

KIC 011098573

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})
011098573-01	OBS	No	360.948660	194.775894	1414.9	6.692	12.1	12.6	1.04	5868	6.30	1.18
011098573-02	OBS	No	376.639695	226.168226	802.4	5.586	8.3	8.1	1.04	5868	3.17	1.11
011098573-03	OBS	No	376.637878	194.765149	709.6	6.446	7.9	7.9	1.04	5868	2.97	1.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011098573-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011098573-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
011098573-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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.

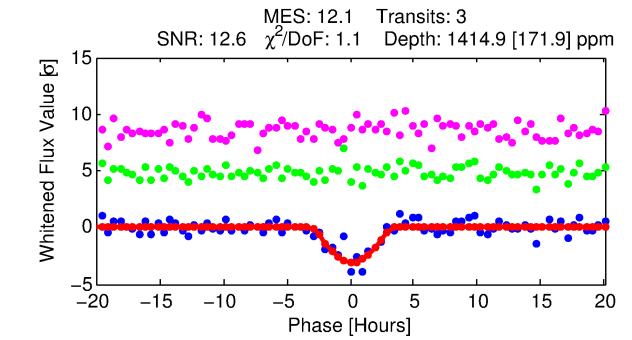
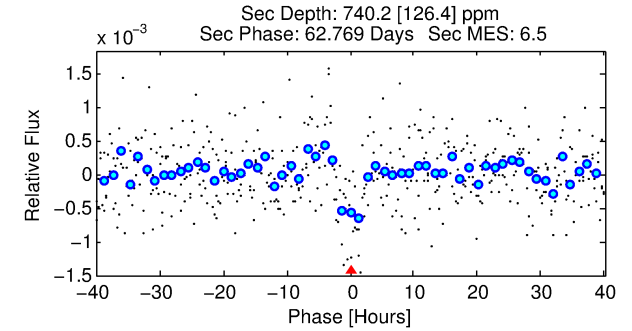
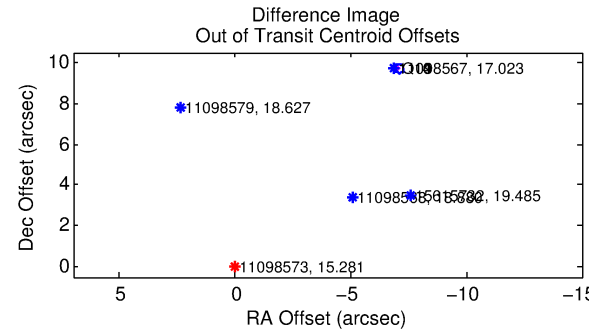
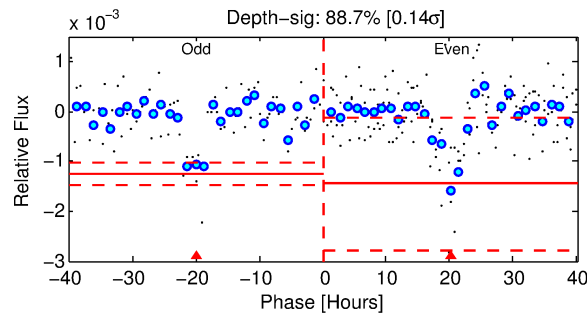
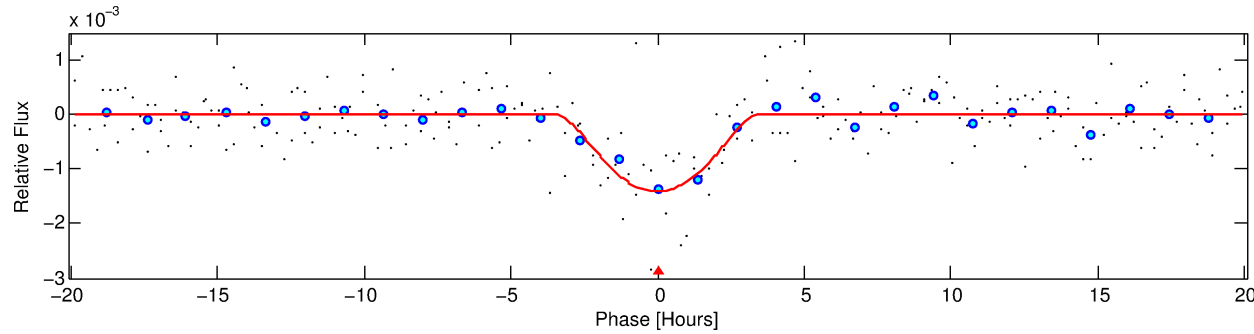
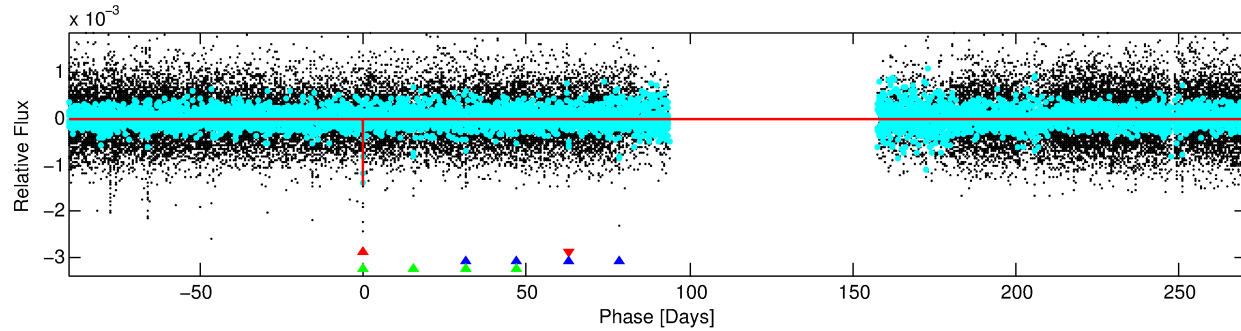
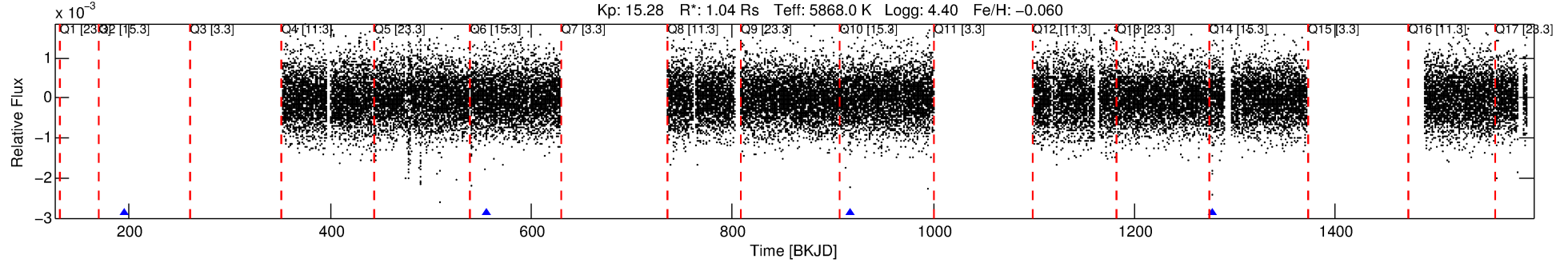
Ephemeris Match Information For 011098573-01

No Significant Match Found

DV One-Page Summary

KIC: 11098573 Candidate: 1 of 3 Period: 360.949 d
KOI: K03406 Corr: No Ephemeris Match

Kp: 15.28 R*: 1.04 Rs Teff: 5868.0 K Logg: 4.40 Fe/H: -0.060



DV Fit Results:

Period = 360.94866 [0.00867] d
Epoch = 194.7759 [0.0179] BKJD
Rp/R* = 0.0557 [0.1051]
a/R* = 158.21 [94.18]
b = 0.98 [0.18]
Seff = 1.18 [0.45]
Teq = 266 [25] K
Rp = 6.30 [12.02] Re
a = 0.9852 [0.2385] AU
Ag = 9948.22 [37730.63] [0.26σ]
Teffp = 4101 [3874] K [0.99σ]

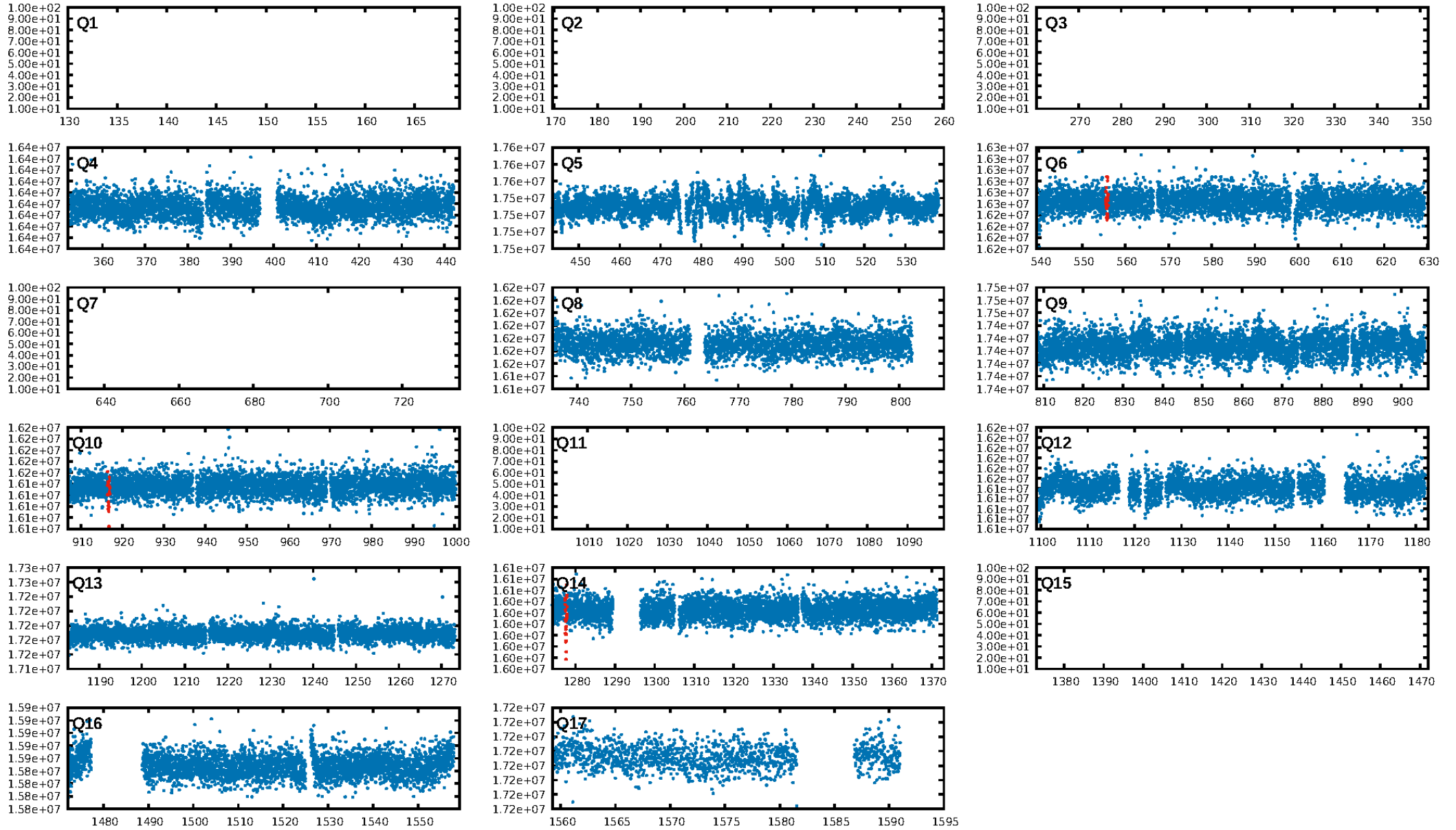
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [40.53σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 84.4%
Bootstrap-pfa: 7.70e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.2513
Centroid-sig: 0.0%
Centroid-so: 40.991 arcsec [28.66σ]
OotOffset-rm: 12.004 arcsec [164.92σ]
KicOffset-rm: 12.185 arcsec [168.02σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

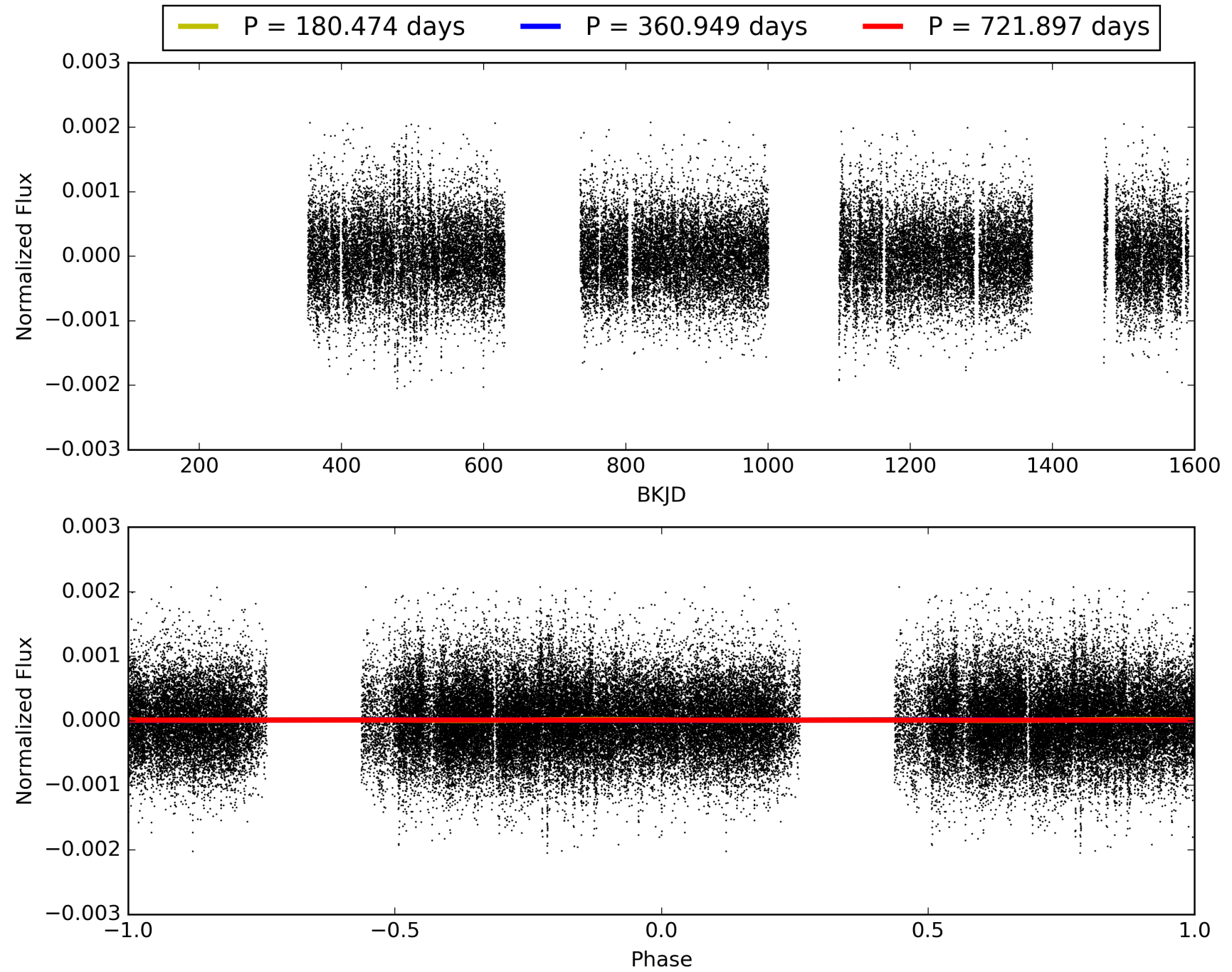
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:29:00 Z

