

KIC 003561700

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})
003561700-01	OBS	No	11.671715	134.762643	1192.2	4.789	17.1	17.5	2.90	11076	16.94	5379.96
003561700-02	OBS	No	0.686521	132.194517	57.9	4.851	9.4	5.2	2.90	11076	2.32	235190.70
003561700-03	OBS	No	10.140431	137.605161	1008.9	2.998	11.7	11.6	2.90	11076	10.04	6489.58
003561700-04	OBS	No	6.159135	134.464778	902.1	1.809	10.3	12.4	2.90	11076	9.72	12616.31
003561700-05	OBS	No	39.245731	133.104744	1370.3	1.500	9.1	-1.0	2.90	11076	11.08	1067.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003561700-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
003561700-02	OBS	FP	0.00	1	0	0	0	LPP_DV
003561700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

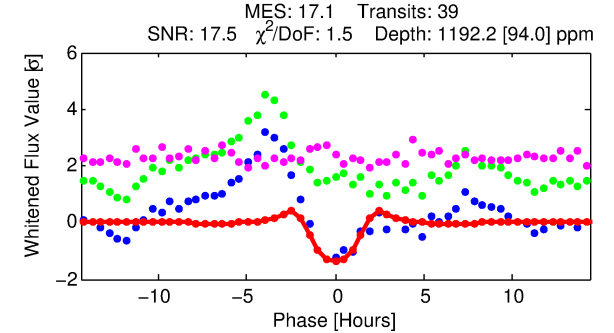
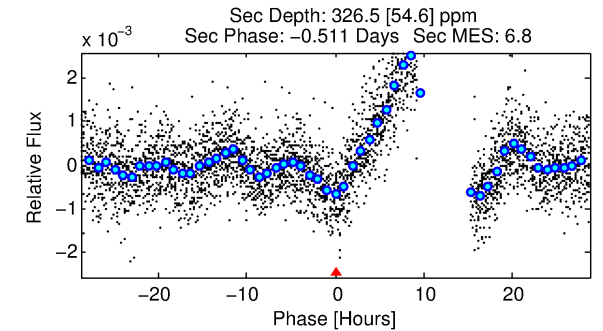
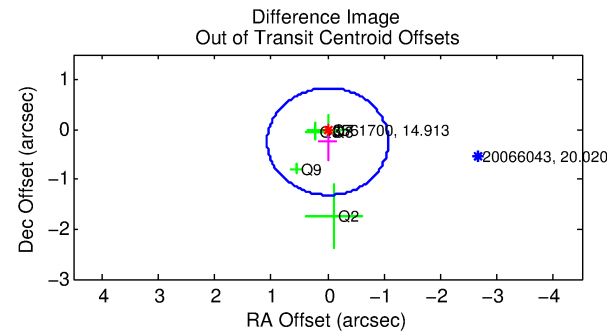
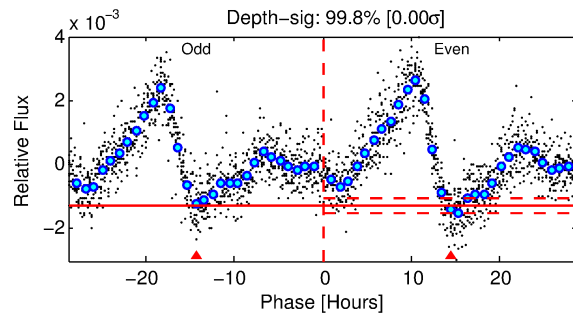
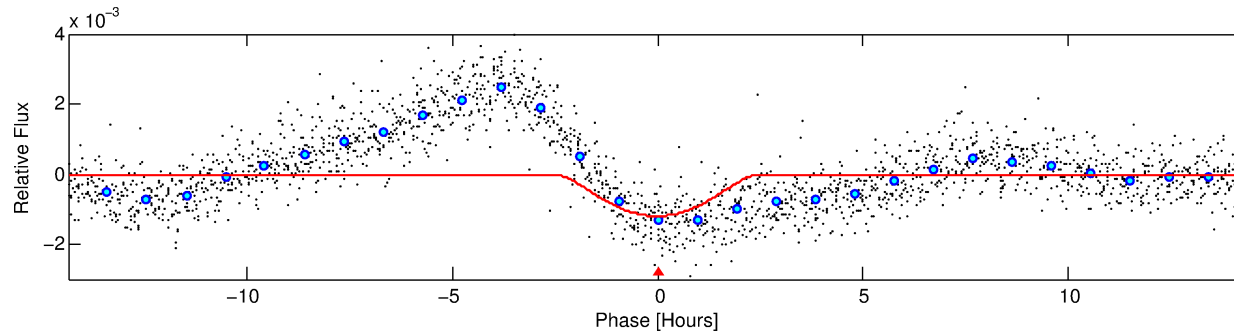
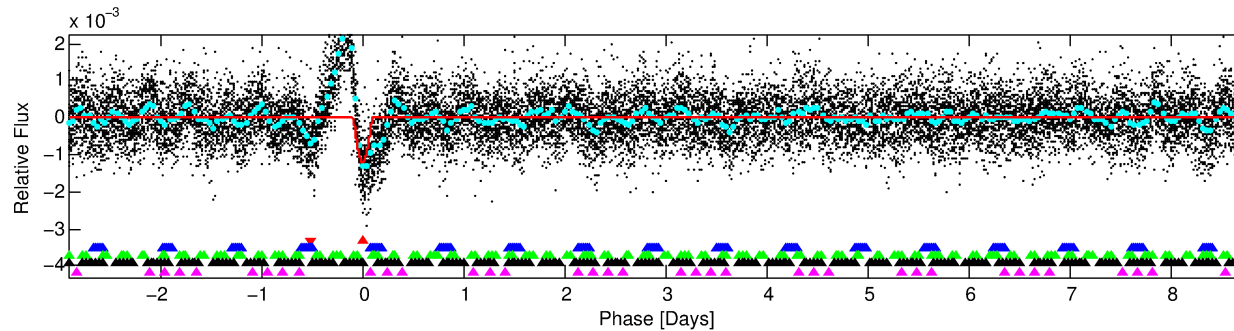
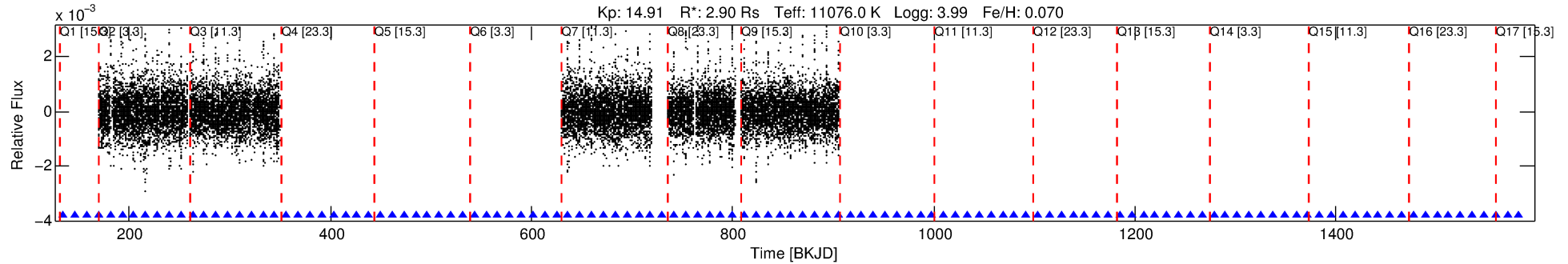
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003561700-01

No Significant Match Found

DV One-Page Summary

KIC: 3561700 Candidate: 1 of 5 Period: 11.672 d



DV Fit Results:

Period = 11.67172 [0.00016] d
Epoch = 134.7626 [0.0071] BKJD
Rp/R* = 0.0536 [0.0729]
a/R* = 6.47 [2.32]
b = 1.00 [0.11]
Seff = 5379.96 [2858.03]
Teq = 2184 [290] K
Rp = 16.94 [23.96] Re
a = 0.1450 [0.0487] AU
Ag = 13.16 [36.49] [0.33 σ]
Teffp = 6432 [4393] K [0.96 σ]

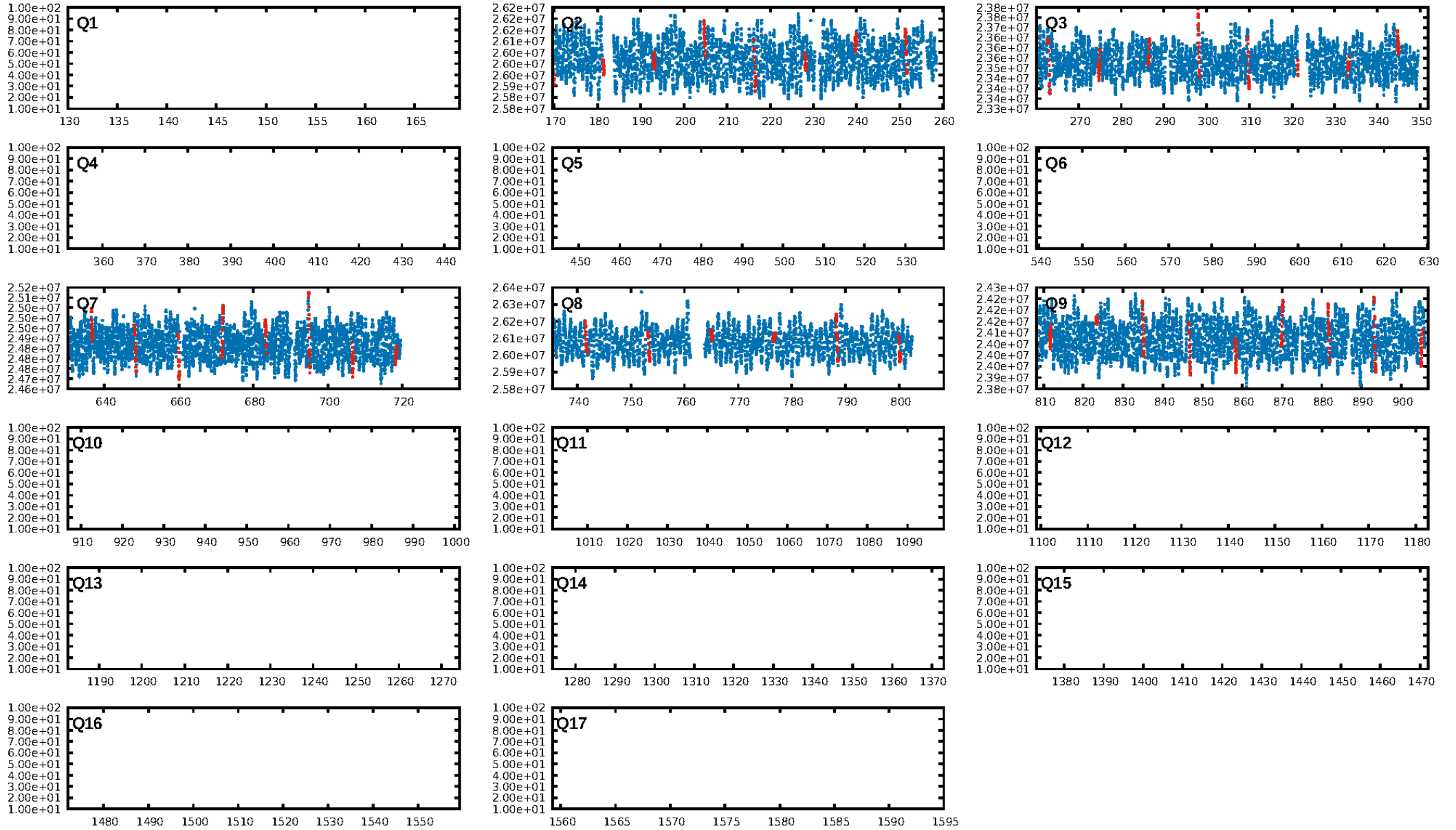
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.50 σ]
LongPeriod-sig: 100.0% [131.87 σ]
ModelChiSquare2-sig: 98.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.74e-39
RollingBand-fgt: 1.00 [39/39]
GhostDiagnostic-chr: 1.143
Centroid-sig: 1.5%
Centroid-so: 1.349 arcsec [3.58 σ]
OotOffset-rm: 0.249 arcsec [0.70 σ]
KicOffset-rm: 0.367 arcsec [1.14 σ]
OotOffset-st: 1/2/1/1 [5]
KicOffset-st: 1/2/1/1 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 0.00 [0/5]

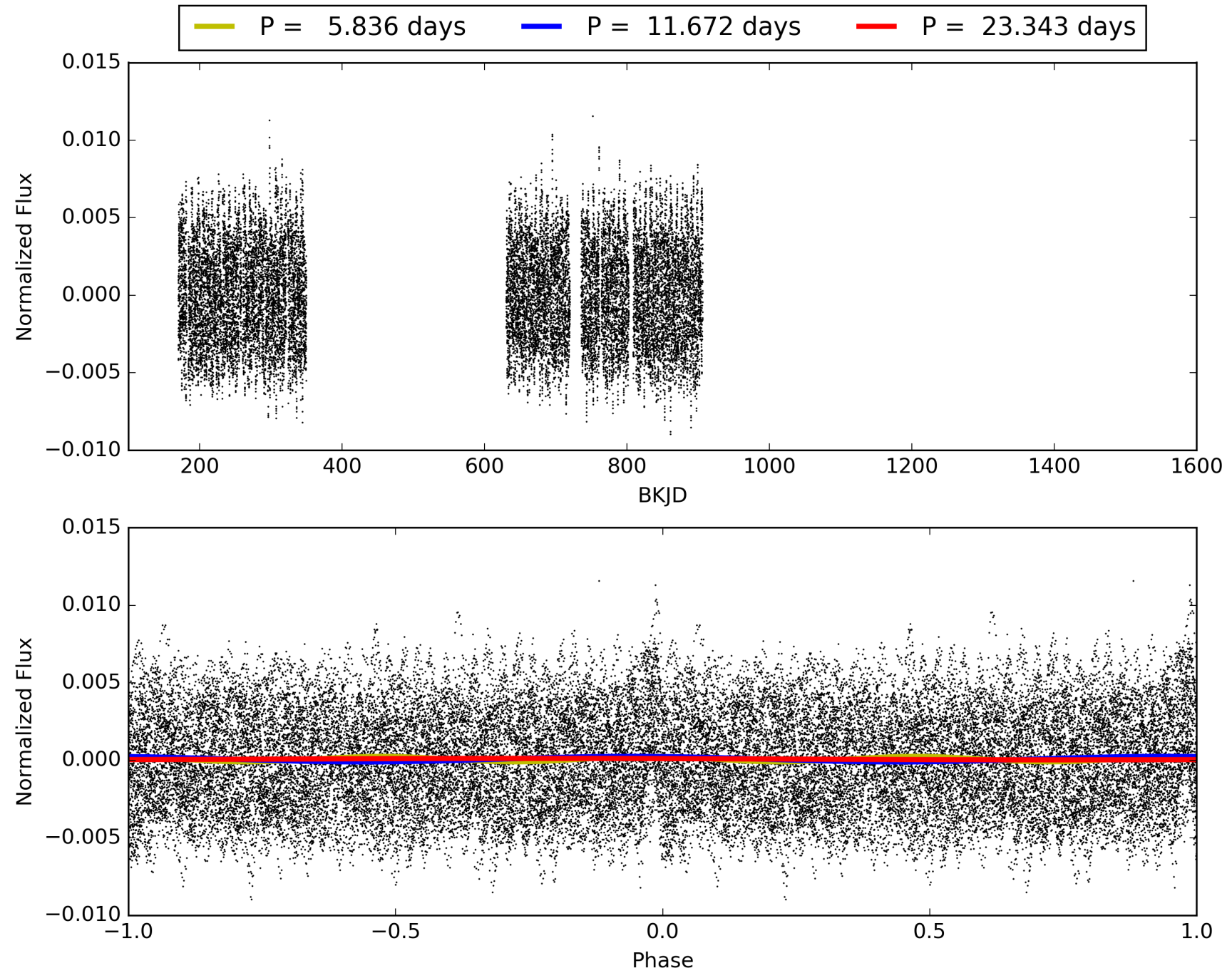
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003561700-01, PDC Light Curves

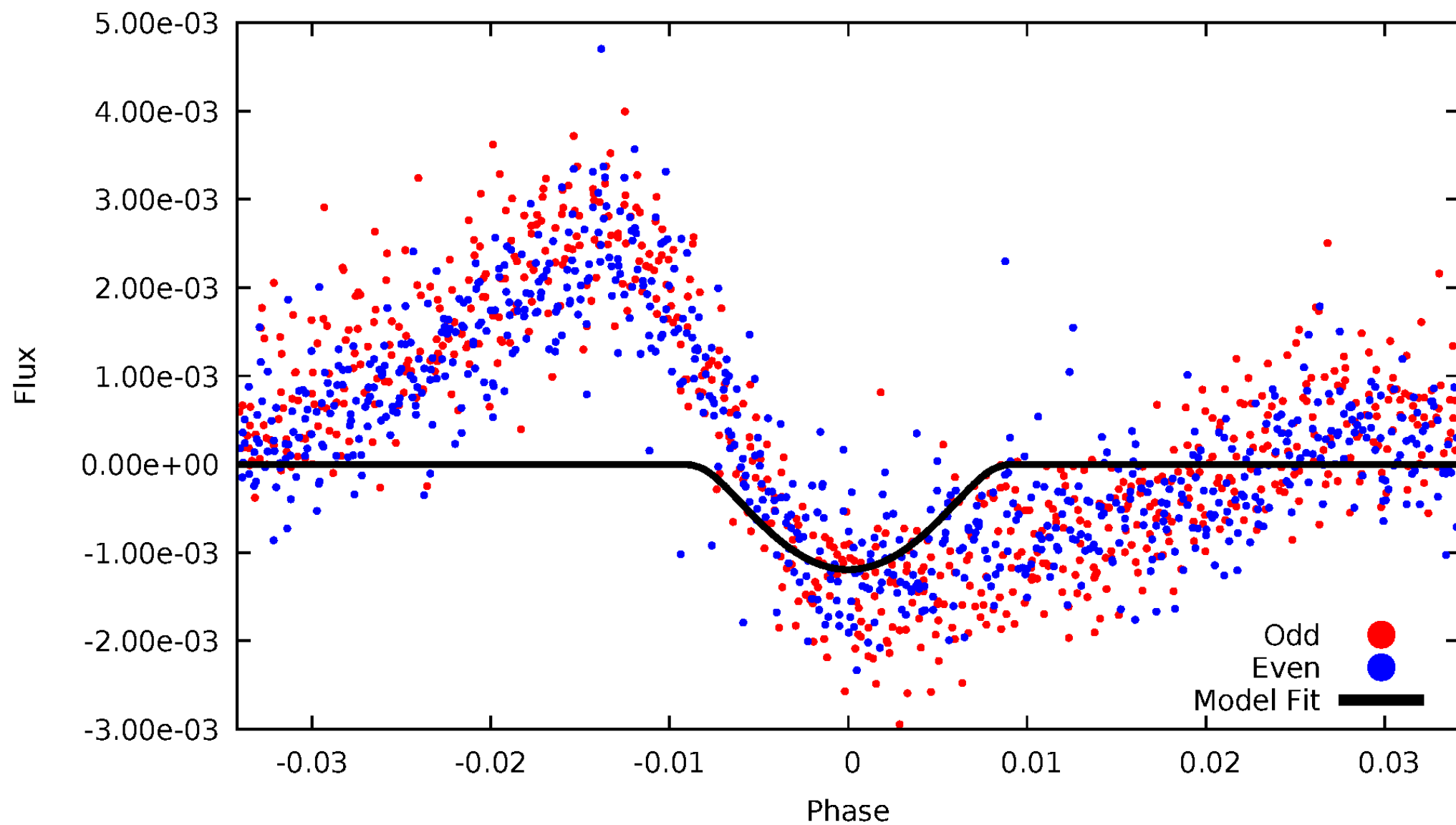


TCE 003561700-01



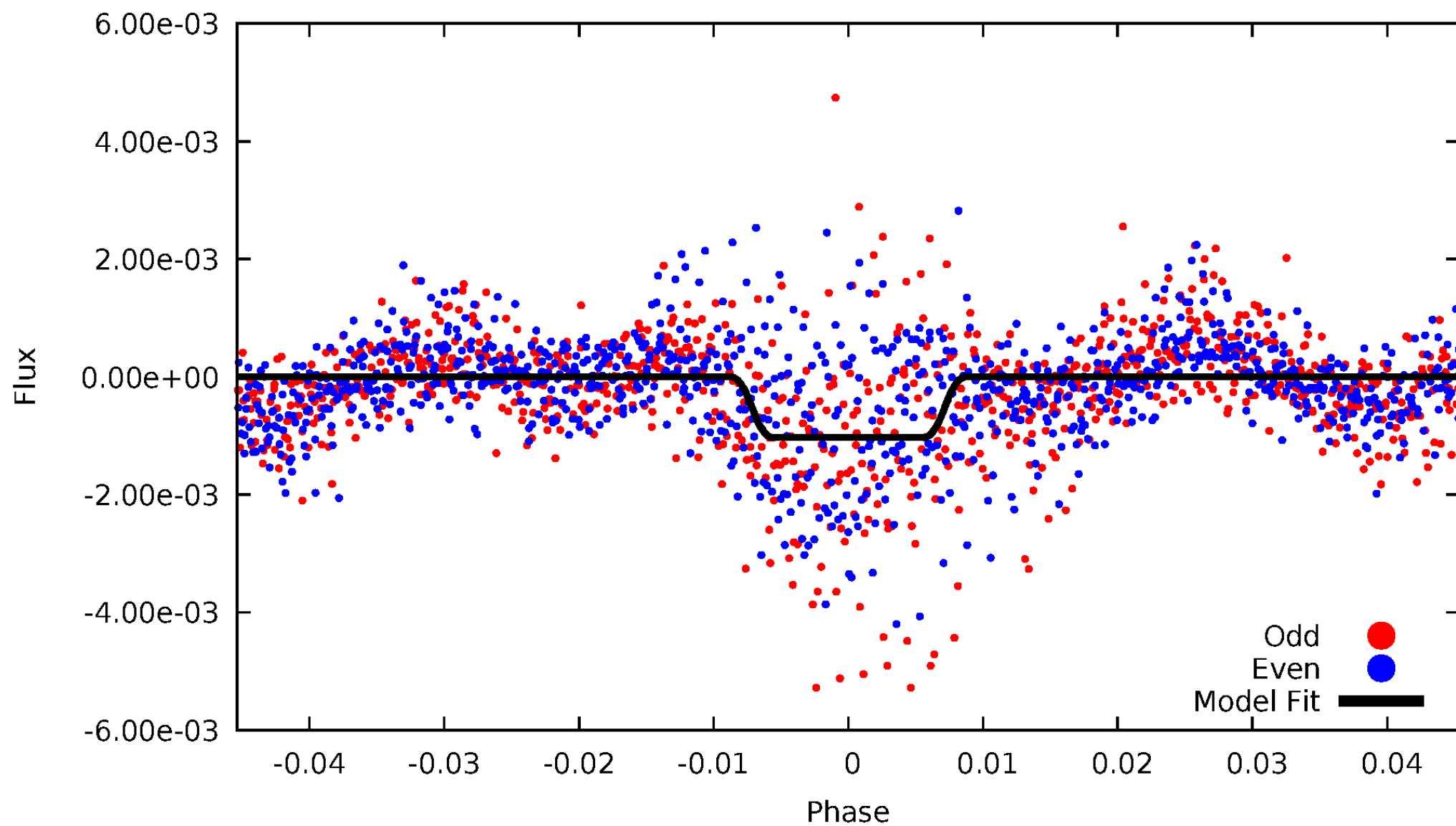
DV Odd/Even

TCE 003561700-01

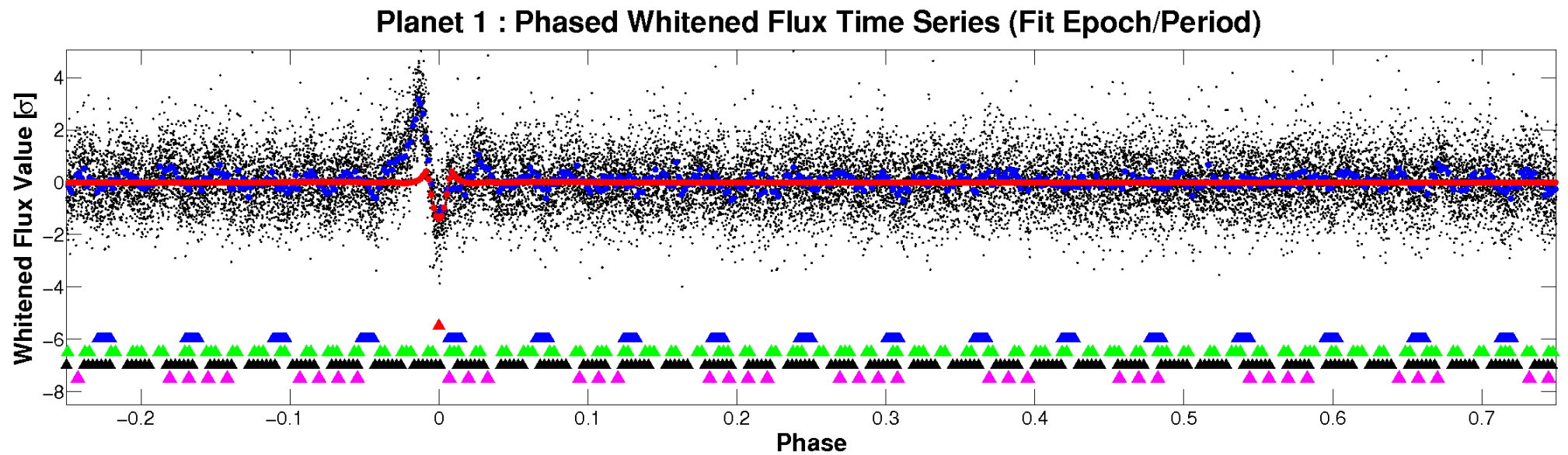
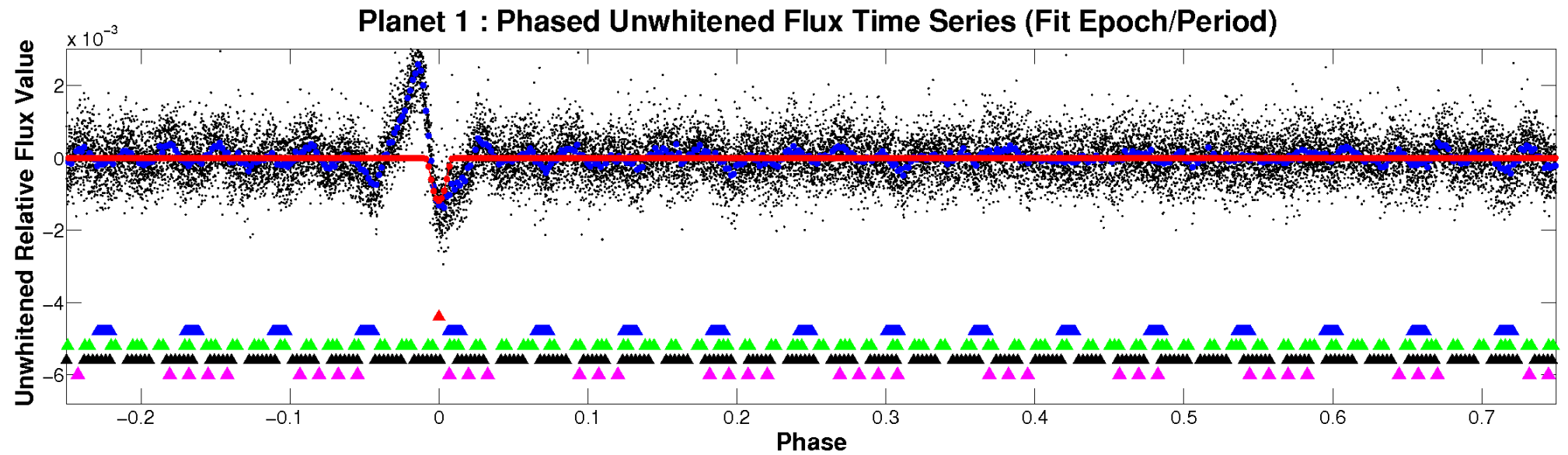


ALT Odd/Even

TCE 003561700-01



Non-Whitened Vs. Whitened Light Curve



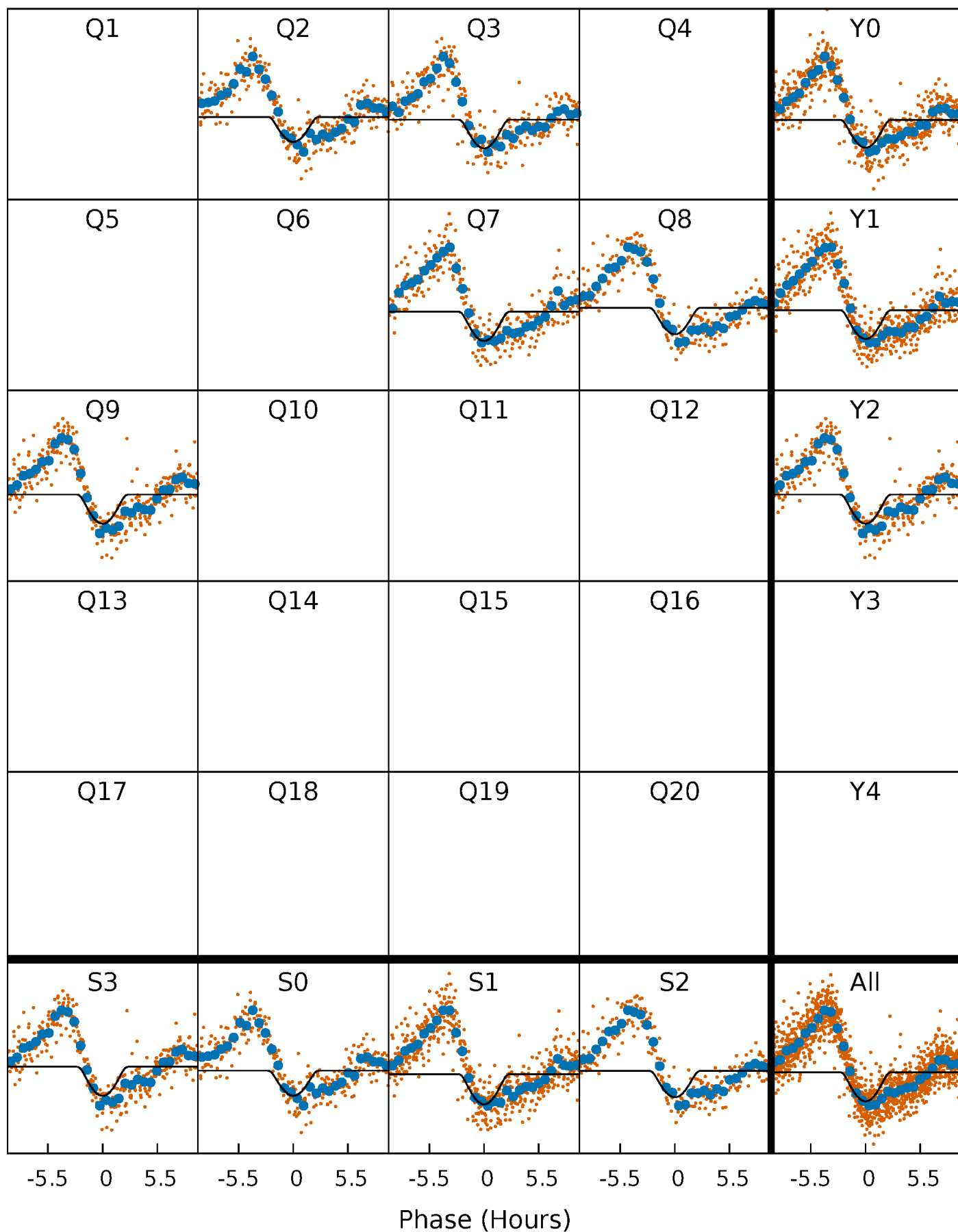
PDC Quarter-Phased Transit Curves

TCE 003561700-01 P= 11.671715 Days $T_0=134.762643$ (BKJD)



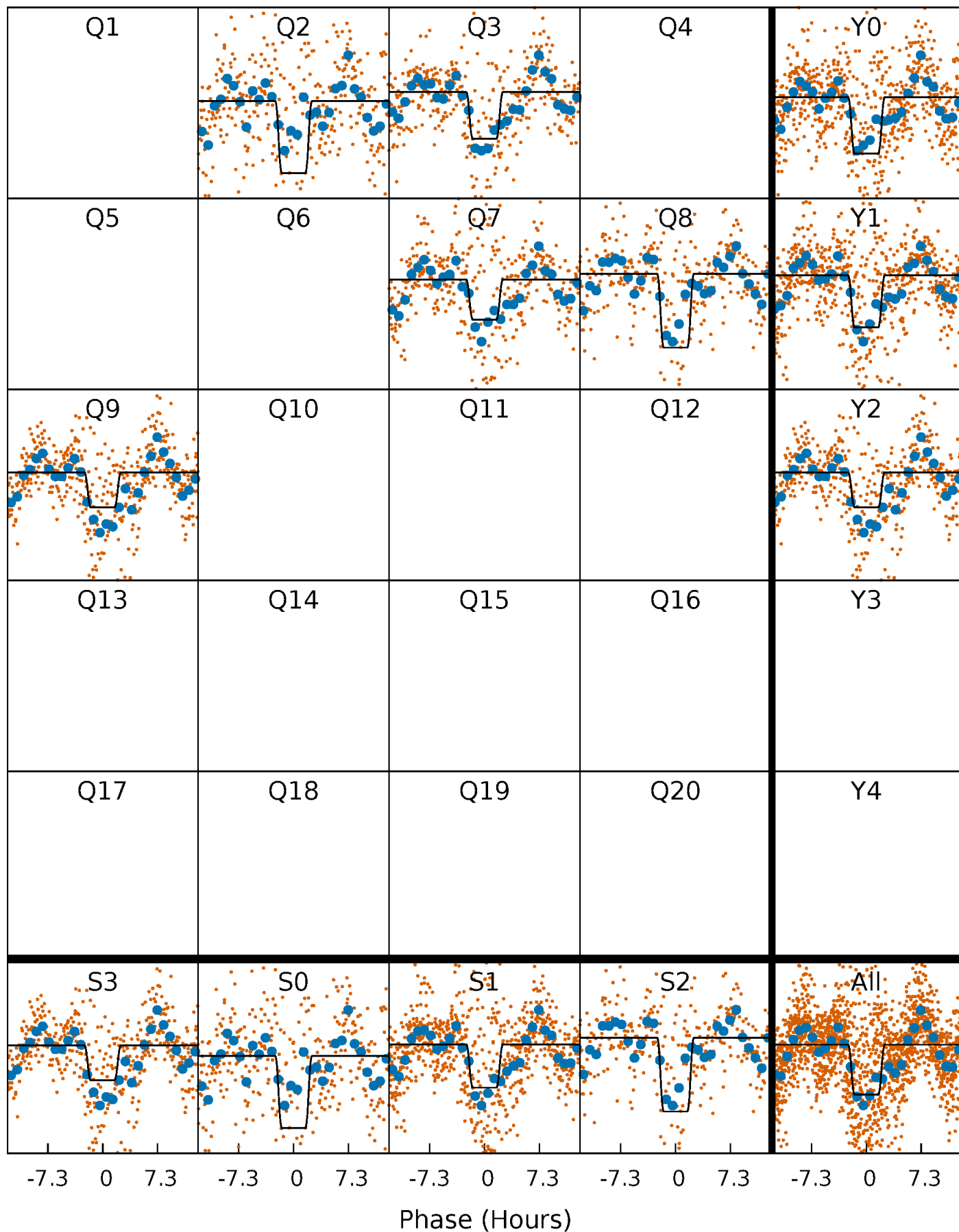
DV Quarter-Phased Transit Curves

TCE 003561700-01 P= 11.671715 Days $T_0=134.762643$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

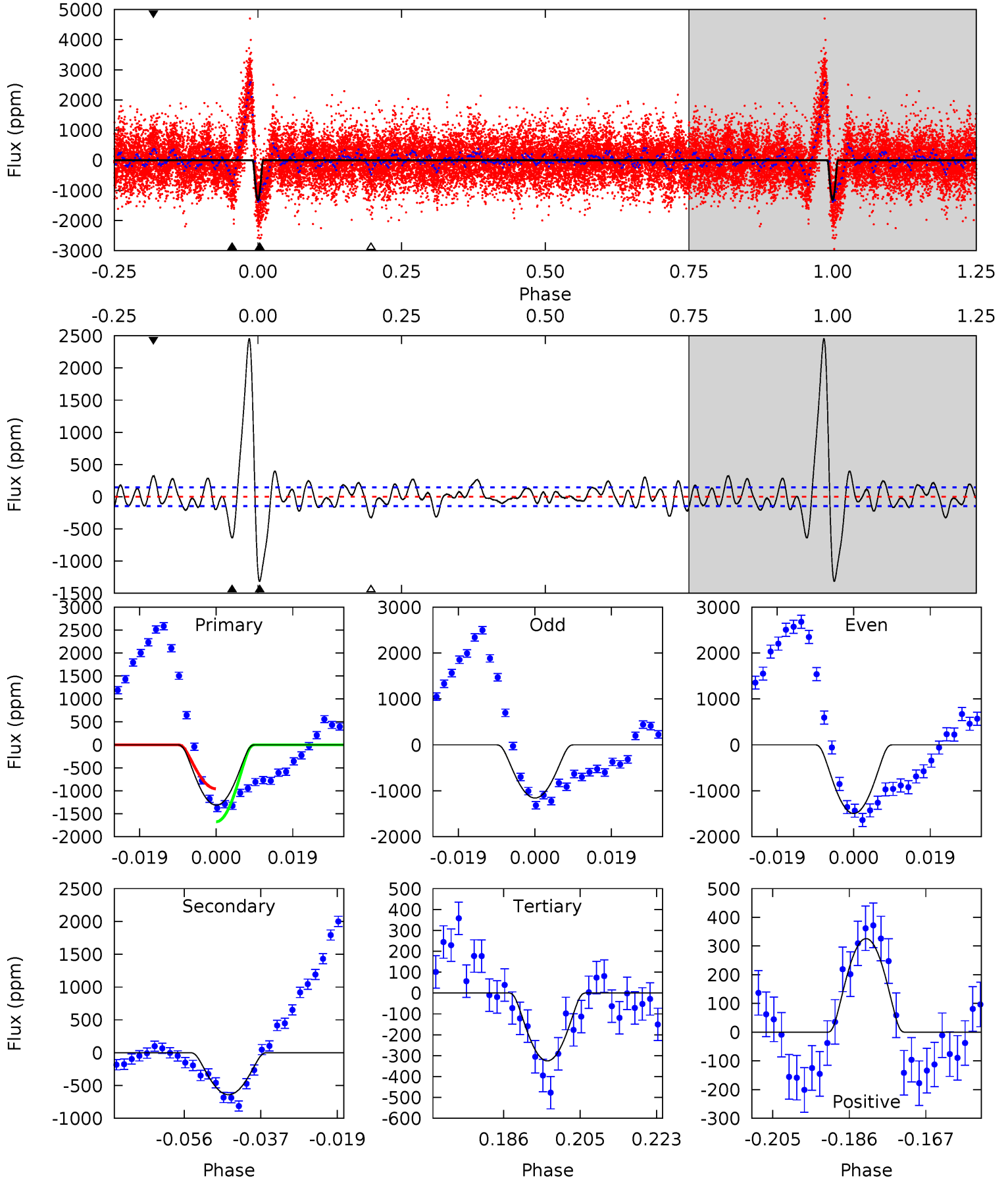
TCE 003561700-01 P= 11.671847 Days $T_0=134.761176$ (BKJD)



