

KIC 007696356

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})
007696356-01	OBS	No	292.462794	303.856773	617.7	7.315	14.4	7.4	6.18	5267	16.66	22.49
007696356-02	OBS	No	388.514939	297.400901	355.6	12.056	11.2	5.8	6.18	5267	12.89	15.40
007696356-04	OBS	No	371.523762	285.089642	573.0	6.790	9.1	9.5	6.18	5267	16.09	16.34
007696356-05	OBS	No	310.418956	373.722127	477.4	12.948	8.6	7.2	6.18	5267	14.63	20.77
007696356-06	OBS	No	358.831736	436.354466	443.0	6.816	8.3	6.7	6.18	5267	14.43	17.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007696356-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS
007696356-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007696356-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS
007696356-05	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
007696356-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

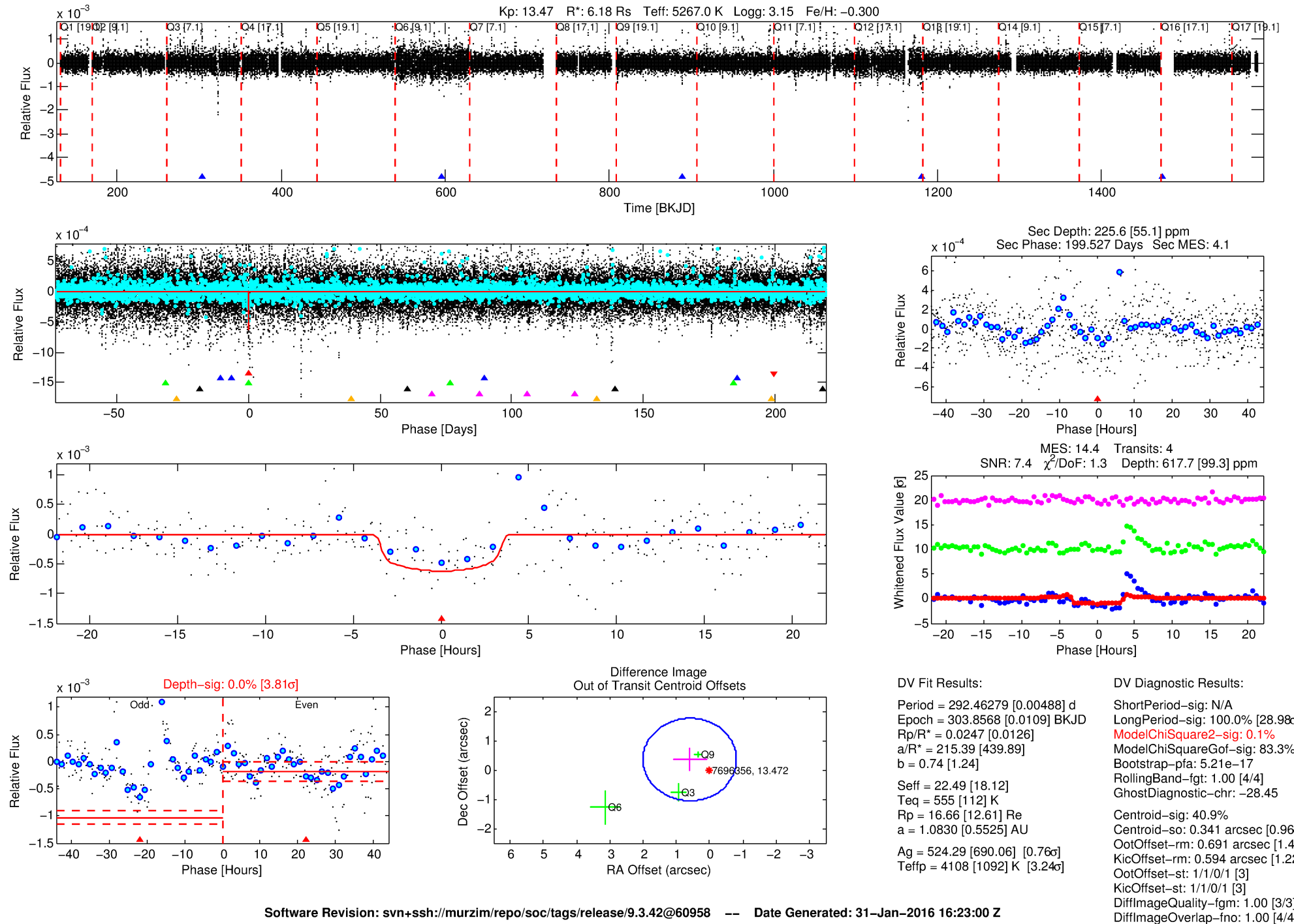
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007696356-01

No Significant Match Found

DV One-Page Summary

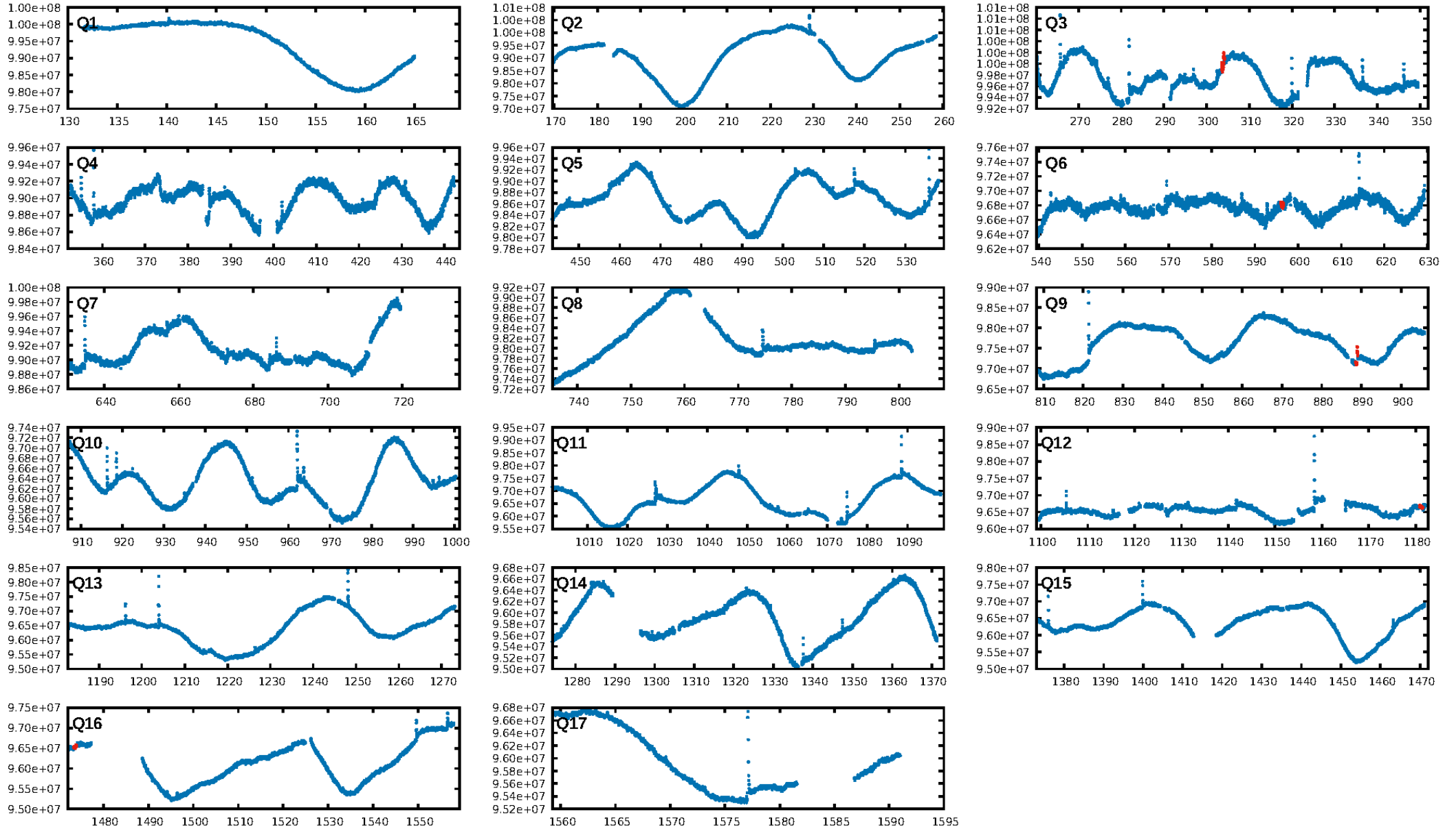
KIC: 7696356 Candidate: 1 of 6 Period: 292.463 d



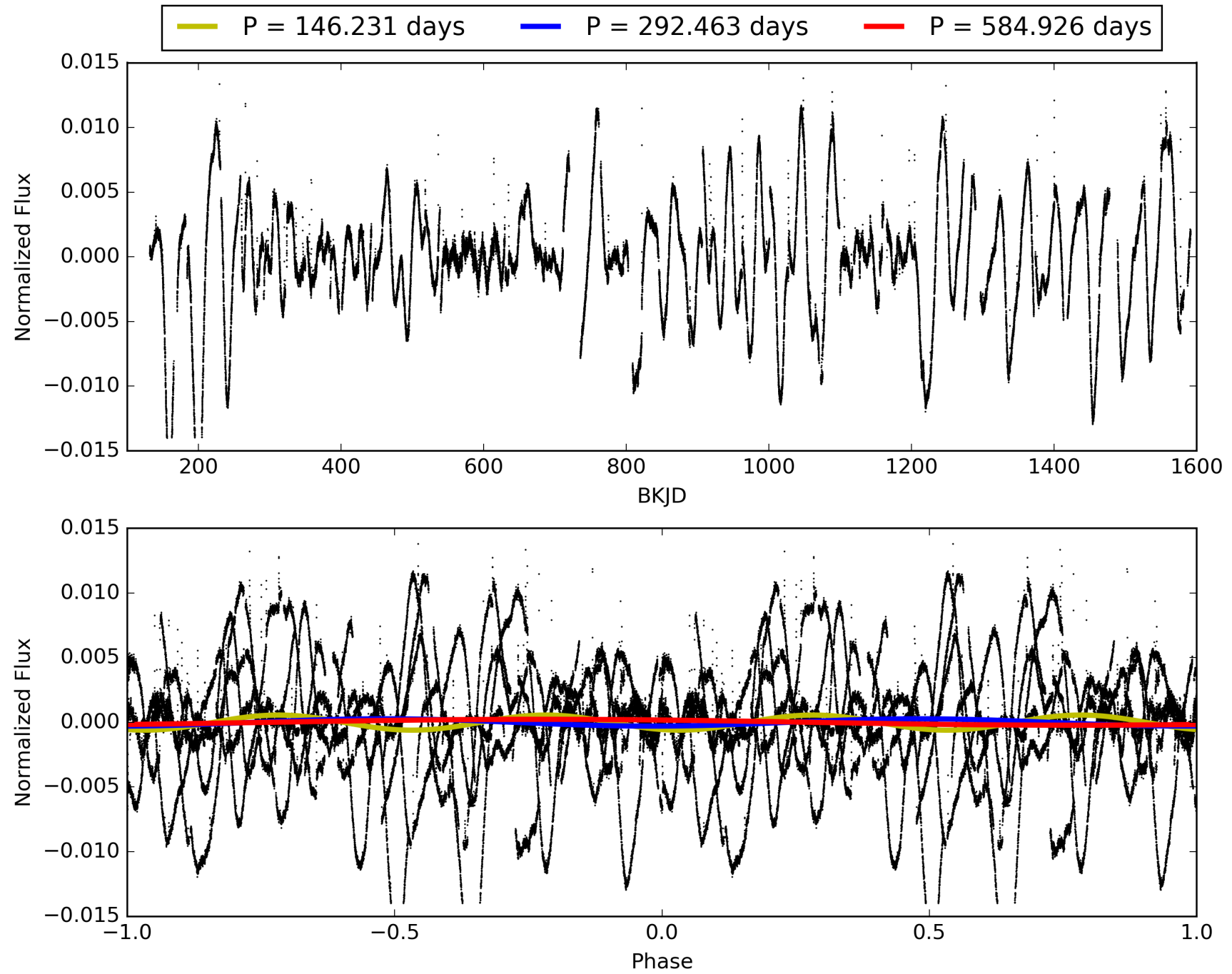
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:23:00 Z

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

TCE 007696356-01, PDC Light Curves

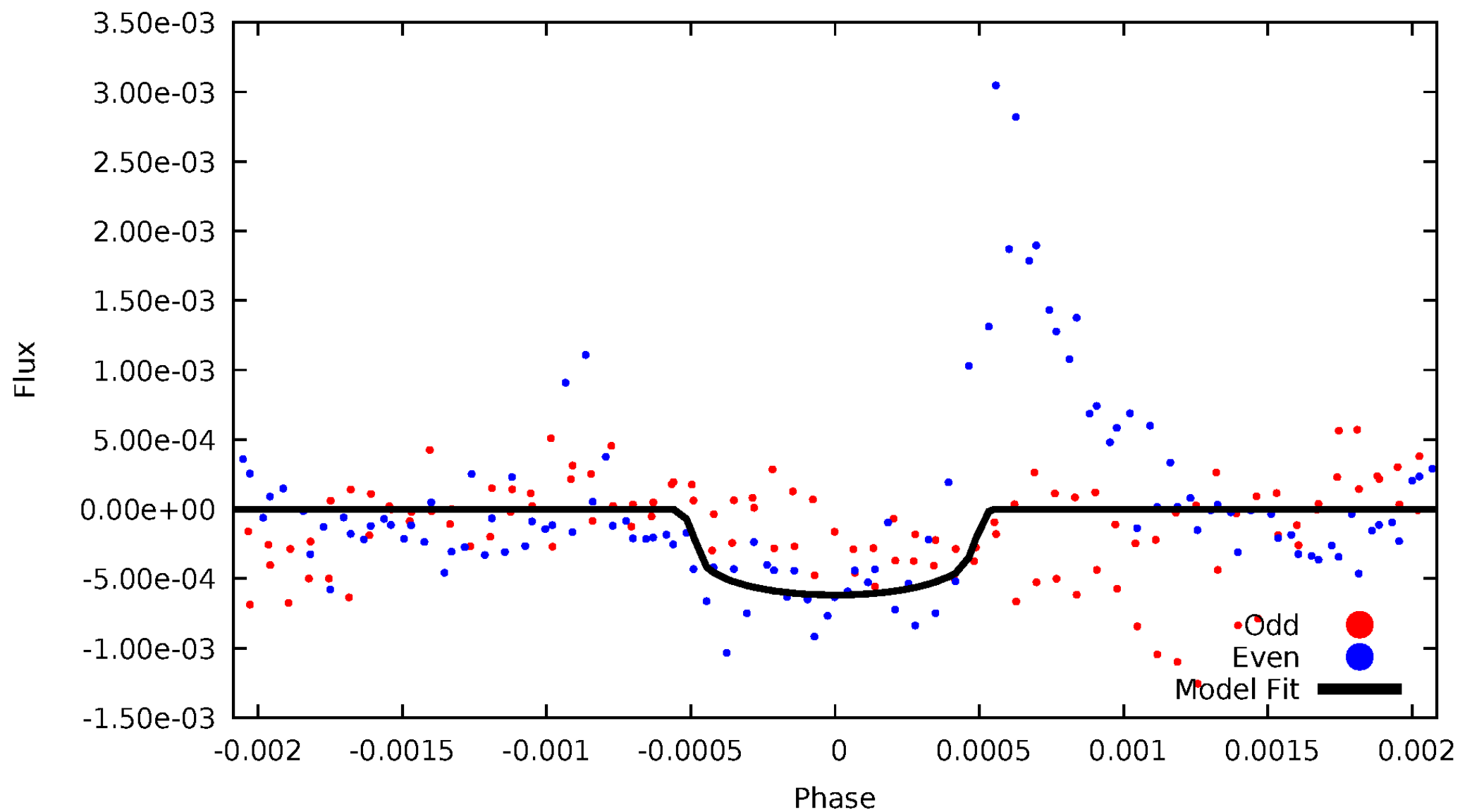


TCE 007696356-01



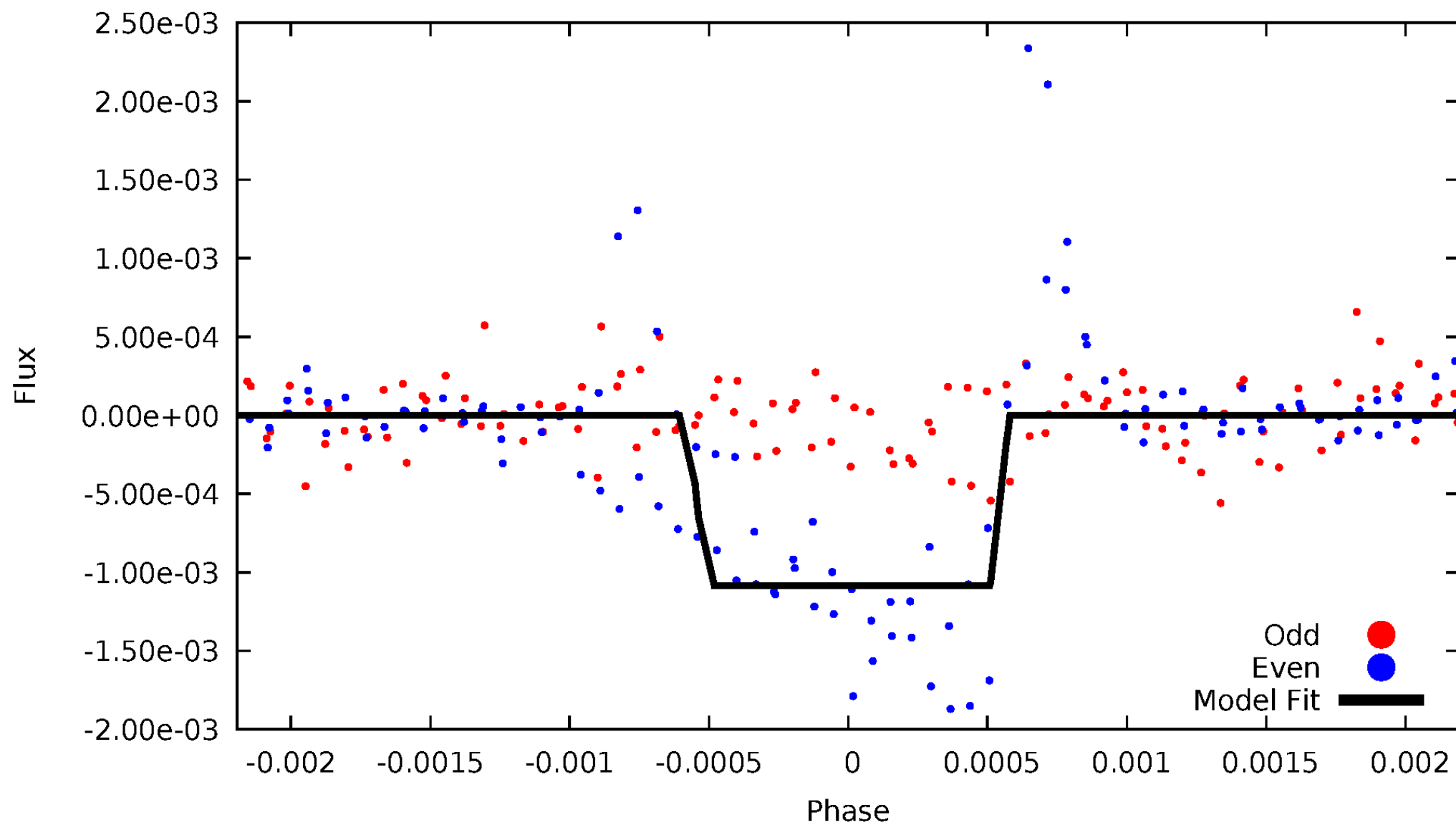
DV Odd/Even

TCE 007696356-01



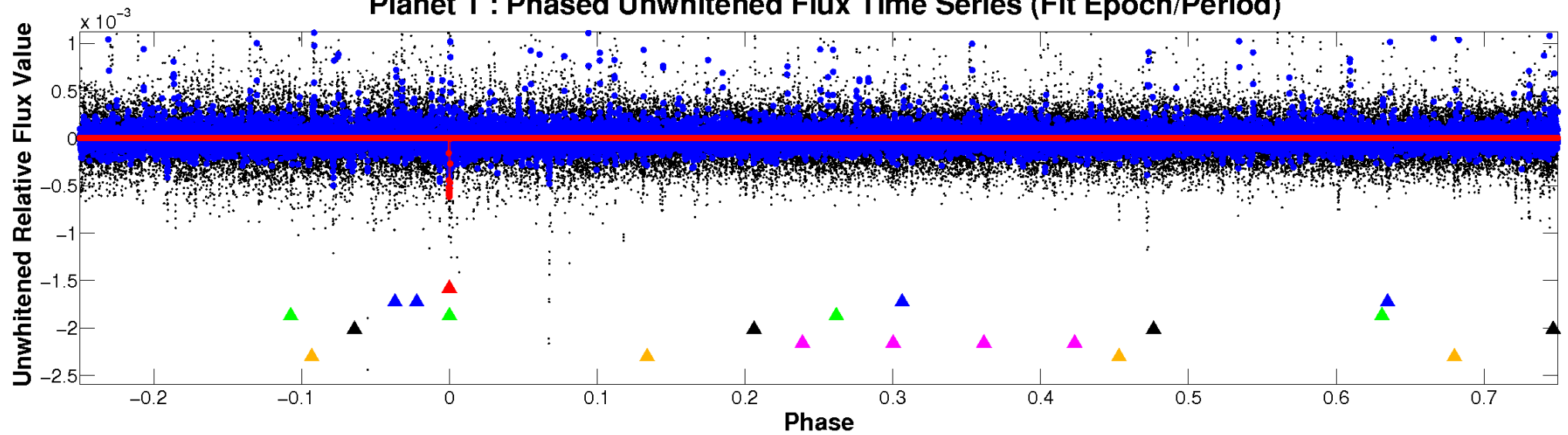
ALT Odd/Even

TCE 007696356-01

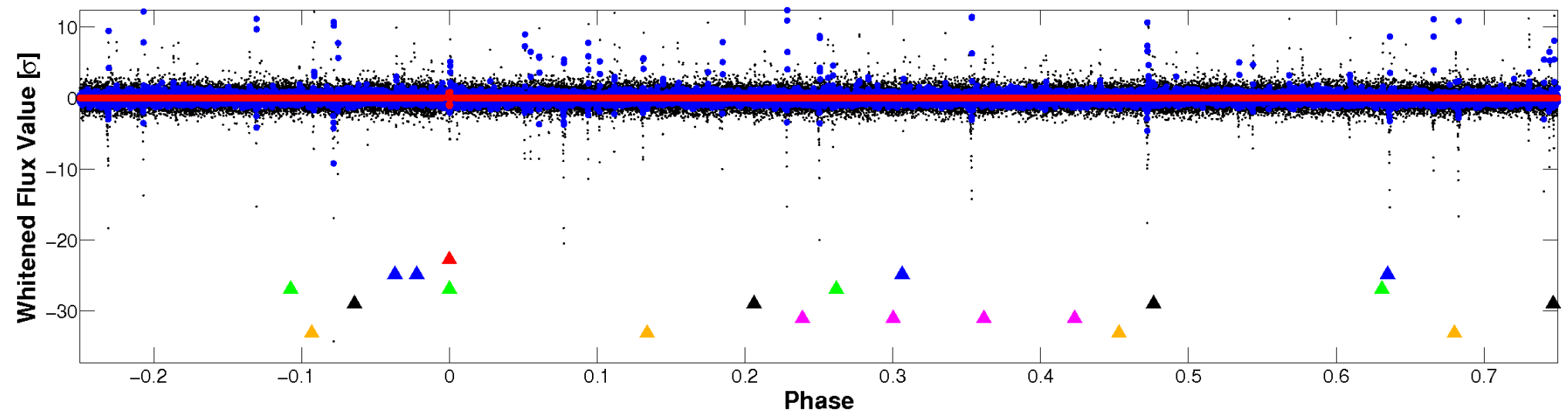


Non-Whitened Vs. Whitened Light Curve

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

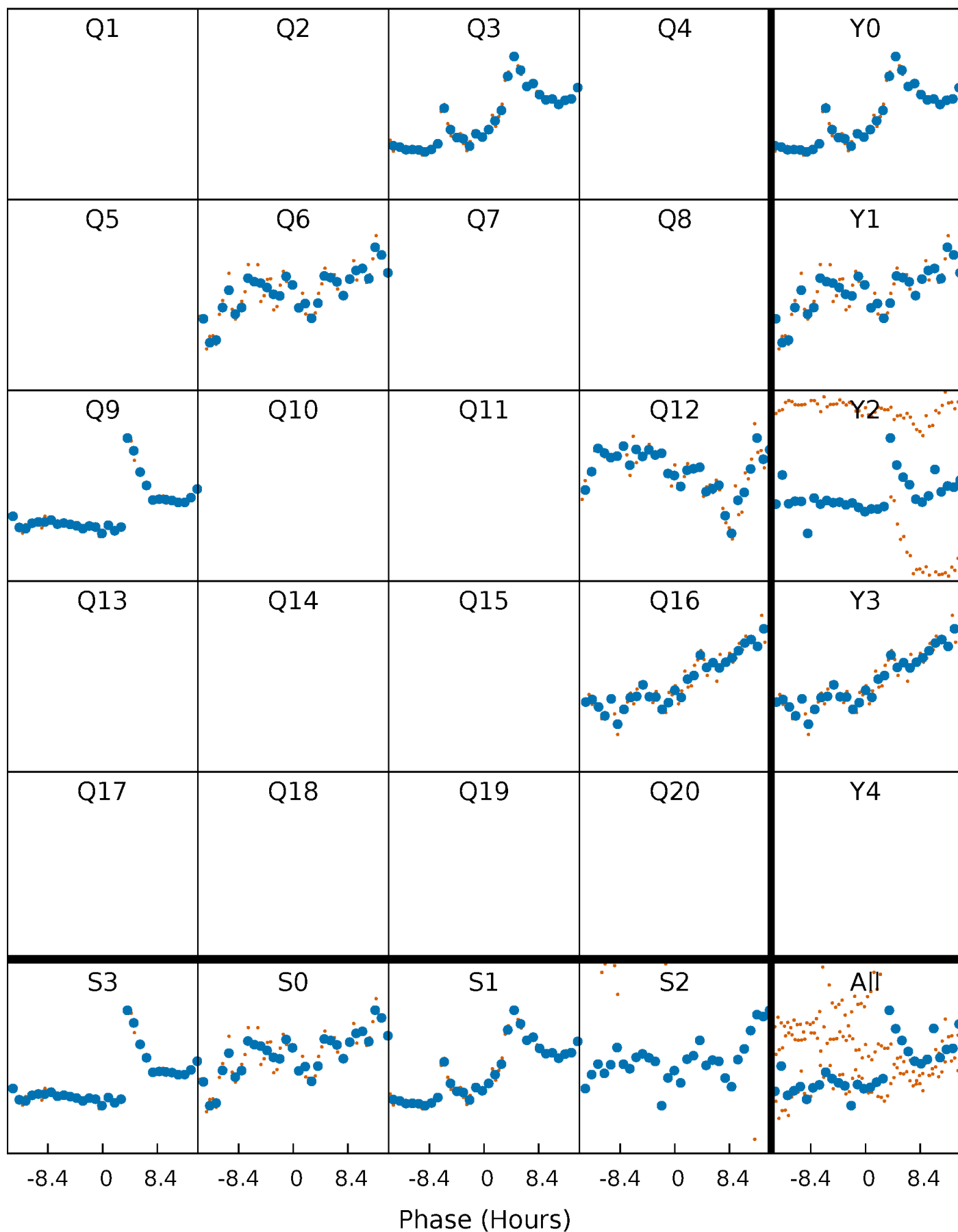


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



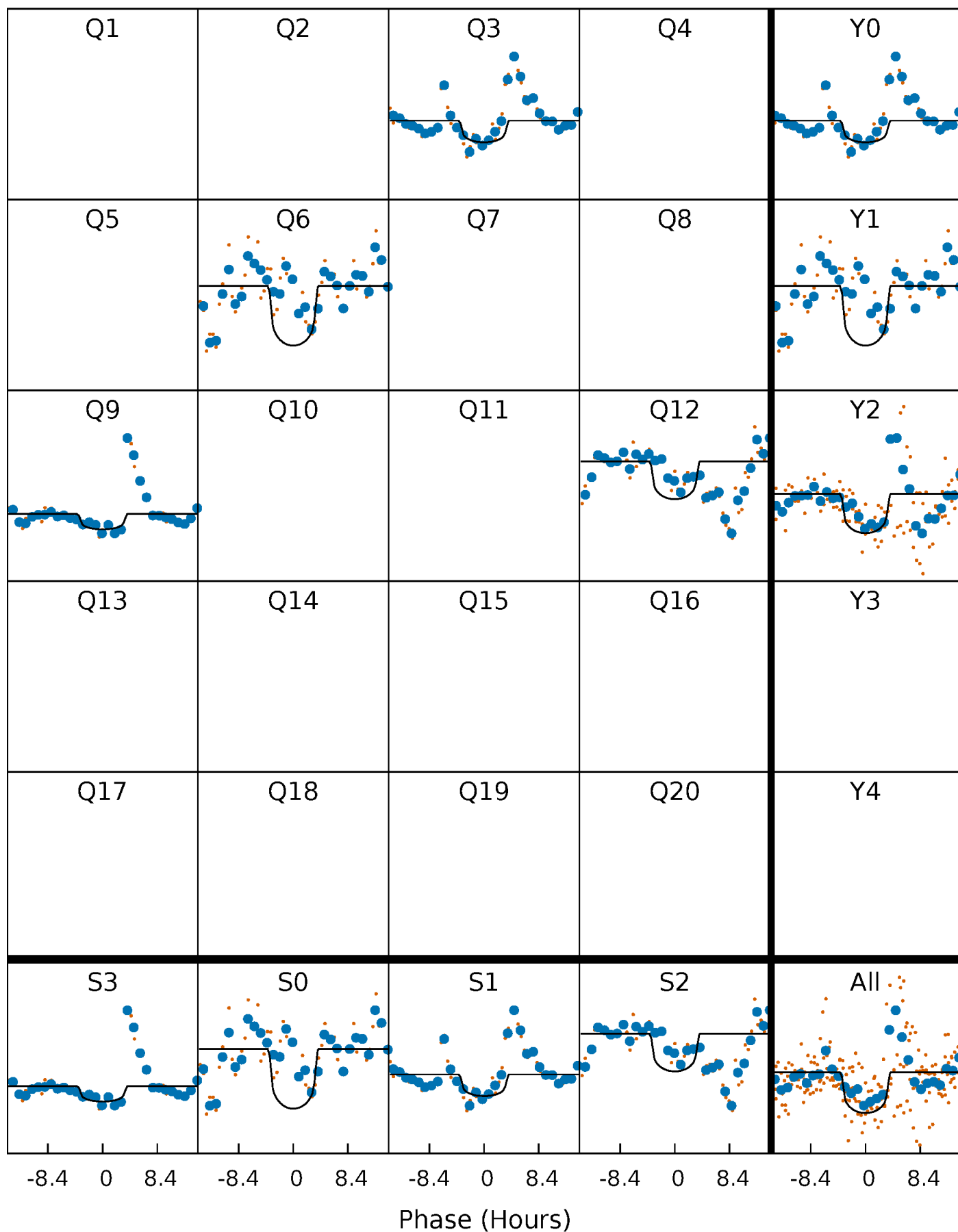
PDC Quarter-Phased Transit Curves

TCE 007696356-01 P=292.462794 Days $T_0=303.856773$ (BKJD)



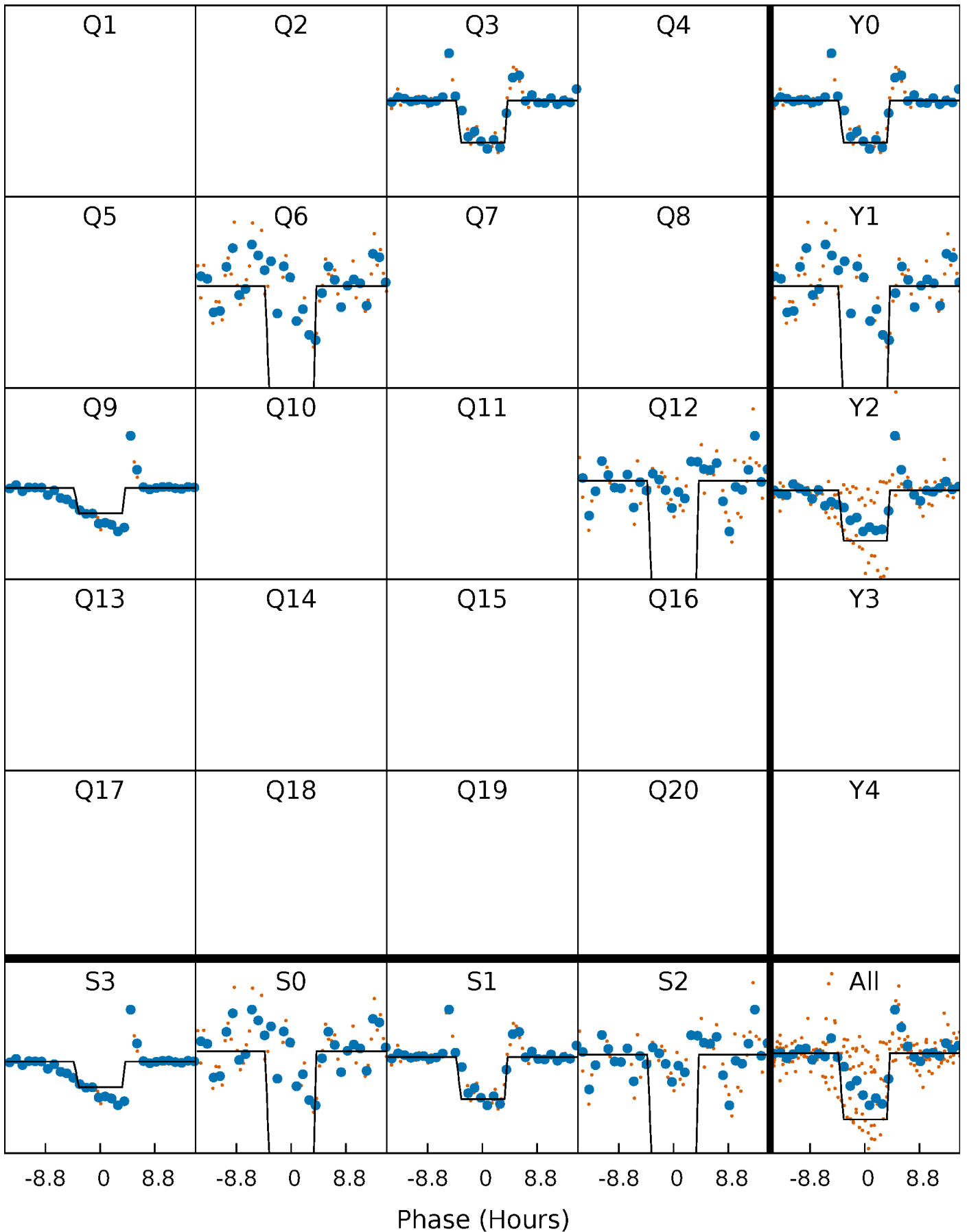
DV Quarter-Phased Transit Curves

TCE 007696356-01 $P=292.462794$ Days $T_0=303.856773$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