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

TCE 011098573-01, PDC Light Curves

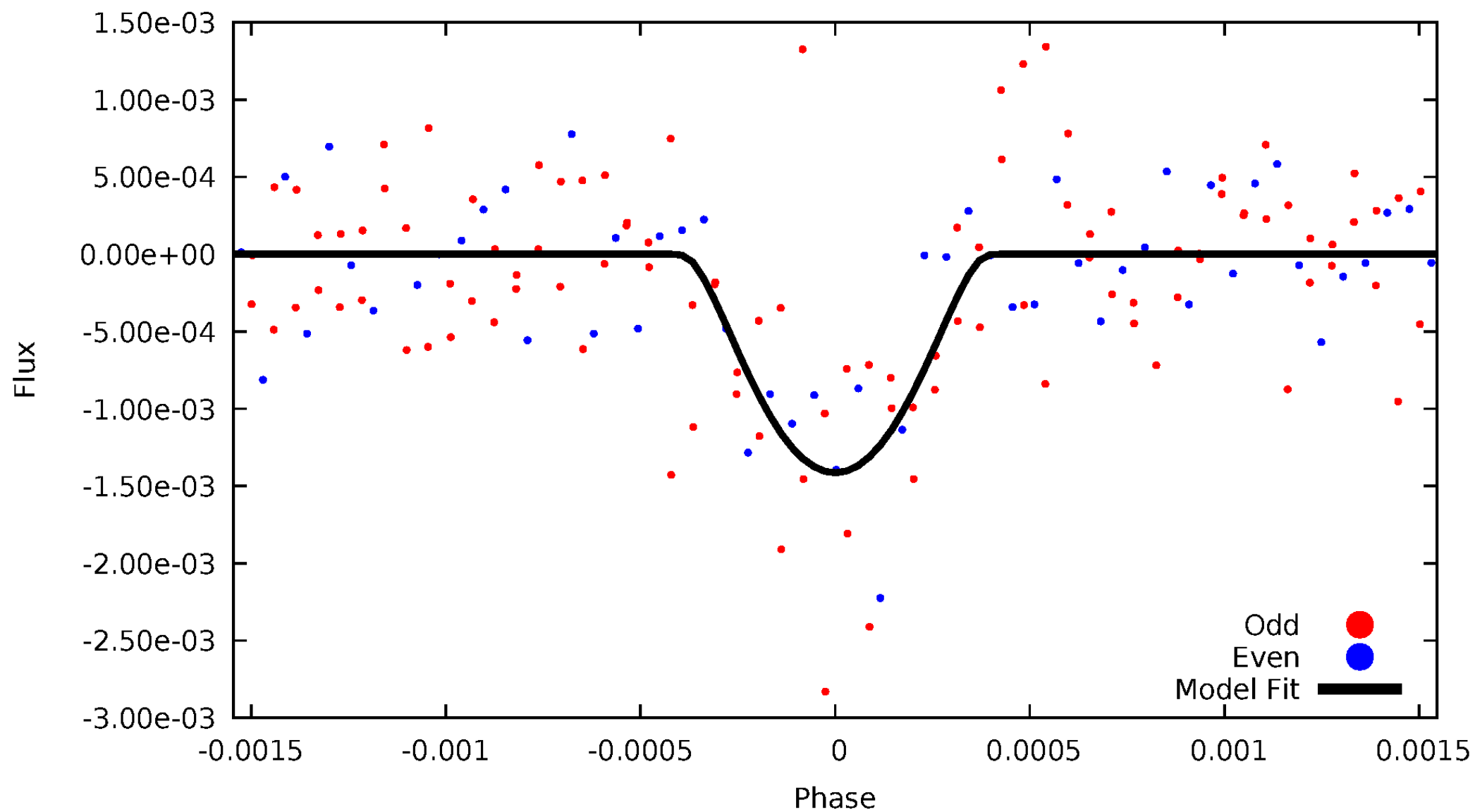


TCE 011098573-01



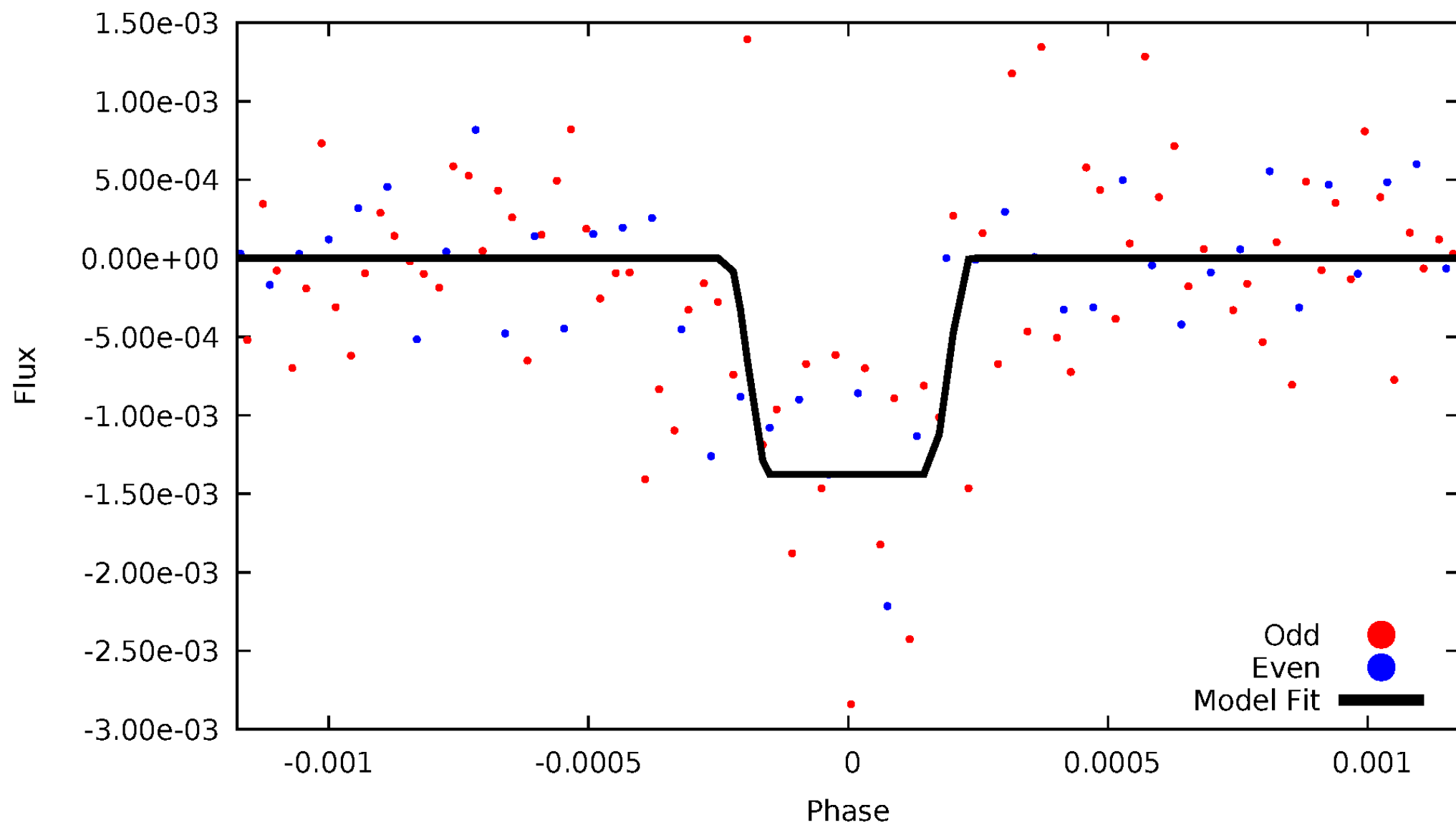
DV Odd/Even

TCE 011098573-01



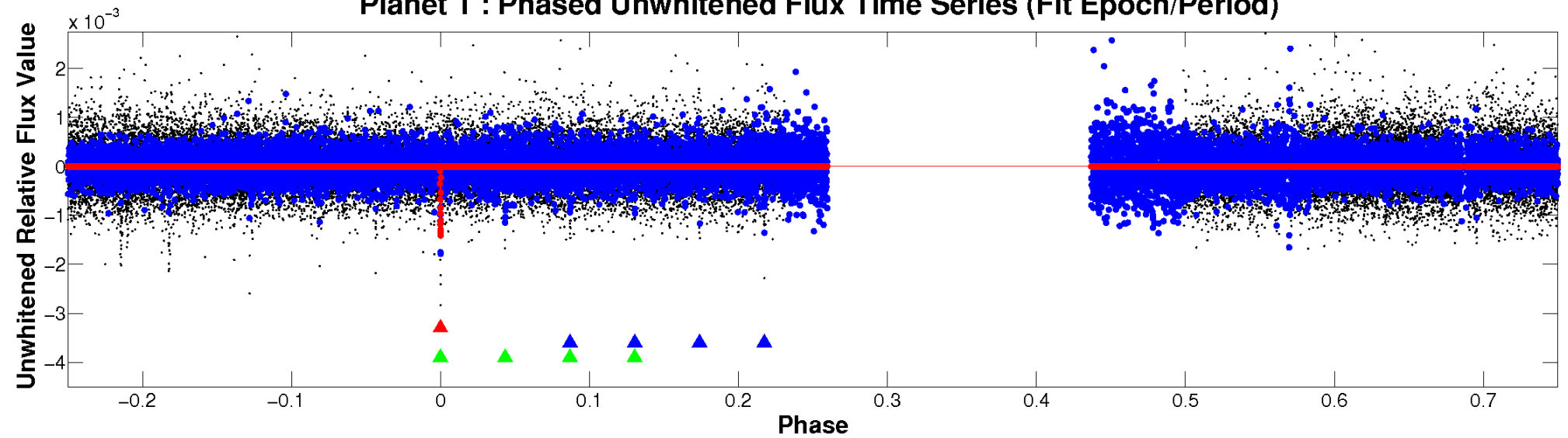
ALT Odd/Even

TCE 011098573-01

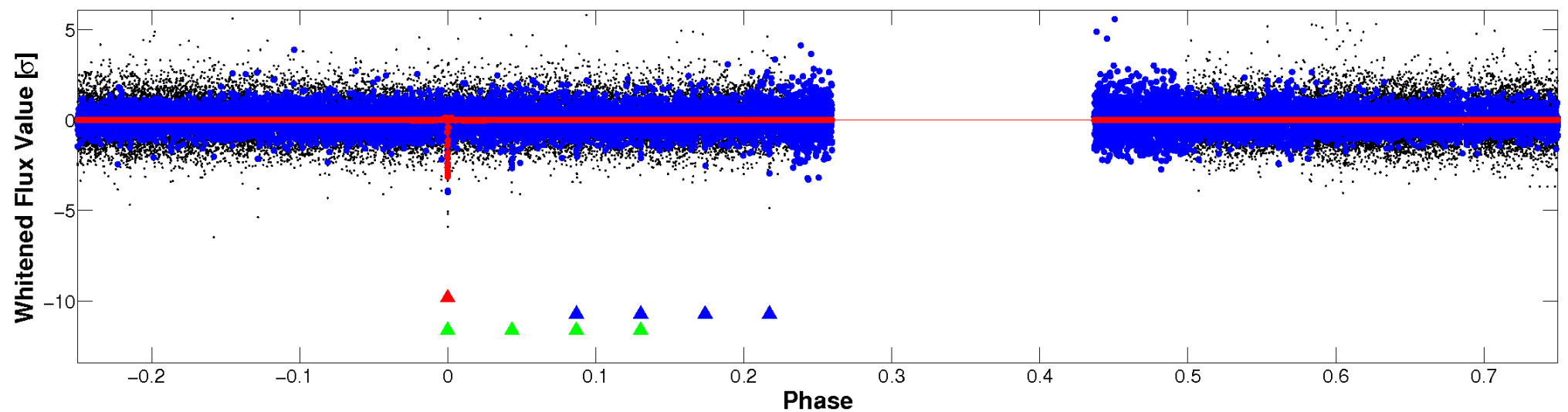


Non-Whitened Vs. Whitened Light Curve

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

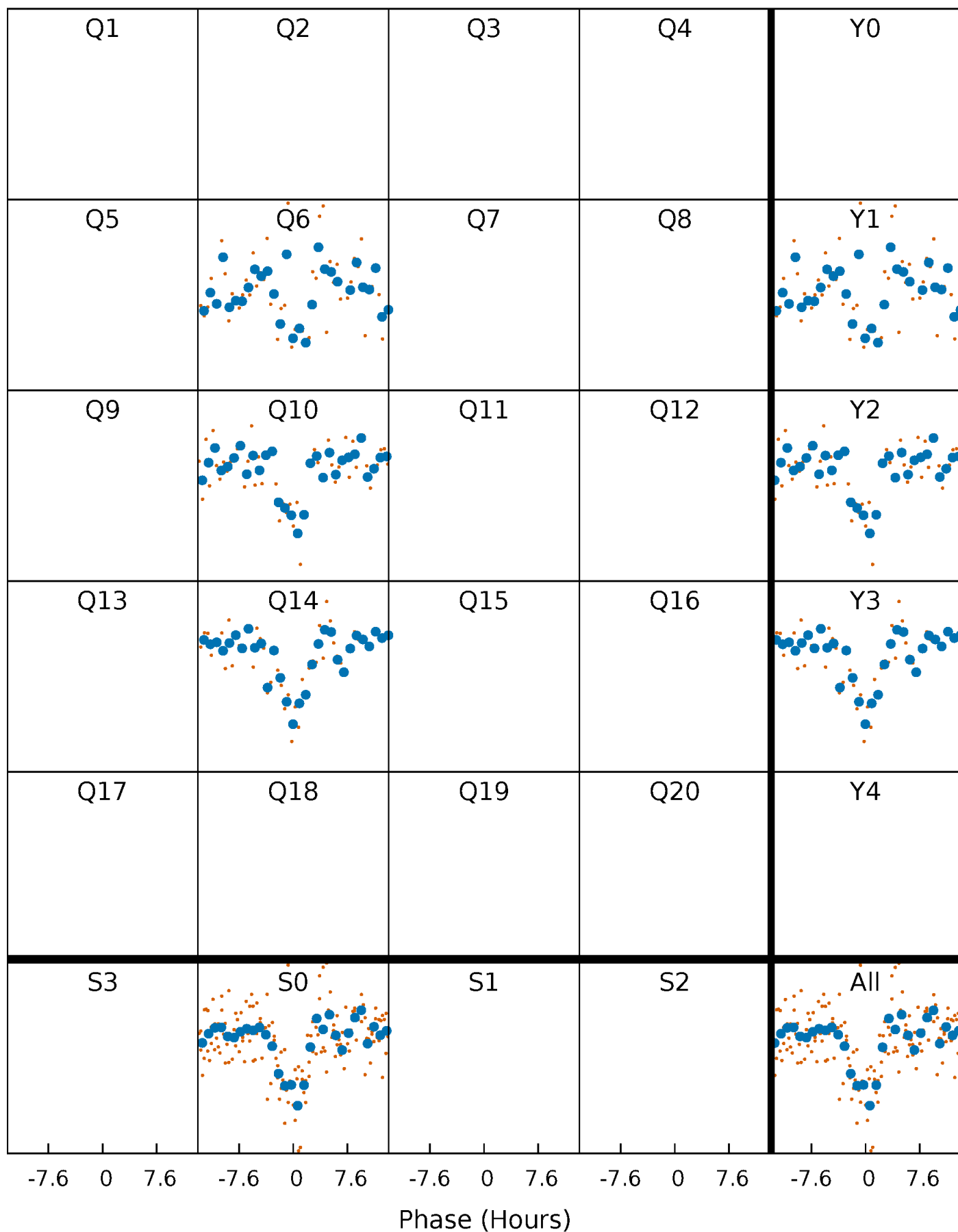


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



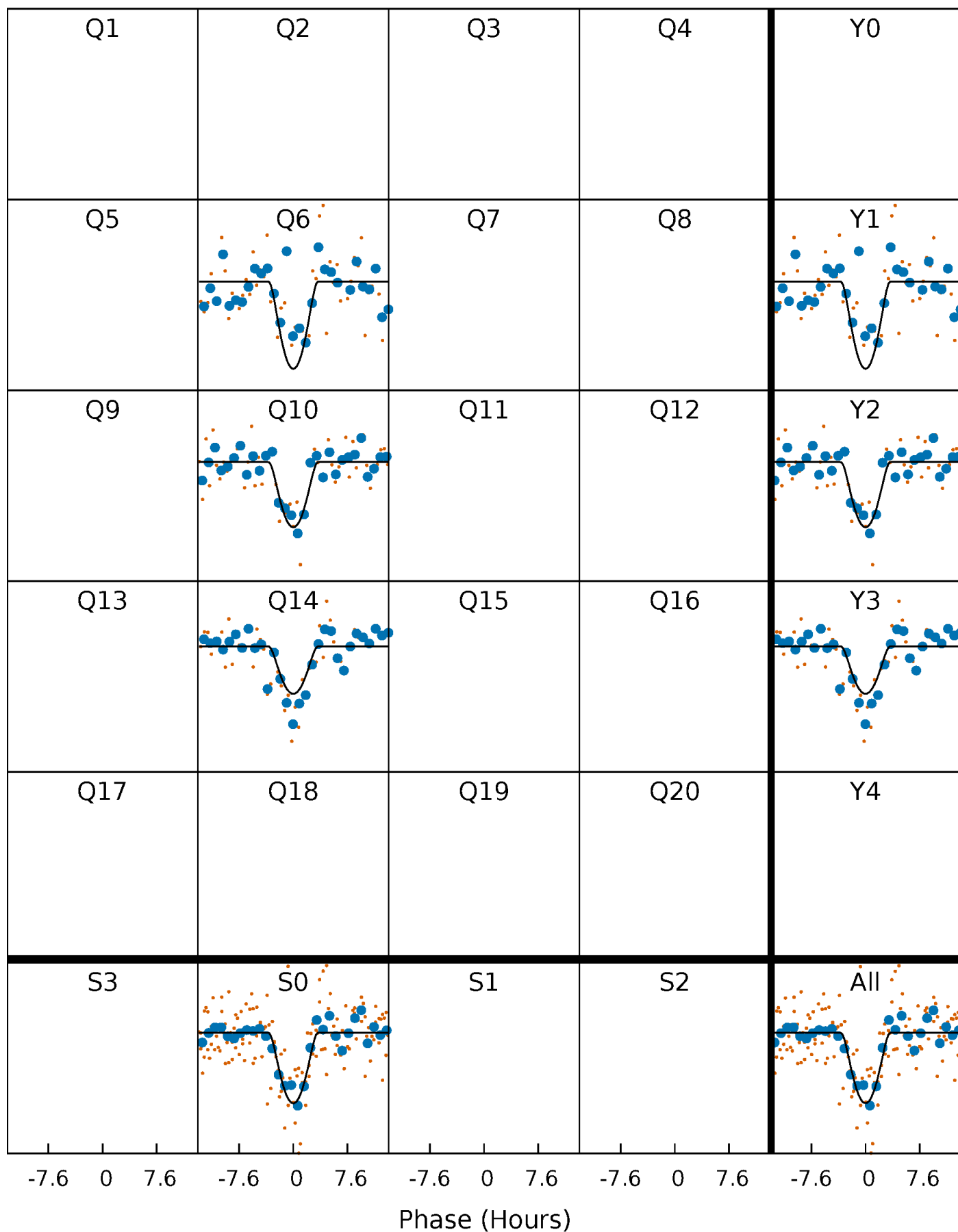
PDC Quarter-Phased Transit Curves

TCE 011098573-01 P=360.948660 Days $T_0=194.775894$ (BKJD)



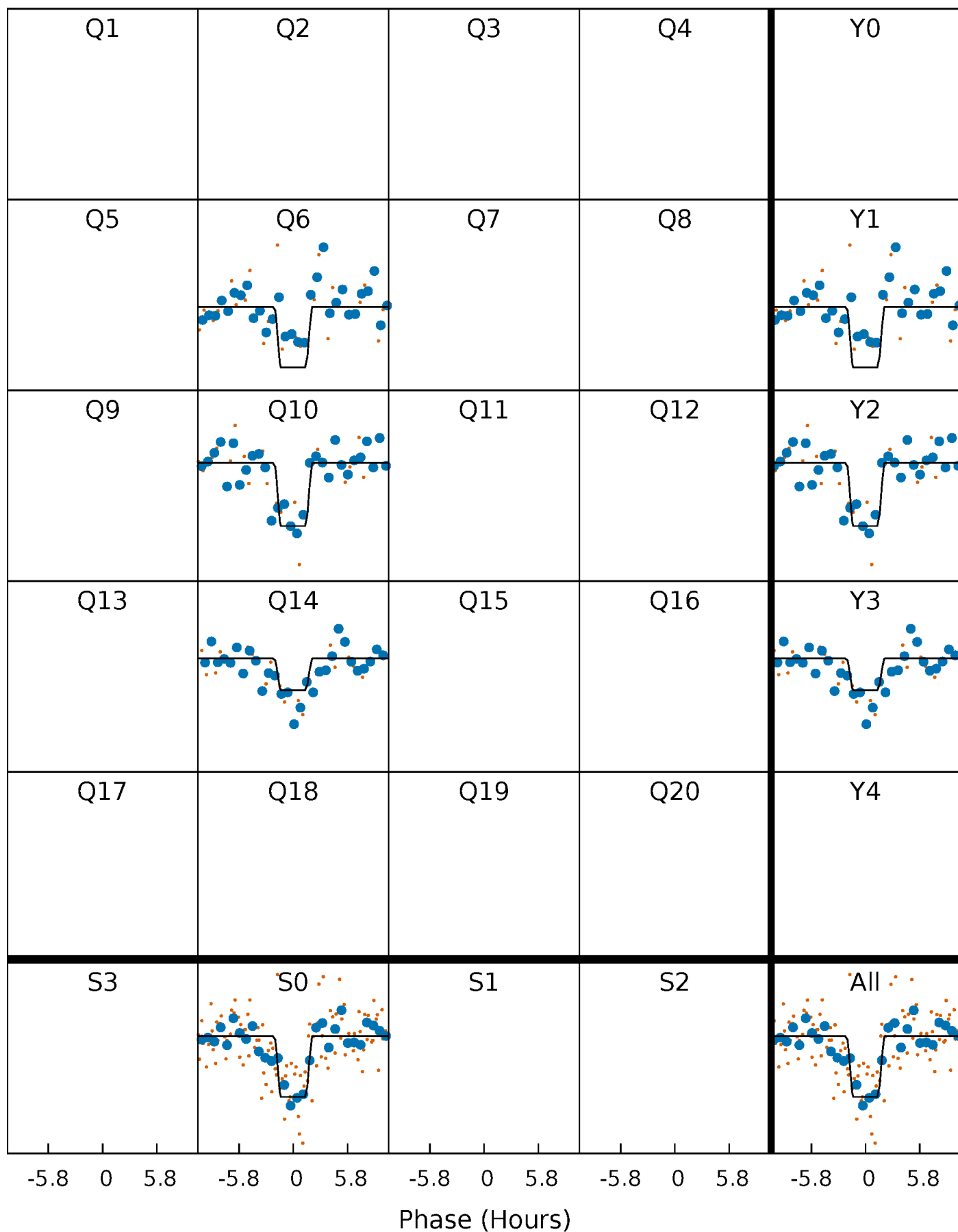
DV Quarter-Phased Transit Curves

TCE 011098573-01 P=360.948660 Days $T_0=194.775894$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

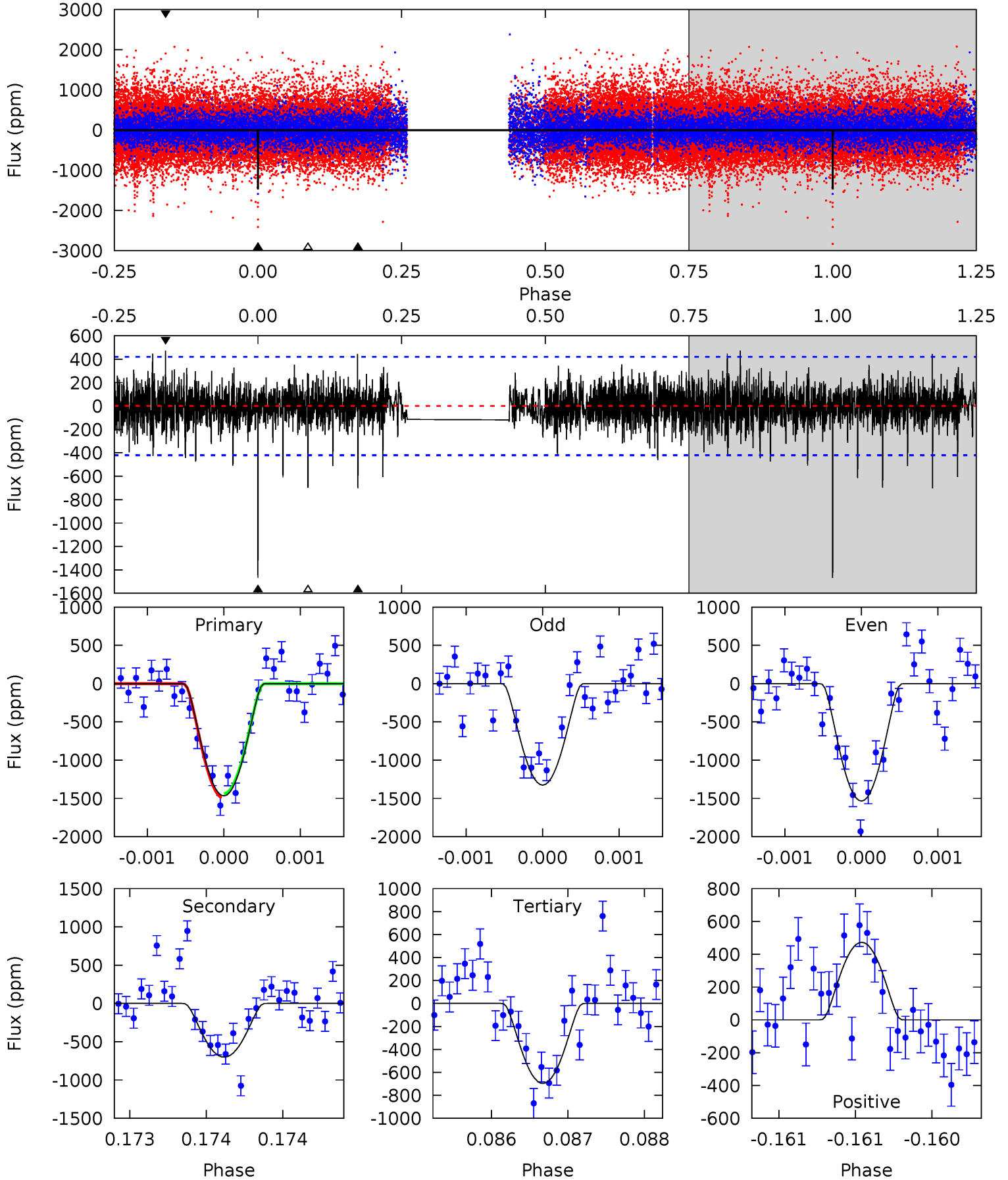
TCE 011098573-01 P=360.923186 Days $T_0=194.841522$ (BKJD)



DV Model-Shift Uniqueness Test

011098573-01, P = 360.948660 Days, E = 194.775894 Days

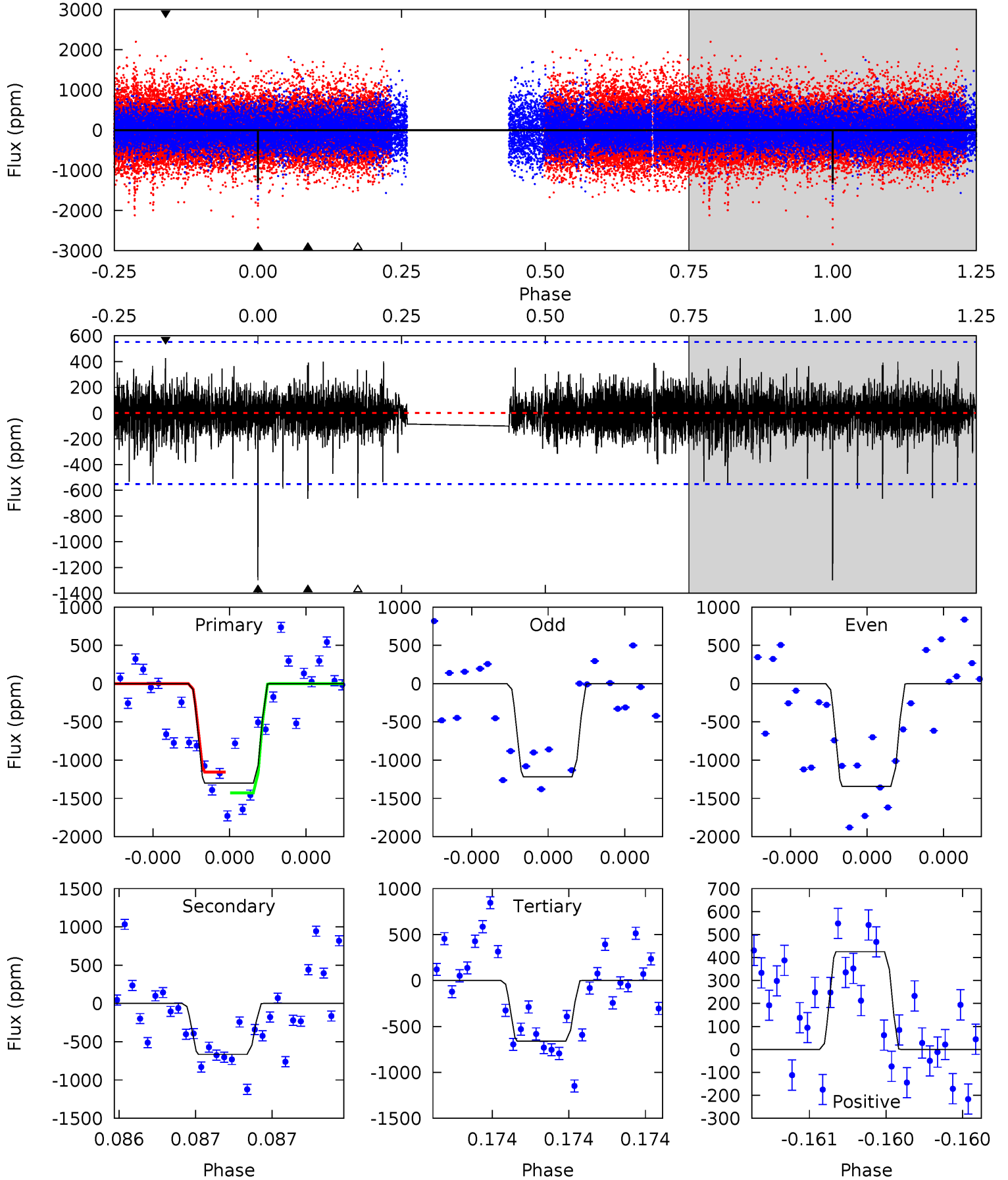
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	9.17	9.11	6.18	5.50	3.37	1.56	10.1	13.0	0.06	2.99	1.29	1.01	0.24	0.36



Alt Model-Shift Uniqueness Test

011098573-01, P = 360.923186 Days, E = 194.841522 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	6.73	6.69	4.30	5.59	3.50	1.09	6.45	8.84	0.04	2.43	0.61	1.02	0.25	1.37



Stellar Parameters For KIC 011098573

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5868^{+184}_{-205}	$4.397^{+0.105}_{-0.195}$	$-0.060^{+0.300}_{-0.300}$	$1.037^{+0.296}_{-0.160}$	$0.978^{+0.140}_{-0.115}$	$1.235^{+0.592}_{-0.643}$
	+3%/-3%	+2%/-4%	+500%/-500%	+29%/-15%	+14%/-12%	+48%/-52%
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 011098573-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-701 ± 76	$11.38^{+10.77}_{-7.33}$	374^{+29}_{-21}	3547^{+1627}_{-653}	2907^{+19262}_{-2139}
Alt.	-665 ± 99	$10.13^{+10.13}_{-6.93}$	374^{+31}_{-21}	3607^{+2117}_{-667}	3453^{+31134}_{-2622}

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 $A_{obs} \gg 1.0$

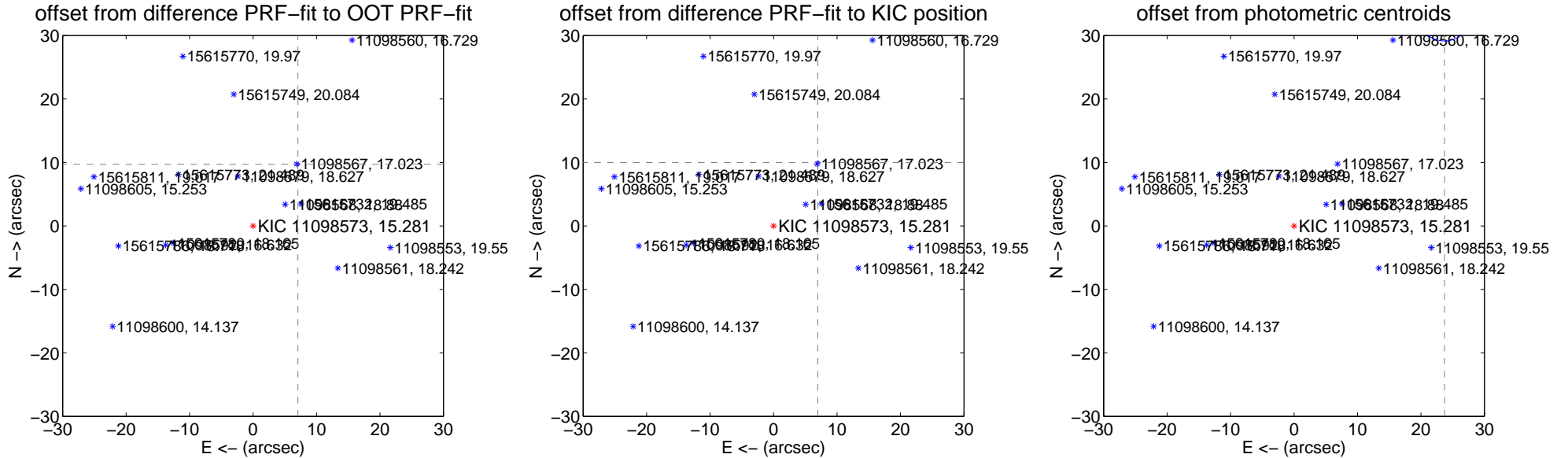
DV Centroid Data

Supplemental centroid analysis for 011098573-01. Kepler magnitude: 15.28. Transit SNR 12.55

There are 2 quarters with good PRF difference image offsets

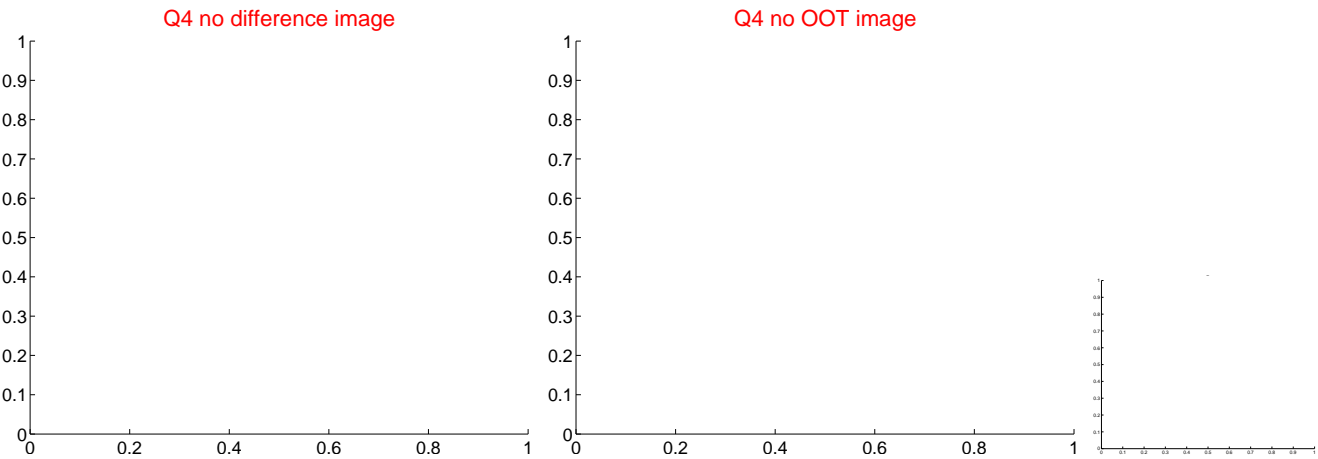
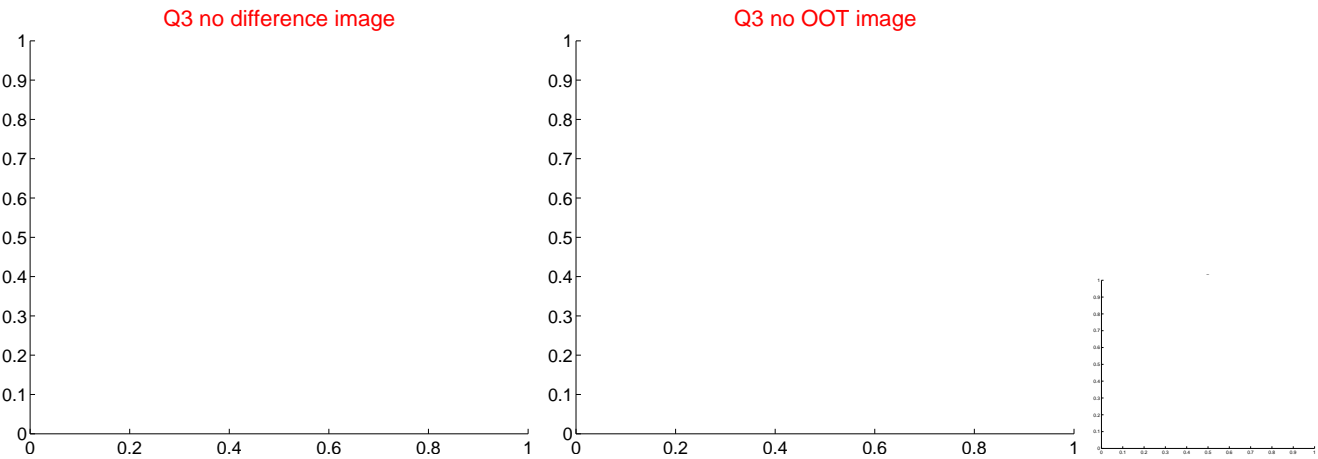
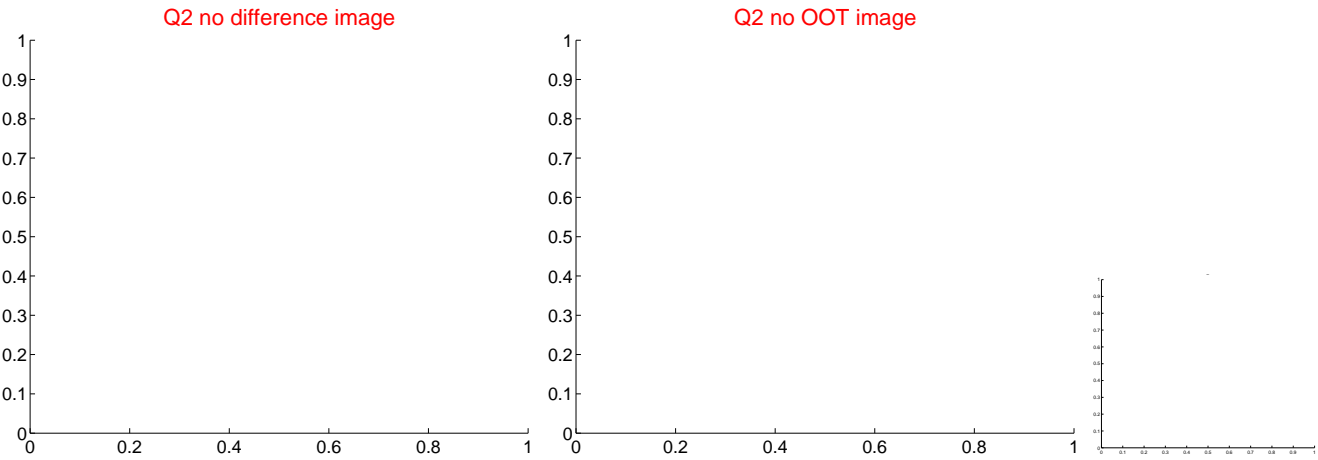
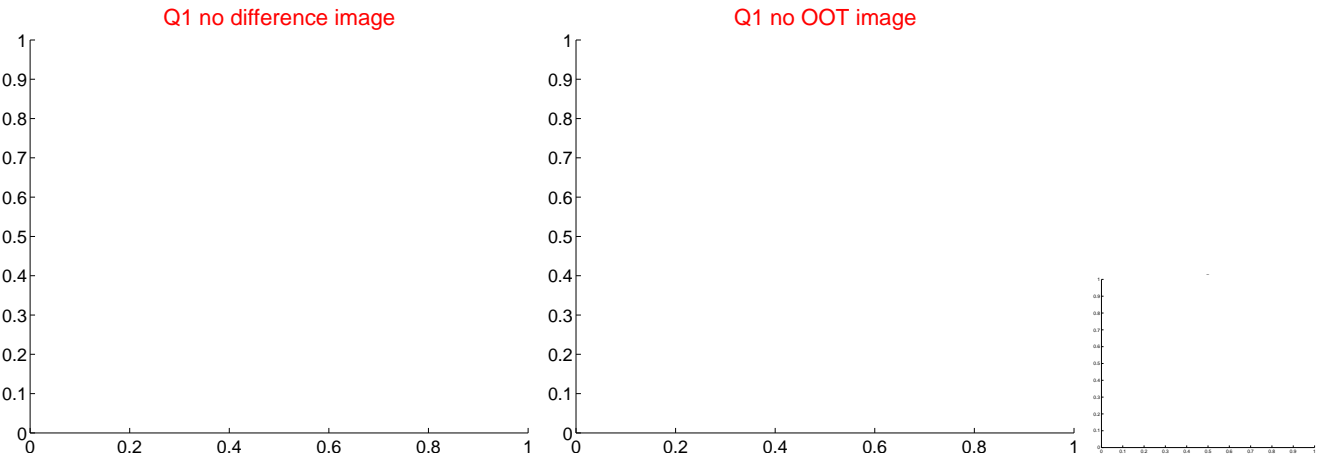
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	12.004 \pm 0.073	164.92	-7.060 \pm 0.068	9.709 \pm 0.075
PRF-fit source offset from KIC position	12.185 \pm 0.073	168.02	-6.983 \pm 0.074	9.985 \pm 0.072
photometric centroid source offset	40.99 \pm 1.43	28.66	-23.71 \pm 1.33	33.43 \pm 1.48

