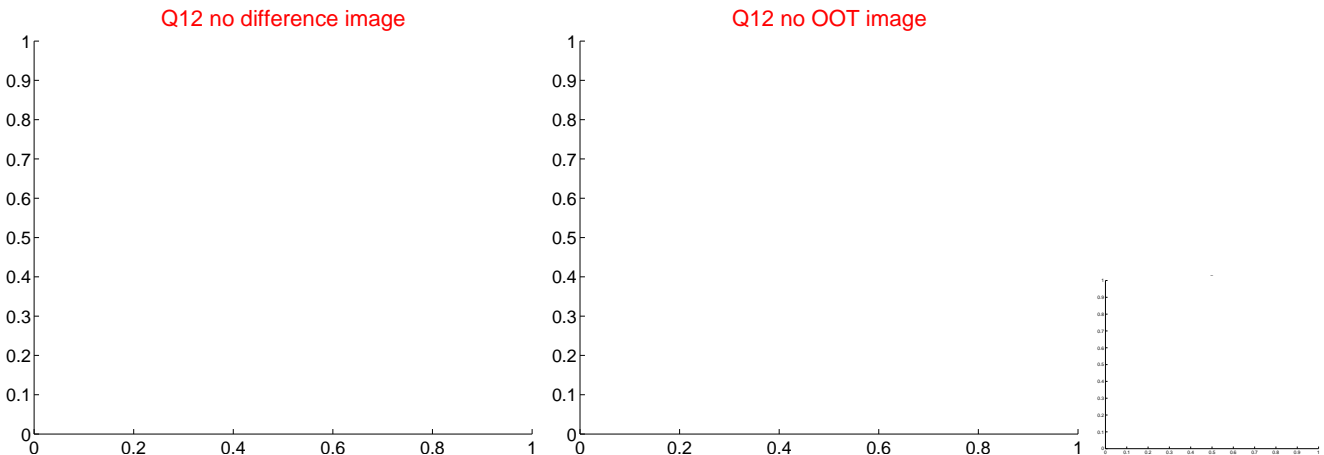
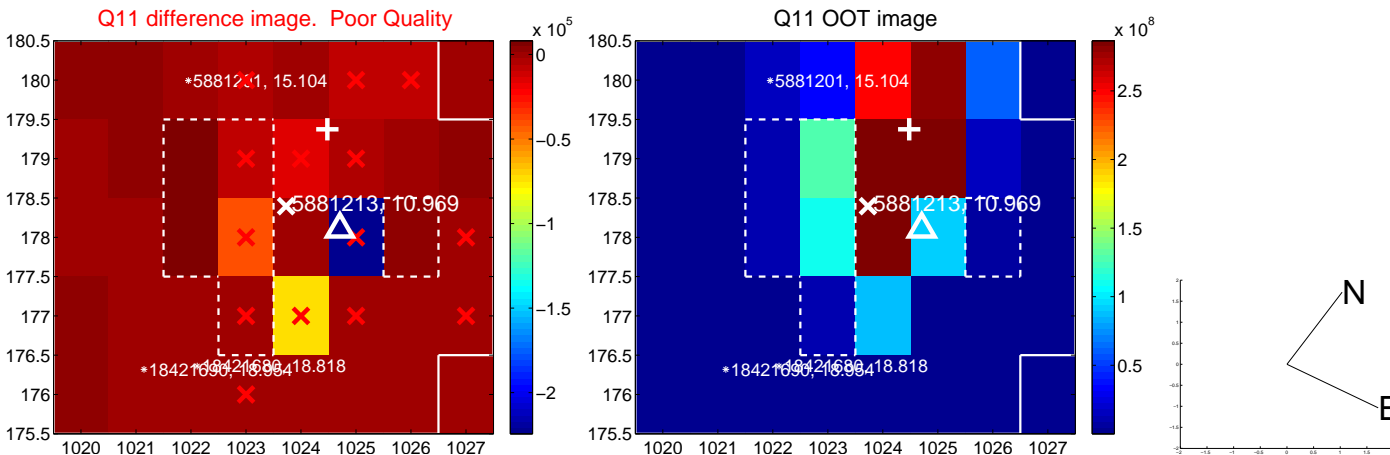
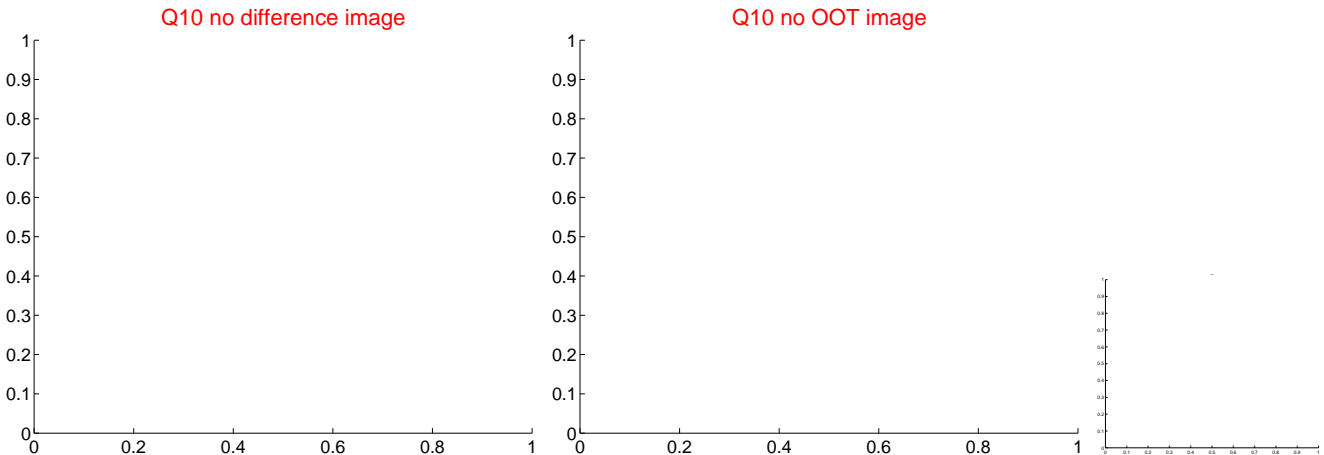