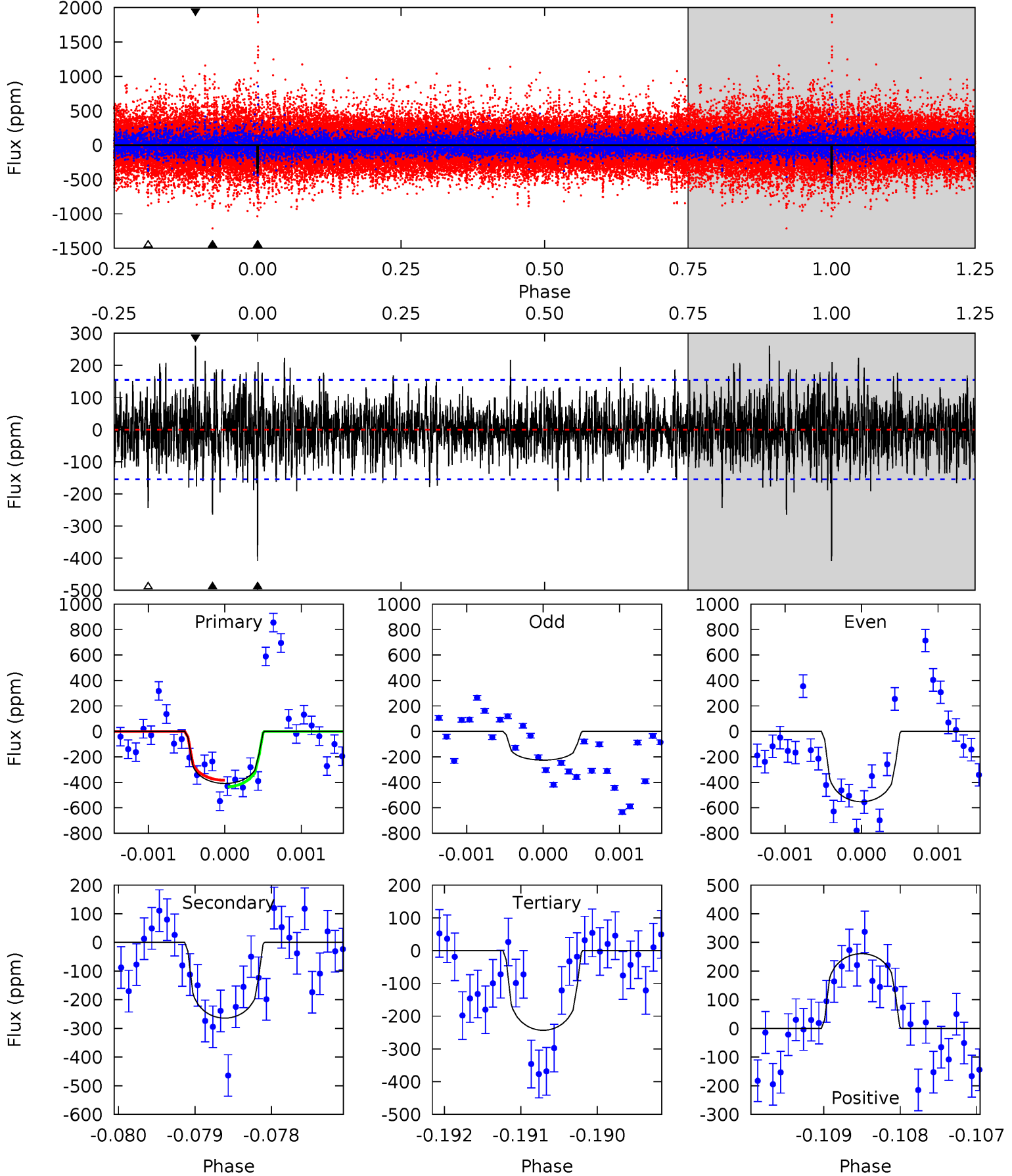
TCE 007696356-01 P=292.465544 Days $T_0=303.825237$ (BKJD)



DV Model-Shift Uniqueness Test

007696356-01, $P = 292.462794$ Days, $E = 11.393979$ Days

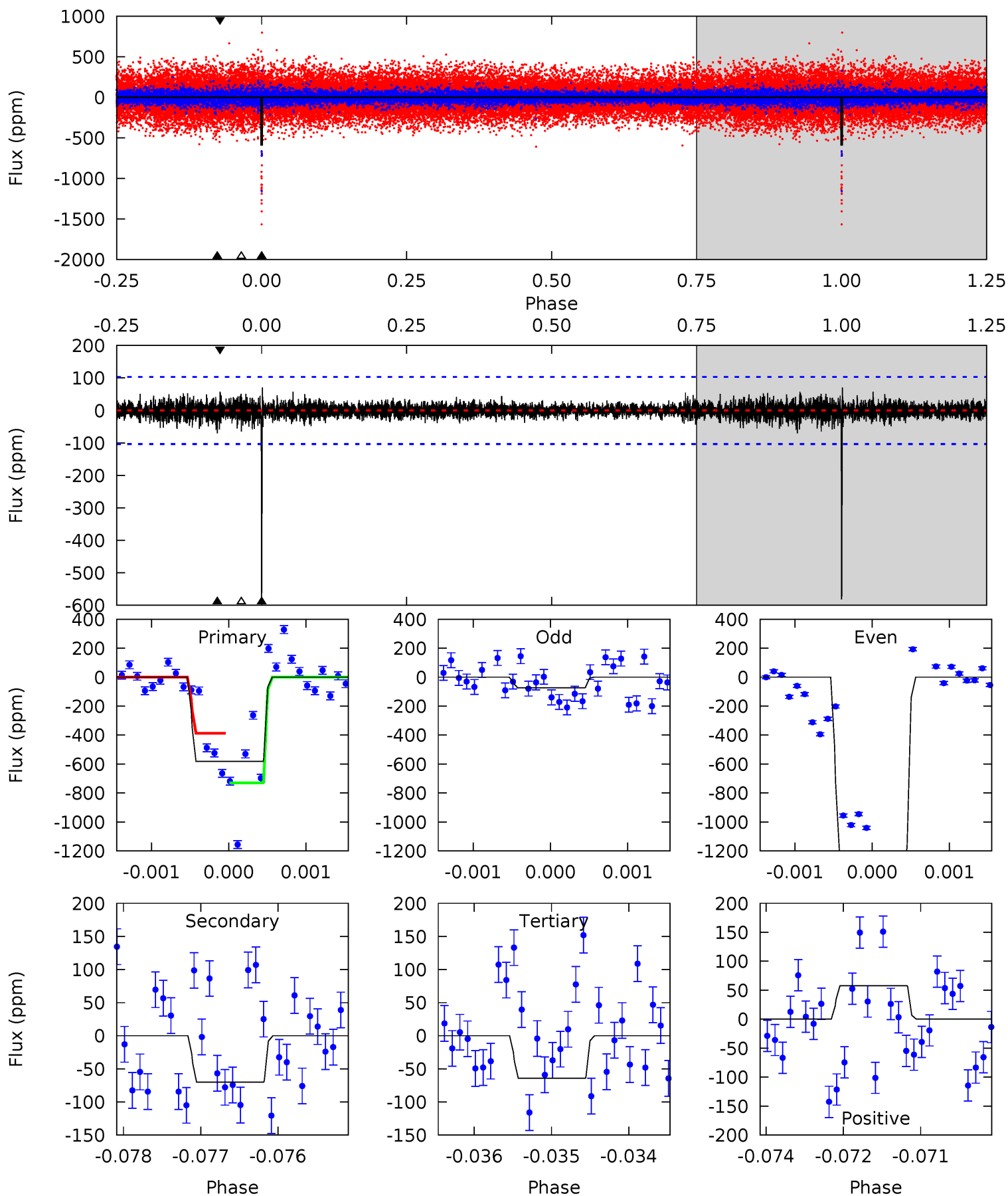
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	9.28	8.55	9.17	5.44	3.27	2.11	5.82	5.20	0.73	0.11	5.38	1.00	0.39	0.92



Alt Model-Shift Uniqueness Test

007696356-01, P = 292.465544 Days, E = 11.359693 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.6	3.68	3.37	3.03	5.43	3.26	0.67	27.2	27.5	0.31	0.64	34.0	1.20	0.11	9.03



Stellar Parameters For KIC 007696356

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5267^{+128}_{-201}	$3.152^{+0.455}_{-0.227}$	$-0.300^{+0.250}_{-0.350}$	$6.185^{+1.725}_{-3.450}$	$1.981^{+0.527}_{-0.979}$	$0.012^{+0.055}_{-0.006}$
	+2%/-4%	+14%/-7%	+83%/-117%	+28%/-56%	+27%/-49%	+468%/-52%
Source	PHO1	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 007696356-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-264 ± 28	$16.02^{+10.08}_{-8.59}$	767^{+75}_{-104}	4366^{+1322}_{-594}	650^{+2380}_{-398}
Alt.	-70 ± 19	$21.65^{+10.61}_{-9.39}$	768^{+79}_{-104}	3176^{+523}_{-326}	97^{+195}_{-56}

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 $A_{obs} \gg 1.0$

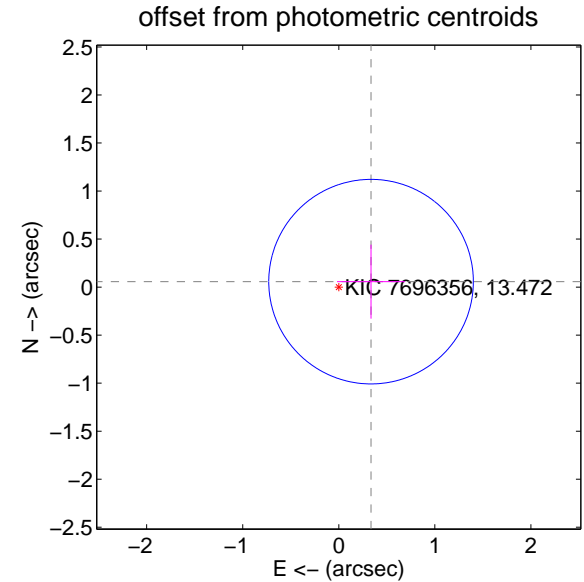
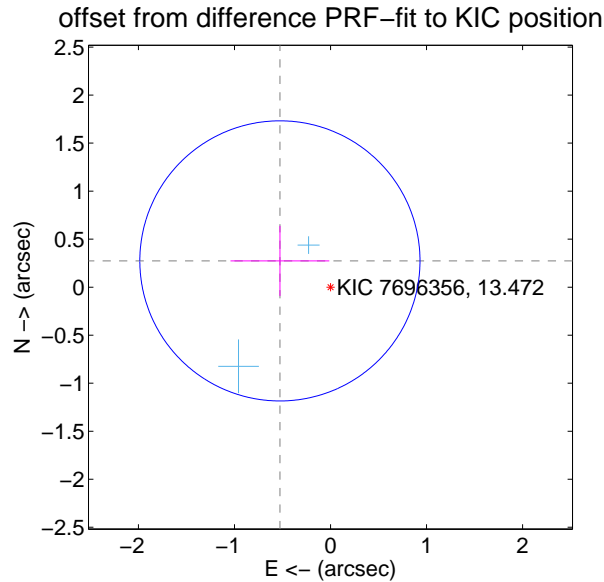
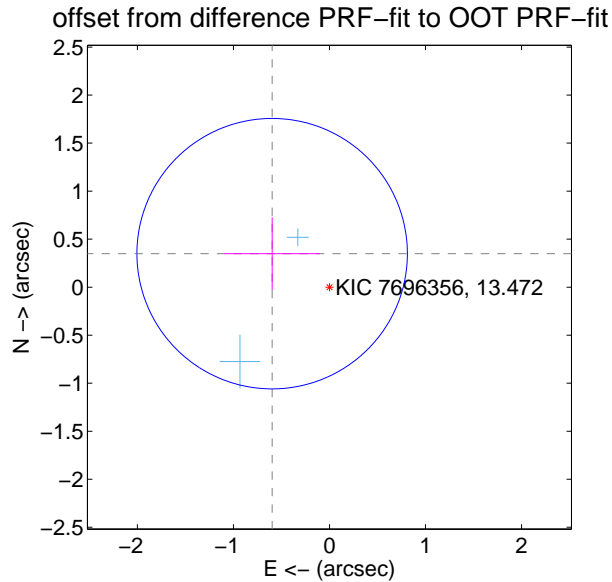
DV Centroid Data

Supplemental centroid analysis for 007696356-01. Kepler magnitude: 13.47. Transit SNR 7.39

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

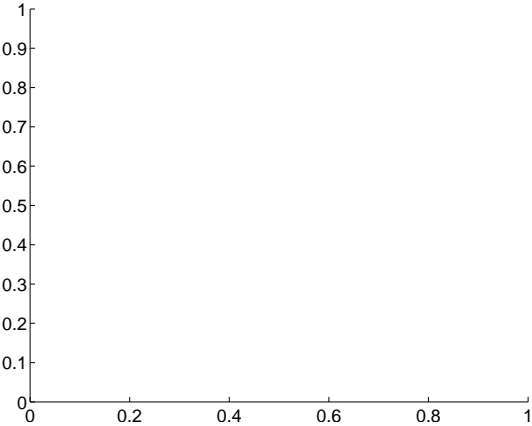
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.691 ± 0.469	1.47	0.597 ± 0.497	0.349 ± 0.378
PRF-fit source offset from KIC position	0.594 ± 0.486	1.22	0.527 ± 0.514	0.274 ± 0.365
photometric centroid source offset	0.34 ± 0.35	0.96	-0.34 ± 0.35	0.06 ± 0.39



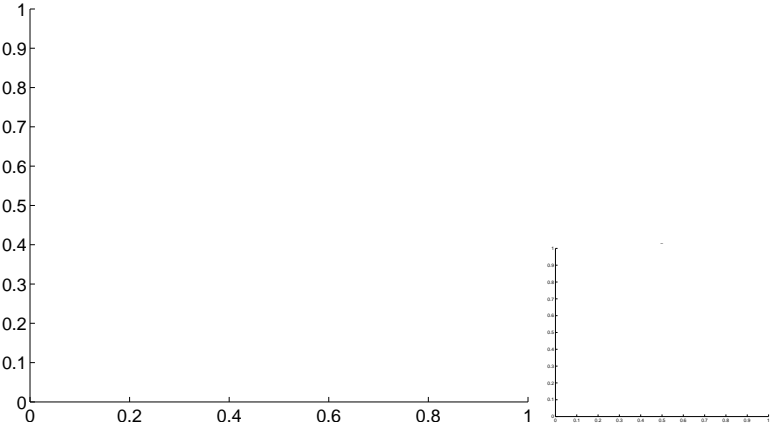
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

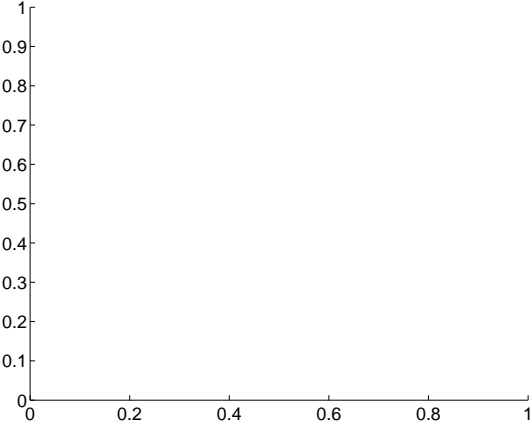
Q1 no difference image



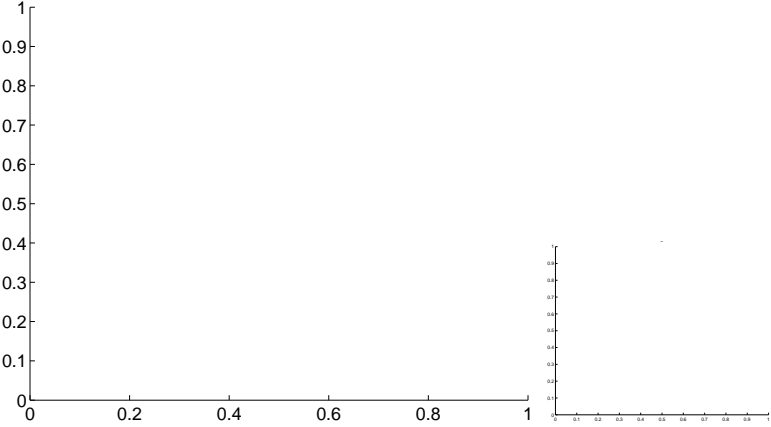
Q1 no OOT image



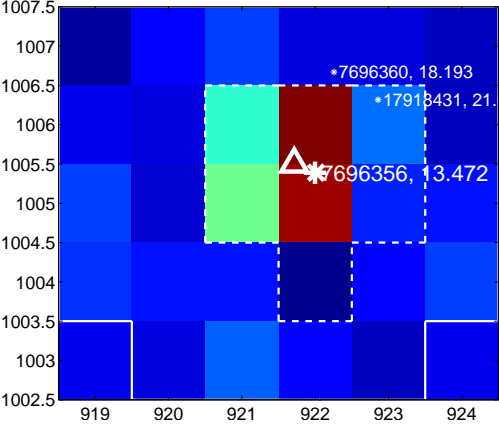
Q2 no difference image



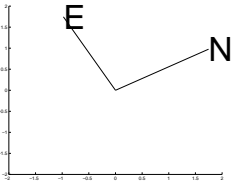
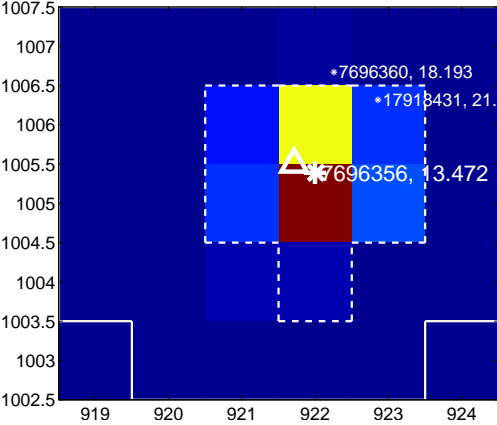
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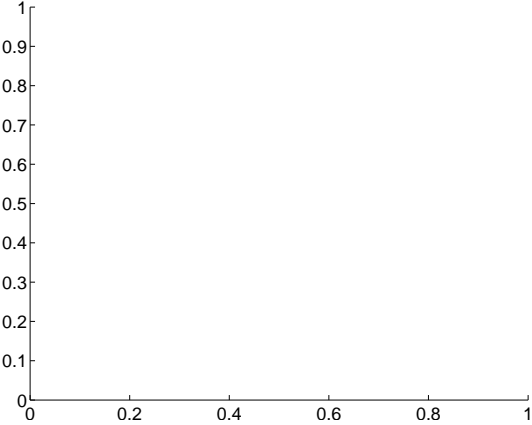
Q3 difference image



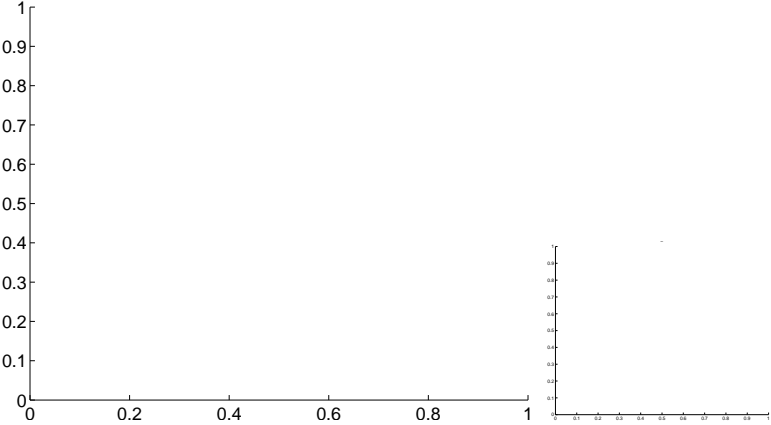
Q3 OOT image



Q4 no difference image

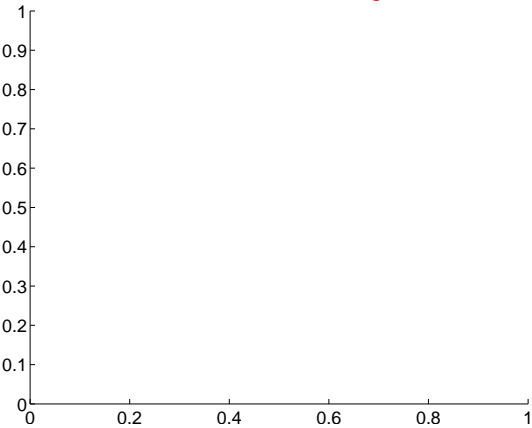


Q4 no OOT image

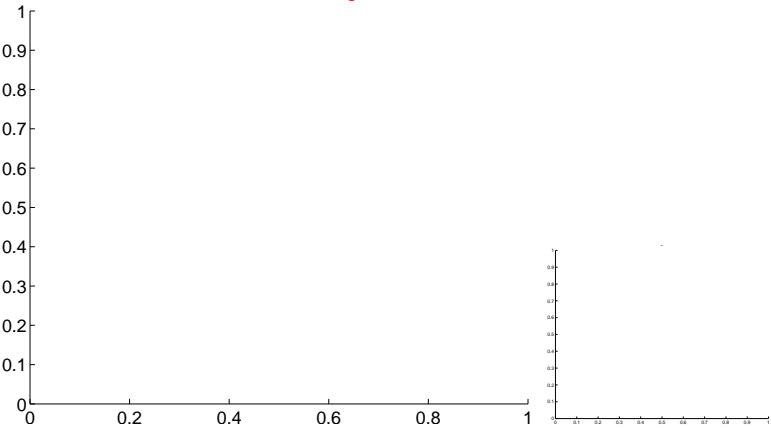


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

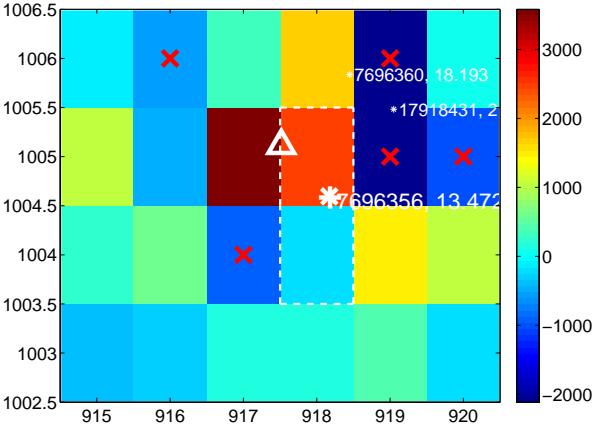
Q5 no difference image



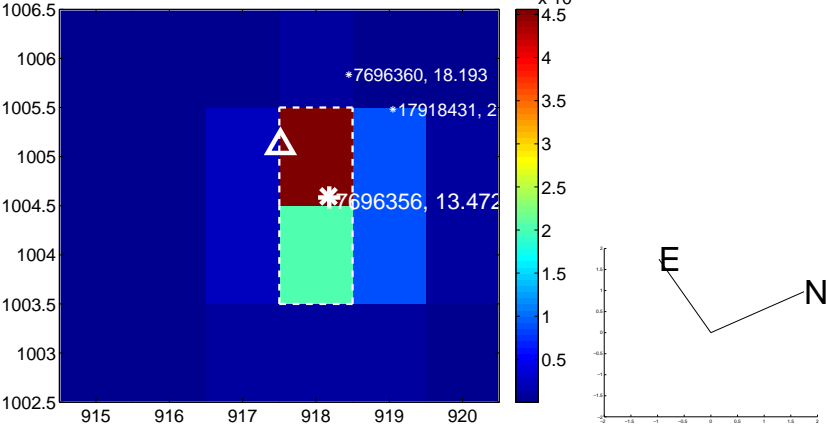
Q5 no OOT image



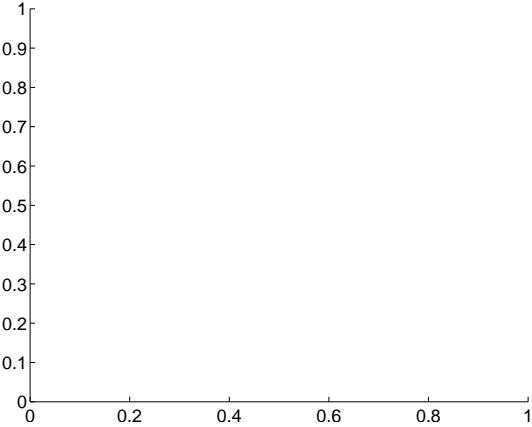
Q6 difference image



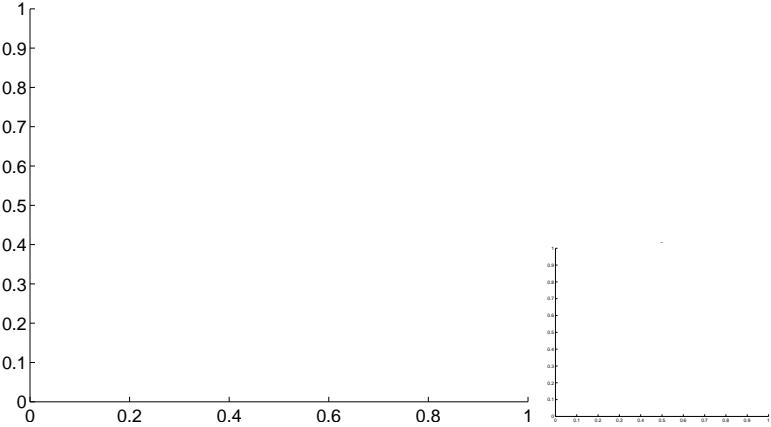
Q6 OOT image



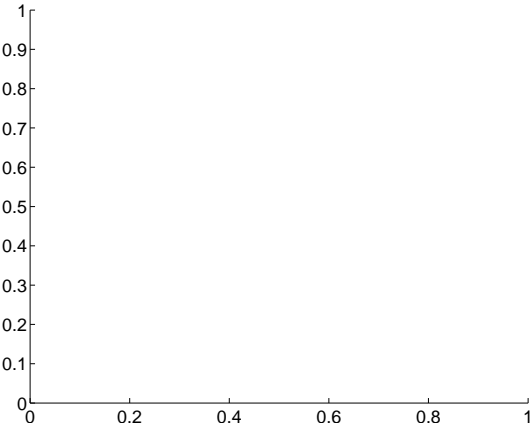
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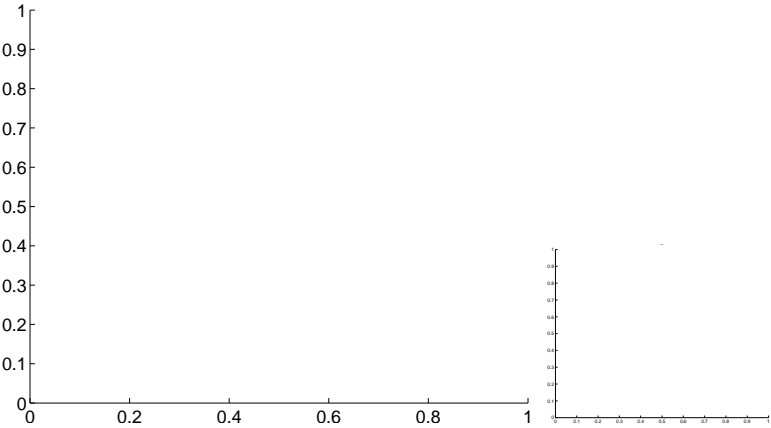
Q7 no OOT image



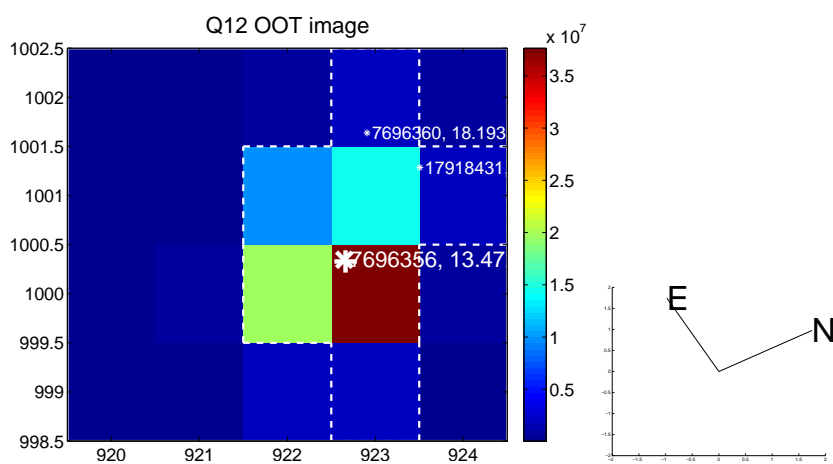
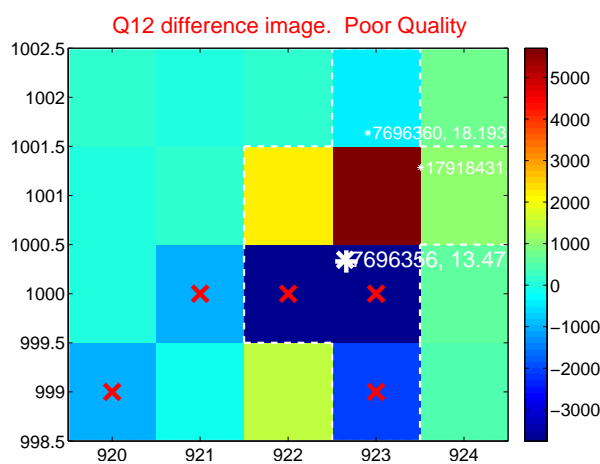
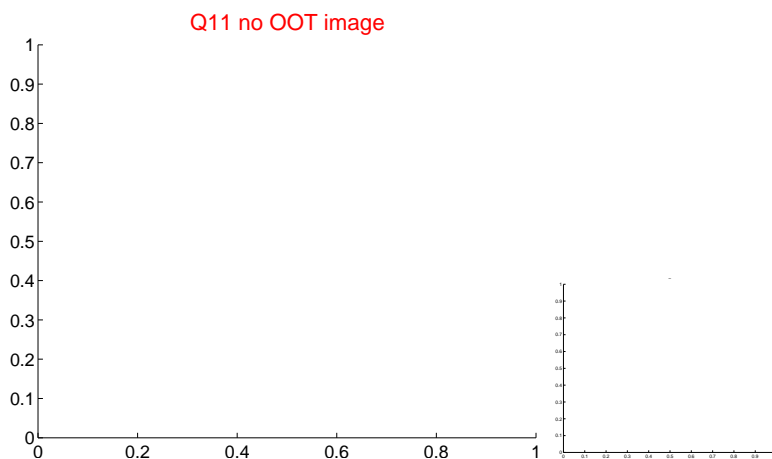
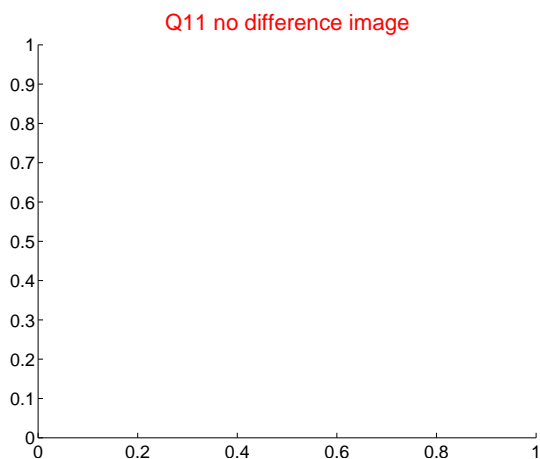
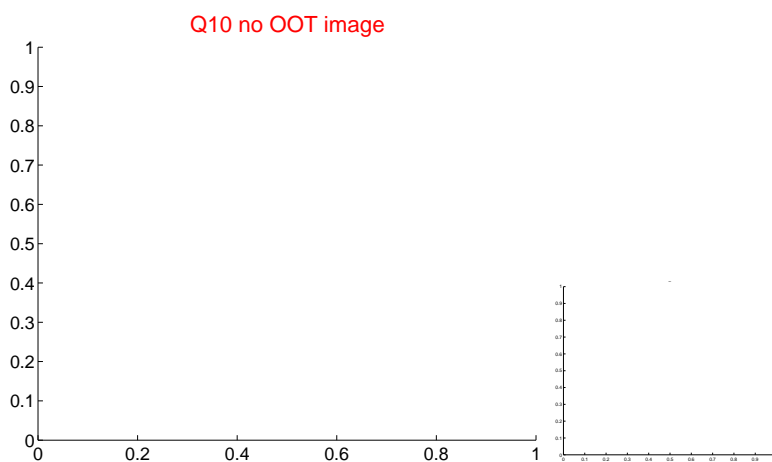
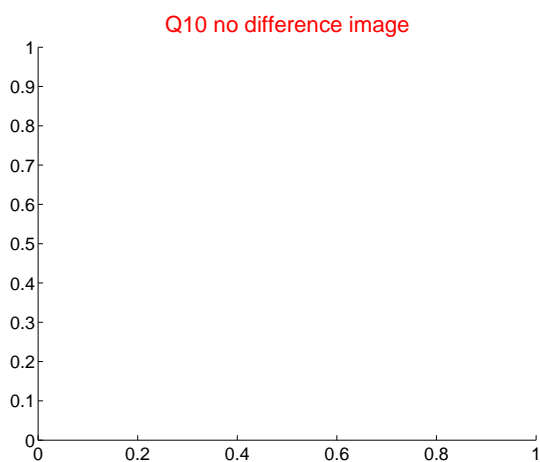
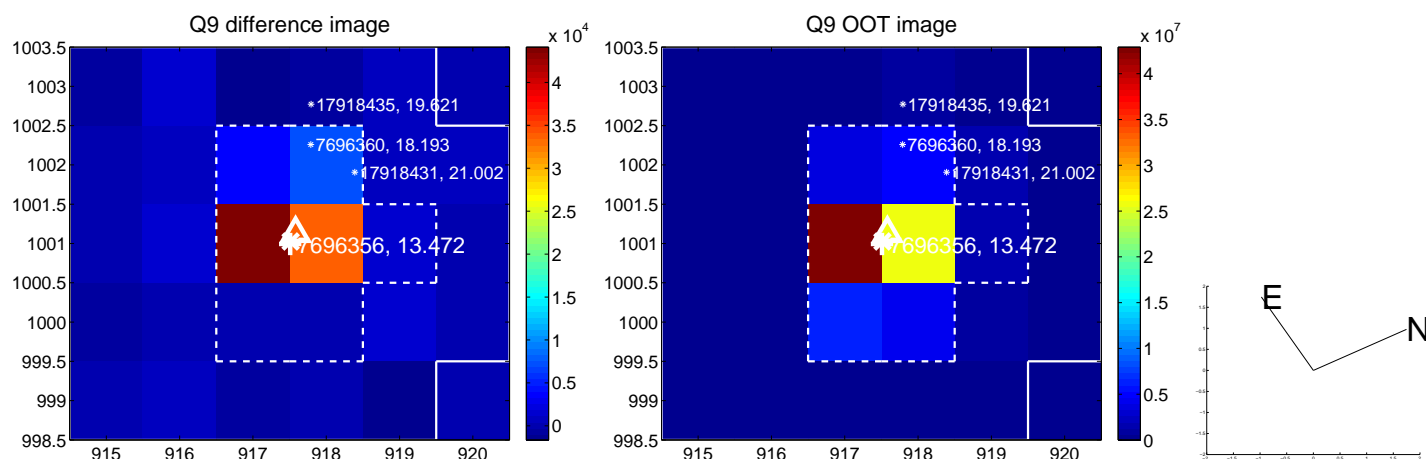
Q8 no difference image