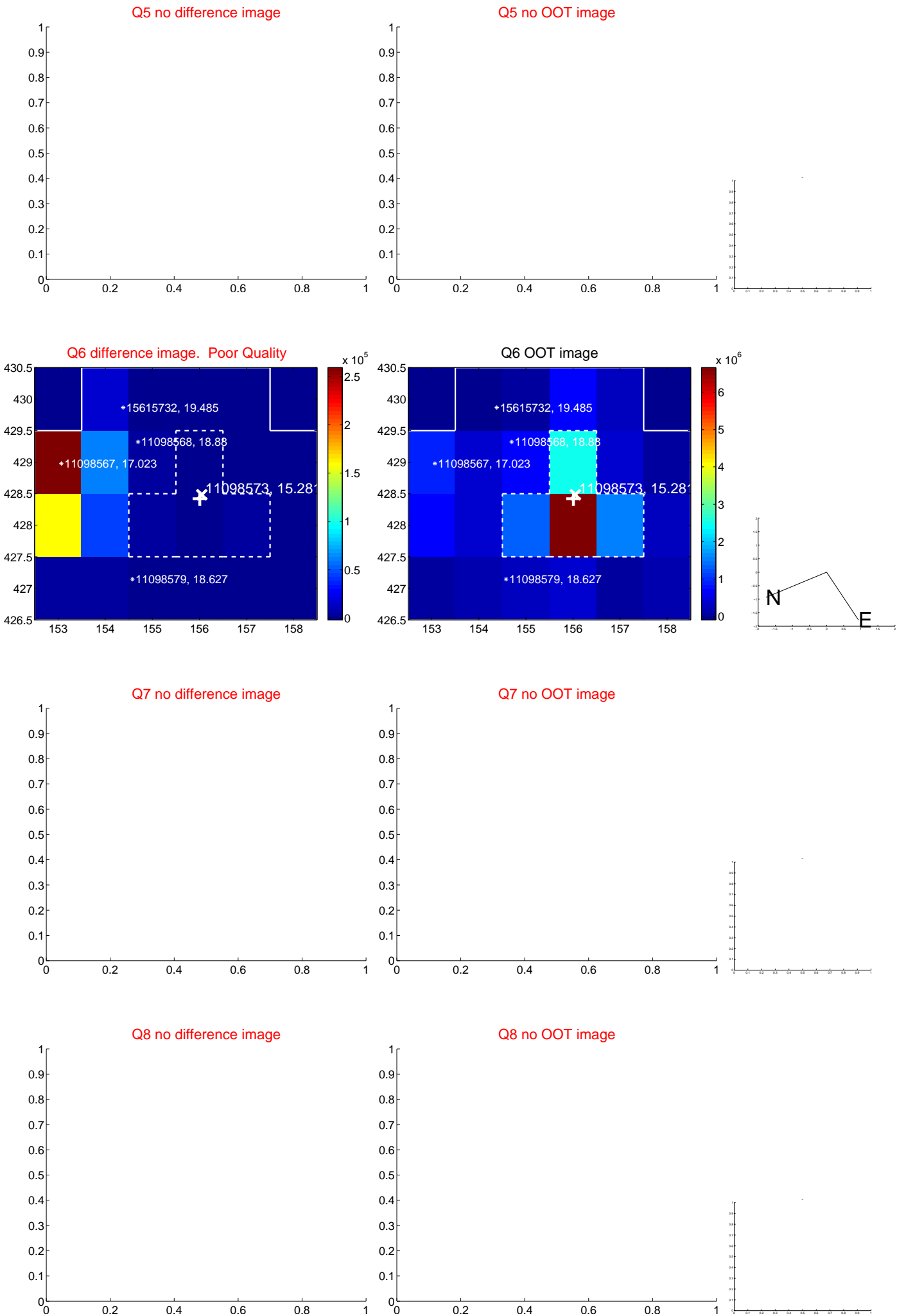


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

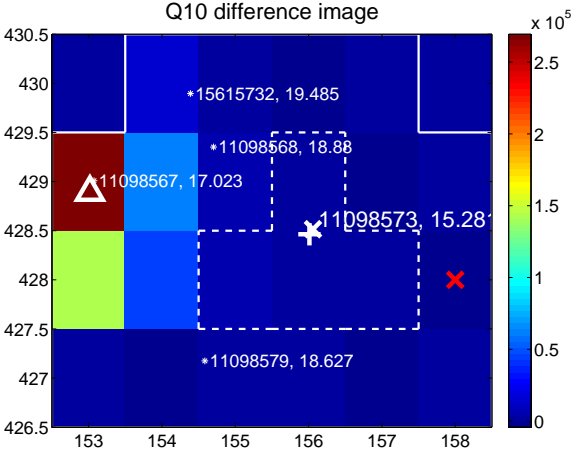
Q9 no difference image



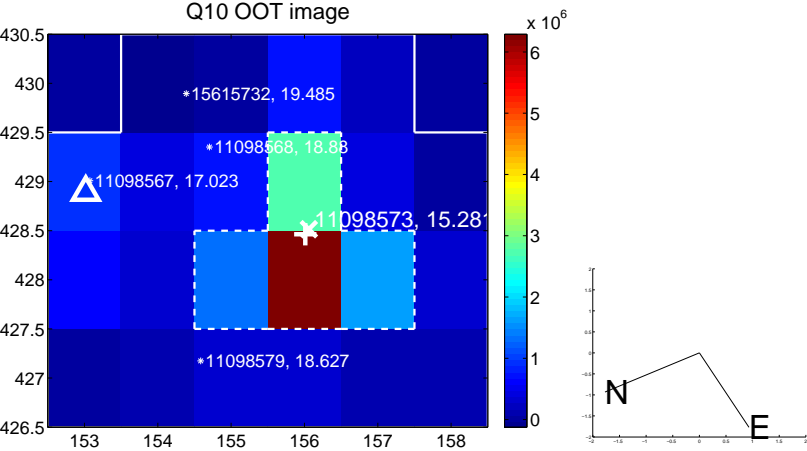
Q9 no OOT image



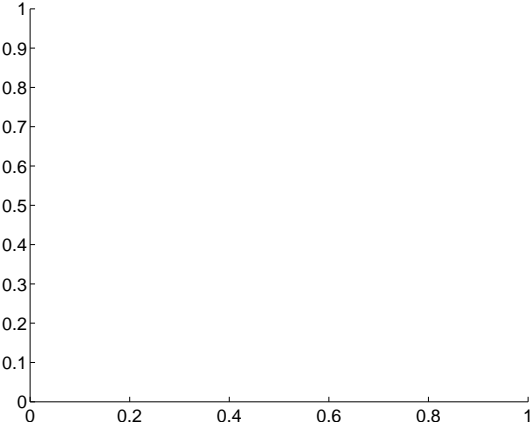
Q10 difference image



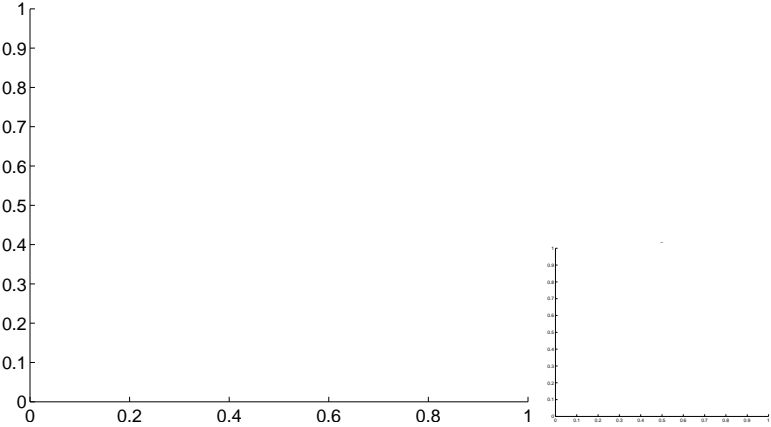
Q10 OOT image



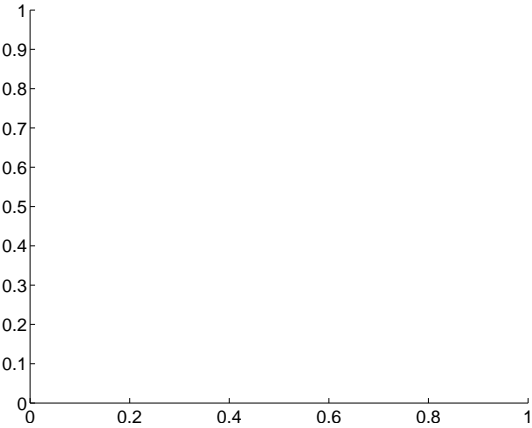
Q11 no difference image



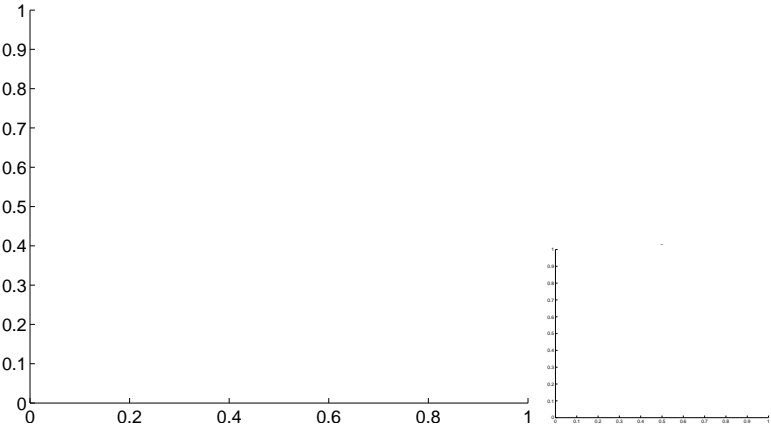
Q11 no OOT image



Q12 no difference image

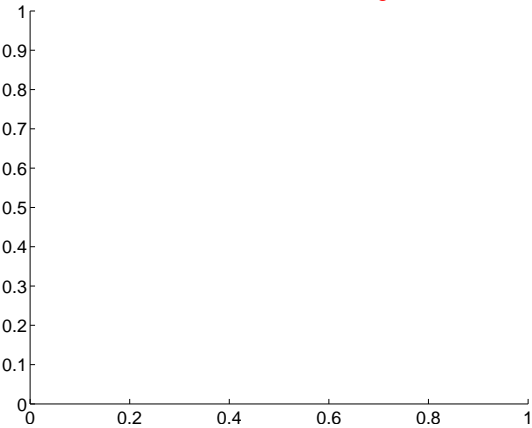


Q12 no OOT image

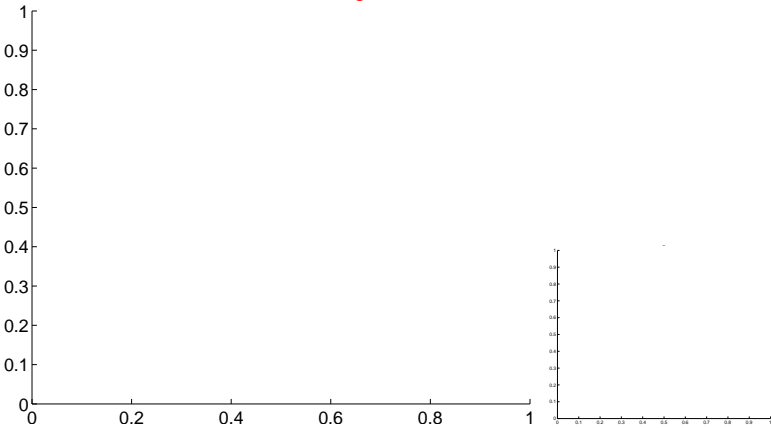


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

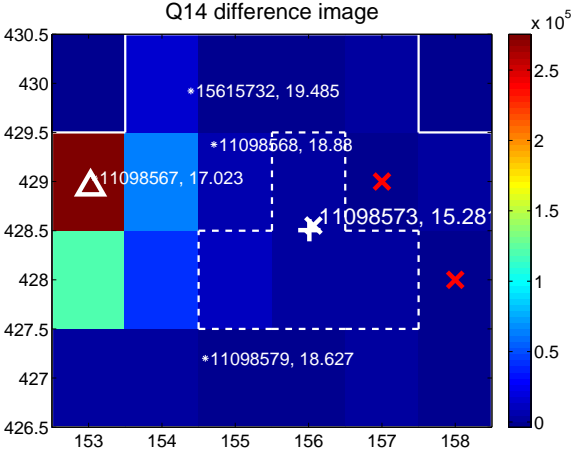
Q13 no difference image



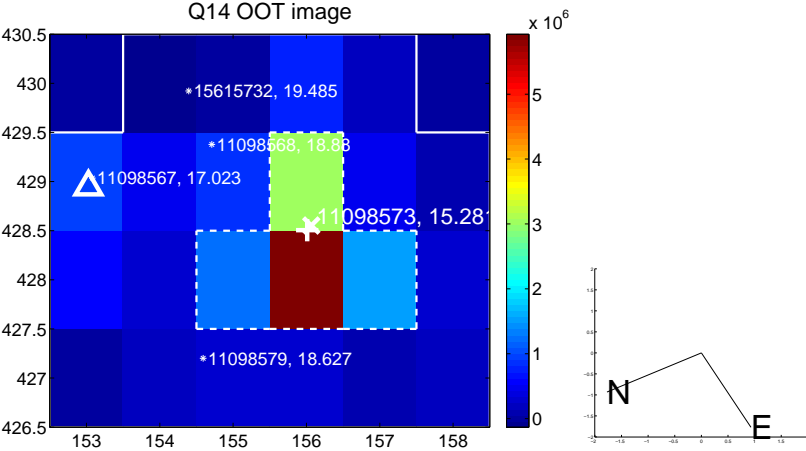
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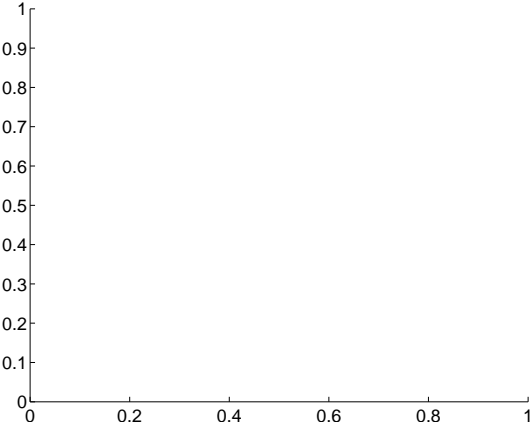
Q14 difference image



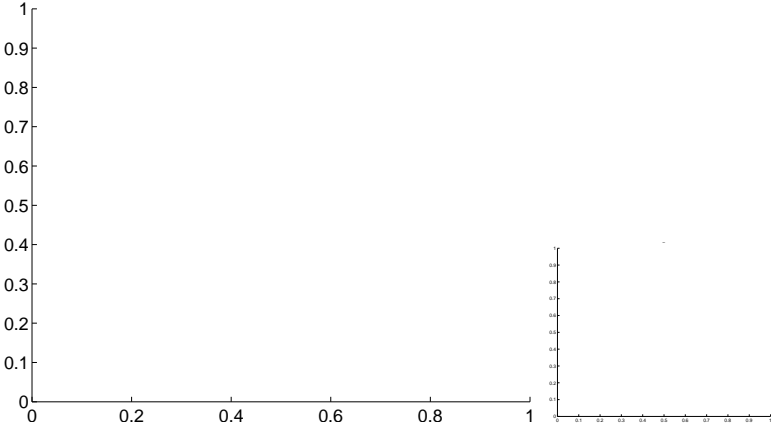
Q14 OOT image



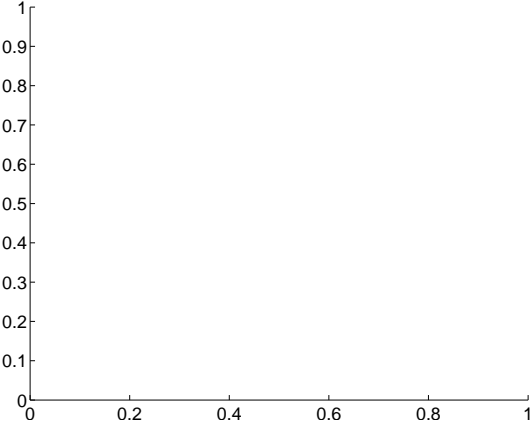
Q15 no difference image



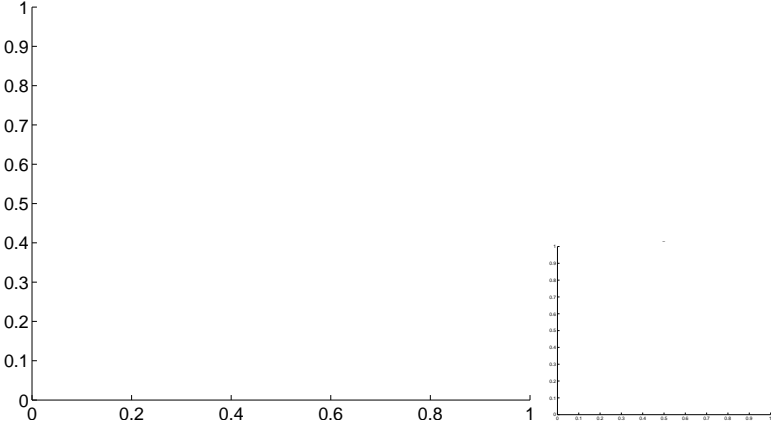
Q15 no OOT image



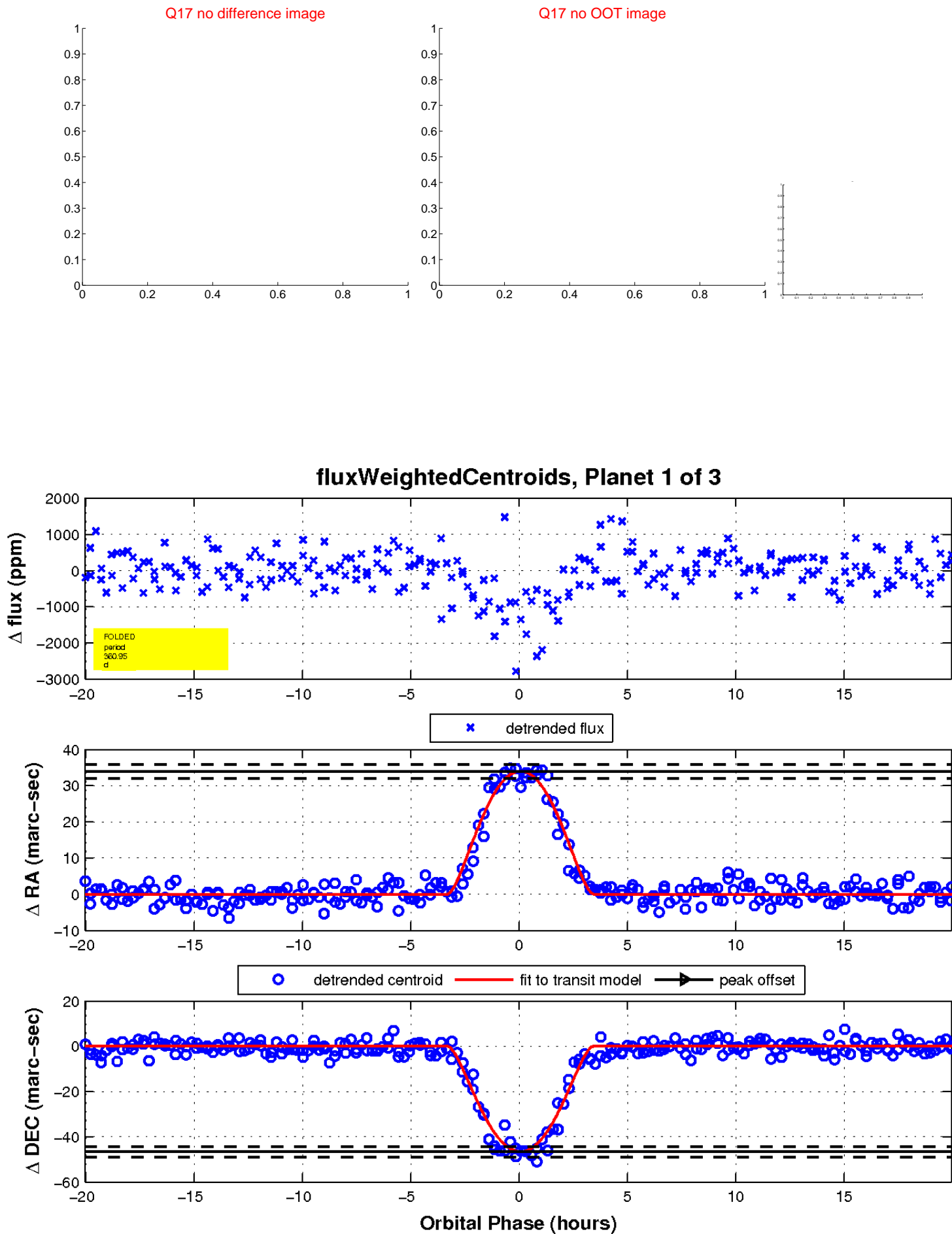
Q16 no difference image



Q16 no OOT image

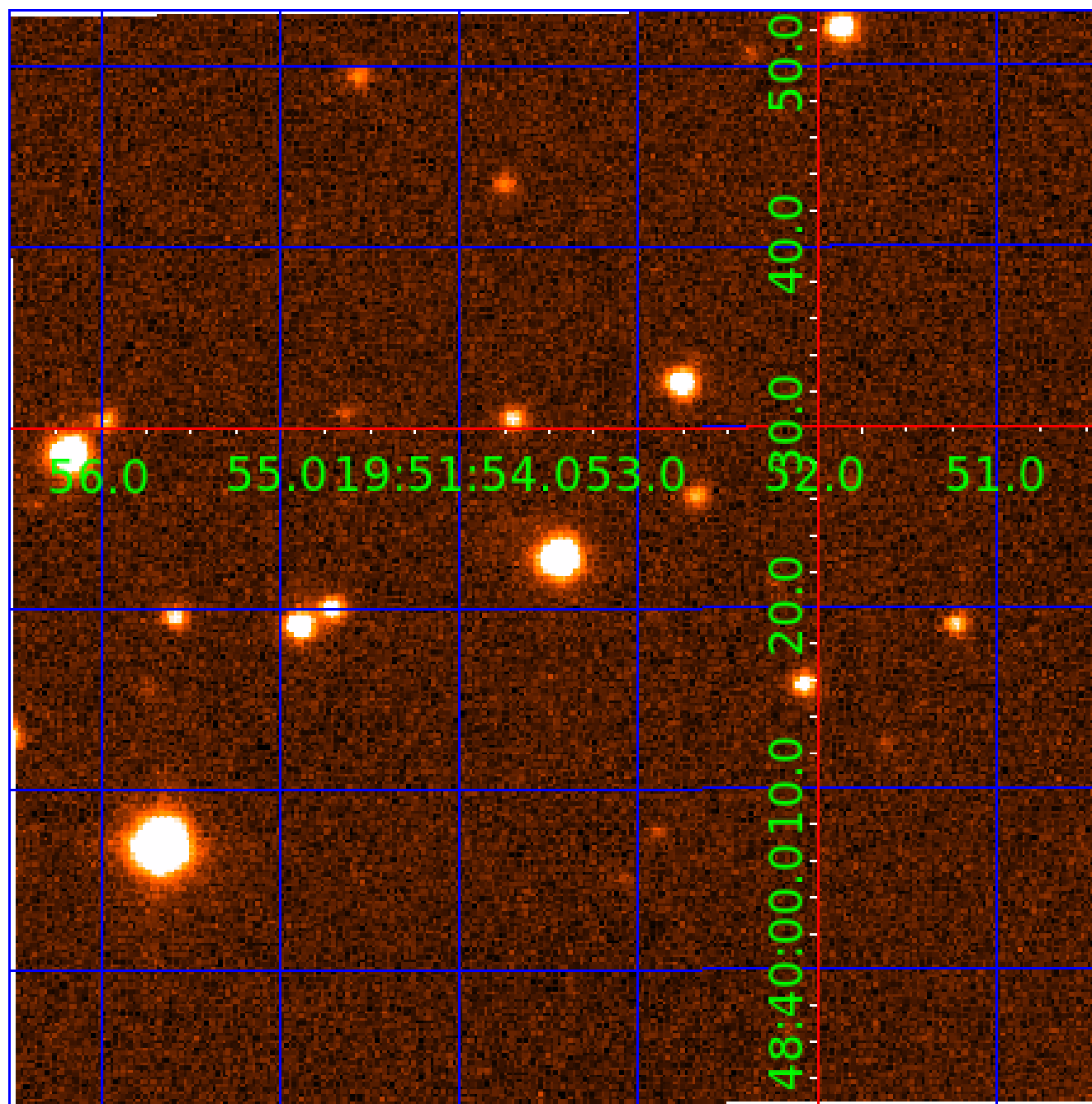


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011098573

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})
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011098573-02	OBS	No	376.639695	226.168226	802.4	5.586	8.3	8.1	1.04	5868	3.17	1.11
011098573-03	OBS	No	376.637878	194.765149	709.6	6.446	7.9	7.9	1.04	5868	2.97	1.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011098573-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011098573-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
011098573-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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 011098573-02

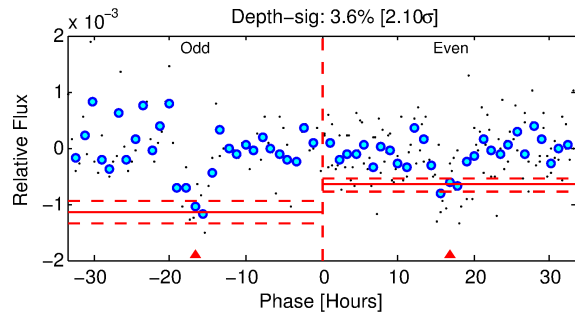
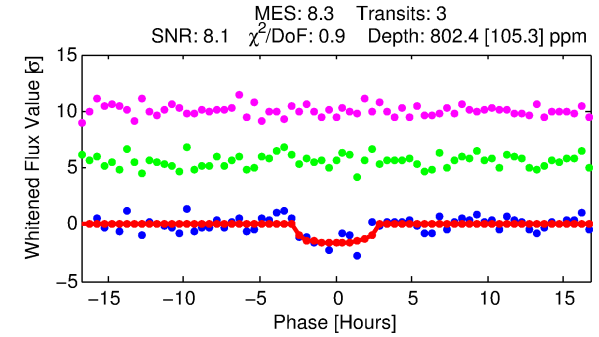
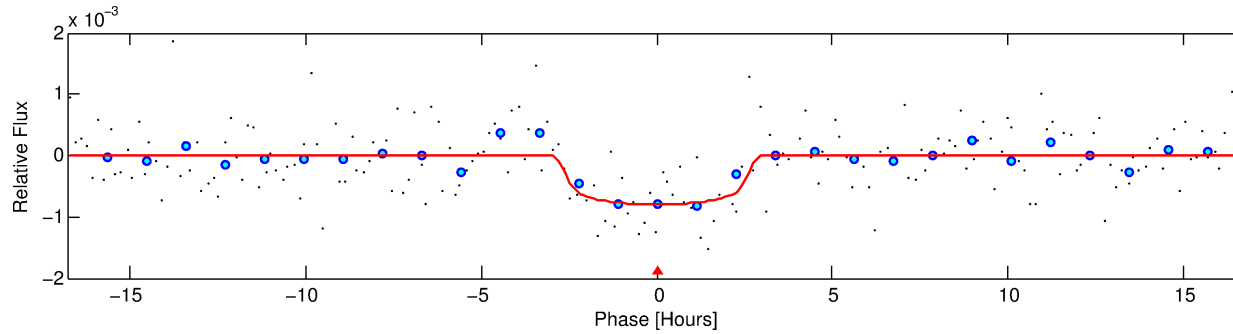
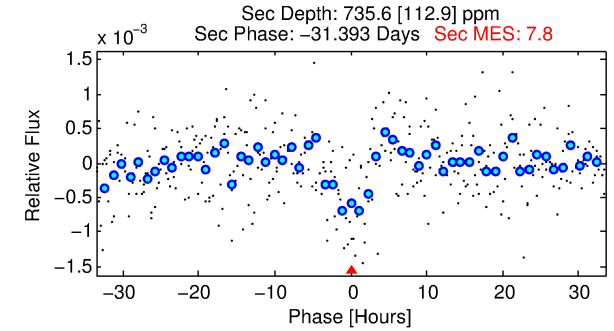
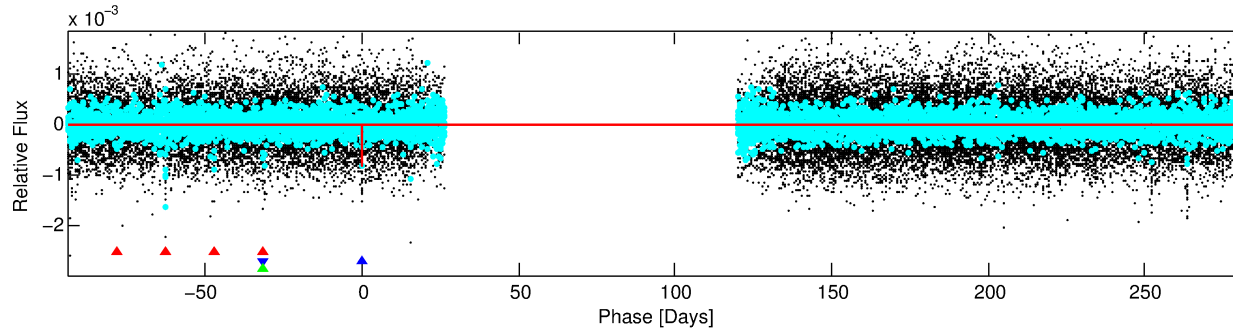
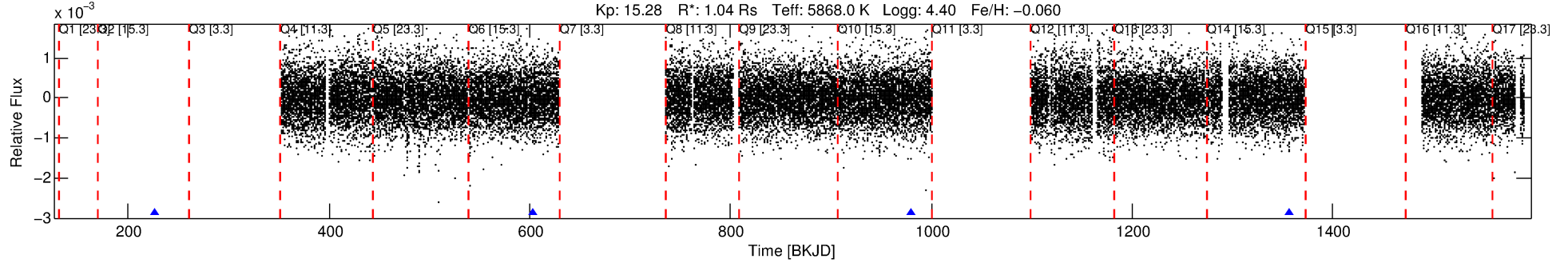
No Significant Match Found

DV One-Page Summary

KIC: 11098573 Candidate: 2 of 3 Period: 376.640 d

KOI: K03406 Corr: No Ephemeris Match

Kp: 15.28 R*: 1.04 Rs Teff: 5868.0 K Logg: 4.40 Fe/H: -0.060



DV Fit Results:

Period = 376.63969 [0.00887] d
Epoch = 226.1682 [0.0187] BKJD
Rp/R* = 0.0280 [0.0212]
a/R* = 373.79 [1295.37]
b = 0.73 [2.26]
Seff = 1.11 [0.42]
Teq = 262 [25] K
Rp = 3.17 [2.56] Re
a = 1.0135 [0.2454] AU
Ag = 41483.41 [64860.18] [0.64σ]
Teff = 5778 [2209] K [2.50σ]