DV Model-Shift Uniqueness Test

003561700-01, P = 11.671715 Days, E = 134.762643 Days

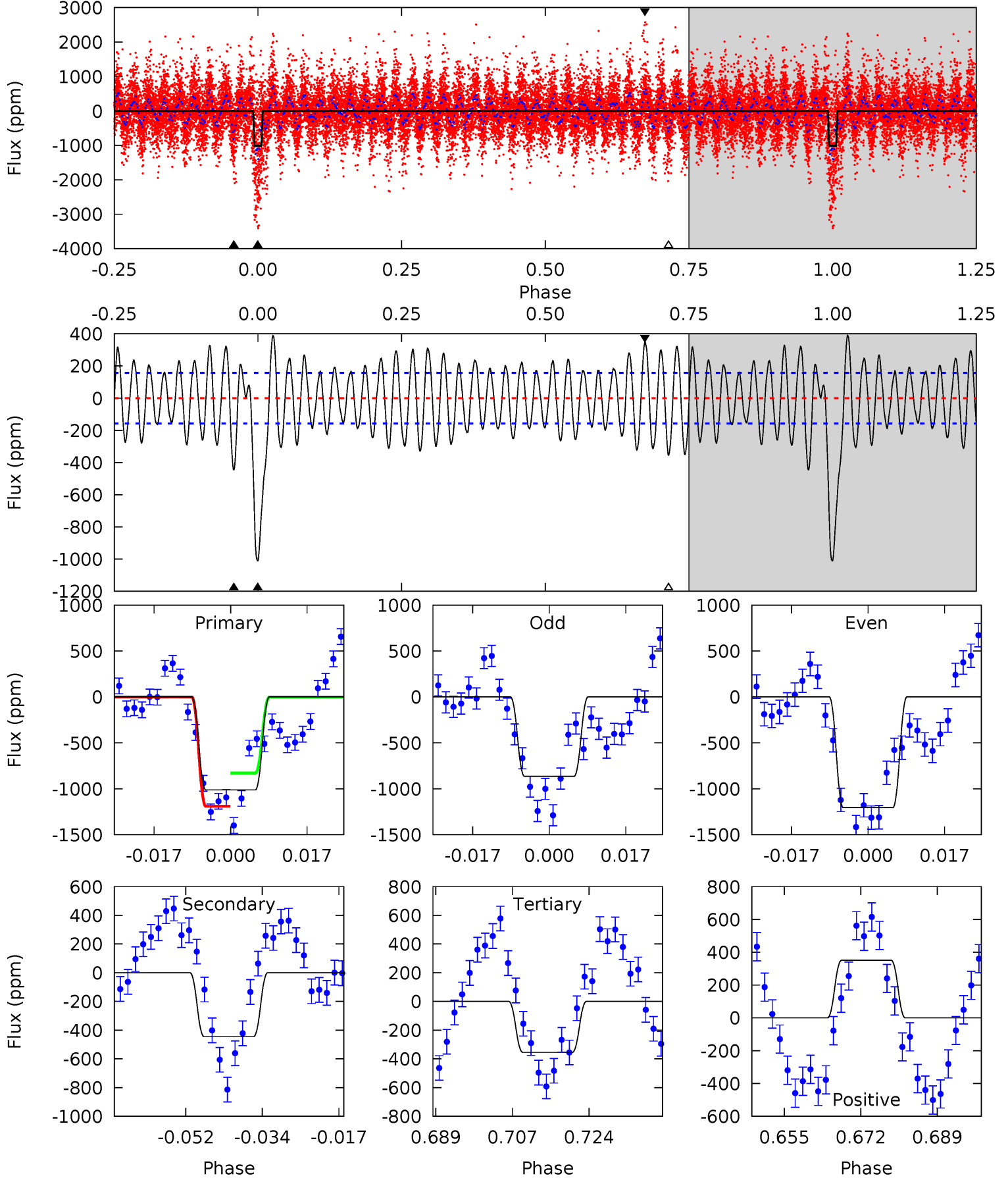
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.5	21.7	11.0	11.0	4.91	2.35	8.46	33.5	33.5	10.7	10.6	5.69	1.07	0.65	12.3



Alt Model-Shift Uniqueness Test

003561700-01, P = 11.671847 Days, E = 134.761176 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.7	13.9	11.1	11.0	4.92	2.38	5.59	20.6	20.7	2.82	2.94	5.32	1.19	0.28	5.56



Stellar Parameters For KIC 003561700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11076^{+381}_{-495}	$3.989^{+0.279}_{-0.150}$	$0.070^{+0.150}_{-0.650}$	$2.896^{+0.605}_{-1.123}$	$2.984^{+0.201}_{-0.754}$	$0.173^{+0.339}_{-0.078}$
	+3%/-4%	+7%/-4%	+214%/-929%	+21%/-39%	+7%/-25%	+196%/-45%
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 003561700-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-640 ± 29	$21.08^{+21.43}_{-13.46}$	3019^{+255}_{-293}	5830^{+5081}_{-1494}	16^{+116}_{-12}
Alt.	-445 ± 32	$18.04^{+19.32}_{-11.95}$	3023^{+242}_{-296}	5723^{+5716}_{-1490}	15^{+116}_{-12}

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

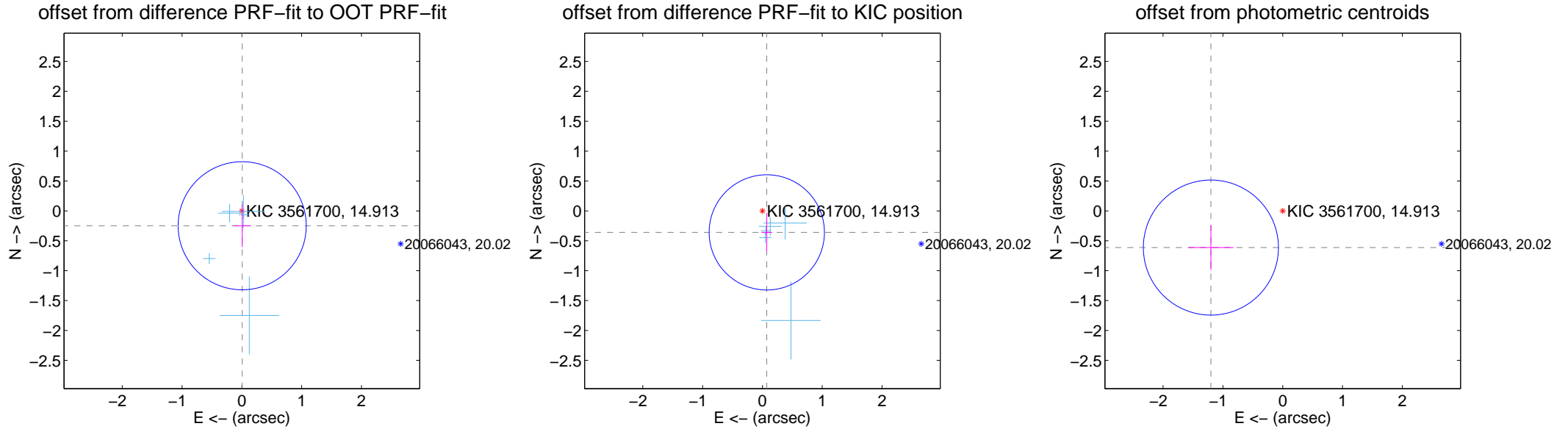
DV Centroid Data

Supplemental centroid analysis for 003561700-01. Kepler magnitude: 14.91. Transit SNR 17.46

There are 5 quarters with good PRF difference image offsets

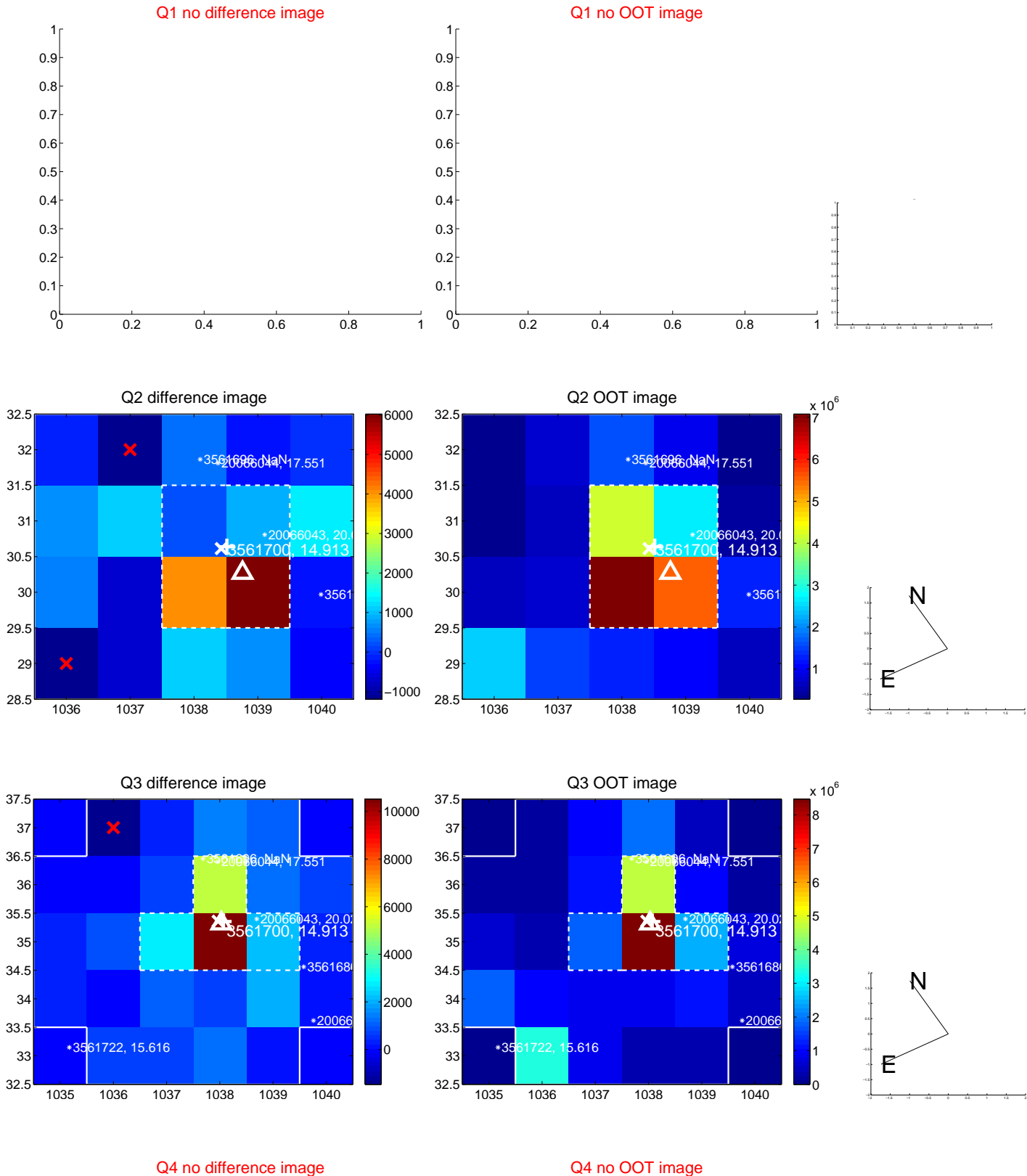
The direct PRF centroid is offset from the target star catalog position by about 0.69 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.249 ± 0.357	0.70	-0.006 ± 0.148	-0.249 ± 0.356
PRF-fit source offset from KIC position	0.367 ± 0.321	1.14	-0.073 ± 0.092	-0.359 ± 0.320
photometric centroid source offset	1.35 ± 0.38	3.58	1.20 ± 0.38	-0.61 ± 0.38



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

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



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

Q5 no difference image



Q5 no OOT image



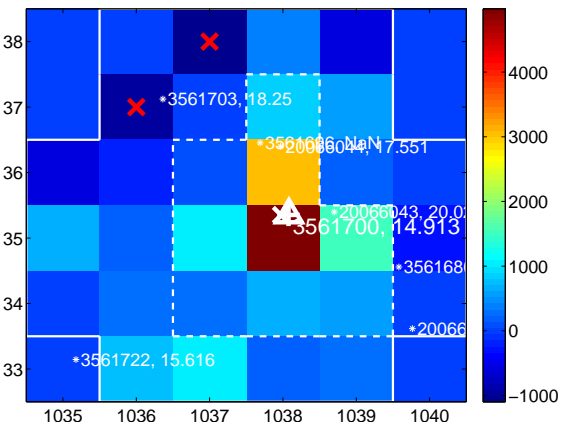
Q6 no difference image



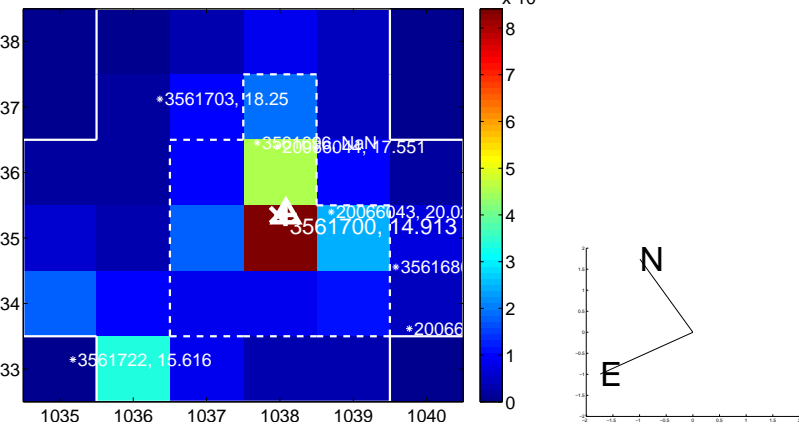
Q6 no OOT image



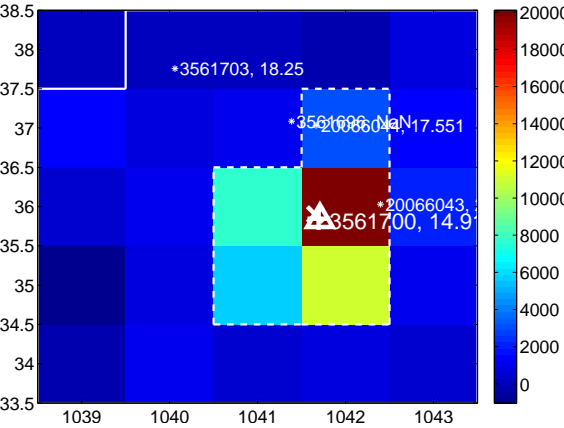
Q7 difference image



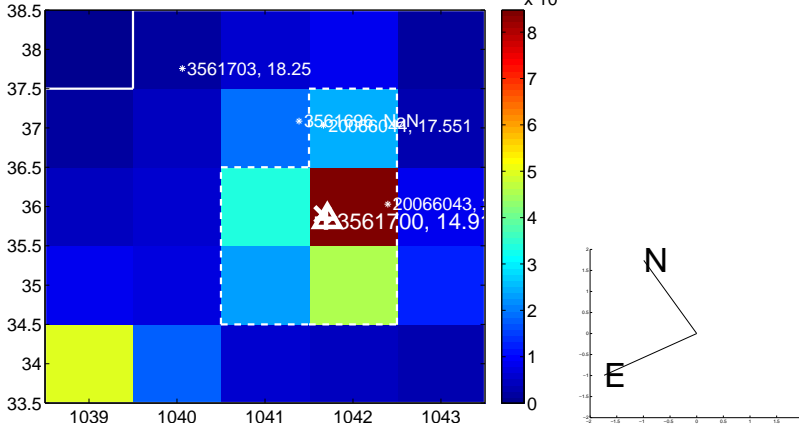
Q7 OOT image



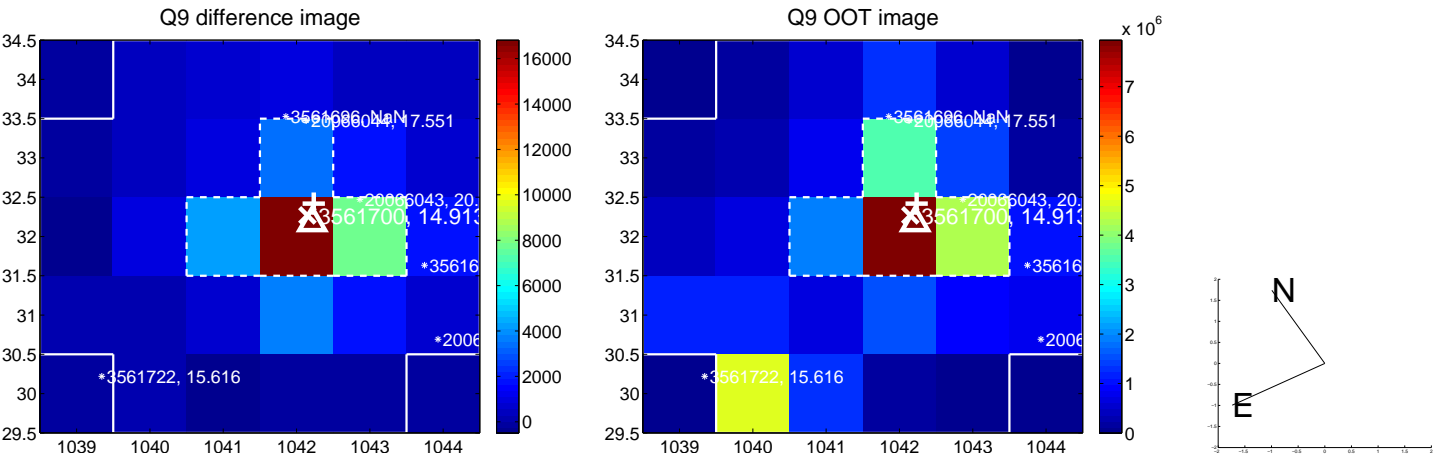
Q8 difference image



Q8 OOT image



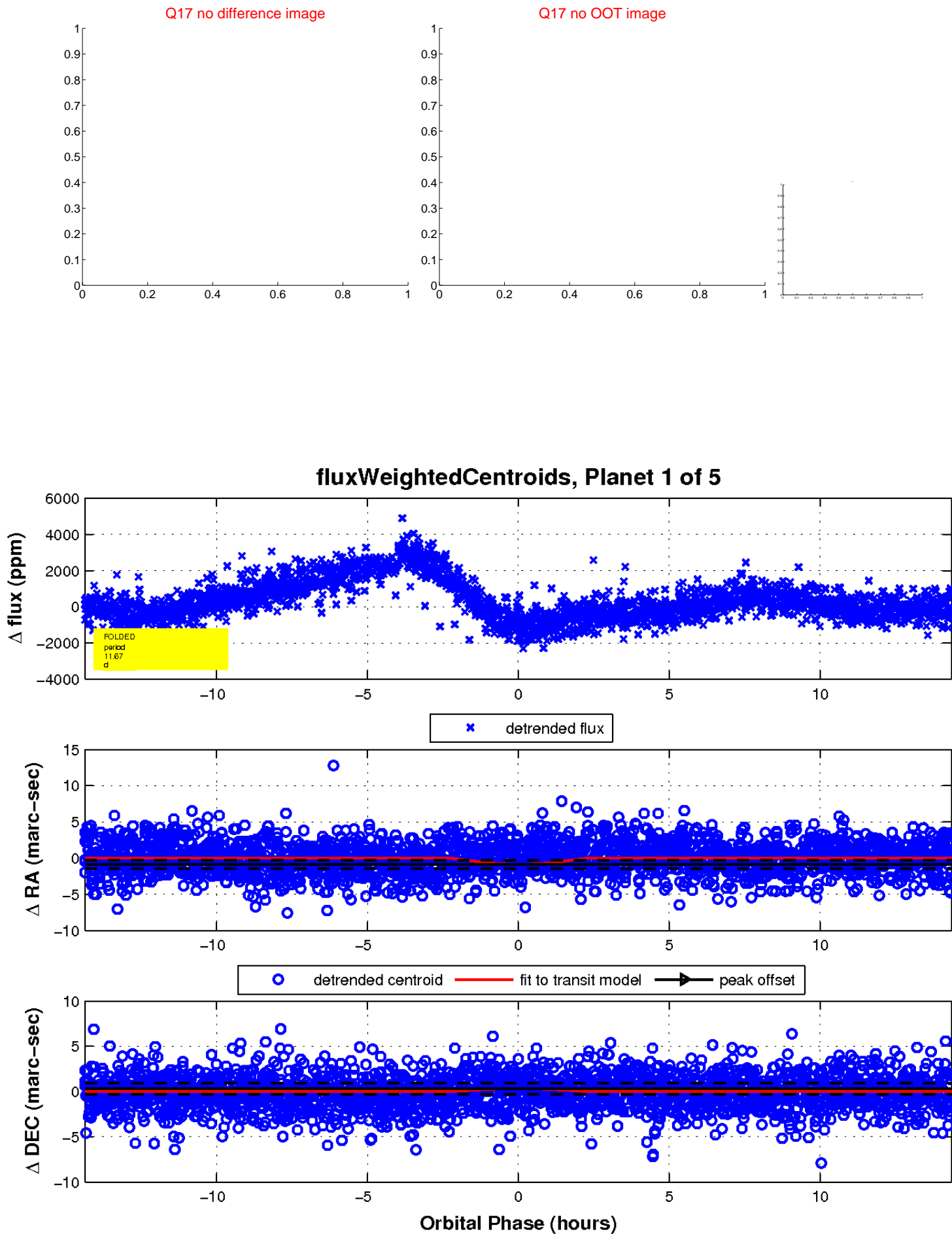
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

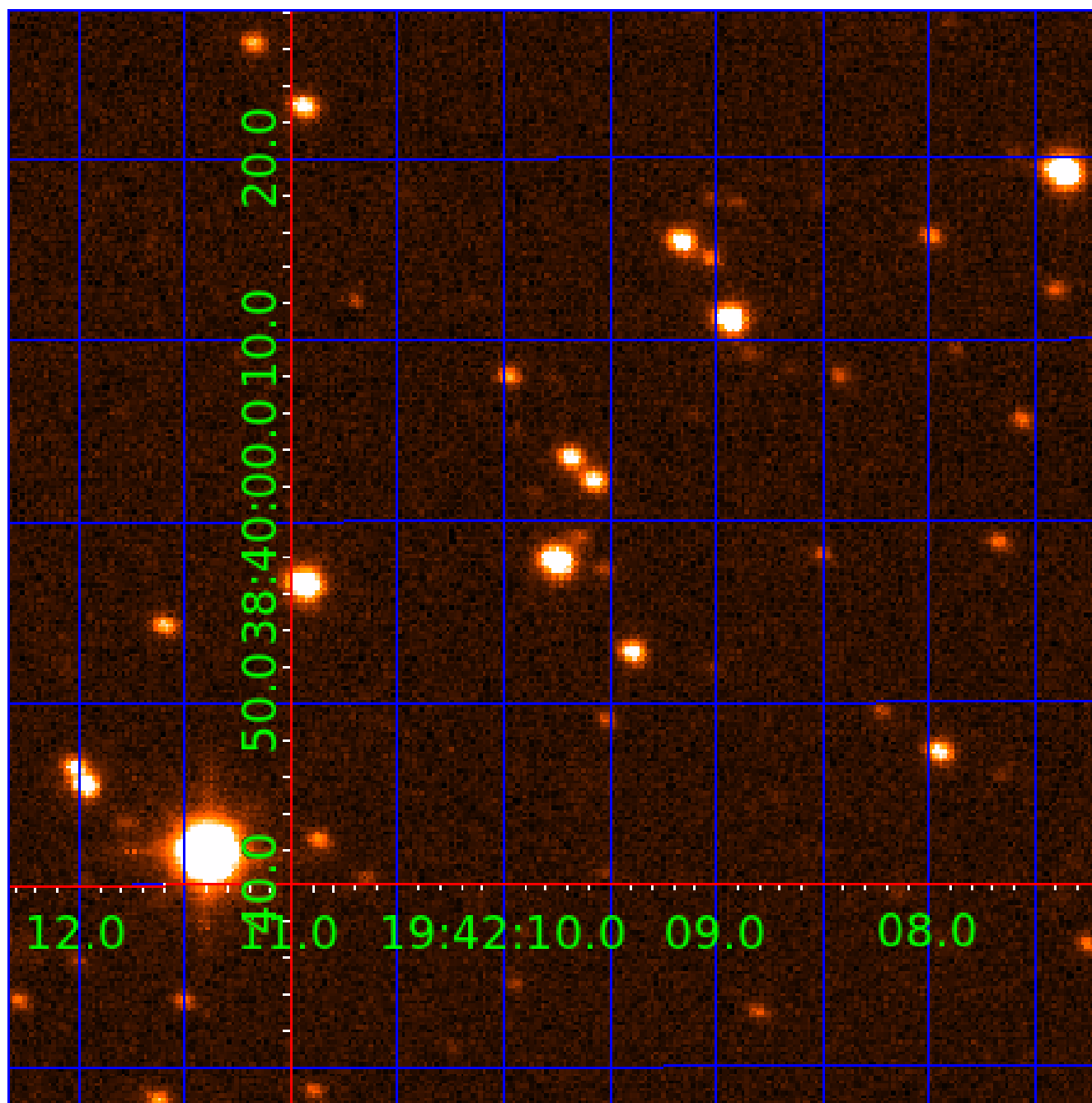


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003561700

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})
003561700-01	OBS	No	11.671715	134.762643	1192.2	4.789	17.1	17.5	2.90	11076	16.94	5379.96
003561700-02	OBS	No	0.686521	132.194517	57.9	4.851	9.4	5.2	2.90	11076	2.32	235190.70
003561700-03	OBS	No	10.140431	137.605161	1008.9	2.998	11.7	11.6	2.90	11076	10.04	6489.58
003561700-04	OBS	No	6.159135	134.464778	902.1	1.809	10.3	12.4	2.90	11076	9.72	12616.31
003561700-05	OBS	No	39.245731	133.104744	1370.3	1.500	9.1	-1.0	2.90	11076	11.08	1067.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003561700-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
003561700-02	OBS	FP	0.00	1	0	0	0	LPP_DV
003561700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

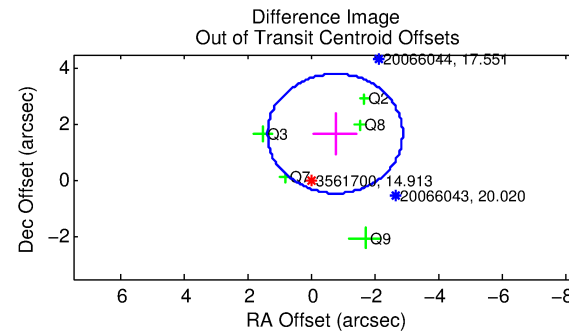
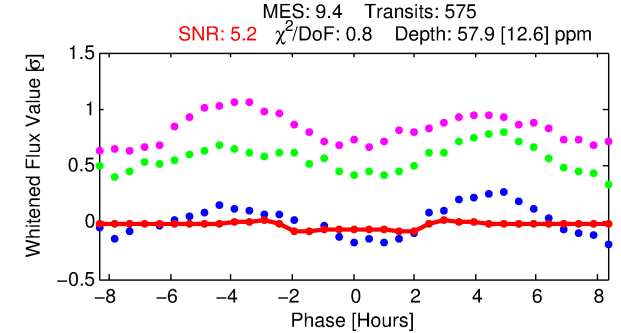
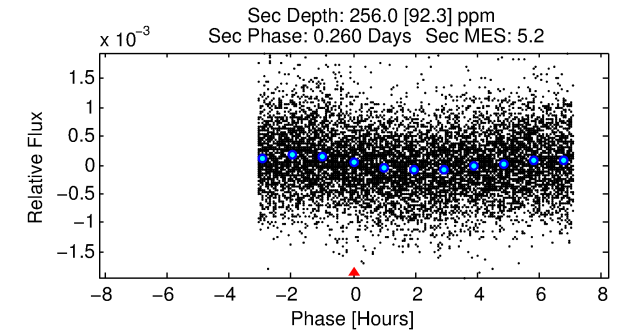
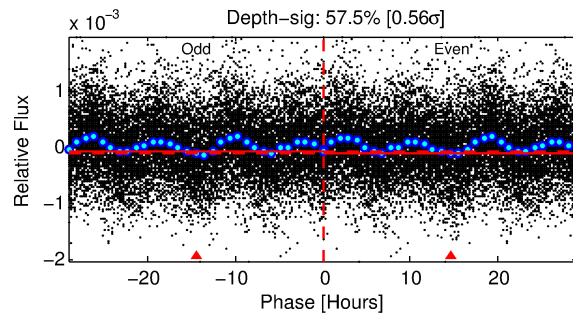
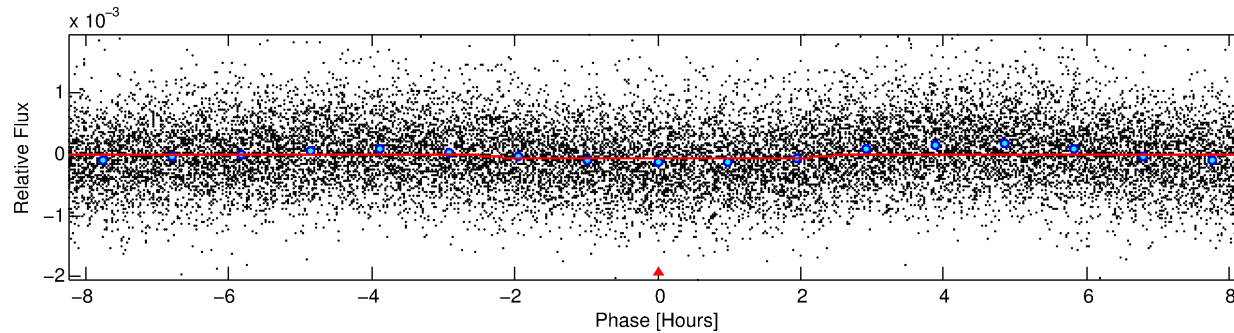
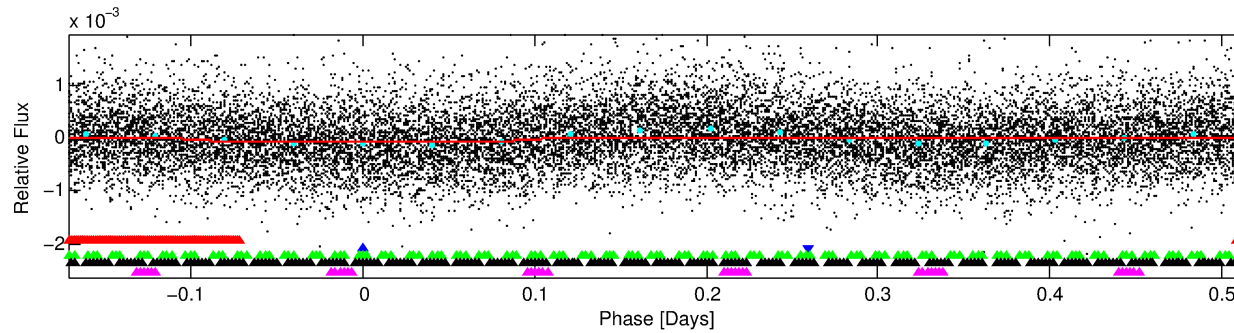
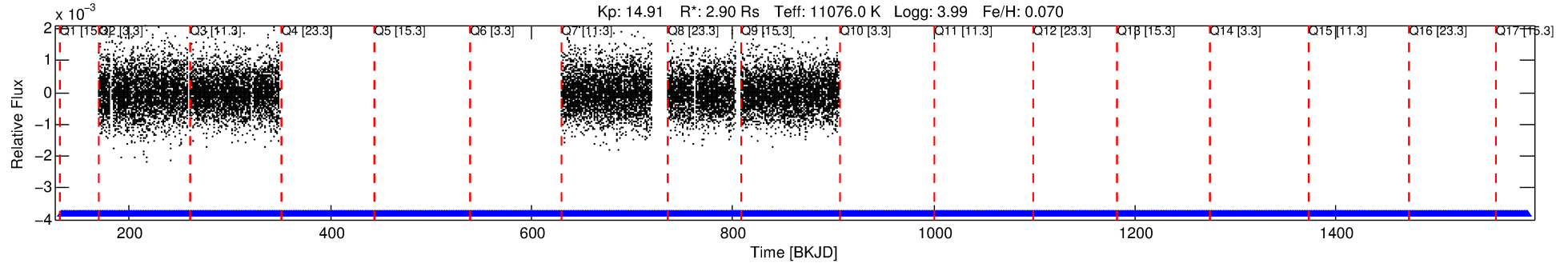
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003561700-02

No Significant Match Found

DV One-Page Summary

KIC: 3561700 Candidate: 2 of 5 Period: 0.687 d



DV Fit Results:

Period = 0.68652 [0.00002] d
Epoch = 132.1945 [0.0063] BKJD
Rp/R* = 0.0073 [0.0081]
a/R* = 1.20 [3.15]
b = 0.53 [12.03]
Seff = 235190.70 [124941.98]
Teq = 5615 [746] K
Rp = 2.32 [2.70] Re
a = 0.0219 [0.0074] AU
Ag = 12.60 [28.74] [0.40 σ]
Teffp = 16359 [9127] K [1.1 τ]

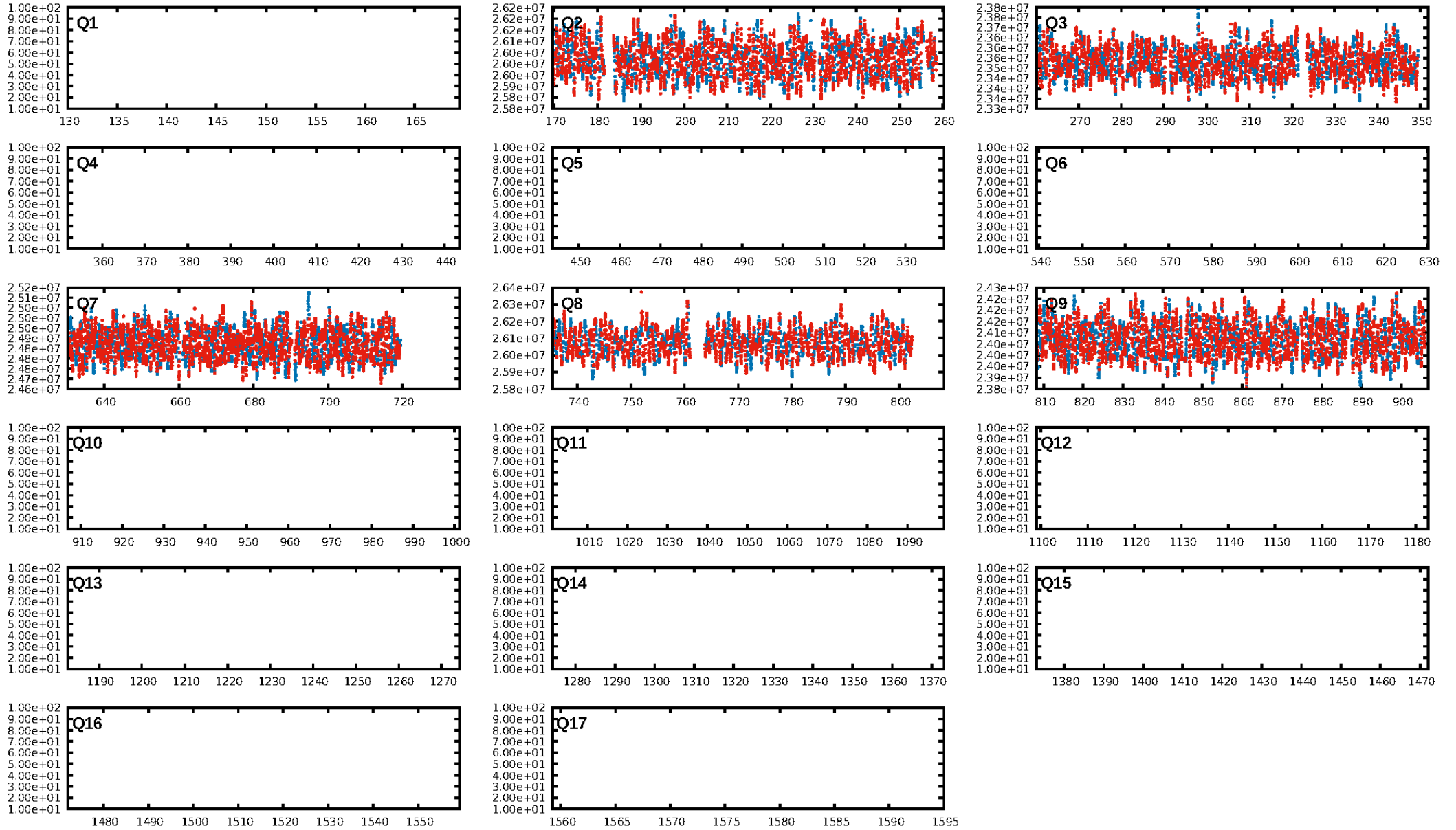
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [25.37 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.45e-11
RollingBand-fgt: 1.00 [575/575]
GhostDiagnostic-chr: 1.015
Centroid-sig: 4.7%
Centroid-so: 2.396 arcsec [1.65 σ]
OotOffset-rm: 1.833 arcsec [2.59 σ]
OotOffset-st: 1/2/1/1 [5]
KicOffset-rm: 1.815 arcsec [2.68 σ]
KicOffset-st: 1/2/1/1 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 1.00 [5/5]