Q8 no OOT image



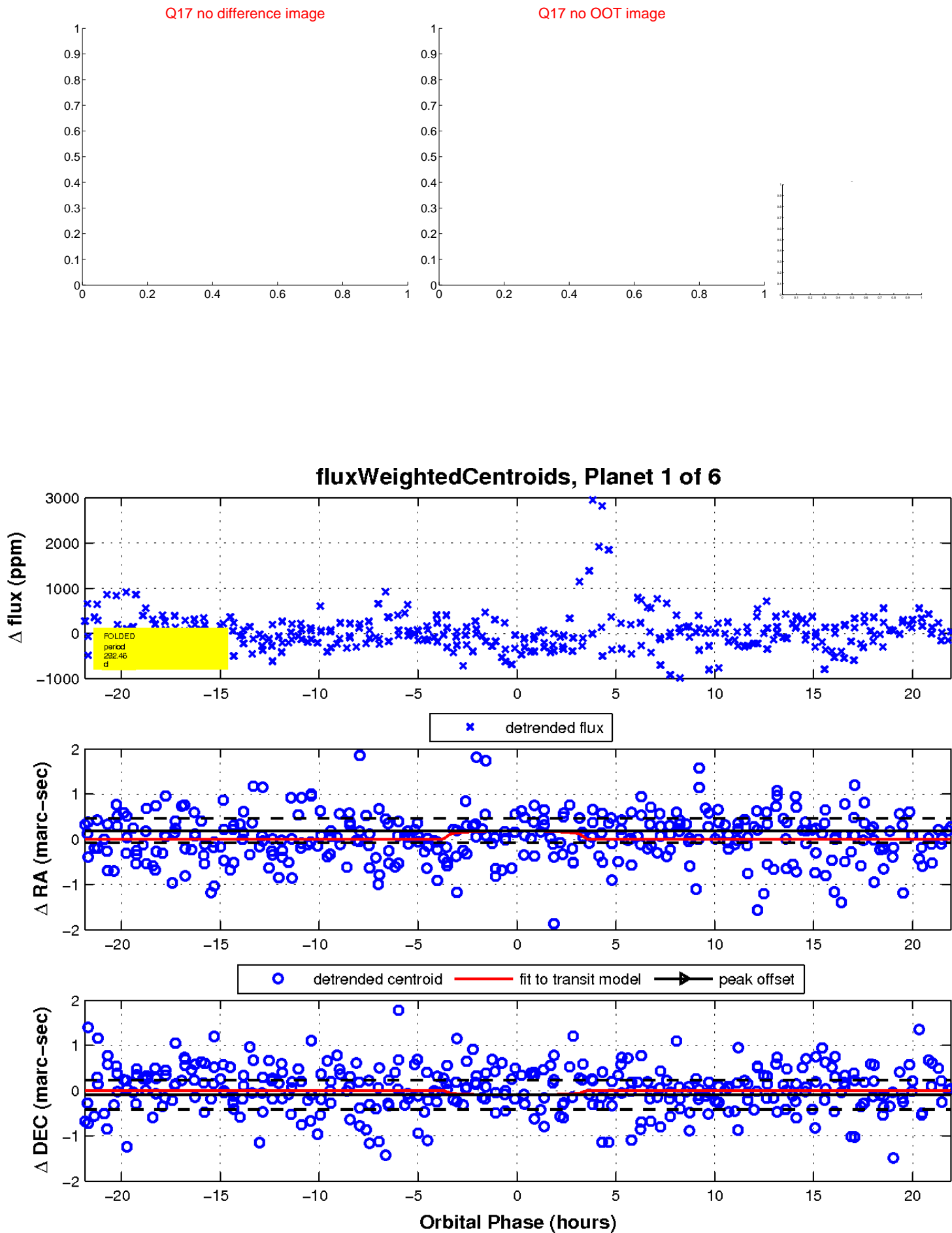
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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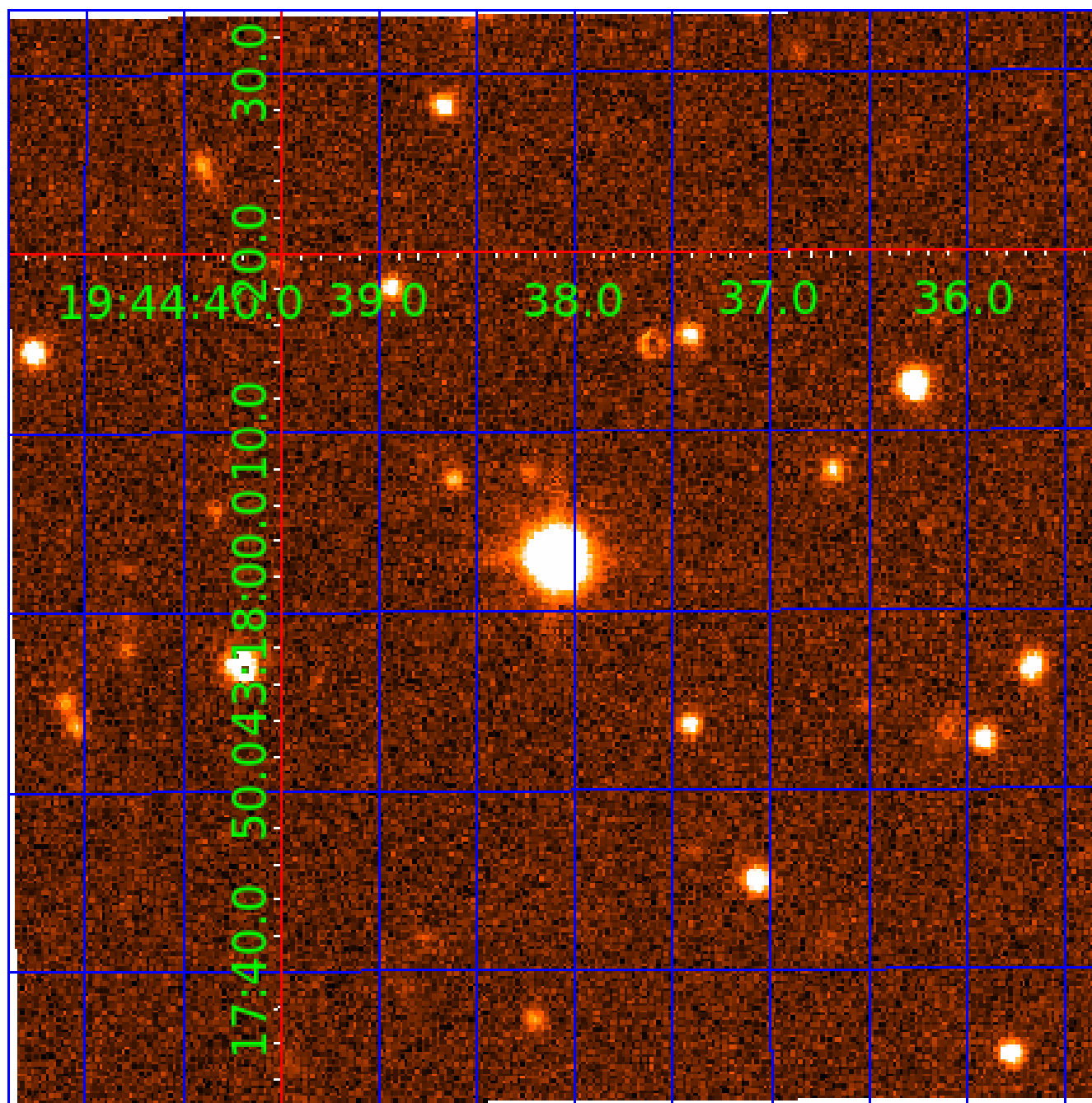


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UKIRT Image

Declination



KIC 007696356

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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007696356-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007696356-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS
007696356-05	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
007696356-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

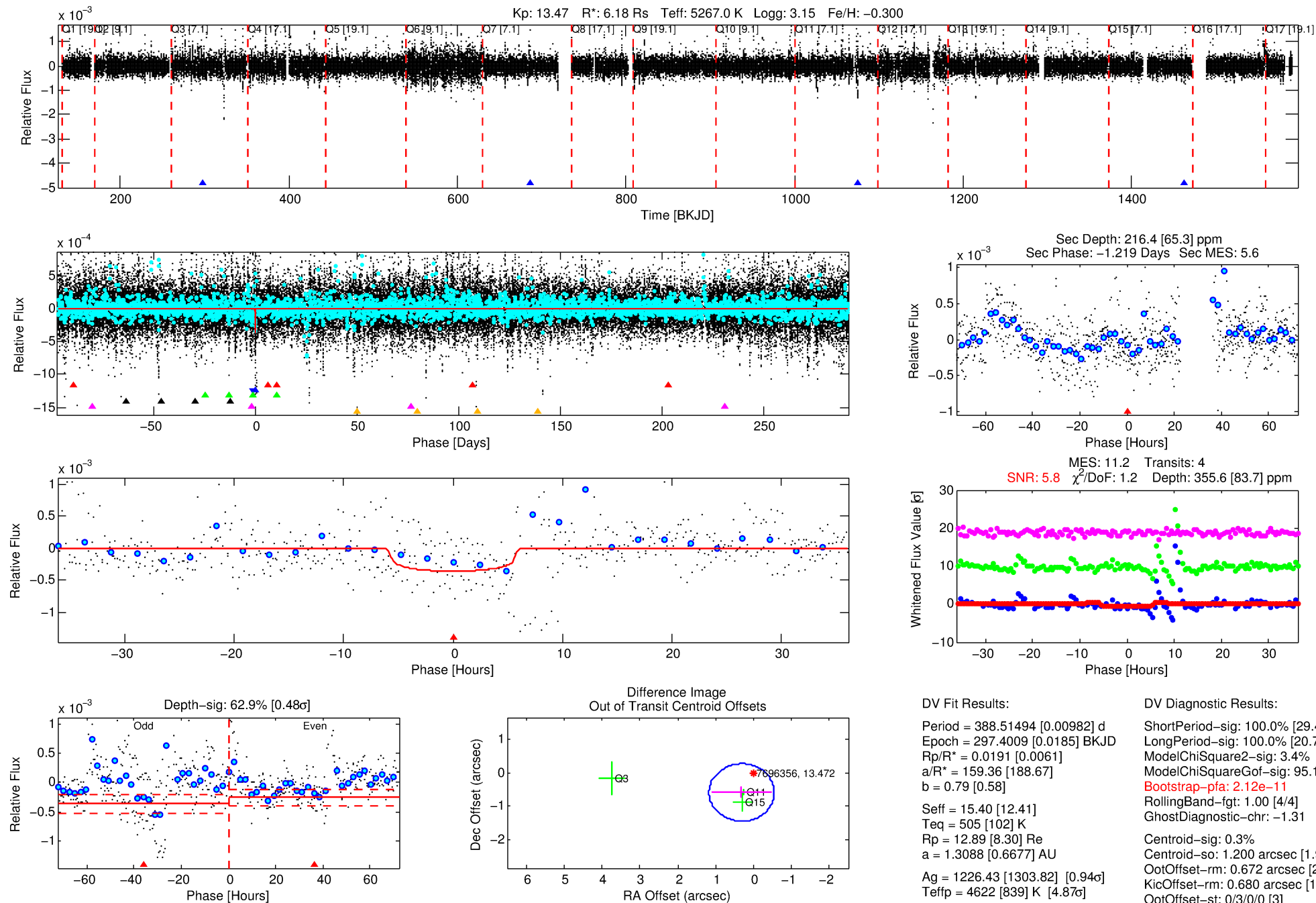
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007696356-02

No Significant Match Found

DV One-Page Summary

KIC: 7696356 Candidate: 2 of 6 Period: 388.515 d



DV Fit Results:

Period = 388.51494 [0.00982] d
Epoch = 297.4009 [0.0185] BKJD
Rp/R* = 0.0191 [0.0061]
a/R* = 159.36 [188.67]
b = 0.79 [0.58]
Seff = 15.40 [12.41]
Teff = 505 [102] K
Rp = 12.89 [8.30] Re
a = 1.3088 [0.6677] AU
Ag = 1226.43 [1303.82] [0.94 σ]
Teffp = 4622 [839] K [4.87 σ]

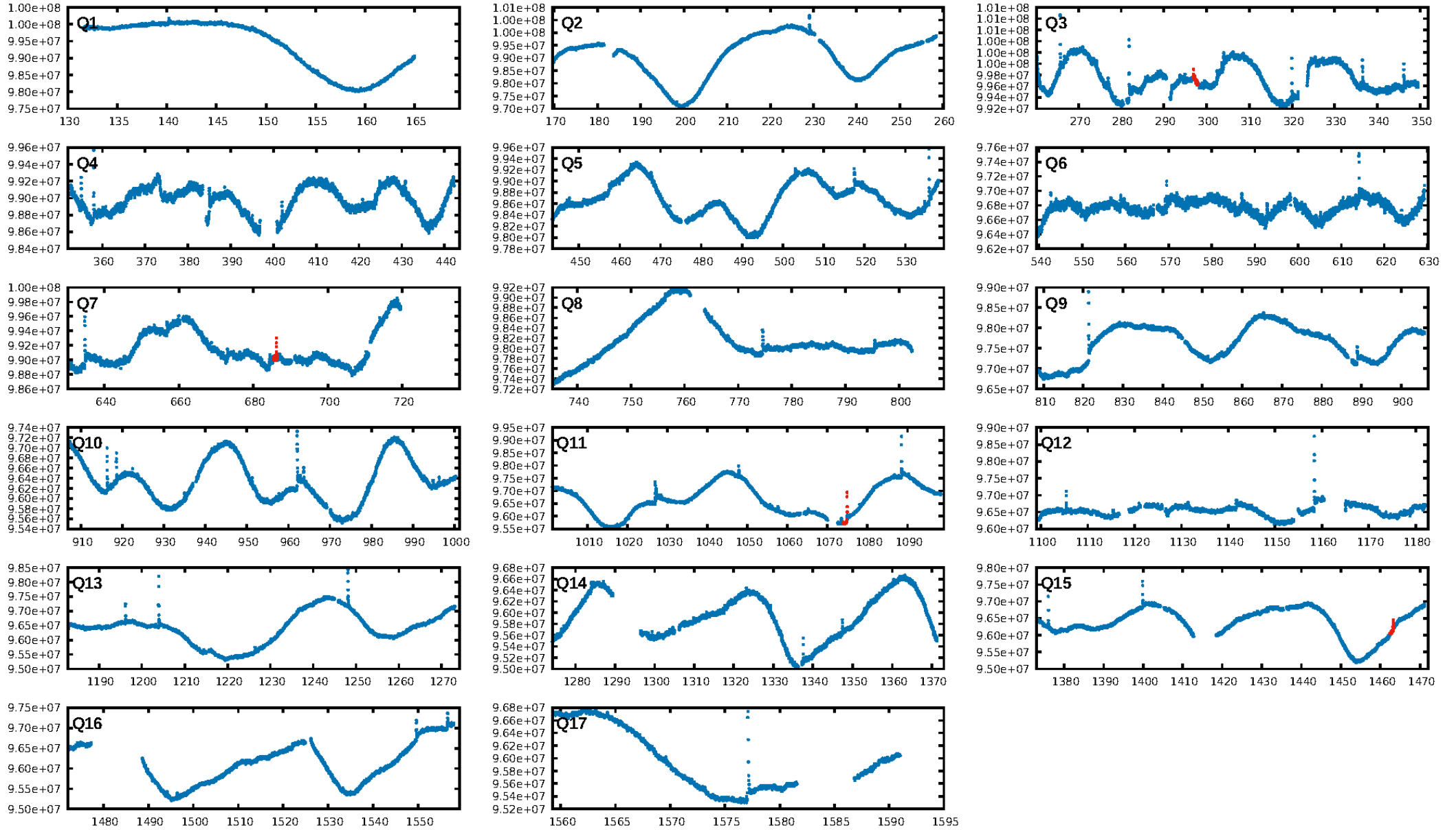
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [29.47 σ]
LongPeriod-sig: 100.0% [20.77 σ]
ModelChiSquare2-sig: 3.4%
ModelChiSquareGof-sig: 95.1%
Bootstrap-pfa: 2.12e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -1.31
Centroid-sig: 0.3%
Centroid-so: 1.200 arcsec [1.99 σ]
OotOffset-rm: 0.672 arcsec [2.35 σ]
KicOffset-rm: 0.680 arcsec [1.52 σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [4/4]

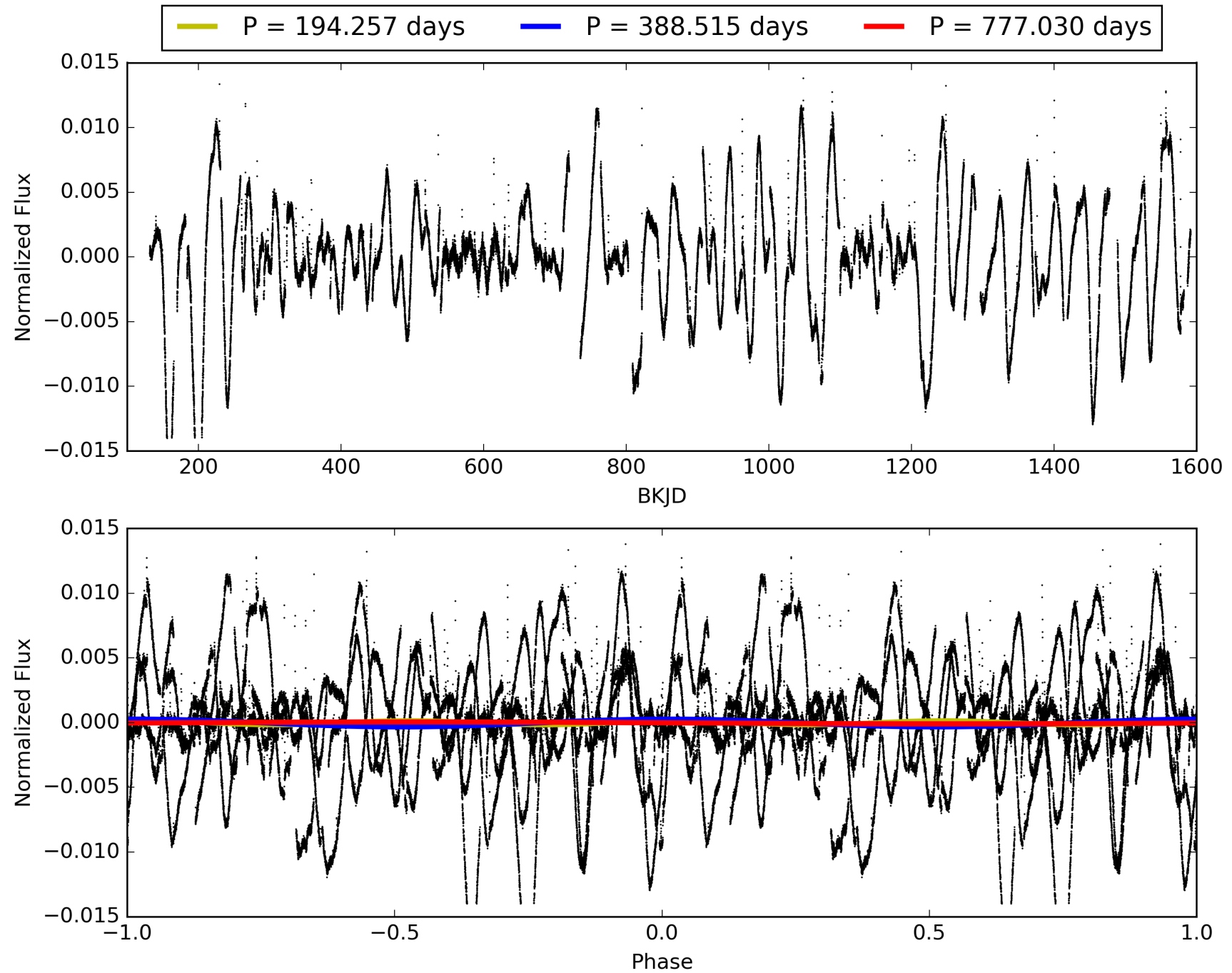
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:23:09 Z

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

TCE 007696356-02, PDC Light Curves

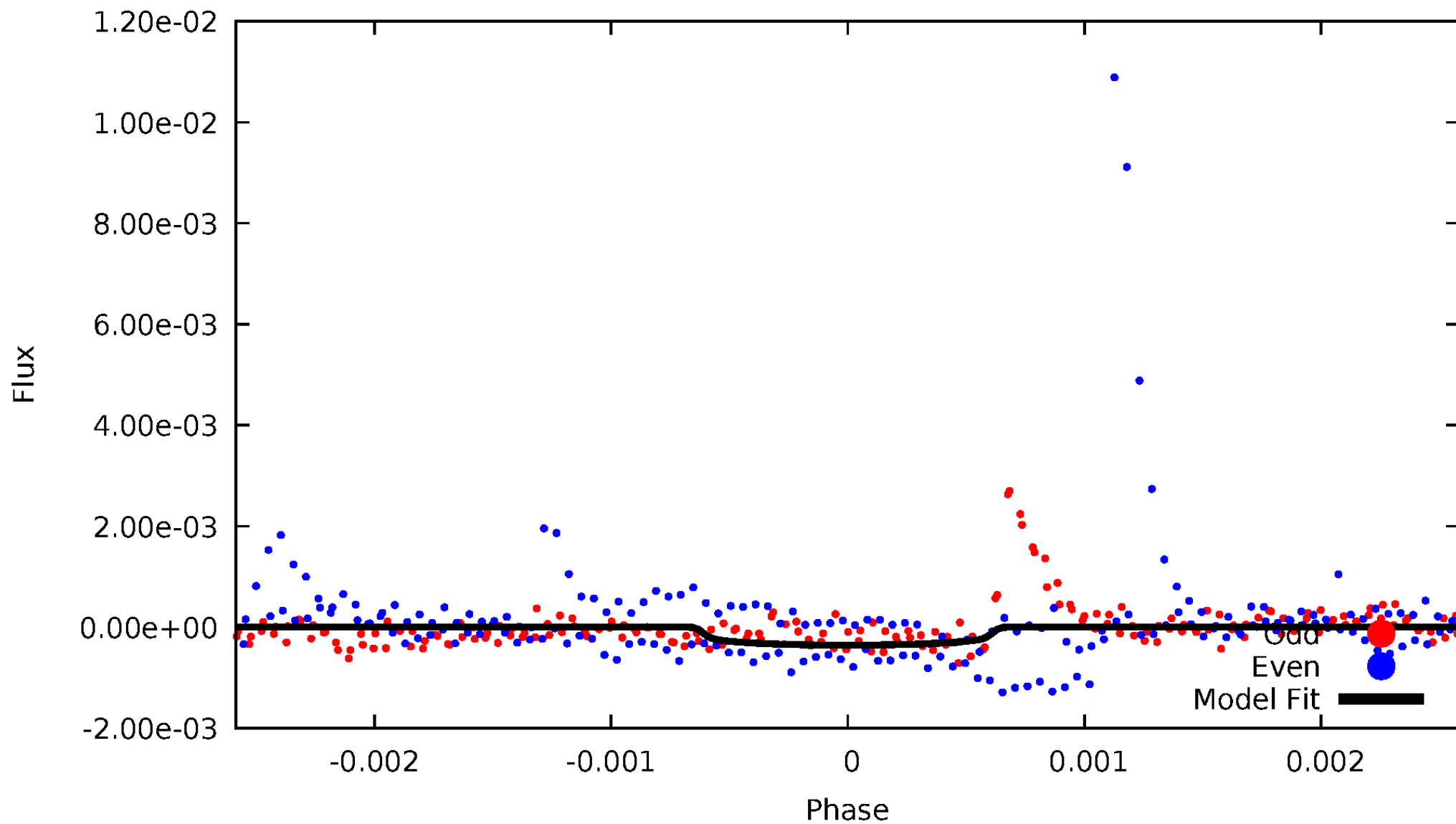


TCE 007696356-02



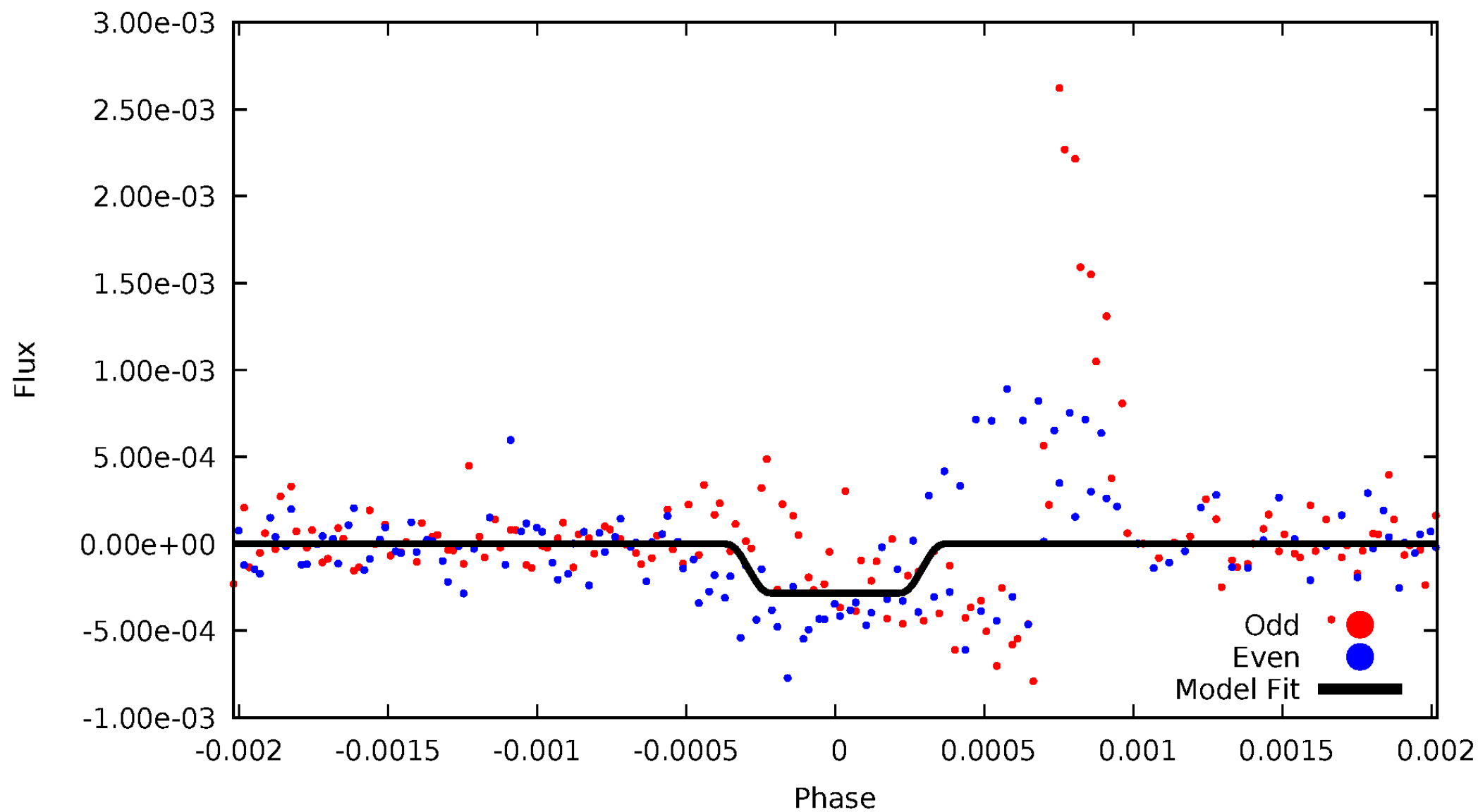
DV Odd/Even

TCE 007696356-02



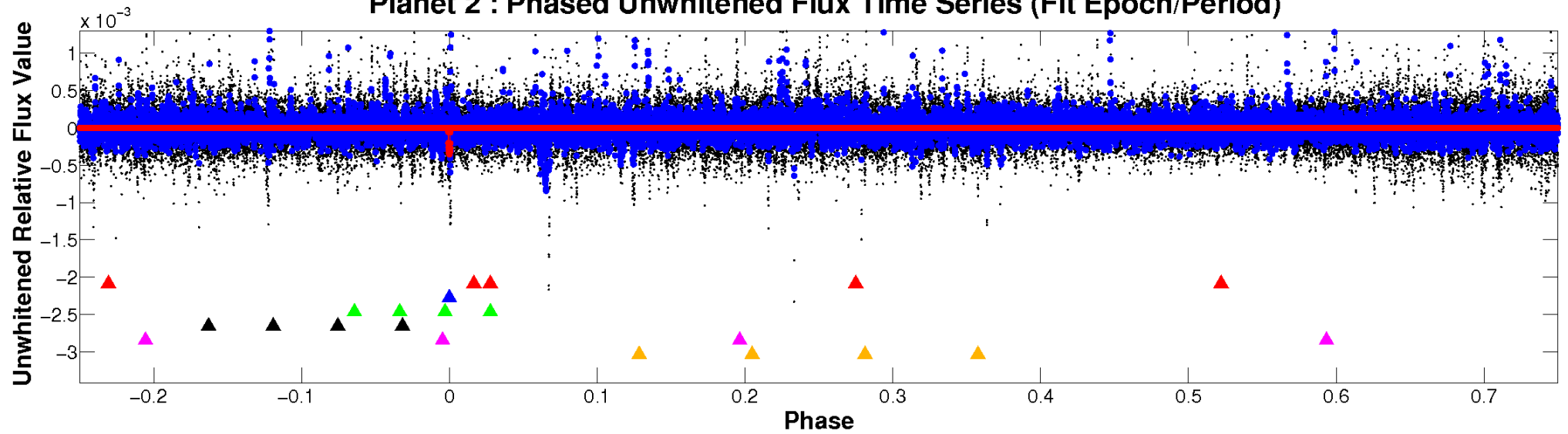
ALT Odd/Even

TCE 007696356-02

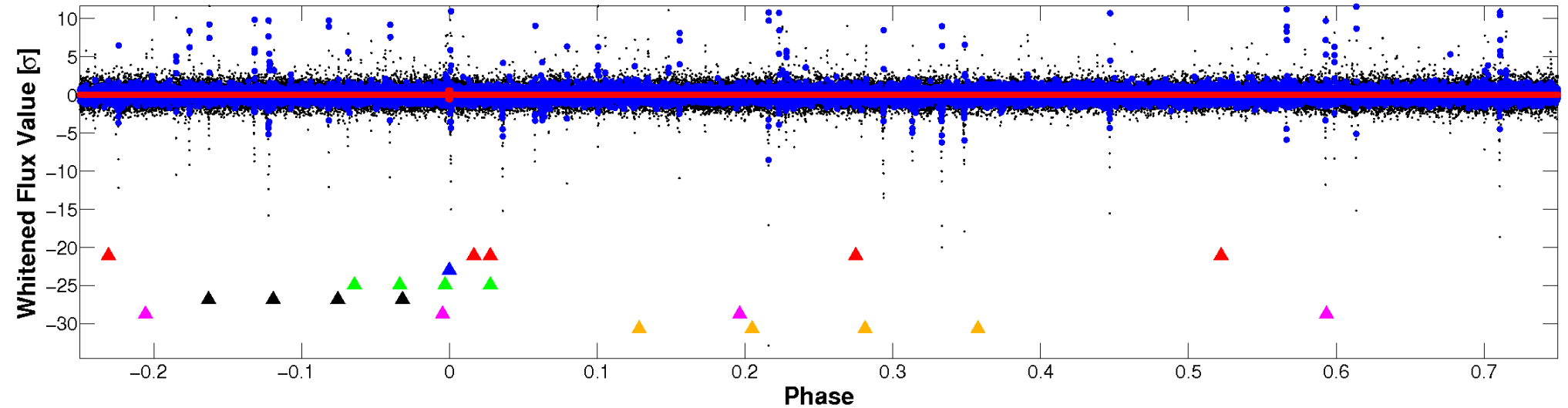


Non-Whitened Vs. Whitened Light Curve

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

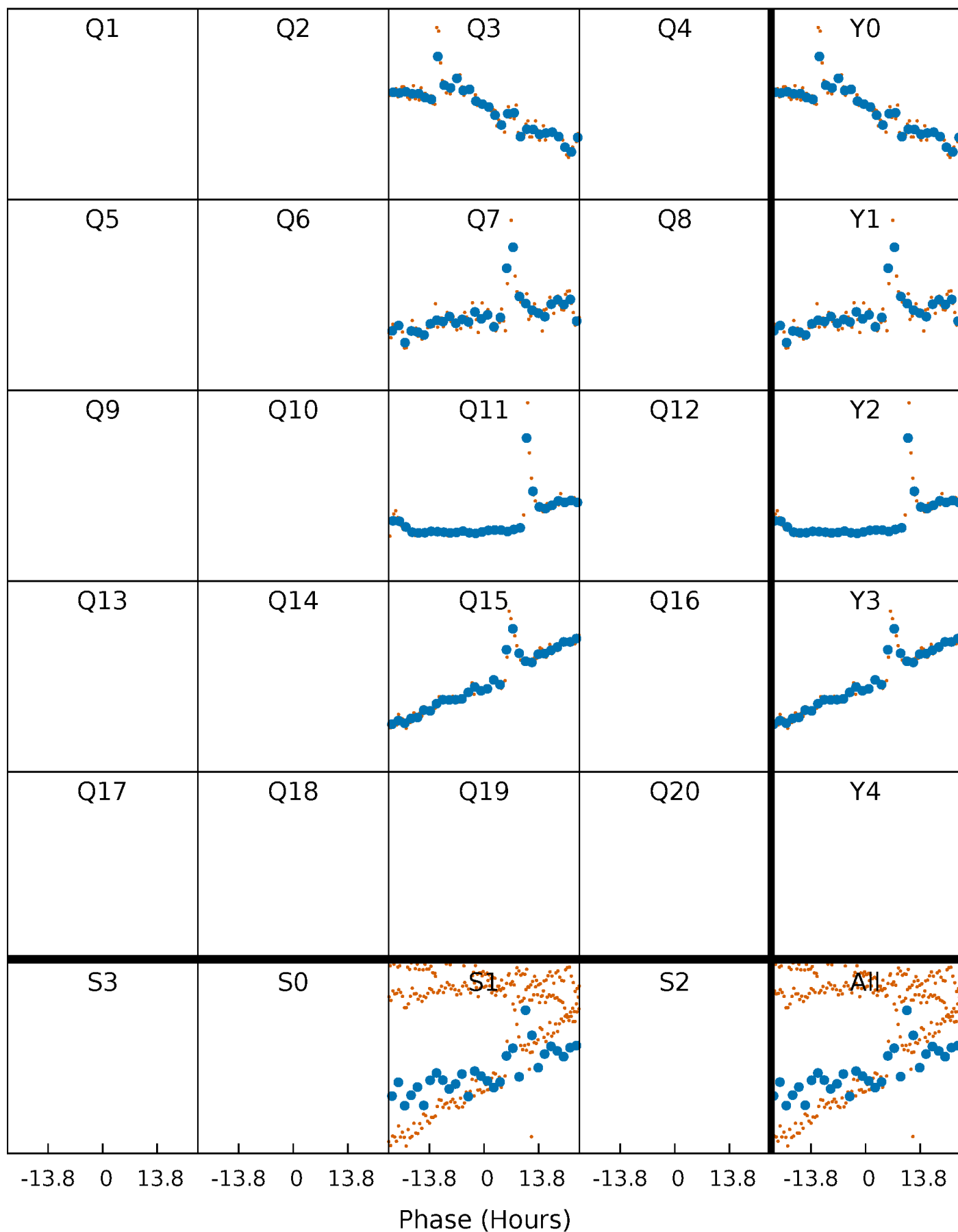


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



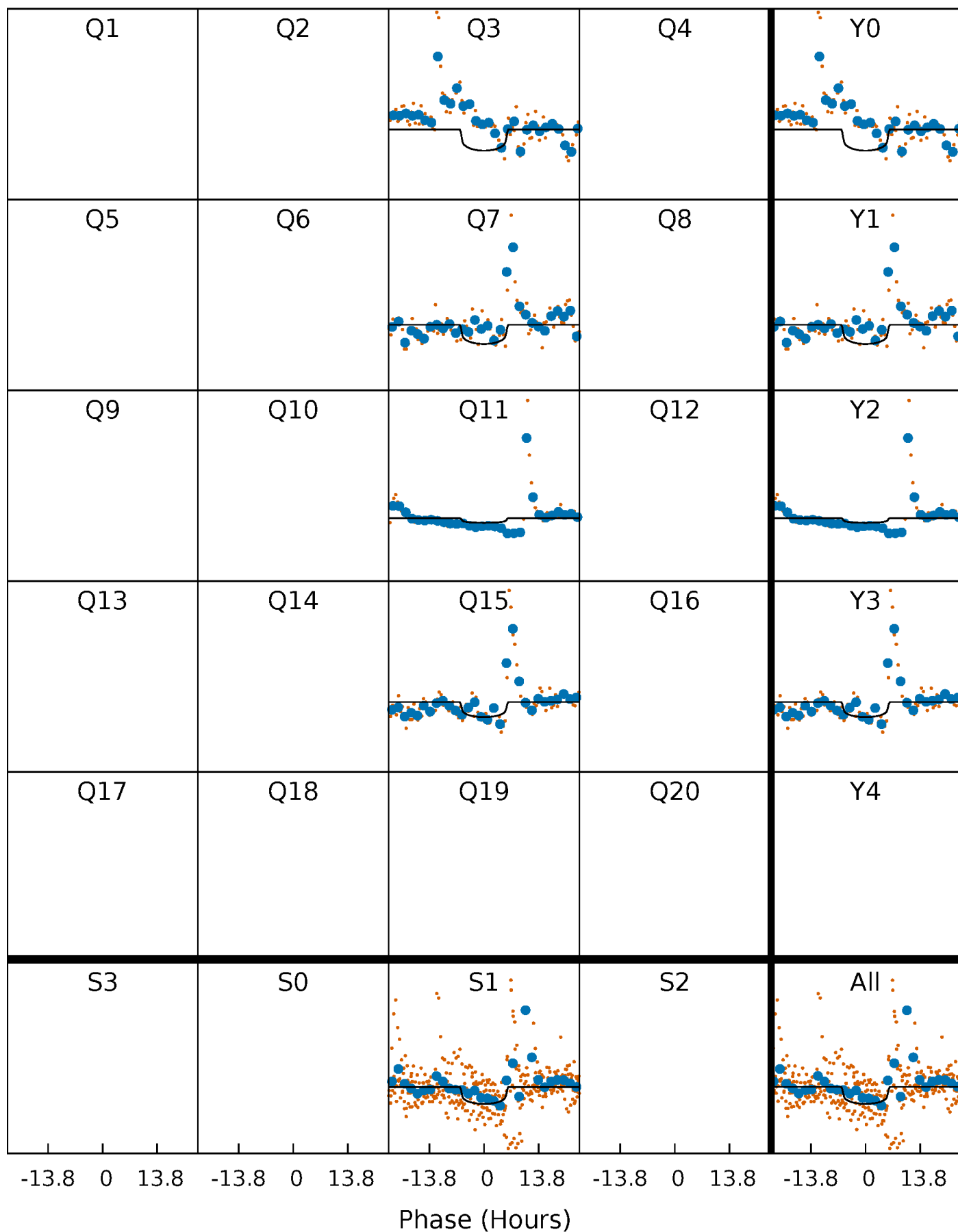
PDC Quarter-Phased Transit Curves

TCE 007696356-02 $P=388.514939$ Days $T_0=297.400901$ (BKJD)