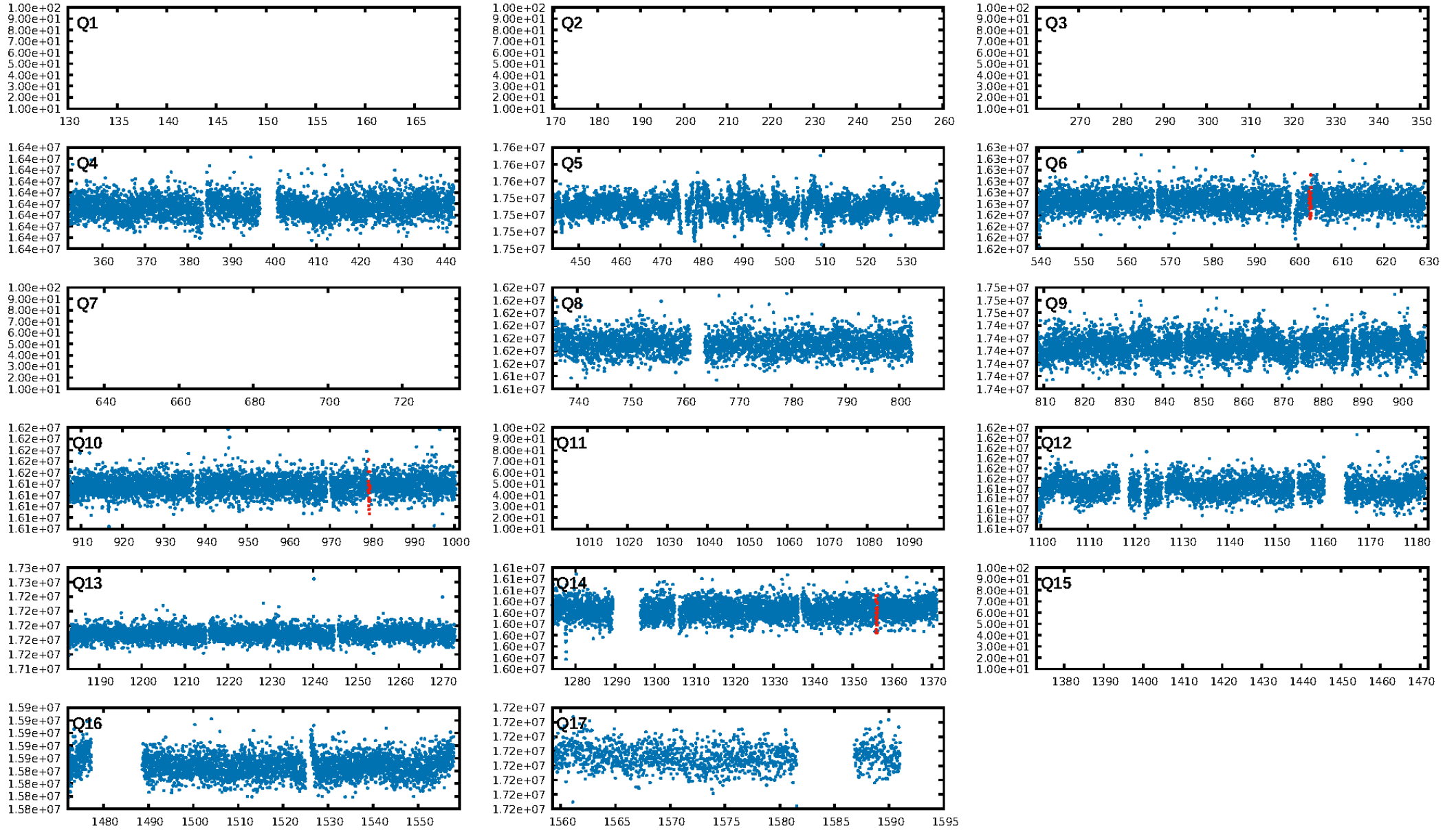
DV Diagnostic Results:

ShortPeriod-sig: 0.4% [0.01σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.8%
ModelChiSquareGoF-sig: 97.8%
Bootstrap-pfa: 1.59e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.1763
Centroid-sig: 0.0%
Centroid-so: 53.465 arcsec [24.30σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

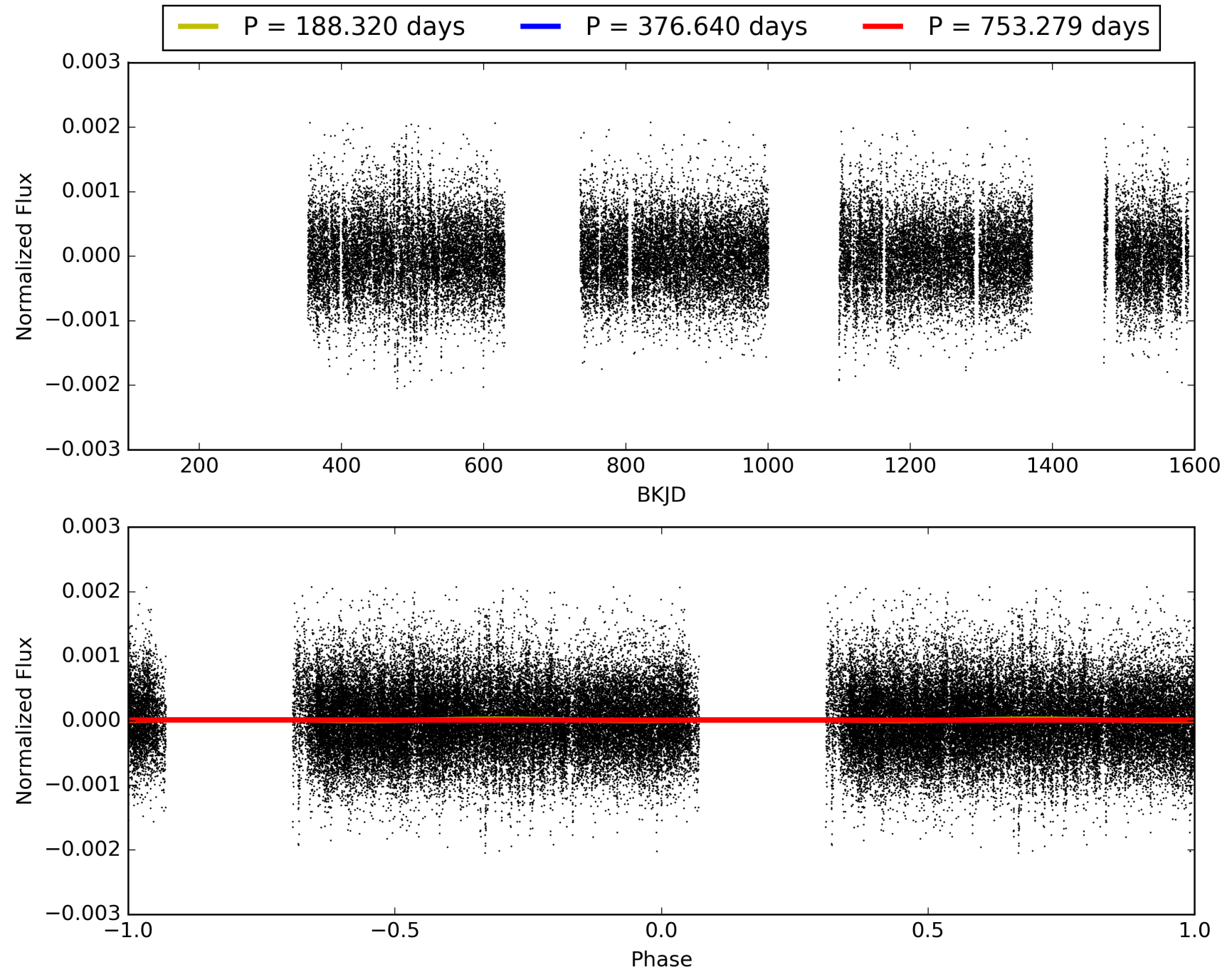
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:29:09 Z

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

TCE 011098573-02, PDC Light Curves

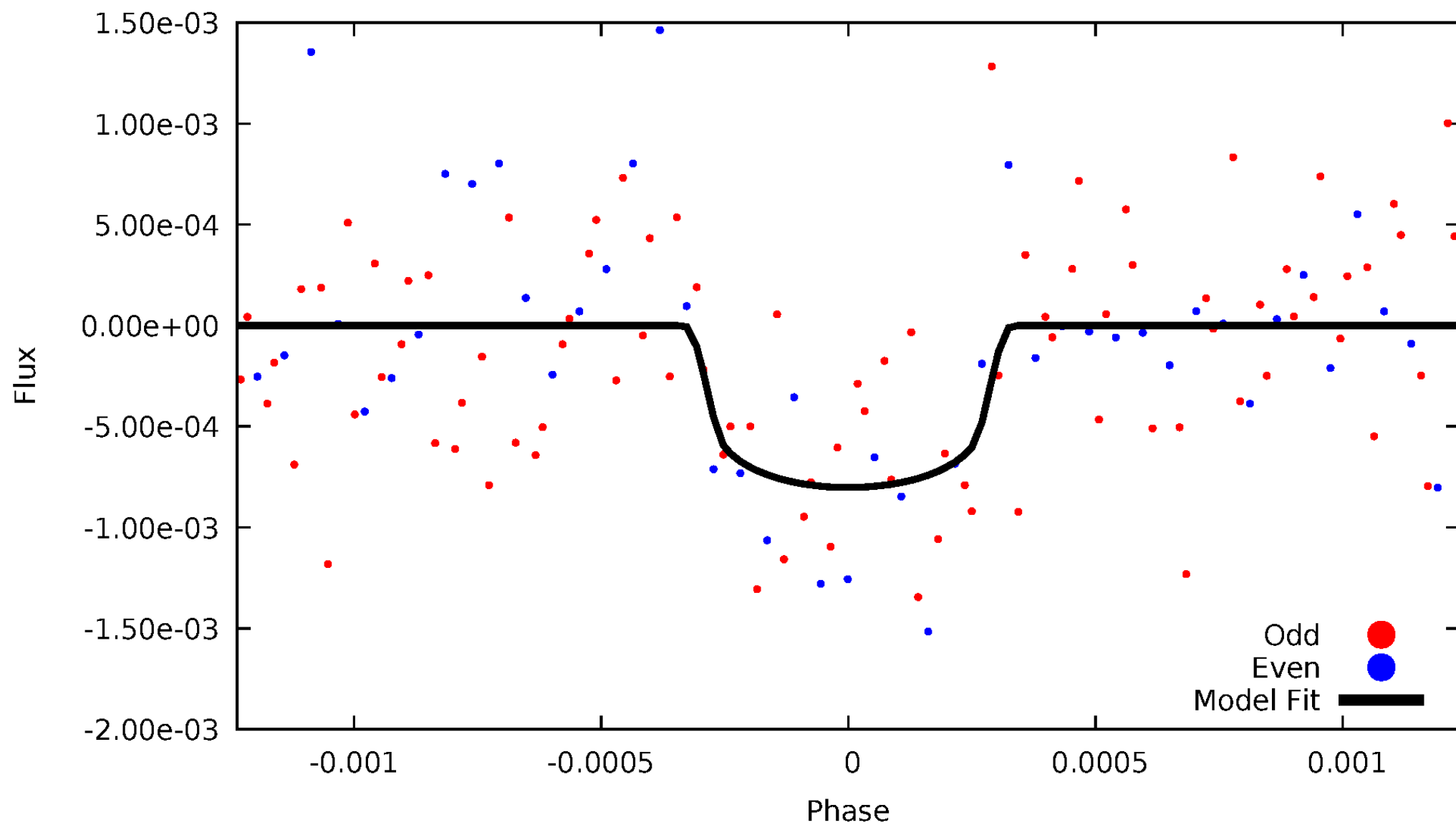


TCE 011098573-02



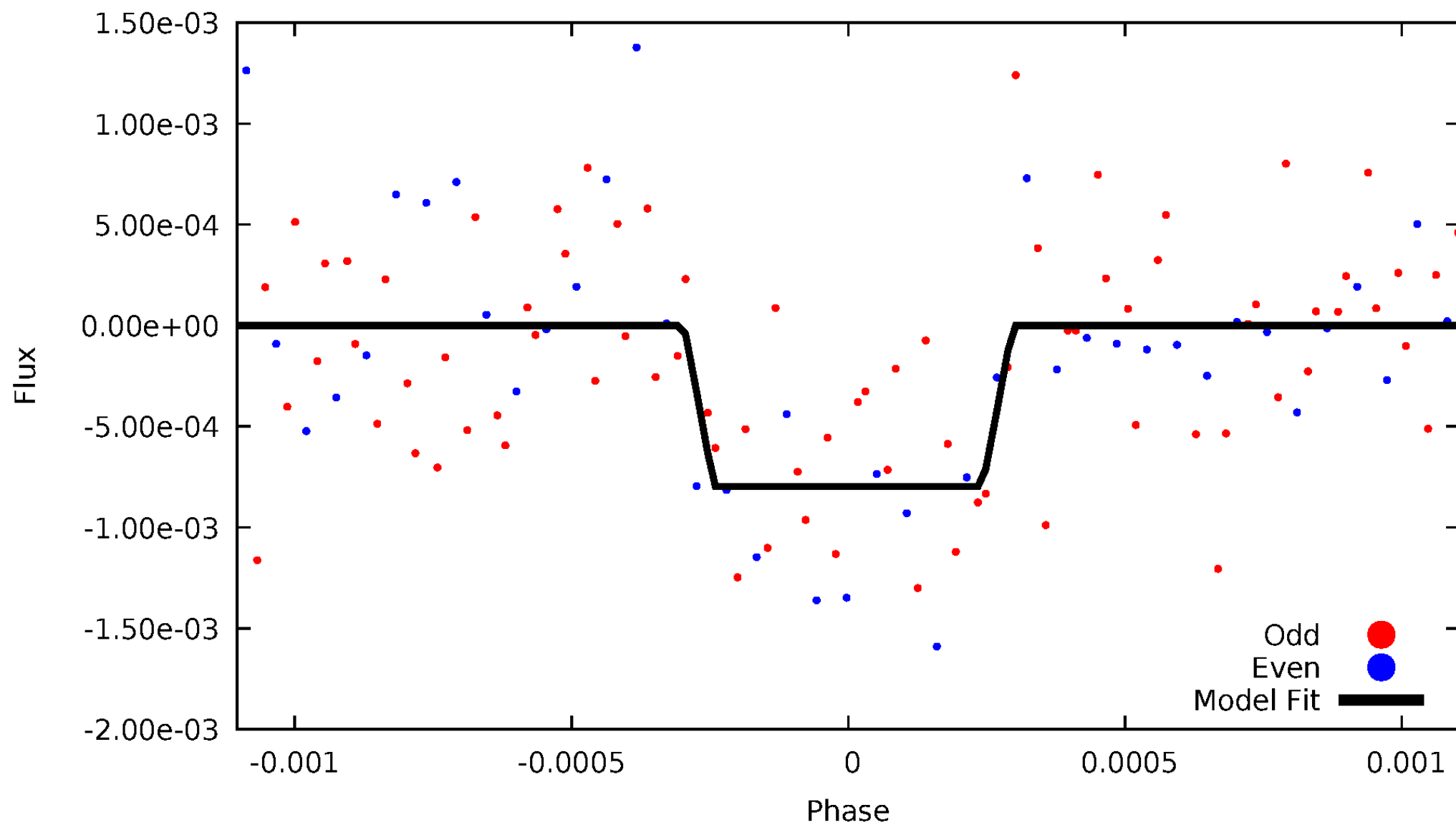
DV Odd/Even

TCE 011098573-02



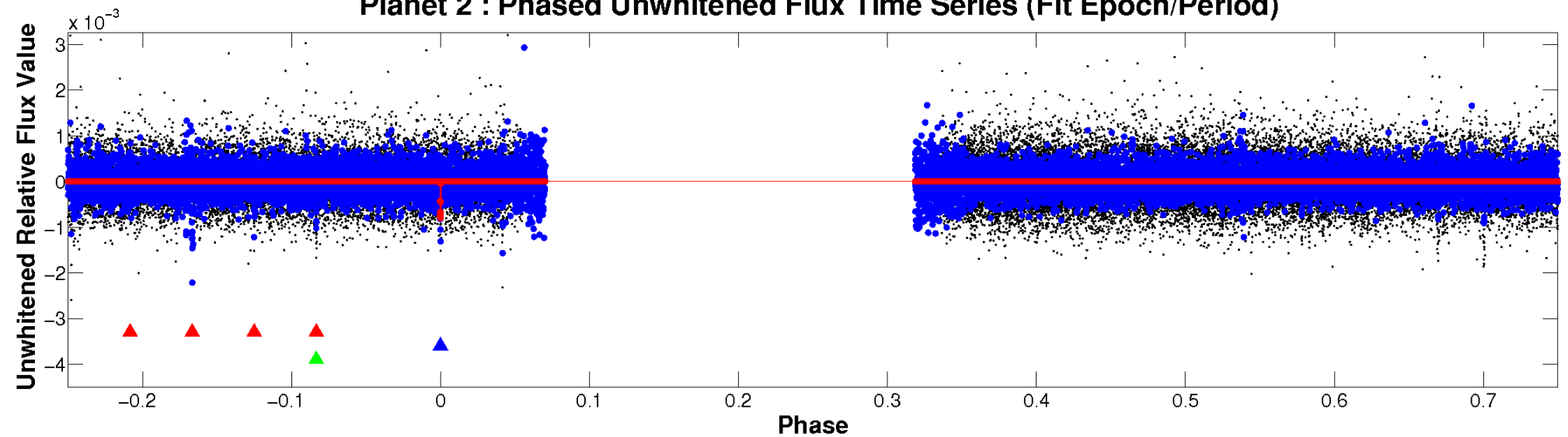
ALT Odd/Even

TCE 011098573-02

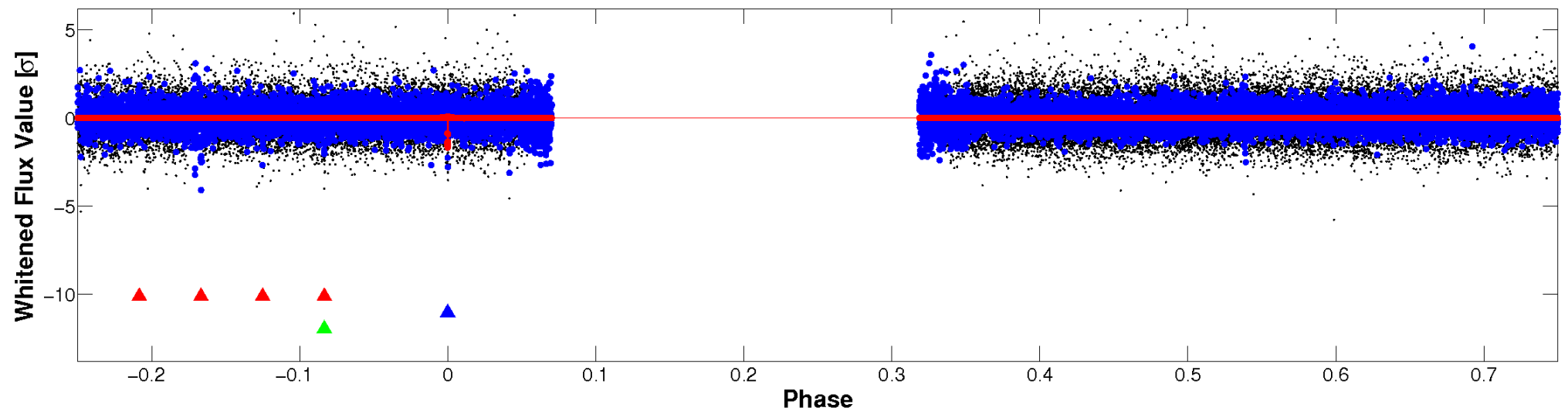


Non-Whitened Vs. Whitened Light Curve

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

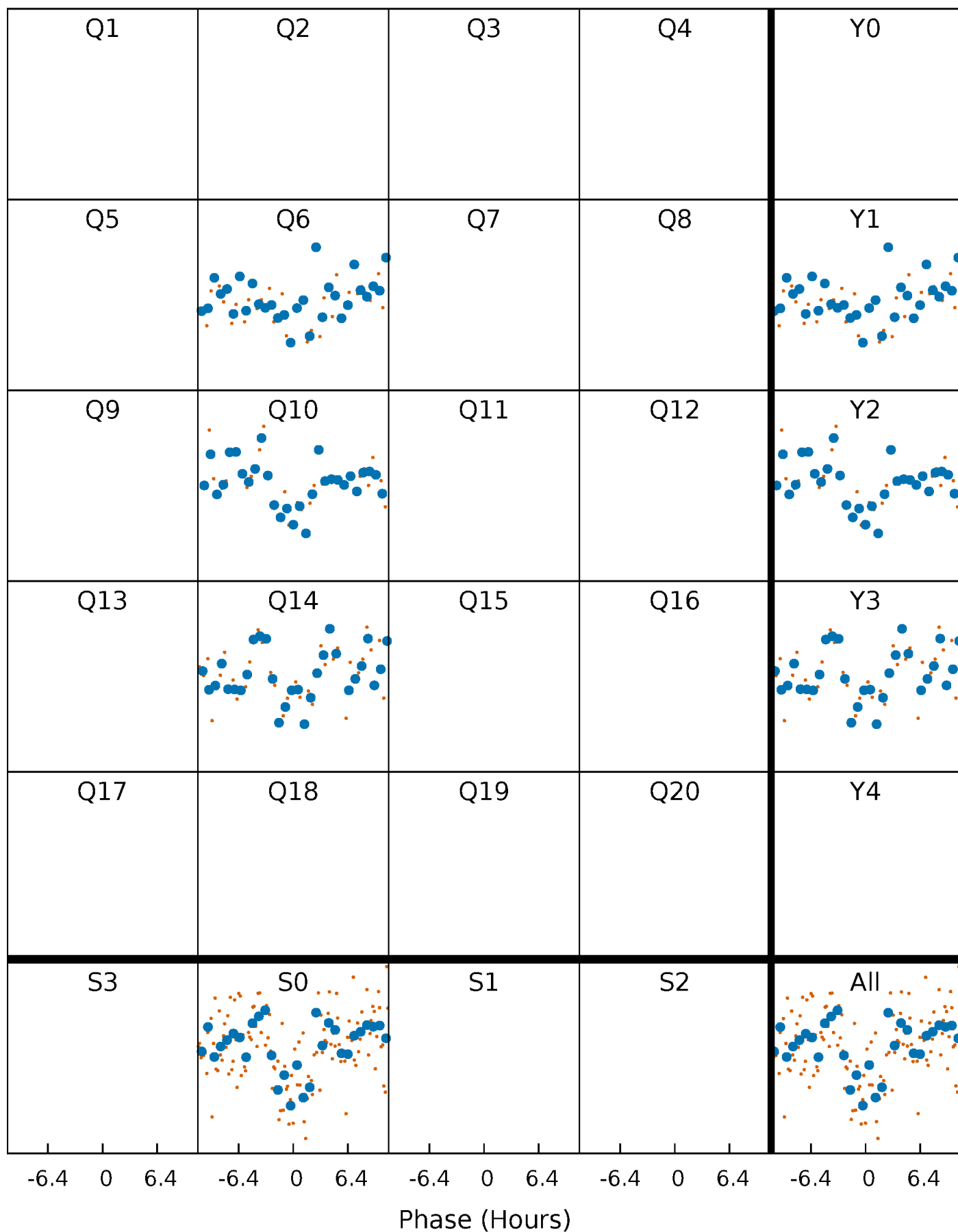


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



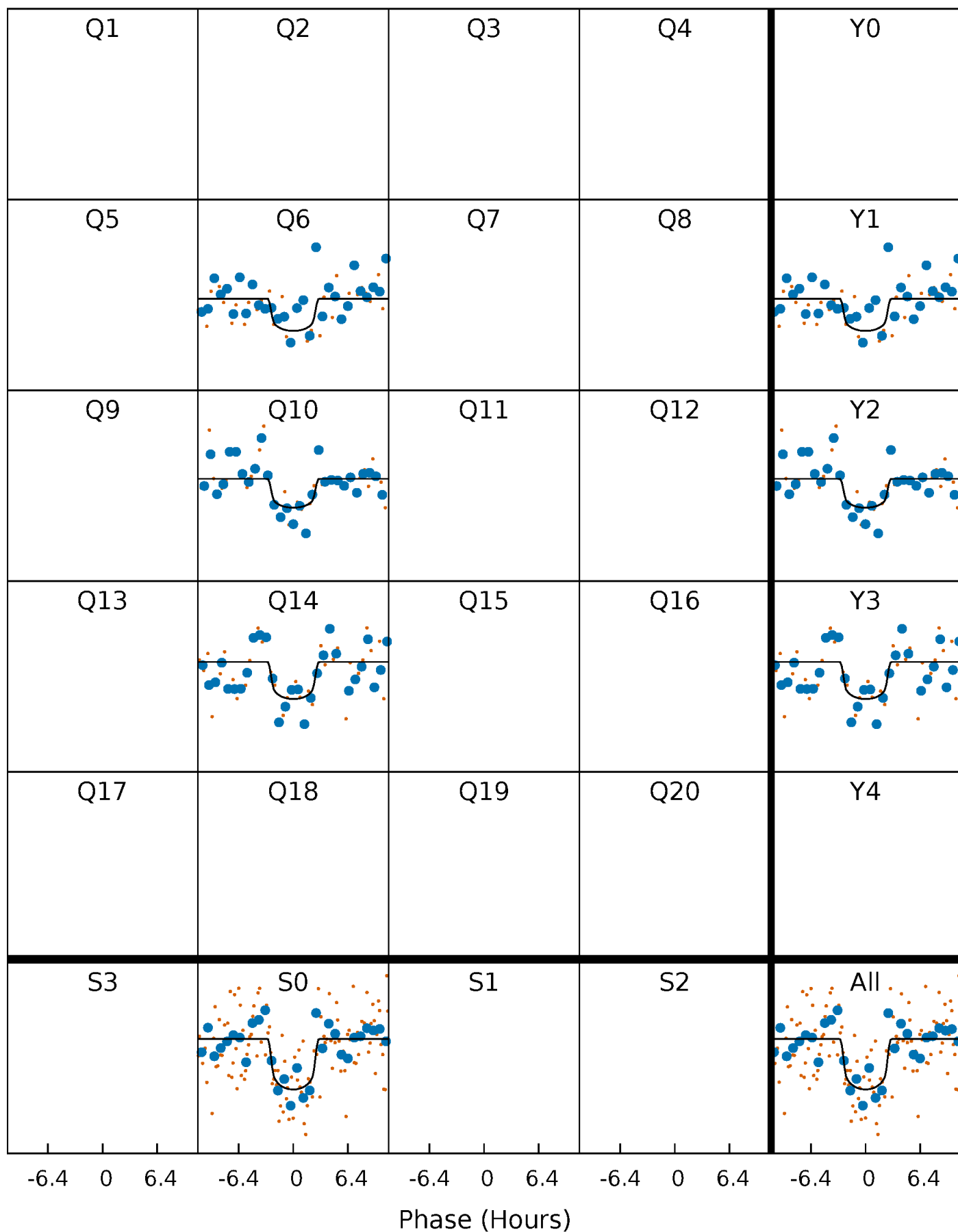
PDC Quarter-Phased Transit Curves

TCE 011098573-02 $P=376.639695$ Days $T_0=226.168226$ (BKJD)



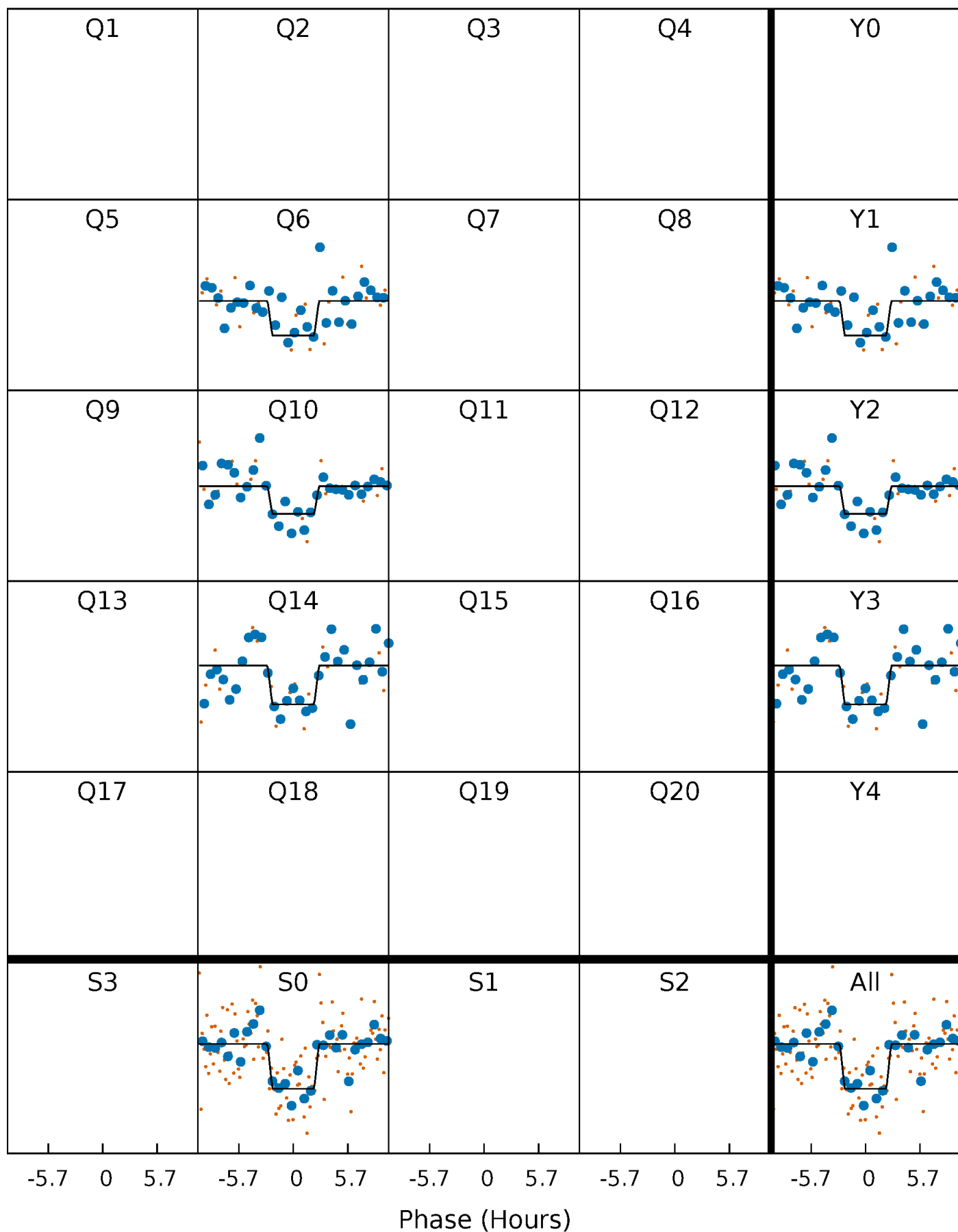
DV Quarter-Phased Transit Curves

TCE 011098573-02 P=376.639695 Days $T_0=226.168226$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