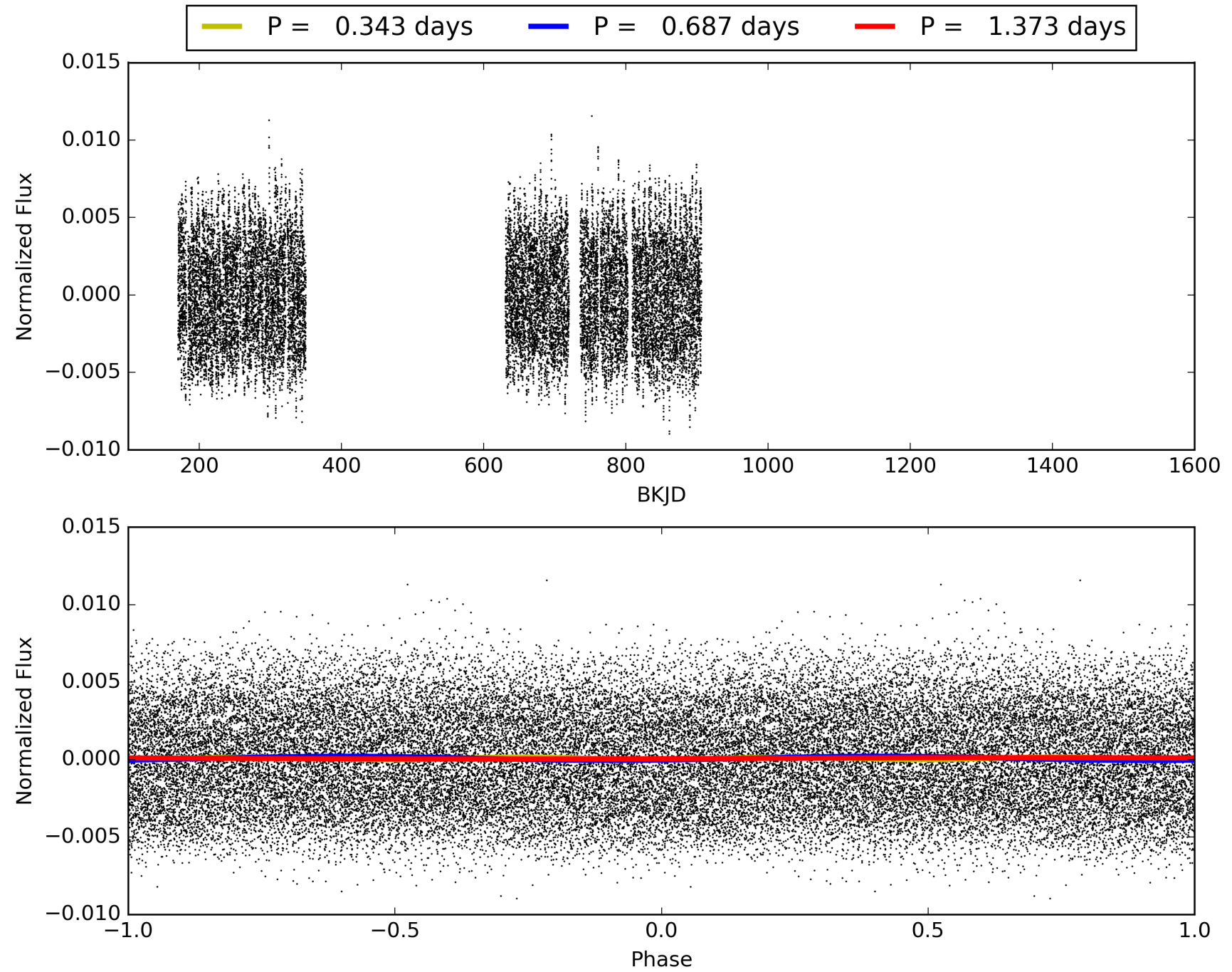
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:37:10 Z

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

TCE 003561700-02, PDC Light Curves

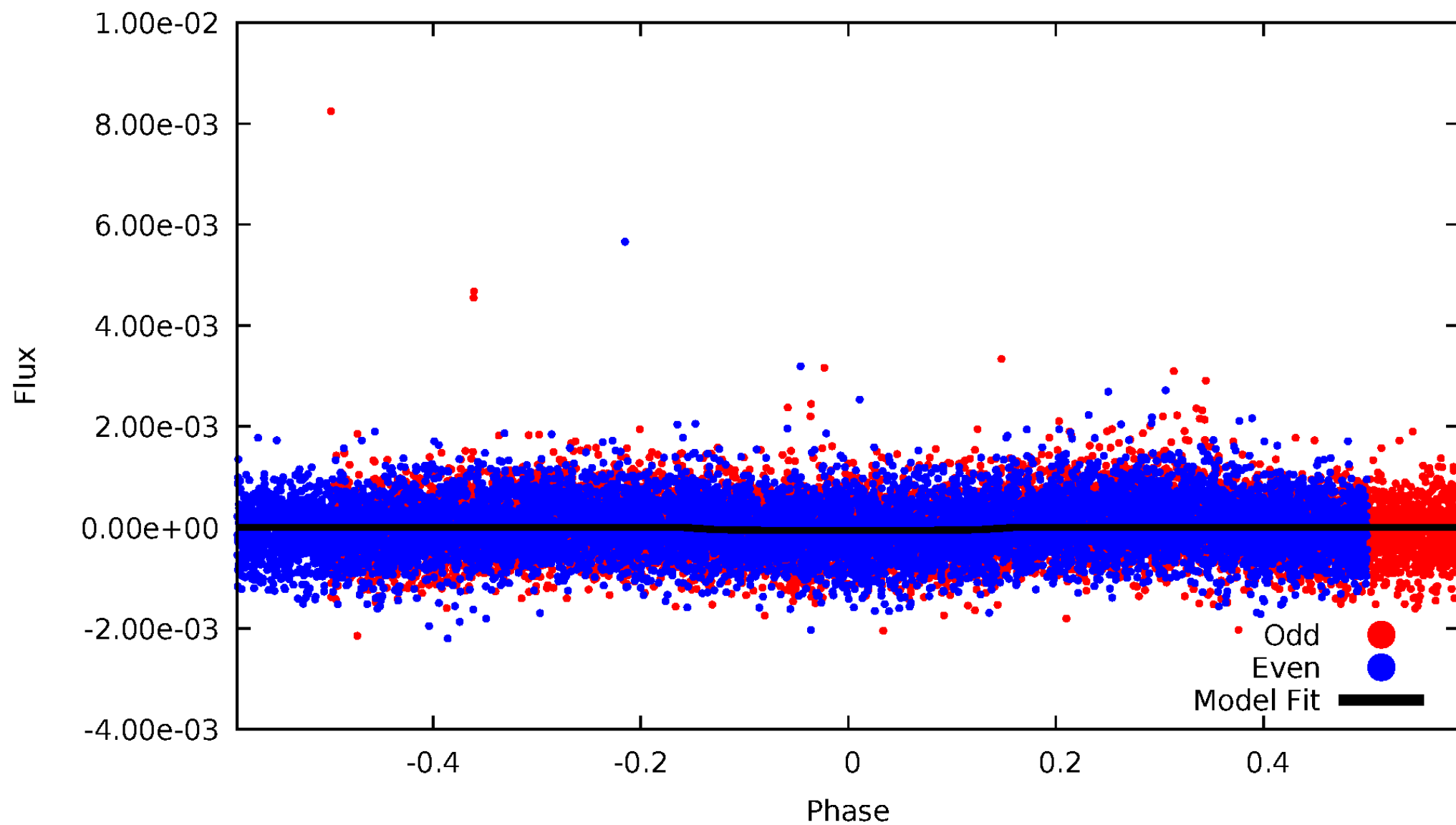


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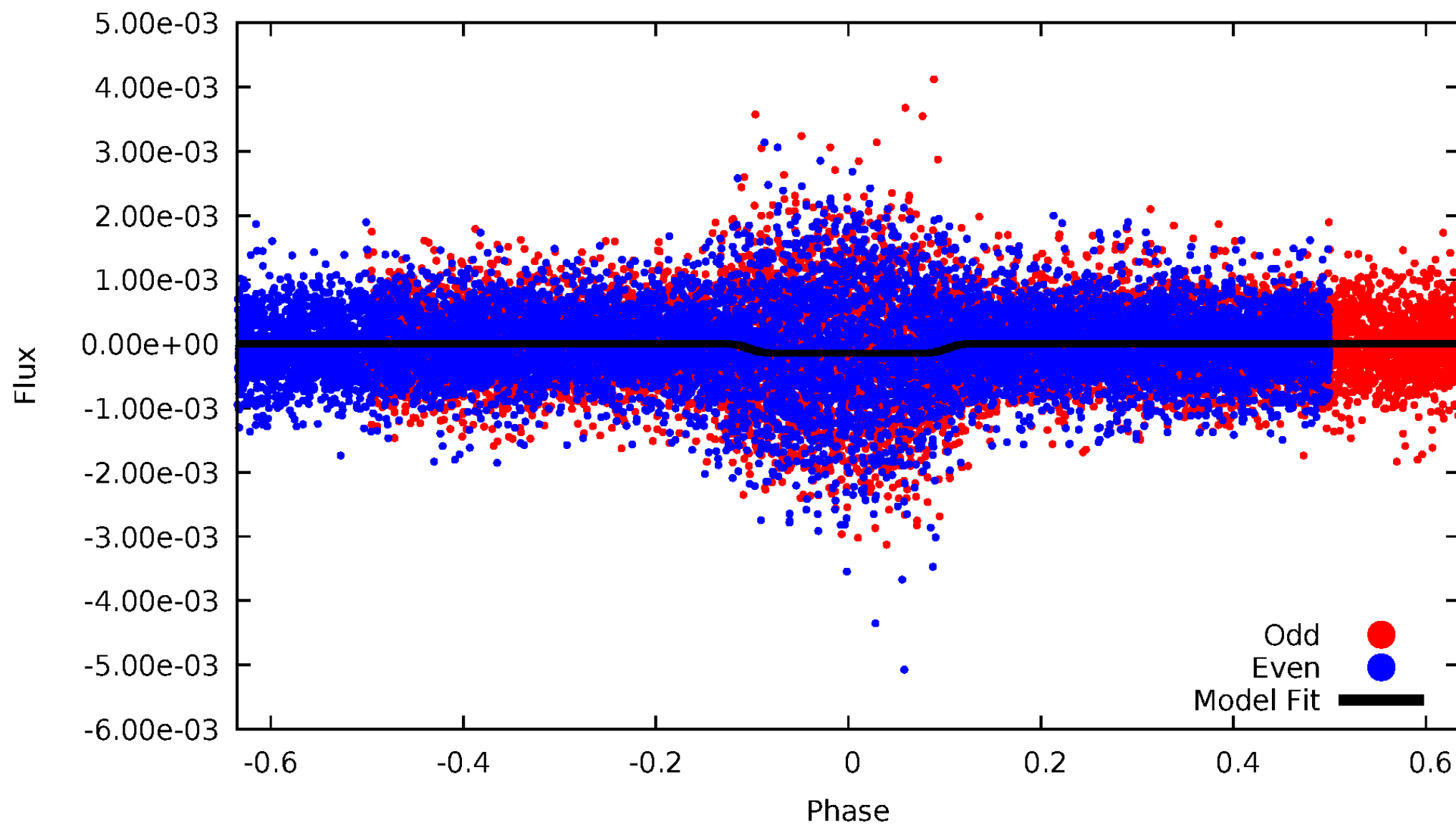
DV Odd/Even

TCE 003561700-02



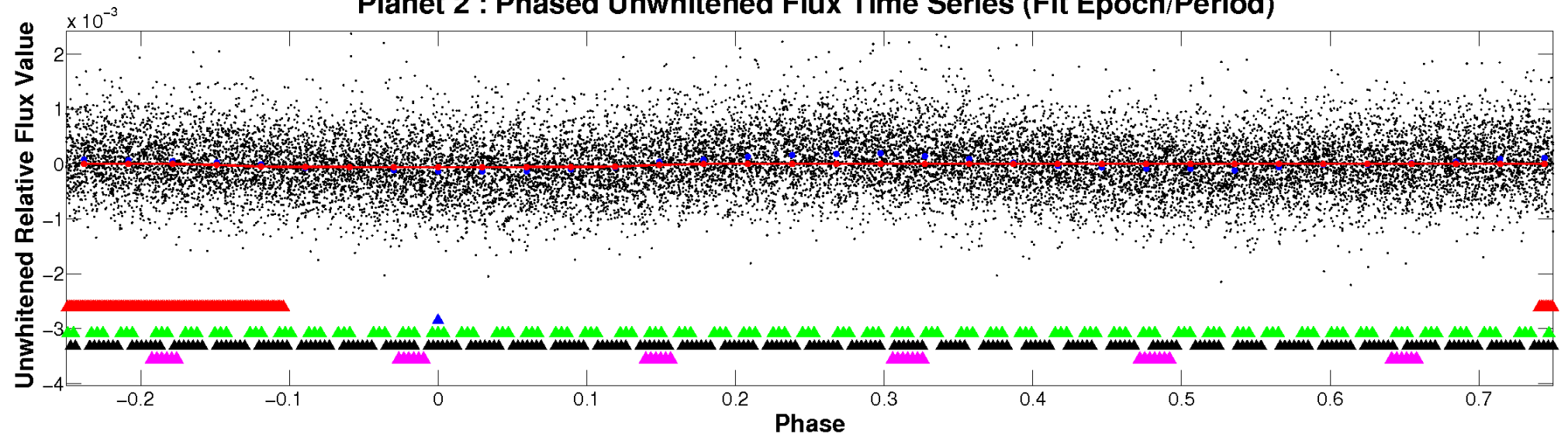
ALT Odd/Even

TCE 003561700-02

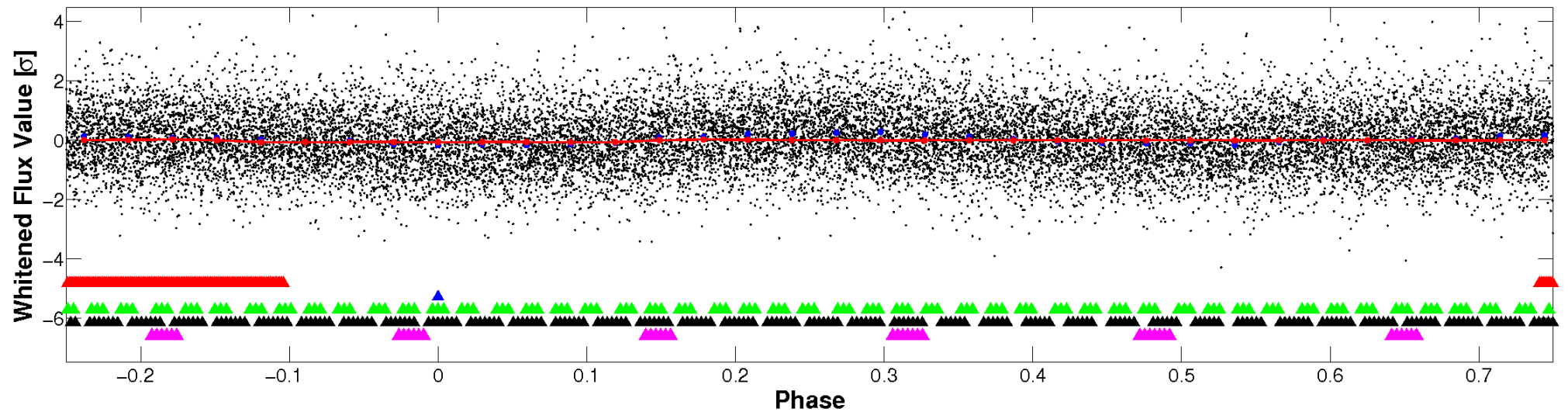


Non-Whitened Vs. Whitened Light Curve

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

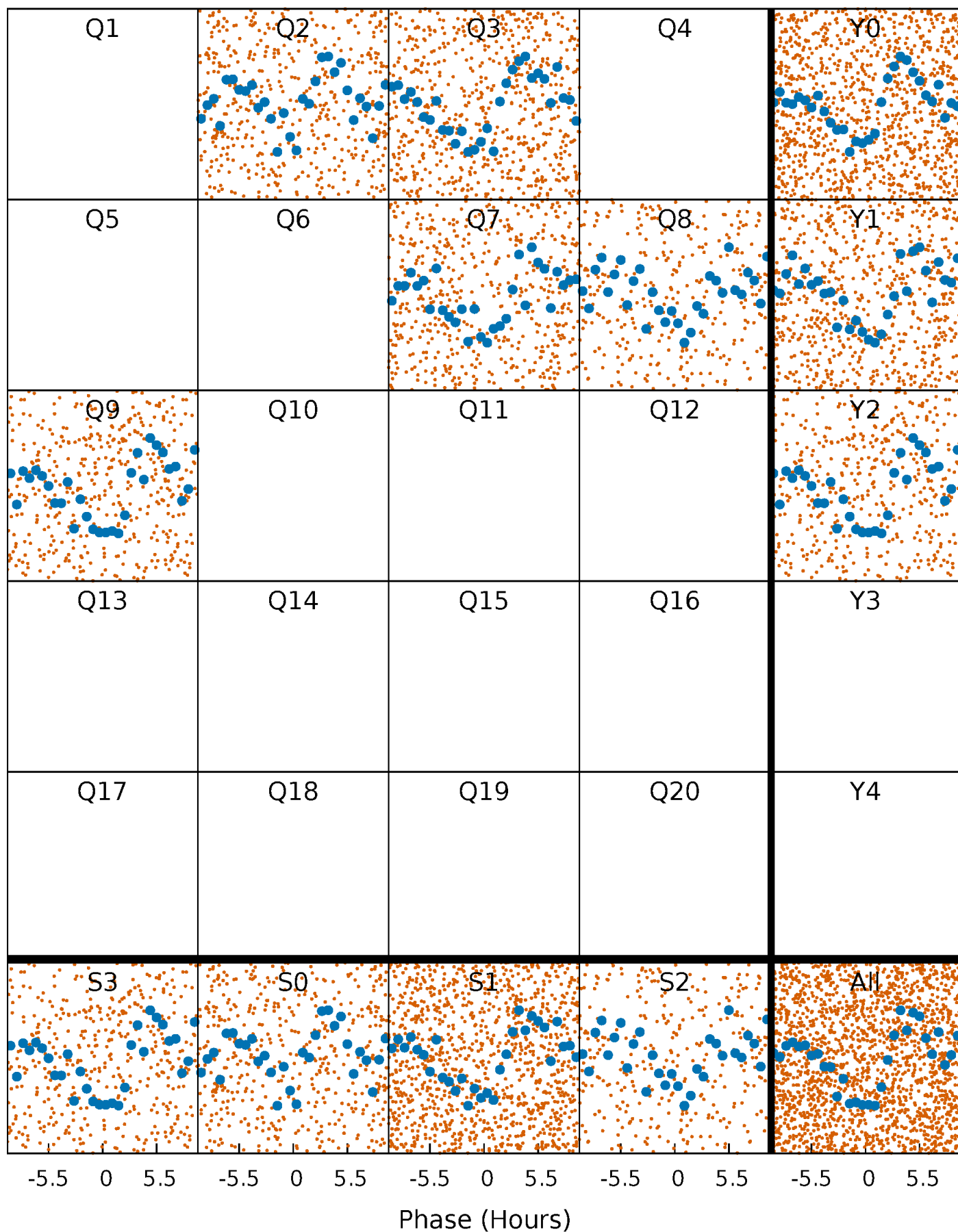


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



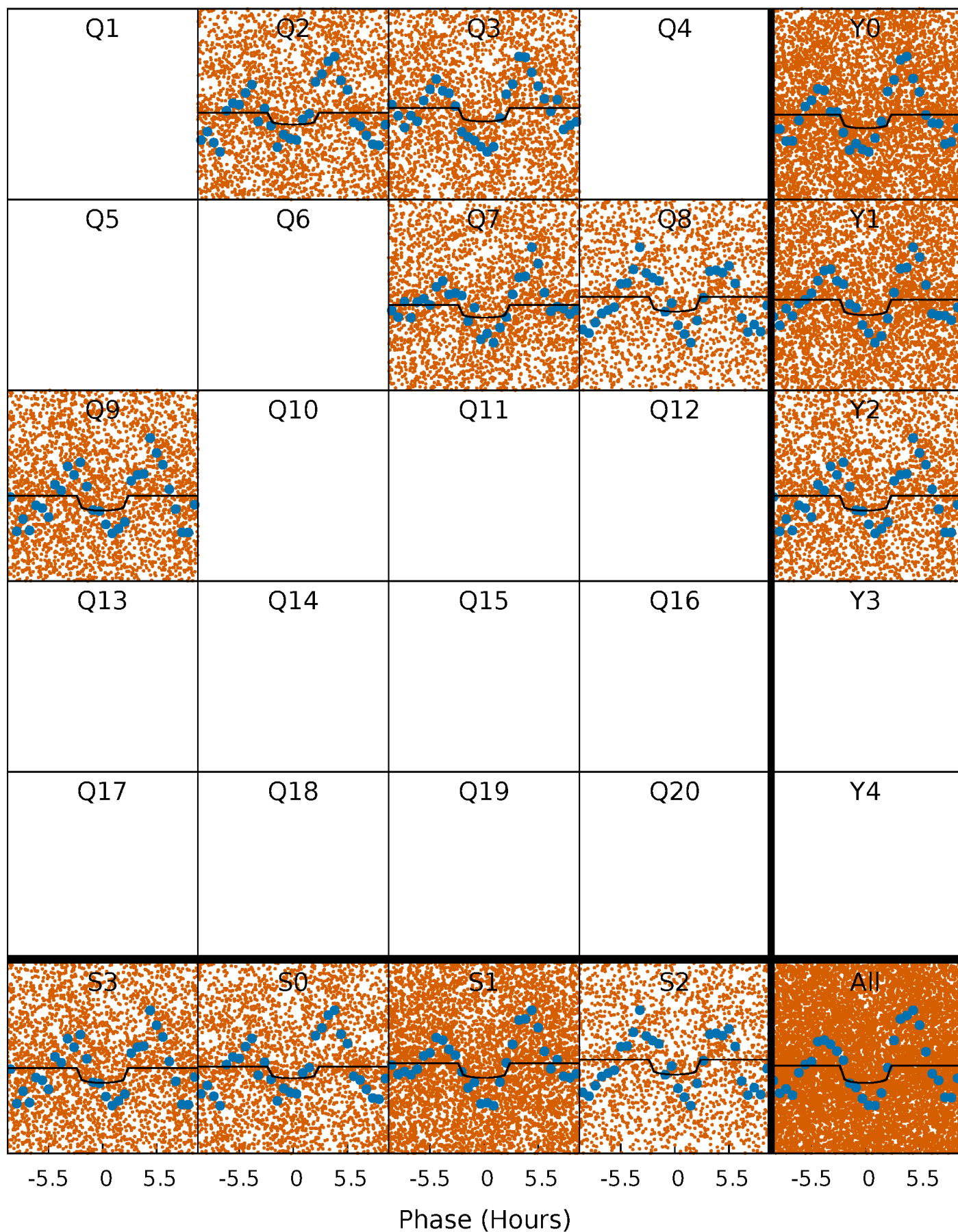
PDC Quarter-Phased Transit Curves

TCE 003561700-02 P= 0.686521 Days $T_0=132.194517$ (BKJD)



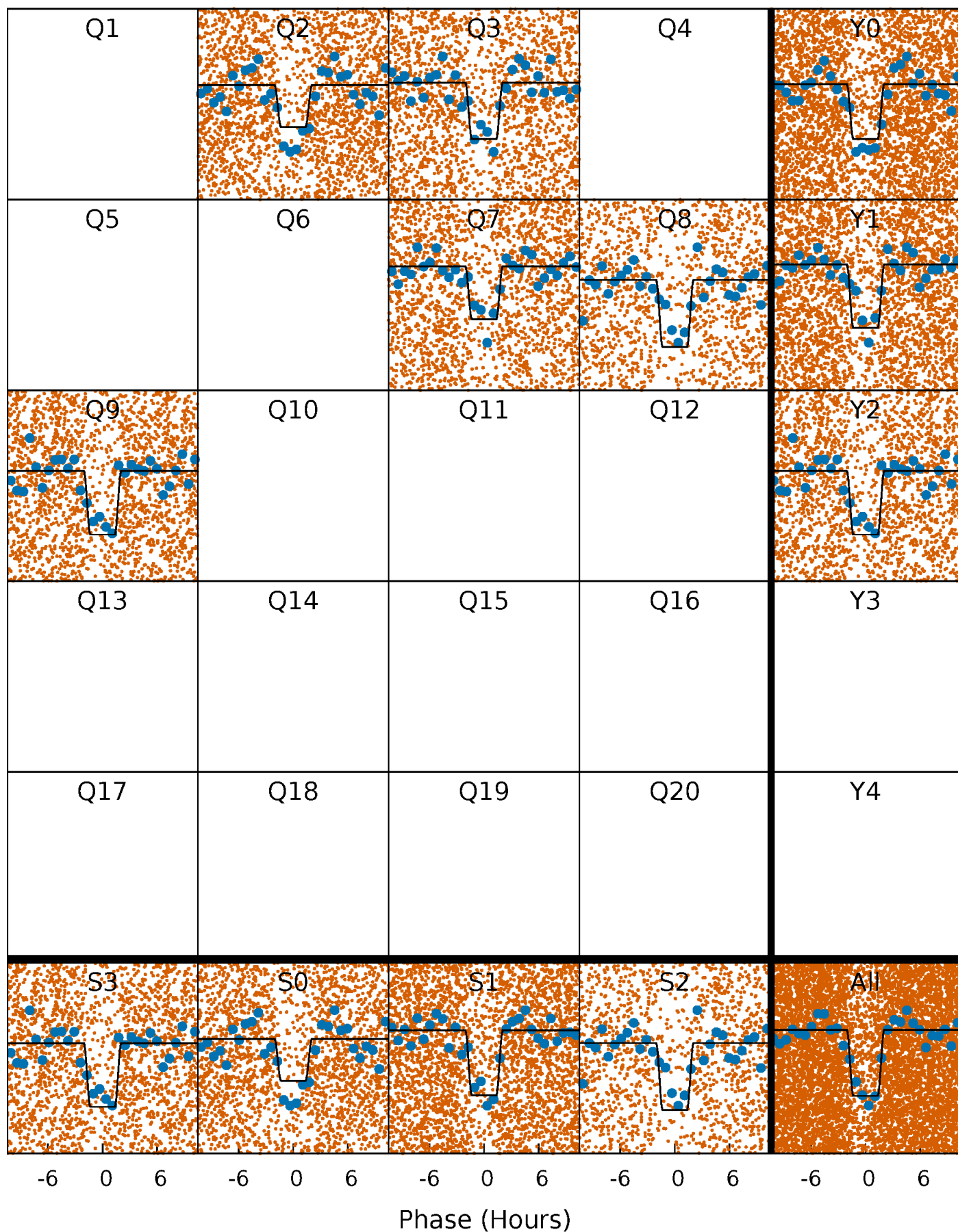
DV Quarter-Phased Transit Curves

TCE 003561700-02 P= 0.686521 Days $T_0=132.194517$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

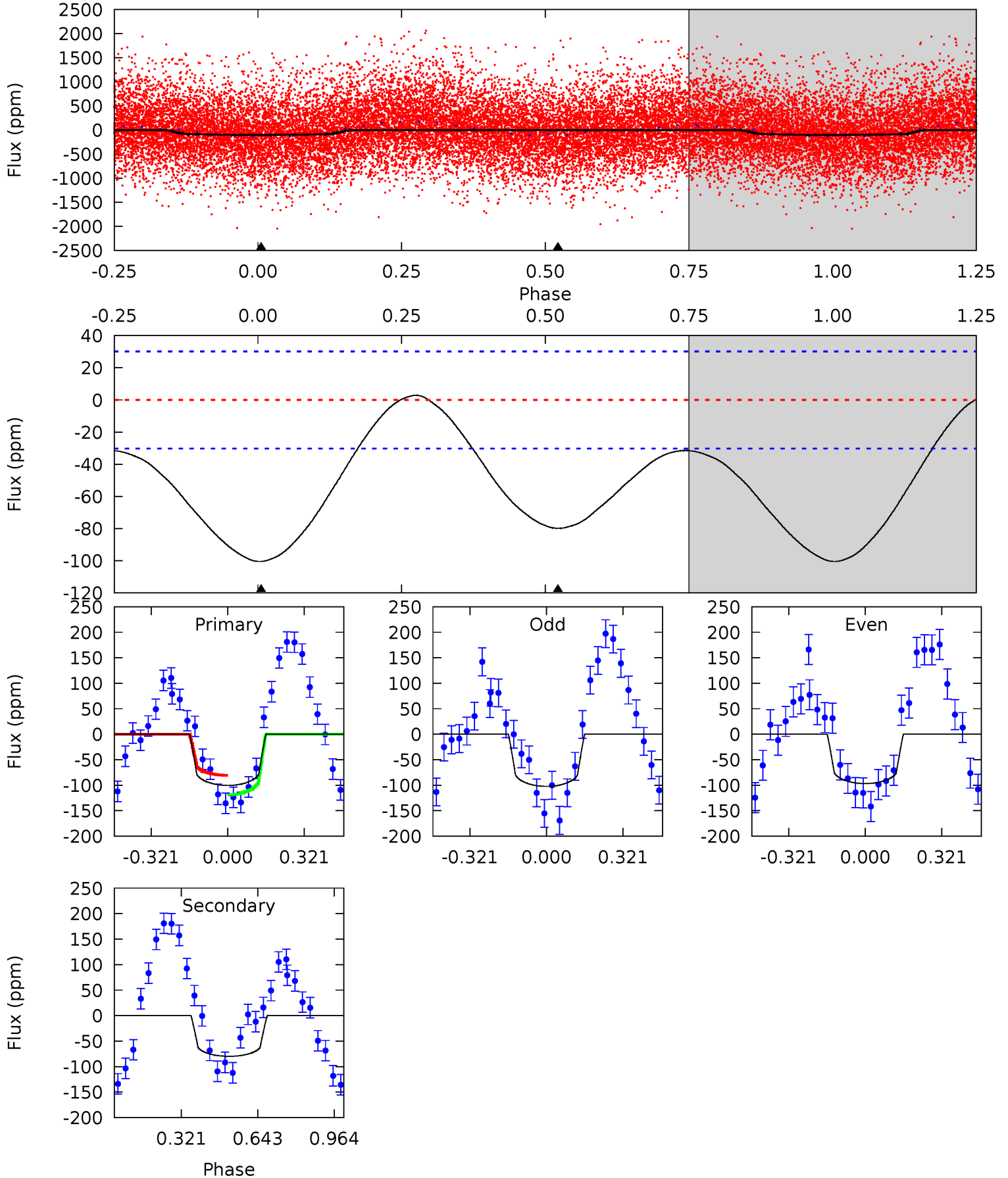
TCE 003561700-02 $P = 0.686587$ Days $T_0 = 132.171691$ (BKJD)



DV Model-Shift Uniqueness Test

003561700-02, P = 0.686521 Days, E = 132.194517 Days

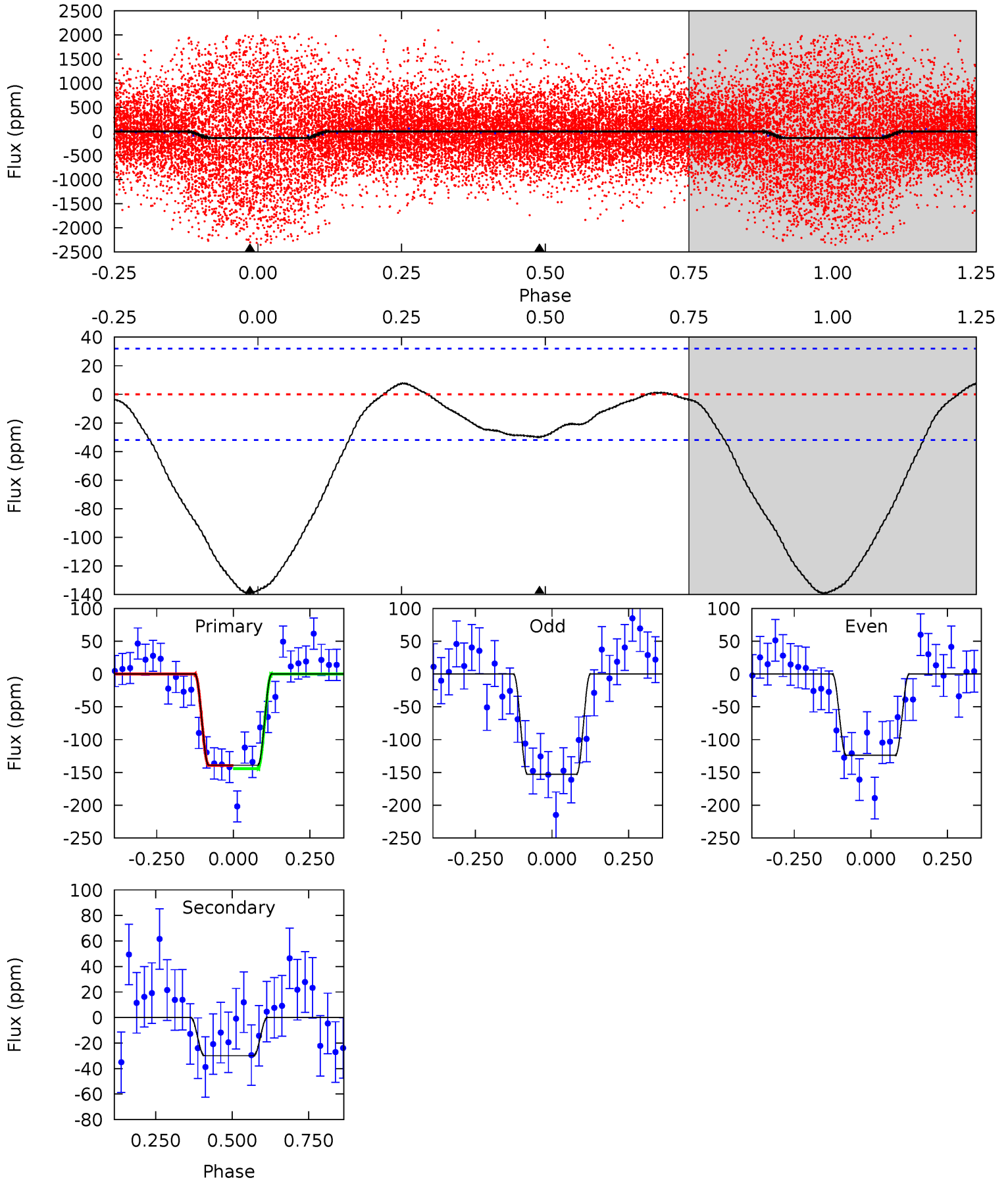
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	11.4	0	0	4.31	0.99	2.24	14.4	14.4	11.4	11.4	0.39	1.07	0.03	2.91



Alt Model-Shift Uniqueness Test

003561700-02, P = 0.686587 Days, E = 132.171691 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.0	4.09	0	0	4.37	1.15	0.57	19.0	19.0	4.09	4.09	1.99	0.86	0.05	0.34



Stellar Parameters For KIC 003561700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11076^{+381}_{-495}	$3.989^{+0.279}_{-0.150}$	$0.070^{+0.150}_{-0.650}$	$2.896^{+0.605}_{-1.123}$	$2.984^{+0.201}_{-0.754}$	$0.173^{+0.339}_{-0.078}$
	+3%/-4%	+7%/-4%	+214%/-929%	+21%/-39%	+7%/-25%	+196%/-45%
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 003561700-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-80 ± 7	$2.70^{+2.42}_{-1.70}$	7736^{+636}_{-723}	10430^{+18861}_{-4055}	$2.778^{+17.232}_{-1.991}$
Alt.	-30 ± 7	$3.73^{+2.56}_{-2.07}$	7752^{+589}_{-710}	5180^{+5145}_{-9822}	$0.519^{+2.217}_{-0.332}$

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

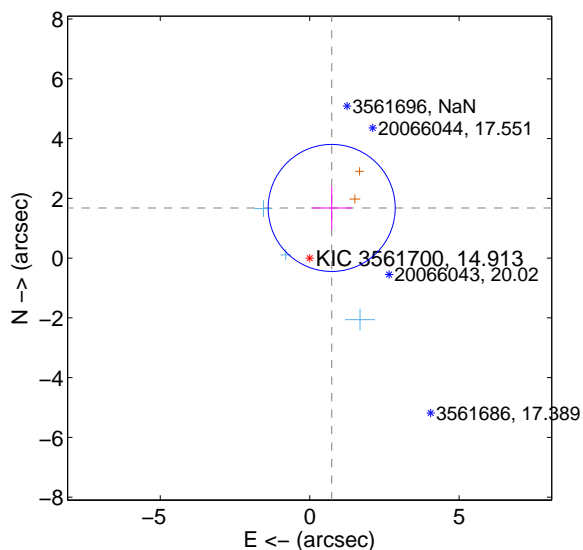
Supplemental centroid analysis for 003561700-02. Kepler magnitude: 14.91. Transit SNR 5.21

There are 3 quarters with good PRF difference image offsets

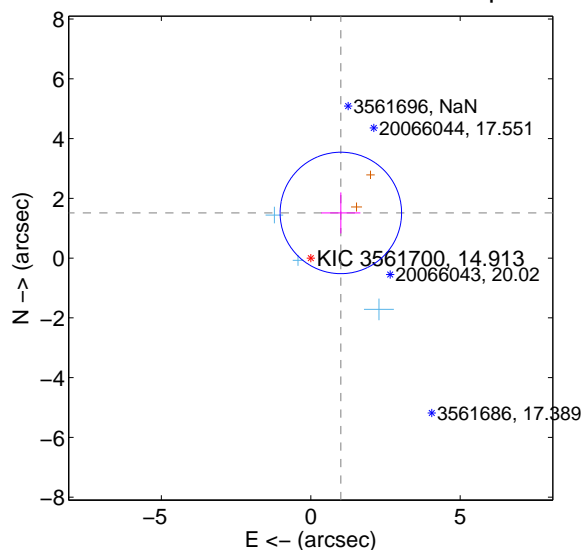
The direct PRF centroid is offset from the target star catalog position by about 0.69 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.833 ± 0.708	2.59	-0.737 ± 0.681	1.678 ± 0.713
PRF-fit source offset from KIC position	1.815 ± 0.677	2.68	-1.006 ± 0.656	1.511 ± 0.687
photometric centroid source offset	2.40 ± 1.45	1.65	1.00 ± 1.43	-2.18 ± 1.46

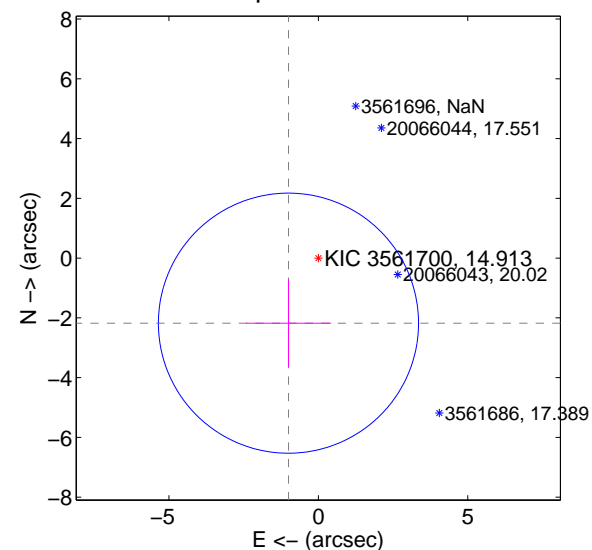
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