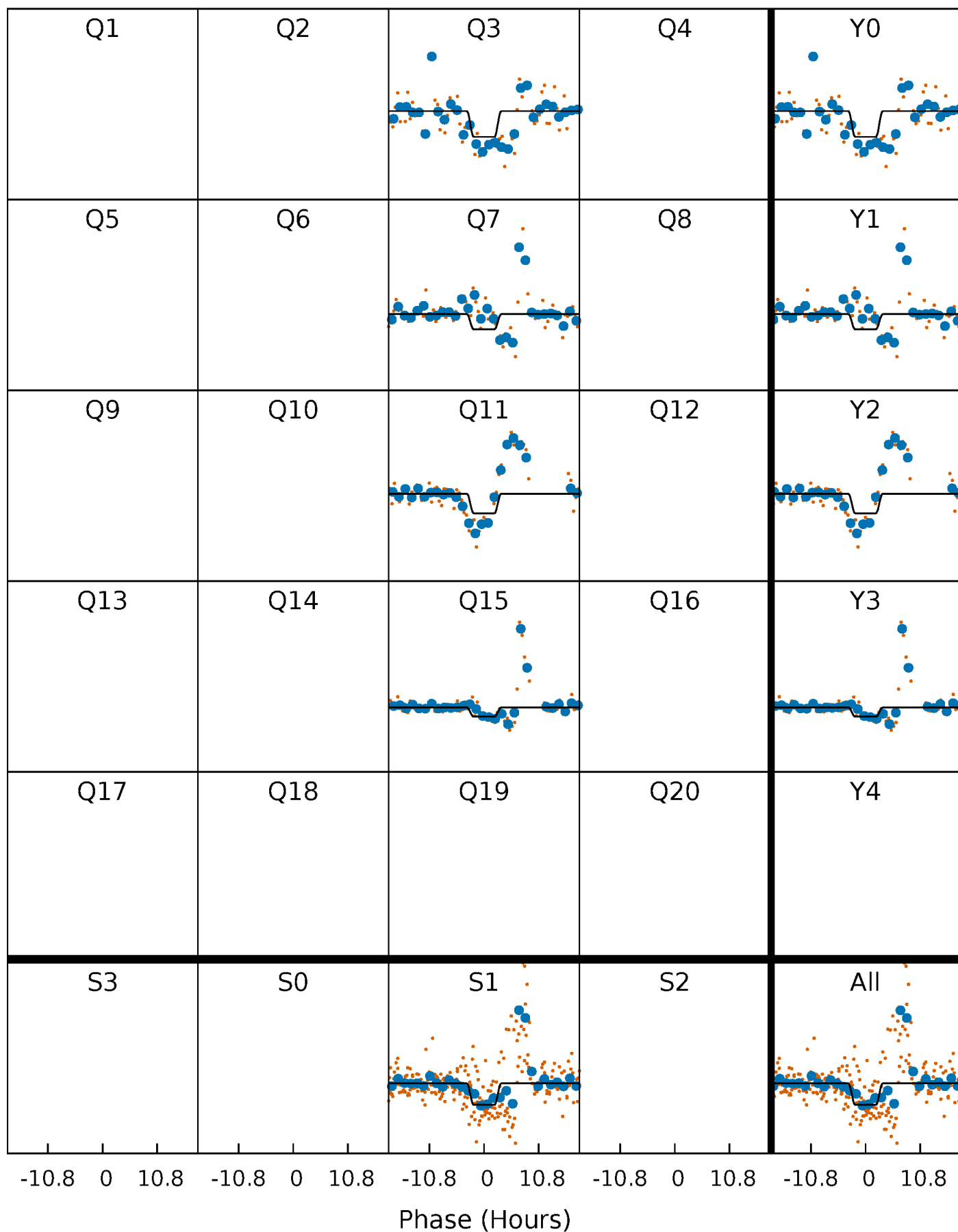
DV Quarter-Phased Transit Curves

TCE 007696356-02 $P=388.514939$ Days $T_0=297.400901$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

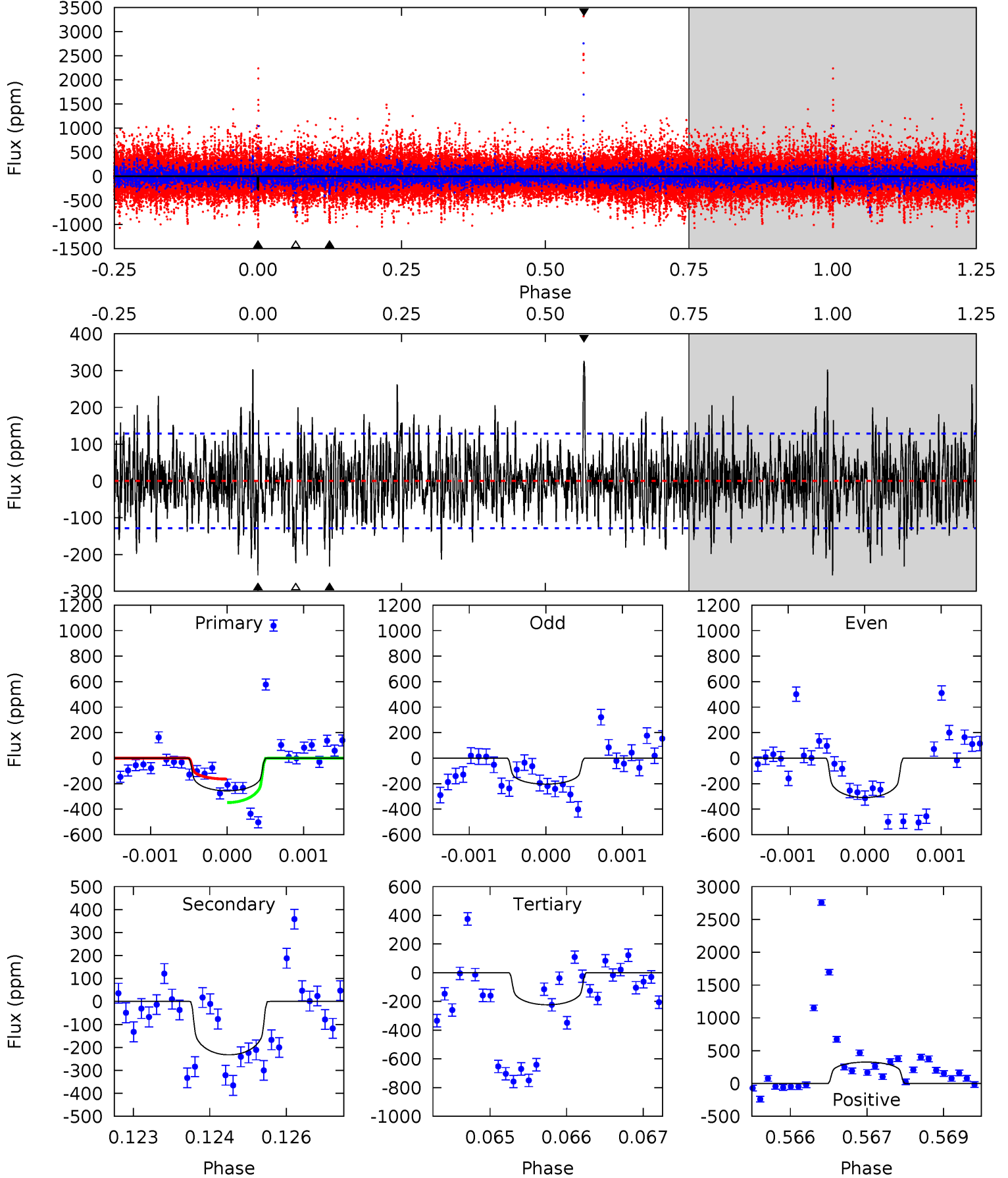
TCE 007696356-02 $P=388.516899$ Days $T_0=297.365895$ (BKJD)



DV Model-Shift Uniqueness Test

007696356-02, P = 388.514939 Days, E = 297.400901 Days

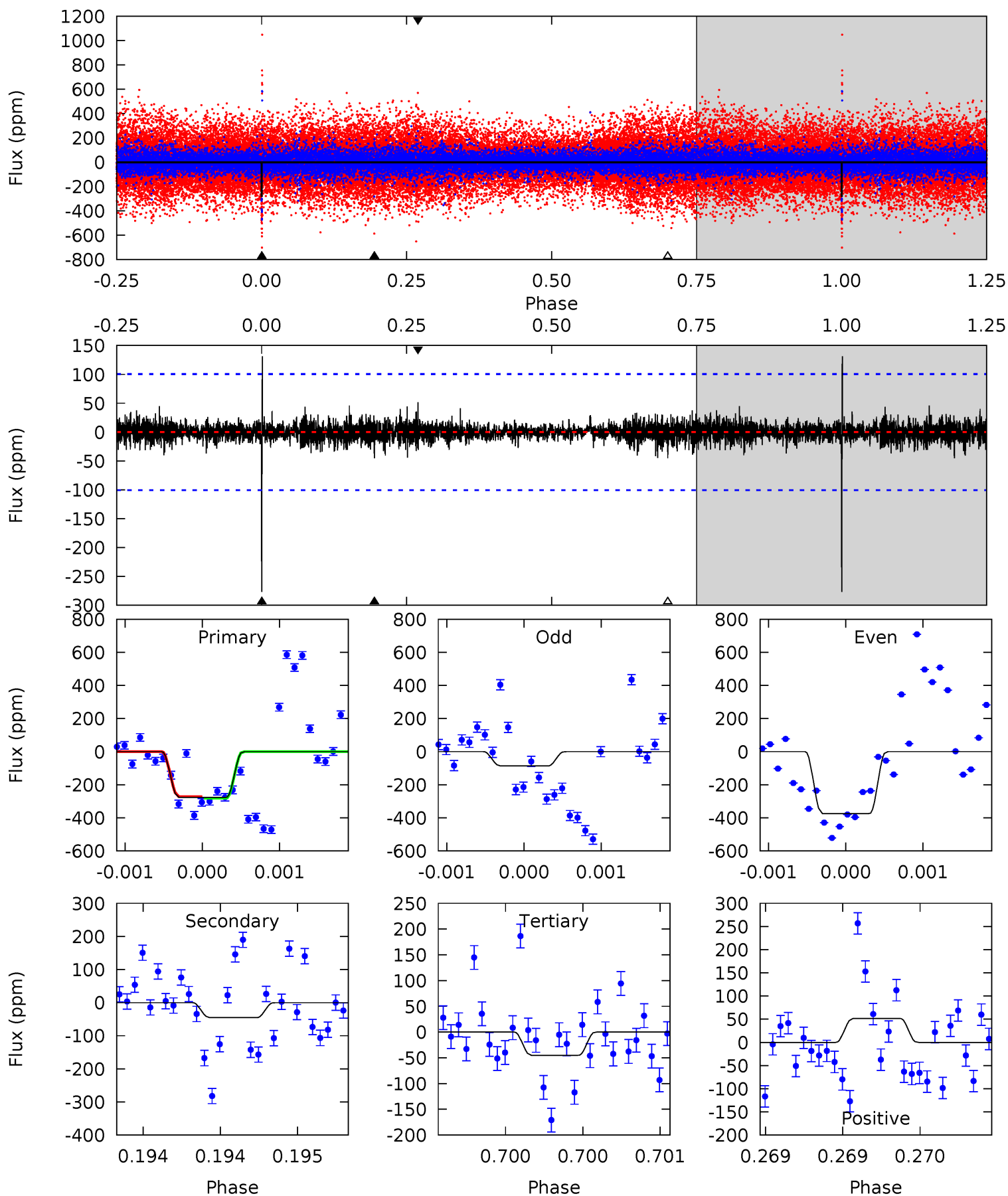
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	9.74	9.37	13.7	5.40	3.21	2.91	1.38	-2.93	0.38	-3.94	1.95	1.26	0.56	3.87



Alt Model-Shift Uniqueness Test

007696356-02, P = 388.516899 Days, E = 297.365895 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	2.48	2.48	2.83	5.51	3.39	0.54	12.7	12.3	0.00	-0.34	8.21	0.81	0.32	0.25



Stellar Parameters For KIC 007696356

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5267^{+128}_{-201}	$3.152^{+0.455}_{-0.227}$	$-0.300^{+0.250}_{-0.350}$	$6.185^{+1.725}_{-3.450}$	$1.981^{+0.527}_{-0.979}$	$0.012^{+0.055}_{-0.006}$
	+2%/-4%	+14%/-7%	+83%/-117%	+28%/-56%	+27%/-49%	+468%/-52%
Source	PHO1	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 007696356-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-232 ± 24	$12.37^{+5.62}_{-4.55}$	704^{+63}_{-91}	4766^{+770}_{-520}	1407^{+1994}_{-705}
Alt.	-45 ± 18	$10.91^{+5.12}_{-4.75}$	698^{+72}_{-89}	3671^{+681}_{-426}	345^{+771}_{-209}

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 $A_{obs} \gg 1.0$

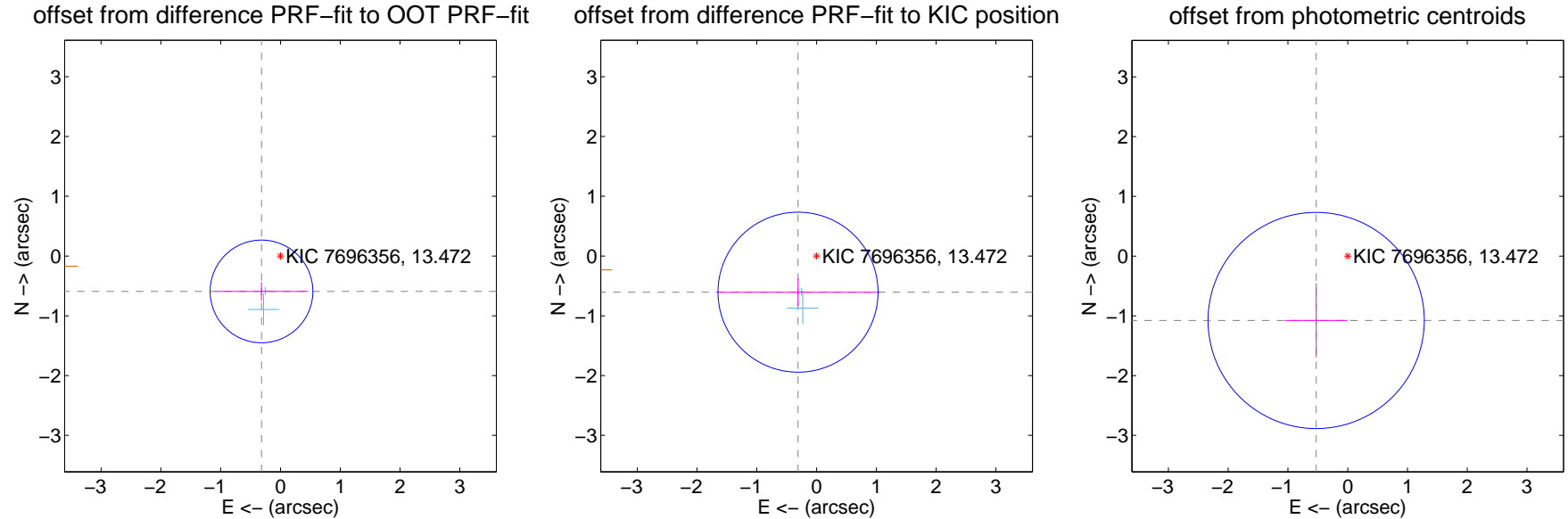
DV Centroid Data

Supplemental centroid analysis for 007696356-02. Kepler magnitude: 13.47. Transit SNR 5.79

There are 2 quarters with good PRF difference image offsets

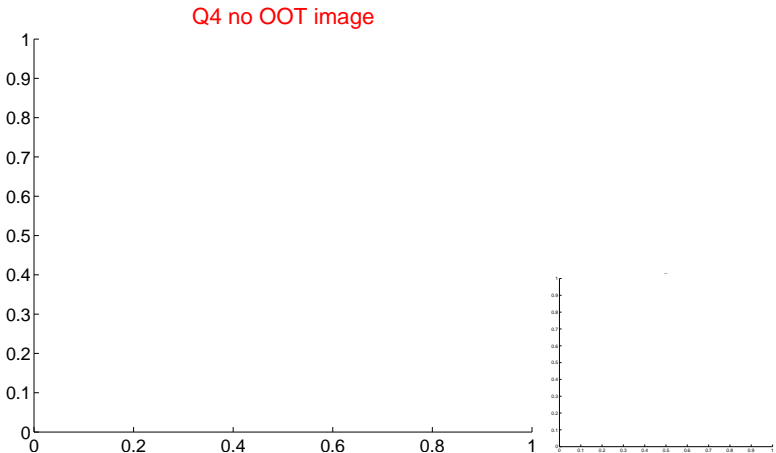
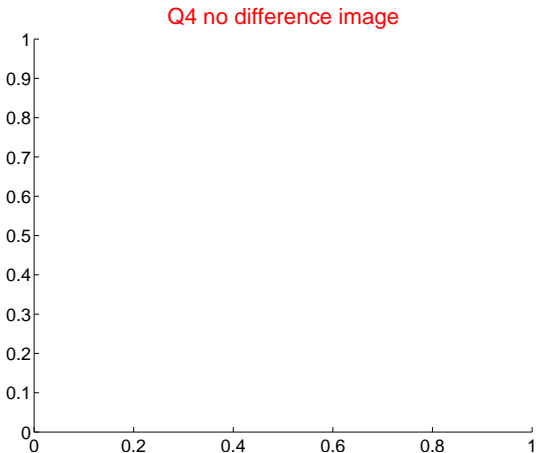
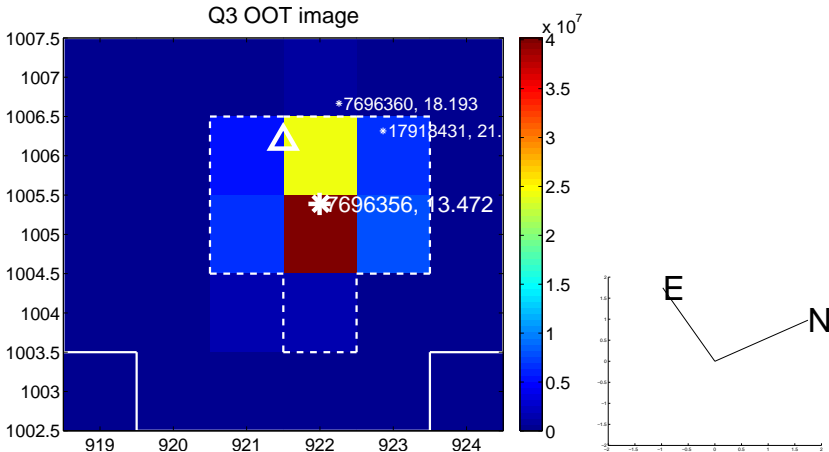
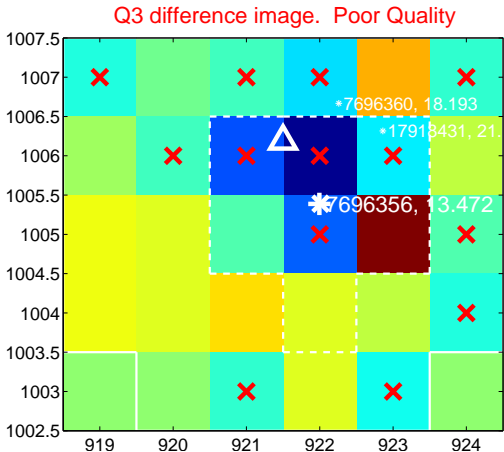
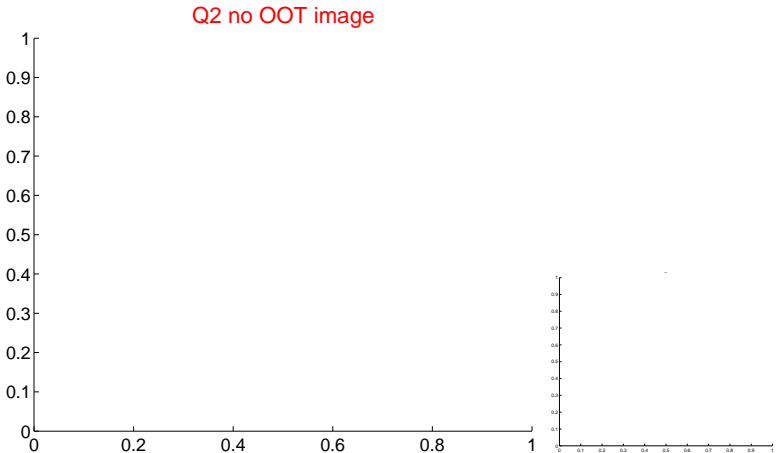
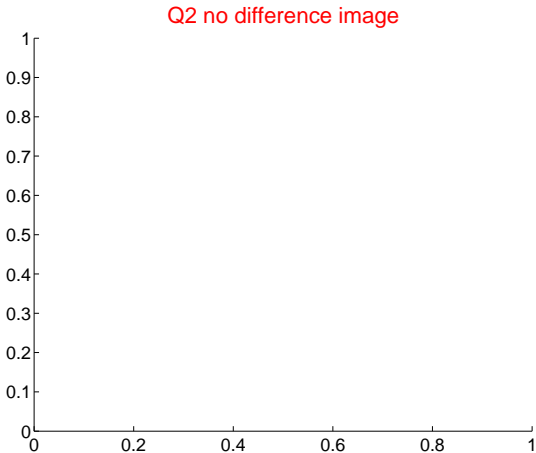
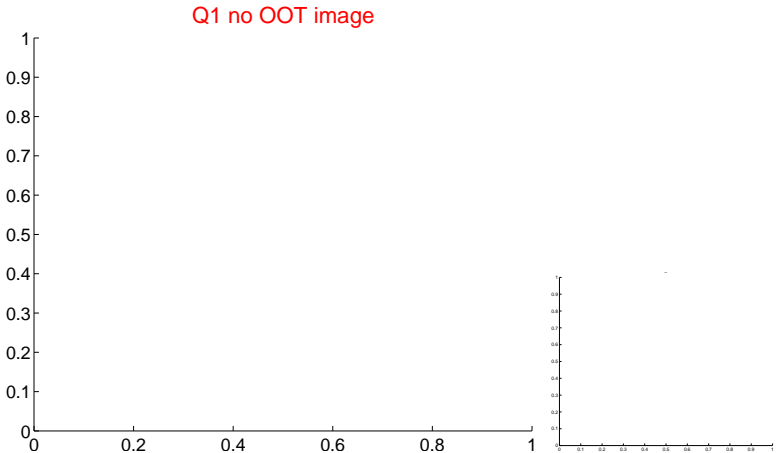
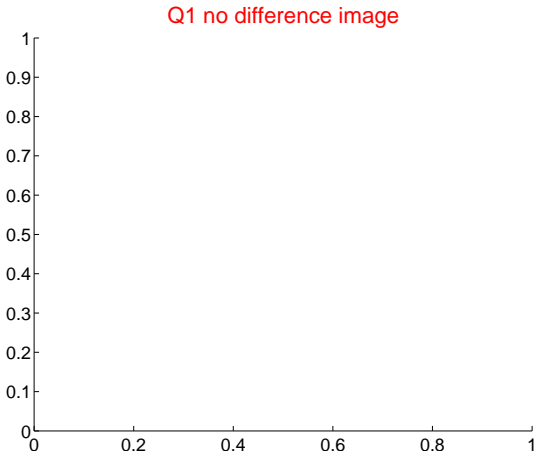
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.672 ± 0.286	2.35	0.317 ± 0.774	-0.592 ± 0.156
PRF-fit source offset from KIC position	0.680 ± 0.446	1.52	0.310 ± 1.372	-0.605 ± 0.229
photometric centroid source offset	1.20 ± 0.60	1.99	0.53 ± 0.52	-1.08 ± 0.62



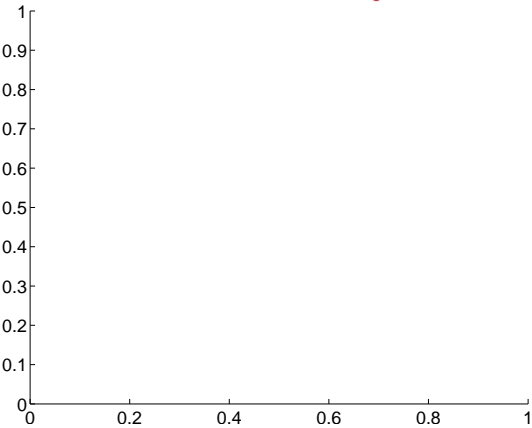
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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