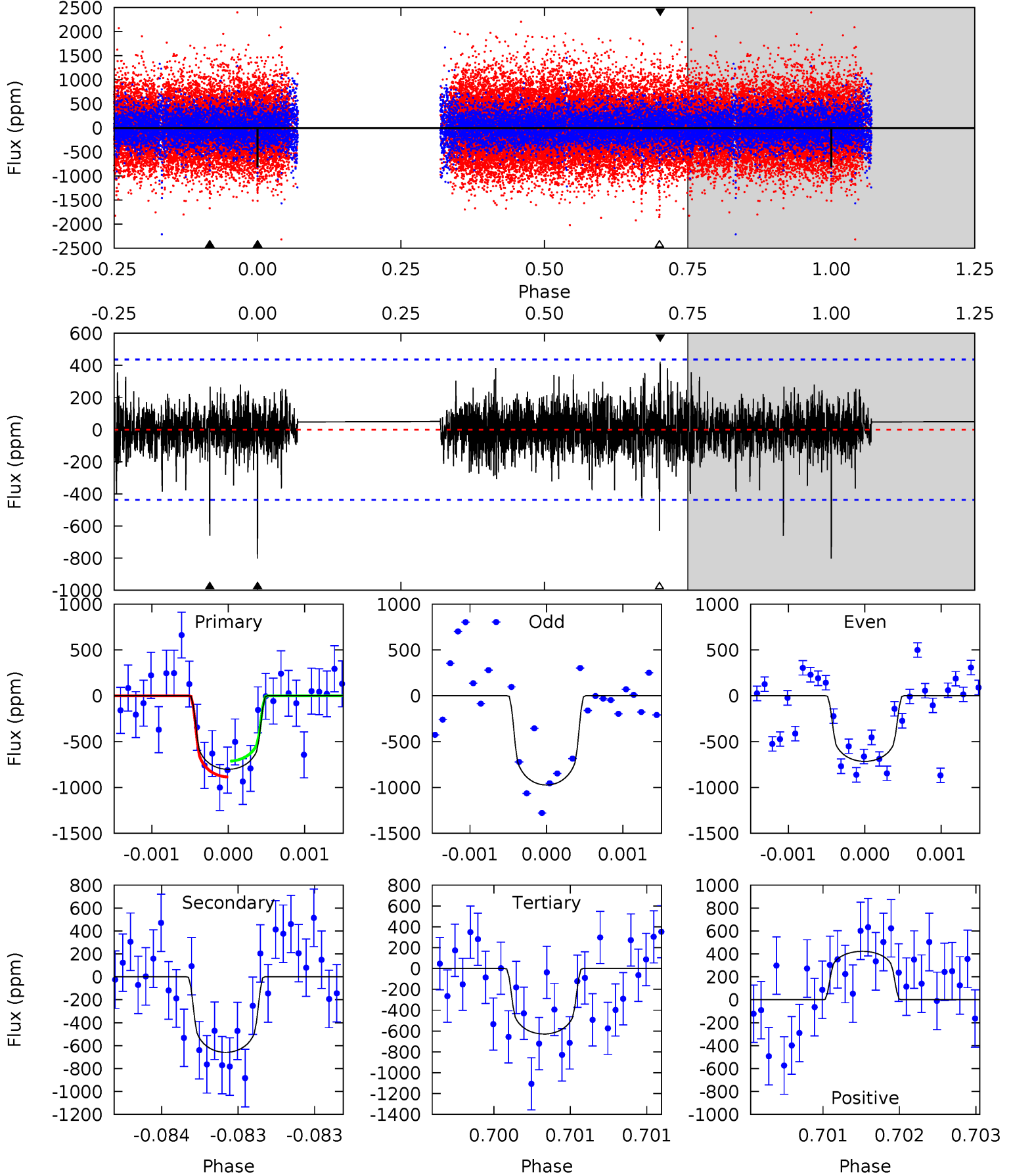
TCE 011098573-02 P=376.645000 Days $T_0=226.158197$ (BKJD)



DV Model-Shift Uniqueness Test

011098573-02, P = 376.639695 Days, E = 226.168226 Days

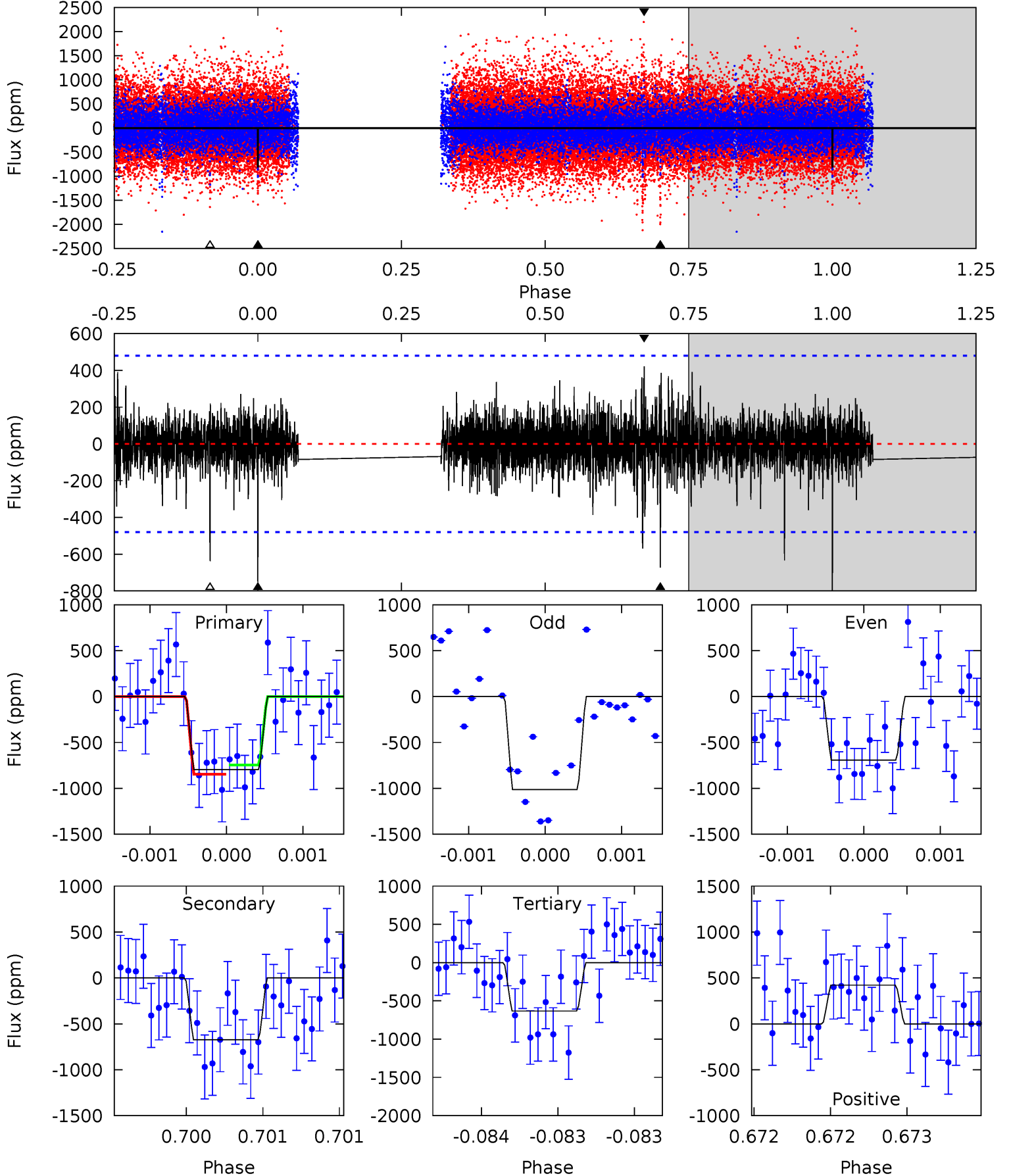
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	8.33	7.95	5.34	5.52	3.40	1.27	2.20	4.80	0.38	2.99	1.55	0.88	0.34	1.08



Alt Model-Shift Uniqueness Test

011098573-02, $P = 376.645000$ Days, $E = 226.158197$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.22	7.78	7.32	4.87	5.55	3.45	1.12	1.90	4.35	0.46	2.91	1.76	0.98	0.35	0.58



Stellar Parameters For KIC 011098573

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5868^{+184}_{-205}	$4.397^{+0.105}_{-0.195}$	$-0.060^{+0.300}_{-0.300}$	$1.037^{+0.296}_{-0.160}$	$0.978^{+0.140}_{-0.115}$	$1.235^{+0.592}_{-0.643}$
	+3%/-3%	+2%/-4%	+500%/-500%	+29%/-15%	+14%/-12%	+48%/-52%
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 011098573-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-659 ± 79	$3.68^{+2.14}_{-2.25}$	371^{+27}_{-23}	5337^{+3430}_{-957}	$27598^{+150452}_{-16864}$
Alt.	-673 ± 86	$3.59^{+2.33}_{-2.15}$	371^{+25}_{-22}	5380^{+3405}_{-965}	$30063^{+152436}_{-19301}$

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

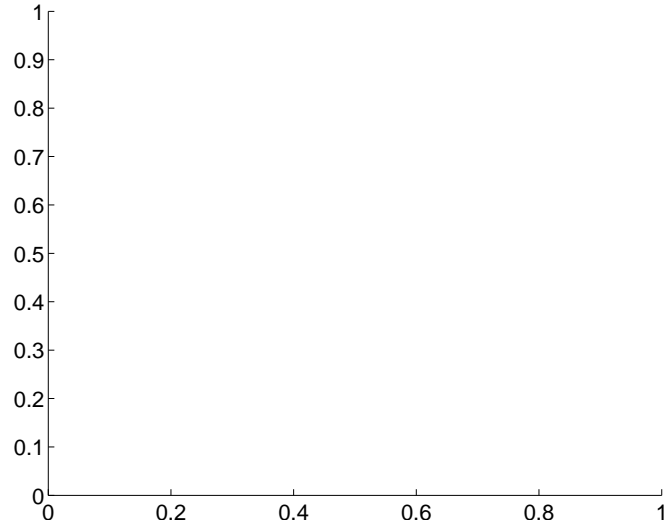
Supplemental centroid analysis for 011098573-02. Kepler magnitude: 15.28. Transit SNR 8.08

There are 0 quarters with good PRF difference image offsets

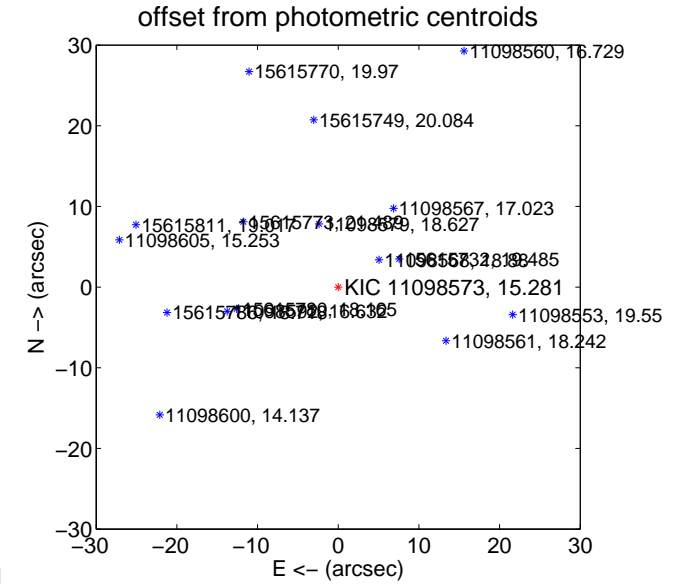
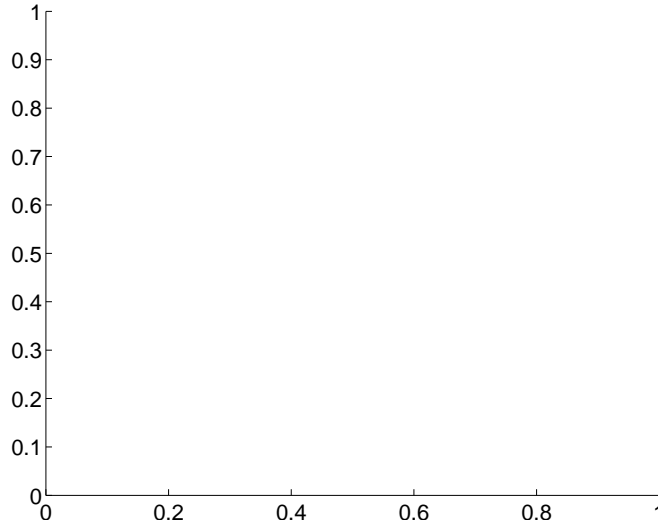
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	53.46 ± 2.20	24.29	-30.84 ± 1.93	43.67 ± 2.32

There is no PRF-fit offset from OOT-fit

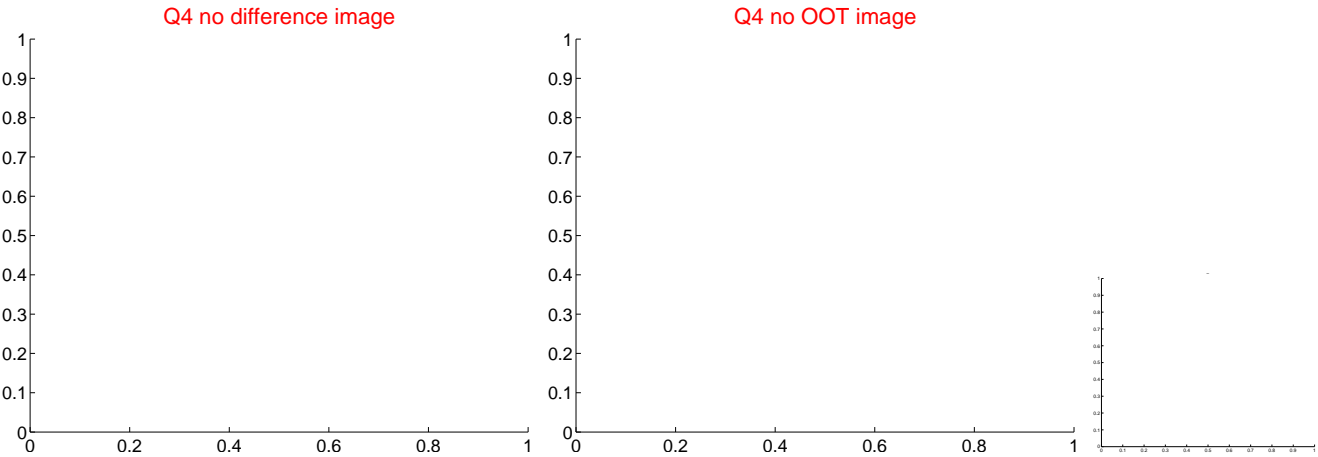
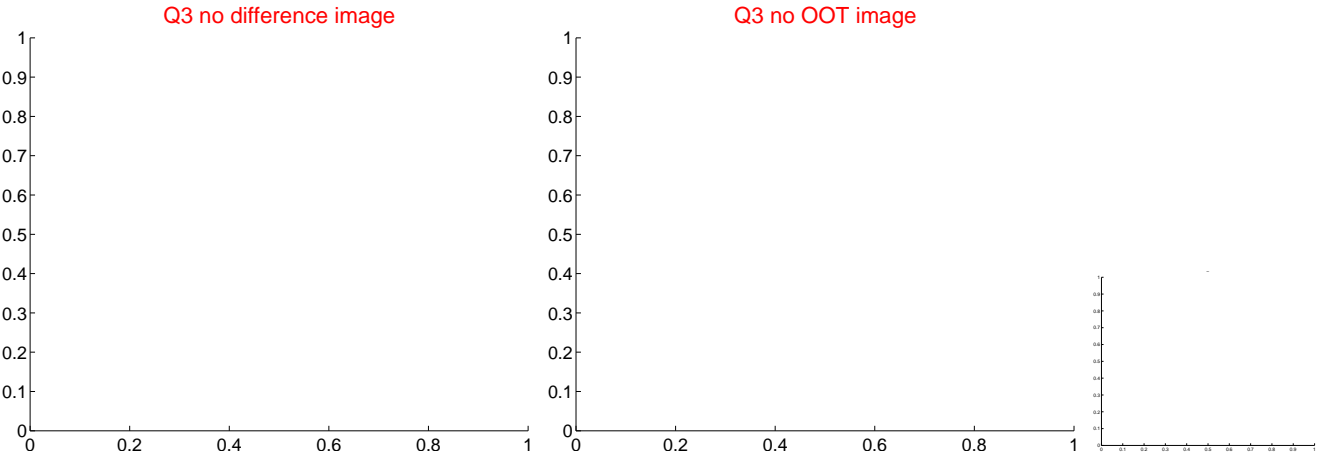
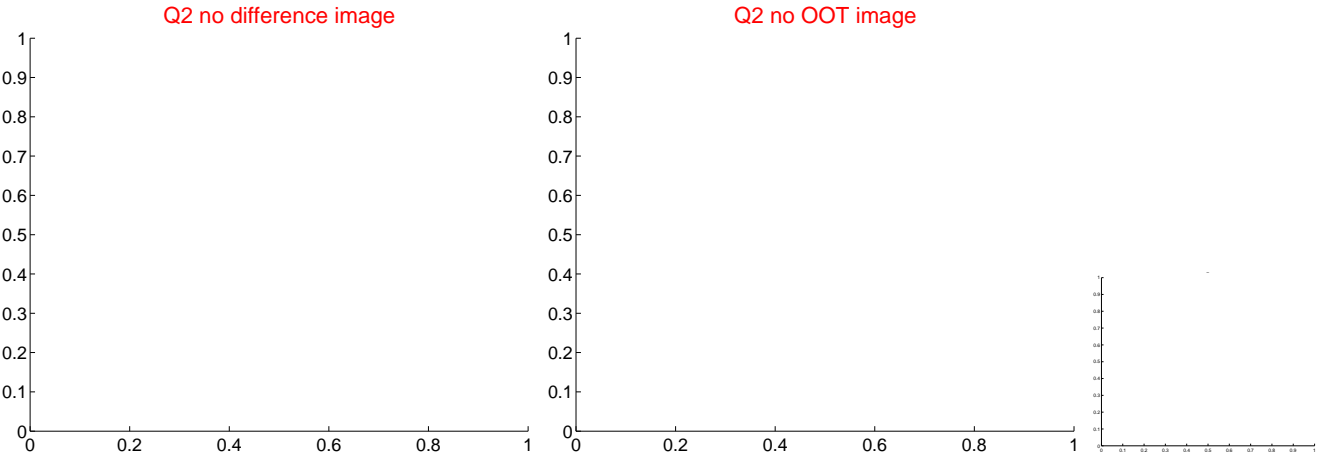
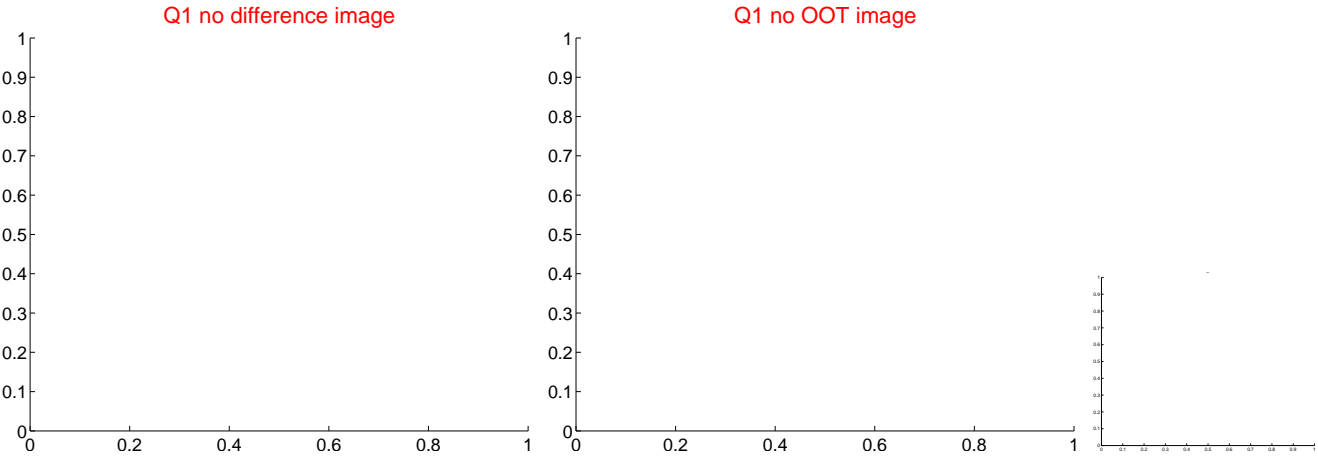


There is no PRF-fit offset from KIC



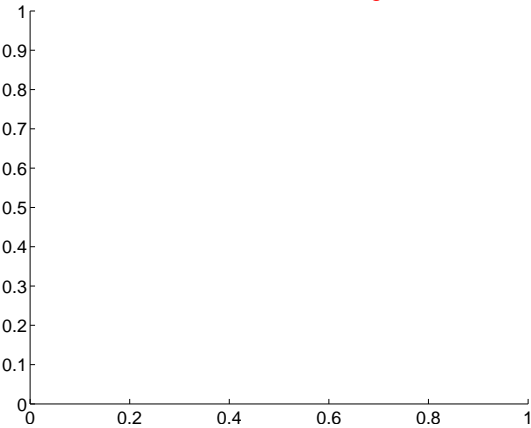
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

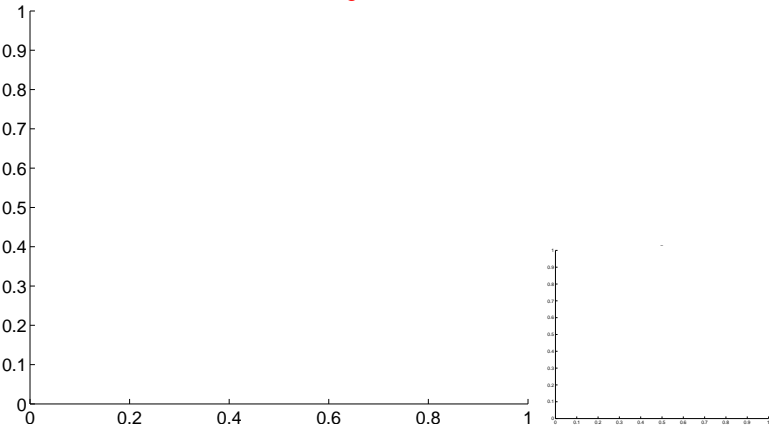


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

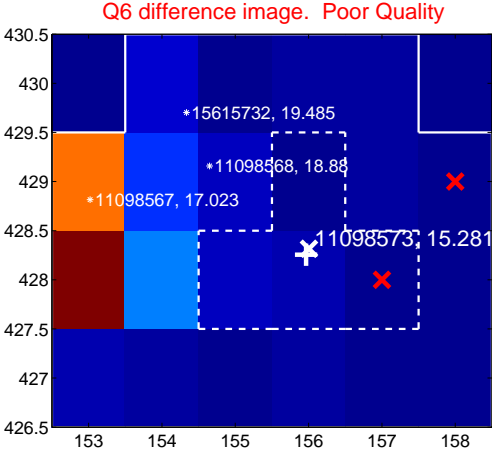
Q5 no difference image



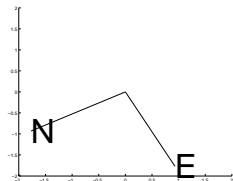
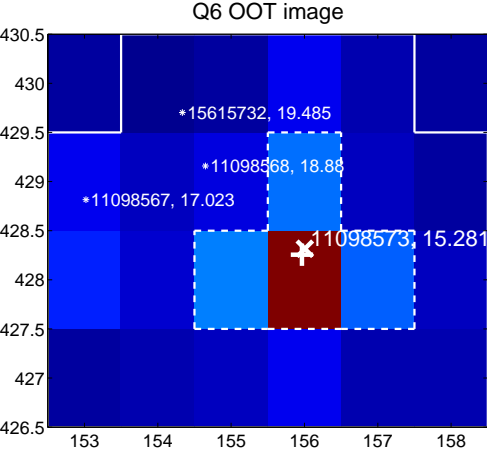
Q5 no OOT image