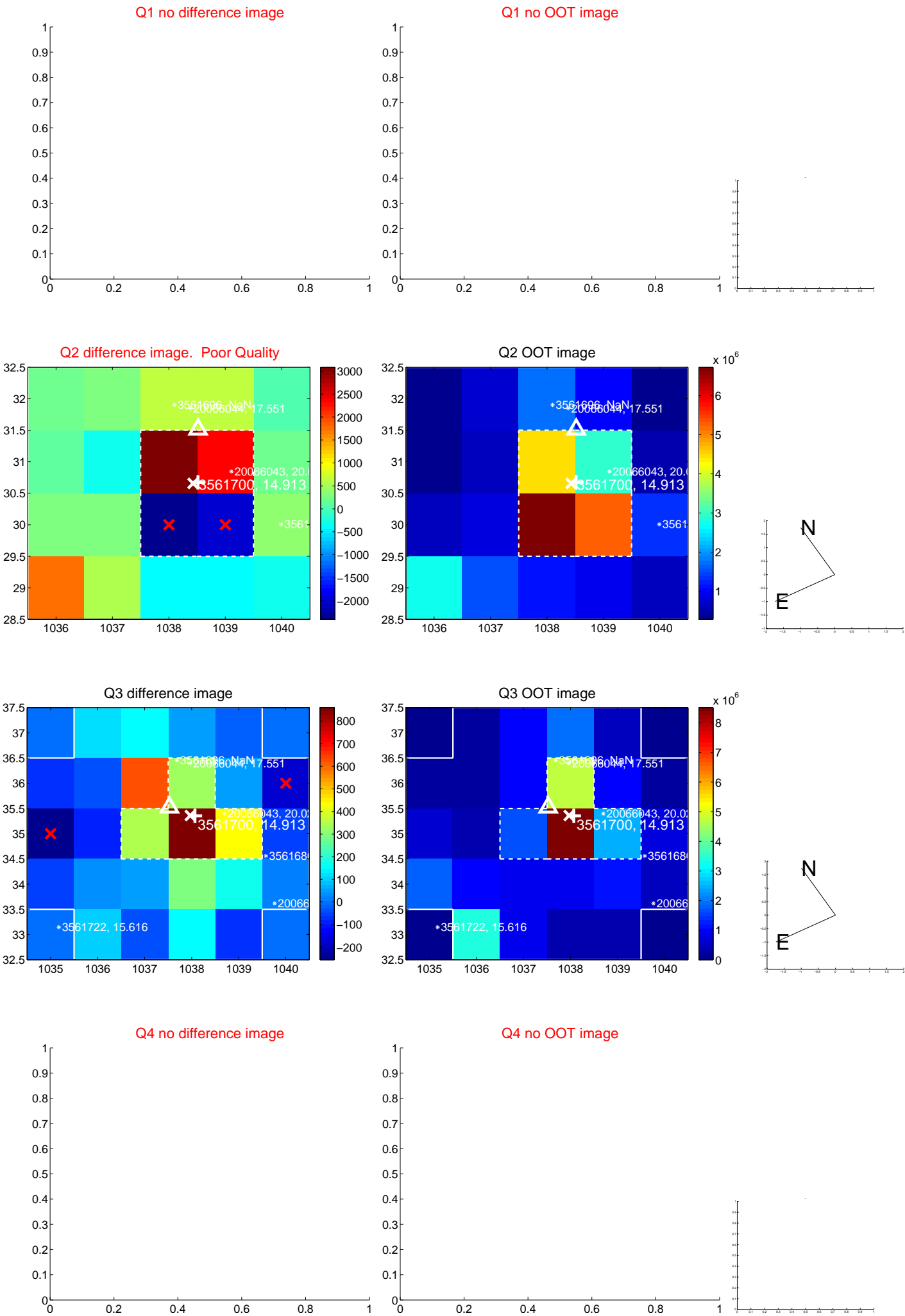


offset from photometric centroids

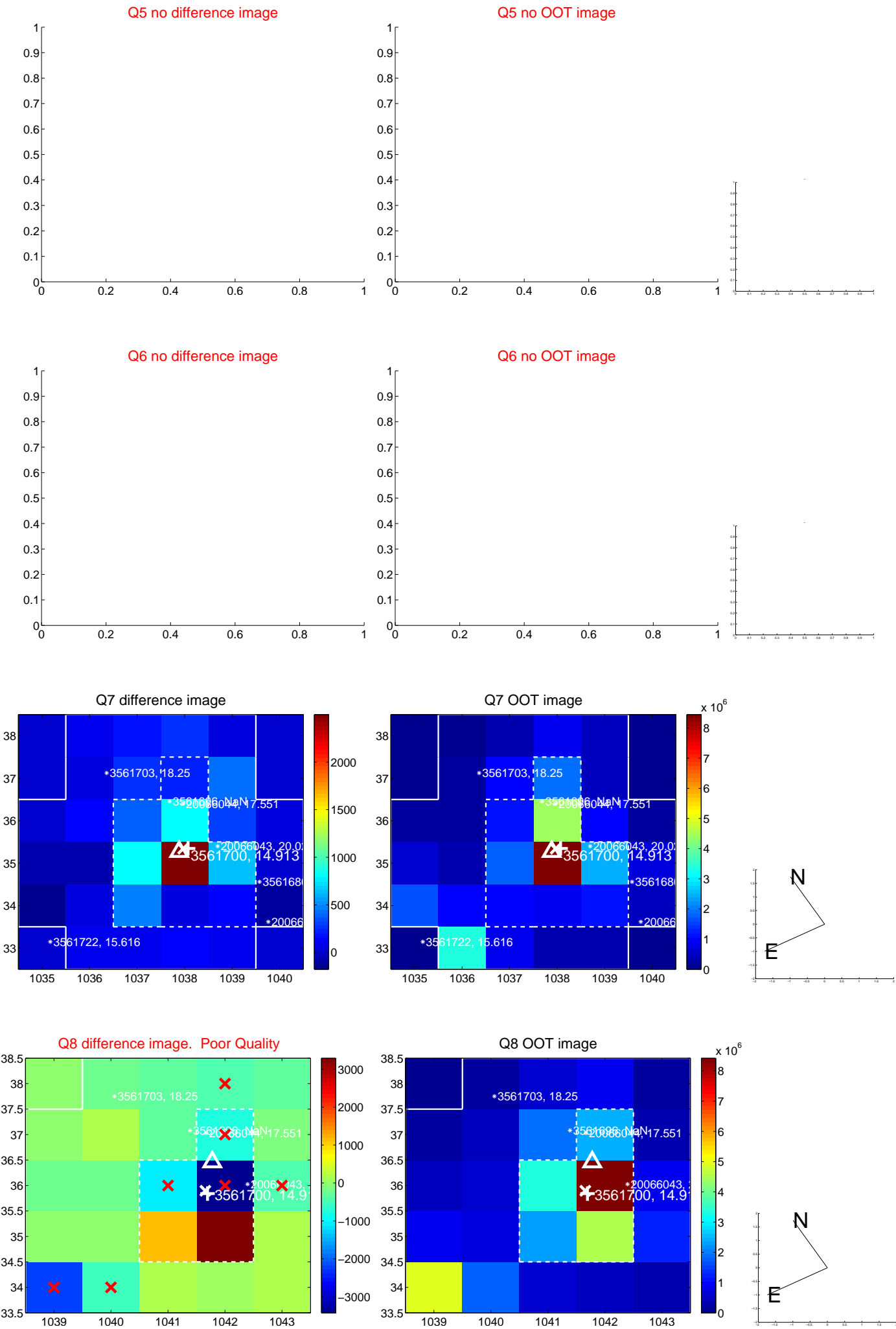


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

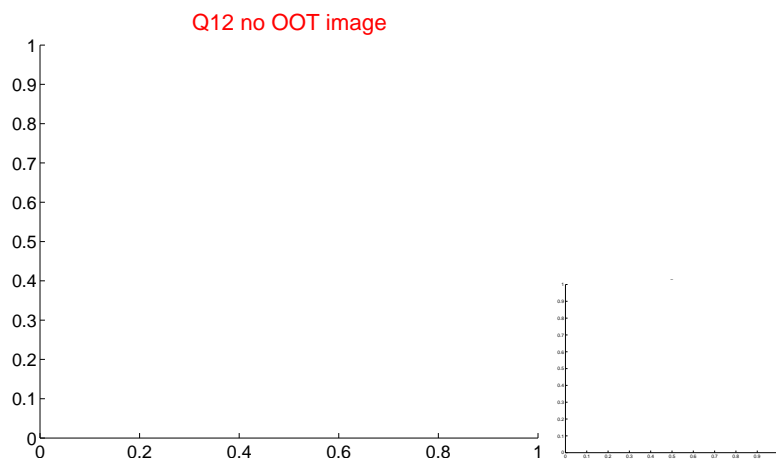
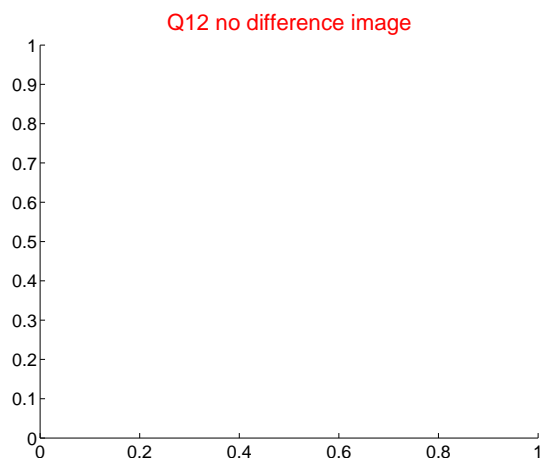
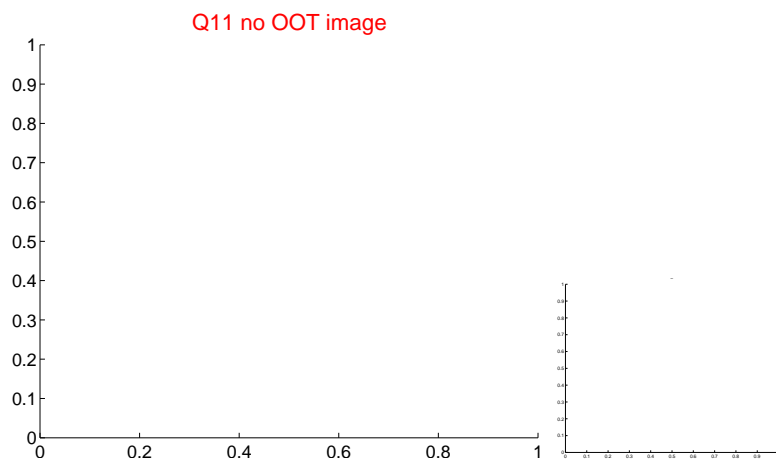
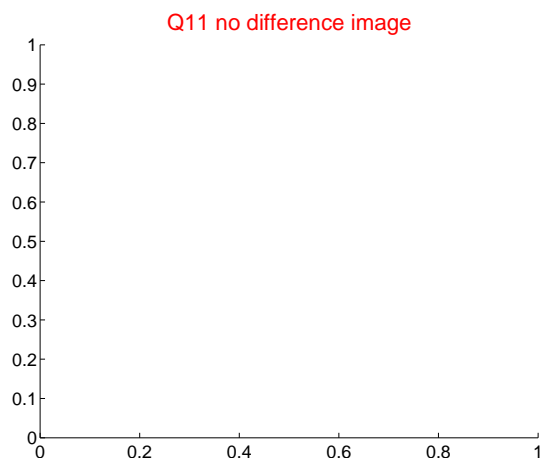
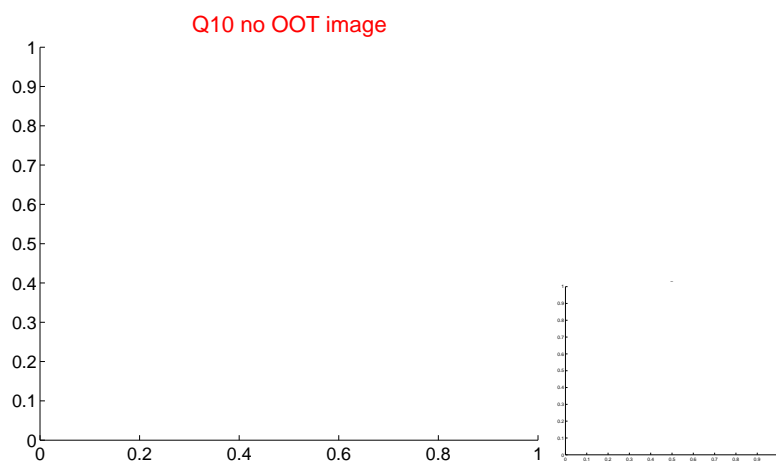
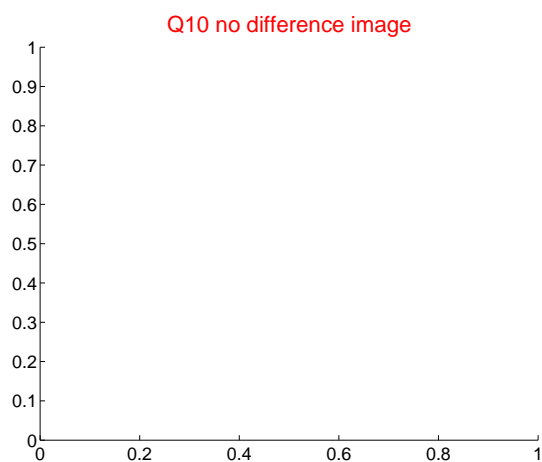
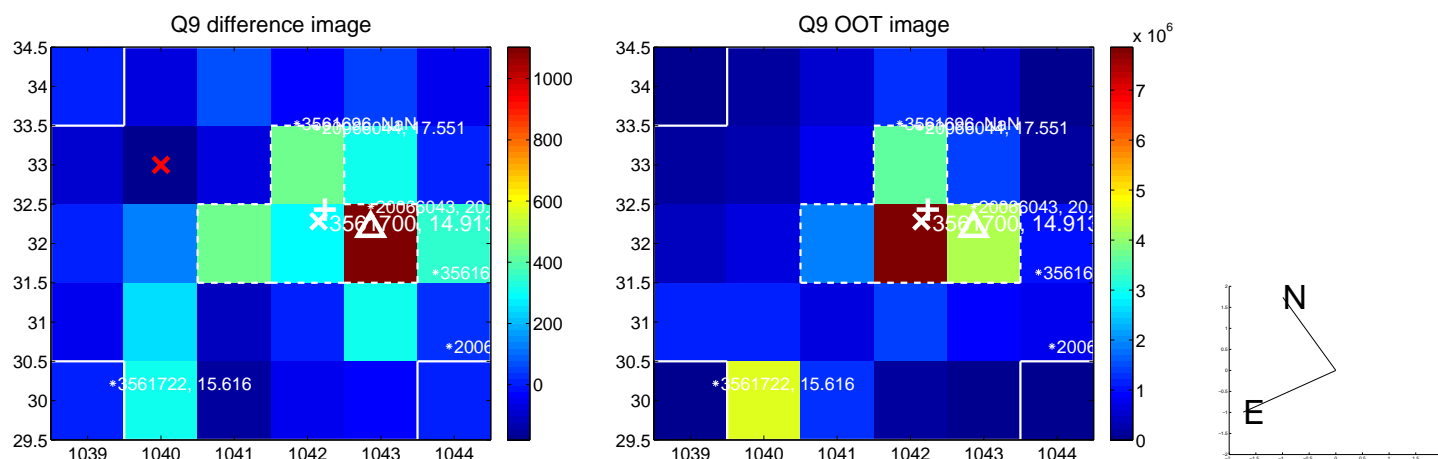
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



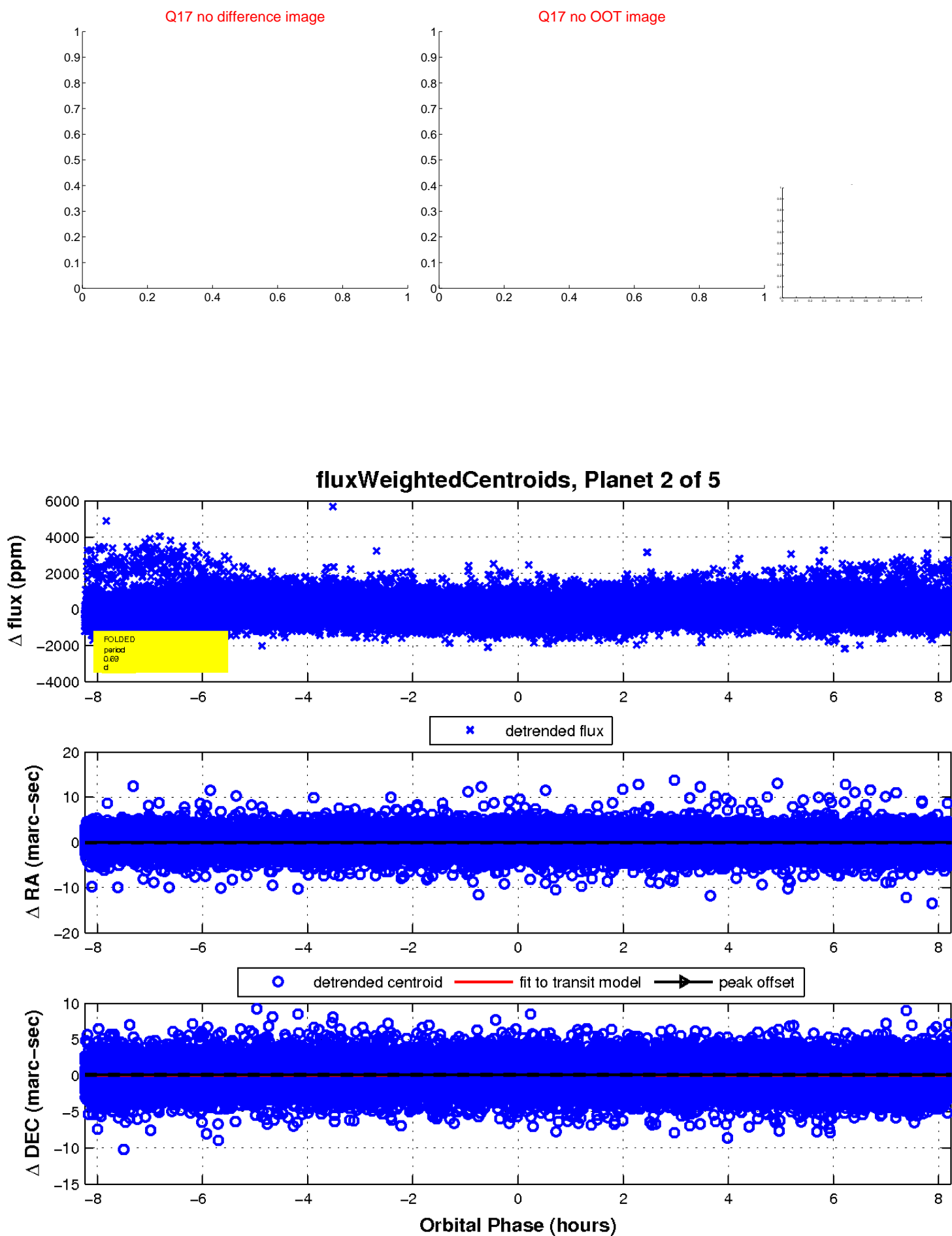
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

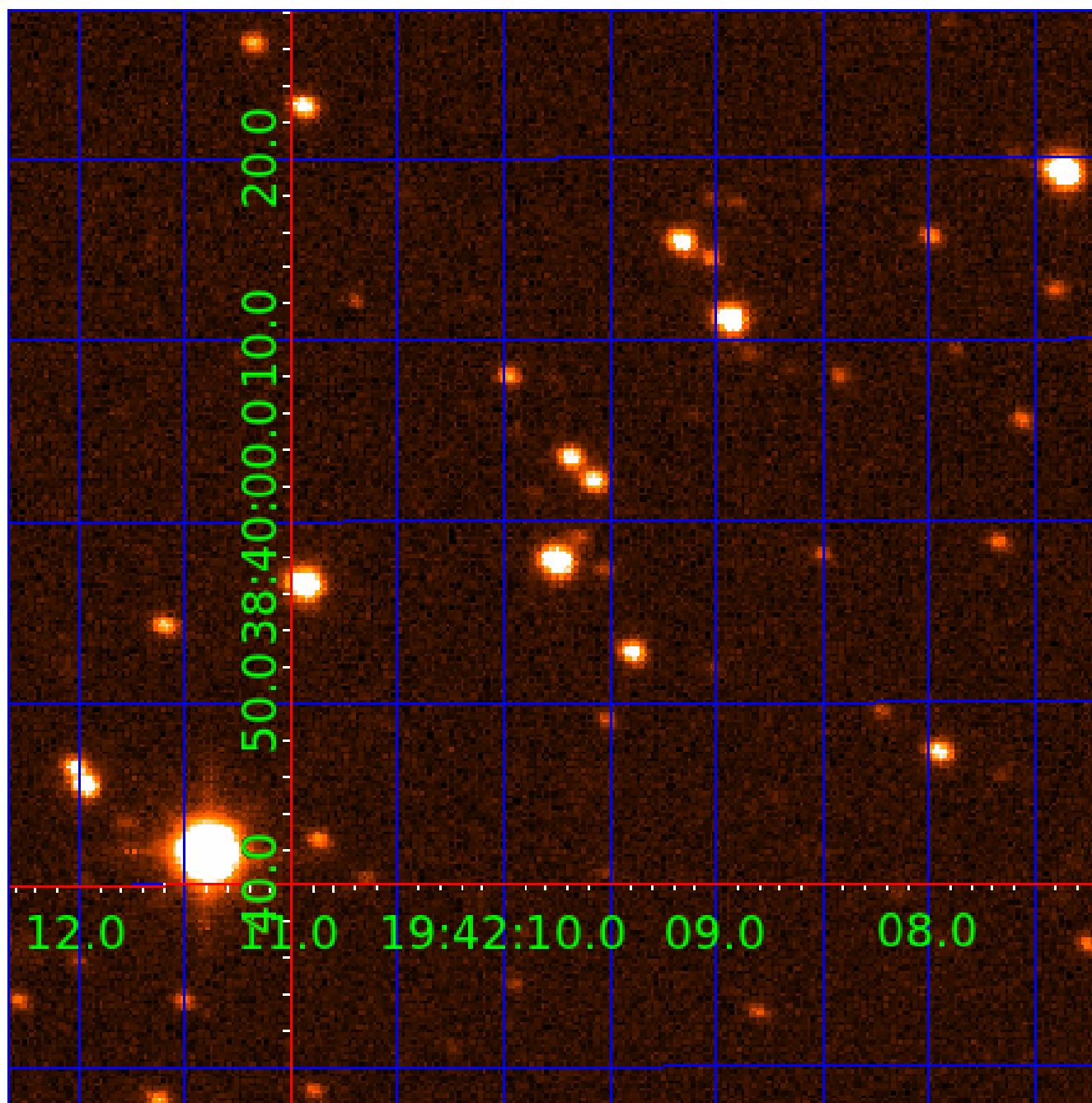


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003561700

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})
003561700-01	OBS	No	11.671715	134.762643	1192.2	4.789	17.1	17.5	2.90	11076	16.94	5379.96
003561700-02	OBS	No	0.686521	132.194517	57.9	4.851	9.4	5.2	2.90	11076	2.32	235190.70
003561700-03	OBS	No	10.140431	137.605161	1008.9	2.998	11.7	11.6	2.90	11076	10.04	6489.58
003561700-04	OBS	No	6.159135	134.464778	902.1	1.809	10.3	12.4	2.90	11076	9.72	12616.31
003561700-05	OBS	No	39.245731	133.104744	1370.3	1.500	9.1	-1.0	2.90	11076	11.08	1067.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003561700-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
003561700-02	OBS	FP	0.00	1	0	0	0	LPP_DV
003561700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

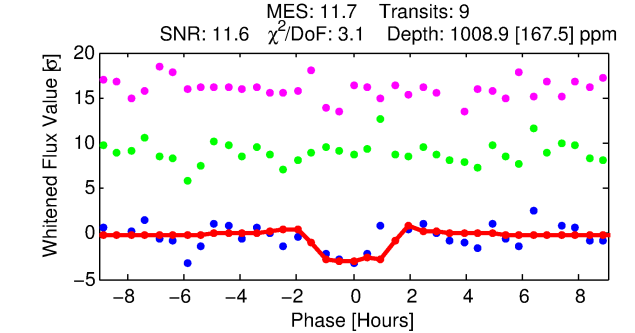
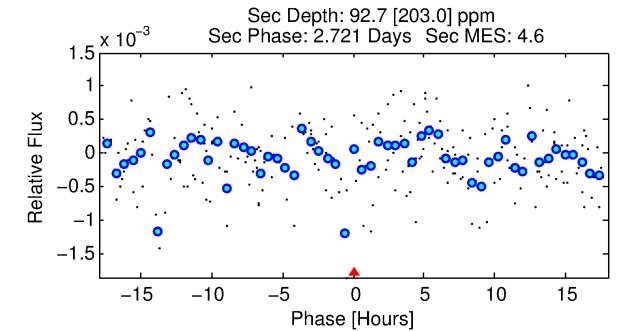
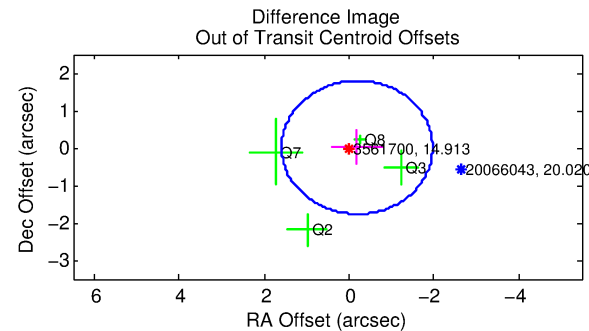
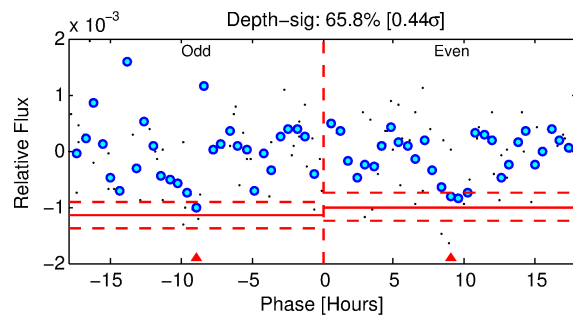
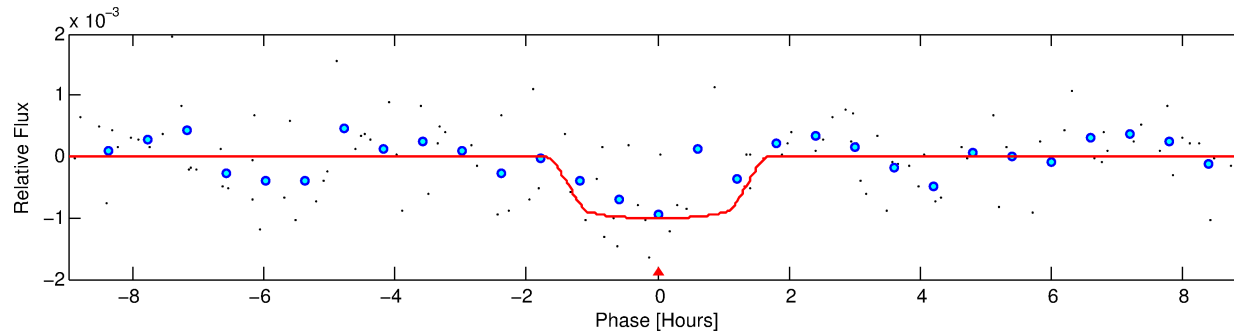
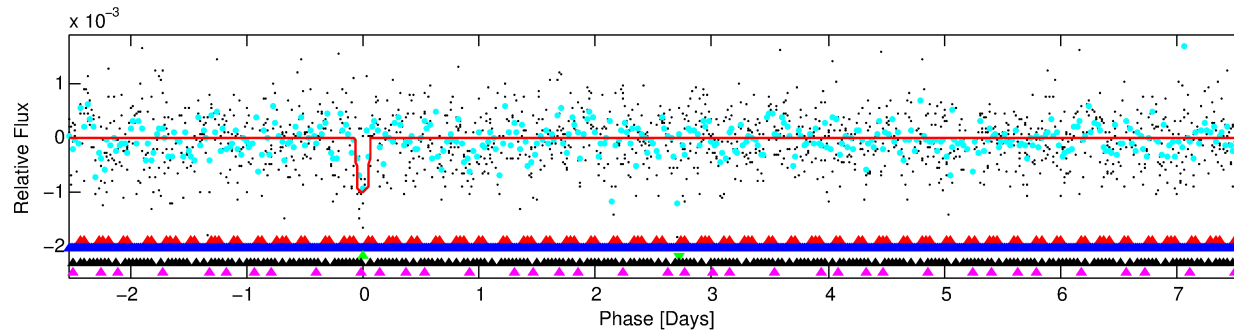
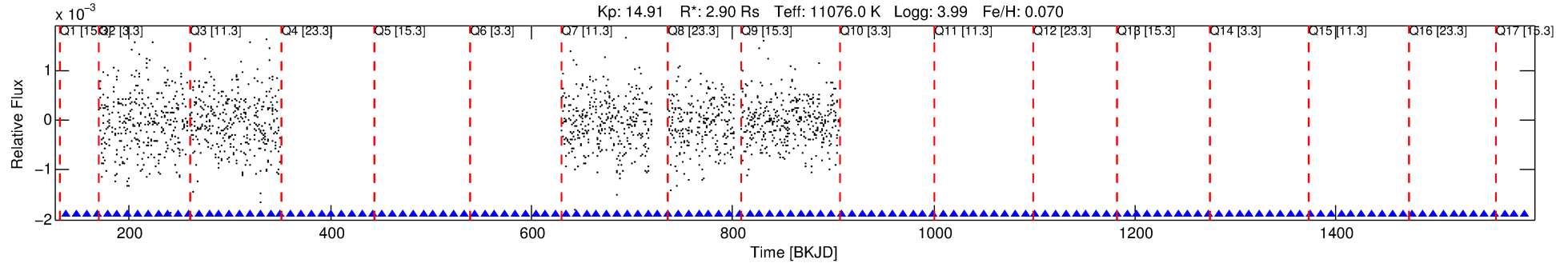
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003561700-03

No Significant Match Found

DV One-Page Summary

KIC: 3561700 Candidate: 3 of 5 Period: 10.140 d



DV Fit Results:

Period = 10.14043 [0.00020] d
Epoch = 137.6052 [0.0103] BKJD
Rp/R* = 0.0318 [0.0362]
a/R* = 17.83 [163.50]
b = 0.77 [4.96]
Seff = 6489.58 [3447.50]
Teq = 2289 [304] K
Rp = 10.04 [12.08] Re
a = 0.1320 [0.0443] AU
Ag = 8.83 [28.25] [0.28 σ]
Teffp = 6099 [4827] K [0.79 σ]

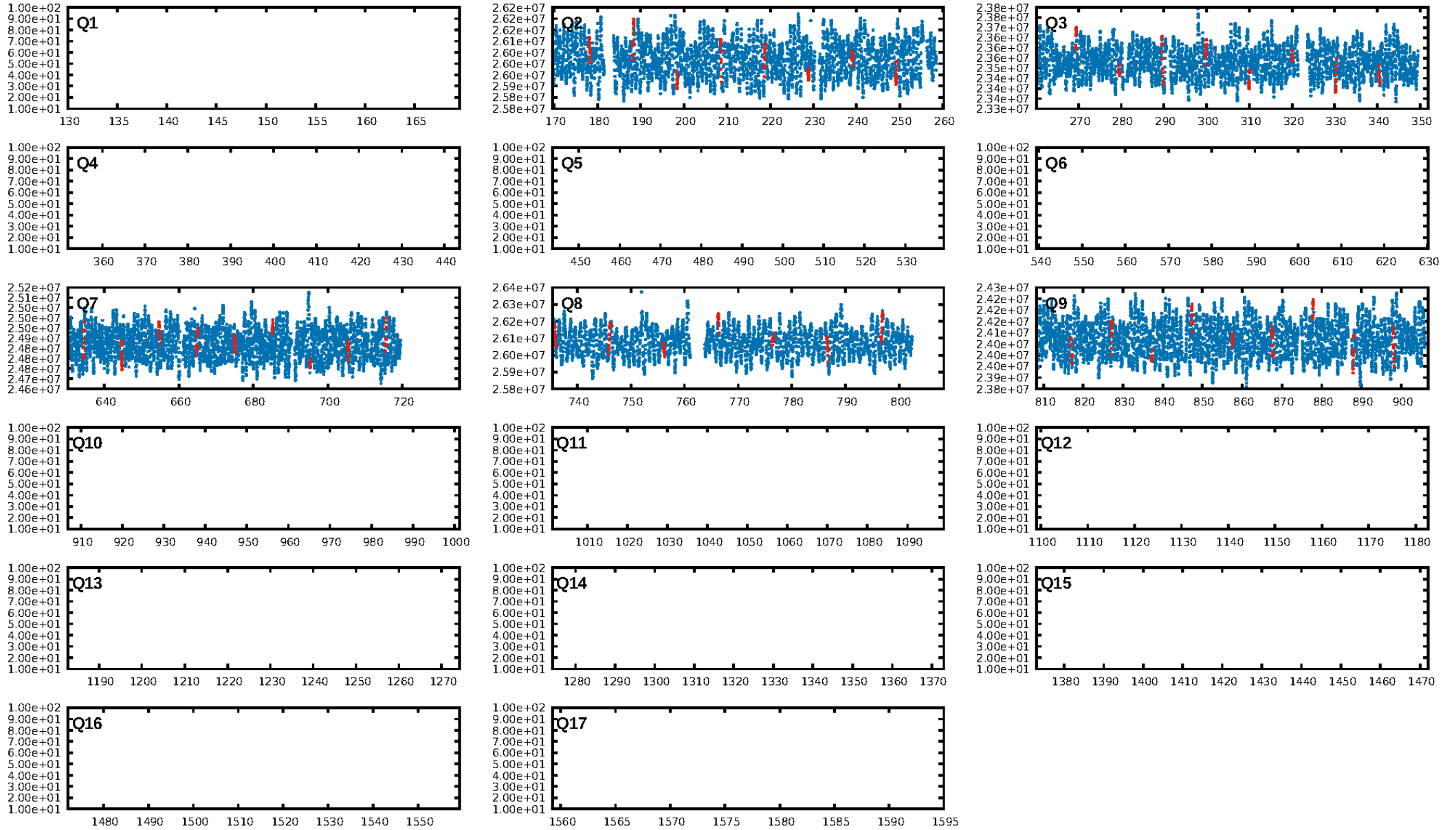
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [27.29 σ]
LongPeriod-sig: 100.0% [6.50 σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.13e-11
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 1.233
Centroid-sig: 72.3%
Centroid-so: 0.559 arcsec [1.38 σ]
OotOffset-rm: 0.199 arcsec [0.34 σ]
OotOffset-st: 1/2/1/0 [4]
KicOffset-rm: 0.358 arcsec [0.59 σ]
KicOffset-st: 1/2/1/0 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 0.00 [0/5]

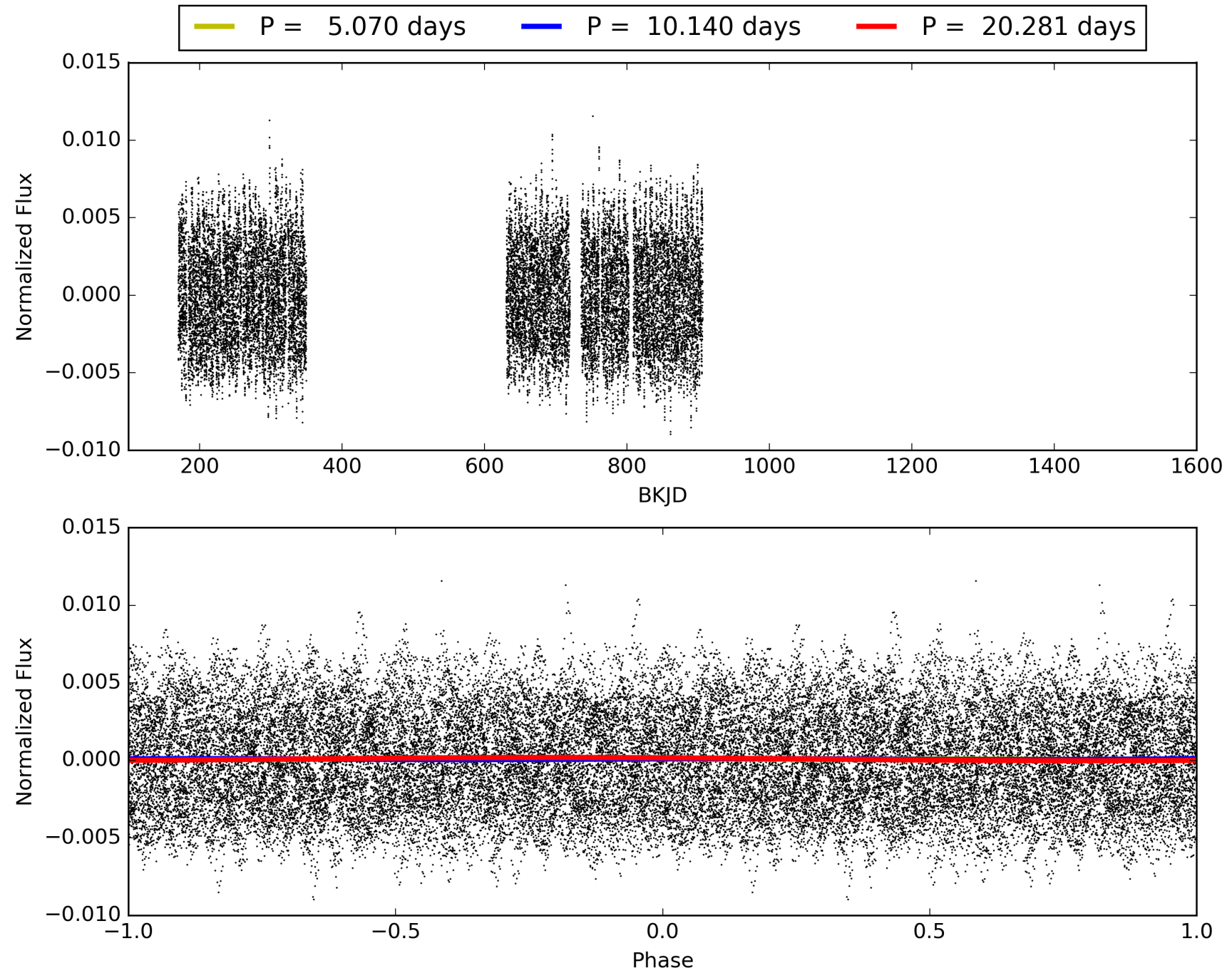
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:37:16 Z