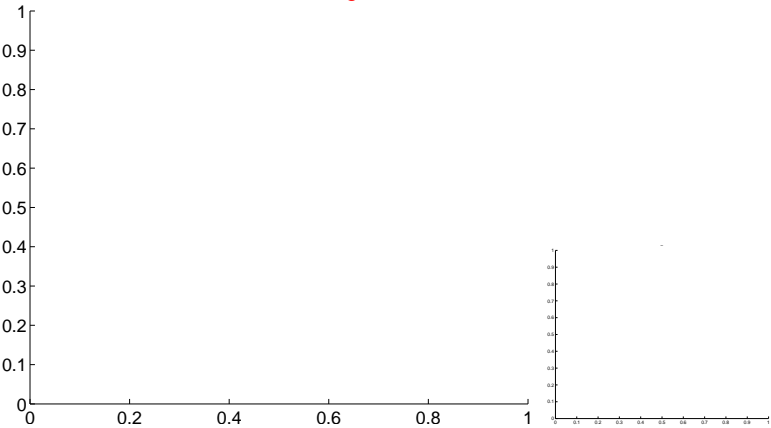


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

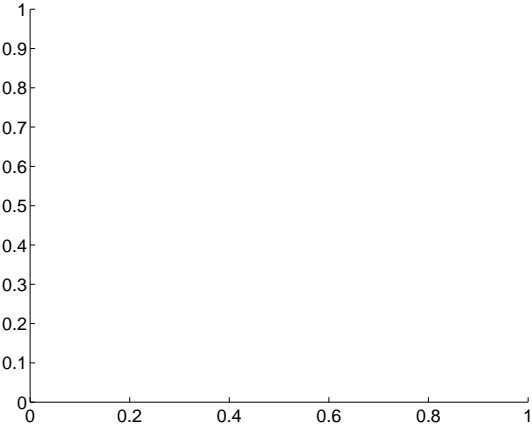
Q5 no difference image



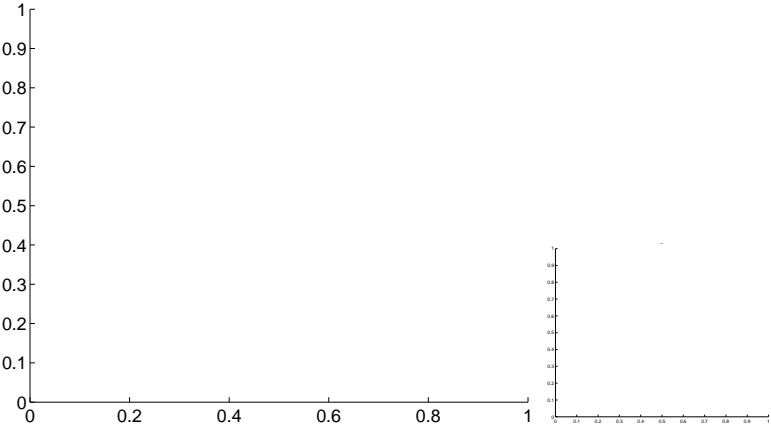
Q5 no OOT image



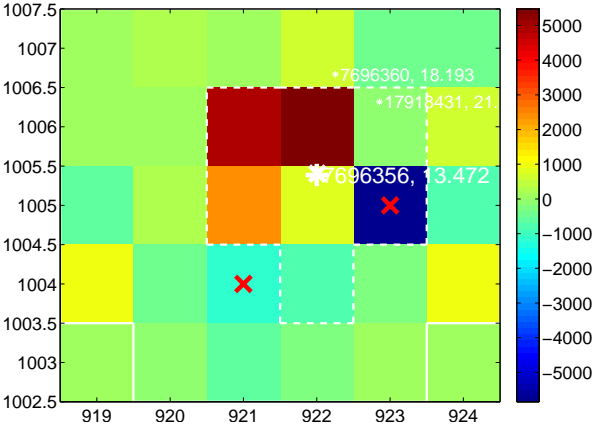
Q6 no difference image



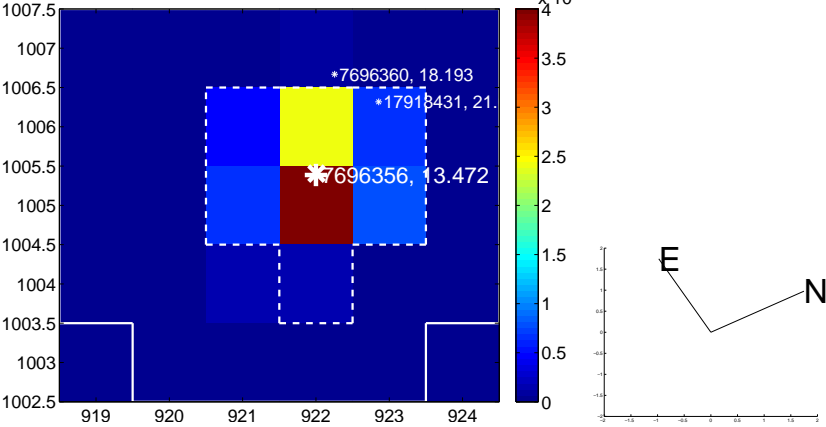
Q6 no OOT image



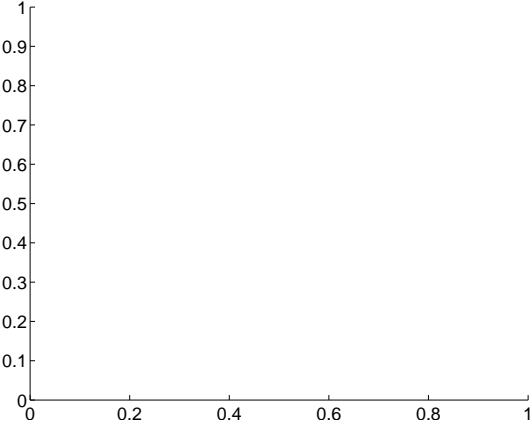
Q7 difference image. Poor Quality



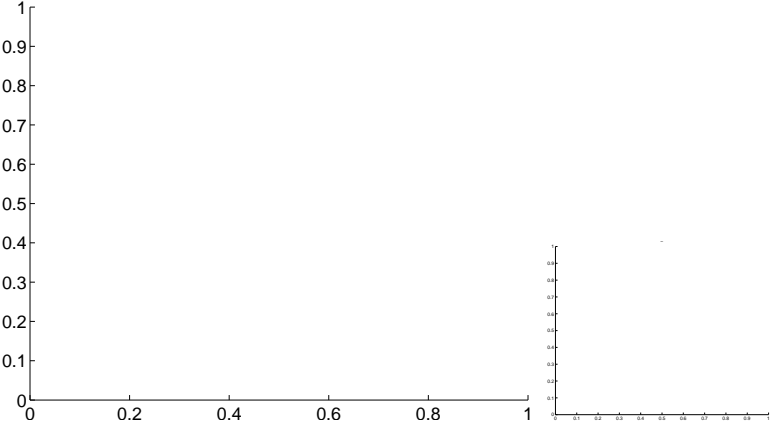
Q7 OOT image



Q8 no difference image

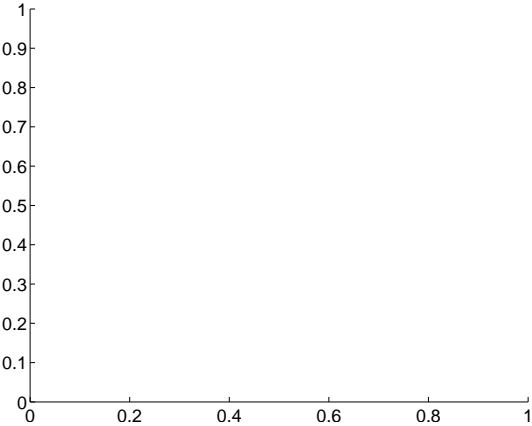


Q8 no OOT image

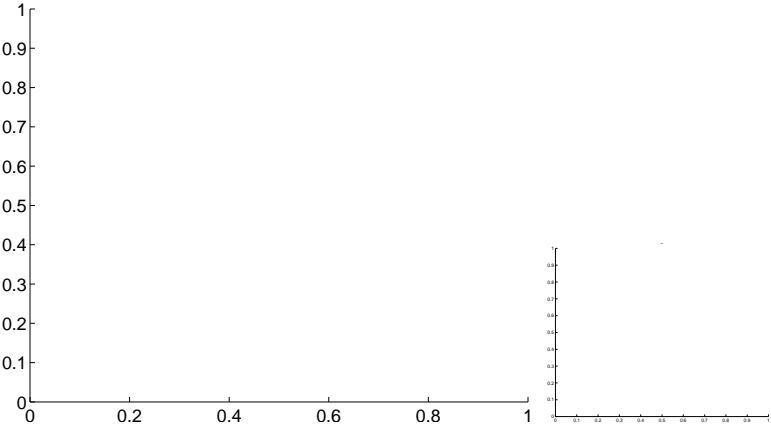


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

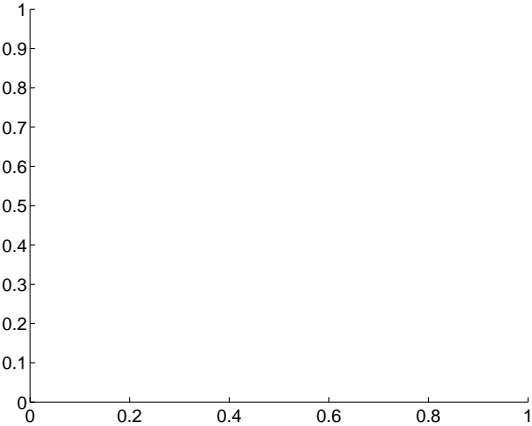
Q9 no difference image



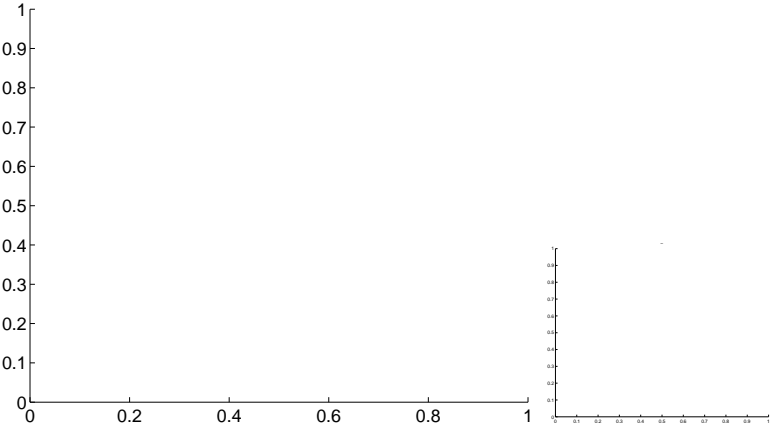
Q9 no OOT image



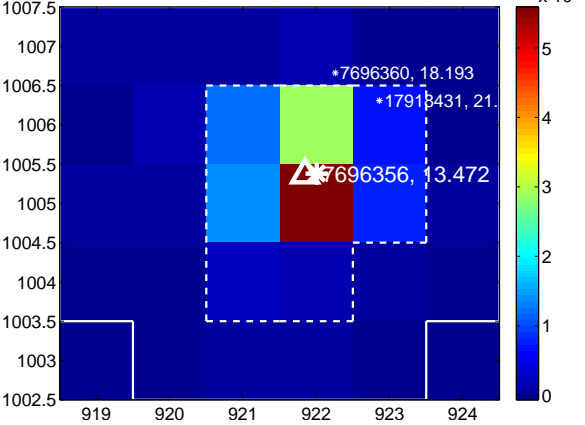
Q10 no difference image



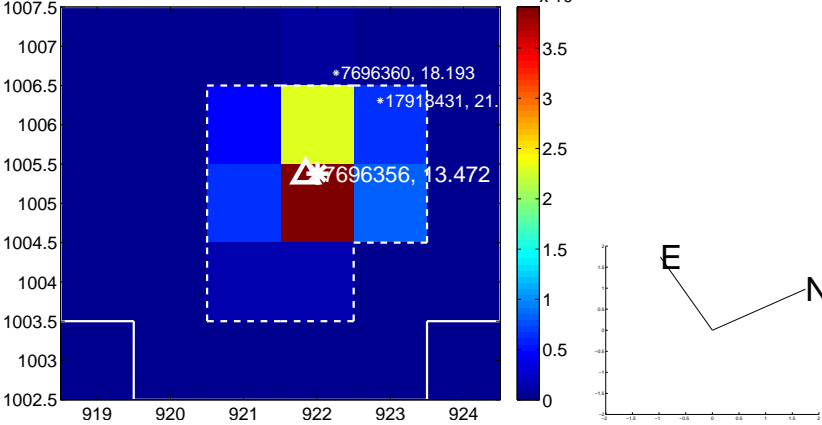
Q10 no OOT image



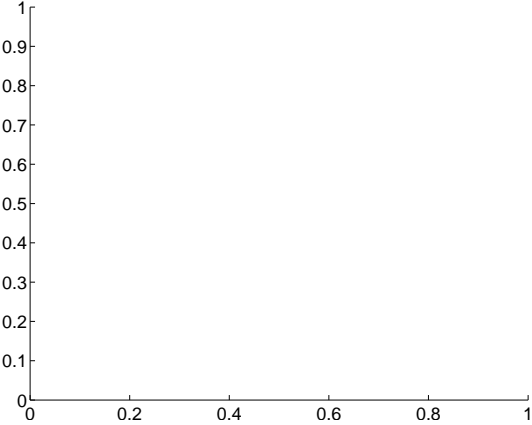
Q11 difference image



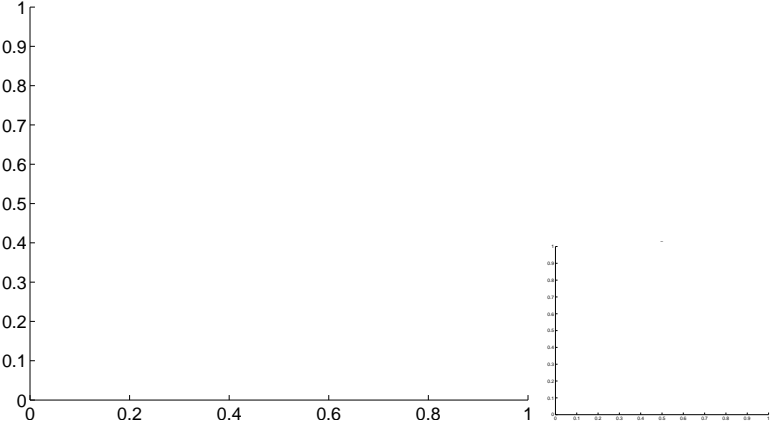
Q11 OOT image



Q12 no difference image

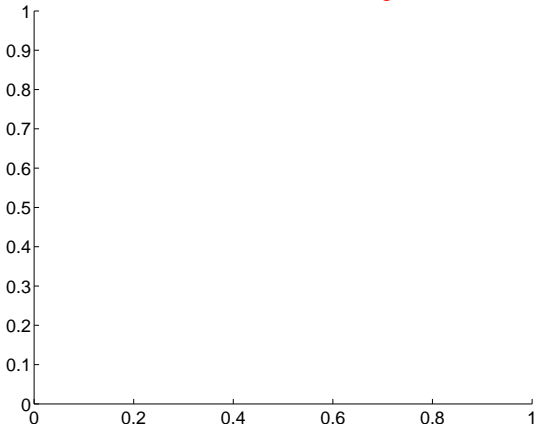


Q12 no OOT image

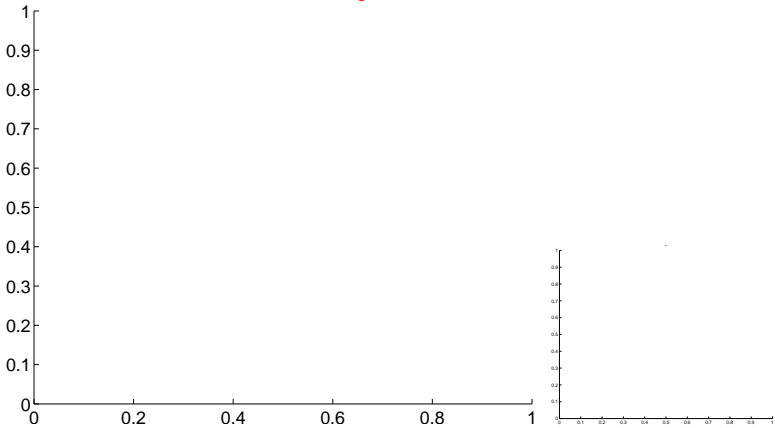


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

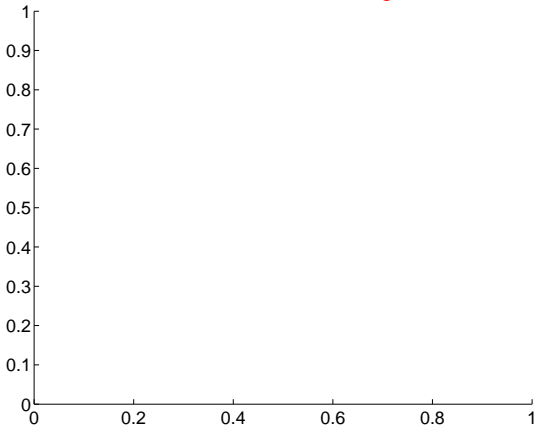
Q13 no difference image



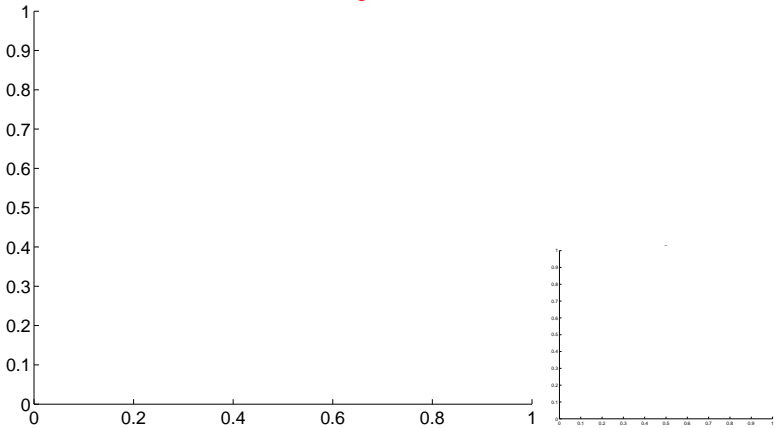
Q13 no OOT image



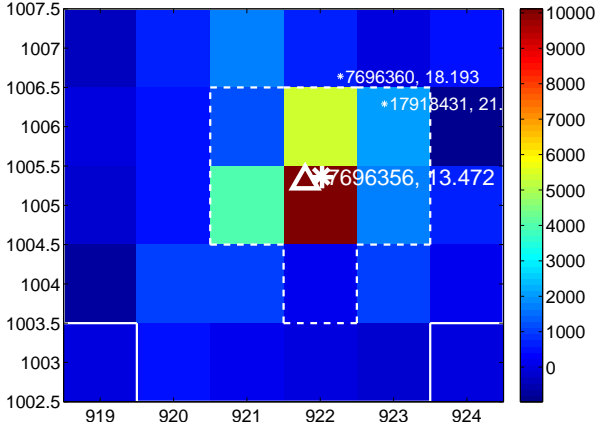
Q14 no difference image



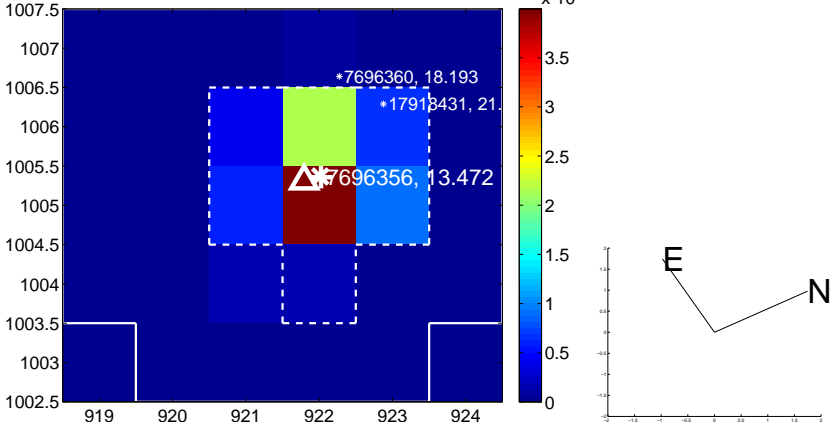
Q14 no OOT image



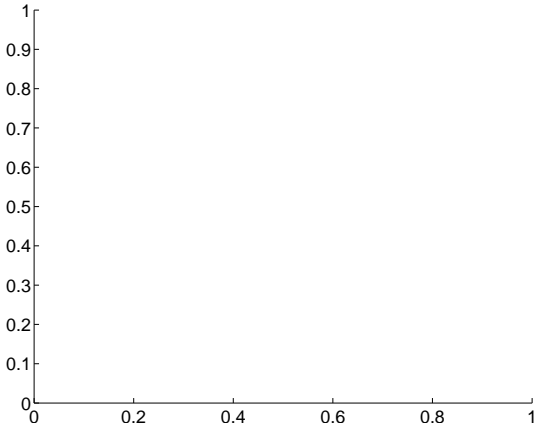
Q15 difference image



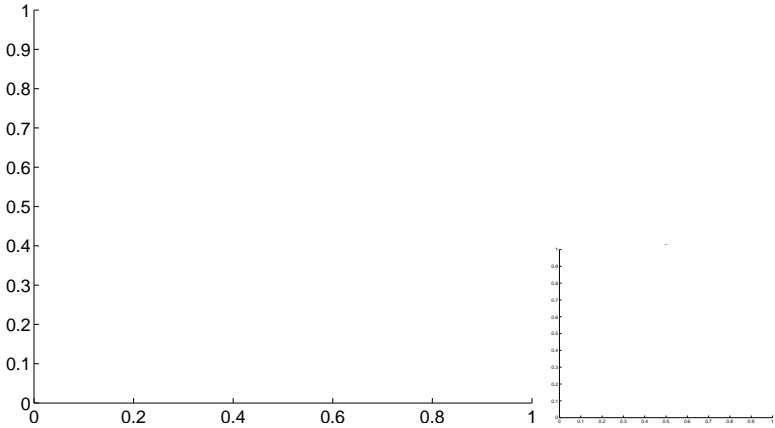
Q15 OOT image



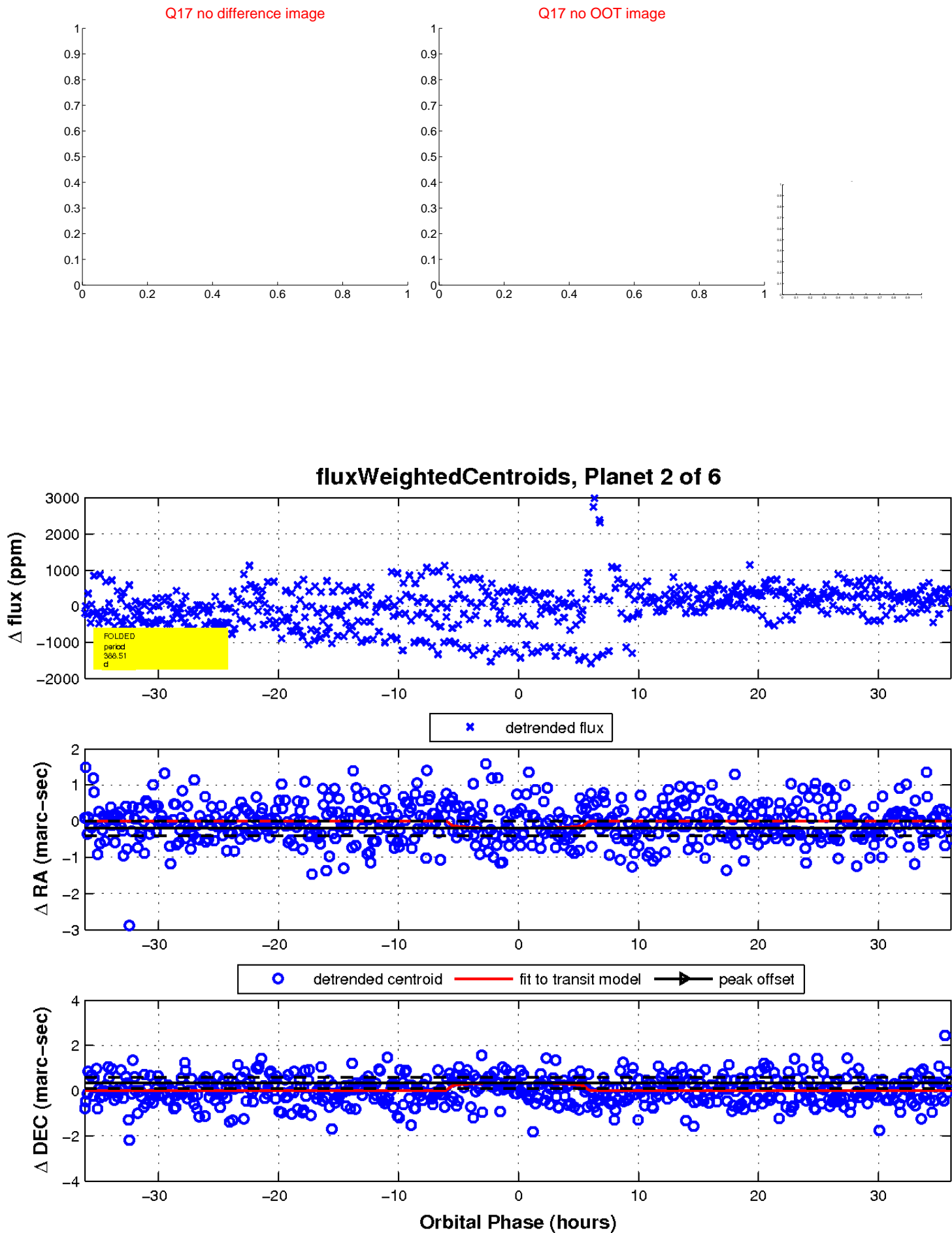
Q16 no difference image



Q16 no OOT image

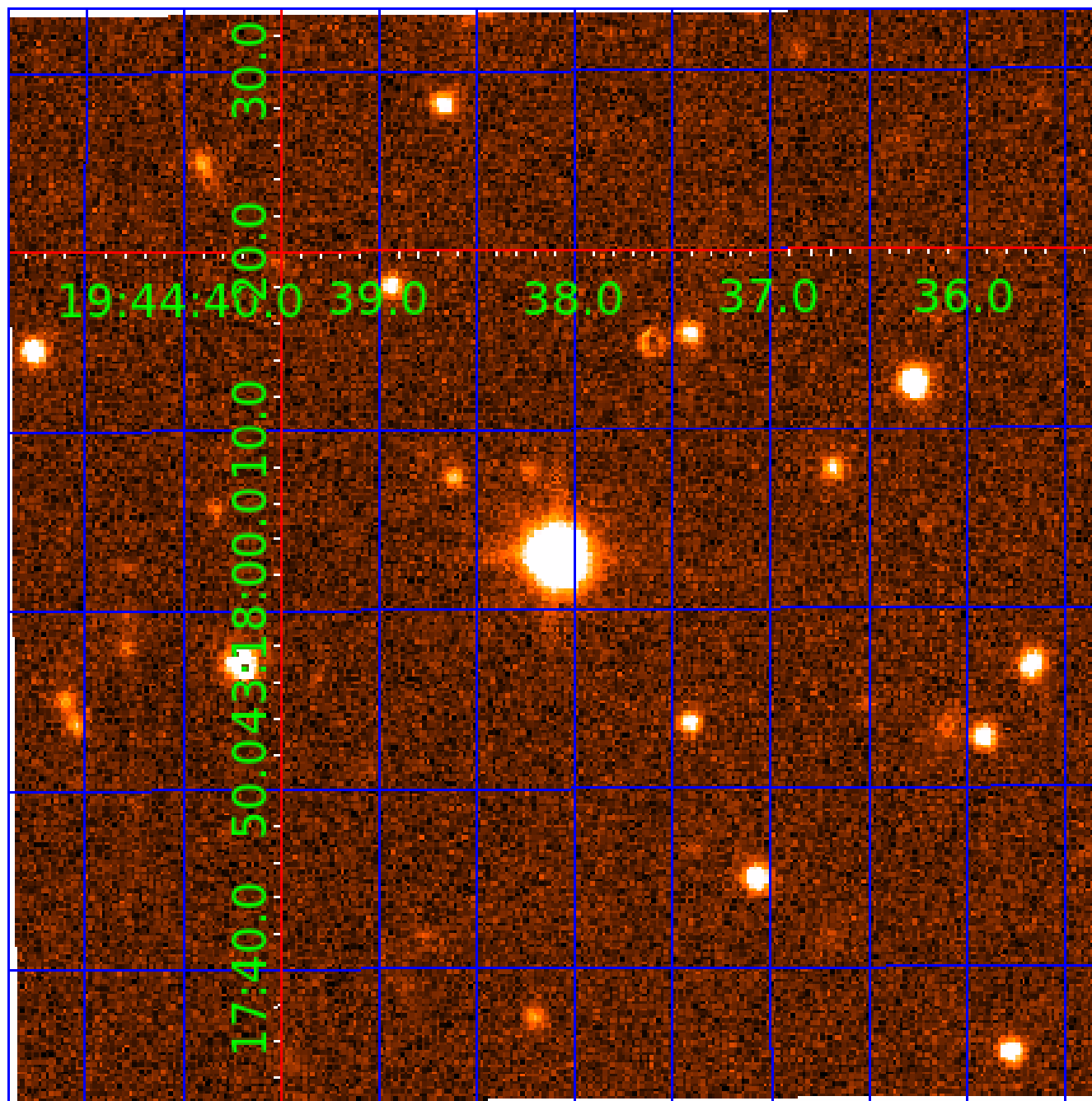


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007696356

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})
007696356-01	OBS	No	292.462794	303.856773	617.7	7.315	14.4	7.4	6.18	5267	16.66	22.49
007696356-02	OBS	No	388.514939	297.400901	355.6	12.056	11.2	5.8	6.18	5267	12.89	15.40
007696356-04	OBS	No	371.523762	285.089642	573.0	6.790	9.1	9.5	6.18	5267	16.09	16.34
007696356-05	OBS	No	310.418956	373.722127	477.4	12.948	8.6	7.2	6.18	5267	14.63	20.77
007696356-06	OBS	No	358.831736	436.354466	443.0	6.816	8.3	6.7	6.18	5267	14.43	17.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007696356-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS
007696356-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007696356-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS
007696356-05	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
007696356-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

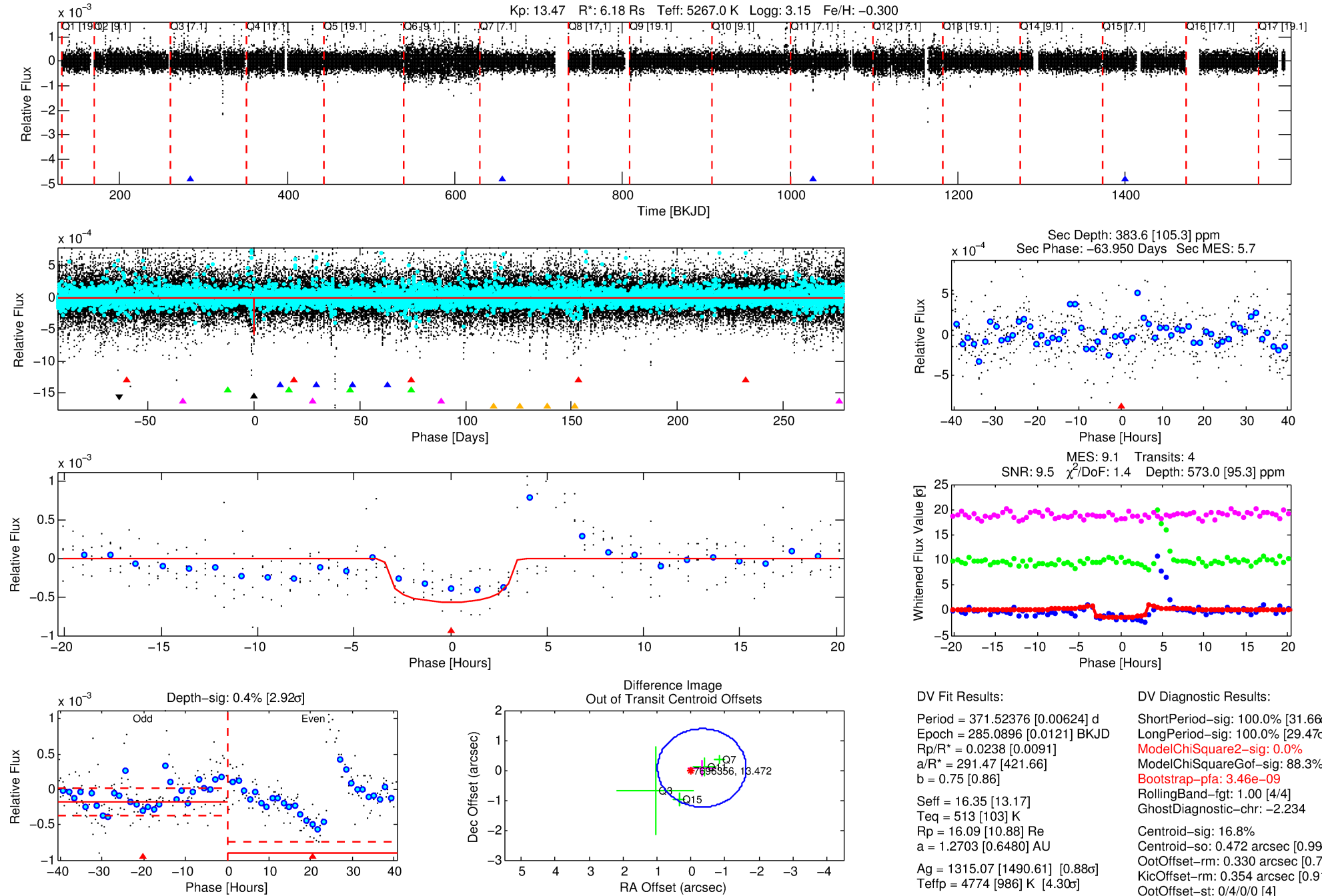
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007696356-04

No Significant Match Found

DV One-Page Summary

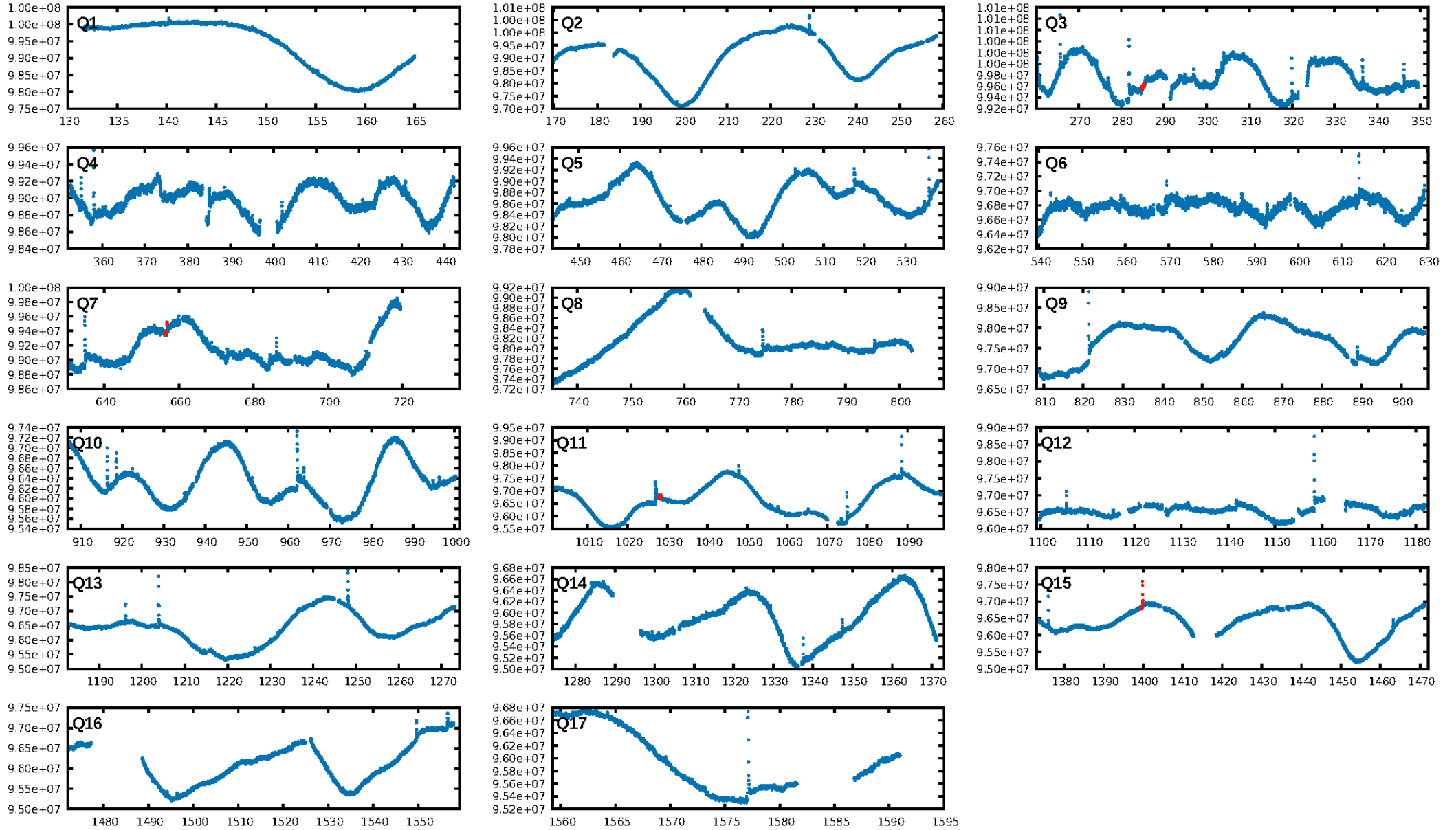
KIC: 7696356 Candidate: 4 of 6 Period: 371.524 d



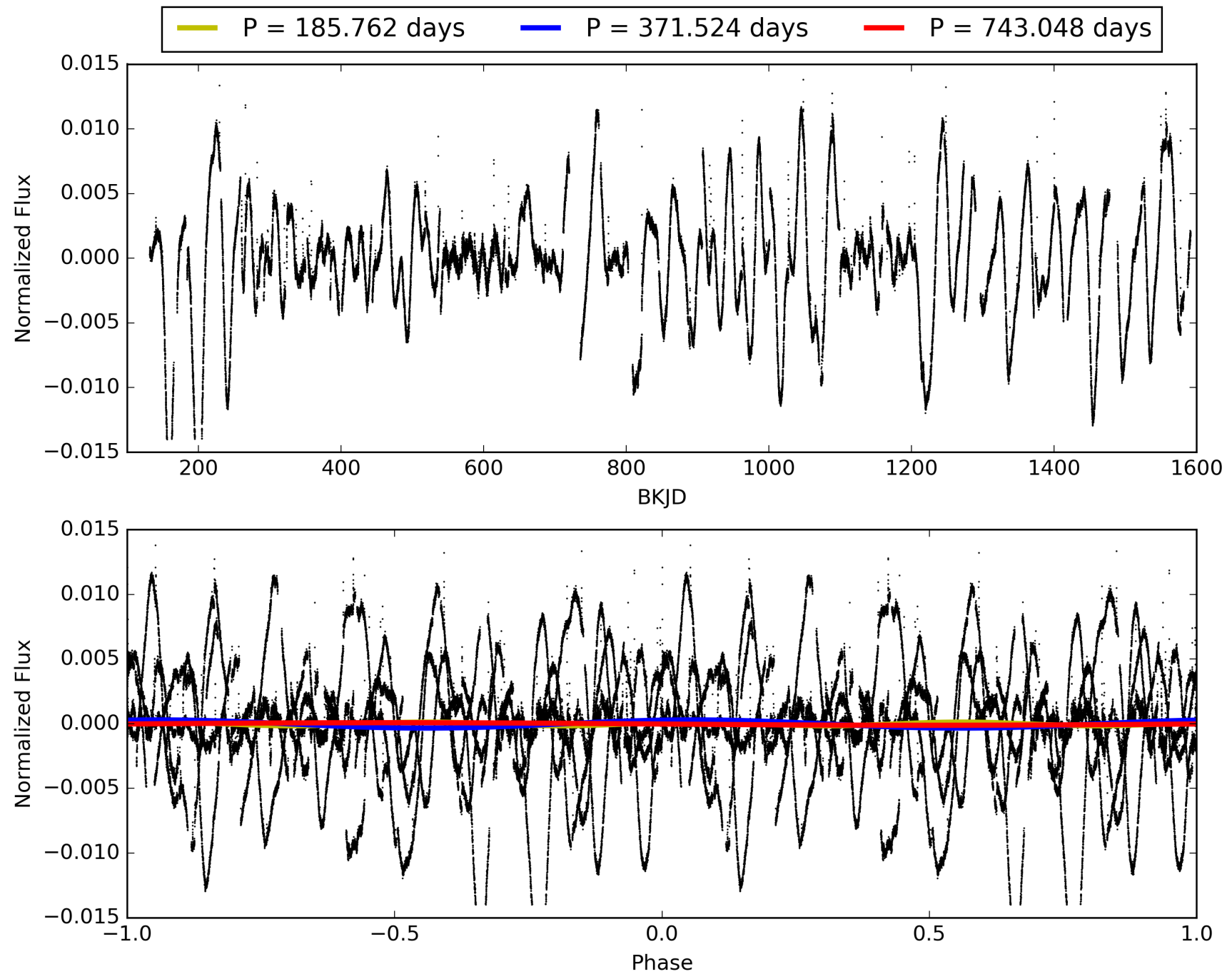
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:23:32 Z