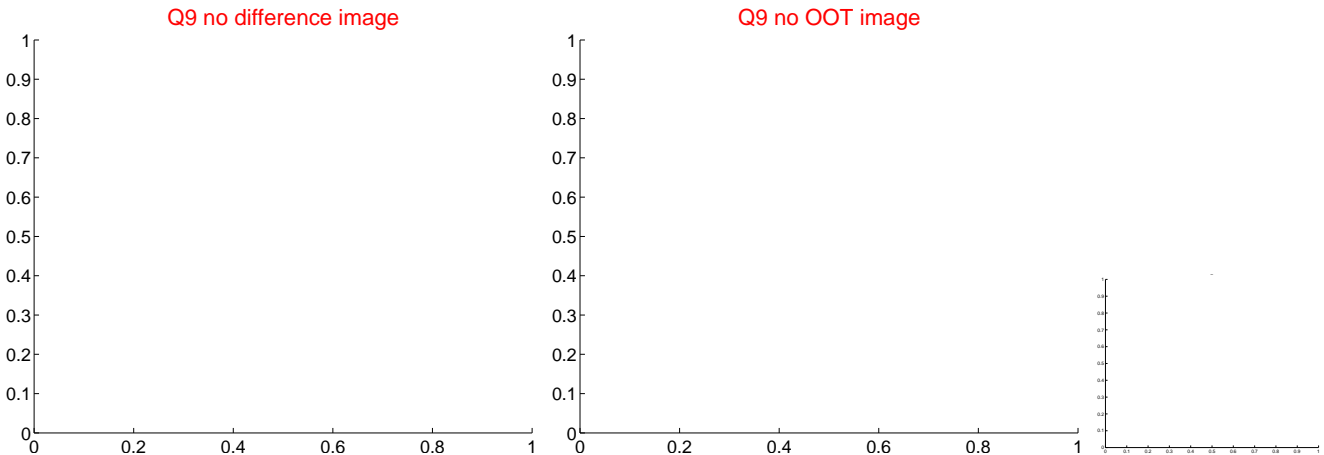
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