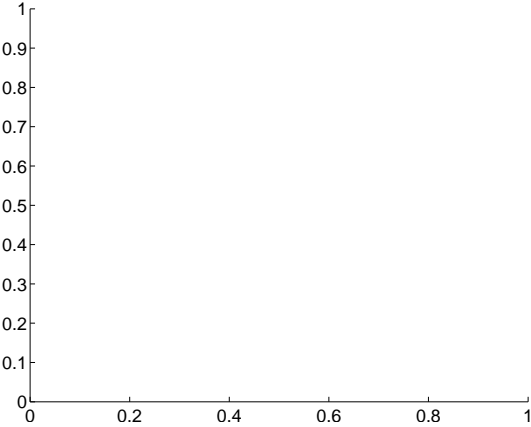
Q6 difference image. Poor Quality



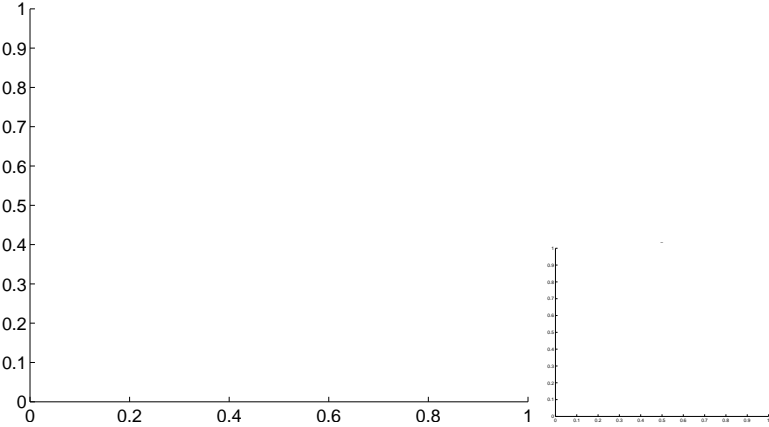
Q6 OOT image



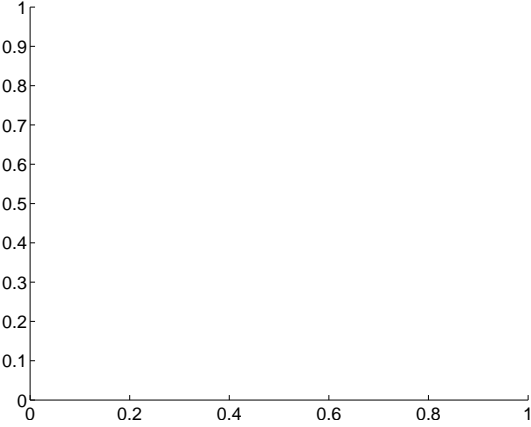
Q7 no difference image



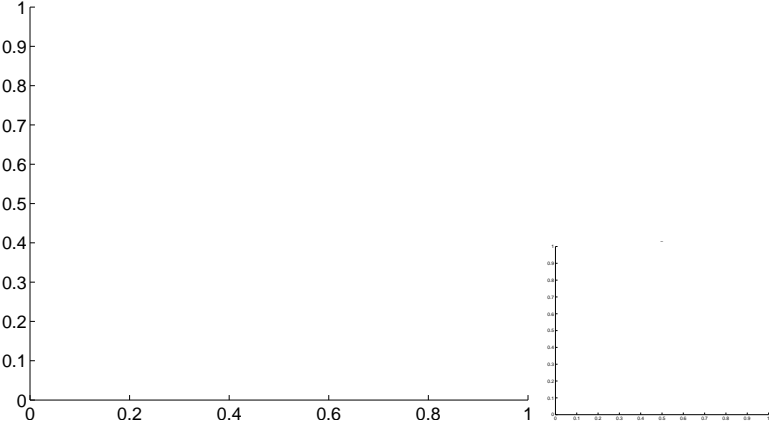
Q7 no OOT image



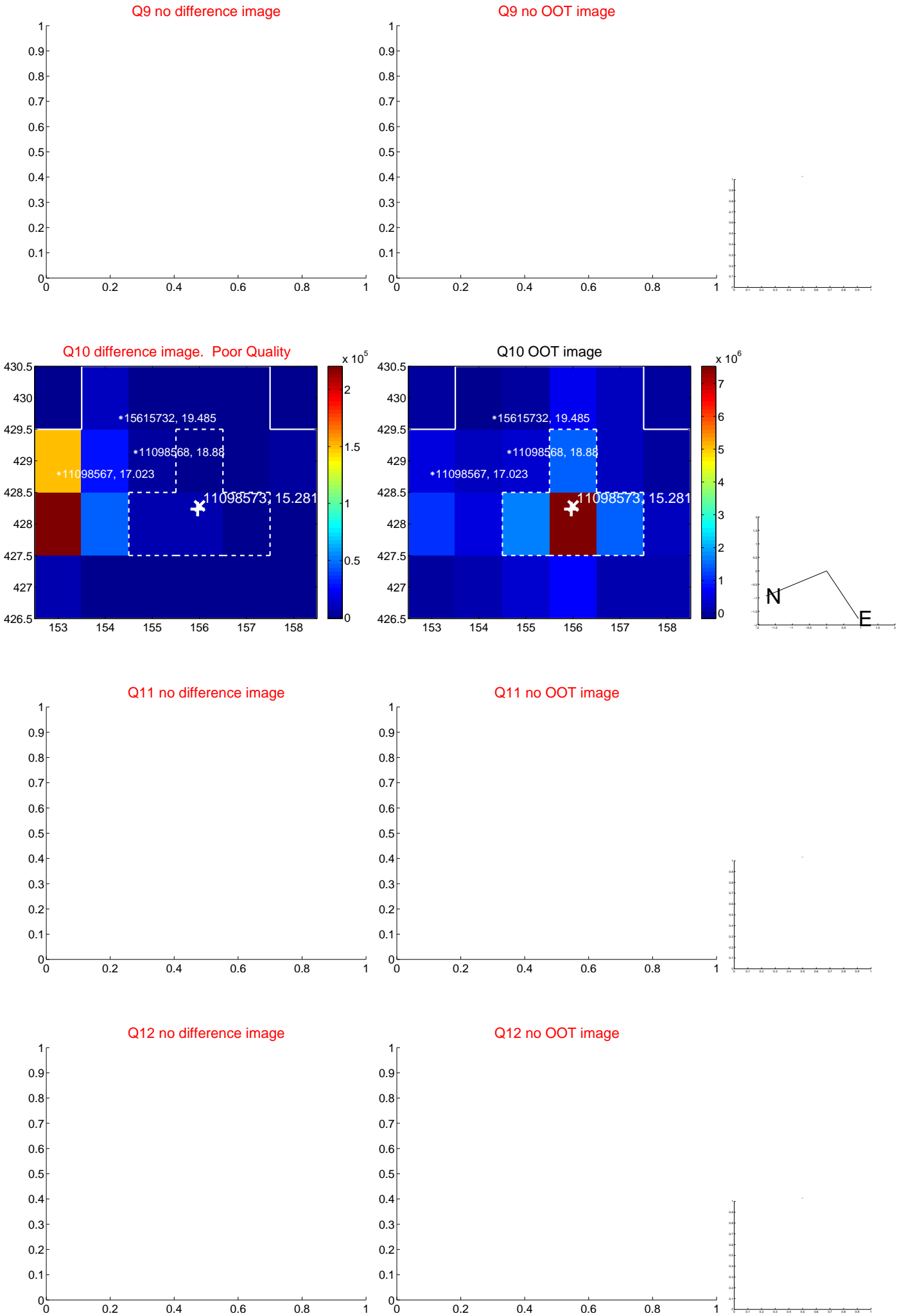
Q8 no difference image



Q8 no OOT image

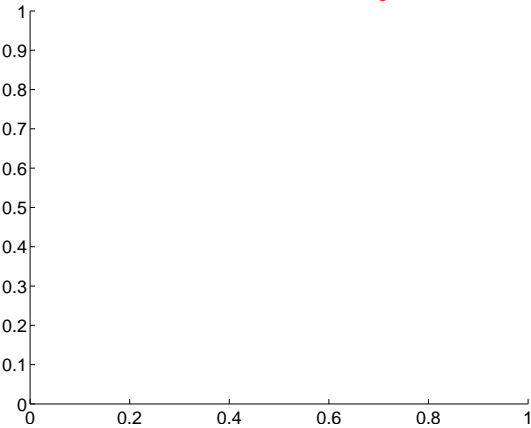


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

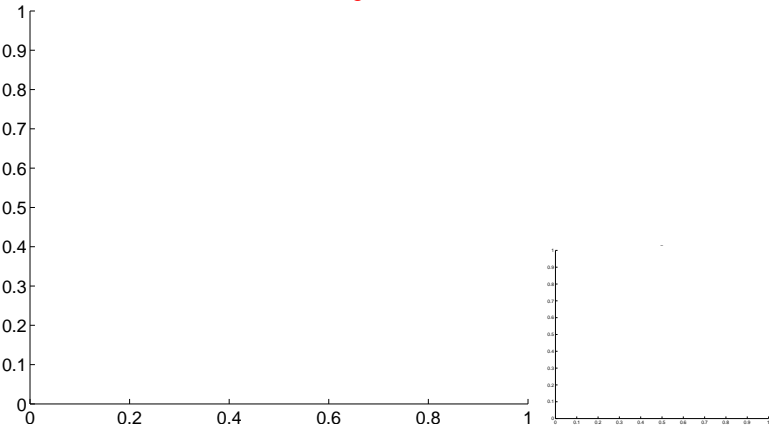


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

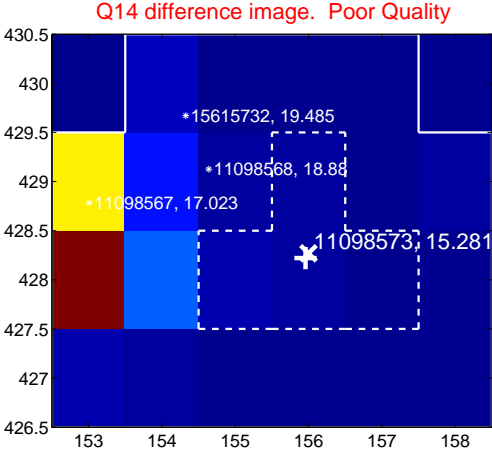
Q13 no difference image



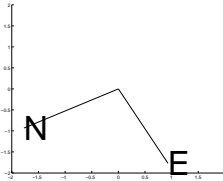
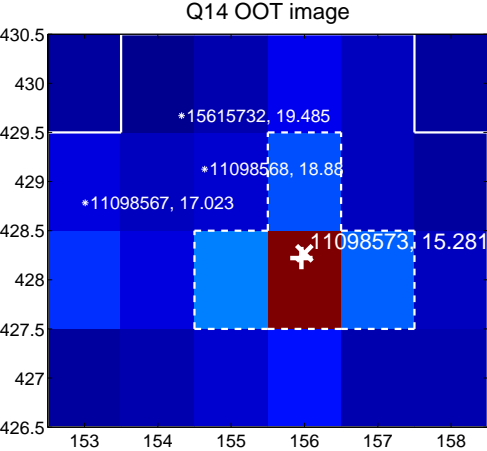
Q13 no OOT image



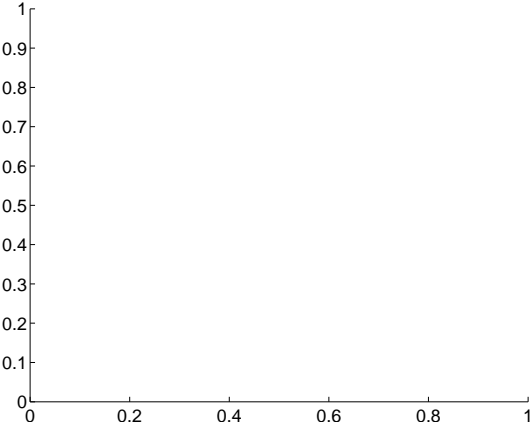
Q14 difference image. Poor Quality



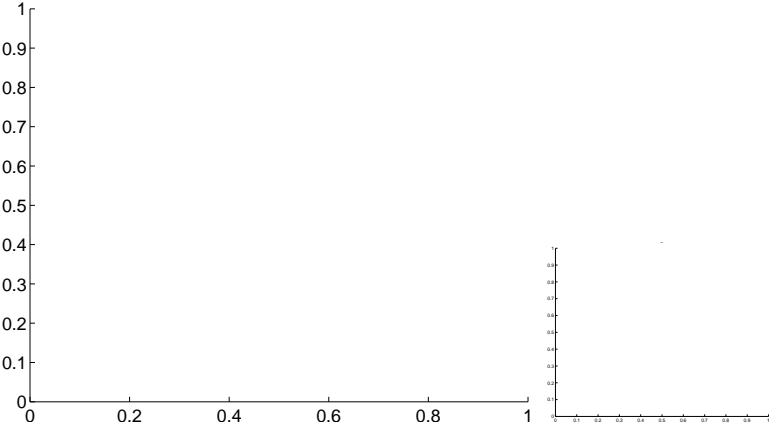
Q14 OOT image



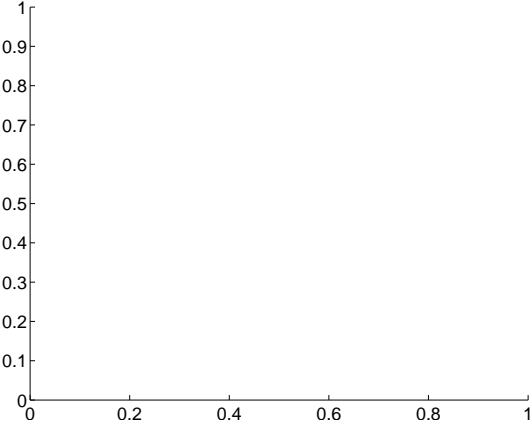
Q15 no difference image



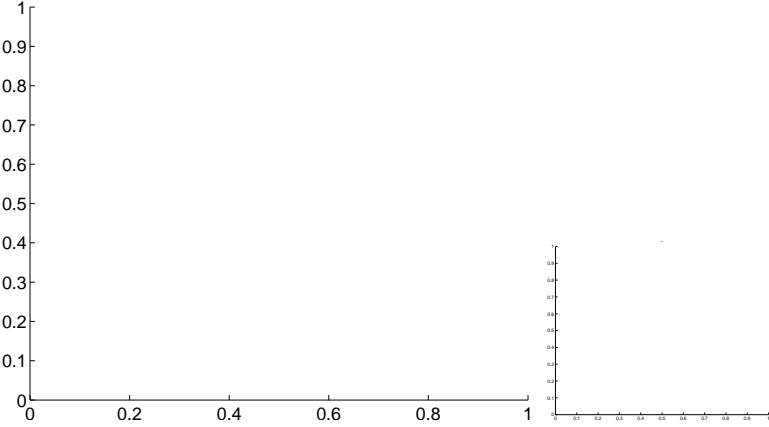
Q15 no OOT image



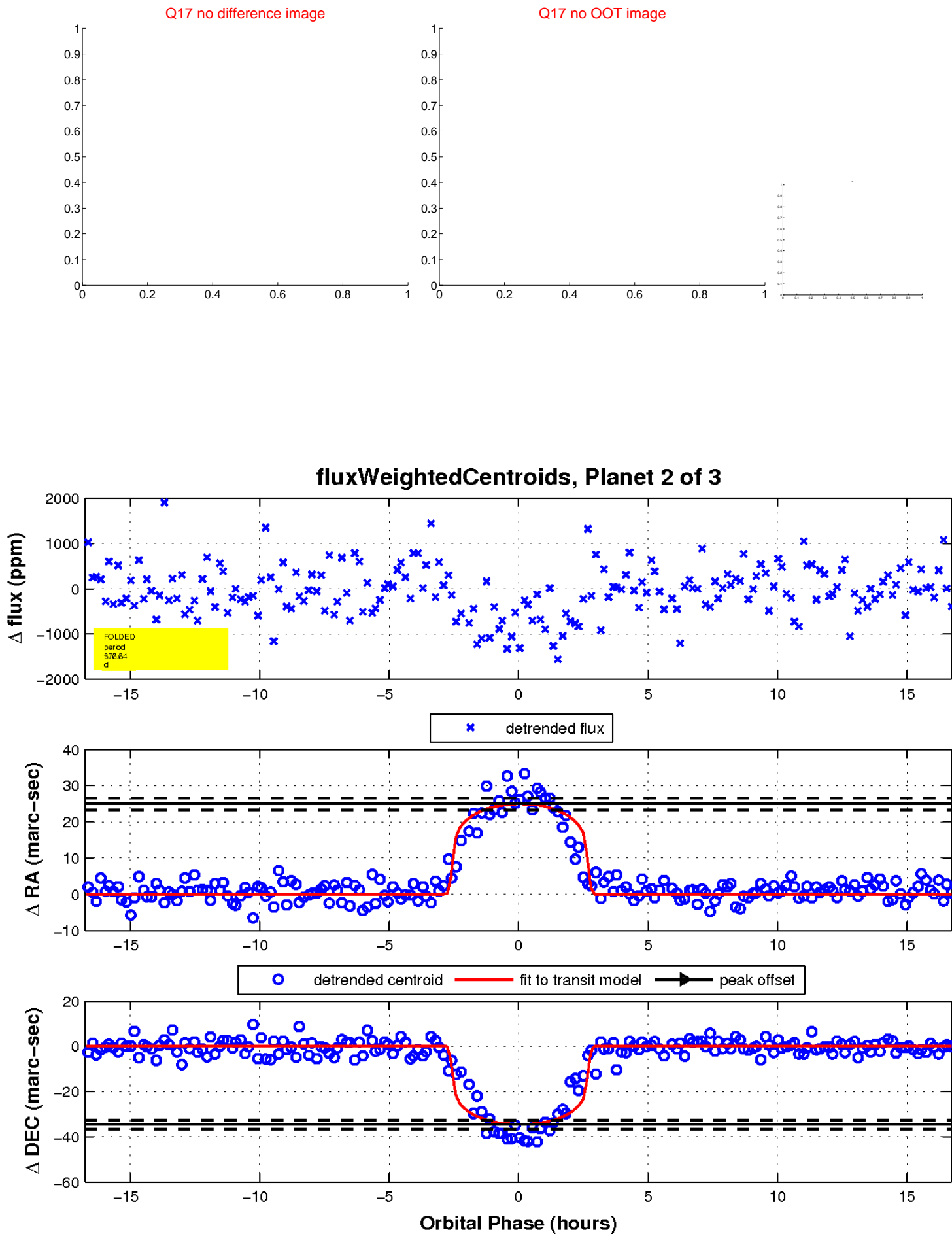
Q16 no difference image



Q16 no OOT image

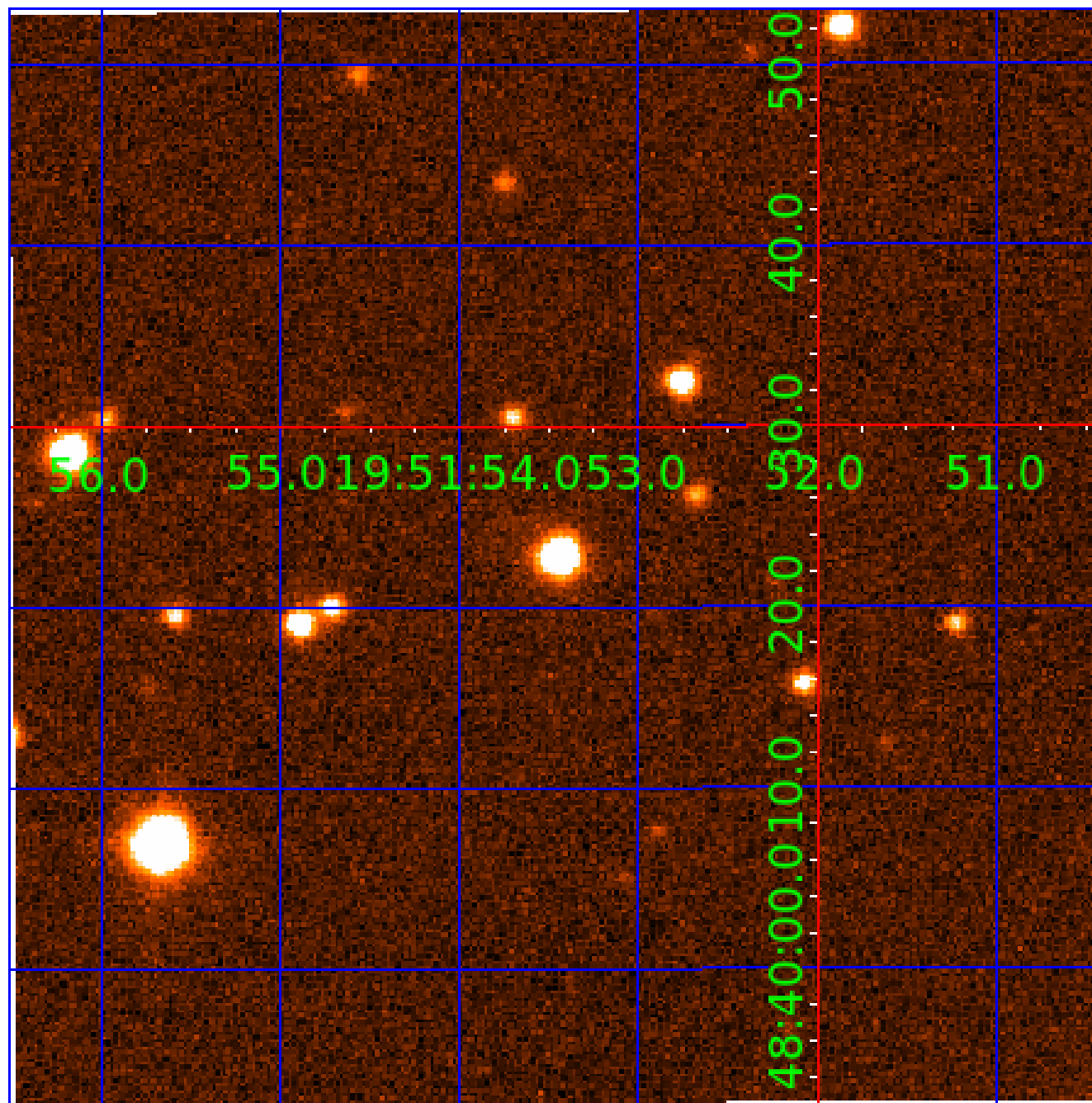


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011098573

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})
011098573-01	OBS	No	360.948660	194.775894	1414.9	6.692	12.1	12.6	1.04	5868	6.30	1.18
011098573-02	OBS	No	376.639695	226.168226	802.4	5.586	8.3	8.1	1.04	5868	3.17	1.11
011098573-03	OBS	No	376.637878	194.765149	709.6	6.446	7.9	7.9	1.04	5868	2.97	1.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011098573-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011098573-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_SKYE—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_FEW_DIFFS—HALO_GHOST
011098573-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_ALT—MOD_TER_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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 011098573-03

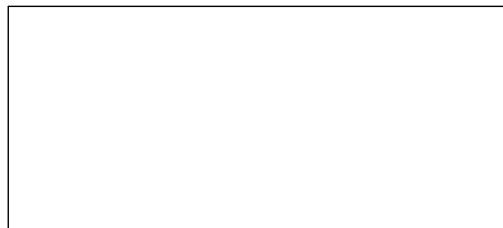
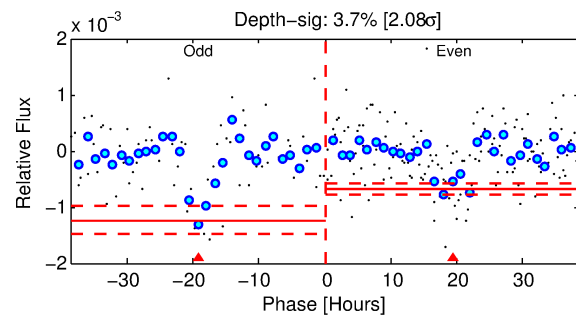
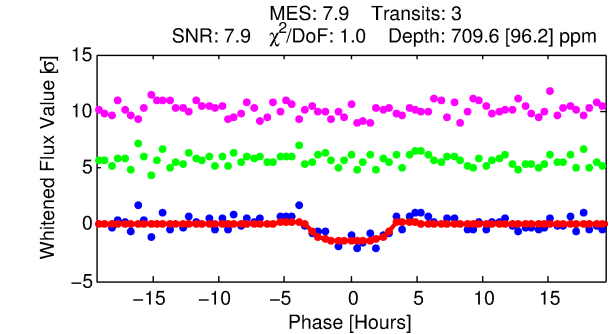
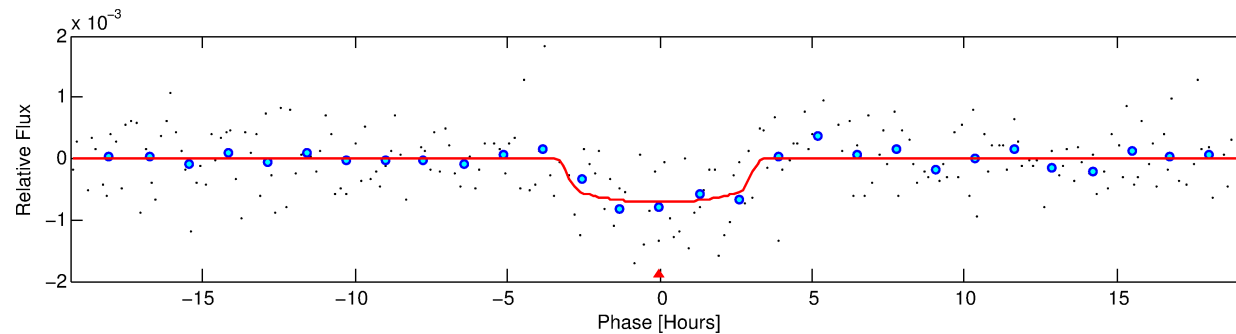
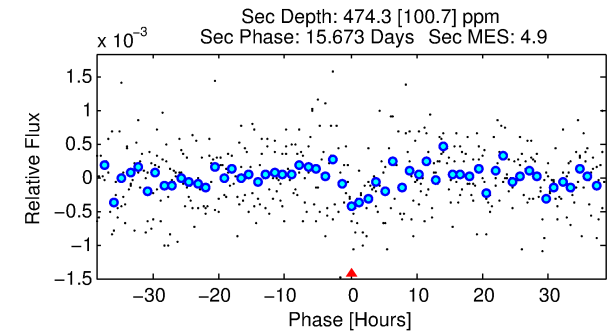
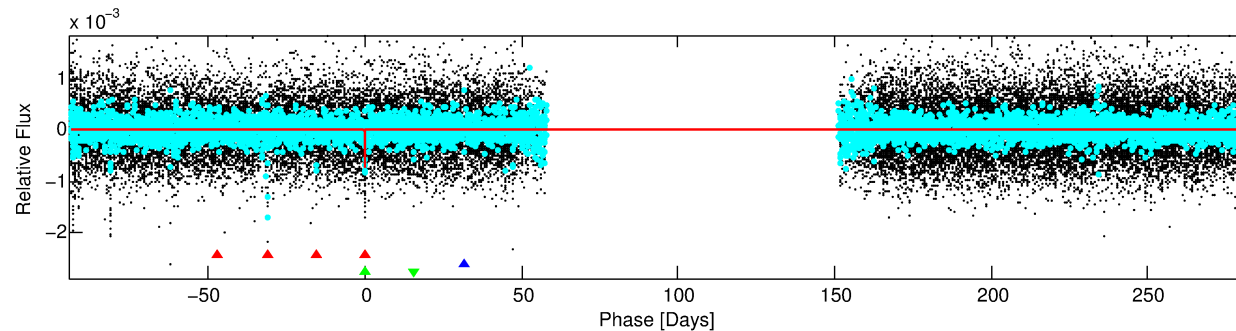
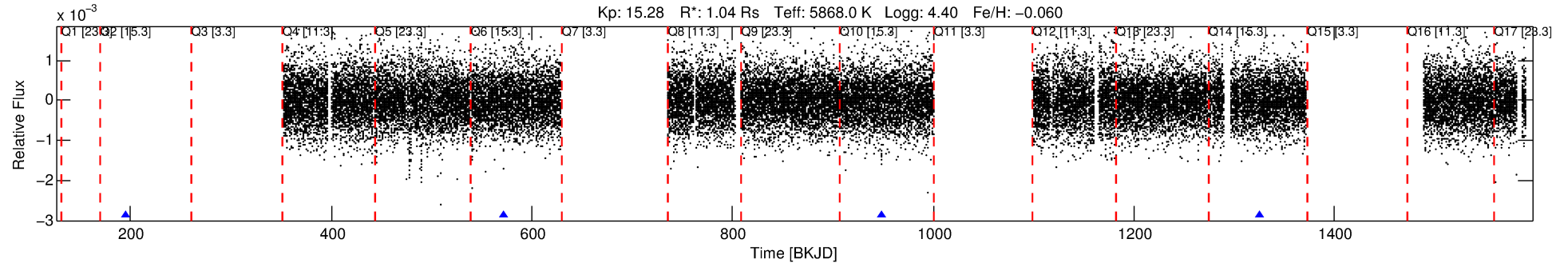
No Significant Match Found

DV One-Page Summary

KIC: 11098573 Candidate: 3 of 3 Period: 376.638 d

KOI: K03406 Corr: No Ephemeris Match

Kp: 15.28 R*: 1.04 Rs Teff: 5868.0 K Logg: 4.40 Fe/H: -0.060



DV Fit Results:

Period = 376.63788 [0.00966] d
Epoch = 194.7651 [0.0199] BKJD
Rp/R* = 0.0262 [0.0225]
a/R* = 326.87 [1285.56]
b = 0.72 [2.67]
Seff = 1.11 [0.42]
Teq = 262 [25] K
Rp = 2.97 [2.68] Re
a = 1.0135 [0.2454] AU
Ag = 30430.58 [53739.36] [0.57 sigma]
Teffp = 5347 [2320] K [2.19 sigma]

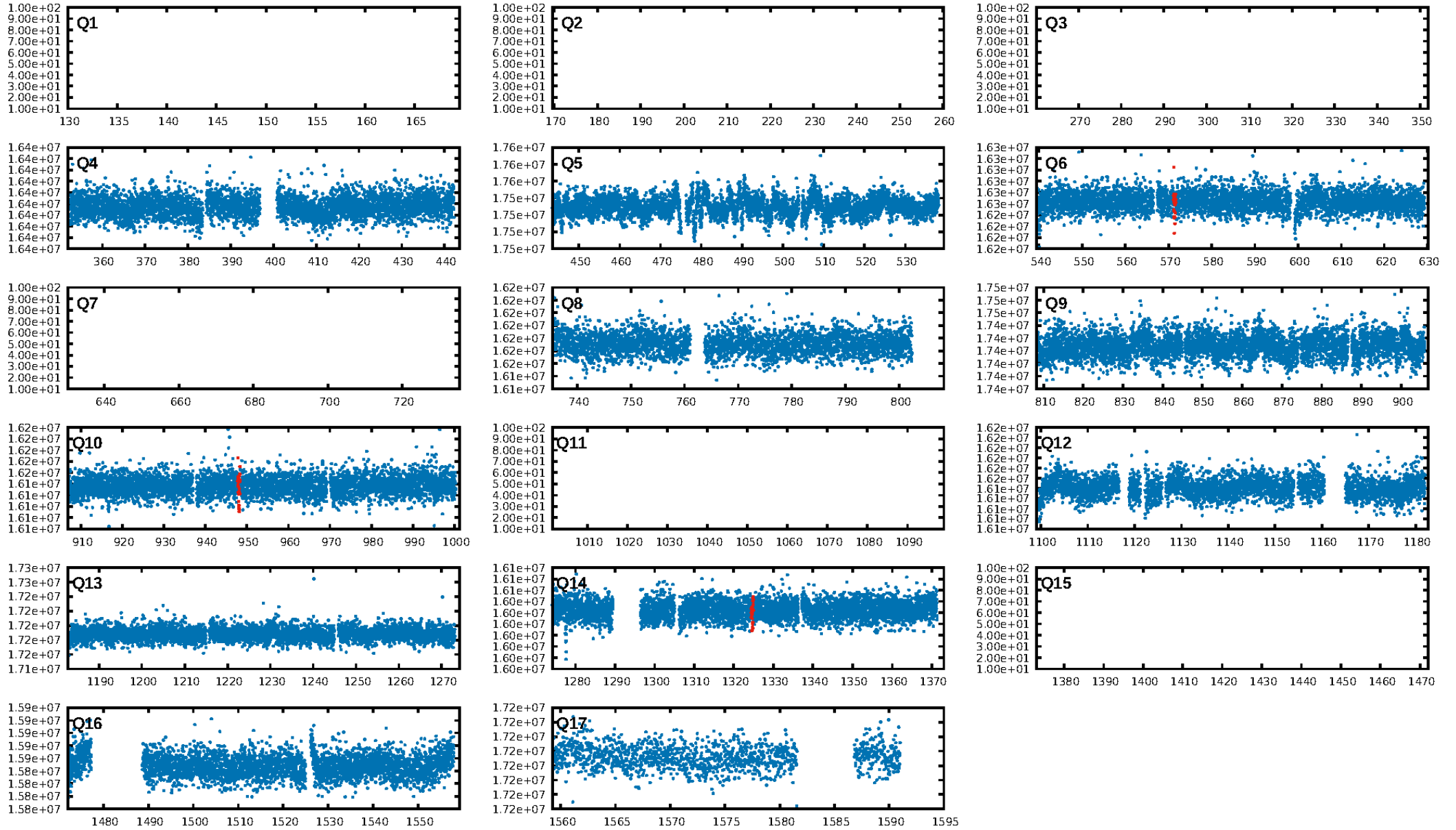
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [40.53 sigma]
LongPeriod-sig: 0.4% [0.01 sigma]
ModelChiSquare2-sig: 38.5%
ModelChiSquareGoF-sig: 78.4%
Bootstrap-pfa: 6.72e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.5855
Centroid-sig: 0.0%
Centroid-so: 49.012 arcsec [20.72 sigma]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

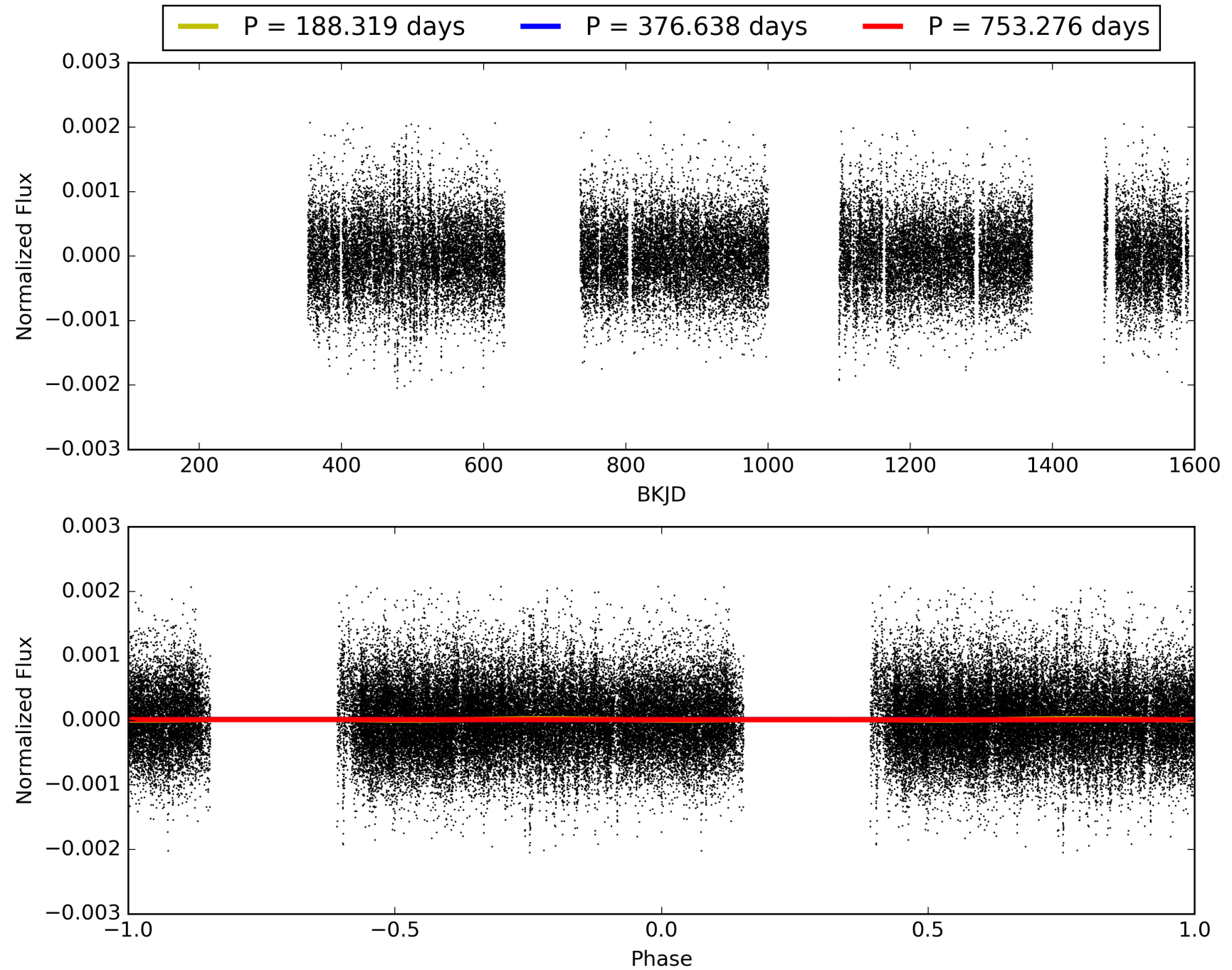
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:29:18 Z