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

TCE 007696356-04, PDC Light Curves

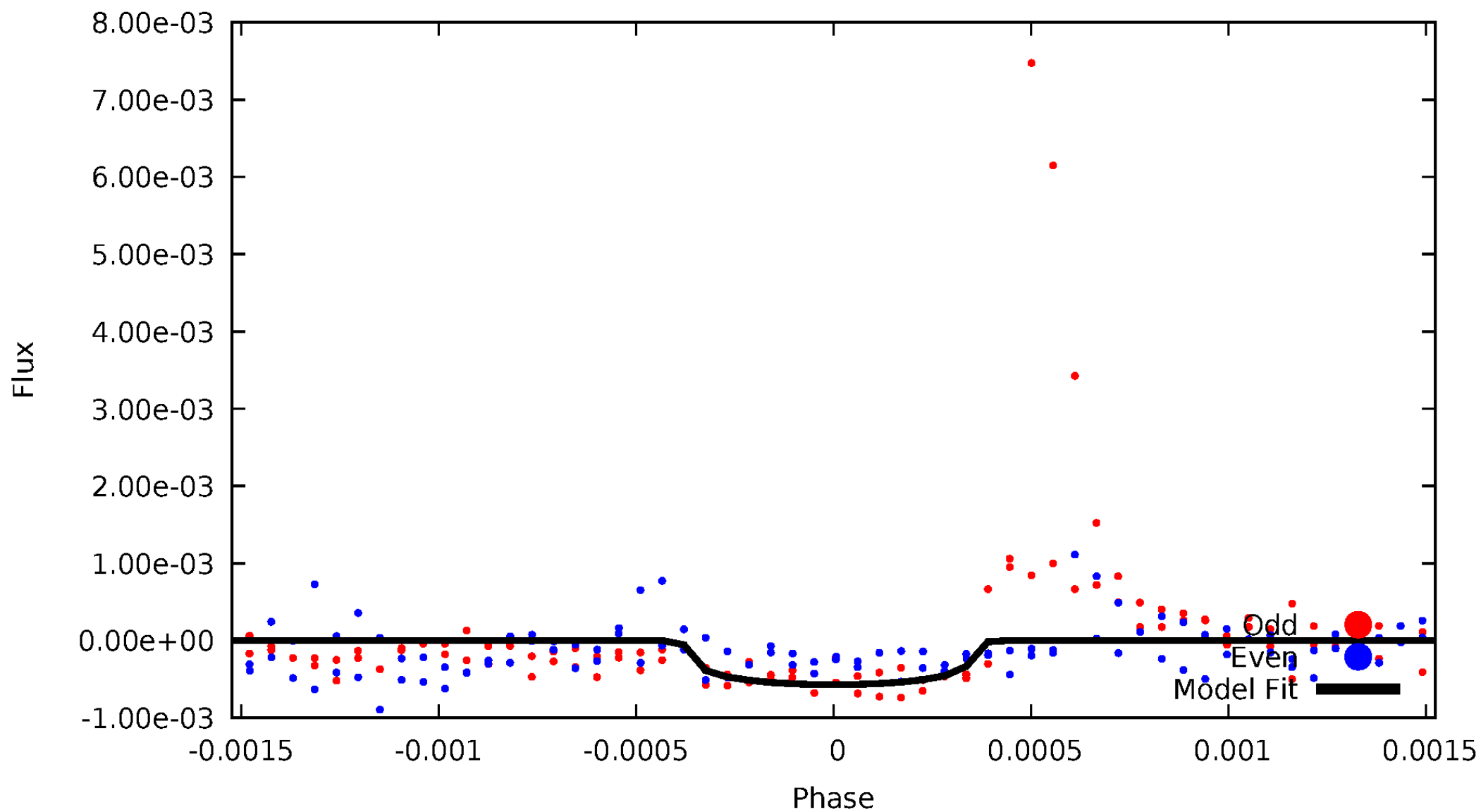


TCE 007696356-04



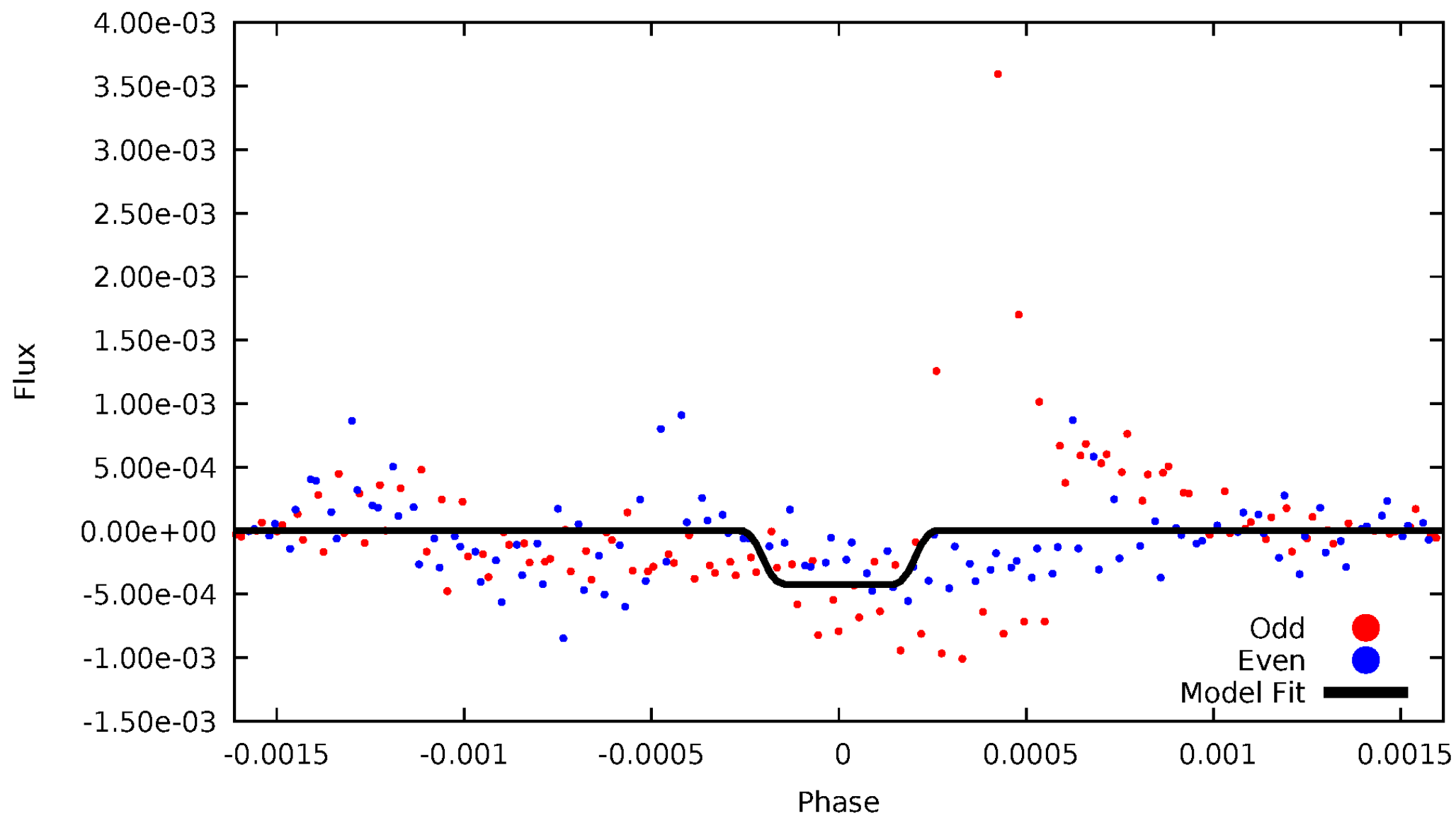
DV Odd/Even

TCE 007696356-04



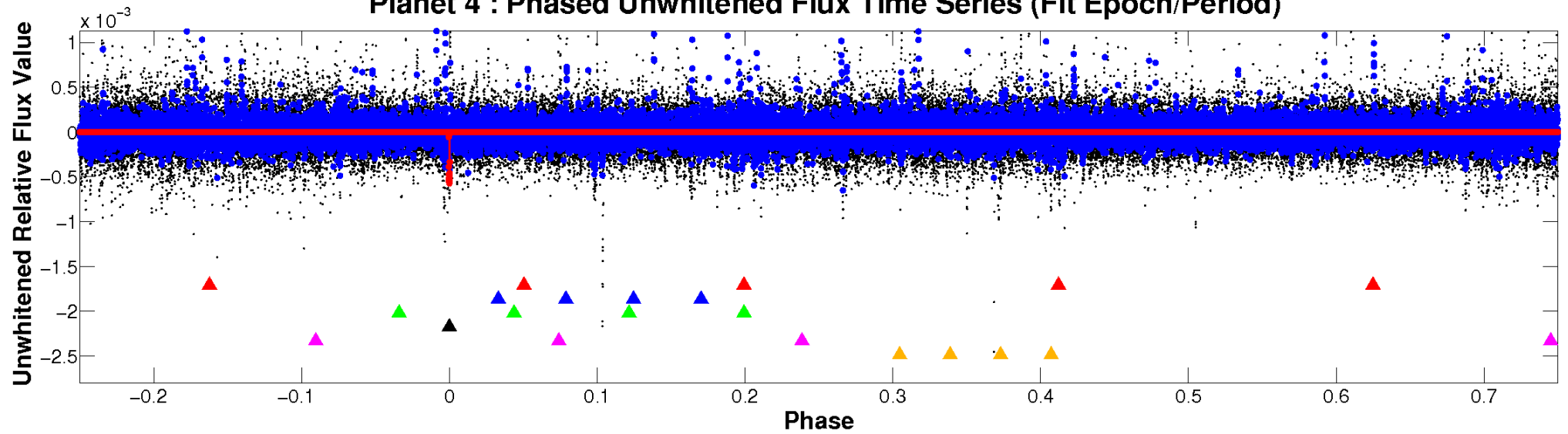
ALT Odd/Even

TCE 007696356-04

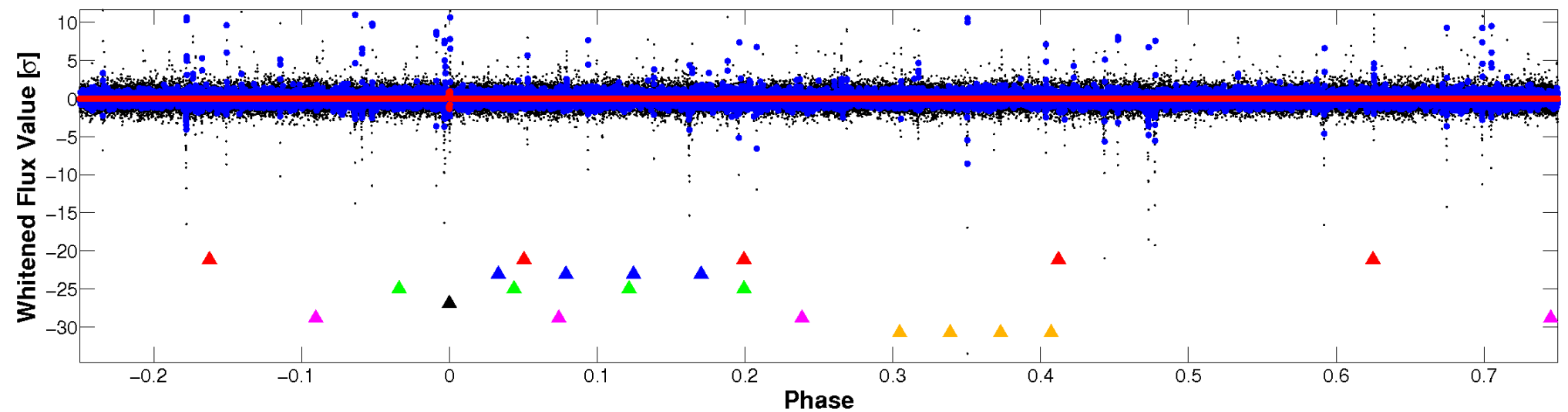


Non-Whitened Vs. Whitened Light Curve

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

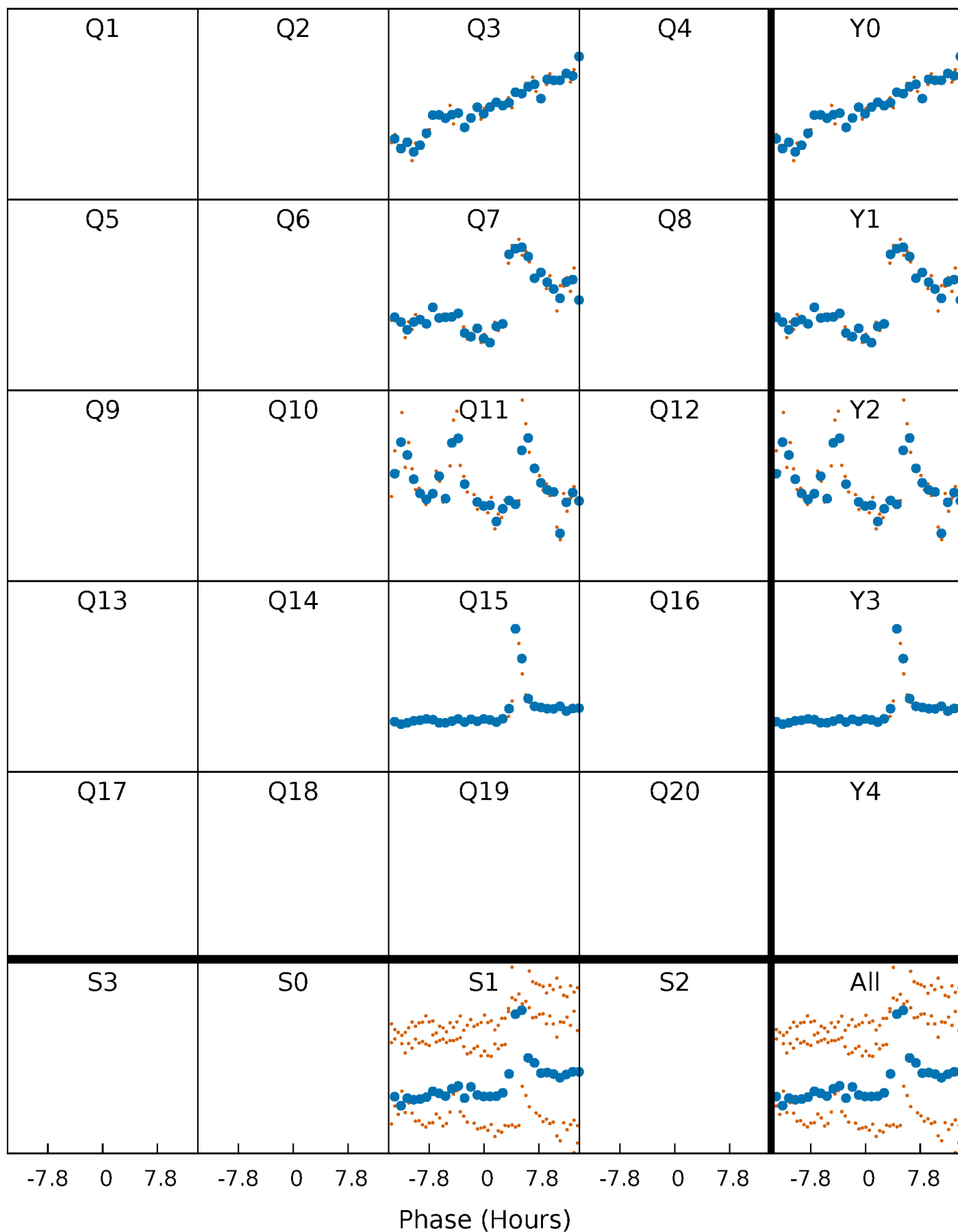


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



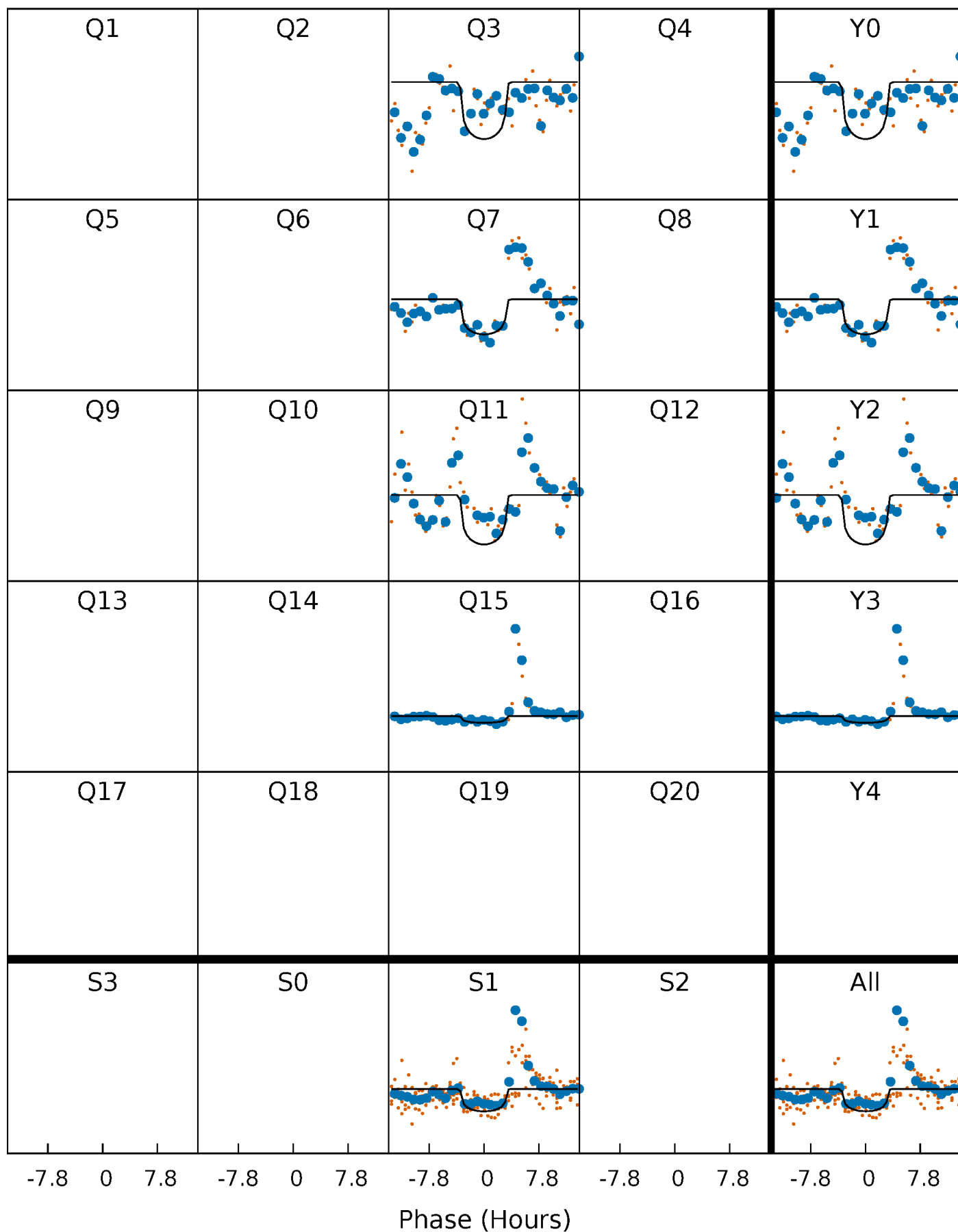
PDC Quarter-Phased Transit Curves

TCE 007696356-04 $P=371.523762$ Days $T_0=285.089642$ (BKJD)



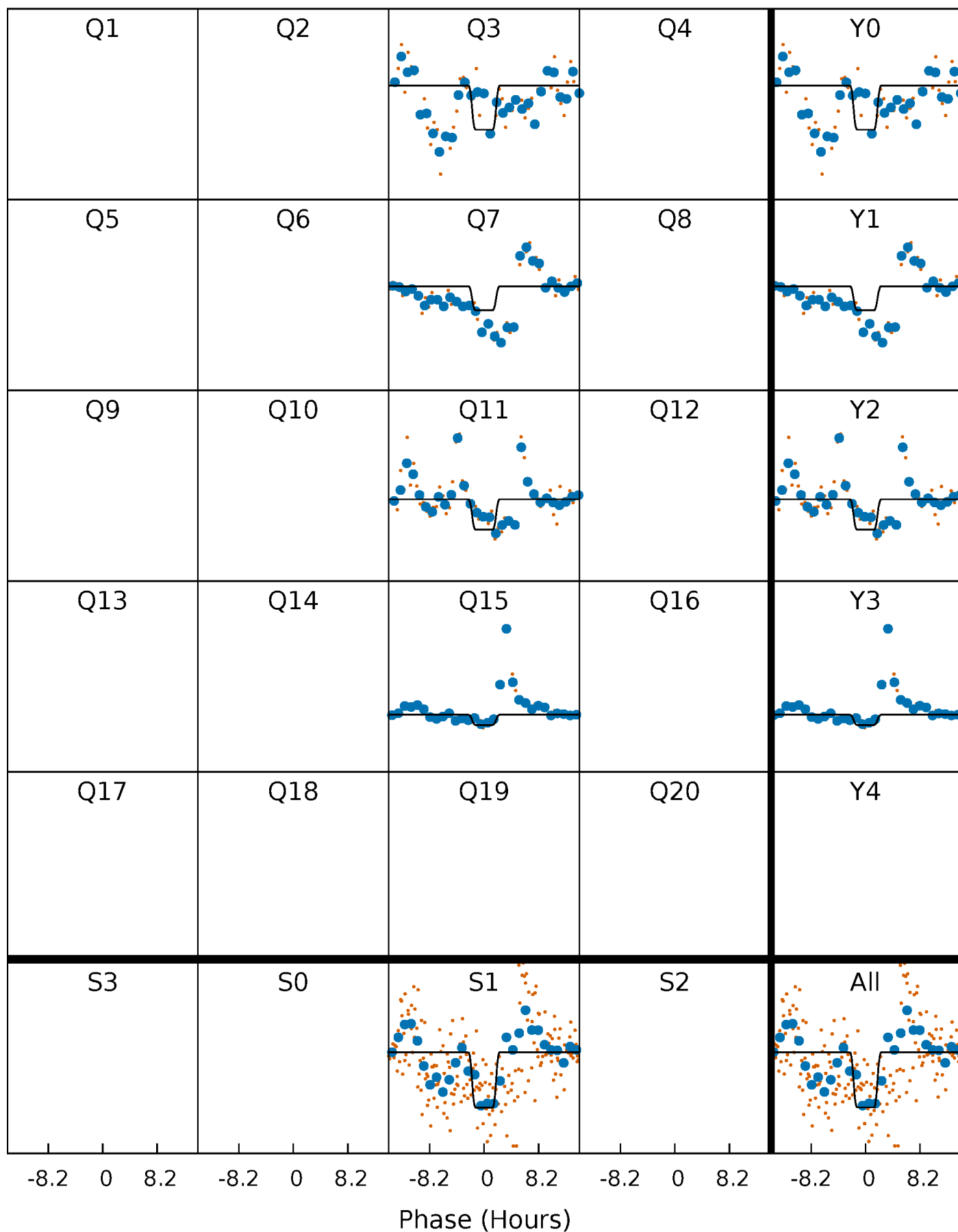
DV Quarter-Phased Transit Curves

TCE 007696356-04 $P=371.523762$ Days $T_0=285.089642$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

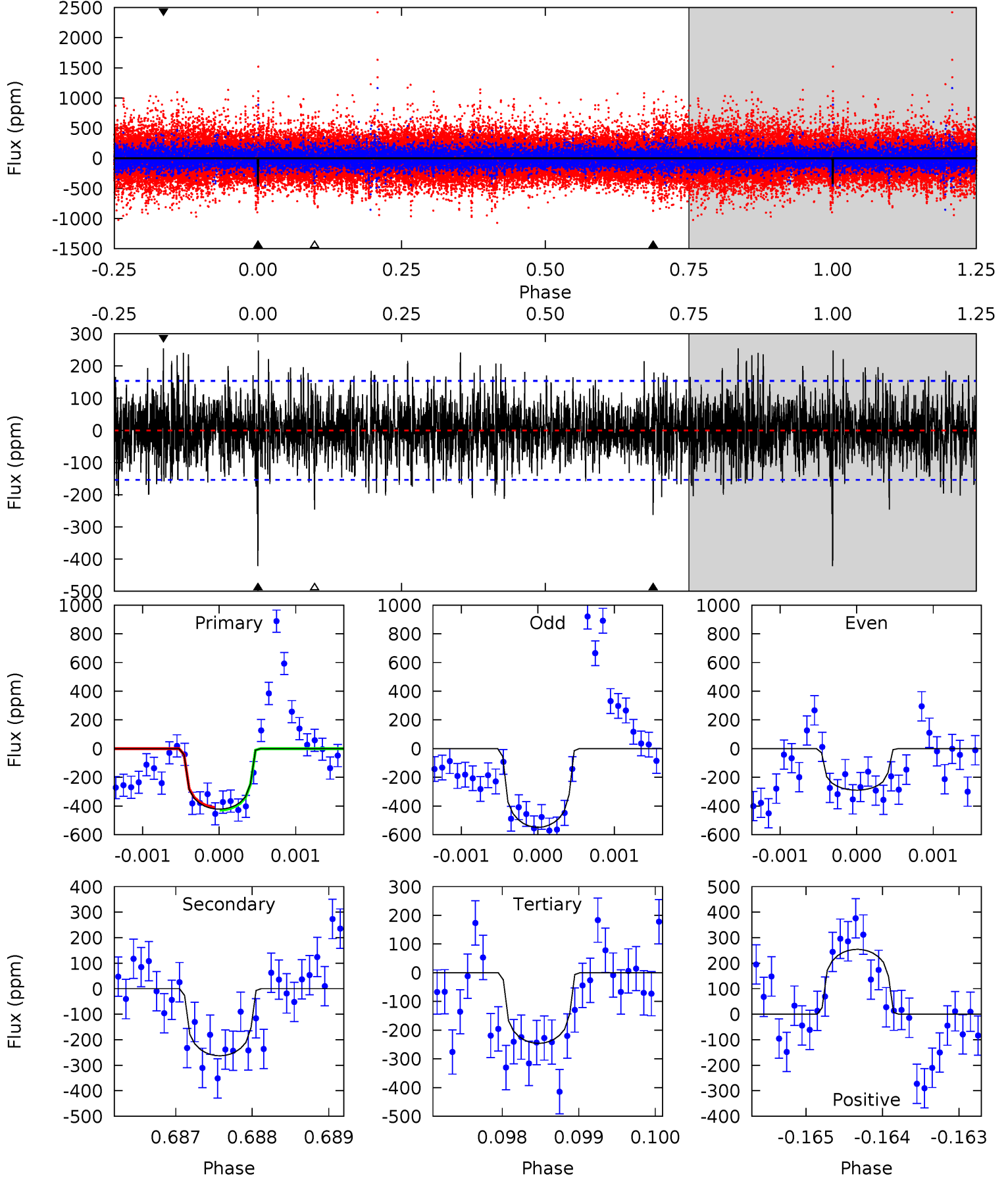
TCE 007696356-04 $P=371.597911$ Days $T_0=284.936151$ (BKJD)



DV Model-Shift Uniqueness Test

007696356-04, P = 371.523762 Days, E = 285.089642 Days

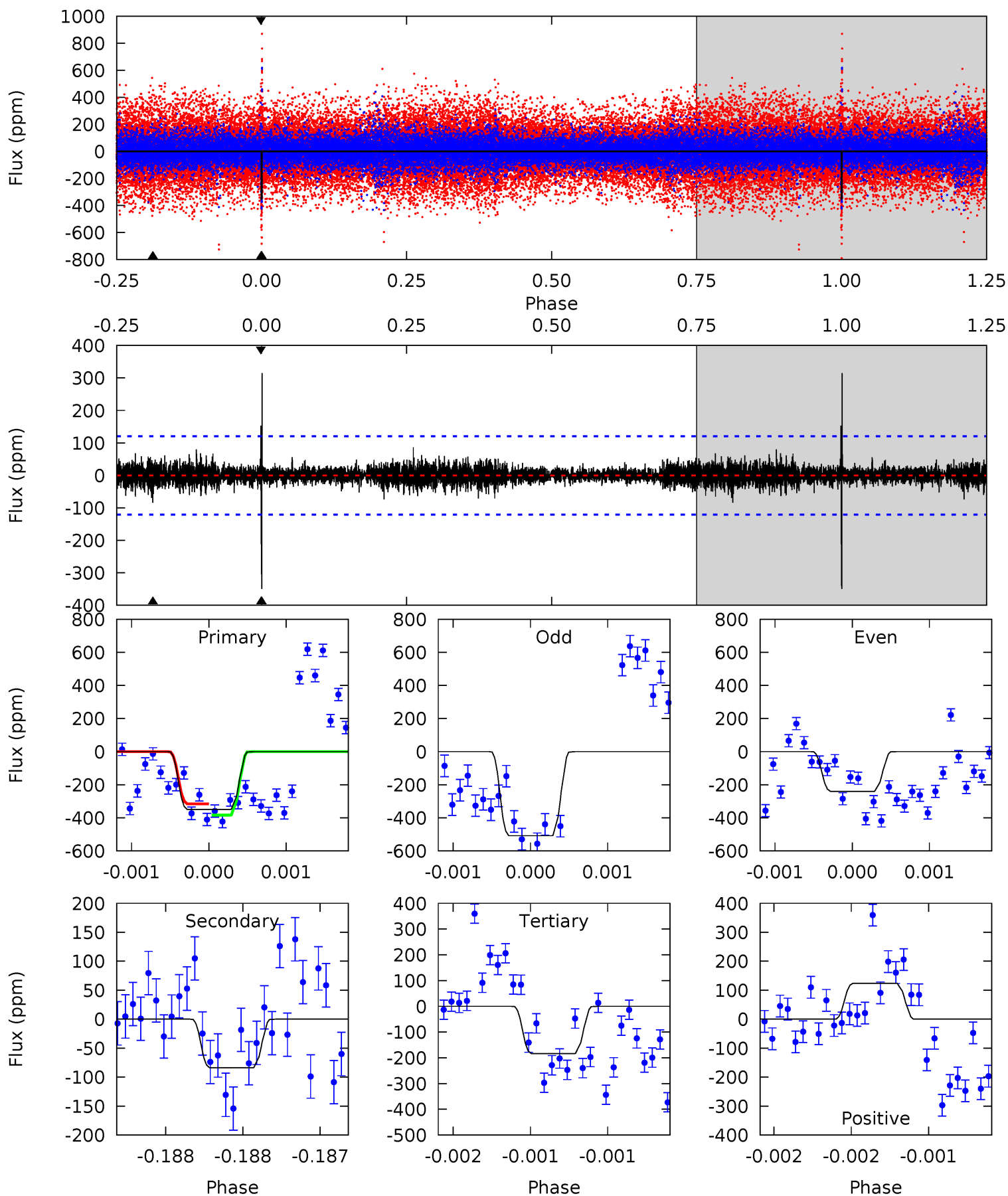
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	9.38	8.77	9.07	5.49	3.34	2.31	6.28	5.98	0.61	0.31	4.25	1.03	0.38	0.33



Alt Model-Shift Uniqueness Test

007696356-04, P = 371.597911 Days, E = 284.936151 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	3.86	8.47	5.73	5.57	3.47	0.81	7.64	10.4	-4.60	-1.86	6.46	1.31	0.47	1.59



Stellar Parameters For KIC 007696356

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5267^{+128}_{-201}	$3.152^{+0.455}_{-0.227}$	$-0.300^{+0.250}_{-0.350}$	$6.185^{+1.725}_{-3.450}$	$1.981^{+0.527}_{-0.979}$	$0.012^{+0.055}_{-0.006}$
	+2%/-4%	+14%/-7%	+83%/-117%	+28%/-56%	+27%/-49%	+468%/-52%
Source	PHO1	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 007696356-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-263 ± 28	$15.51^{+7.54}_{-6.91}$	709^{+66}_{-85}	4468^{+982}_{-510}	969^{+2002}_{-516}
Alt.	-84 ± 22	$12.56^{+7.94}_{-6.16}$	707^{+62}_{-101}	3825^{+1097}_{-472}	454^{+1221}_{-282}

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

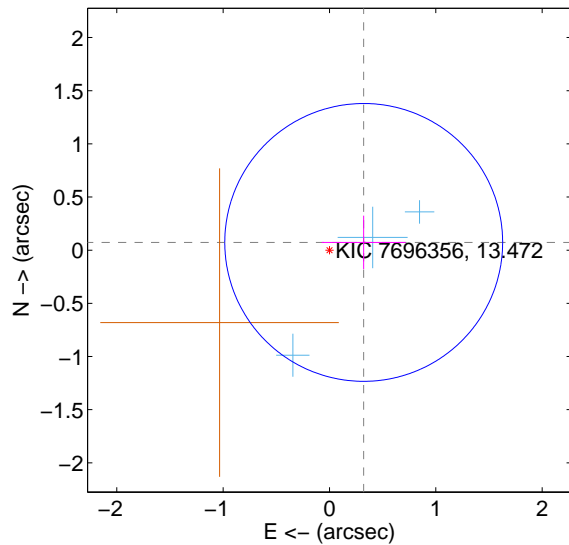
Supplemental centroid analysis for 007696356-04. Kepler magnitude: 13.47. Transit SNR 9.49

There are 3 quarters with good PRF difference image offsets

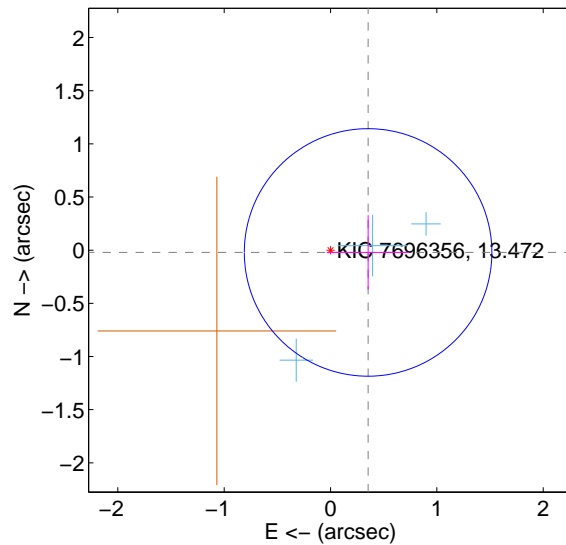
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.330 ± 0.436	0.76	-0.322 ± 0.395	0.073 ± 0.251
PRF-fit source offset from KIC position	0.354 ± 0.388	0.91	-0.353 ± 0.388	-0.021 ± 0.350
photometric centroid source offset	0.47 ± 0.47	0.99	-0.30 ± 0.44	0.37 ± 0.49

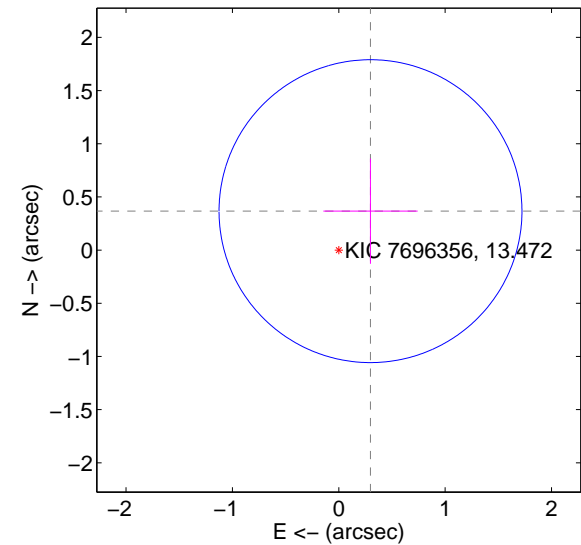
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



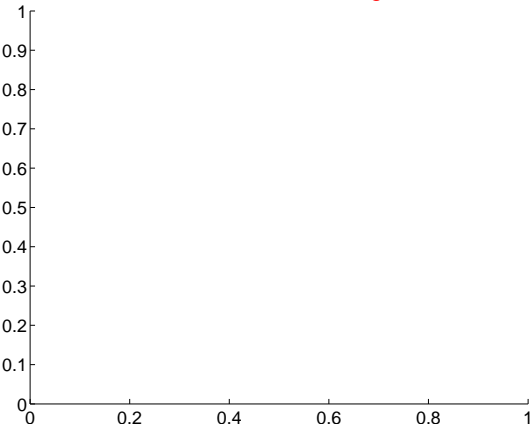
offset from photometric centroids



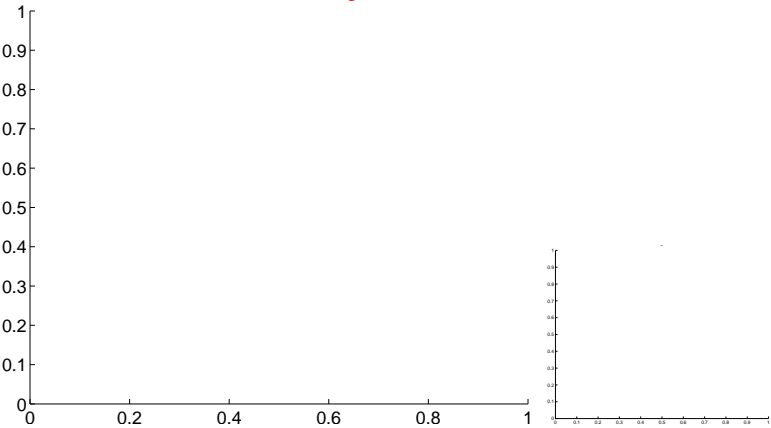
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

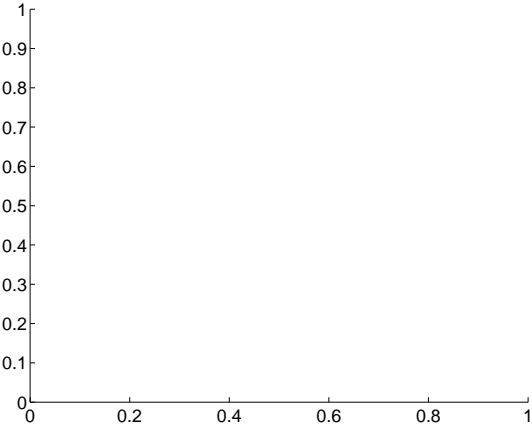
Q1 no difference image



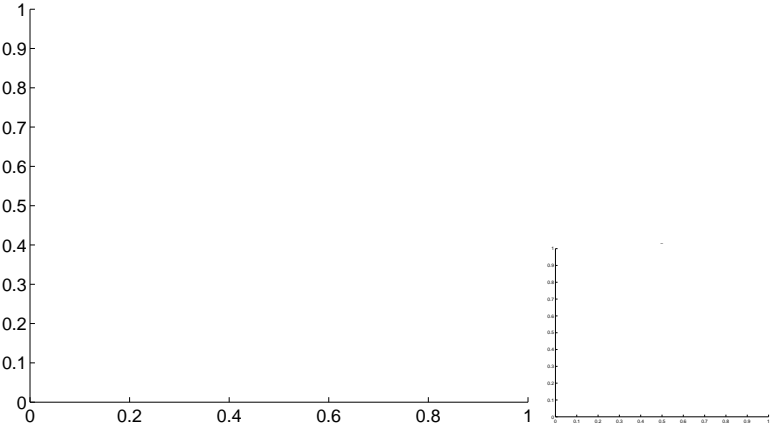
Q1 no OOT image



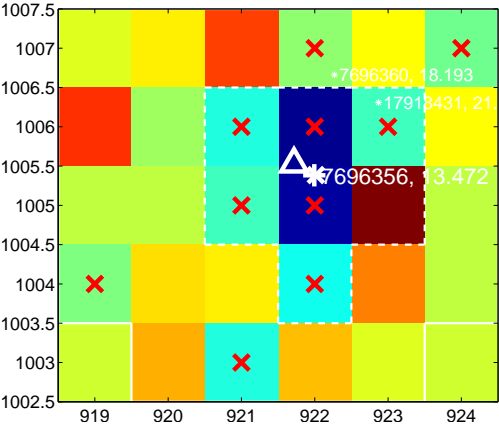
Q2 no difference image



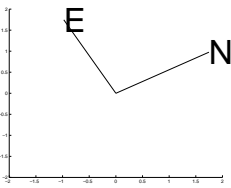
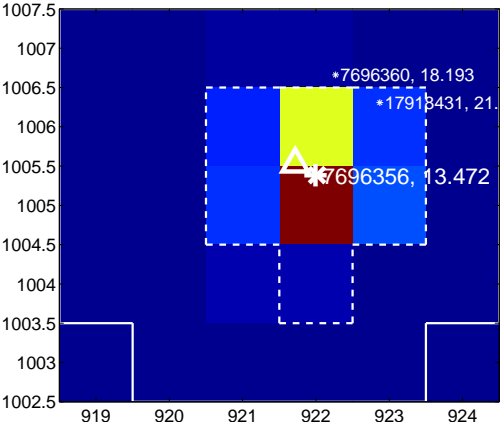
Q2 no OOT image