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

TCE 003561700-03, PDC Light Curves

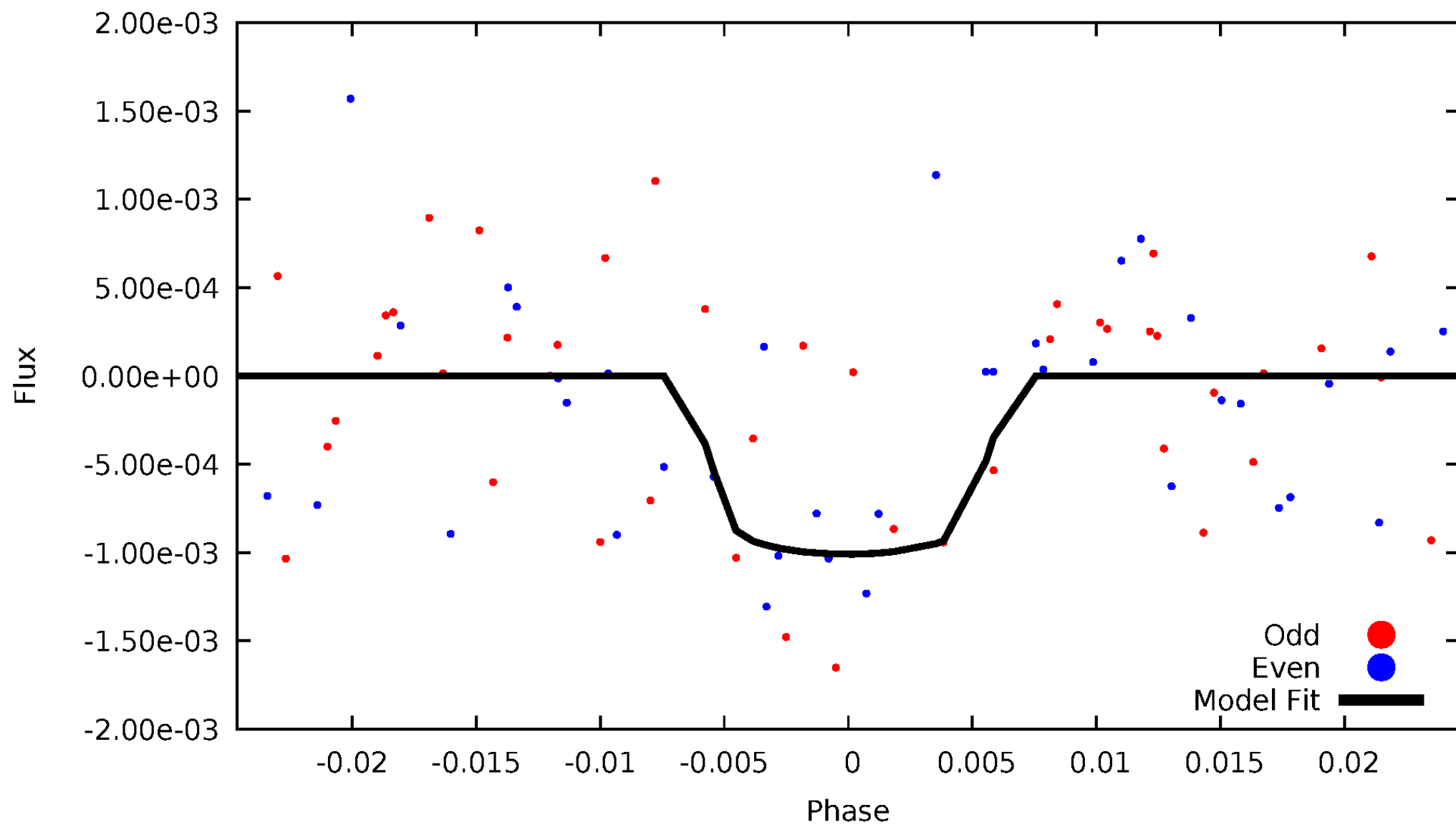


TCE 003561700-03



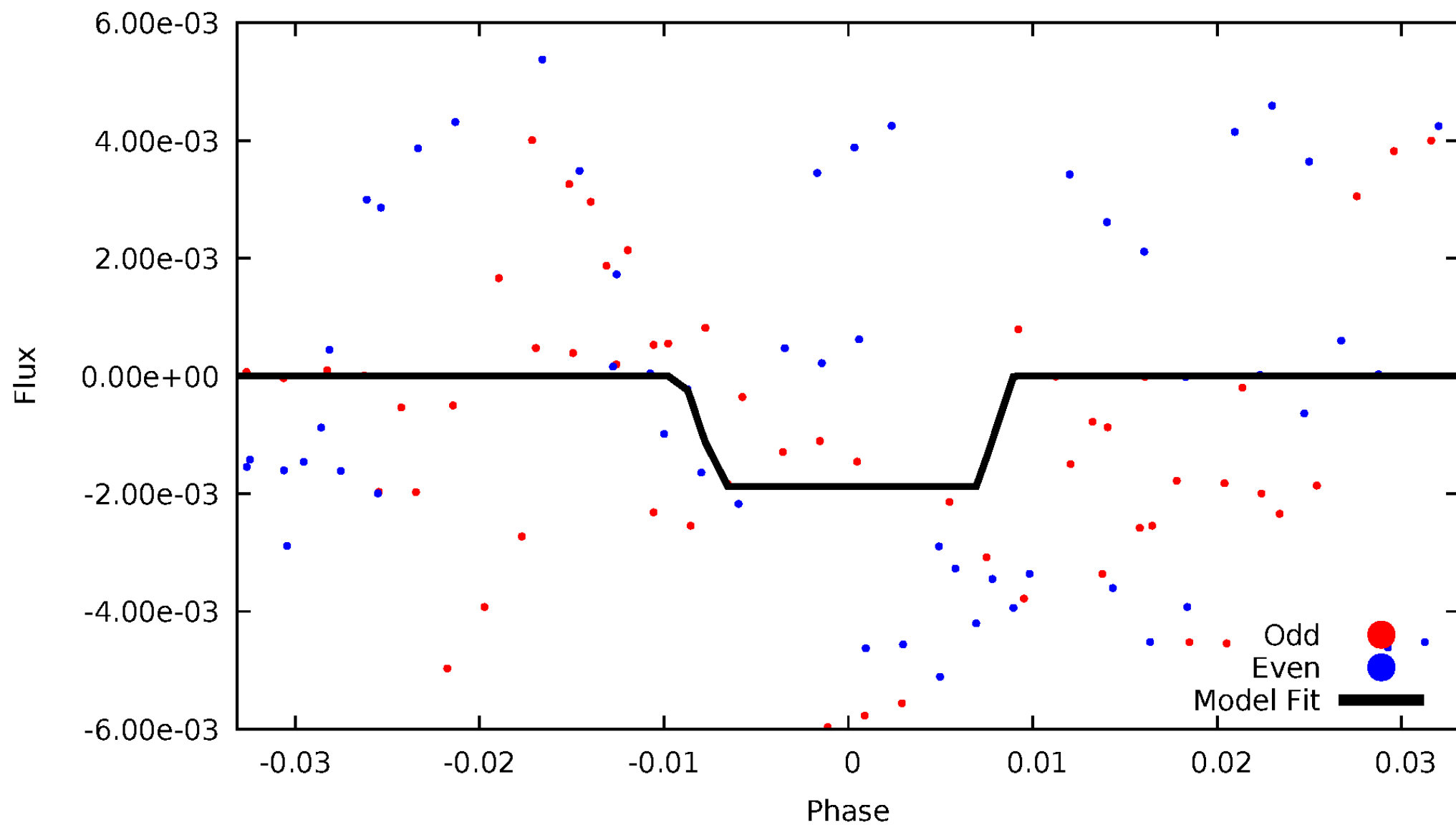
DV Odd/Even

TCE 003561700-03



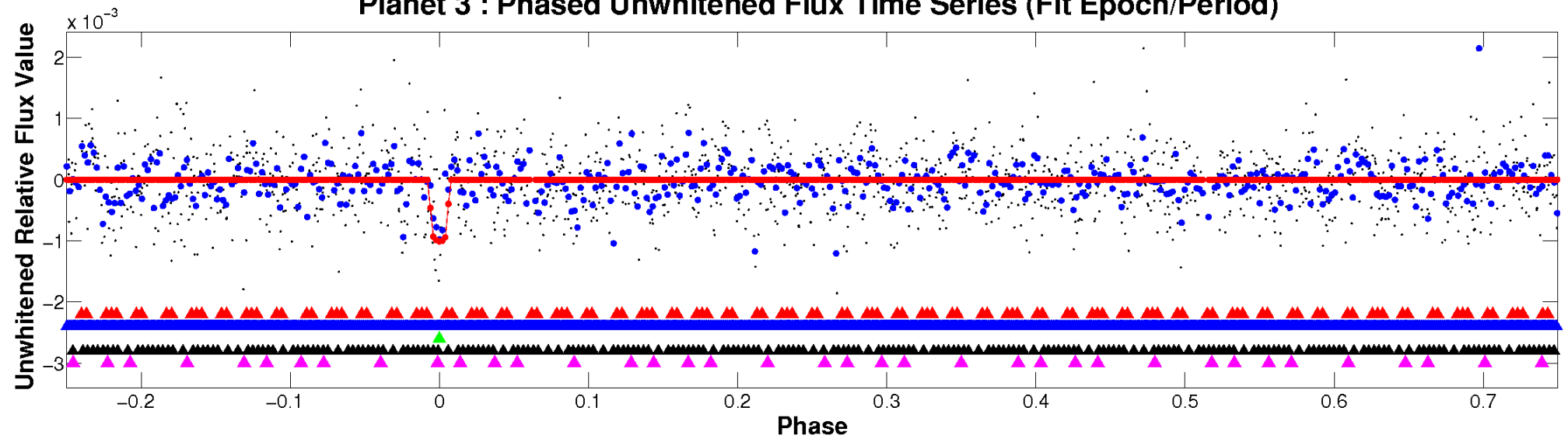
ALT Odd/Even

TCE 003561700-03

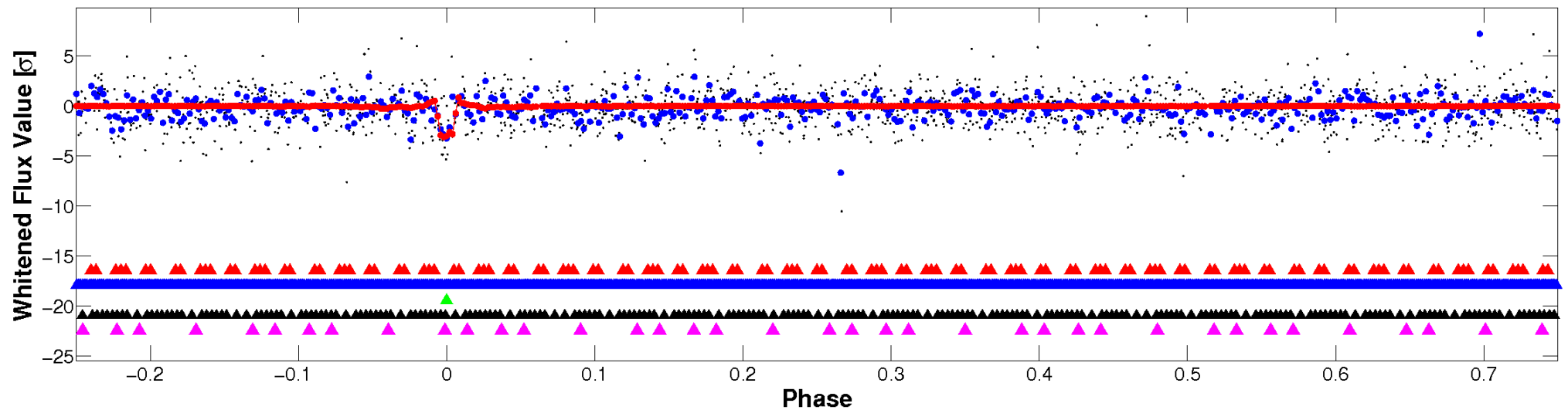


Non-Whitened Vs. Whitened Light Curve

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

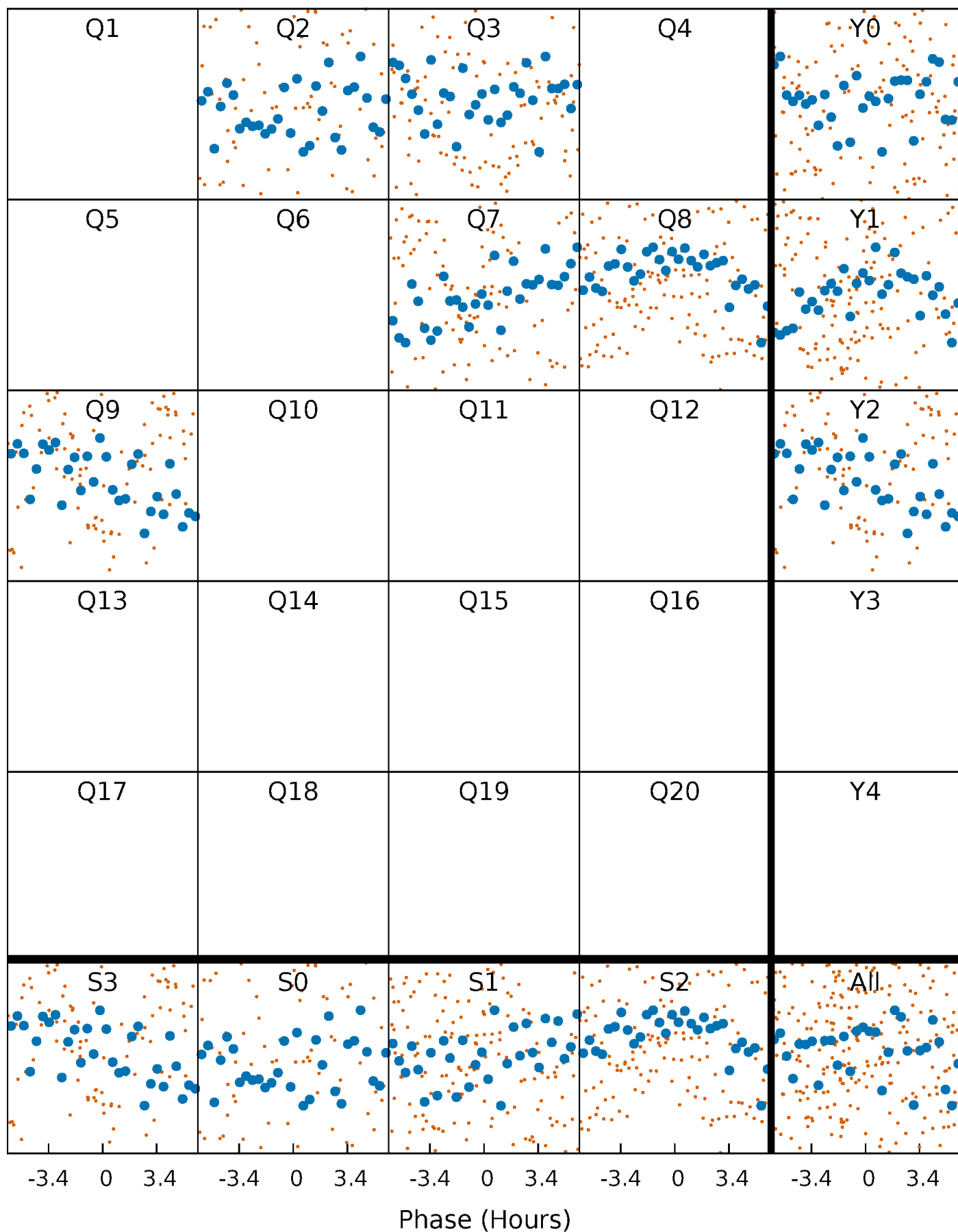


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 003561700-03 P= 10.140431 Days $T_0=137.605161$ (BKJD)



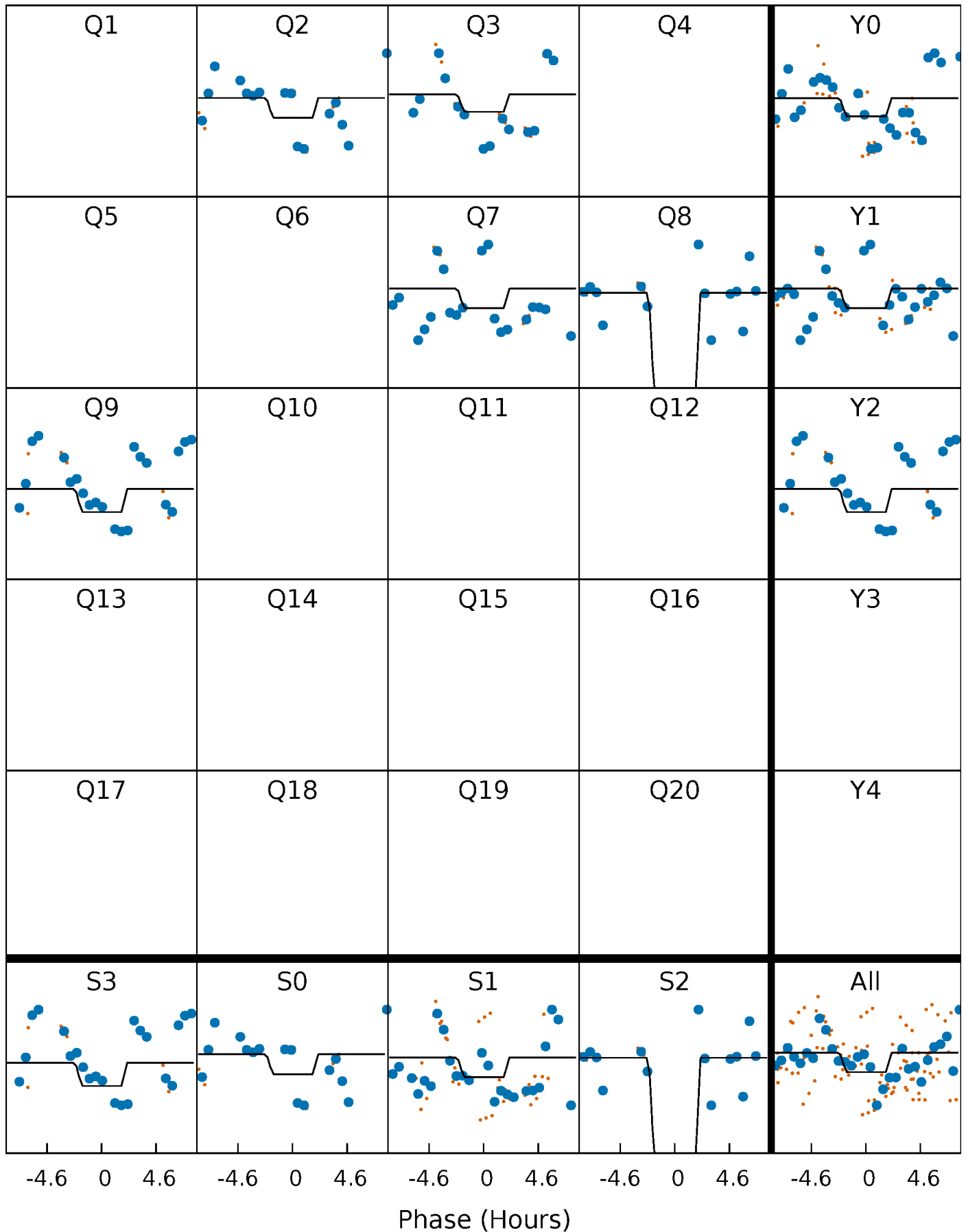
DV Quarter-Phased Transit Curves

TCE 003561700-03 P= 10.140431 Days $T_0=137.605161$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

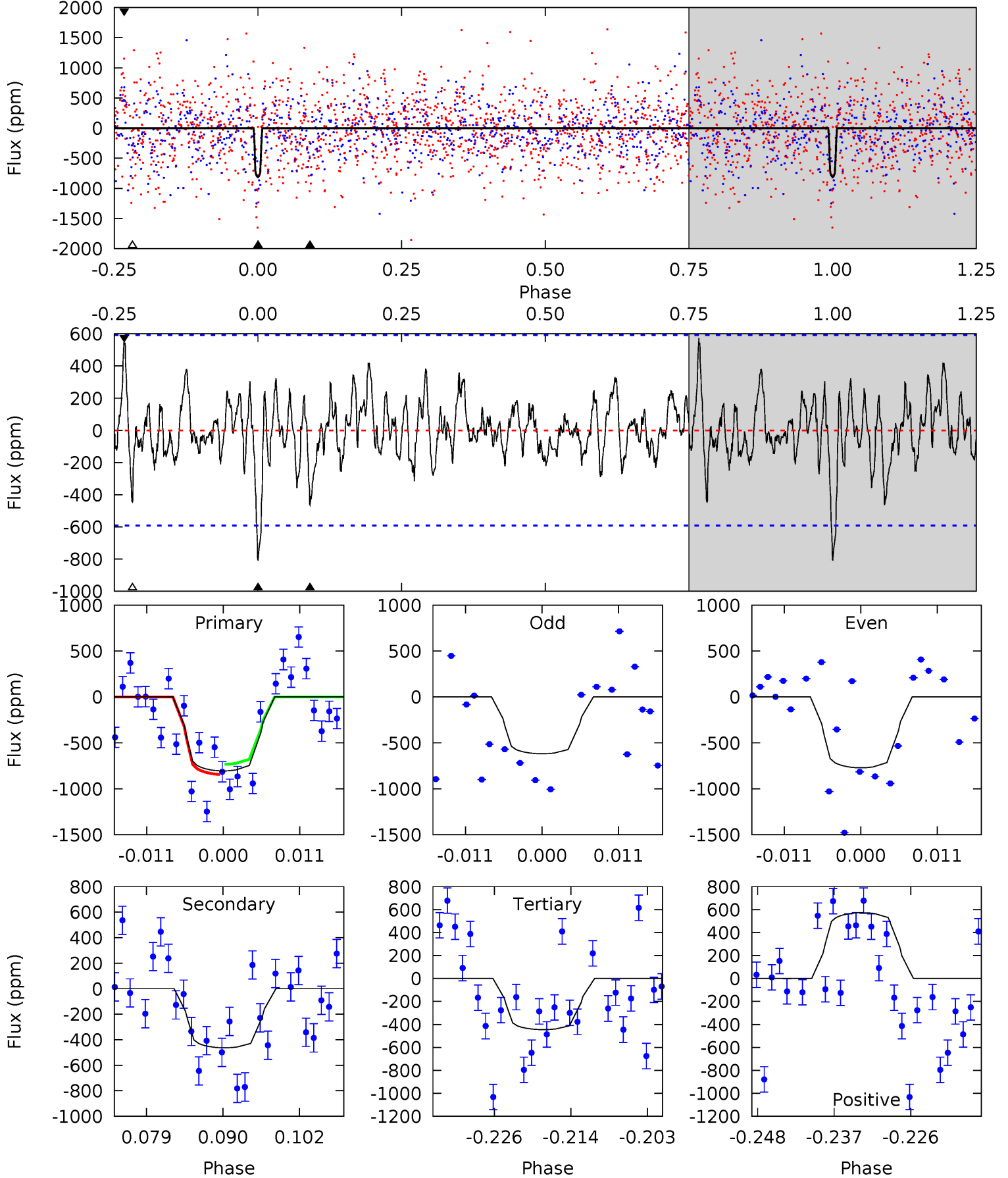
TCE 003561700-03 $P = 10.141090$ Days $T_0 = 137.558132$ (BKJD)



DV Model-Shift Uniqueness Test

003561700-03, P = 10.140431 Days, E = 137.605161 Days

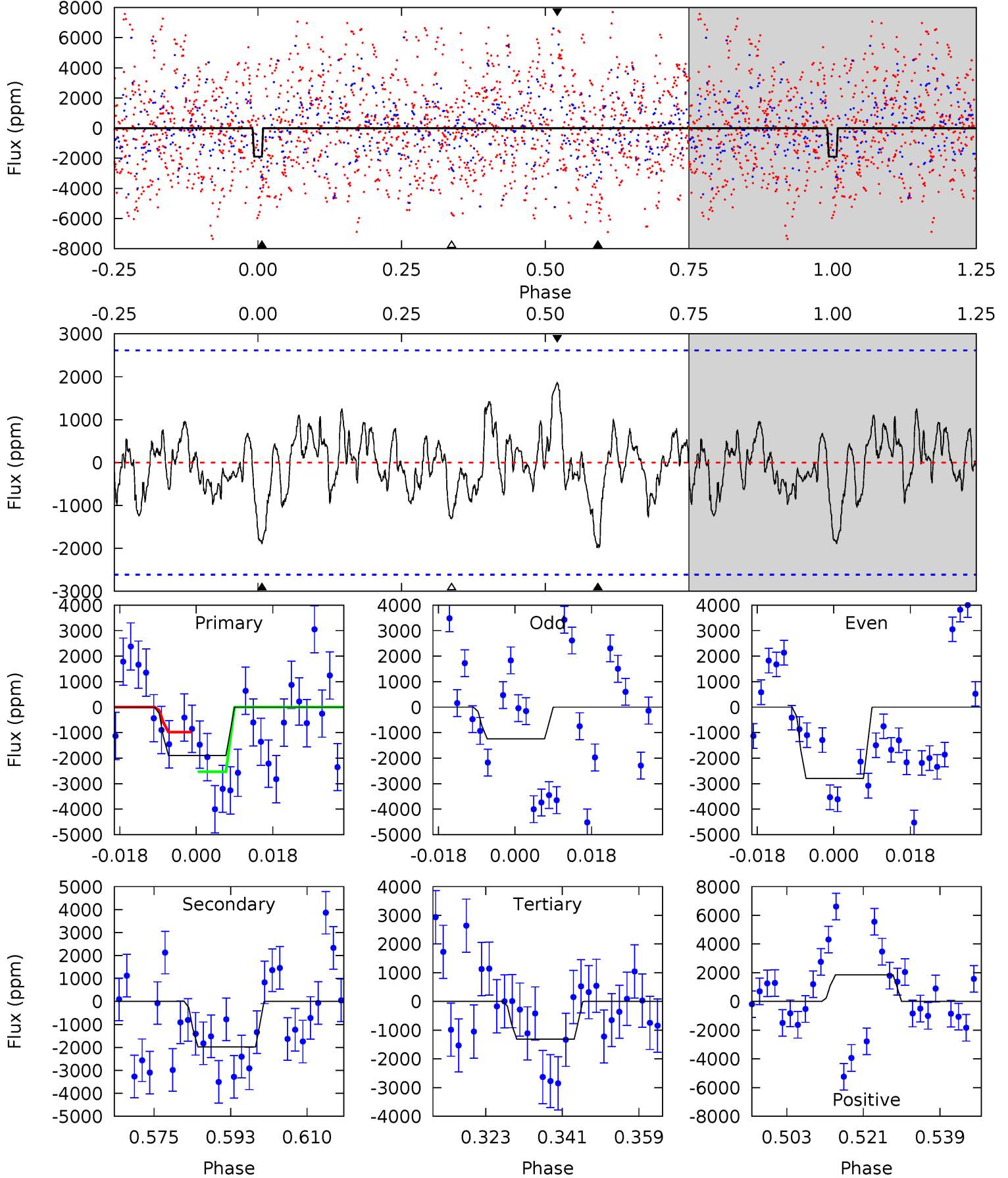
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.81	3.92	3.77	4.84	5.00	2.53	1.28	3.05	1.97	0.15	-0.93	0.65	0.56	0.42	0.46



Alt Model-Shift Uniqueness Test

003561700-03, P = 10.141090 Days, E = 137.558132 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.56	3.72	2.46	3.50	4.91	2.37	1.05	1.10	0.06	1.26	0.23	1.51	0.85	0.48	1.45



Stellar Parameters For KIC 003561700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11076^{+381}_{-495}	$3.989^{+0.279}_{-0.150}$	$0.070^{+0.150}_{-0.650}$	$2.896^{+0.605}_{-1.123}$	$2.984^{+0.201}_{-0.754}$	$0.173^{+0.339}_{-0.078}$
	+3%/-4%	+7%/-4%	+214%/-929%	+21%/-39%	+7%/-25%	+196%/-45%
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 003561700-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-463 ± 118	$12.12^{+9.43}_{-7.80}$	3159^{+254}_{-289}	7224^{+8610}_{-1901}	30^{+211}_{-22}
Alt.	-1980 ± 532	$14.43^{+10.70}_{-8.66}$	3161^{+235}_{-305}	10374^{+15201}_{-3163}	85^{+481}_{-58}

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

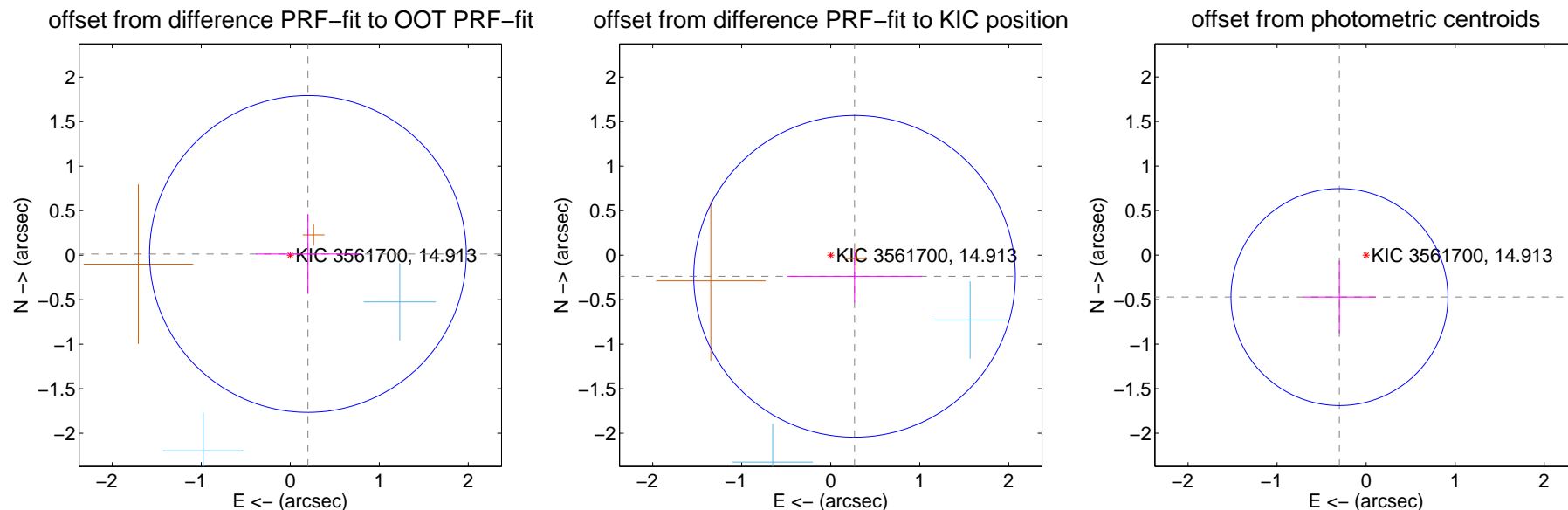
DV Centroid Data

Supplemental centroid analysis for 003561700-03. Kepler magnitude: 14.91. Transit SNR 11.60

There are 2 quarters with good PRF difference image offsets

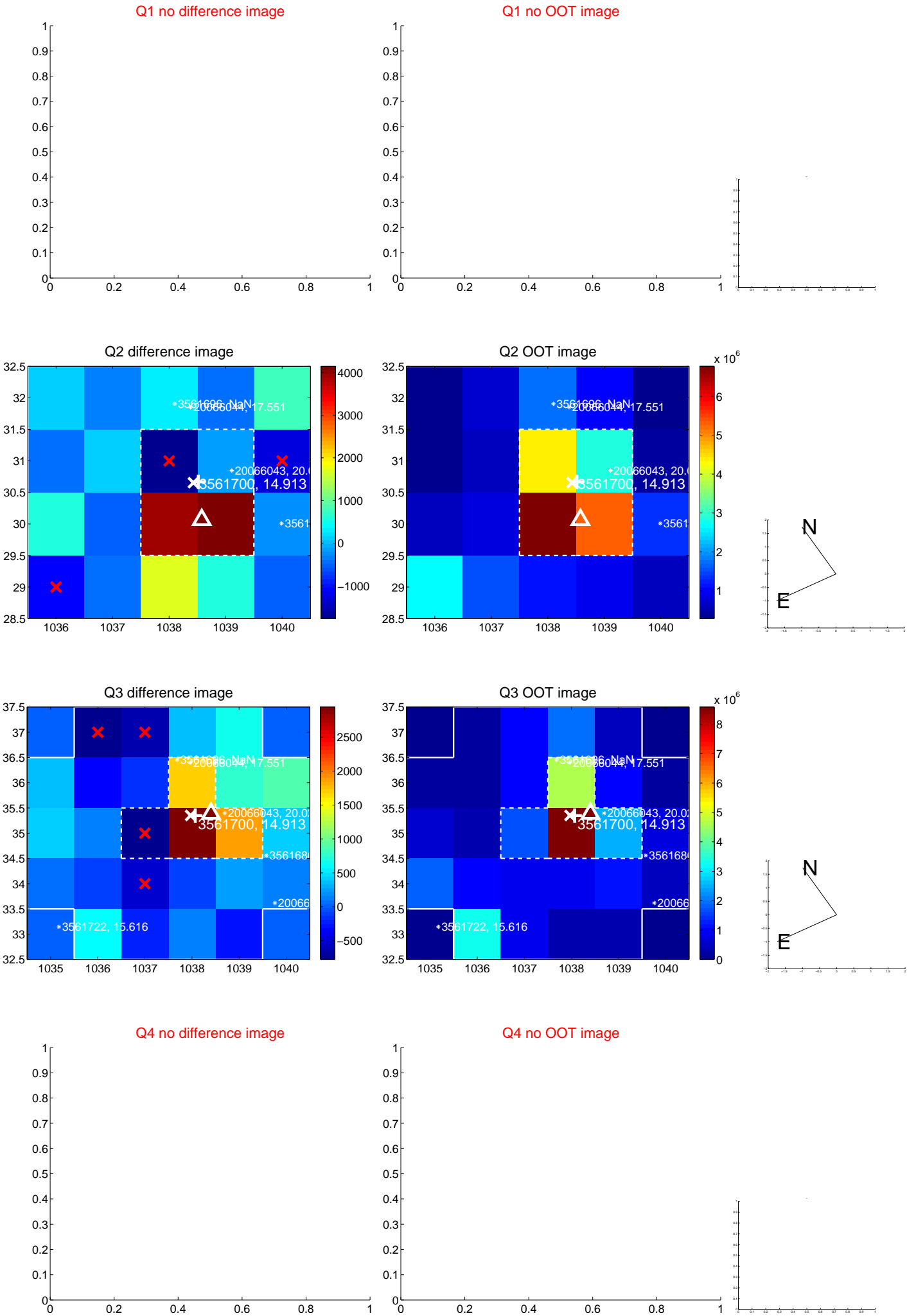
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.199 ± 0.593	0.34	-0.198 ± 0.584	0.013 ± 0.447
PRF-fit source offset from KIC position	0.358 ± 0.602	0.59	-0.268 ± 0.753	-0.238 ± 0.293
photometric centroid source offset	0.56 ± 0.41	1.38	0.30 ± 0.41	-0.47 ± 0.41



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

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



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

Q5 no difference image



Q5 no OOT image



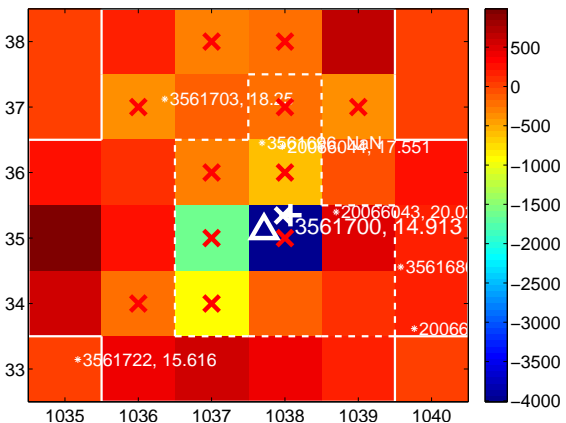
Q6 no difference image



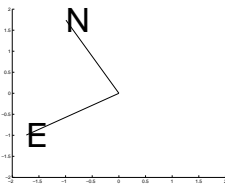
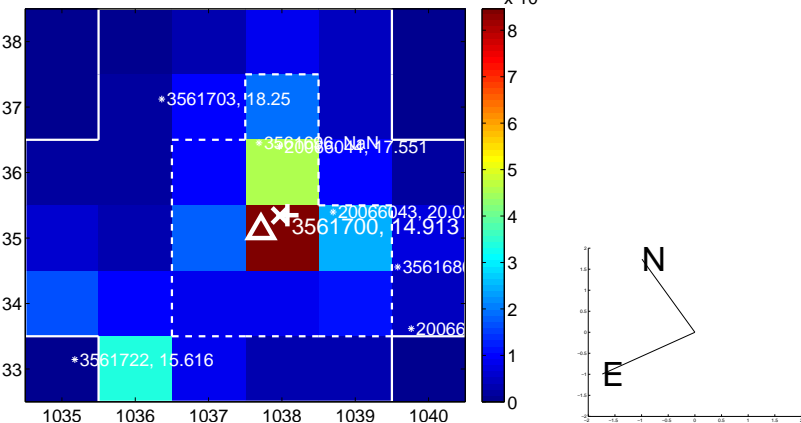
Q6 no OOT image



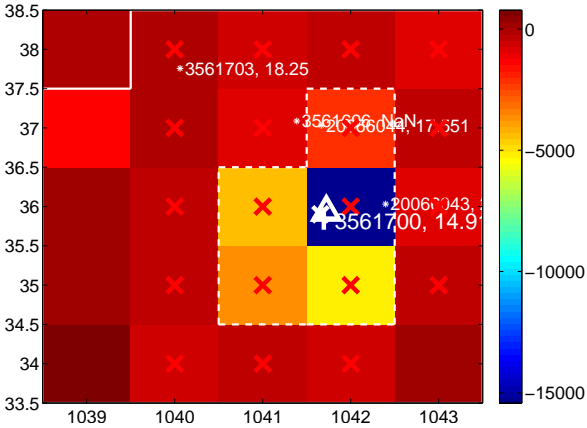
Q7 difference image. Poor Quality



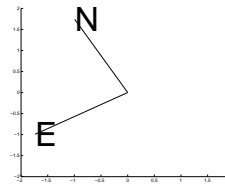
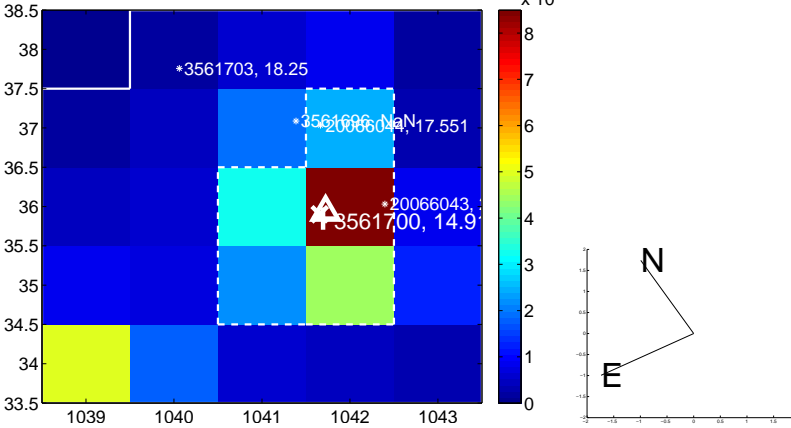
Q7 OOT image