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

TCE 011098573-03, PDC Light Curves

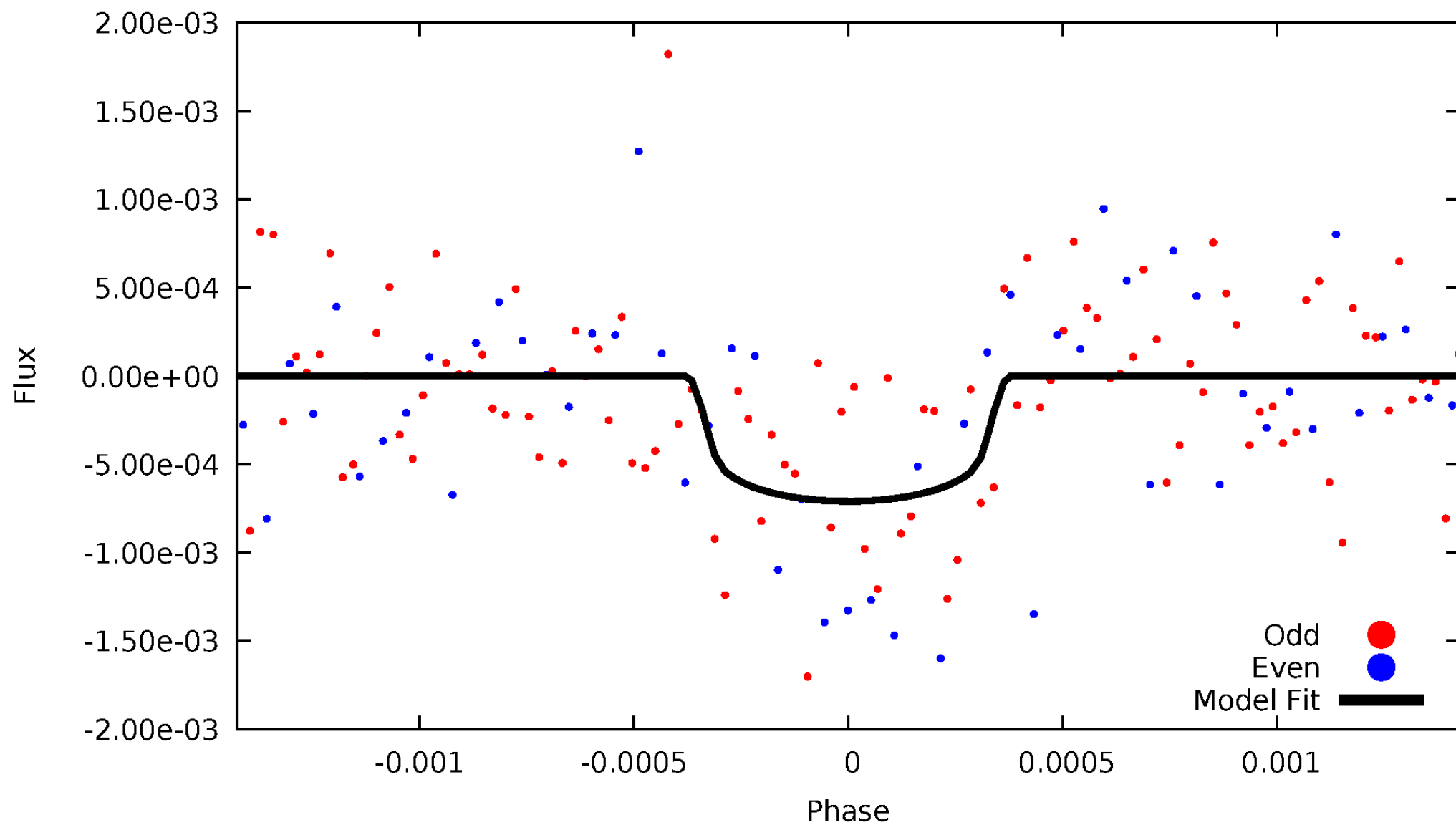


TCE 011098573-03



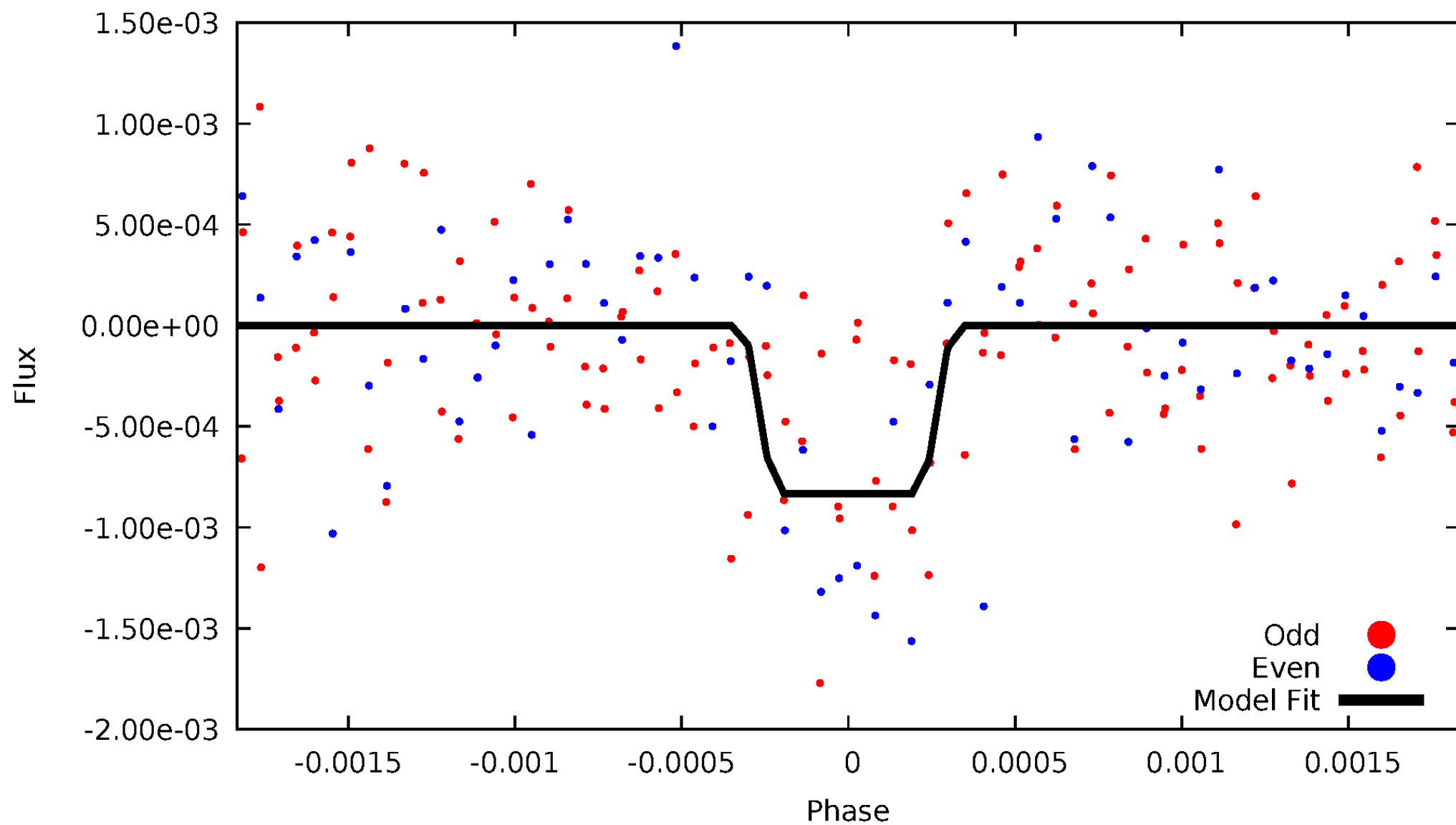
DV Odd/Even

TCE 011098573-03



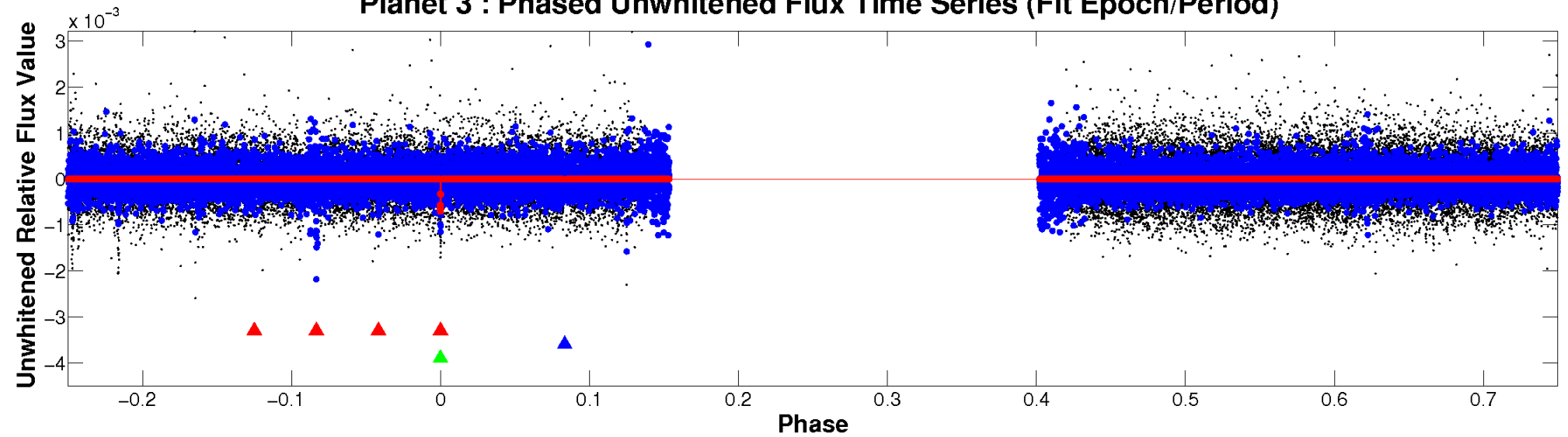
ALT Odd/Even

TCE 011098573-03

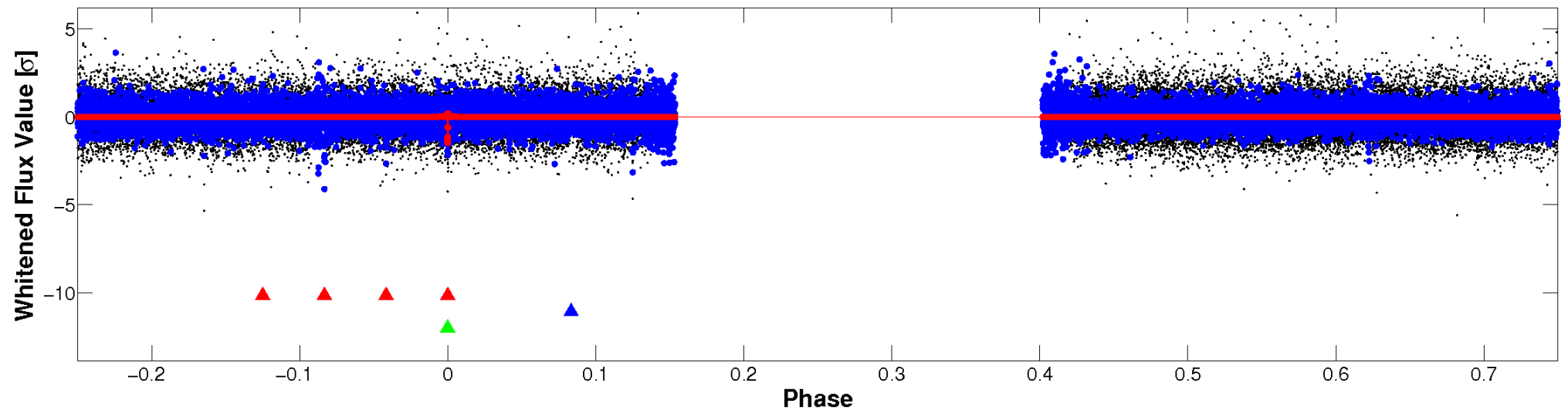


Non-Whitened Vs. Whitened Light Curve

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

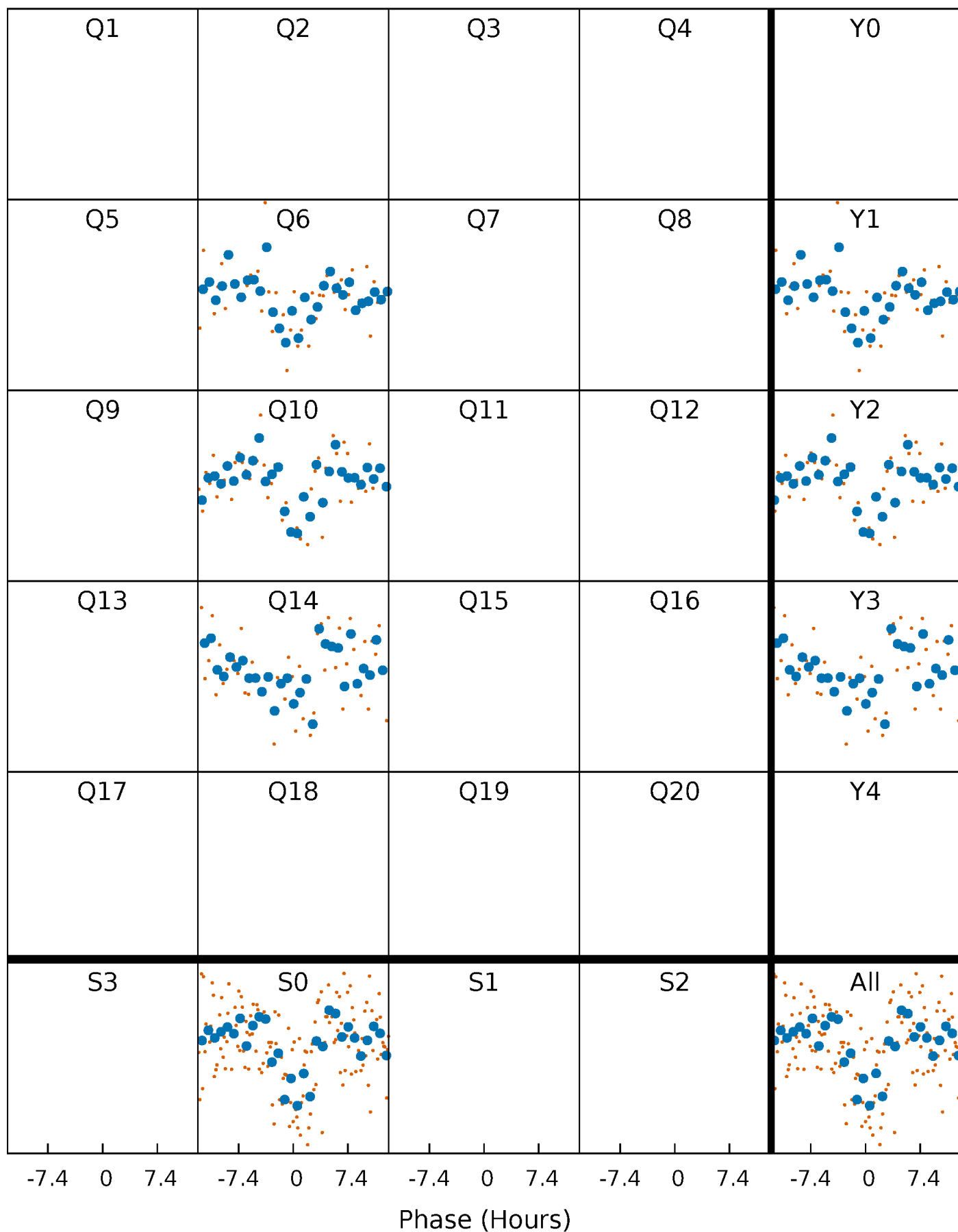


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



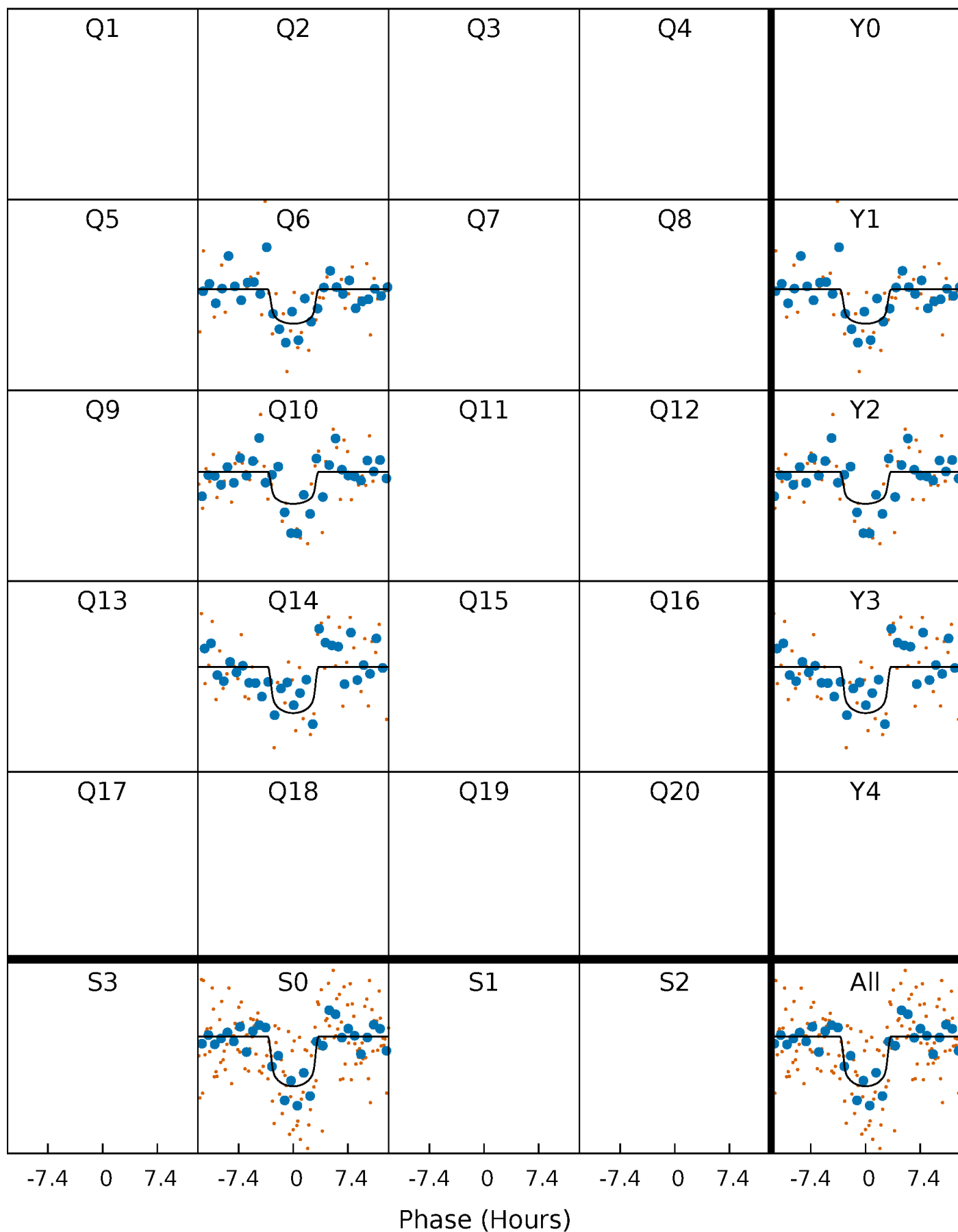
PDC Quarter-Phased Transit Curves

TCE 011098573-03 $P=376.637878$ Days $T_0=194.765149$ (BKJD)



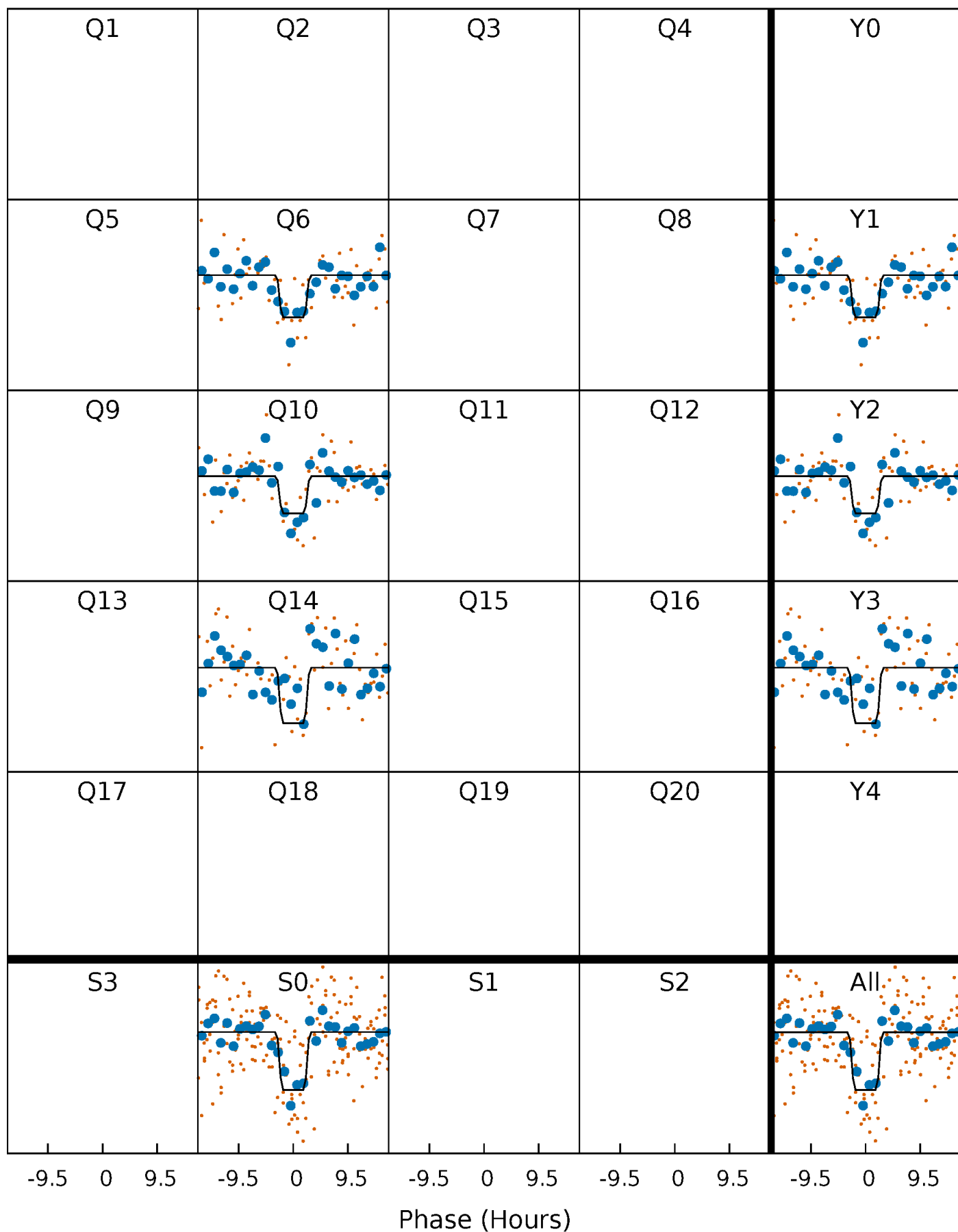
DV Quarter-Phased Transit Curves

TCE 011098573-03 P=376.637878 Days $T_0=194.765149$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

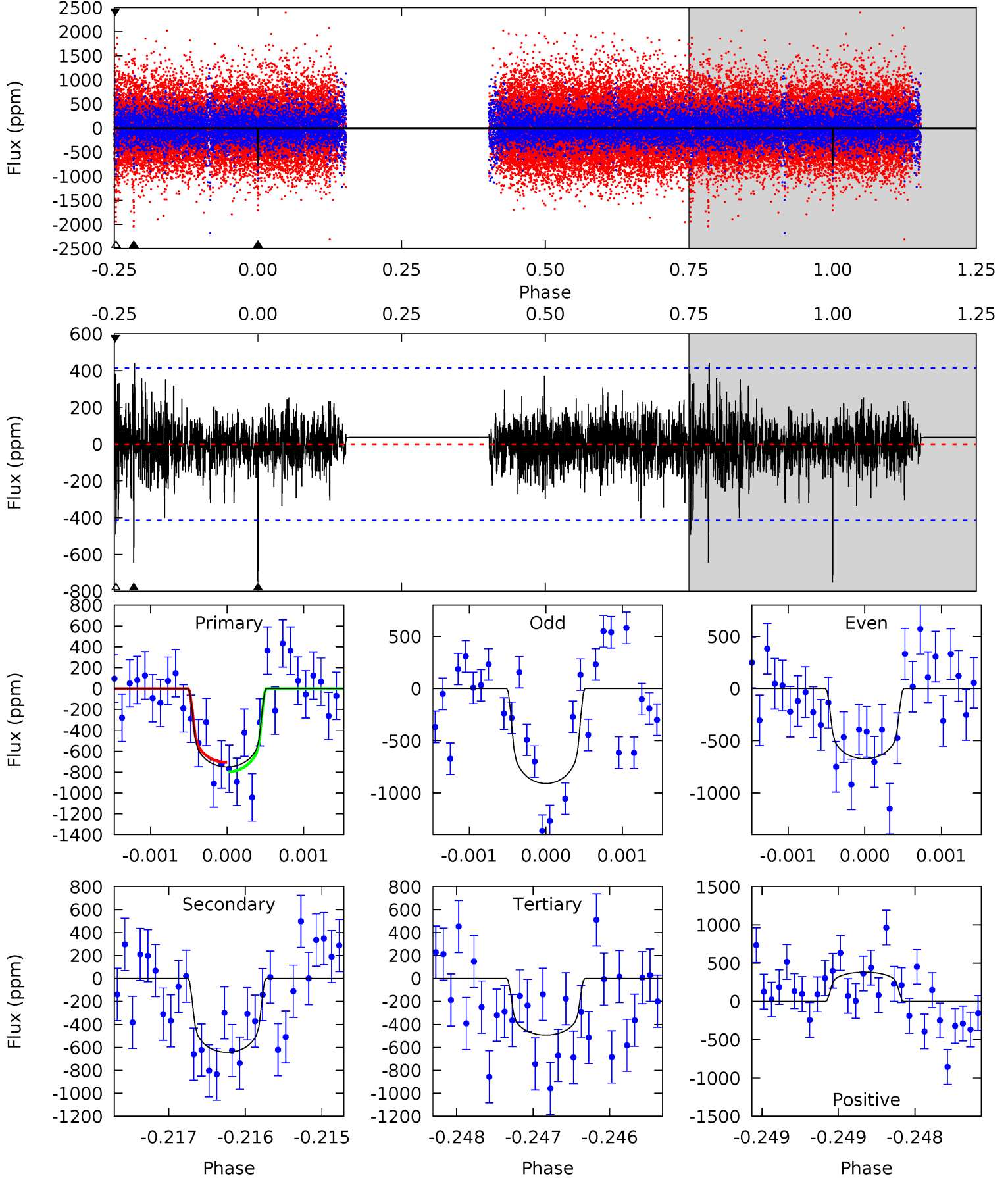
TCE 011098573-03 $P=376.651812$ Days $T_0=194.747369$ (BKJD)