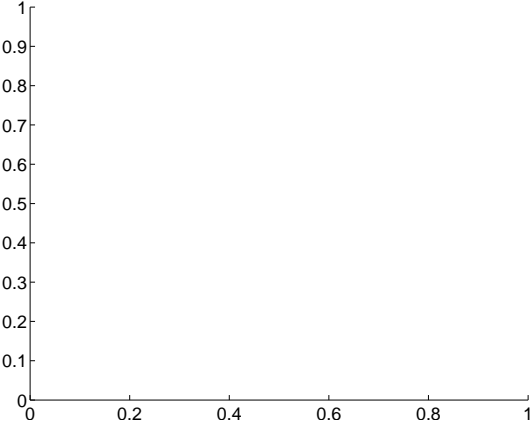
Q3 difference image. Poor Quality



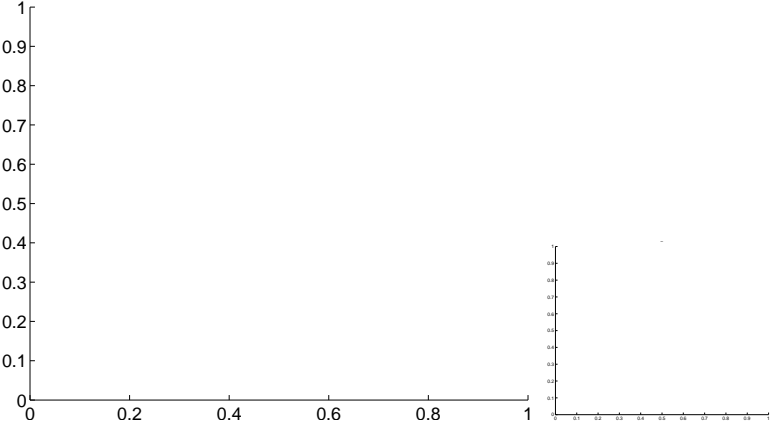
Q3 OOT image



Q4 no difference image

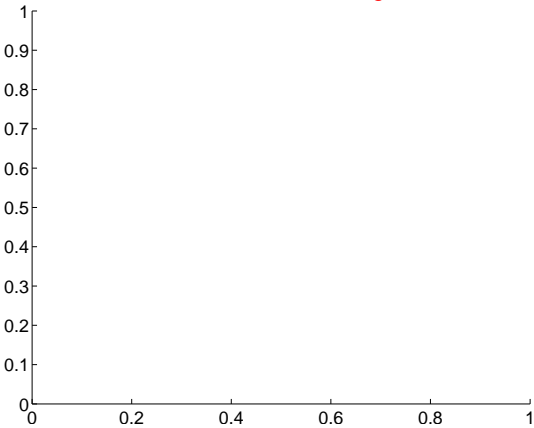


Q4 no OOT image

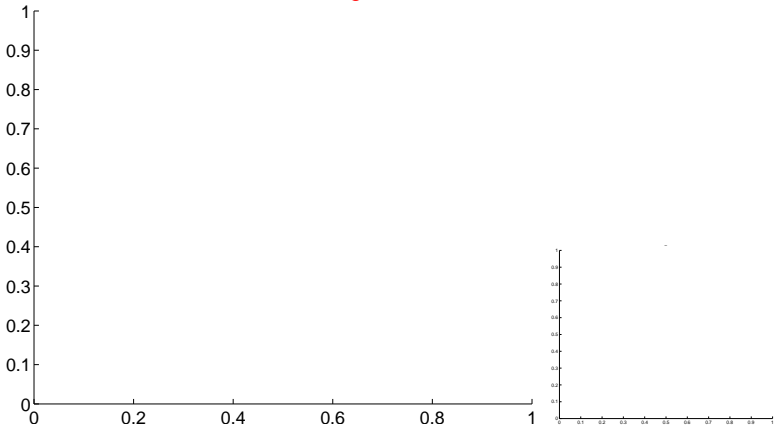


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

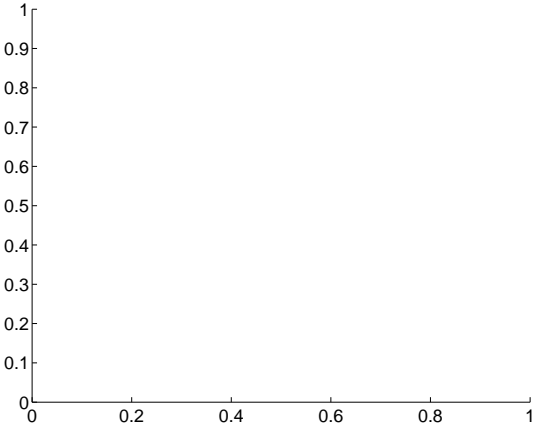
Q5 no difference image



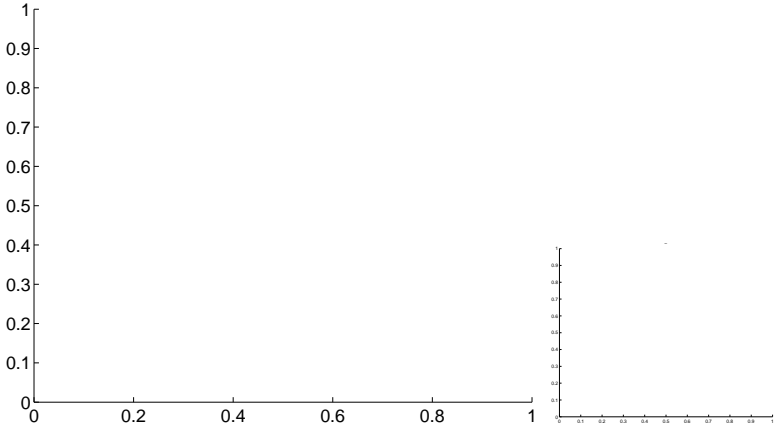
Q5 no OOT image



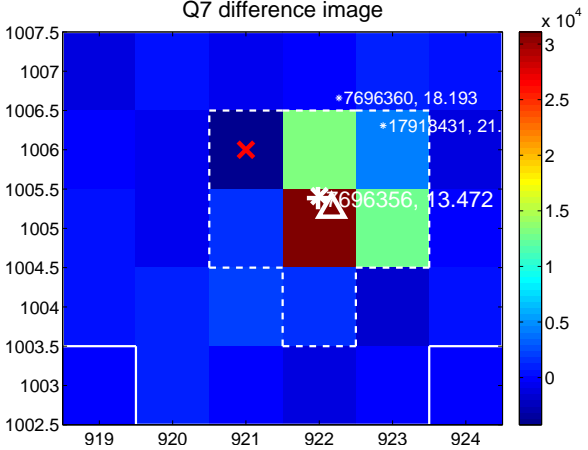
Q6 no difference image



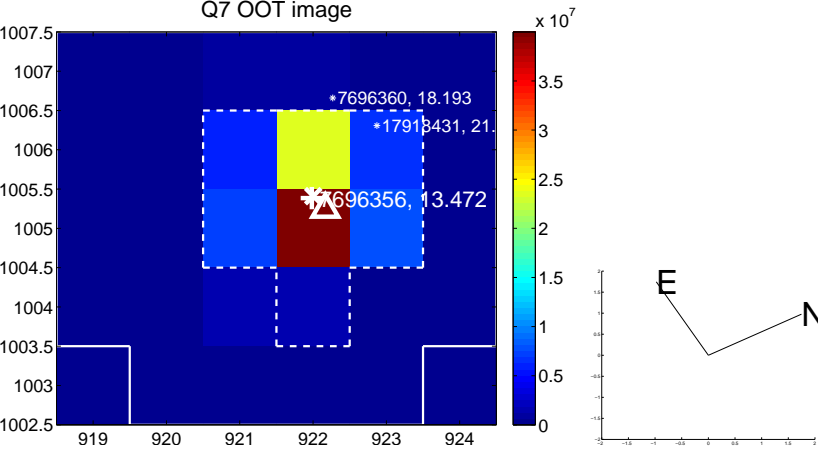
Q6 no OOT image



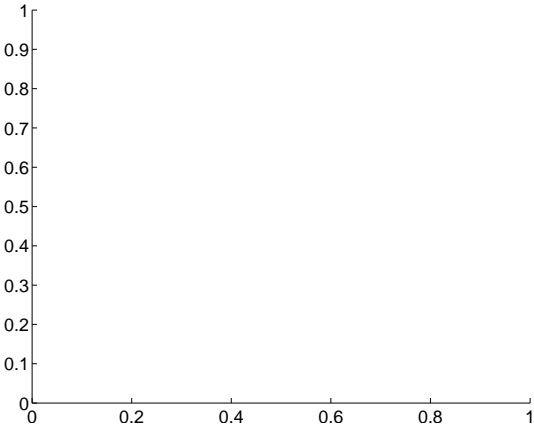
Q7 difference image



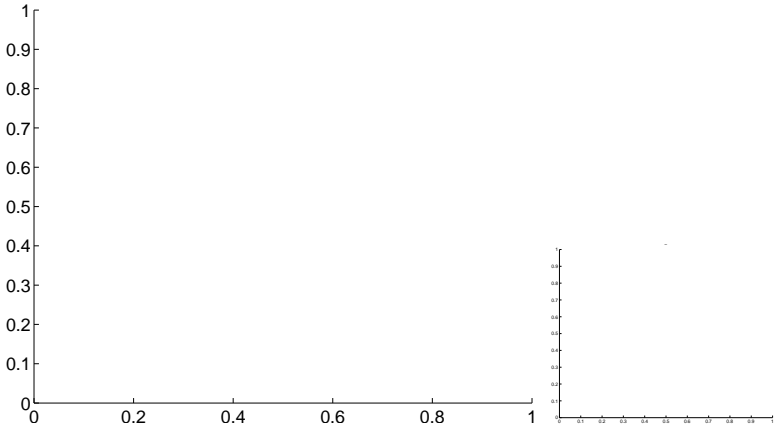
Q7 OOT image



Q8 no difference image

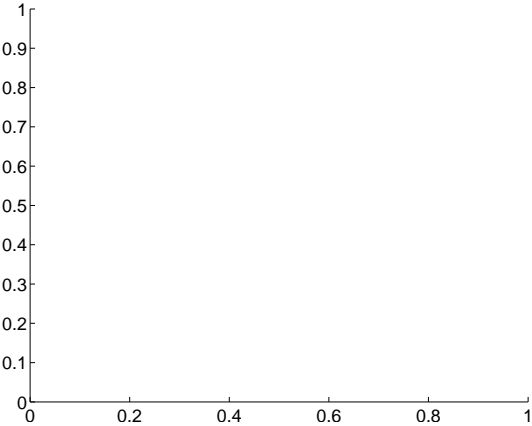


Q8 no OOT image

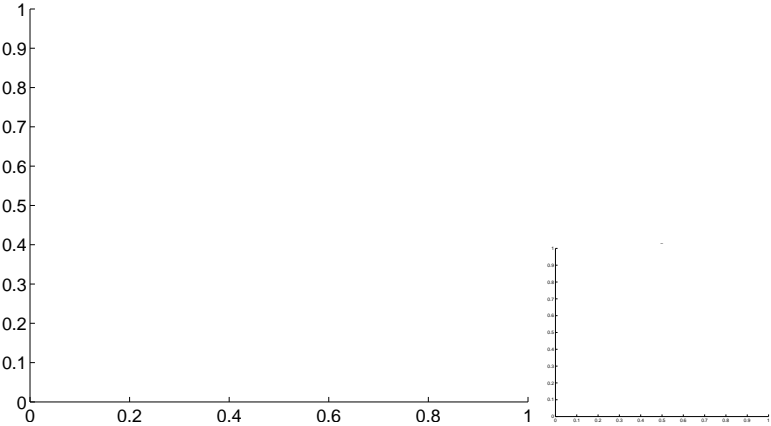


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

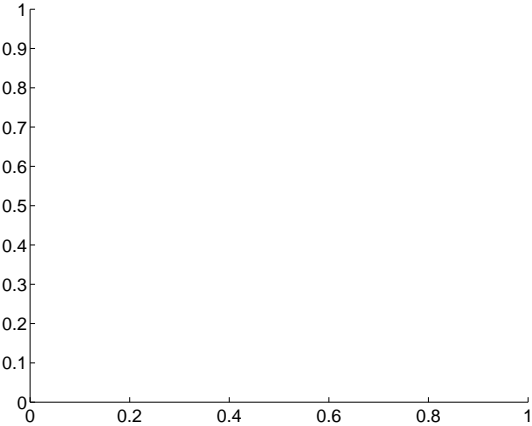
Q9 no difference image



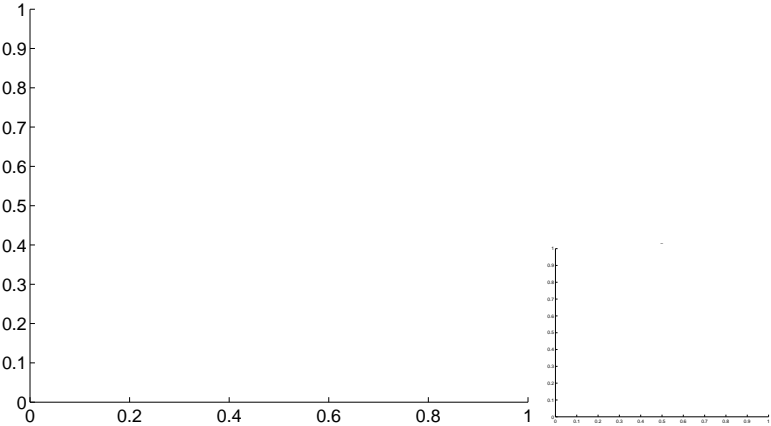
Q9 no OOT image



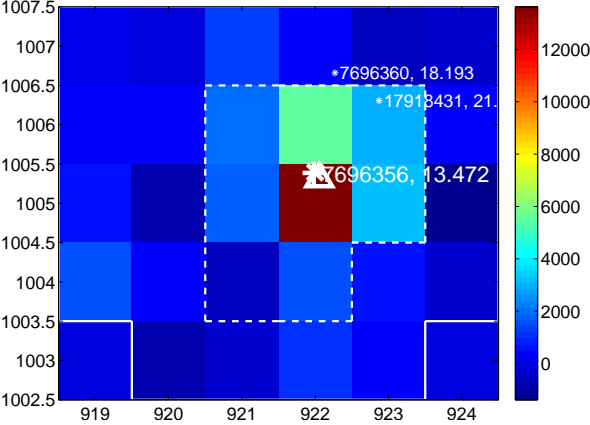
Q10 no difference image



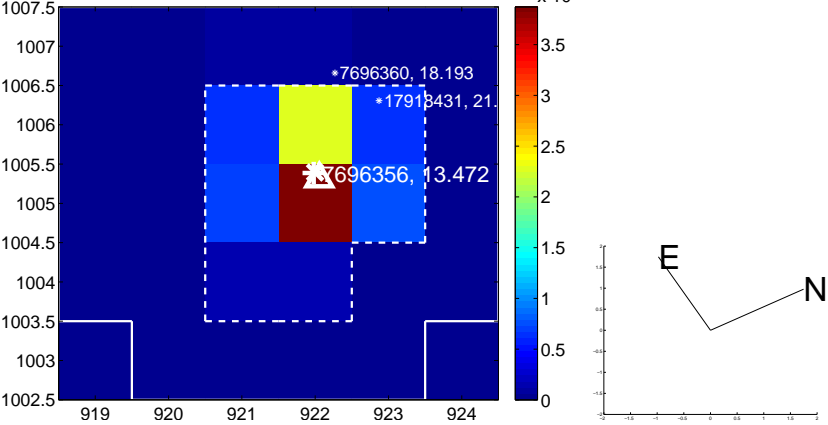
Q10 no OOT image



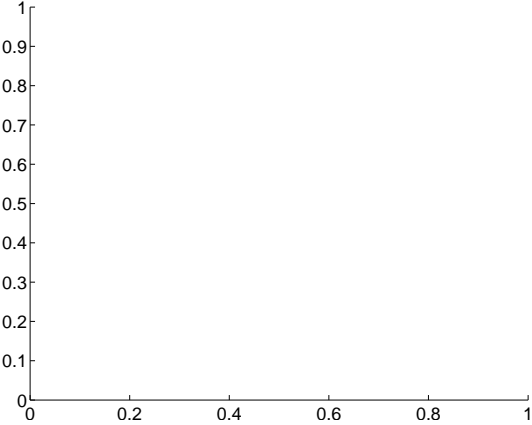
Q11 difference image



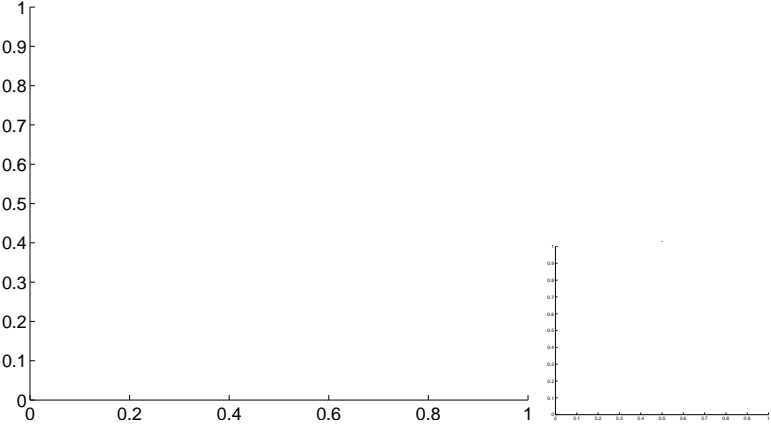
Q11 OOT image



Q12 no difference image

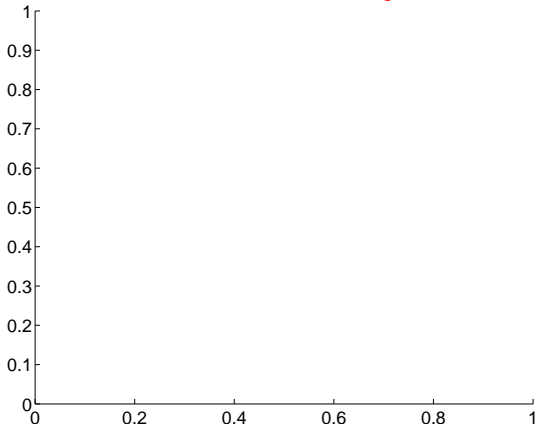


Q12 no OOT image

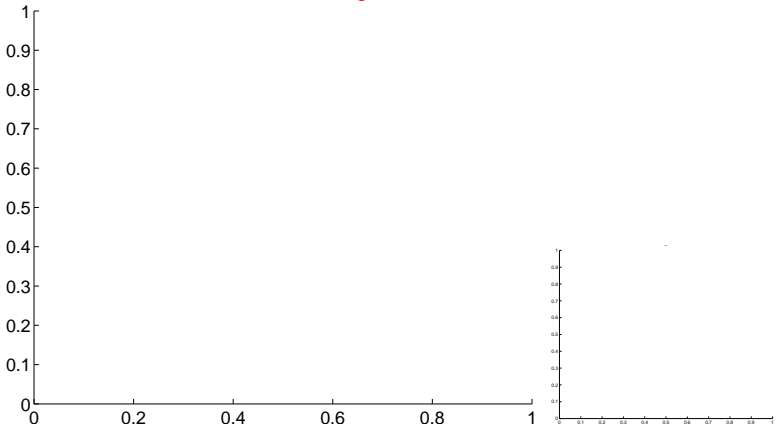


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

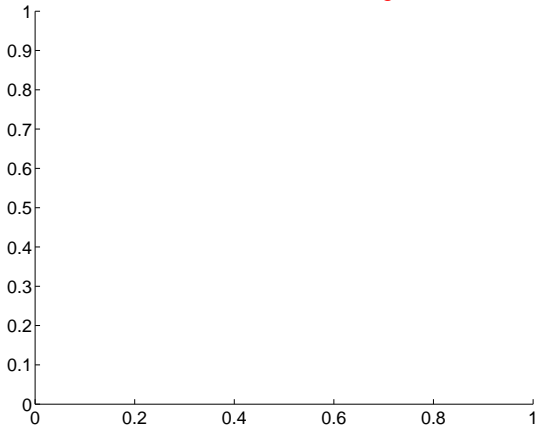
Q13 no difference image



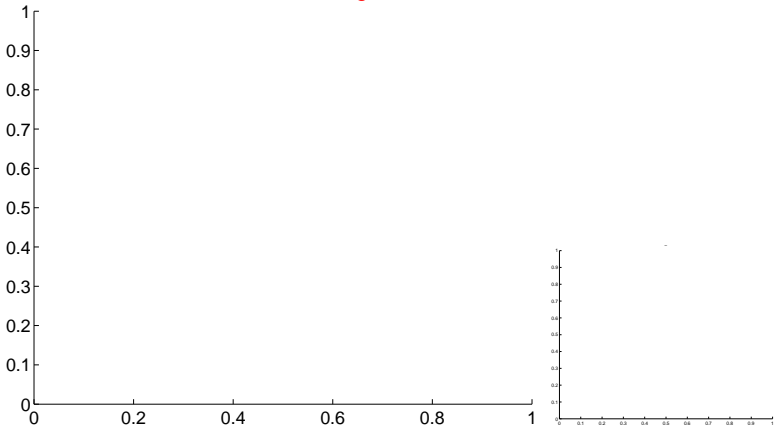
Q13 no OOT image



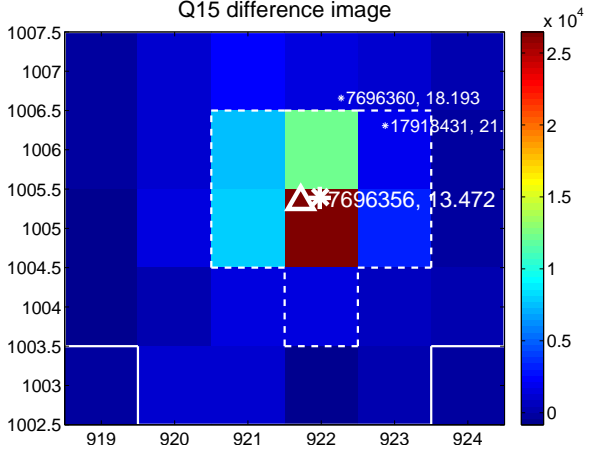
Q14 no difference image



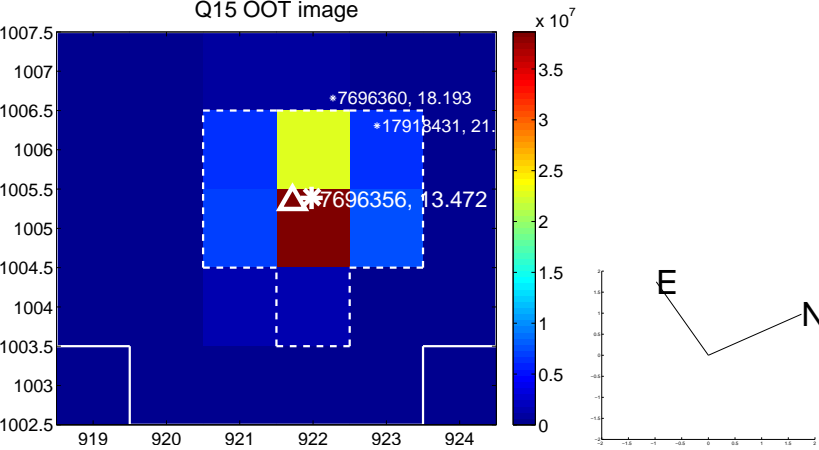
Q14 no OOT image



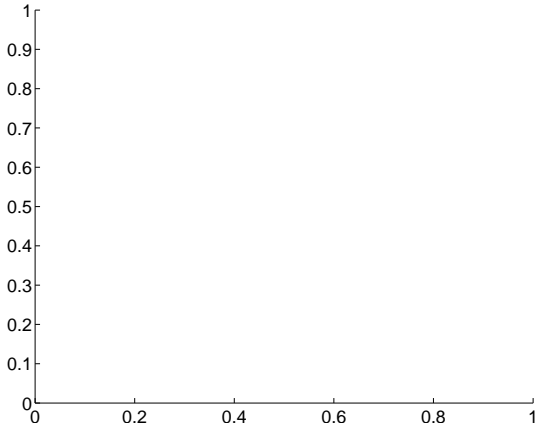
Q15 difference image



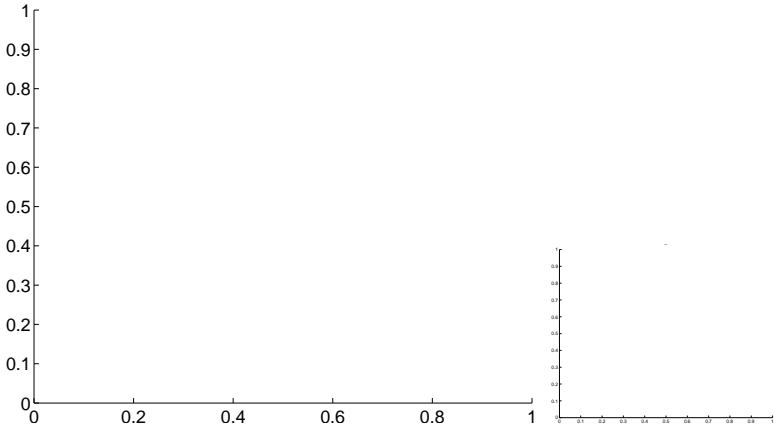
Q15 OOT image



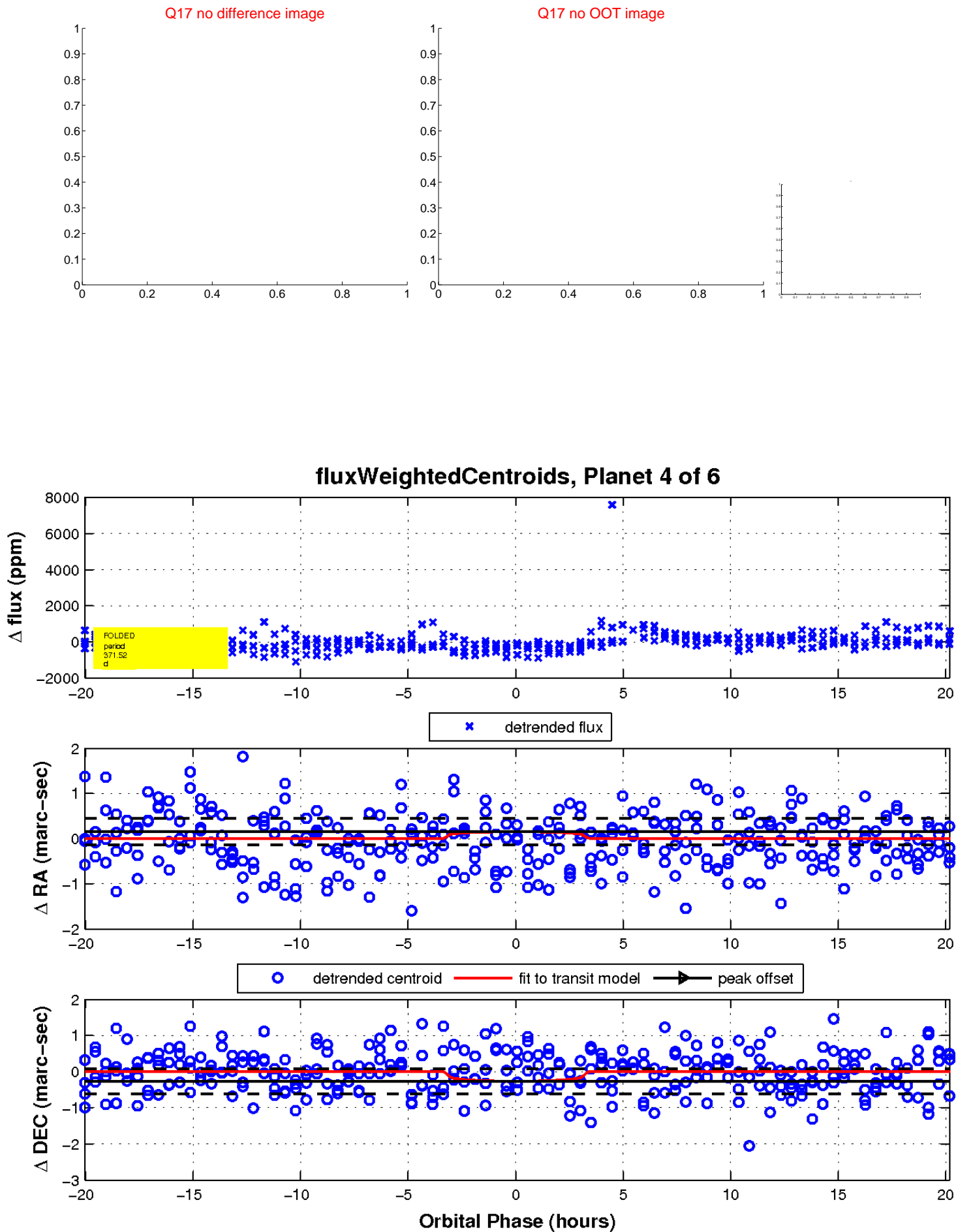
Q16 no difference image



Q16 no OOT image

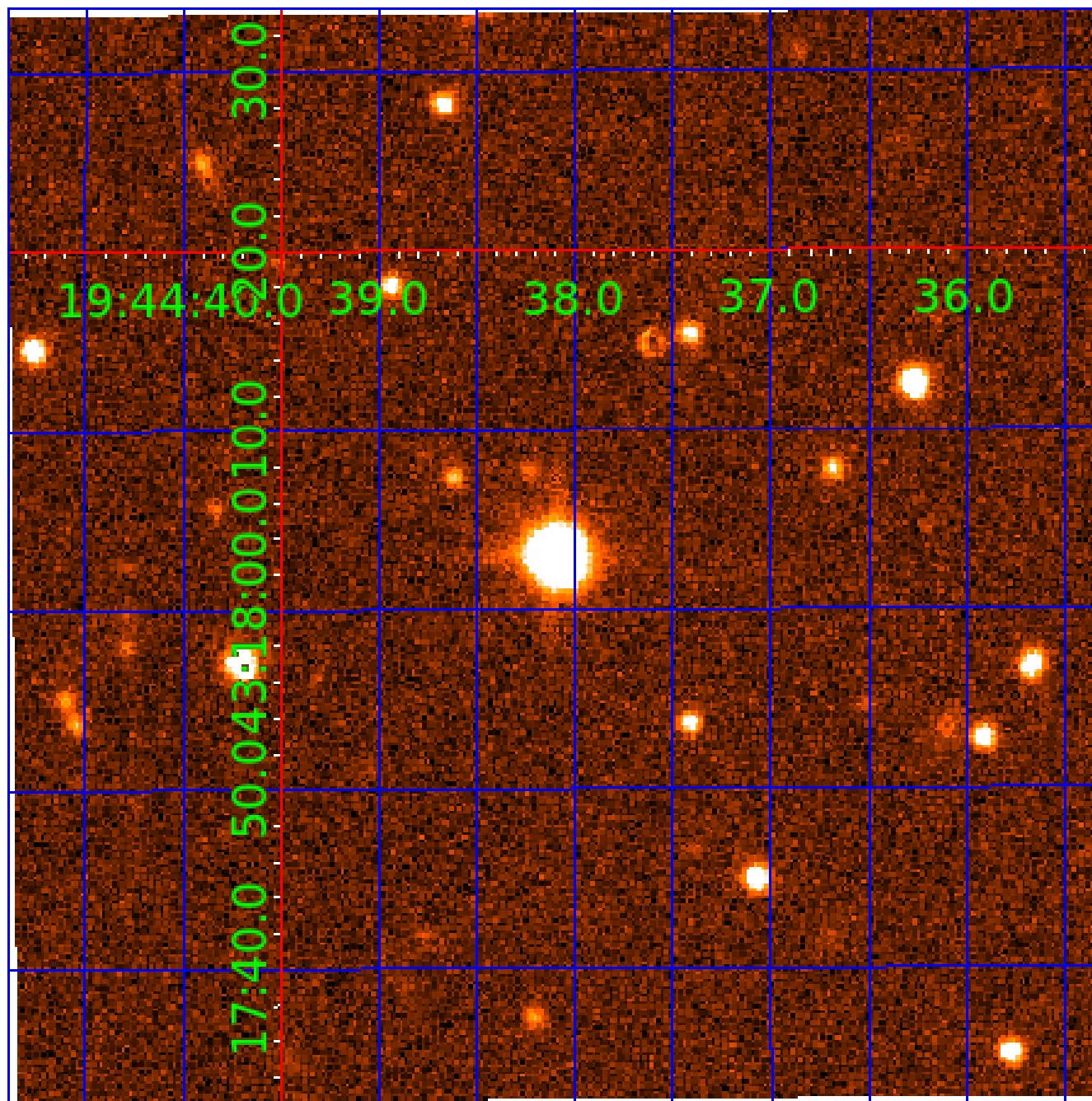


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007696356

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})
007696356-01	OBS	No	292.462794	303.856773	617.7	7.315	14.4	7.4	6.18	5267	16.66	22.49
007696356-02	OBS	No	388.514939	297.400901	355.6	12.056	11.2	5.8	6.18	5267	12.89	15.40
007696356-04	OBS	No	371.523762	285.089642	573.0	6.790	9.1	9.5	6.18	5267	16.09	16.34
007696356-05	OBS	No	310.418956	373.722127	477.4	12.948	8.6	7.2	6.18	5267	14.63	20.77
007696356-06	OBS	No	358.831736	436.354466	443.0	6.816	8.3	6.7	6.18	5267	14.43	17.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007696356-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS
007696356-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007696356-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS
007696356-05	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
007696356-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

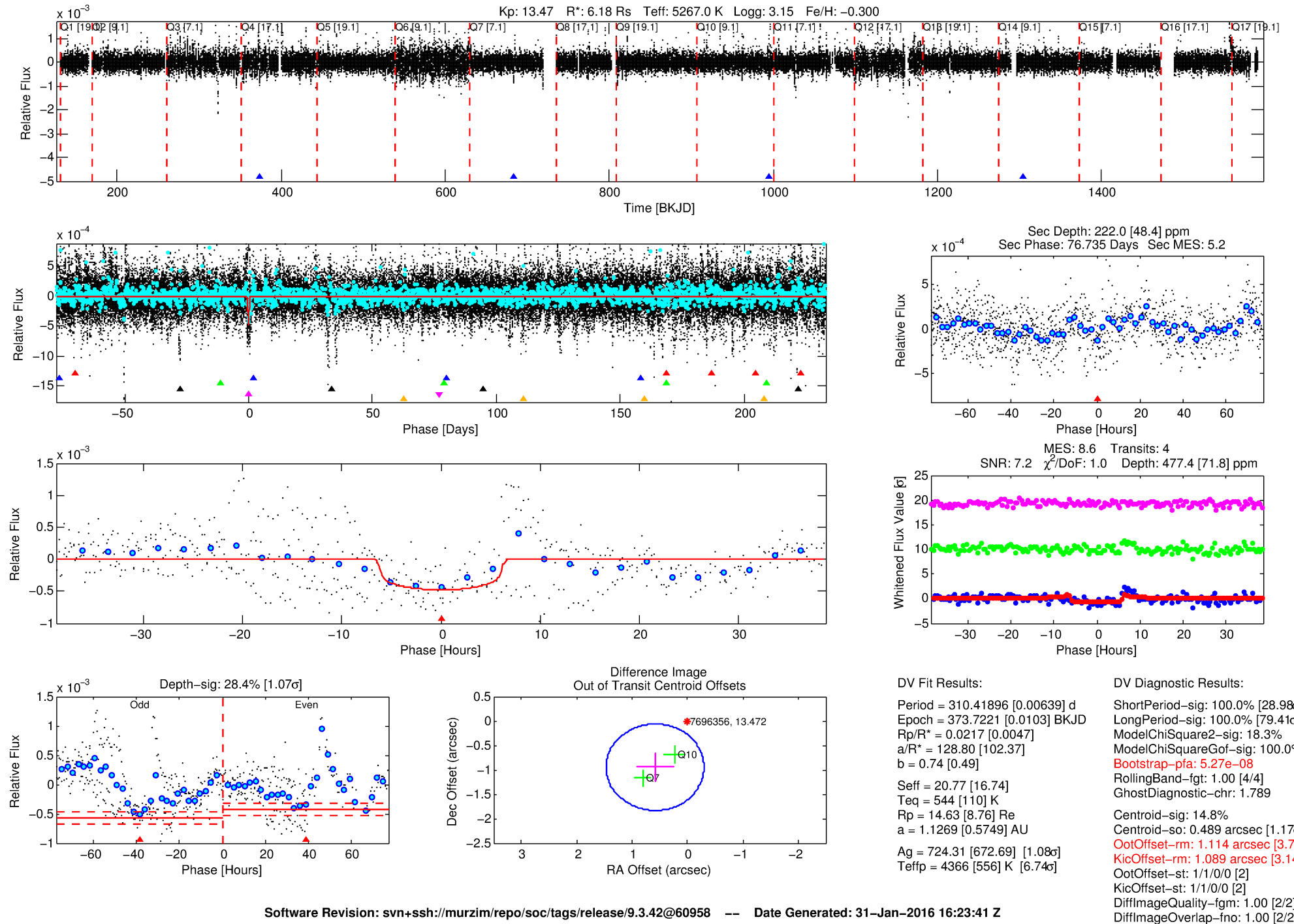
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007696356-05

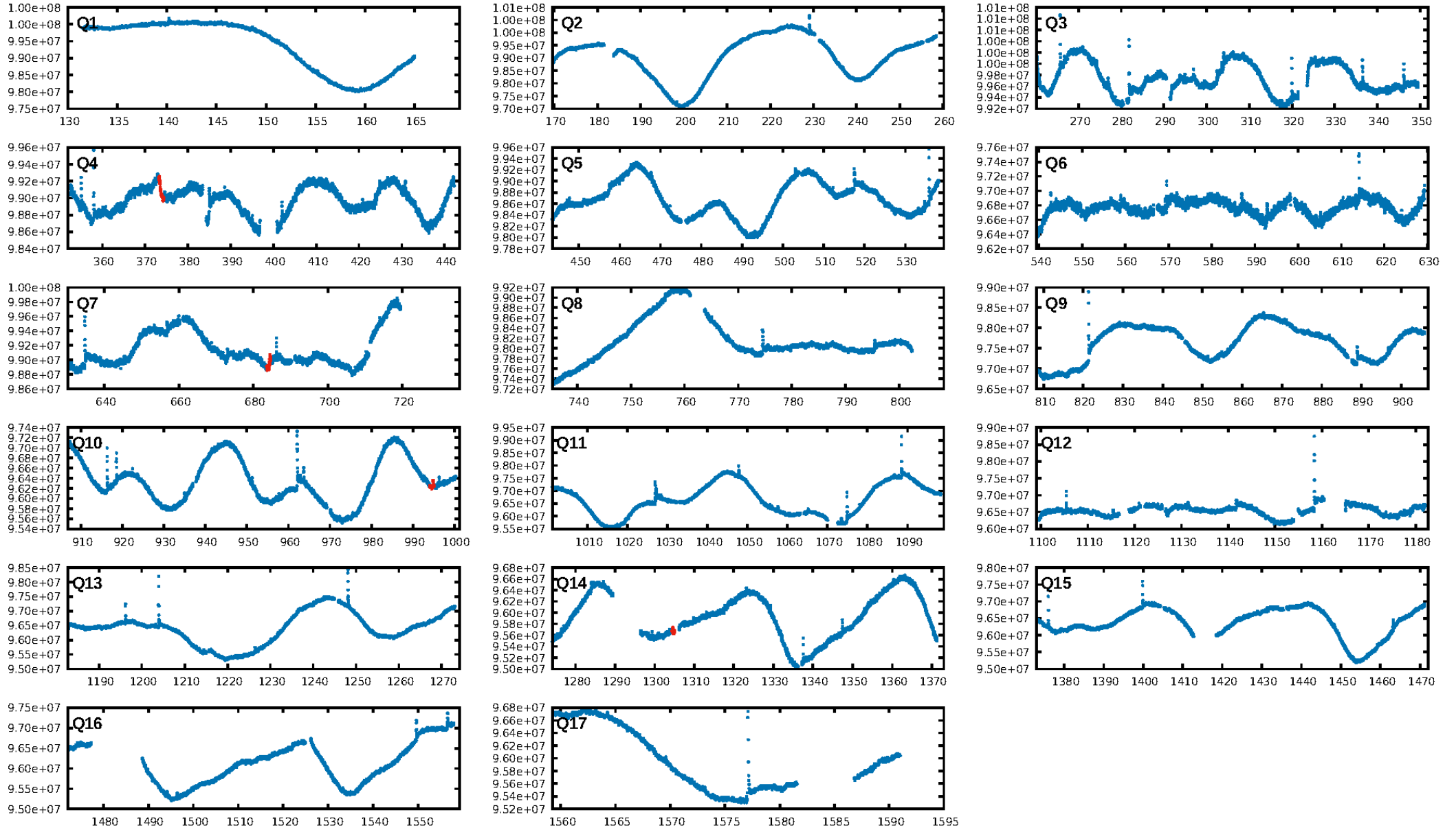
No Significant Match Found

DV One-Page Summary

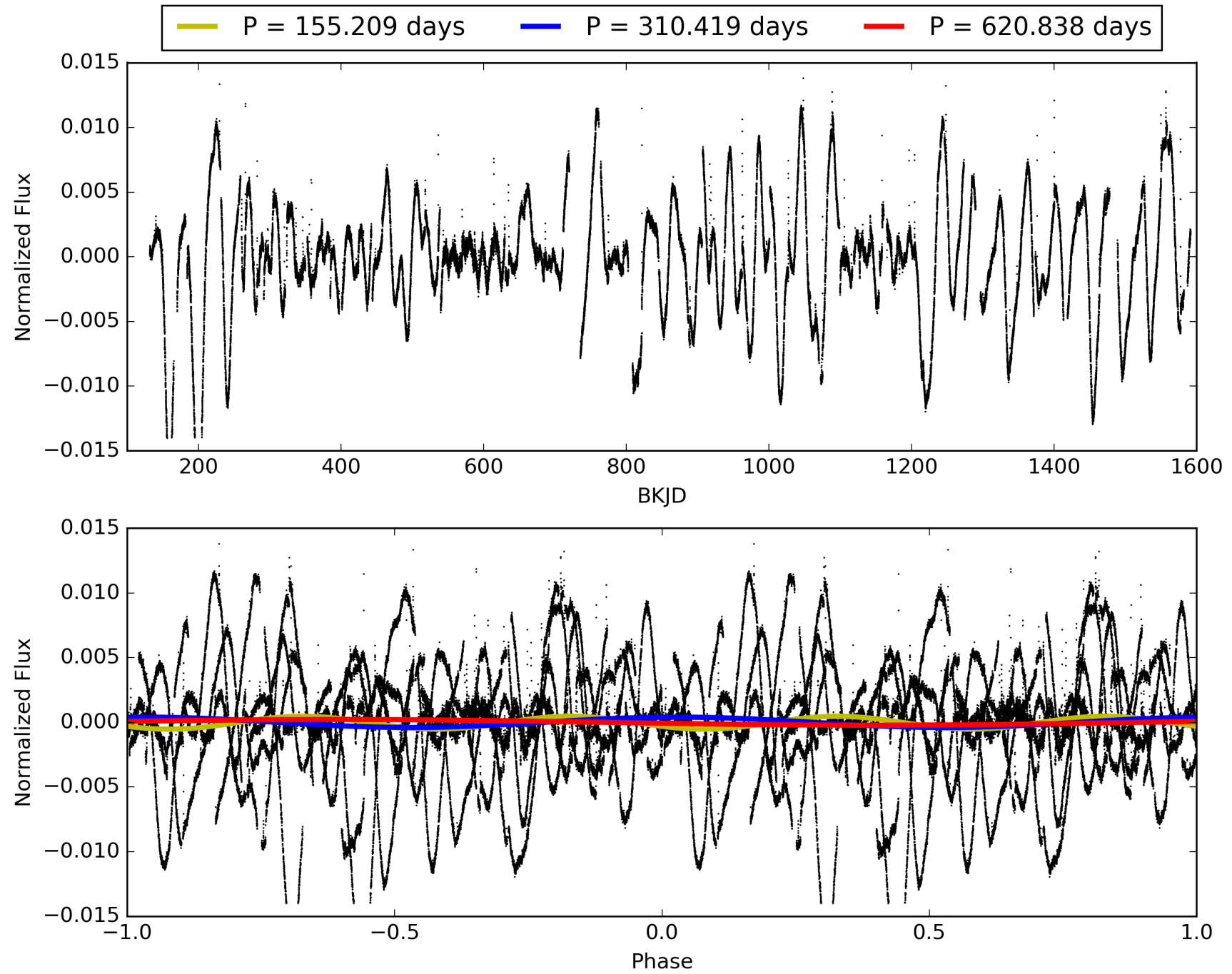
KIC: 7696356 Candidate: 5 of 6 Period: 310.419 d