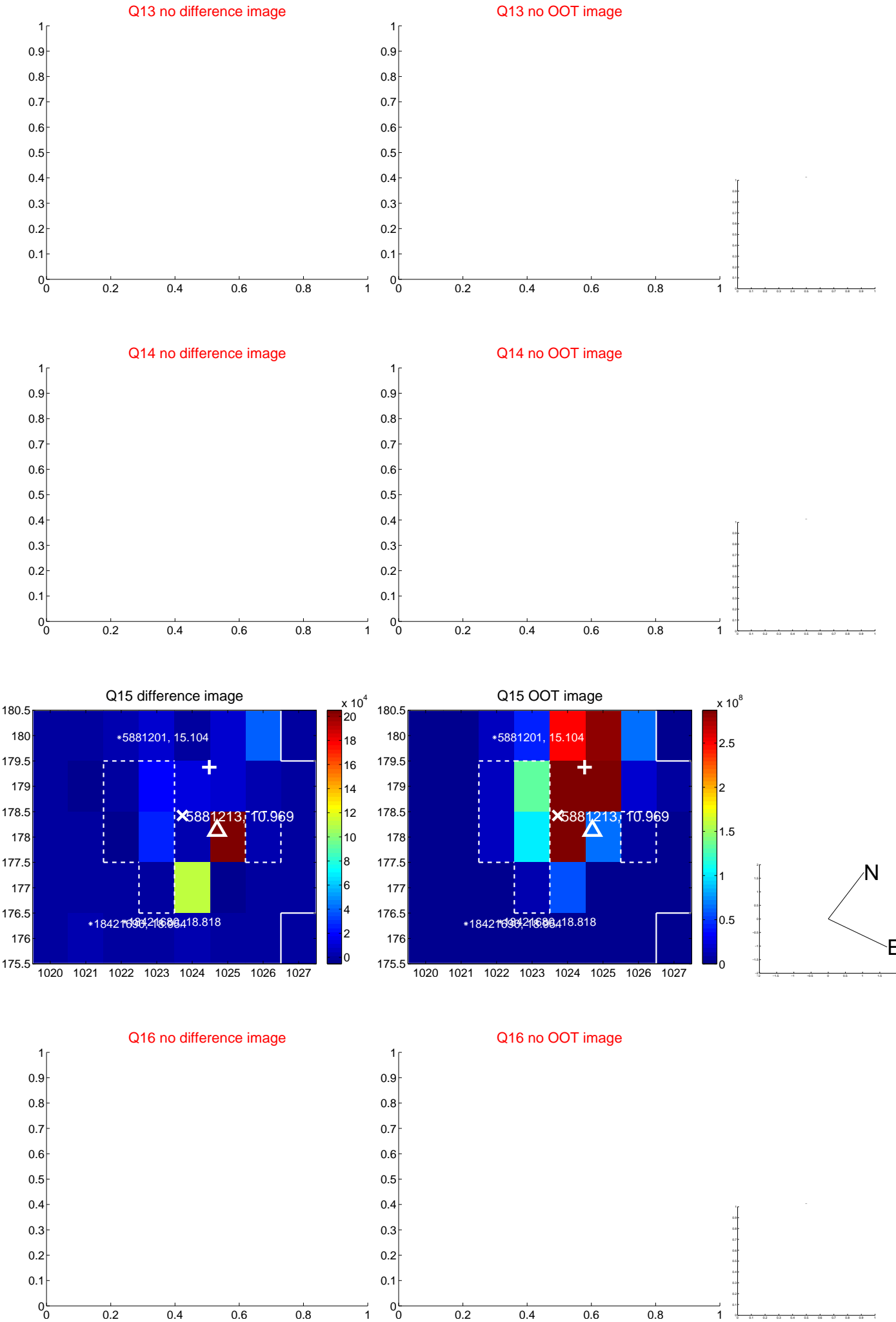
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