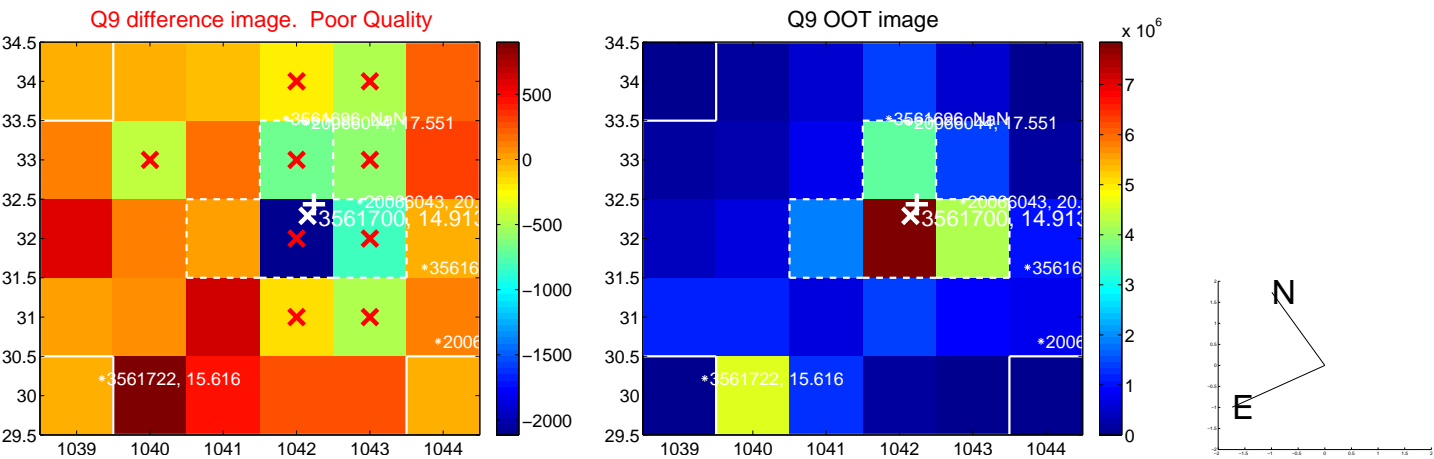
Q8 difference image. Poor Quality



Q8 OOT image



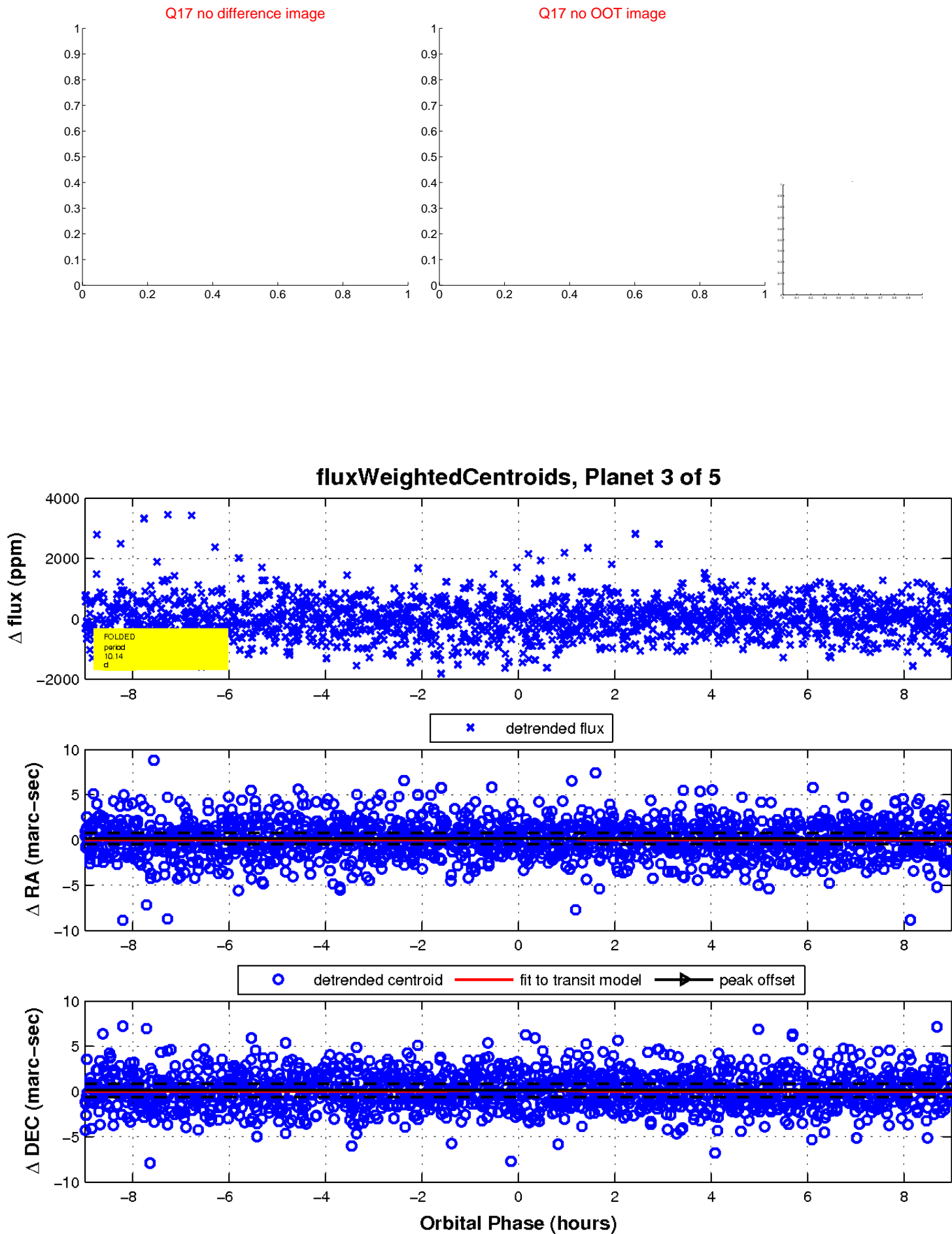
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

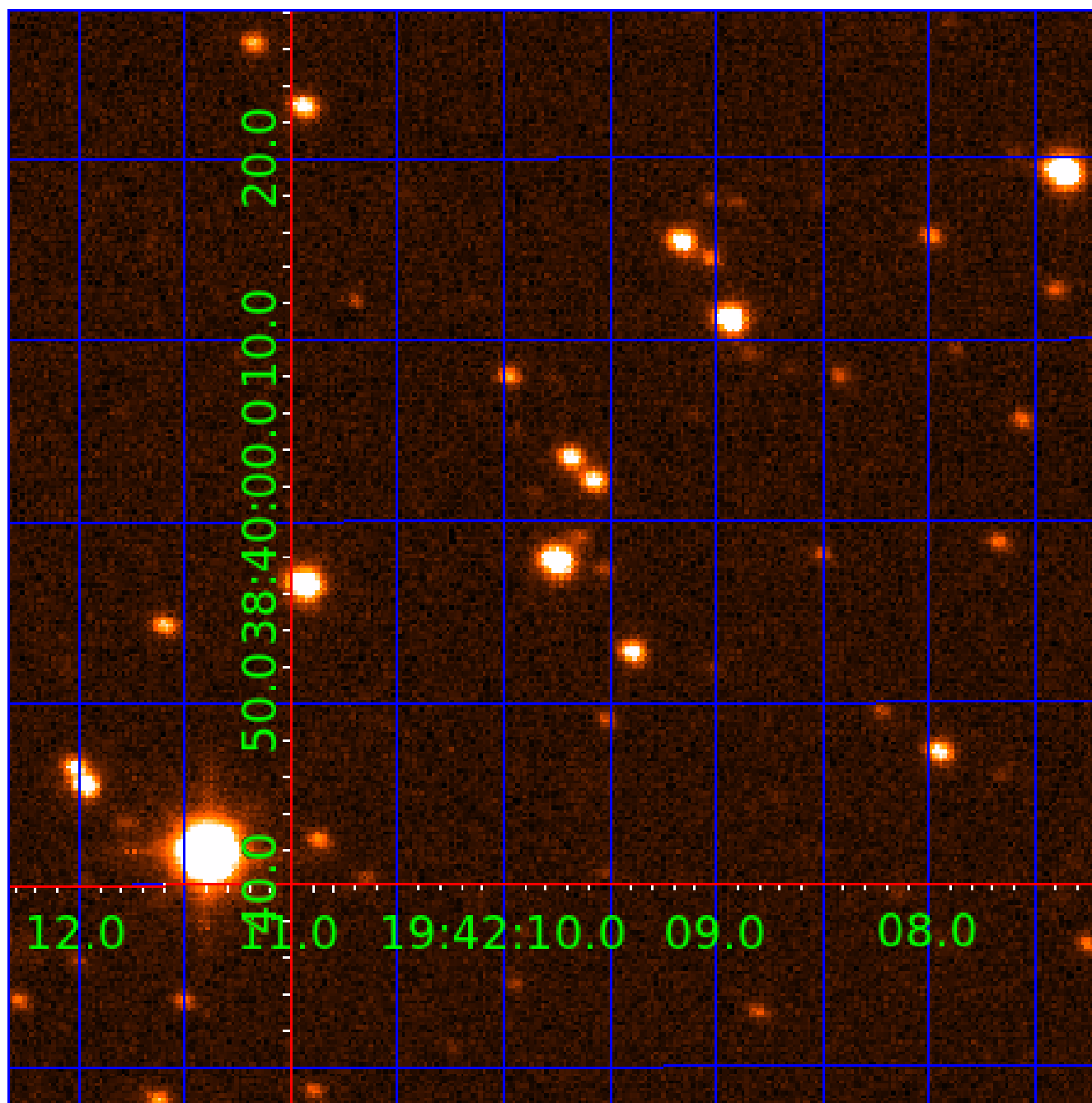


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003561700

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})
003561700-01	OBS	No	11.671715	134.762643	1192.2	4.789	17.1	17.5	2.90	11076	16.94	5379.96
003561700-02	OBS	No	0.686521	132.194517	57.9	4.851	9.4	5.2	2.90	11076	2.32	235190.70
003561700-03	OBS	No	10.140431	137.605161	1008.9	2.998	11.7	11.6	2.90	11076	10.04	6489.58
003561700-04	OBS	No	6.159135	134.464778	902.1	1.809	10.3	12.4	2.90	11076	9.72	12616.31
003561700-05	OBS	No	39.245731	133.104744	1370.3	1.500	9.1	-1.0	2.90	11076	11.08	1067.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003561700-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
003561700-02	OBS	FP	0.00	1	0	0	0	LPP_DV
003561700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

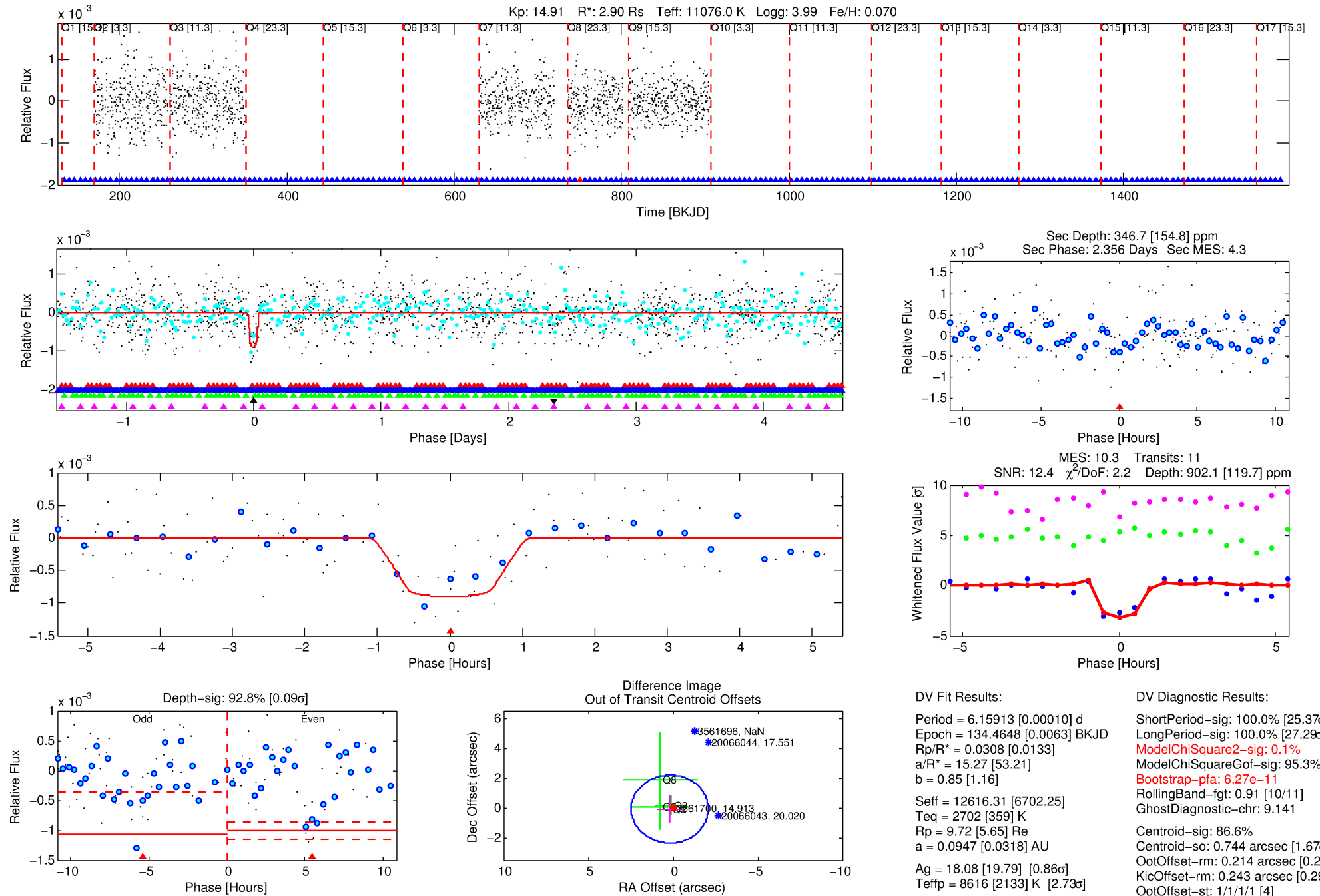
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003561700-04

No Significant Match Found

DV One-Page Summary

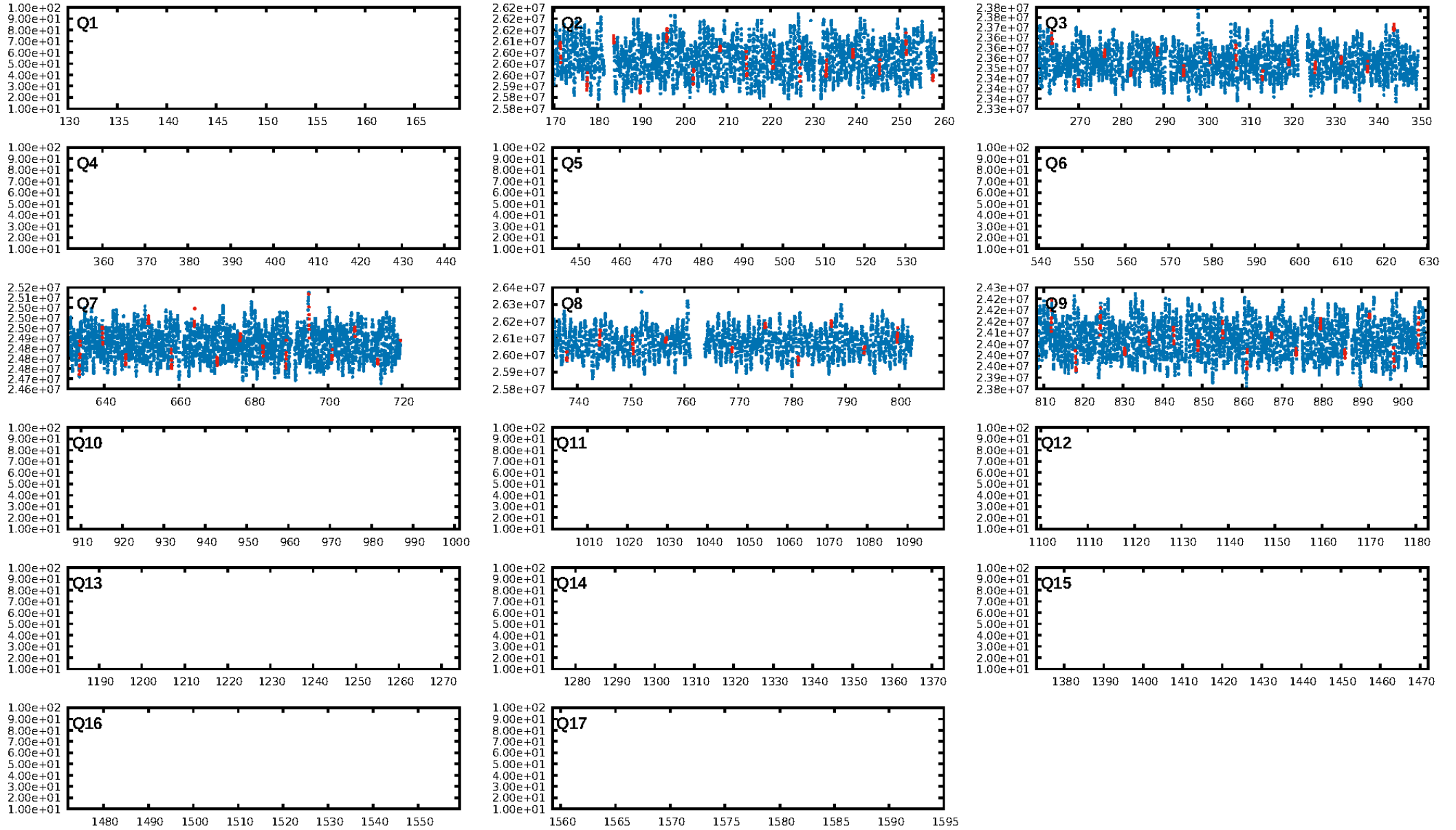
KIC: 3561700 Candidate: 4 of 5 Period: 6.159 d



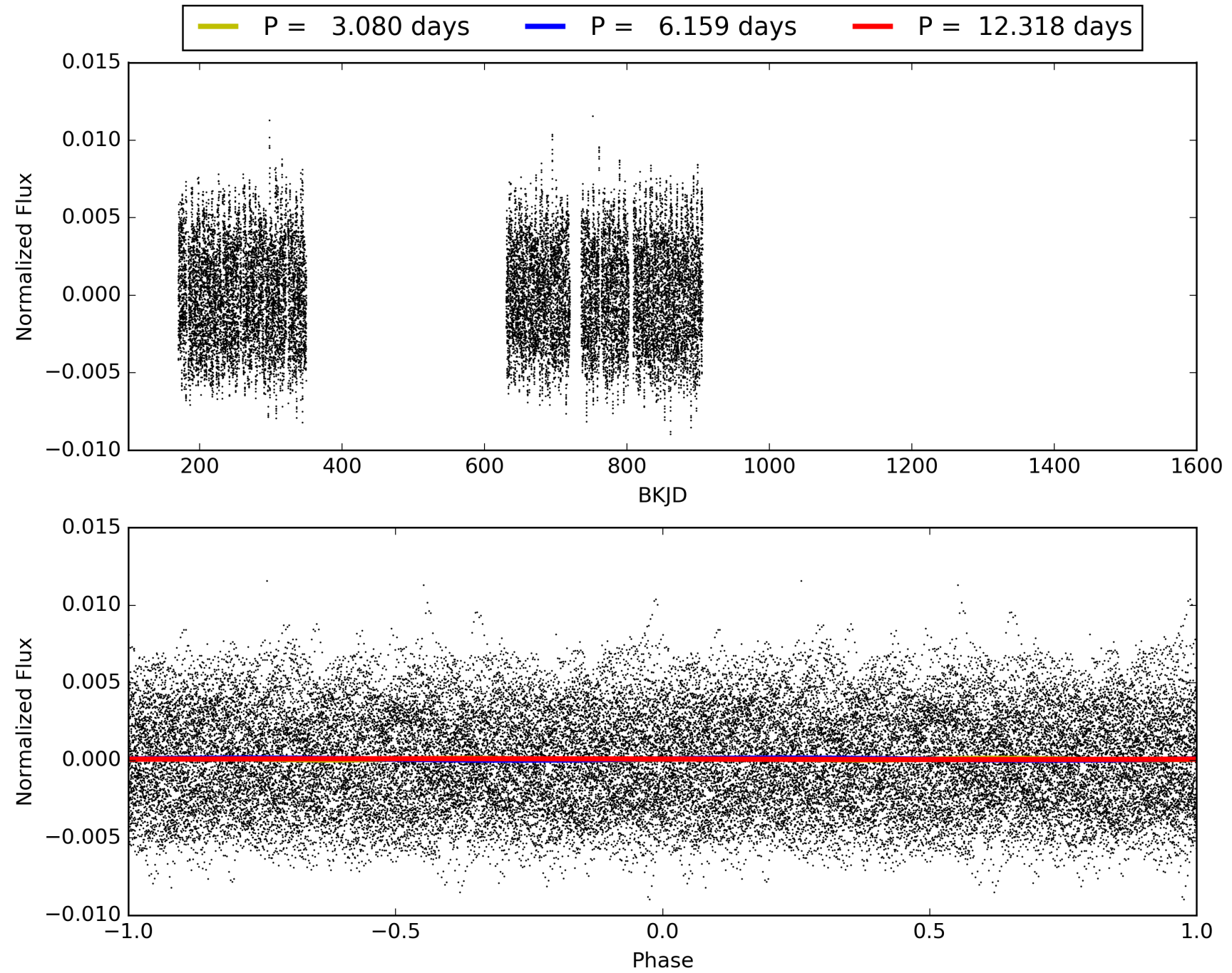
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:37:19 Z

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

TCE 003561700-04, PDC Light Curves

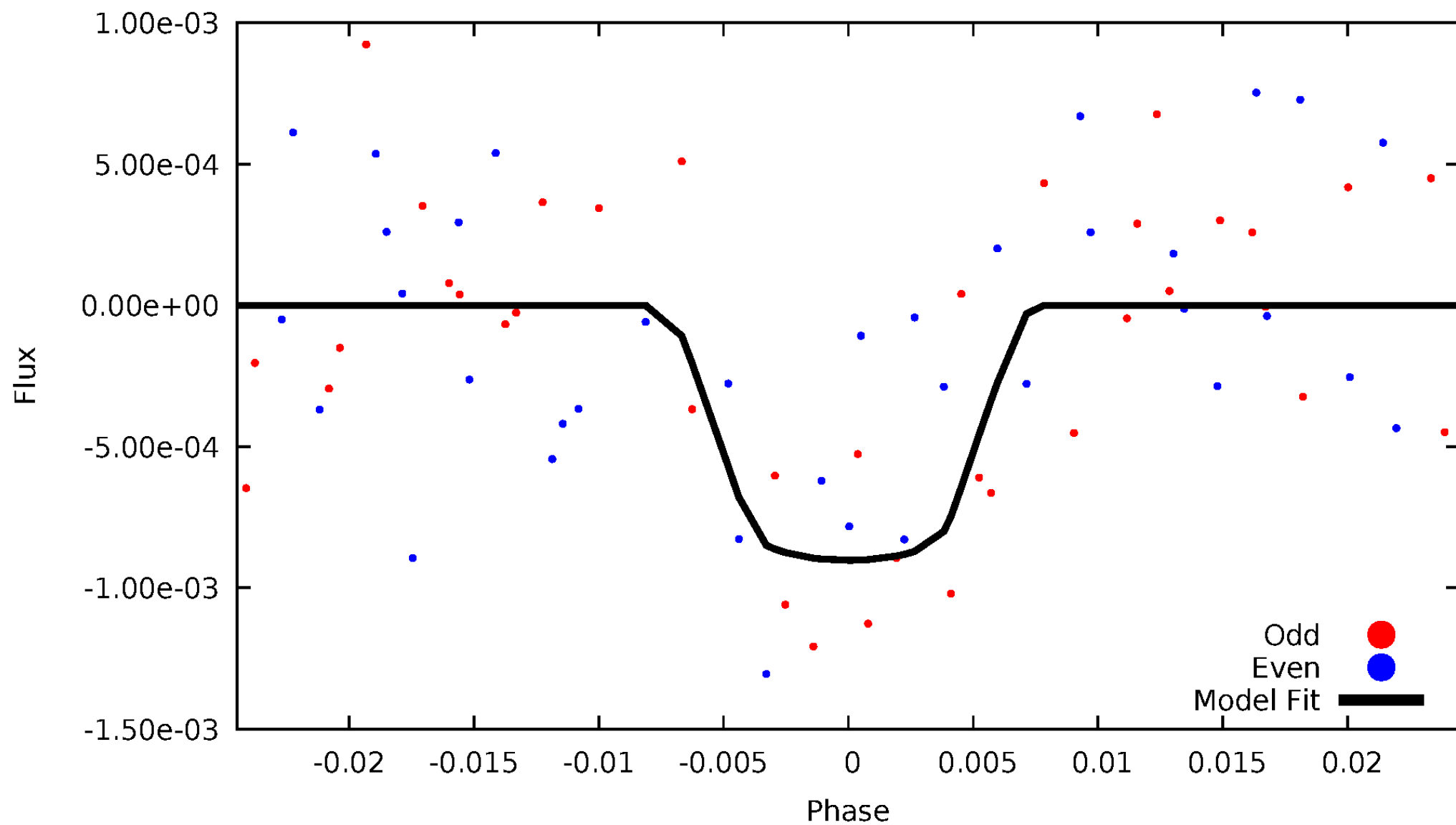


TCE 003561700-04



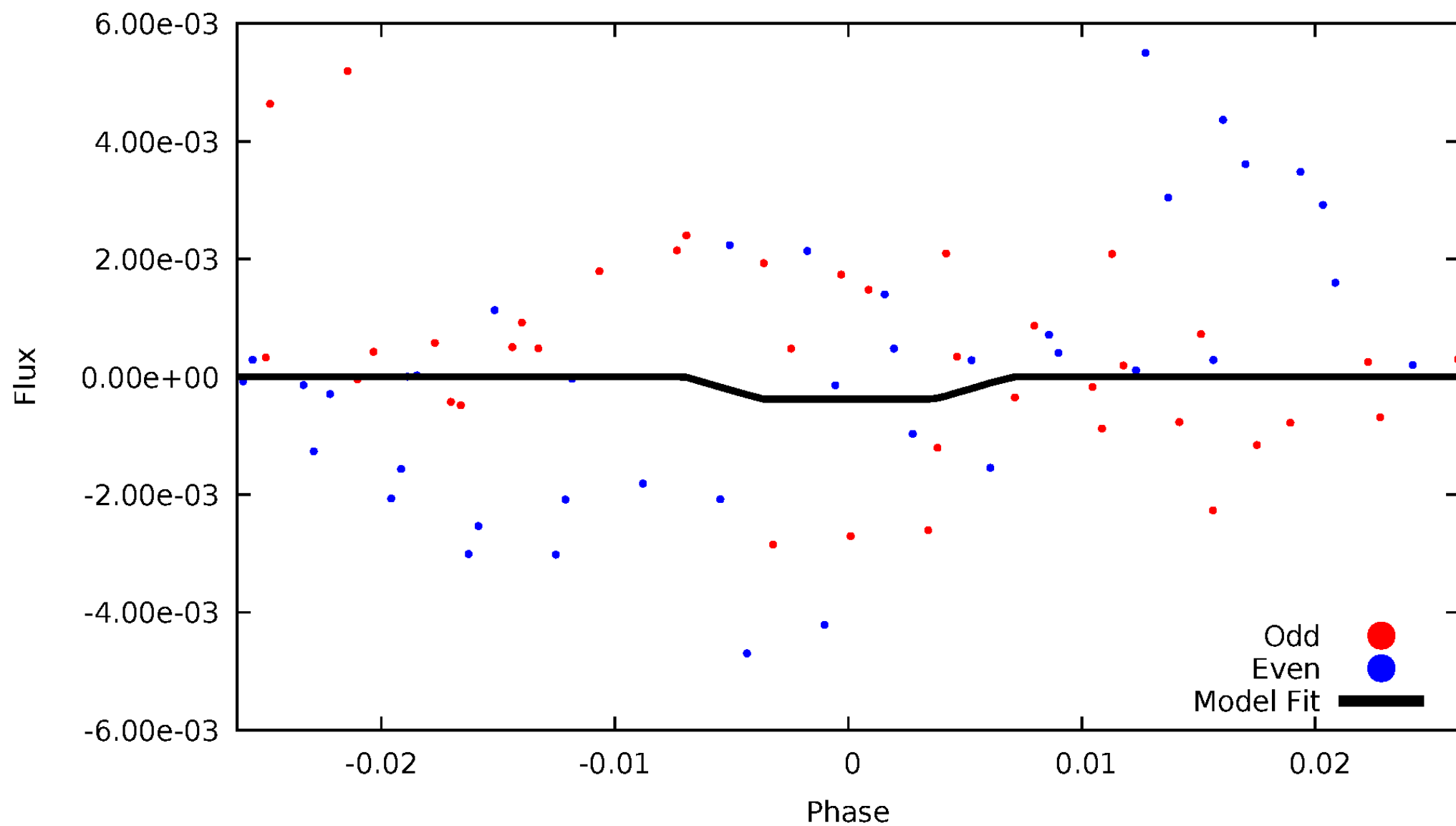
DV Odd/Even

TCE 003561700-04



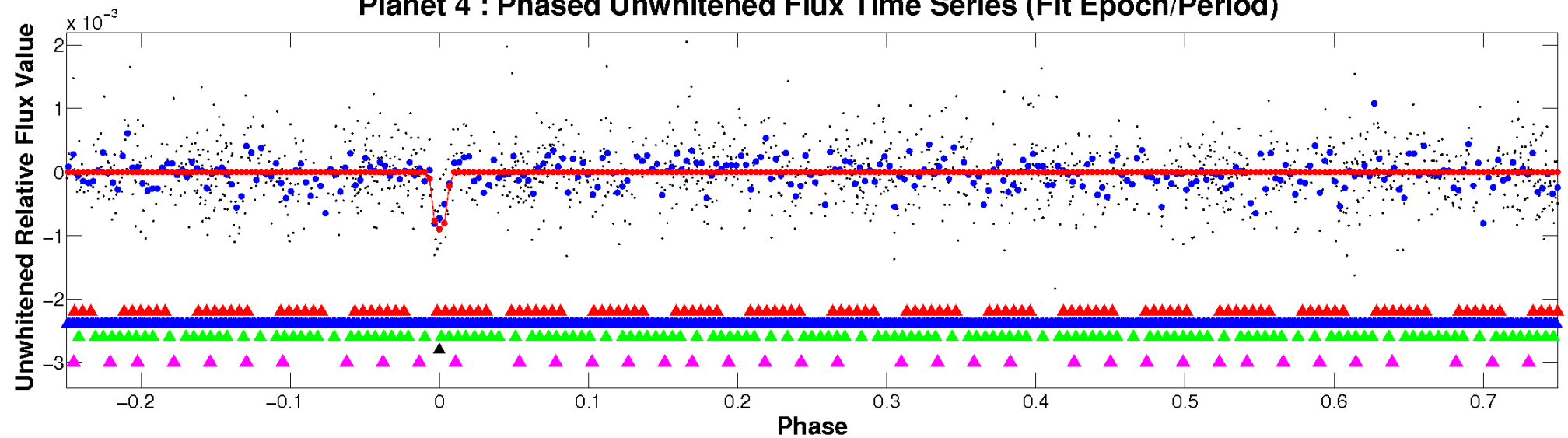
ALT Odd/Even

TCE 003561700-04

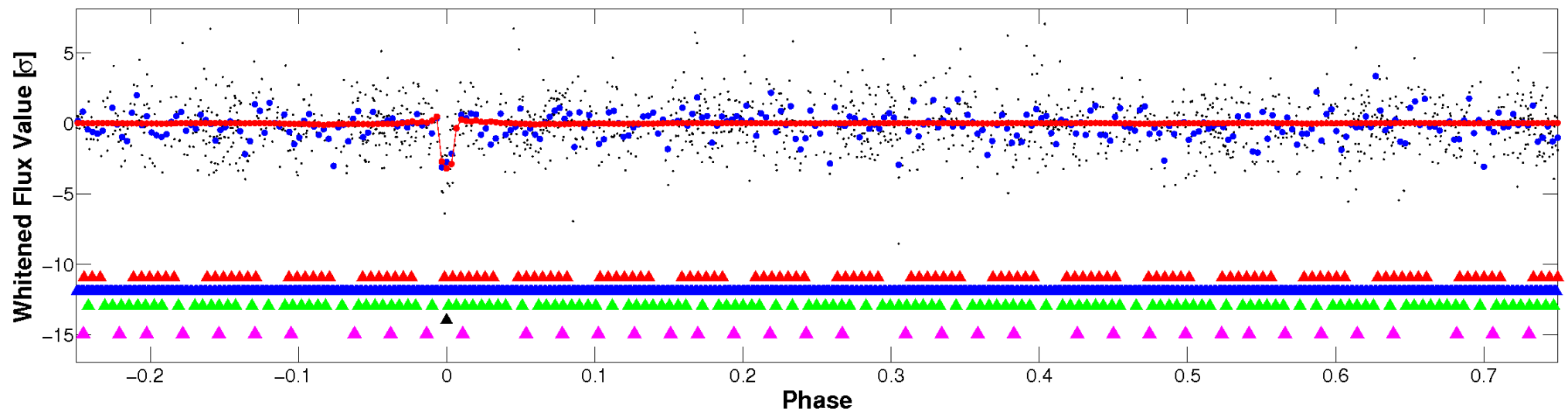


Non-Whitened Vs. Whitened Light Curve

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

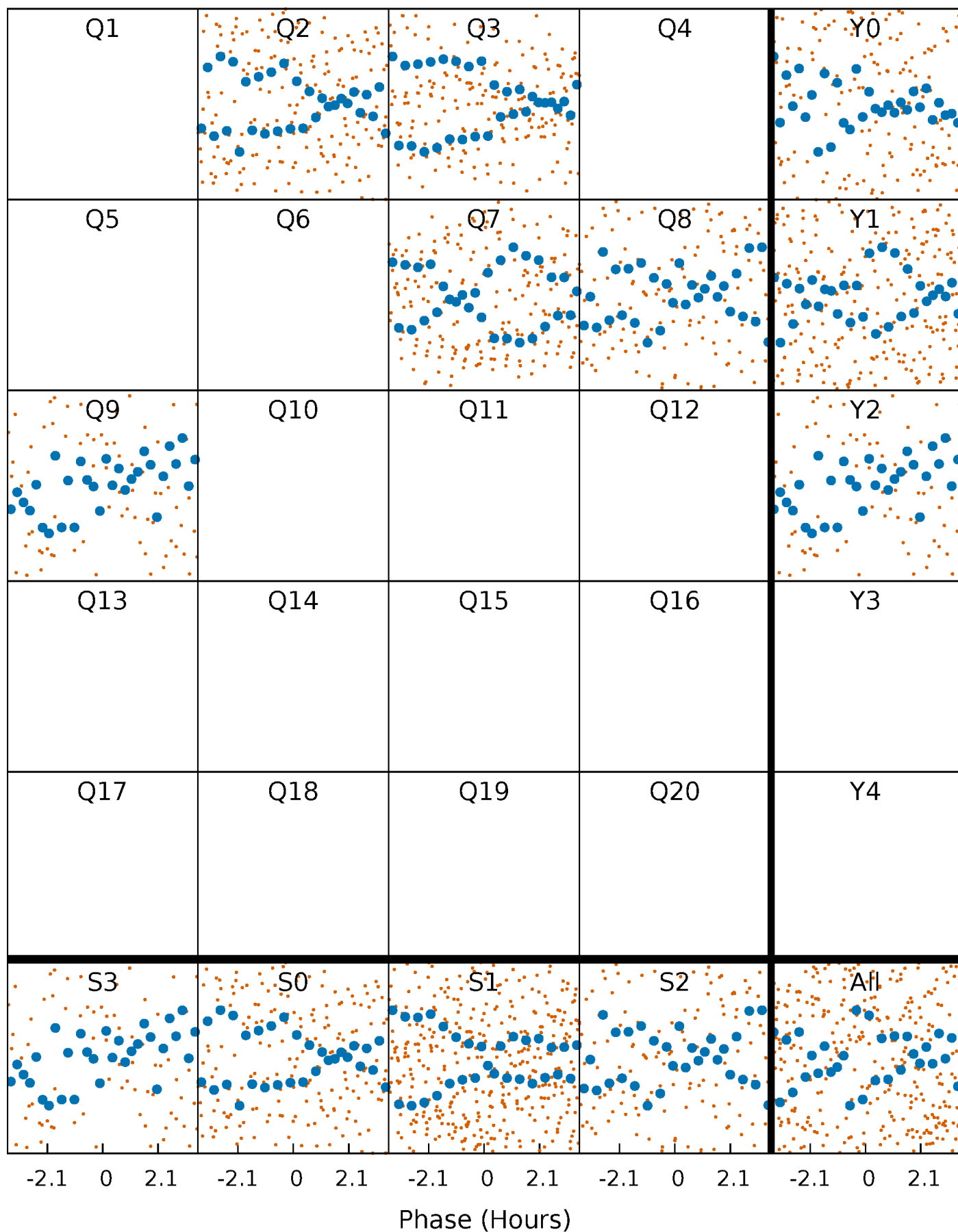


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



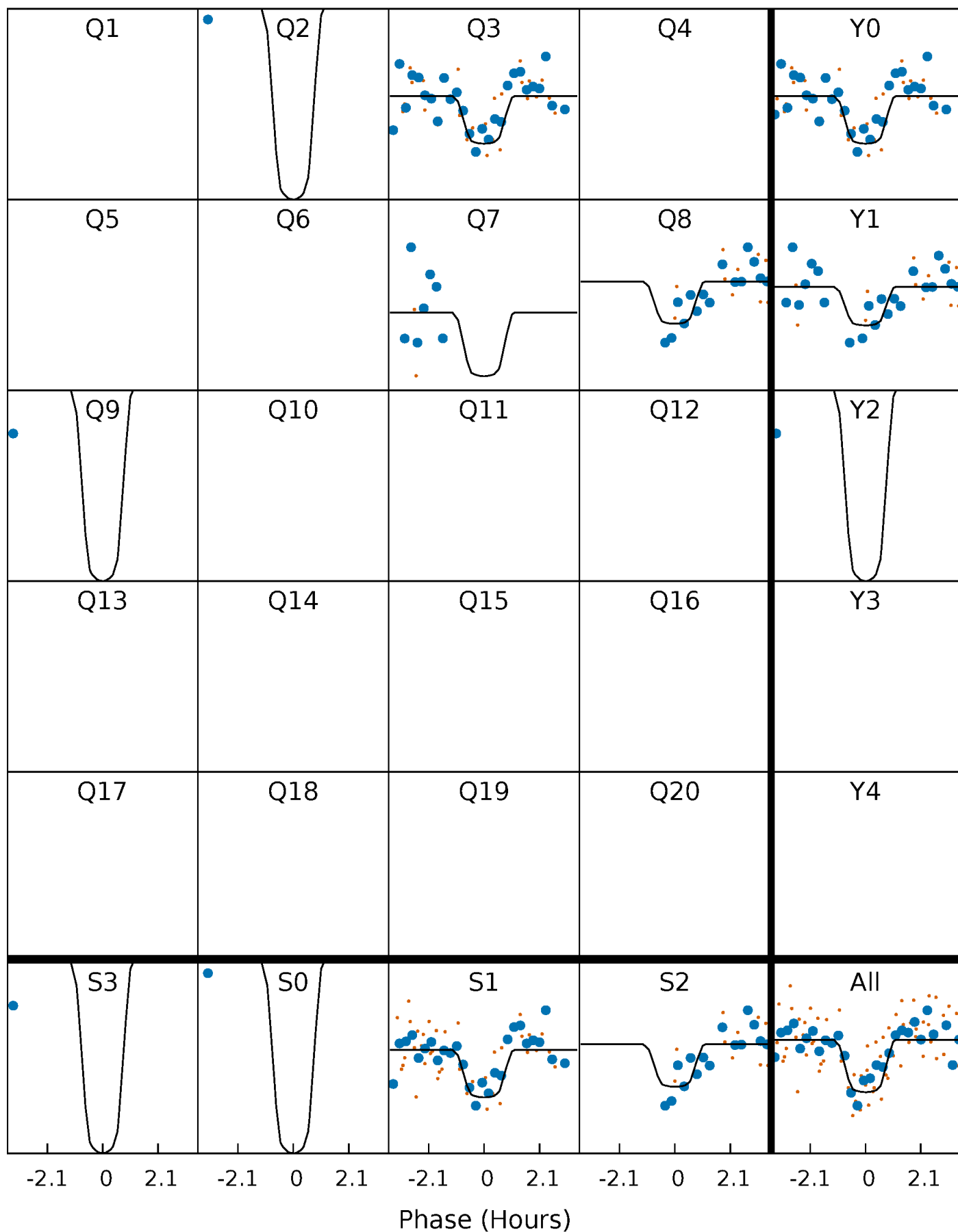
PDC Quarter-Phased Transit Curves

TCE 003561700-04 P= 6.159135 Days $T_0=134.464778$ (BKJD)