DV Model-Shift Uniqueness Test

011098573-03, P = 376.637878 Days, E = 194.765149 Days

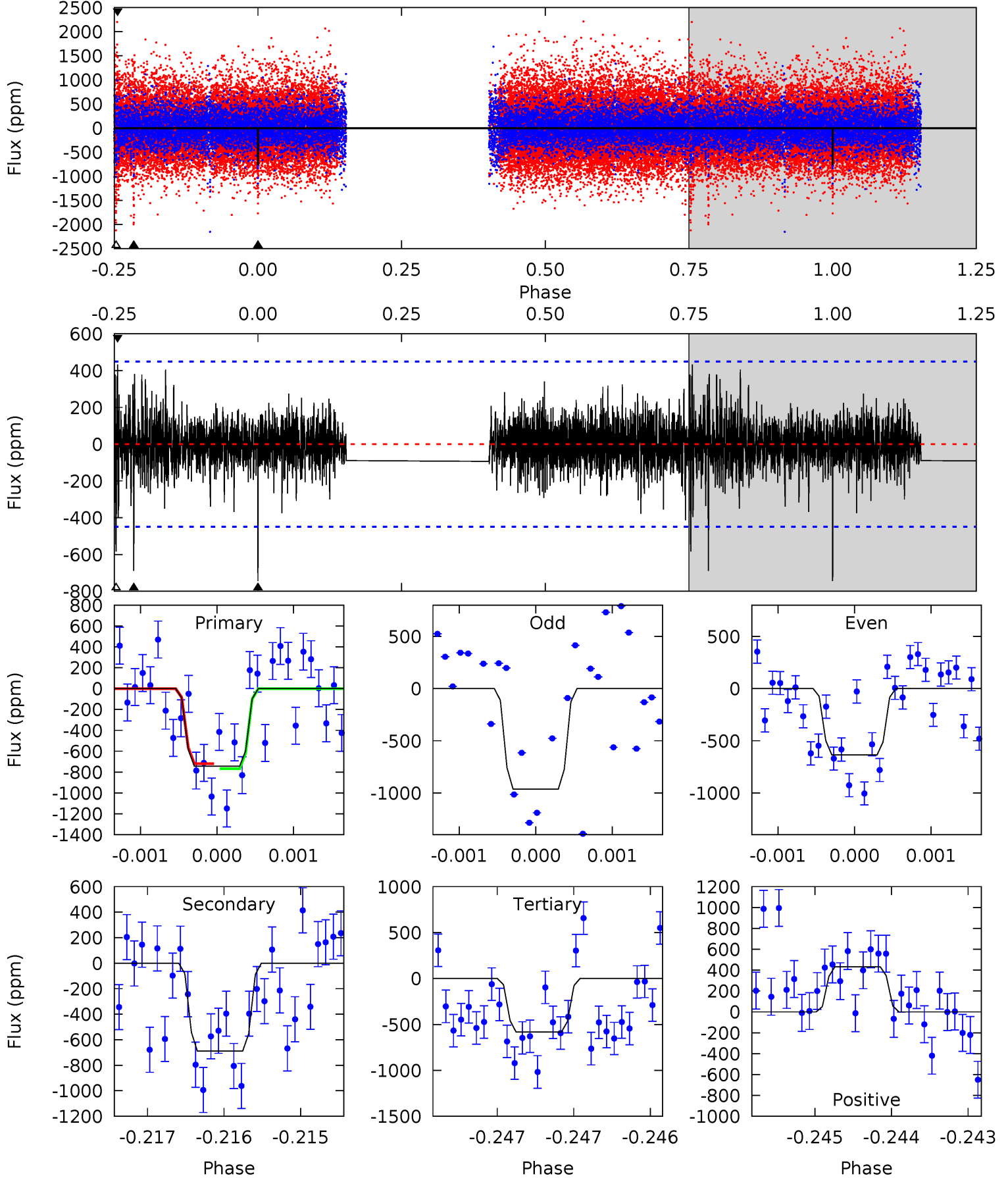
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.98	8.55	6.55	5.09	5.50	3.37	1.29	3.44	4.89	2.00	3.46	1.48	0.94	0.37	0.60



Alt Model-Shift Uniqueness Test

011098573-03, P = 376.651812 Days, E = 194.747369 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.16	8.48	7.18	5.33	5.53	3.41	1.20	1.98	3.83	1.30	3.15	1.91	0.89	0.37	0.30



Stellar Parameters For KIC 011098573

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5868^{+184}_{-205}	$4.397^{+0.105}_{-0.195}$	$-0.060^{+0.300}_{-0.300}$	$1.037^{+0.296}_{-0.160}$	$0.978^{+0.140}_{-0.115}$	$1.235^{+0.592}_{-0.643}$
	+3%/-3%	+2%/-4%	+500%/-500%	+29%/-15%	+14%/-12%	+48%/-52%
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 011098573-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-643 ± 75	$3.38^{+2.27}_{-1.93}$	370^{+26}_{-20}	5471^{+3120}_{-1060}	$31319^{+141791}_{-20690}$
Alt.	-689 ± 81	$3.78^{+2.59}_{-2.26}$	369^{+27}_{-20}	5308^{+3272}_{-977}	$27686^{+132651}_{-17898}$

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

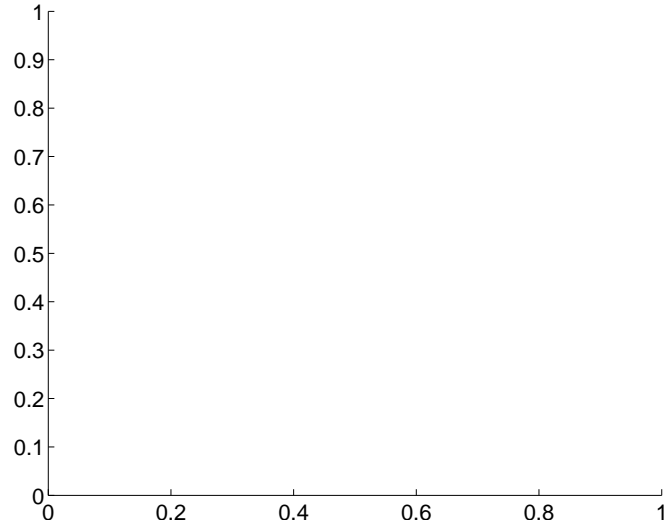
Supplemental centroid analysis for 011098573-03. Kepler magnitude: 15.28. Transit SNR 7.88

There are 0 quarters with good PRF difference image offsets

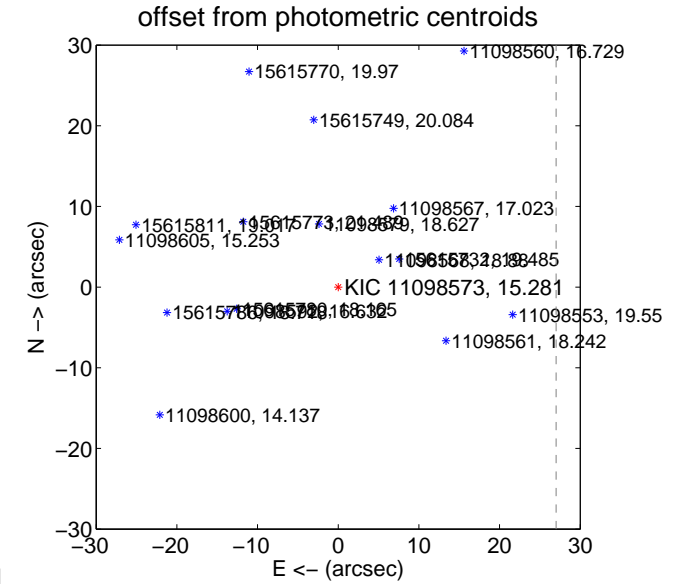
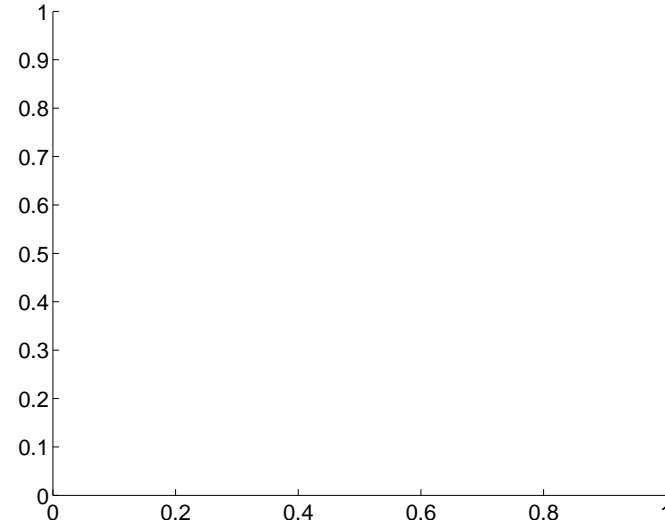
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	49.01 ± 2.37	20.72	-27.01 ± 2.32	40.90 ± 2.39

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

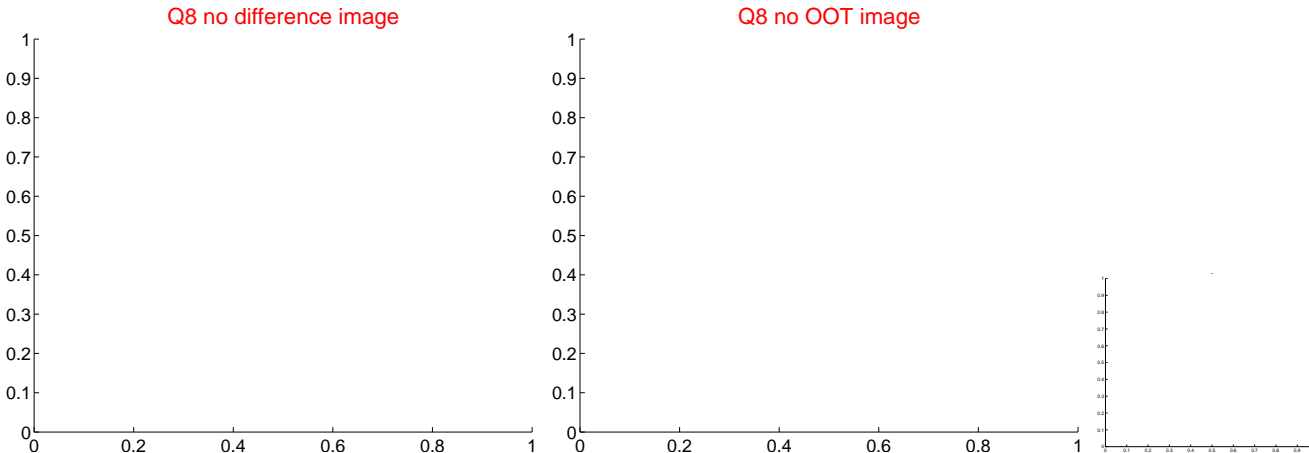
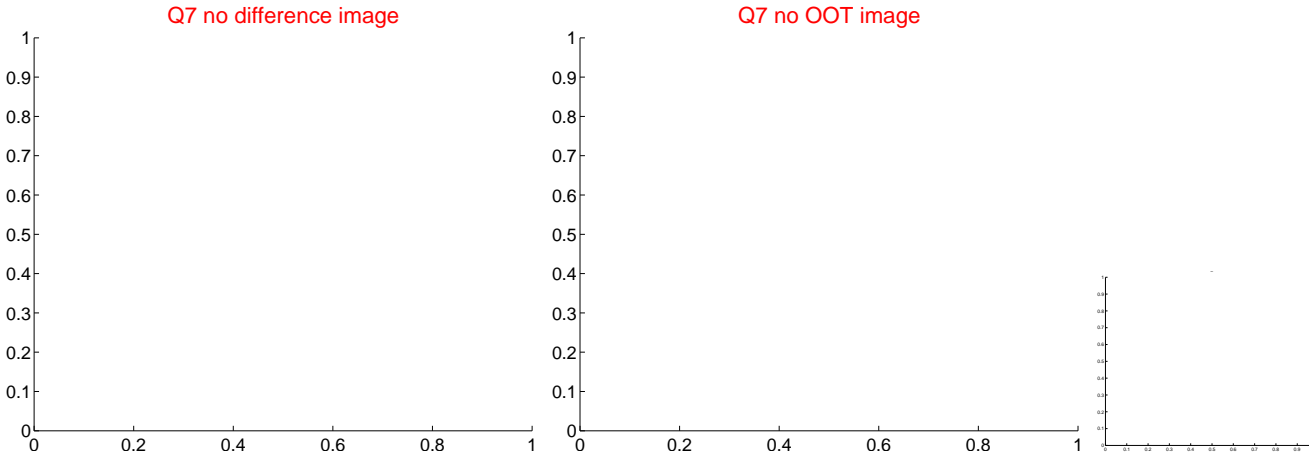
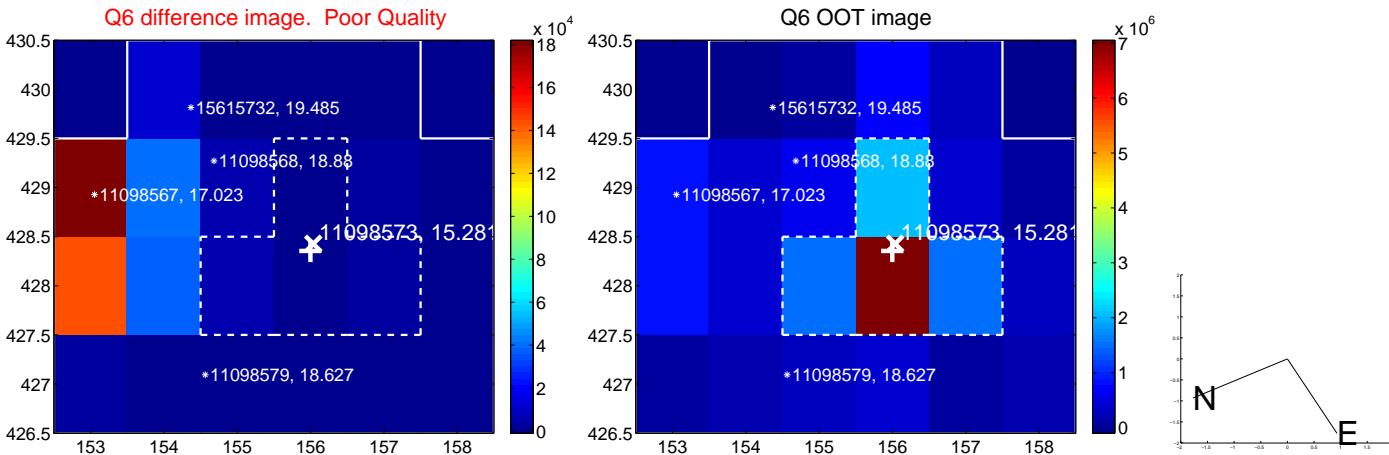
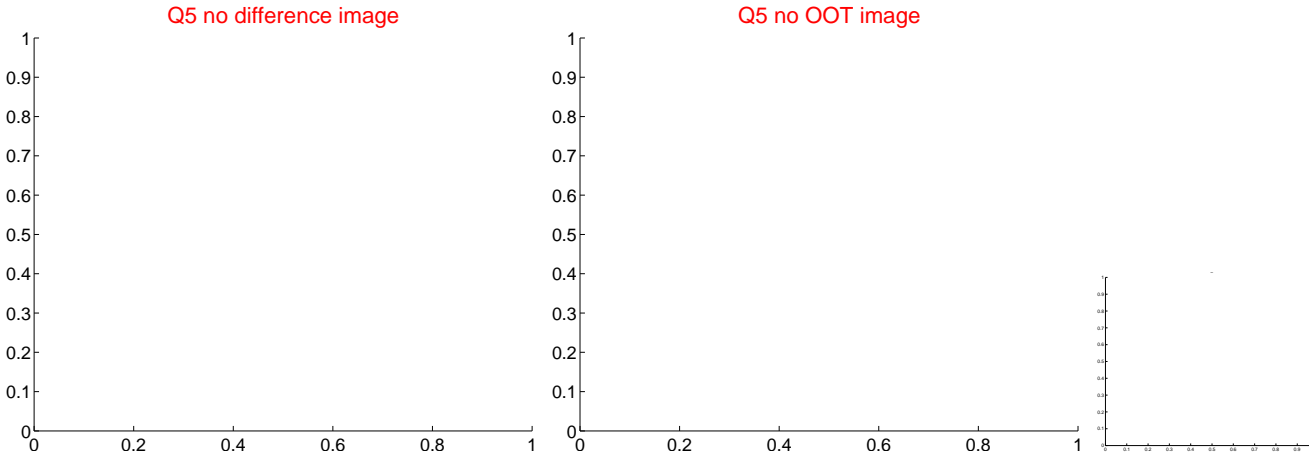


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

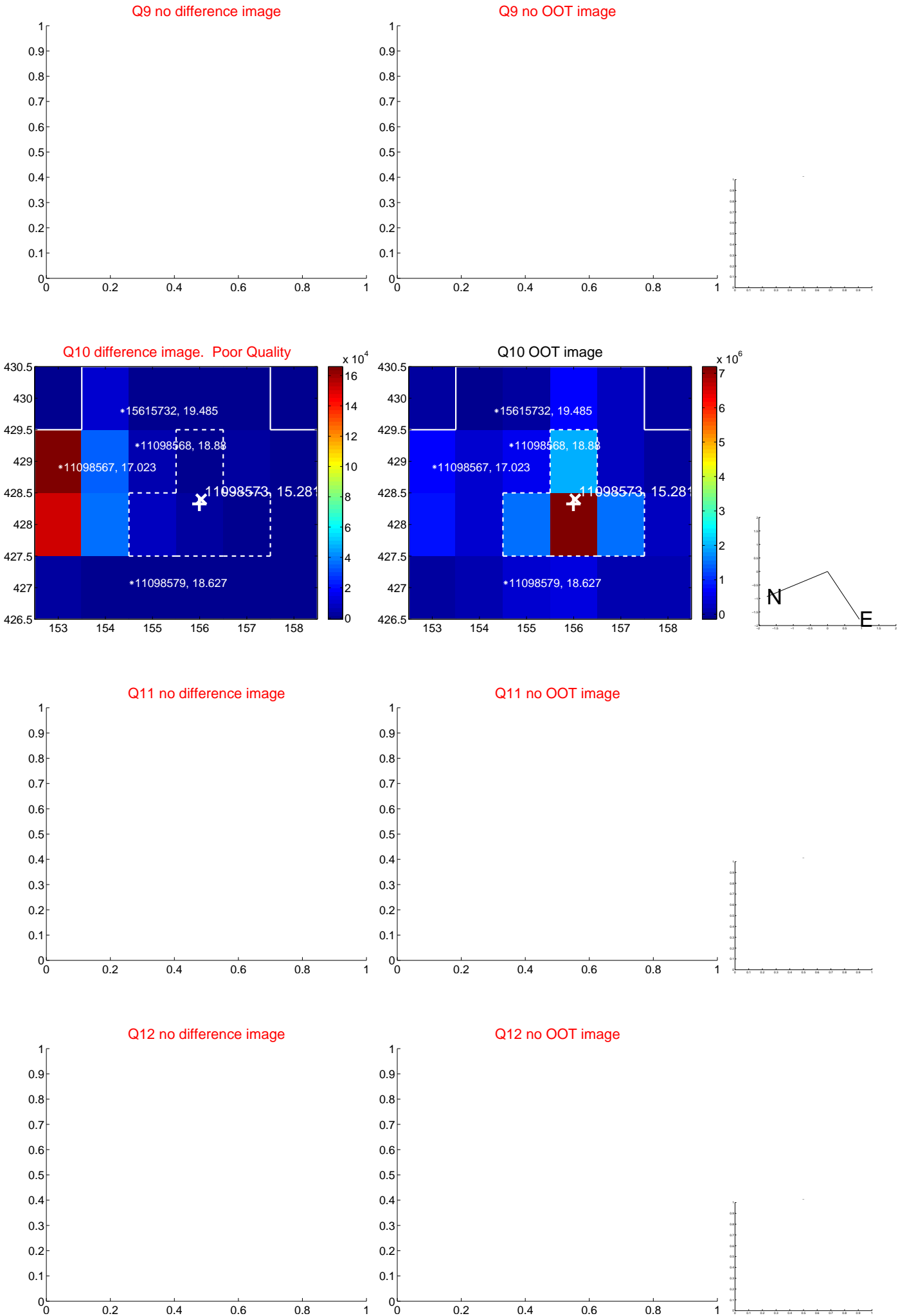
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



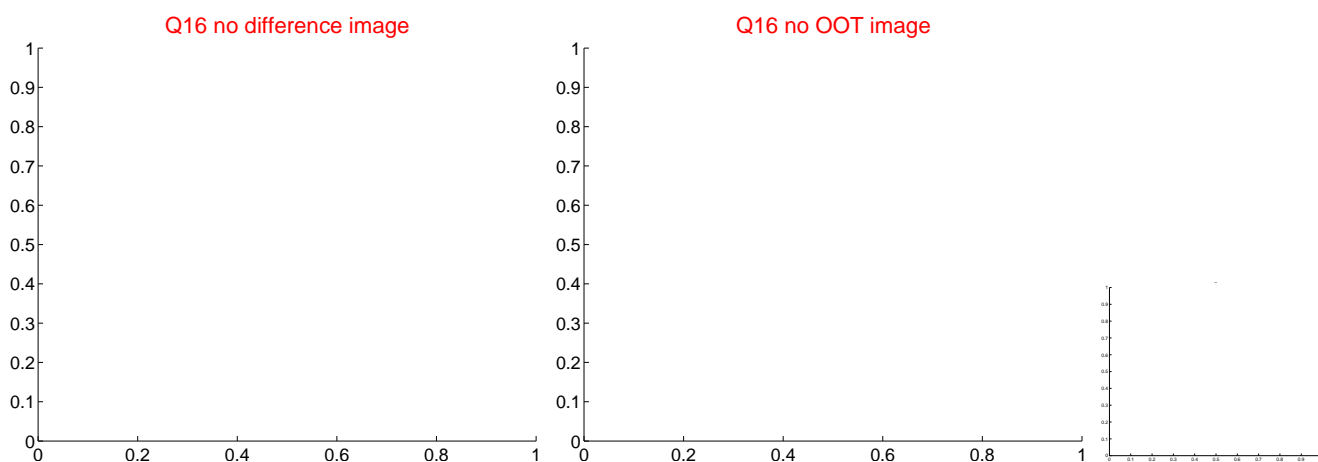
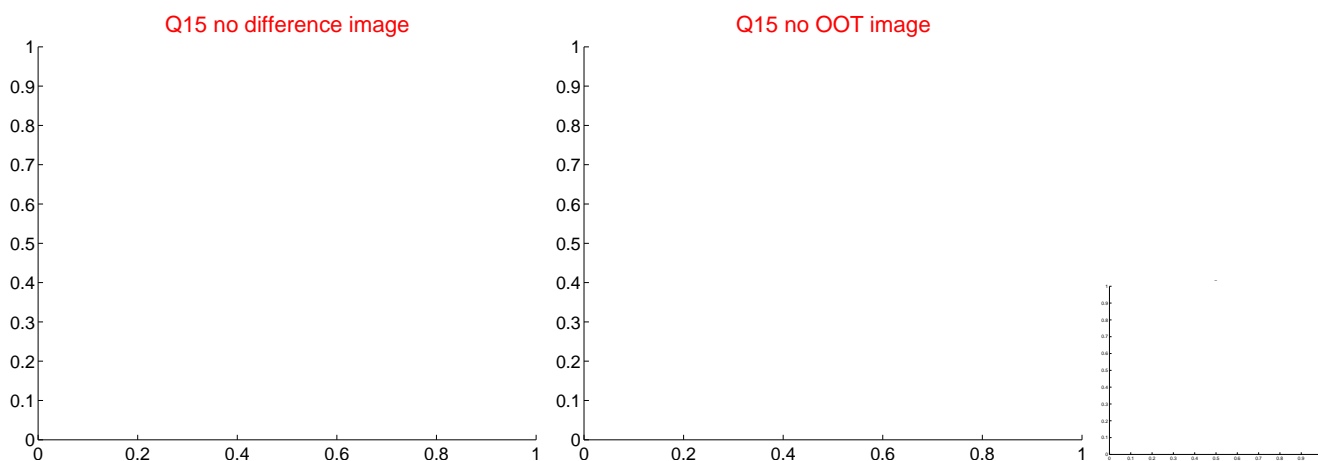
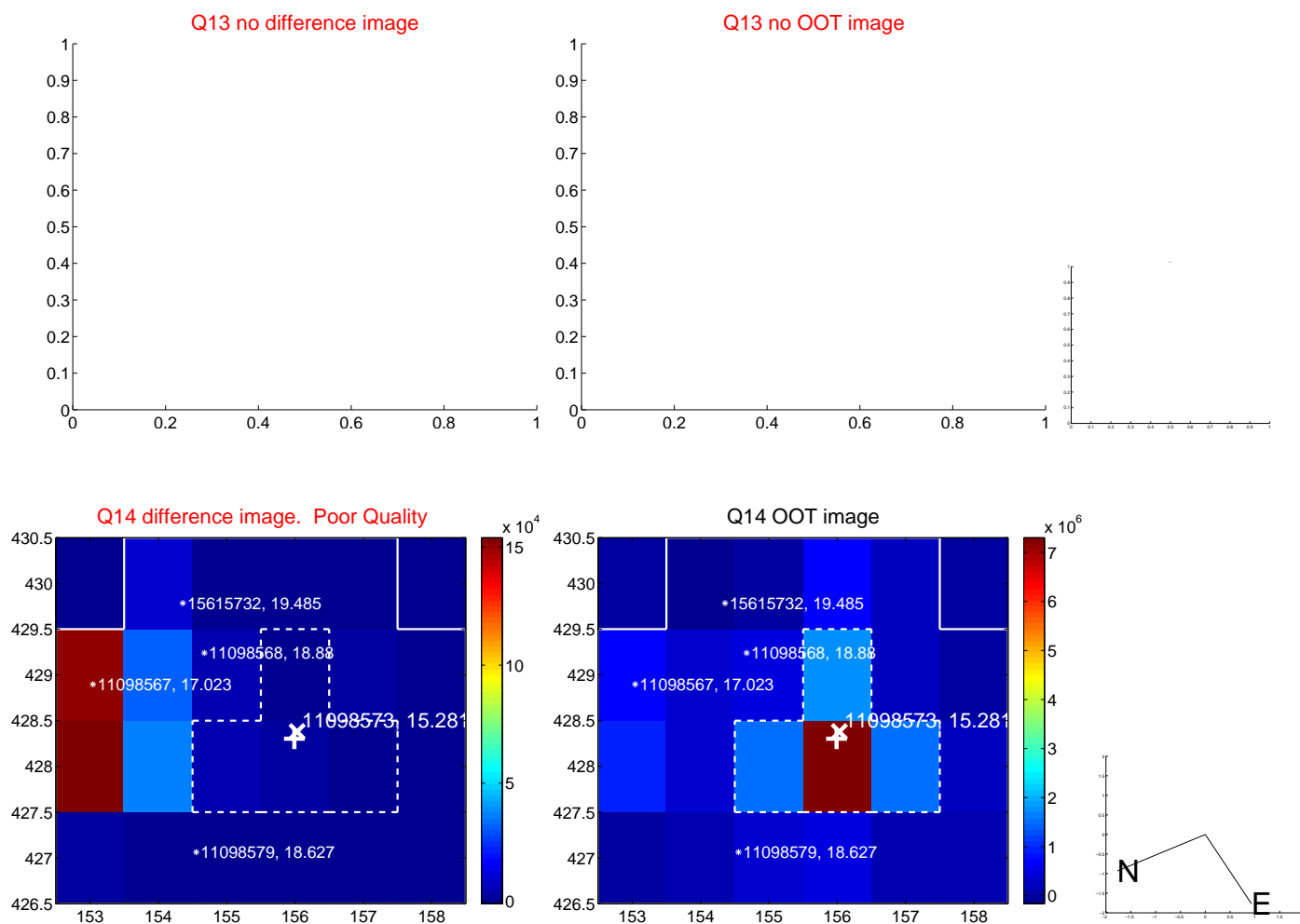
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



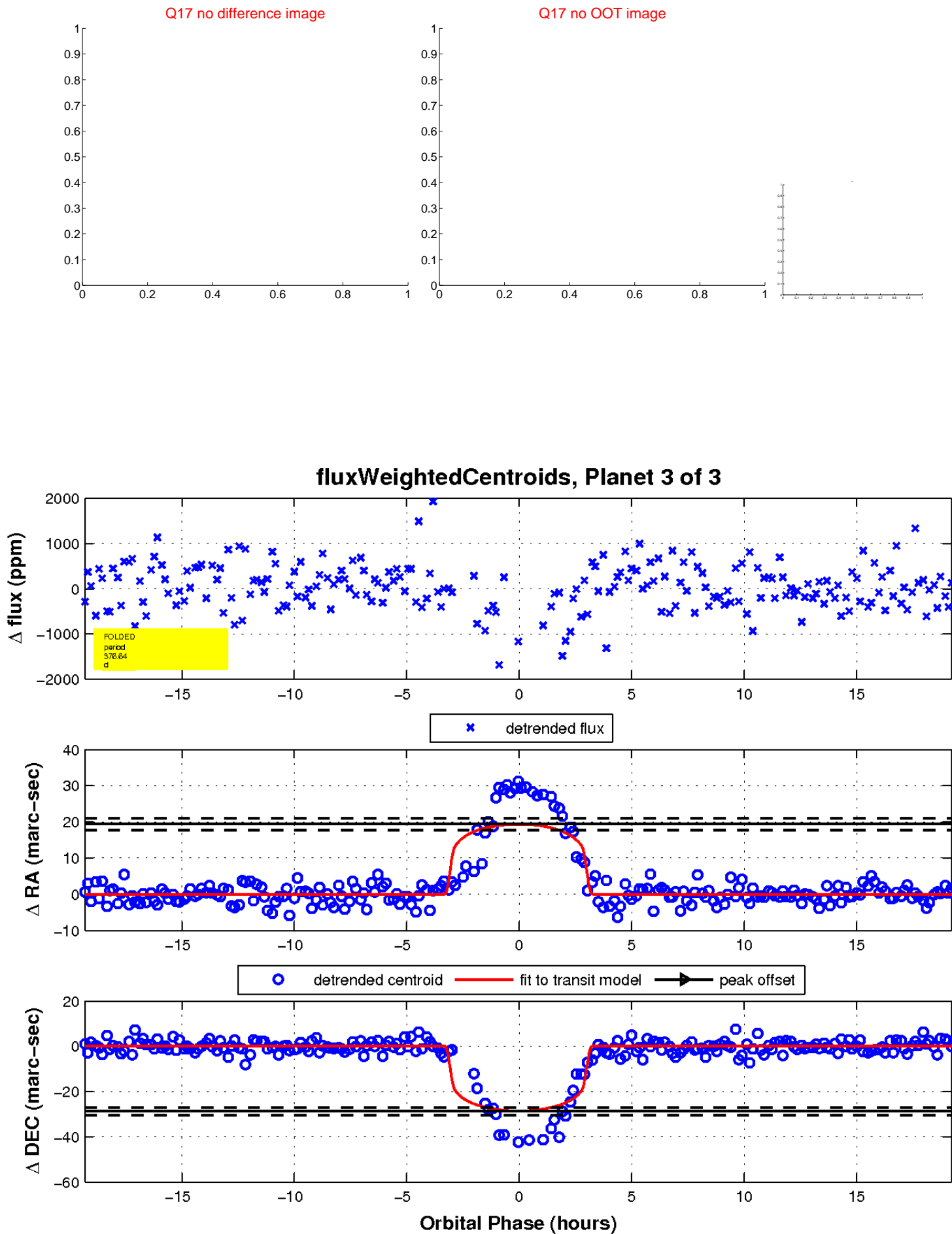
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