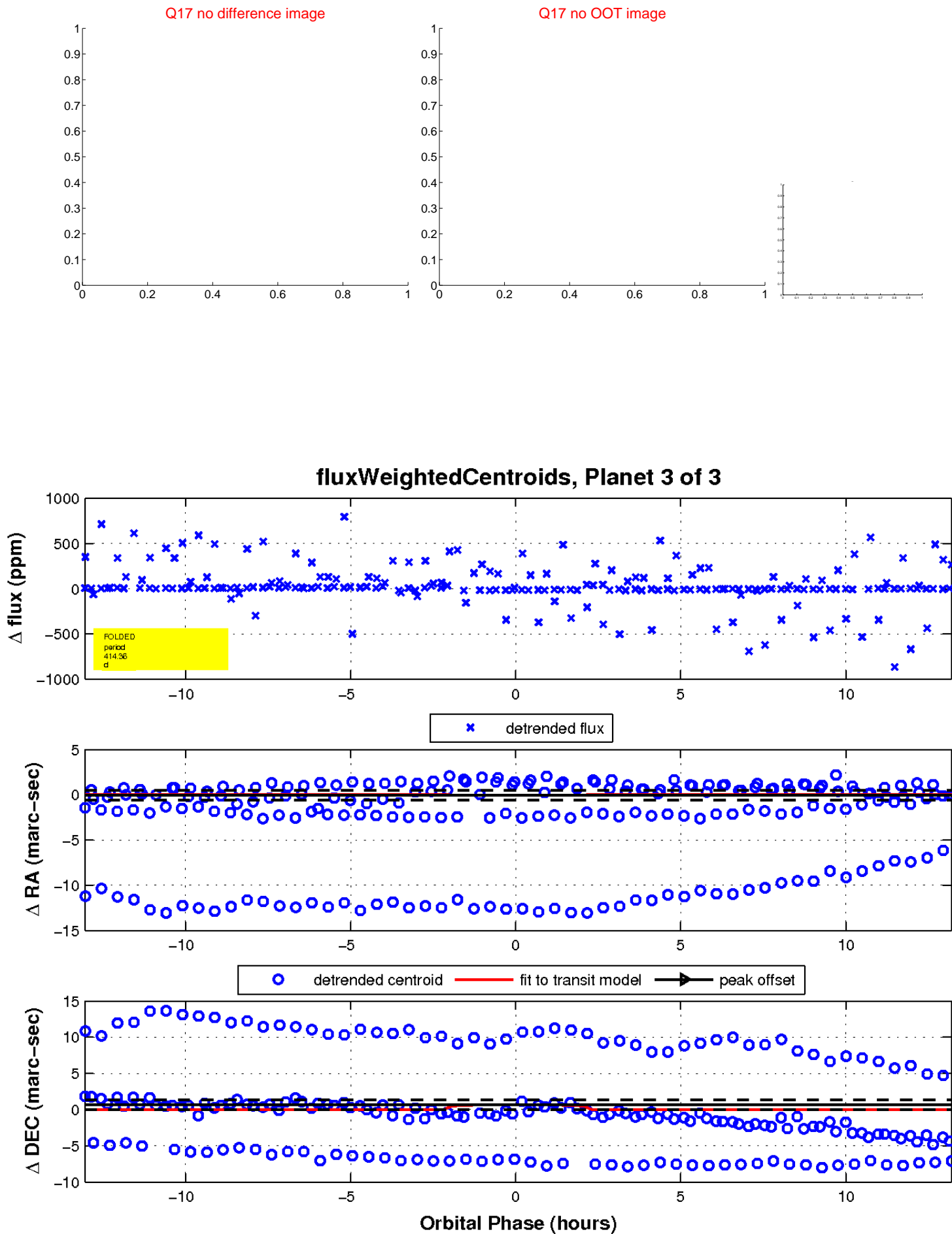
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