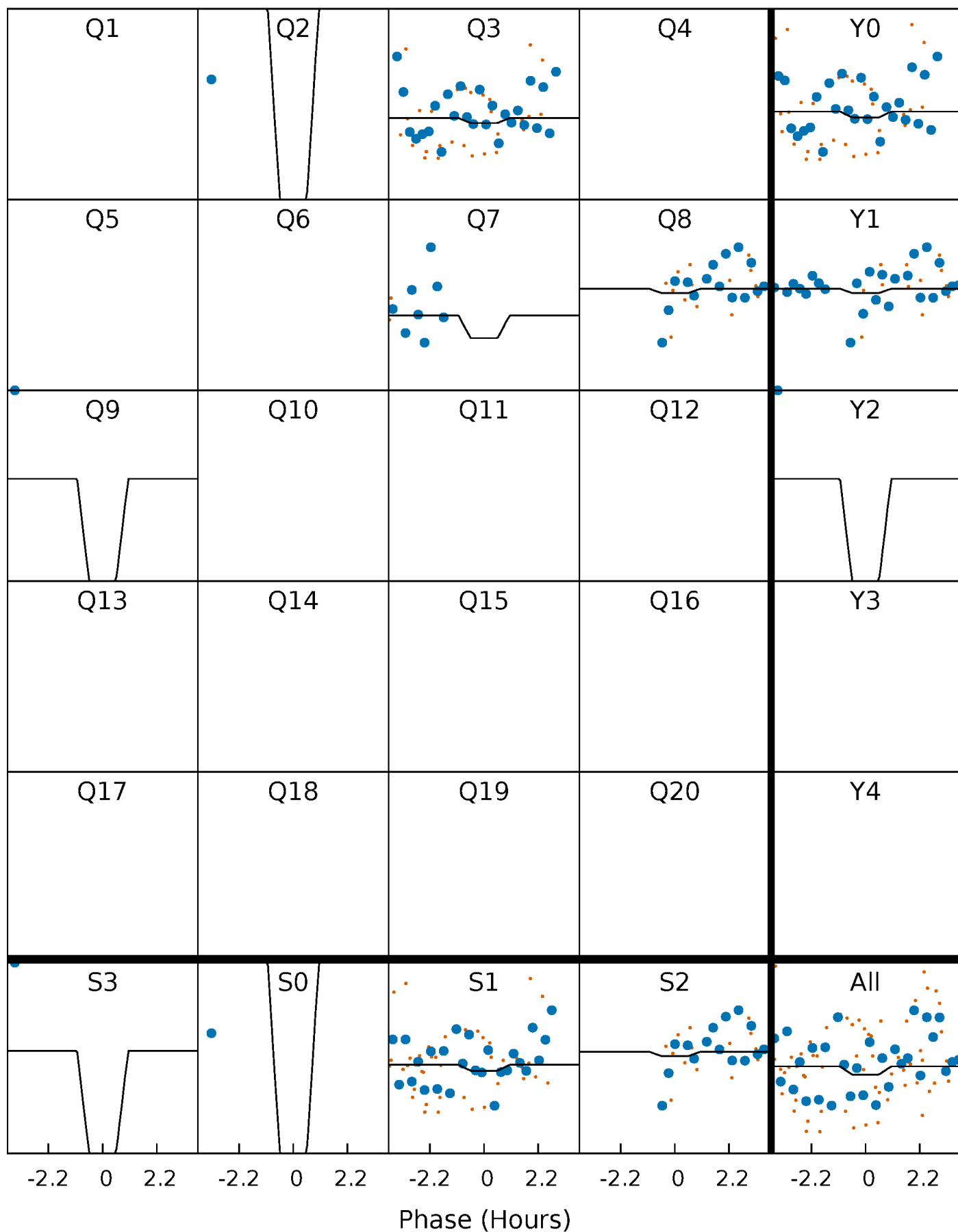
DV Quarter-Phased Transit Curves

TCE 003561700-04 P= 6.159135 Days $T_0=134.464778$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

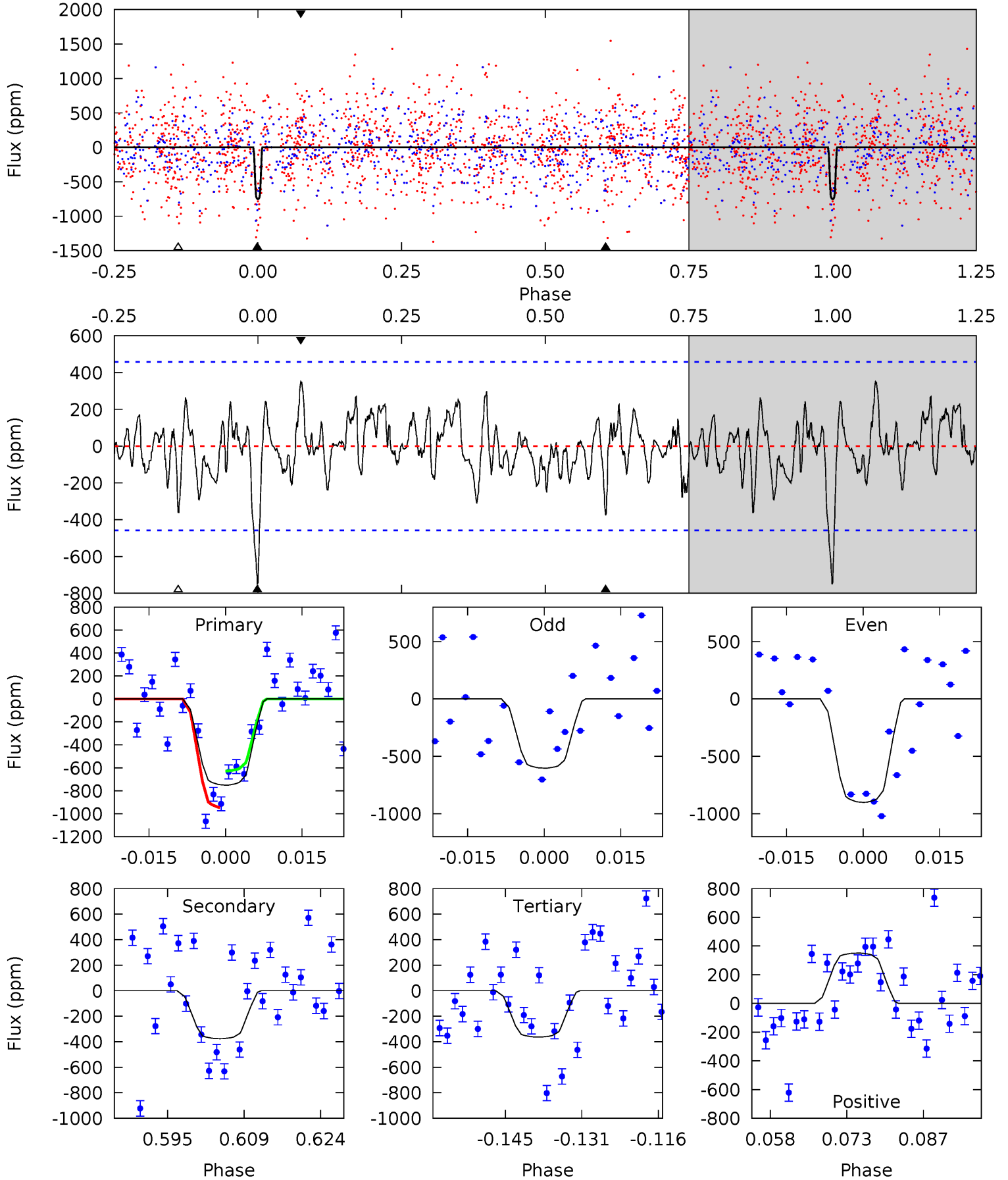
TCE 003561700-04 P= 6.159167 Days $T_0=134.468107$ (BKJD)



DV Model-Shift Uniqueness Test

003561700-04, P = 6.159135 Days, E = 134.464778 Days

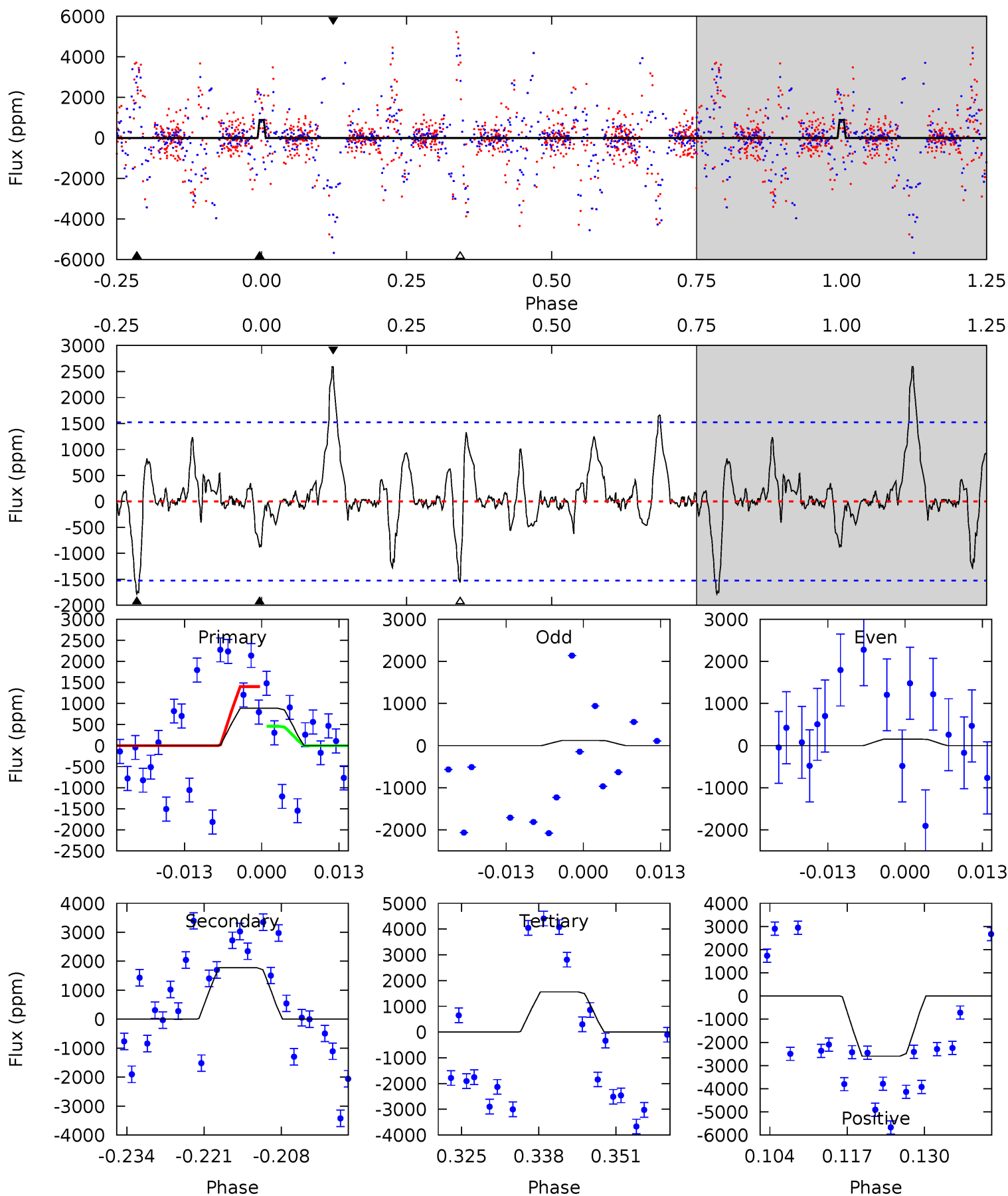
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.12	4.06	3.93	3.79	4.95	2.44	1.38	4.19	4.32	0.13	0.27	1.65	0.86	0.32	1.65



Alt Model-Shift Uniqueness Test

003561700-04, P = 6.159167 Days, E = 134.468107 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.89	5.82	5.10	8.47	4.98	2.48	1.27	-2.21	-5.58	0.72	-2.65	0.04	-0.74	0.59	1.68



Stellar Parameters For KIC 003561700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11076^{+381}_{-495}	$3.989^{+0.279}_{-0.150}$	$0.070^{+0.150}_{-0.650}$	$2.896^{+0.605}_{-1.123}$	$2.984^{+0.201}_{-0.754}$	$0.173^{+0.339}_{-0.078}$
	+3%/-4%	+7%/-4%	+214%/-929%	+21%/-39%	+7%/-25%	+196%/-45%
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 003561700-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-376 ± 93	$9.06^{+4.41}_{-3.51}$	3736^{+302}_{-351}	8005^{+3647}_{-1644}	21^{+38}_{-11}
Alt.	-1781 ± 306	$6.32^{+4.16}_{-3.54}$	3756^{+284}_{-343}	21370^{+45341}_{-8339}	208^{+862}_{-130}

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

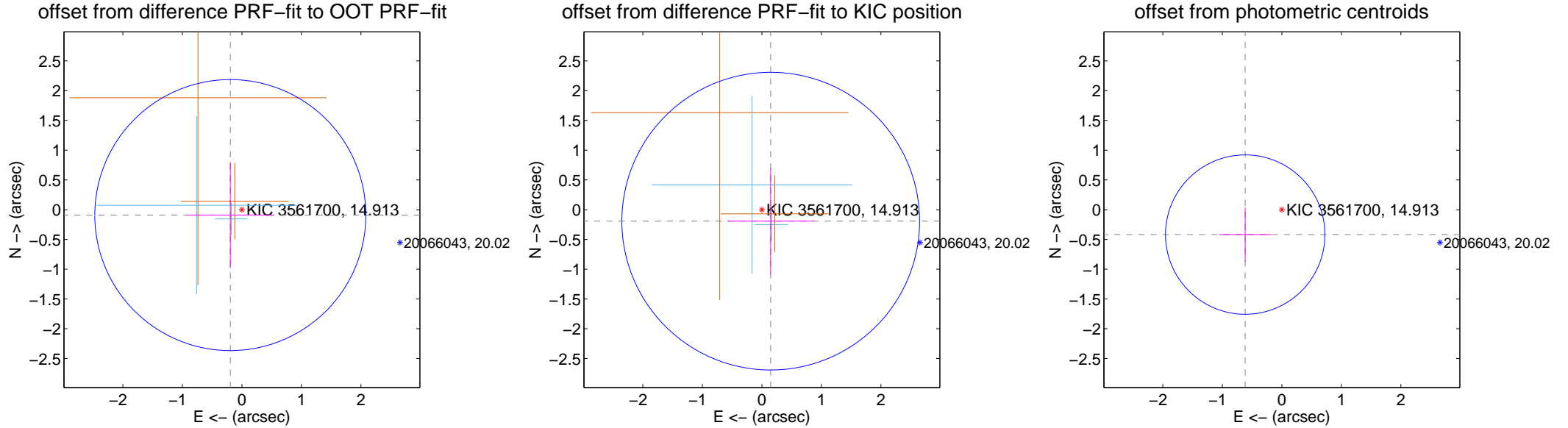
DV Centroid Data

Supplemental centroid analysis for 003561700-04. Kepler magnitude: 14.91. Transit SNR 12.36

There are 2 quarters with good PRF difference image offsets

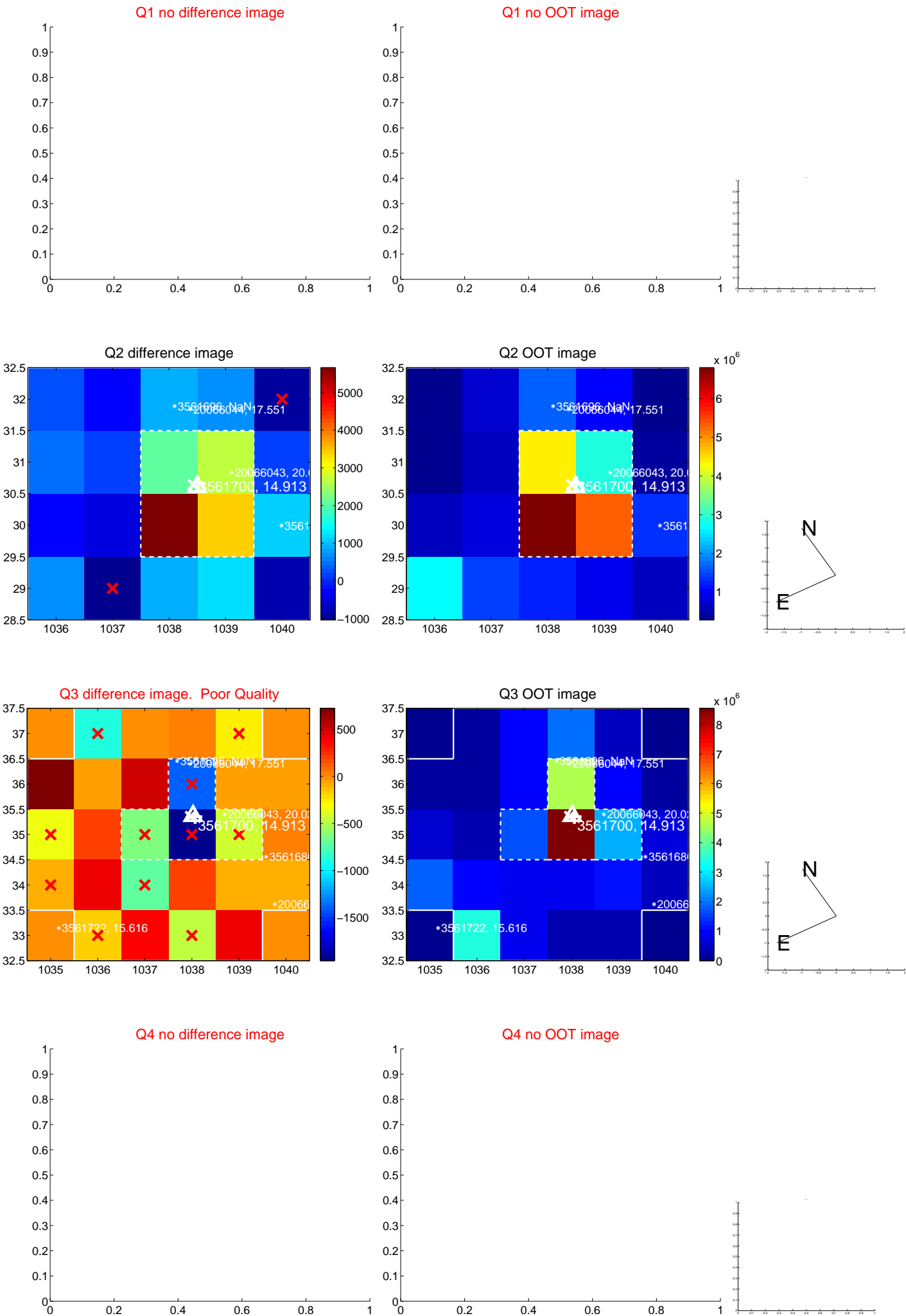
The direct PRF centroid is offset from the target star catalog position by about 0.69 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.214 ± 0.759	0.28	0.194 ± 0.727	-0.090 ± 0.891
PRF-fit source offset from KIC position	0.243 ± 0.833	0.29	-0.148 ± 0.727	-0.192 ± 0.891
photometric centroid source offset	0.74 ± 0.45	1.67	0.62 ± 0.44	-0.42 ± 0.45

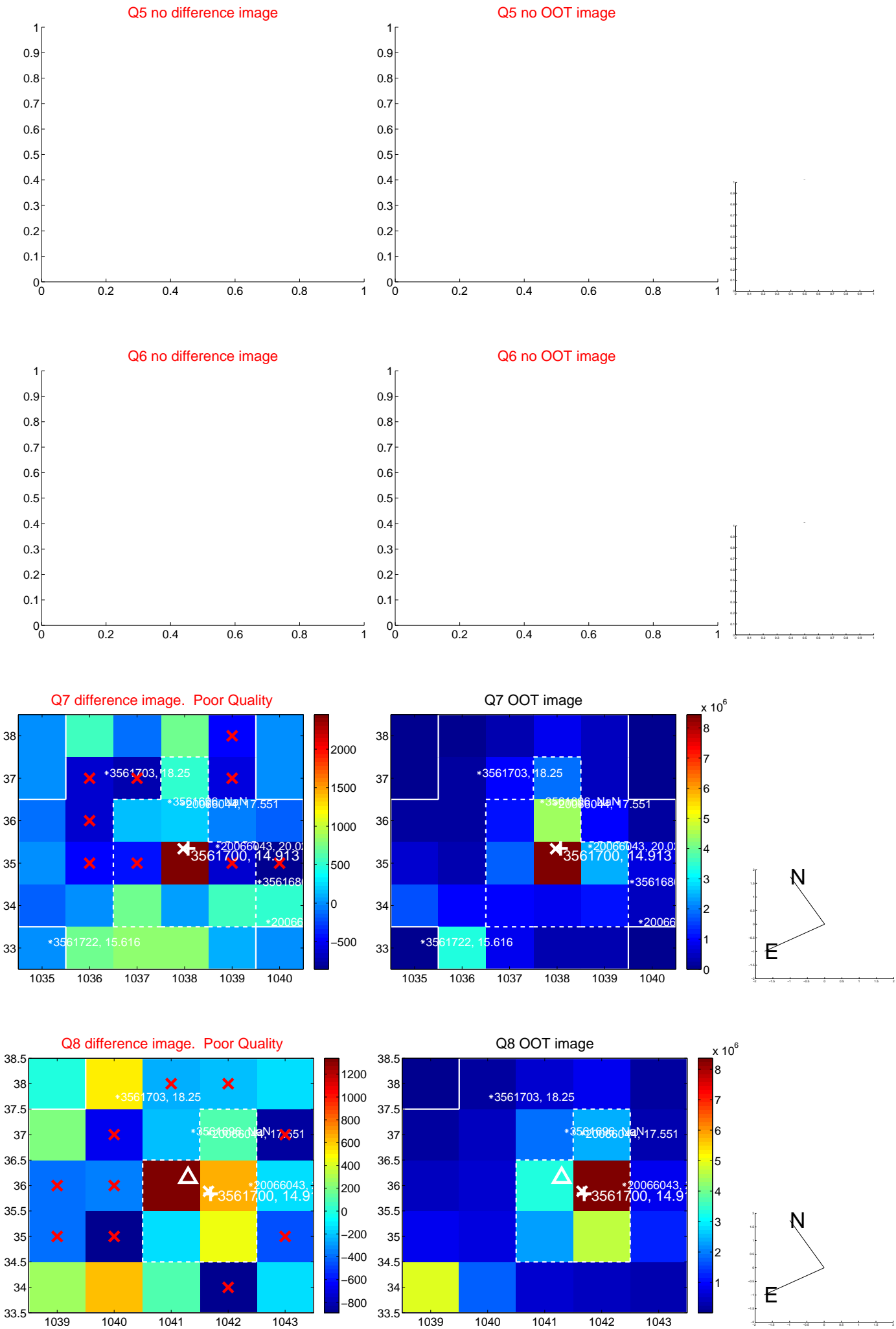


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

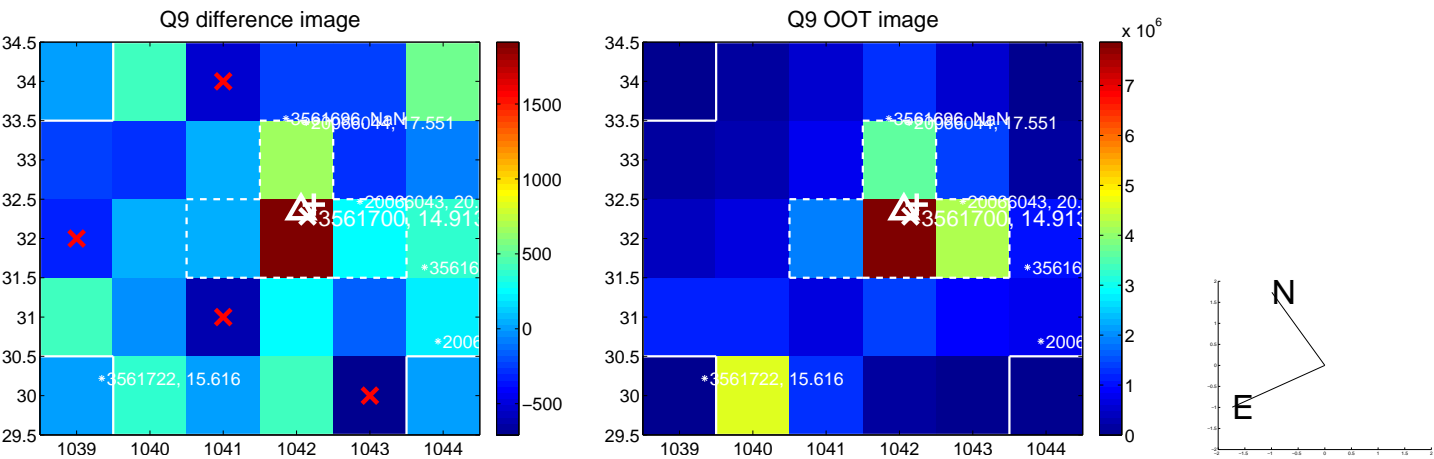
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



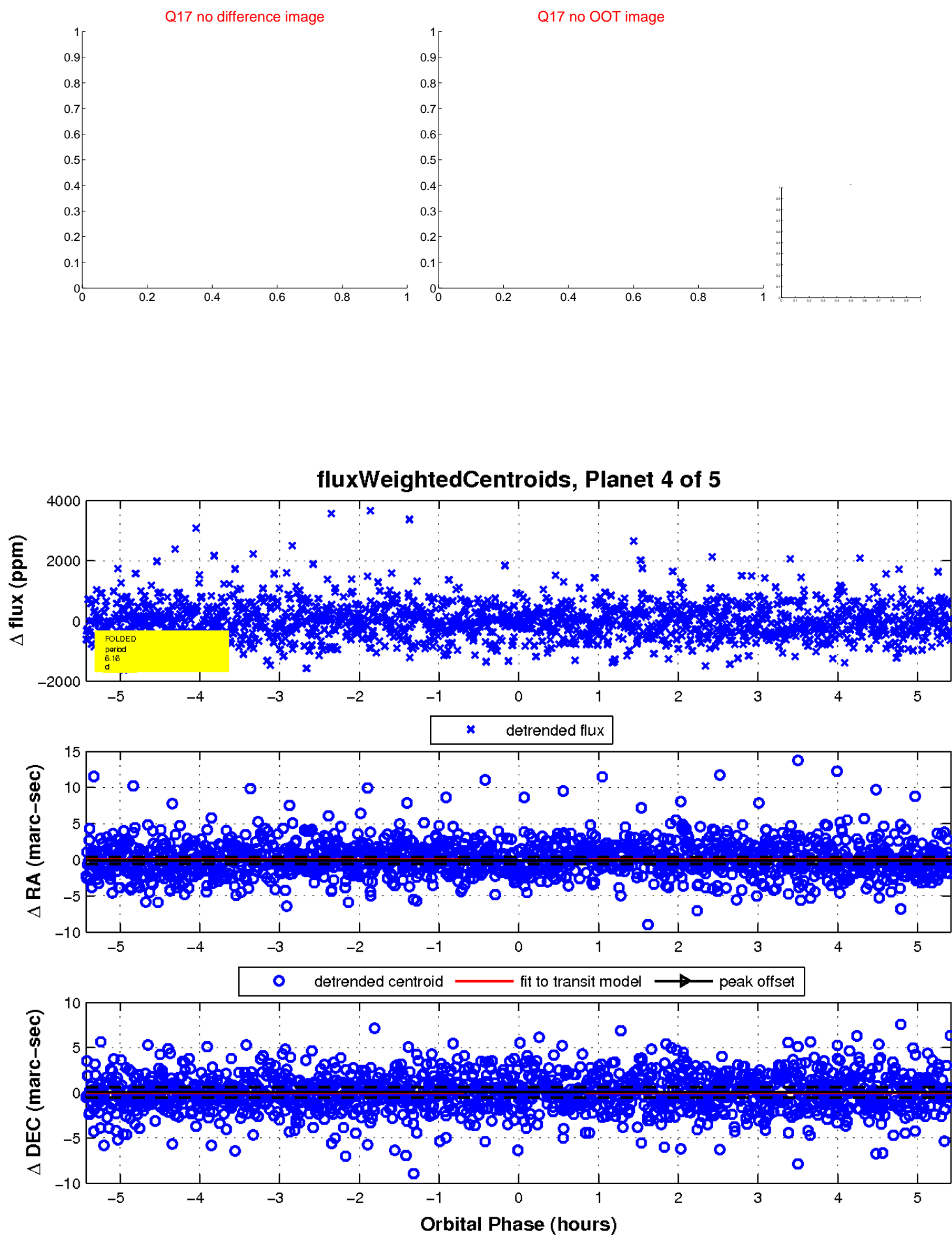
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

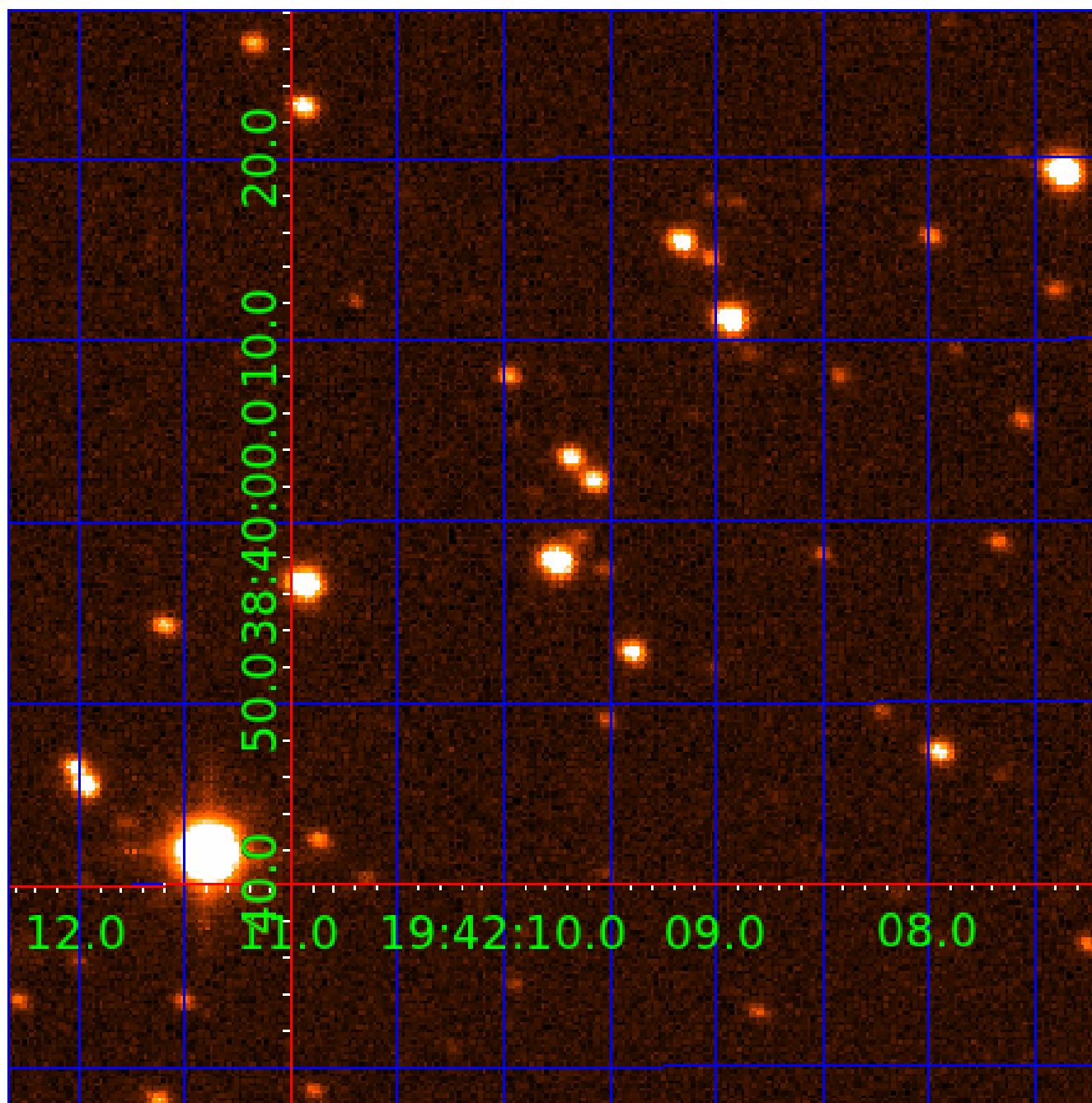


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003561700

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})
003561700-01	OBS	No	11.671715	134.762643	1192.2	4.789	17.1	17.5	2.90	11076	16.94	5379.96
003561700-02	OBS	No	0.686521	132.194517	57.9	4.851	9.4	5.2	2.90	11076	2.32	235190.70
003561700-03	OBS	No	10.140431	137.605161	1008.9	2.998	11.7	11.6	2.90	11076	10.04	6489.58
003561700-04	OBS	No	6.159135	134.464778	902.1	1.809	10.3	12.4	2.90	11076	9.72	12616.31
003561700-05	OBS	No	39.245731	133.104744	1370.3	1.500	9.1	-1.0	2.90	11076	11.08	1067.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003561700-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
003561700-02	OBS	FP	0.00	1	0	0	0	LPP_DV
003561700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
003561700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

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

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

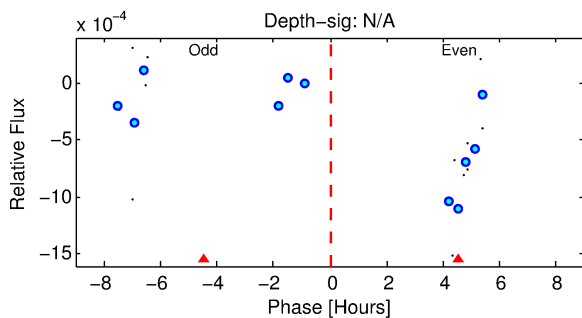
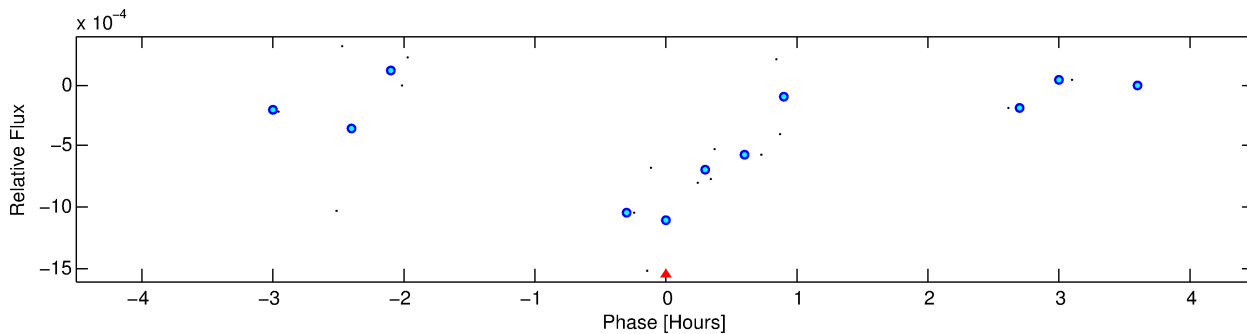
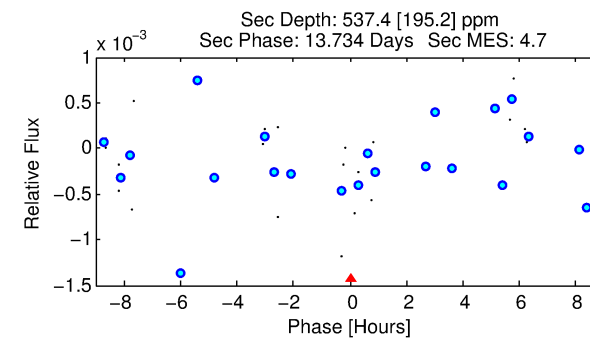
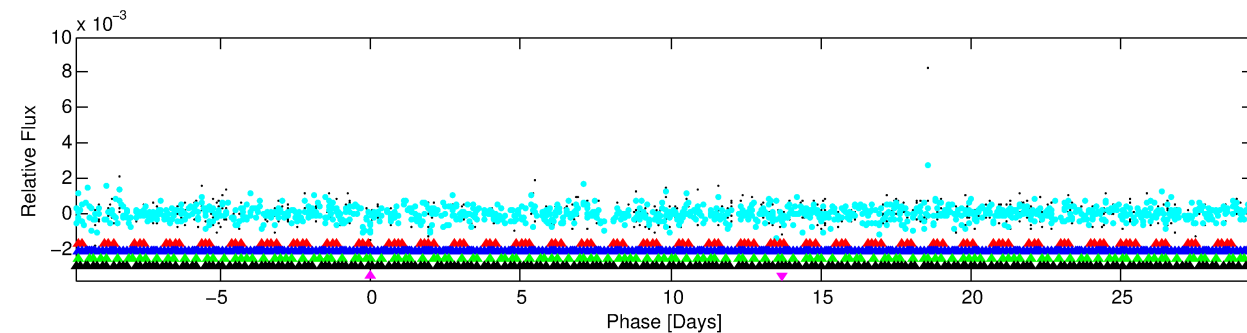
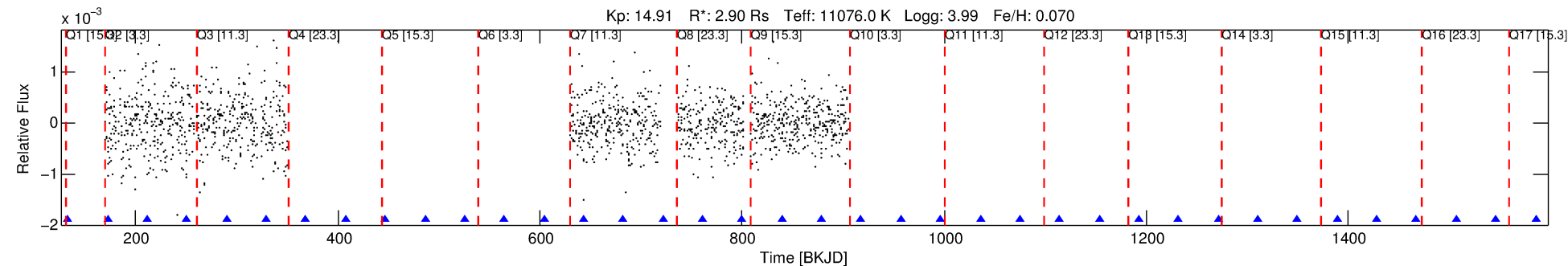
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003561700-05

No Significant Match Found

DV One-Page Summary

KIC: 3561700 Candidate: 5 of 5 Period: 39.246 d



TPS TCE Results:

Period = 39.24573 d
Epoch = 133.1047 BKJD

DV fit results are unavailable

DV Diagnostic Results:

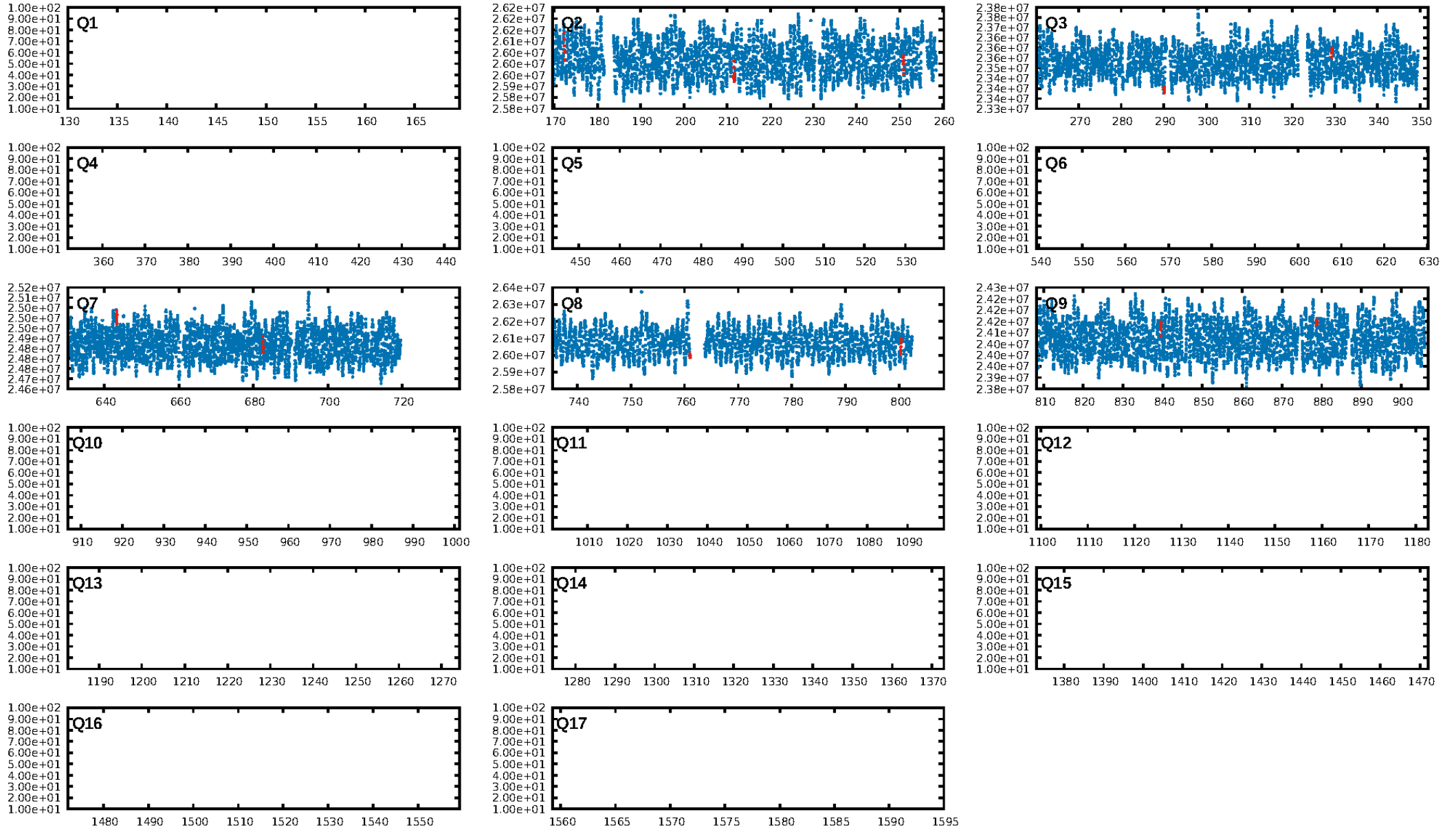
ShortPeriod-sig: 100.0% [131.87 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 3.64e-09
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A

Centroid-sig: N/A
Centroid-so: N/A
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: N/A

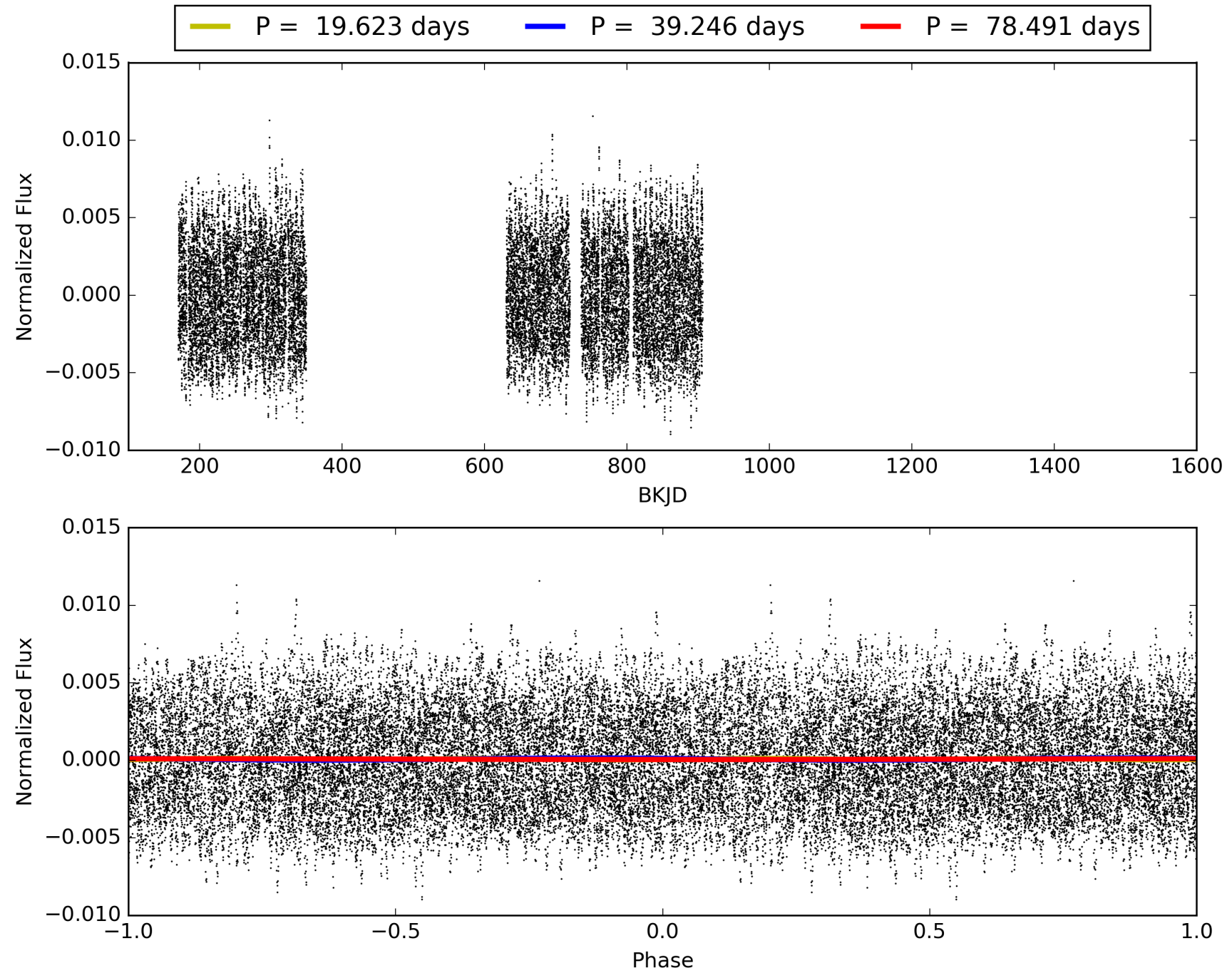
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:37:22 Z

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

TCE 003561700-05, PDC Light Curves

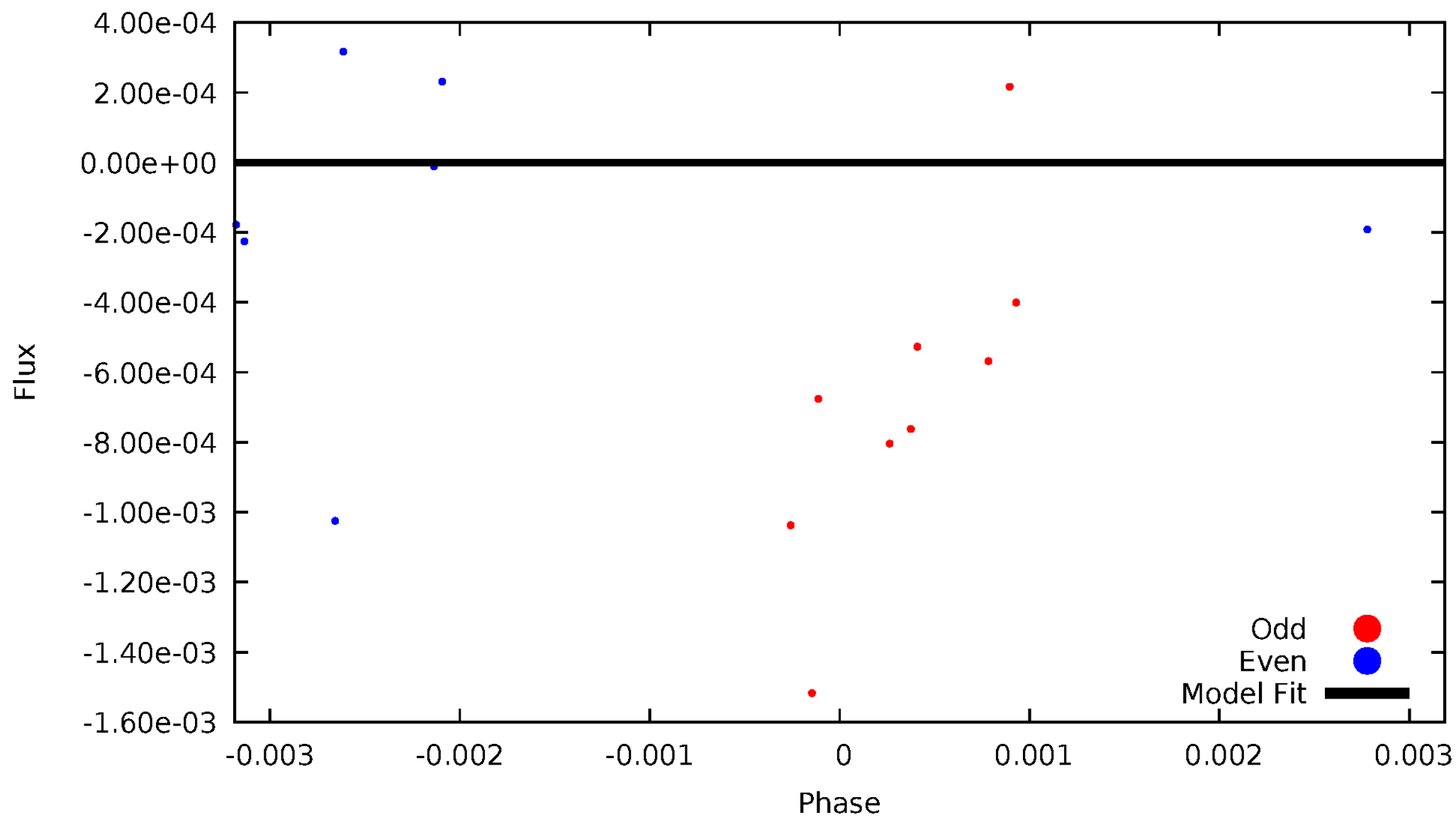


TCE 003561700-05



DV Odd/Even

TCE 003561700-05

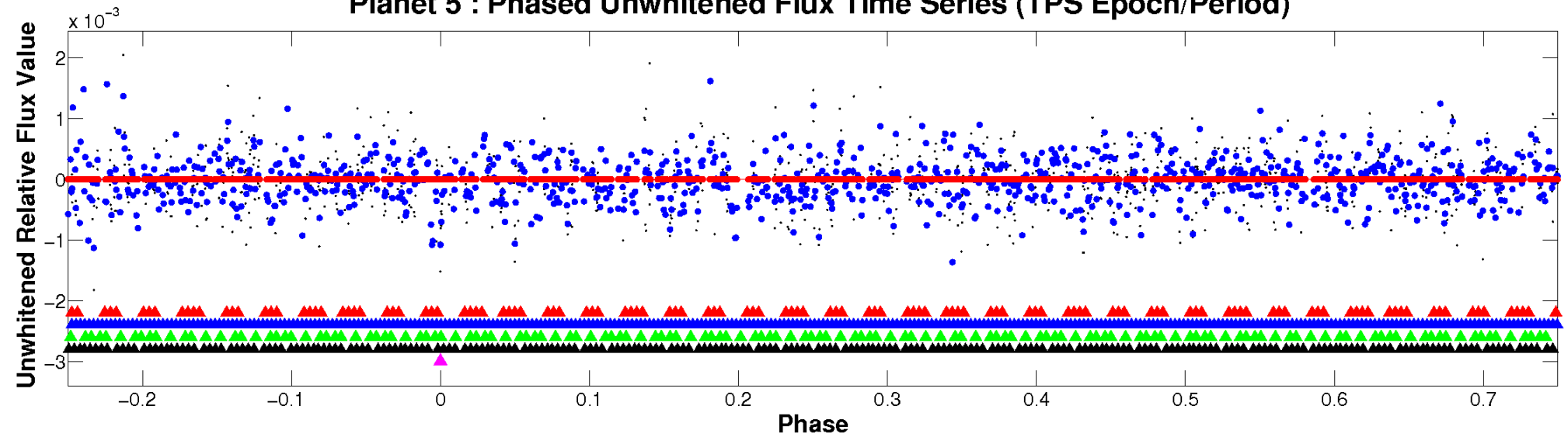


ALT Odd/Even

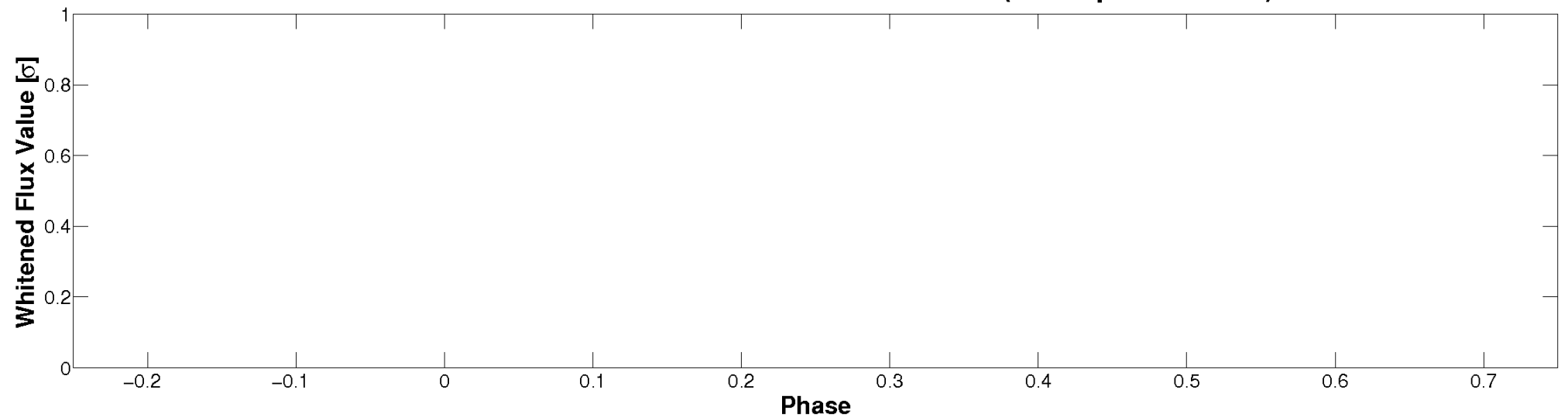
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

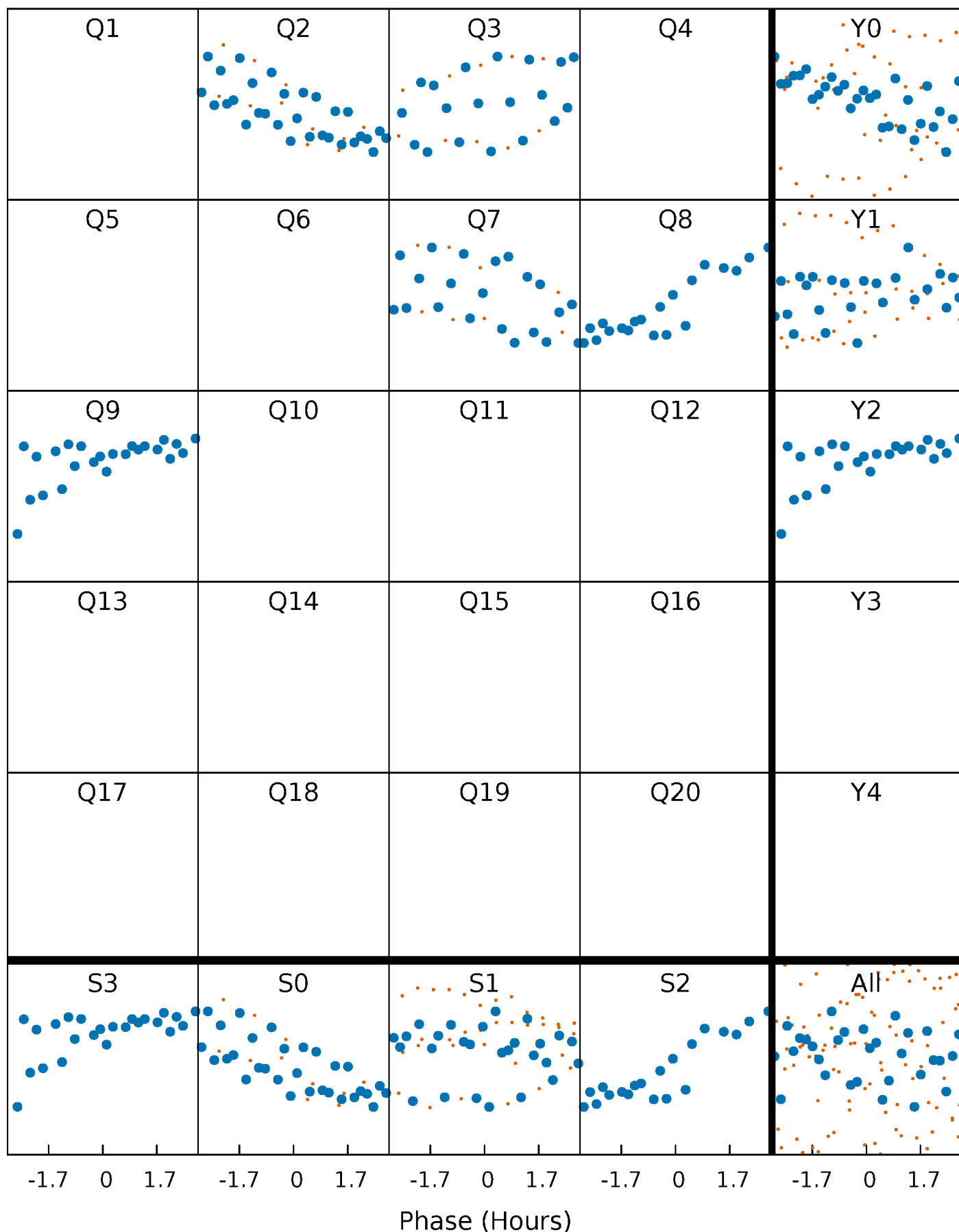


Planet 5 : Phased Whitened Flux Time Series (TPS Epoch/Period)



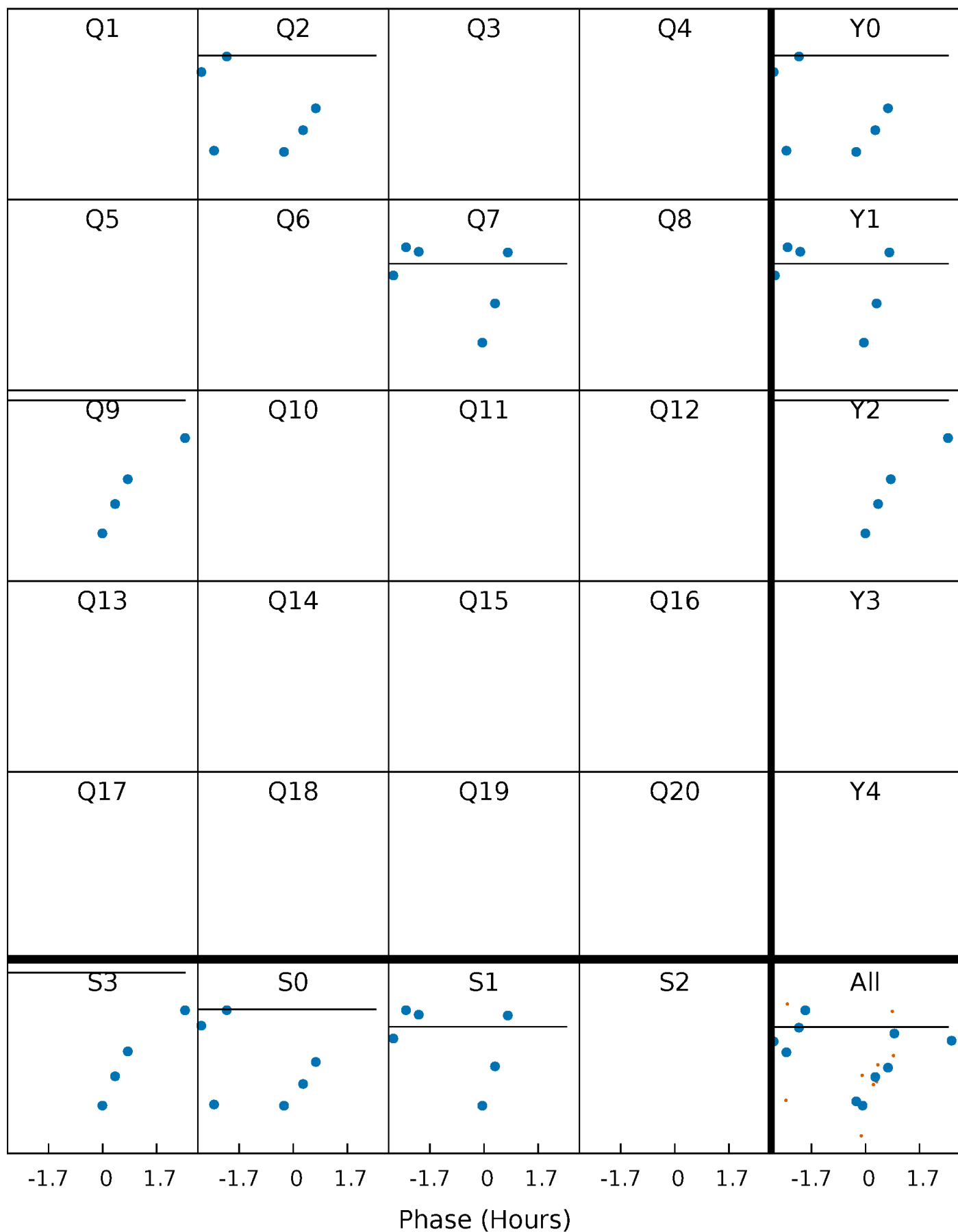
PDC Quarter-Phased Transit Curves

TCE 003561700-05 $P = 39.245731$ Days $T_0 = 133.104744$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 003561700-05 $P = 39.245731$ Days $T_0 = 133.104744$ (BKJD)

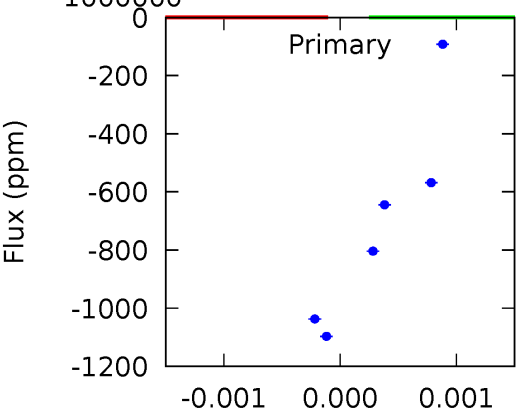
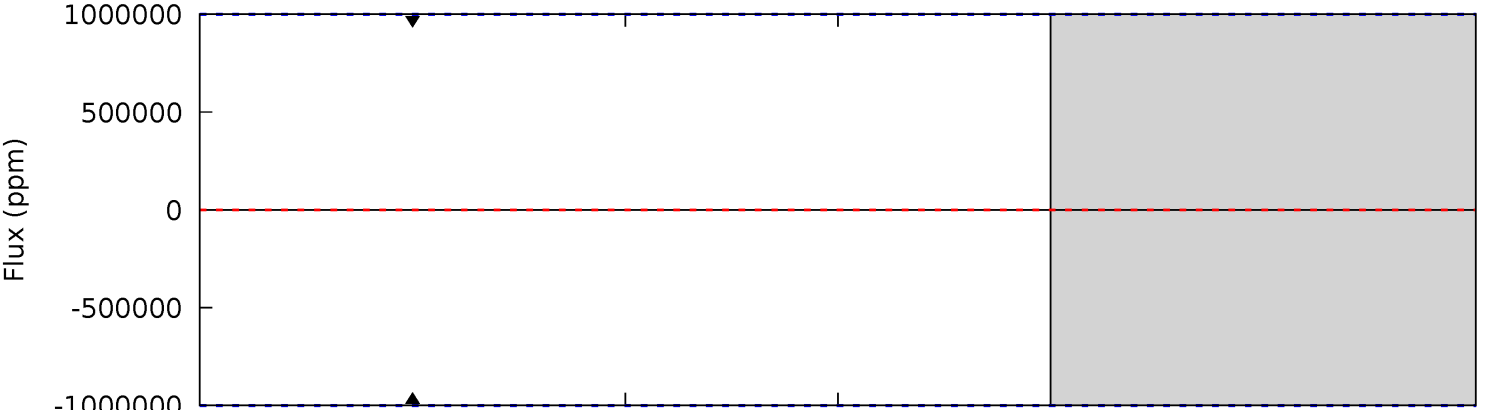
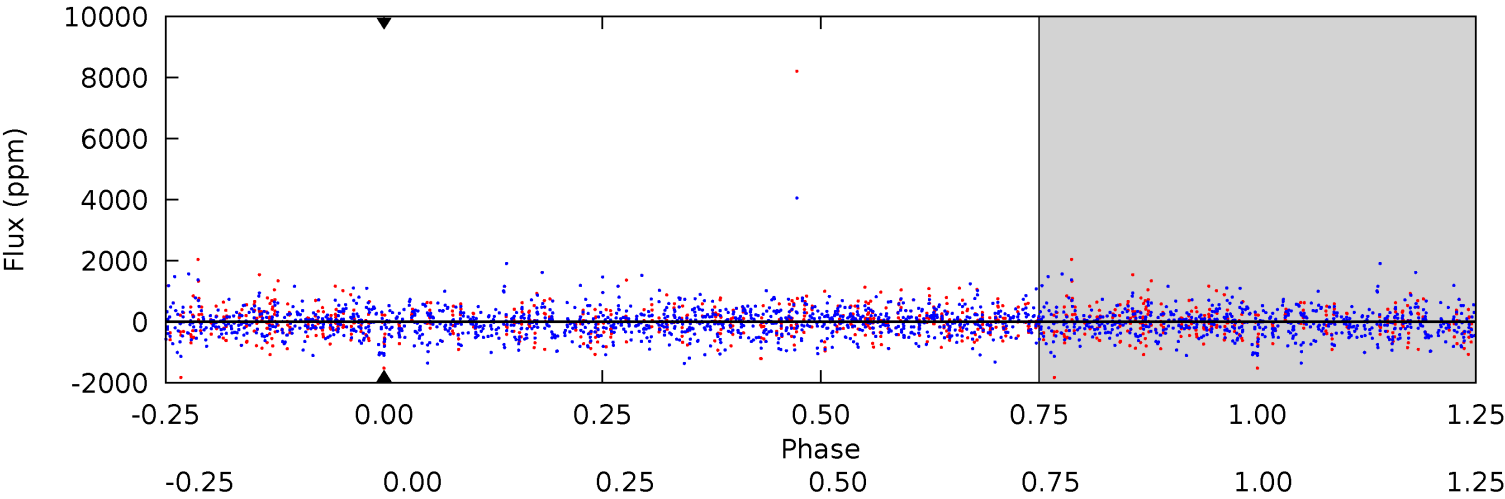


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

003561700-05, P = 39.245731 Days, E = 133.104744 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	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 003561700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11076^{+381}_{-495}	$3.989^{+0.279}_{-0.150}$	$0.070^{+0.150}_{-0.650}$	$2.896^{+0.605}_{-1.123}$	$2.984^{+0.201}_{-0.754}$	$0.173^{+0.339}_{-0.078}$
	+3%/-4%	+7%/-4%	+214%/-929%	+21%/-39%	+7%/-25%	+196%/-45%
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 003561700-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$24.49^{+24.16}_{-16.66}$	2026^{+146}_{-183}	$-5897^{+108043}_{-72999}$	$-87.470^{+18131.567}_{-16315.861}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

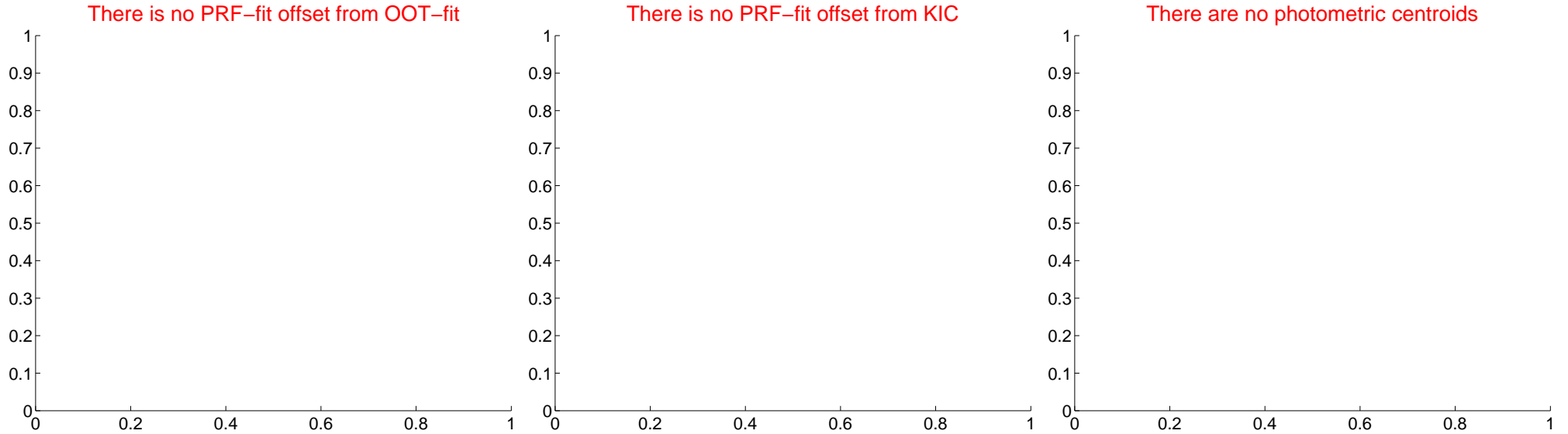
DV Centroid Data

Supplemental centroid analysis for 003561700-05. Kepler magnitude: 14.91. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

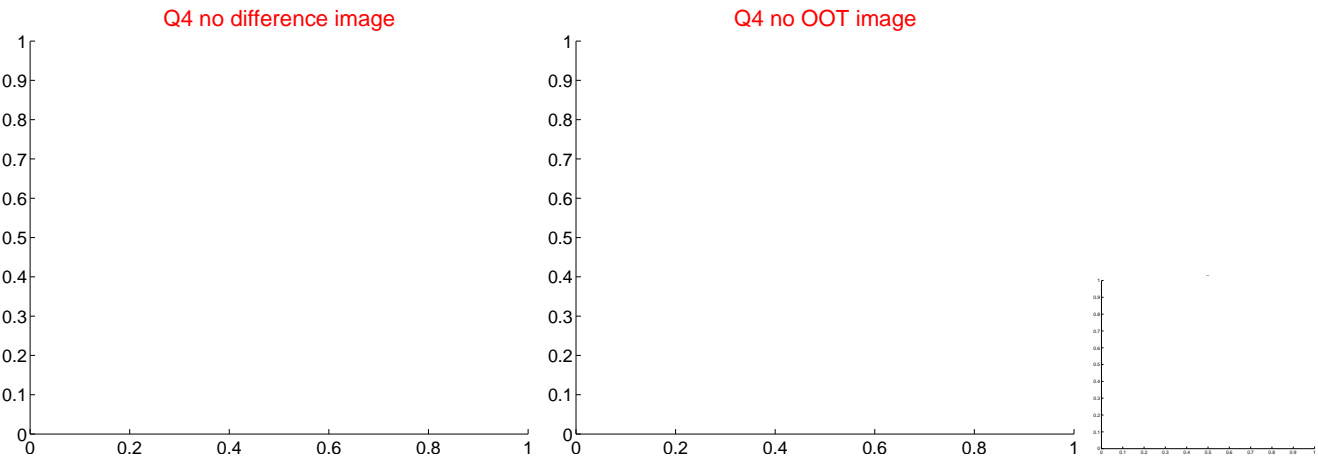
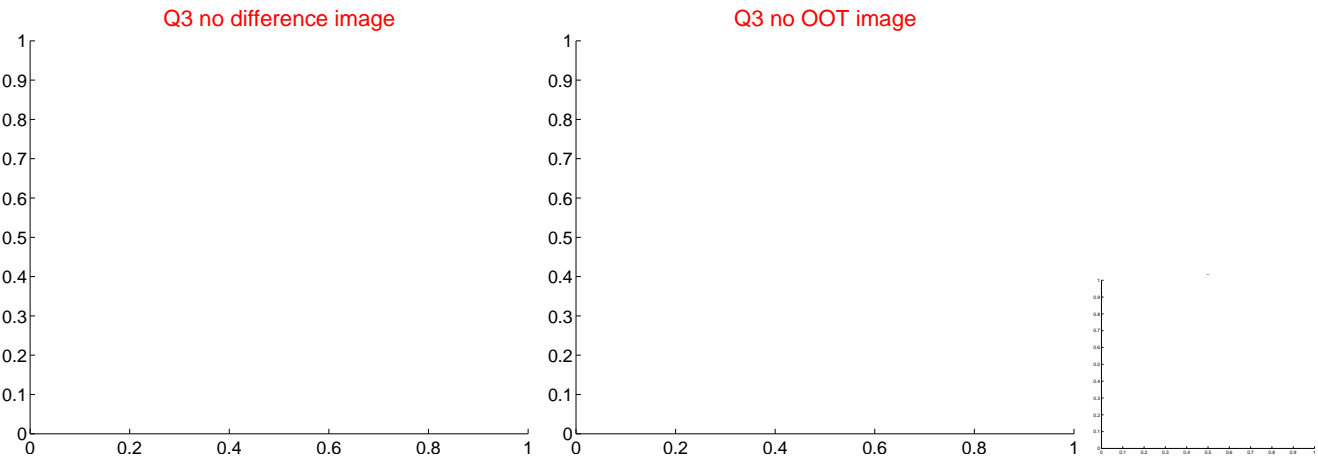
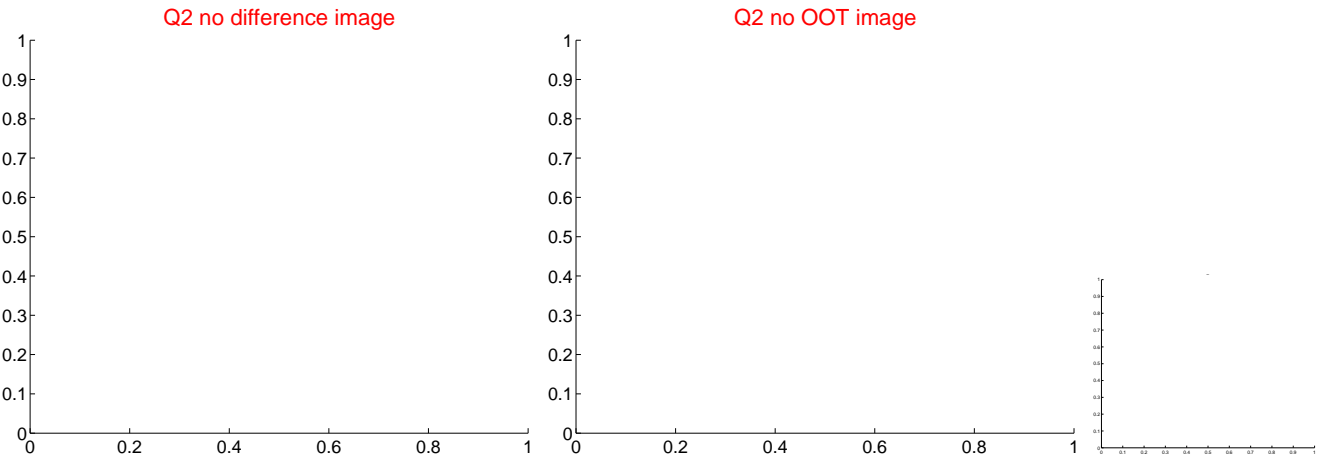
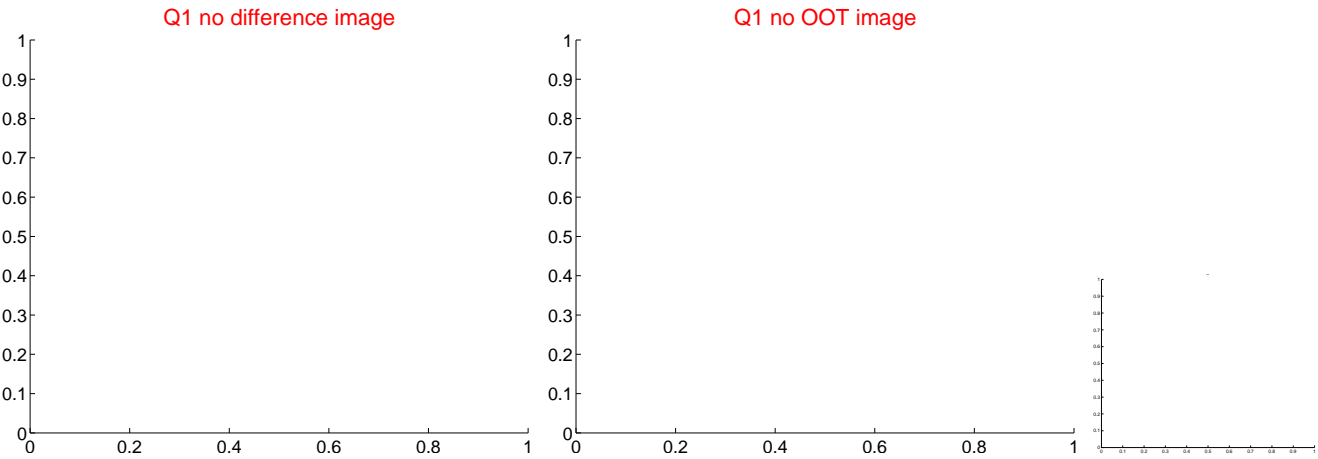
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	—	—	—	—



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