TCE 007696356-05, PDC Light Curves

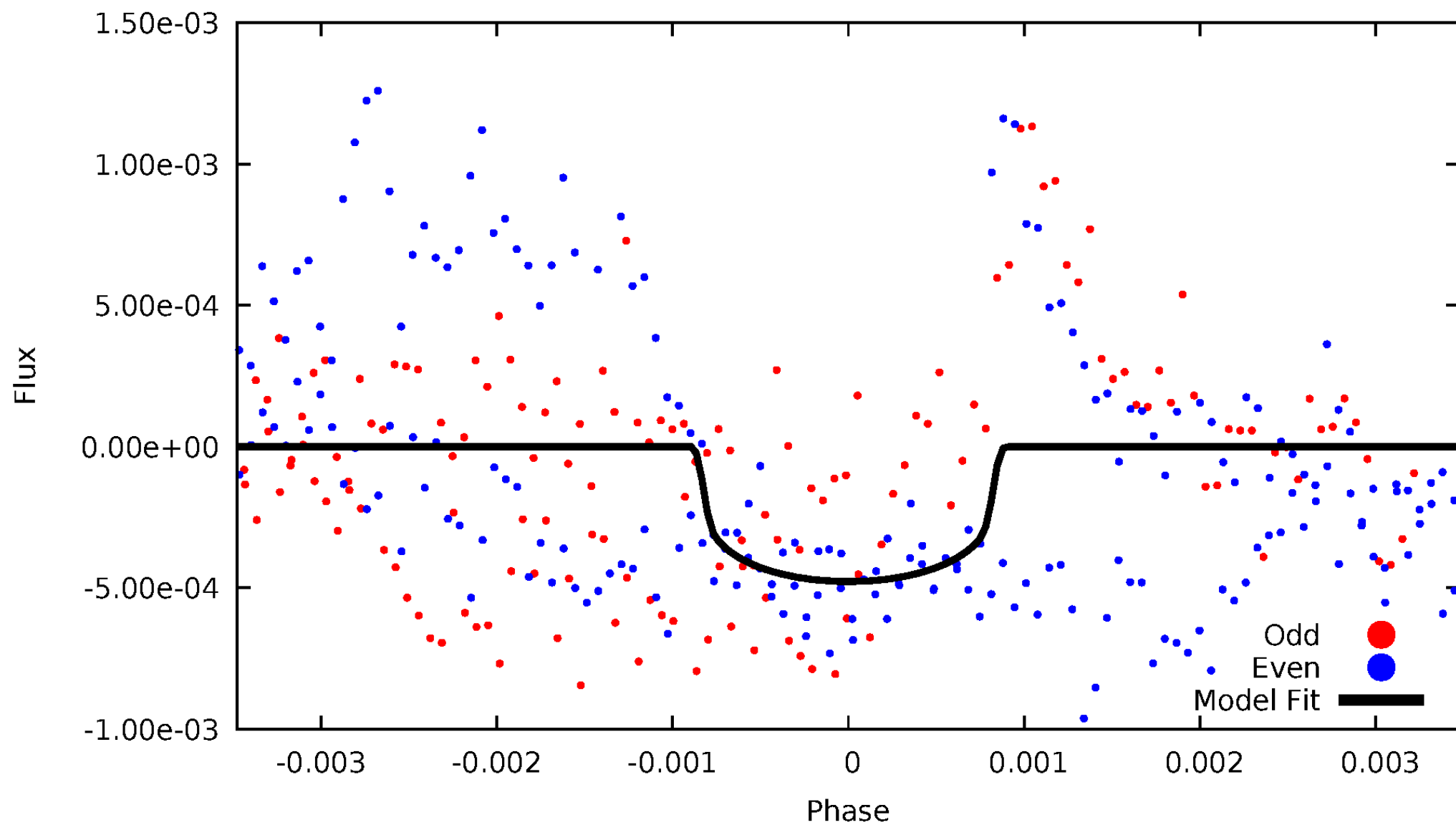


TCE 007696356-05



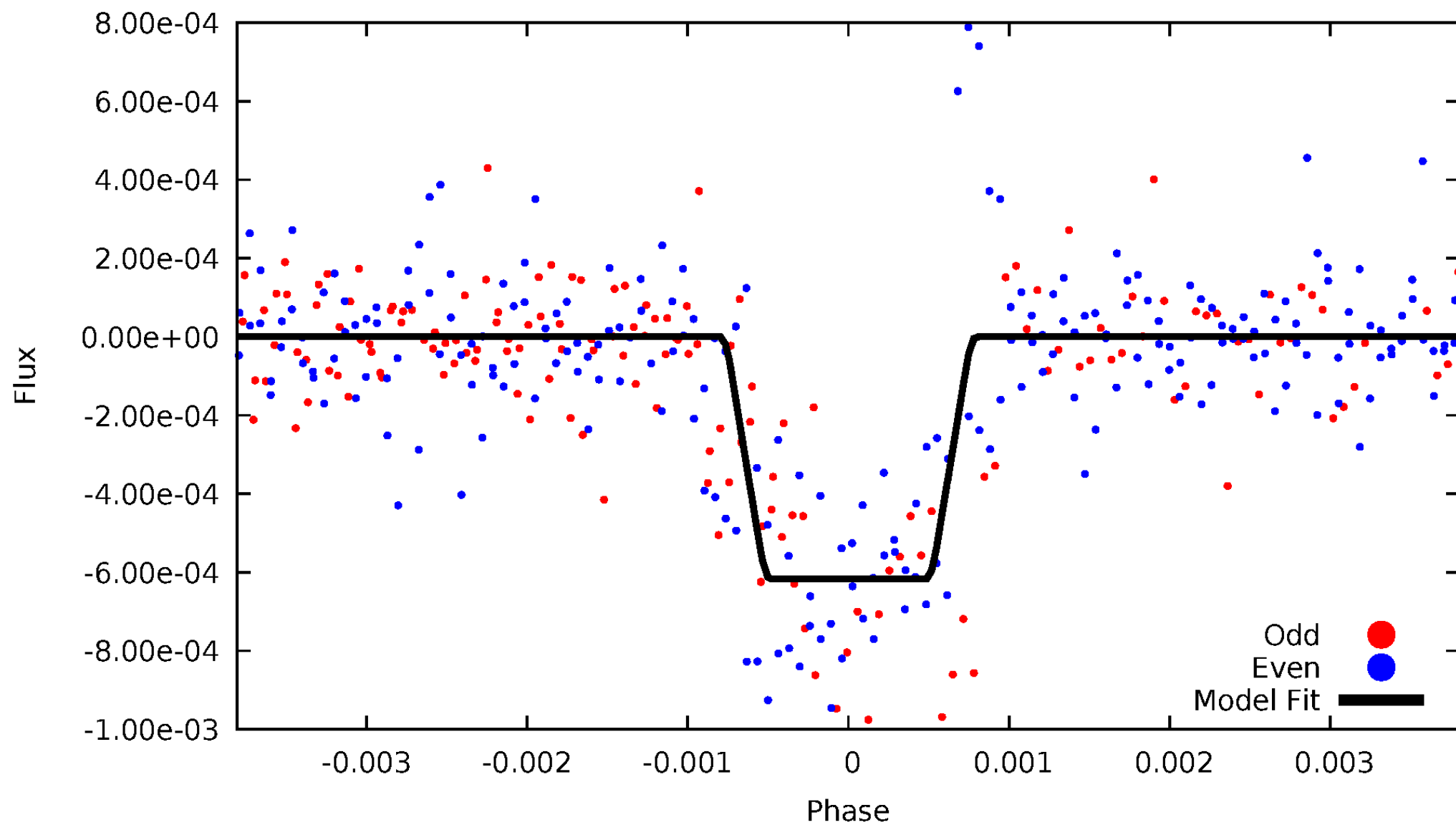
DV Odd/Even

TCE 007696356-05



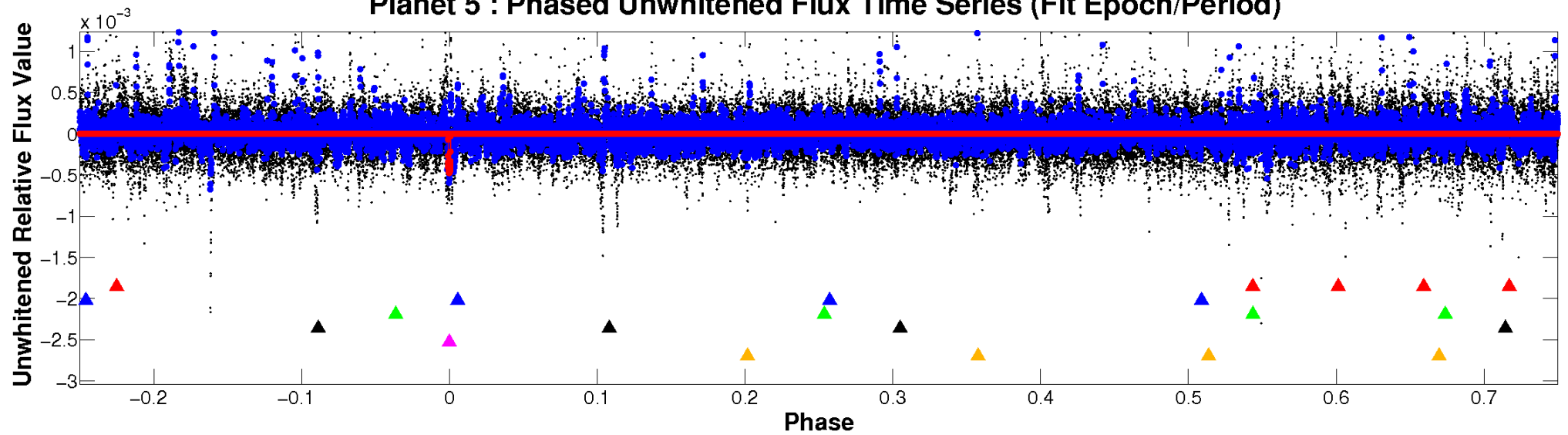
ALT Odd/Even

TCE 007696356-05

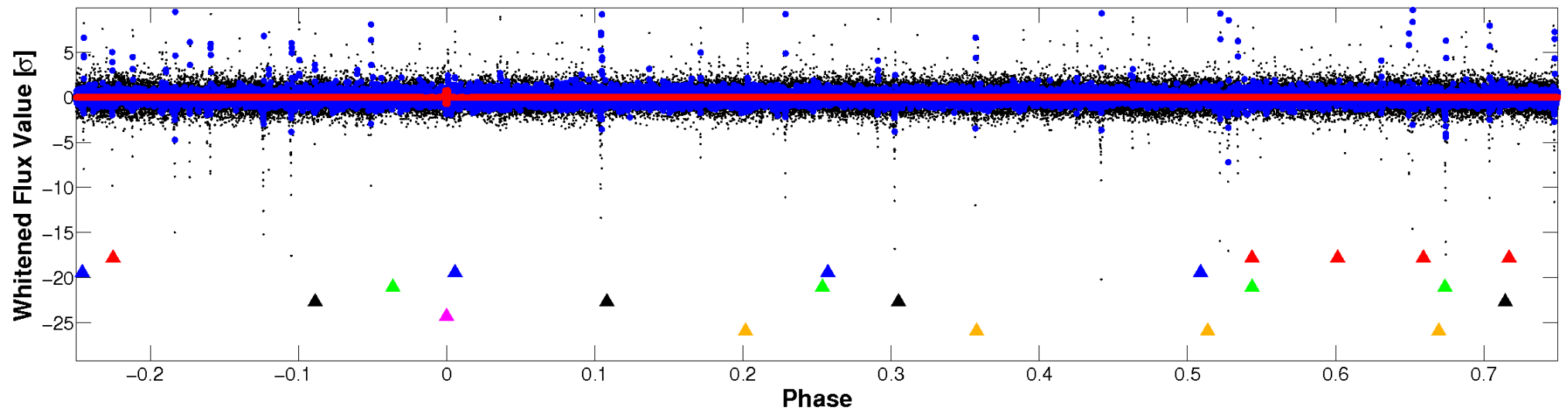


Non-Whitened Vs. Whitened Light Curve

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

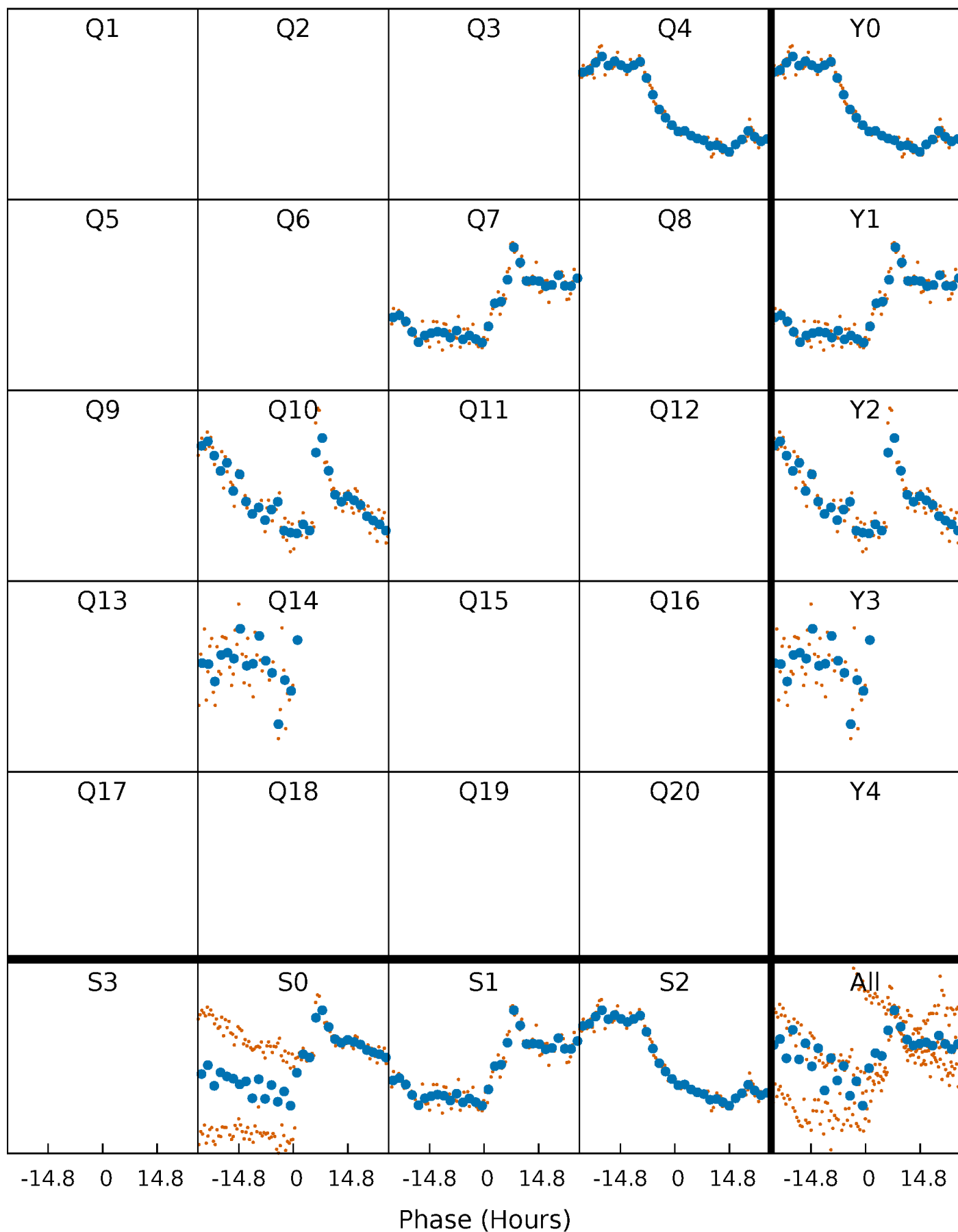


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



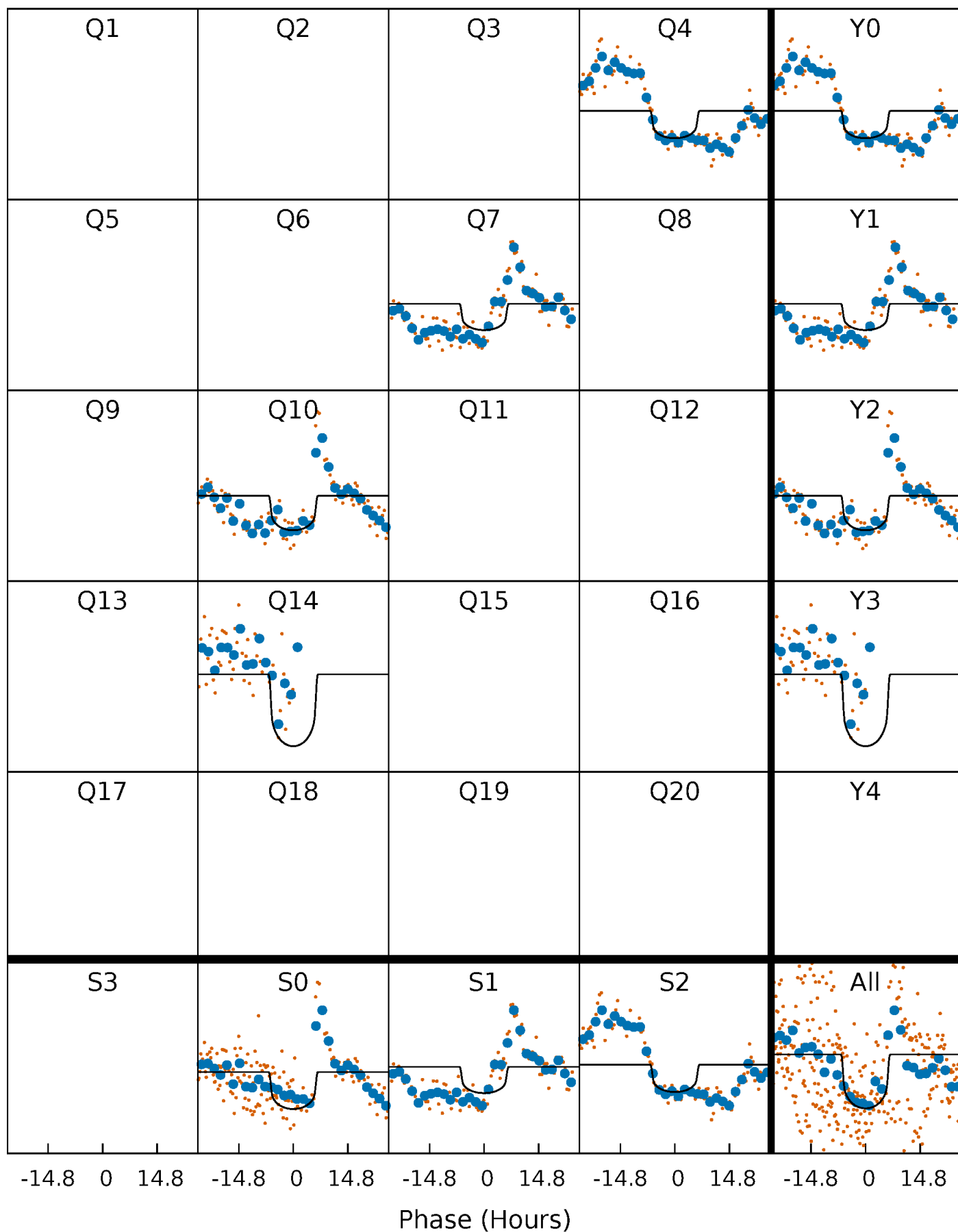
PDC Quarter-Phased Transit Curves

TCE 007696356-05 $P=310.418955$ Days $T_0=373.722127$ (BKJD)



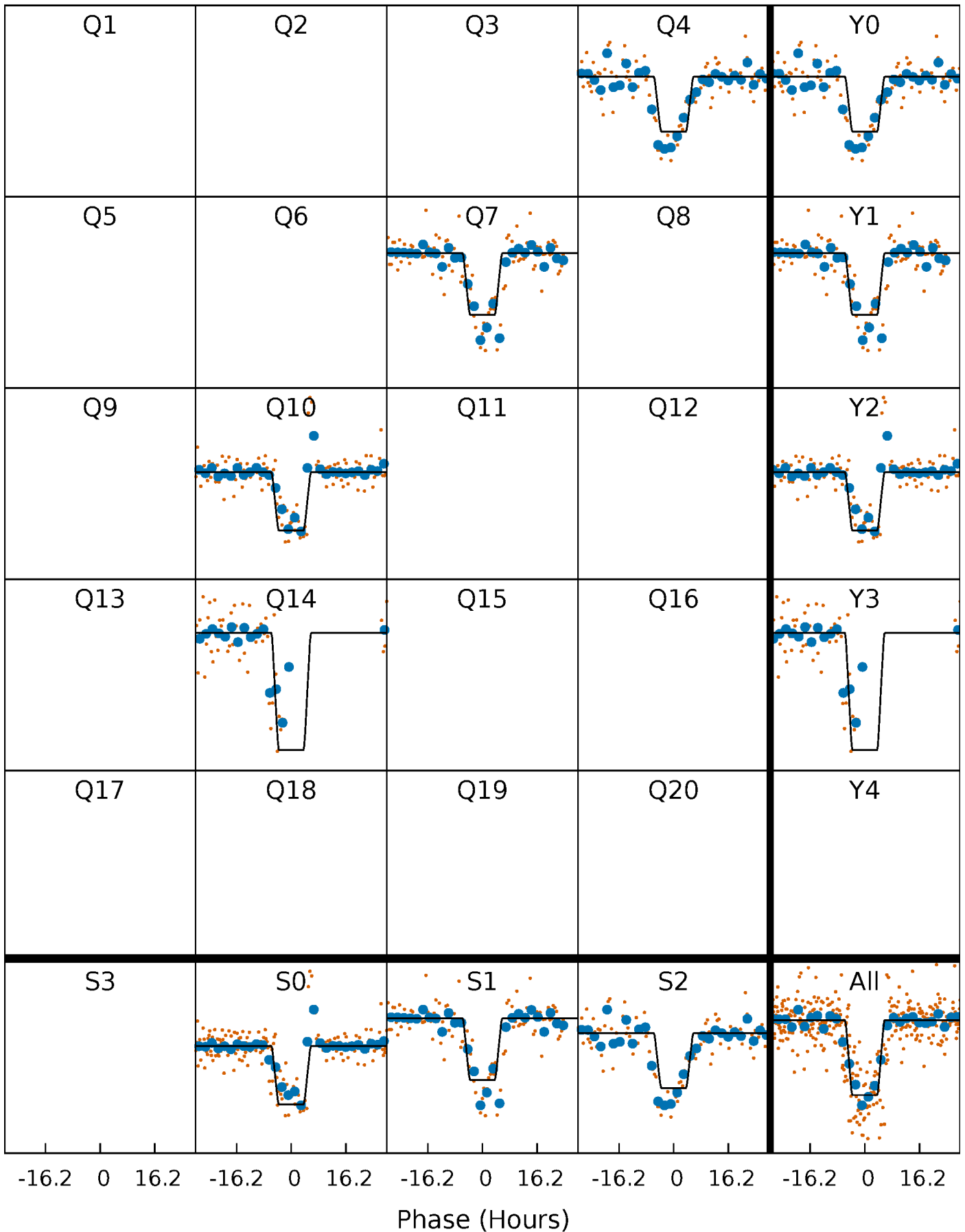
DV Quarter-Phased Transit Curves

TCE 007696356-05 $P=310.418955$ Days $T_0=373.722127$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

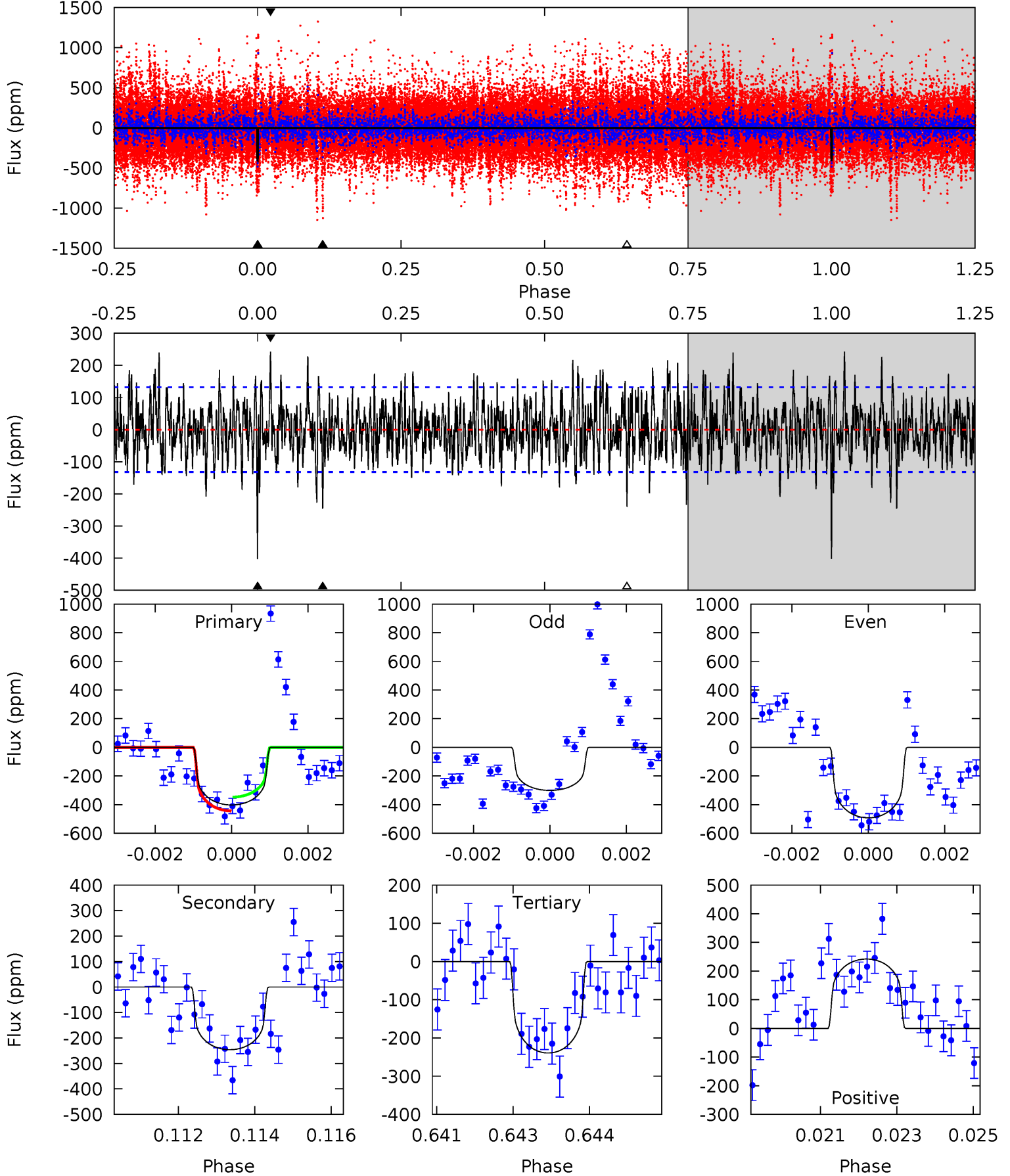
TCE 007696356-05 $P=310.460699$ Days $T_0=373.680261$ (BKJD)



DV Model-Shift Uniqueness Test

007696356-05, P = 310.418955 Days, E = 63.303172 Days

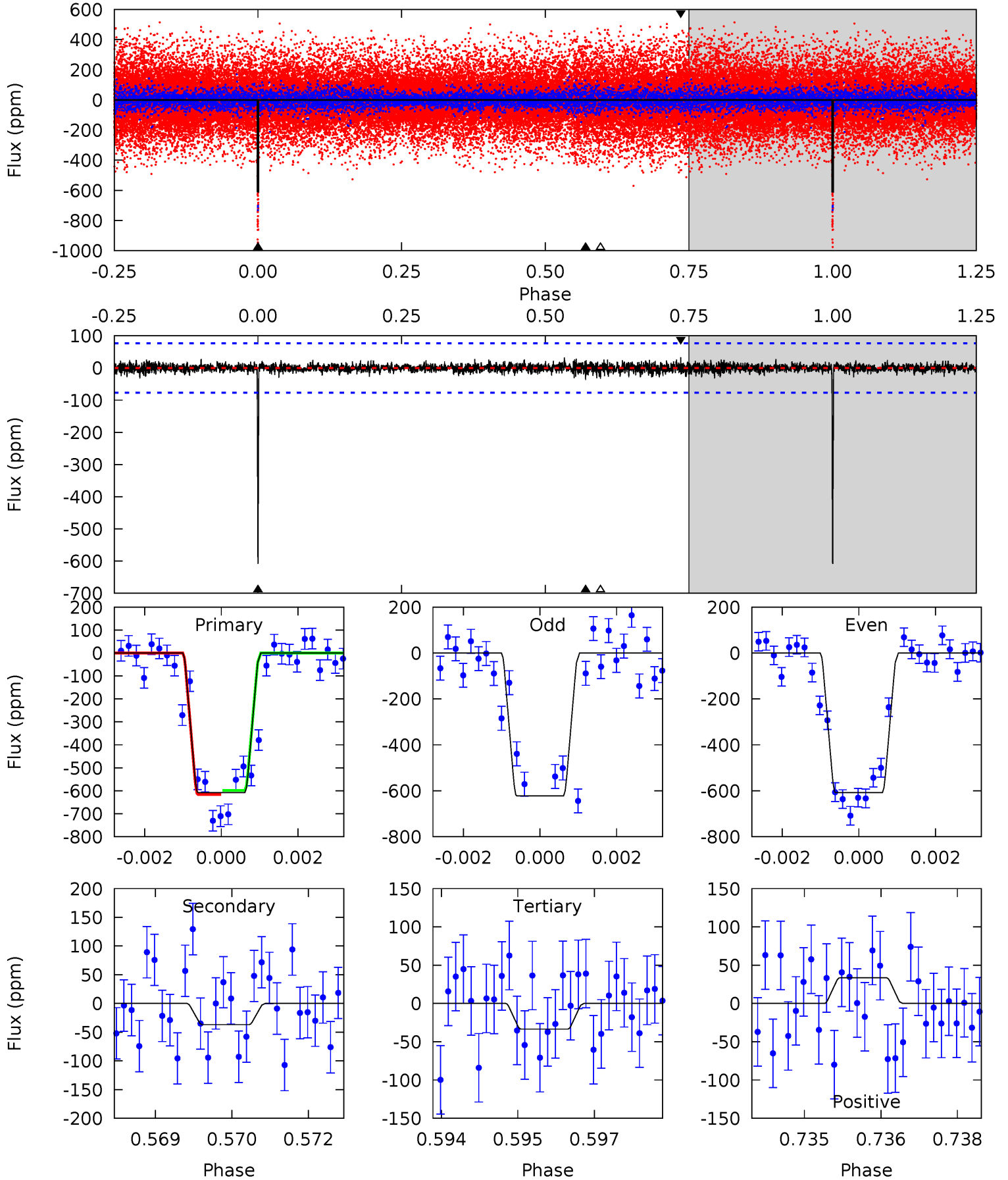
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	9.97	9.70	9.81	5.35	3.12	2.88	6.61	6.50	0.27	0.16	3.64	0.88	0.38	1.95



Alt Model-Shift Uniqueness Test

007696356-05, P = 310.460699 Days, E = 63.219562 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.6	2.58	2.34	2.34	5.37	3.16	0.55	40.2	40.2	0.24	0.24	0.48	0.98	0.05	0.63



Stellar Parameters For KIC 007696356

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5267^{+128}_{-201}	$3.152^{+0.455}_{-0.227}$	$-0.300^{+0.250}_{-0.350}$	$6.185^{+1.725}_{-3.450}$	$1.981^{+0.527}_{-0.979}$	$0.012^{+0.055}_{-0.006}$
	+2%/-4%	+14%/-7%	+83%/-117%	+28%/-56%	+27%/-49%	+468%/-52%
Source	PHO1	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 007696356-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-246 ± 25	$14.23^{+4.77}_{-4.42}$	753^{+70}_{-95}	4576^{+515}_{-371}	861^{+838}_{-371}
Alt.	-37 ± 14	$16.46^{+5.43}_{-5.16}$	753^{+75}_{-94}	3150^{+286}_{-270}	95^{+97}_{-50}

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

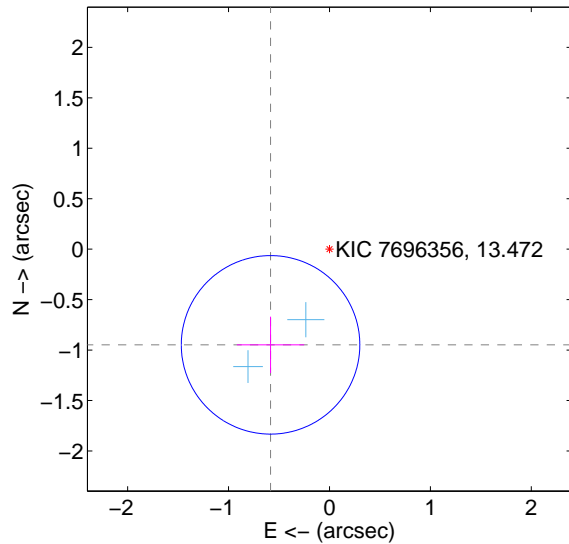
Supplemental centroid analysis for 007696356-05. Kepler magnitude: 13.47. Transit SNR 7.22

There are 2 quarters with good PRF difference image offsets

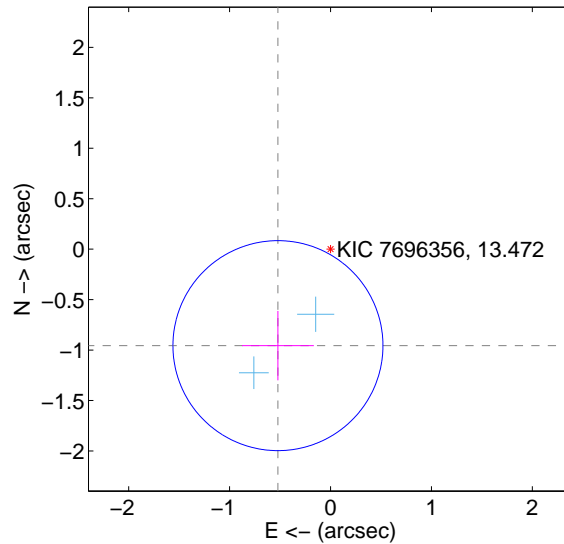
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.114 ± 0.295	3.78	0.584 ± 0.333	-0.948 ± 0.279
PRF-fit source offset from KIC position	1.089 ± 0.347	3.14	0.521 ± 0.356	-0.956 ± 0.344
photometric centroid source offset	0.49 ± 0.42	1.17	-0.41 ± 0.41	0.27 ± 0.43

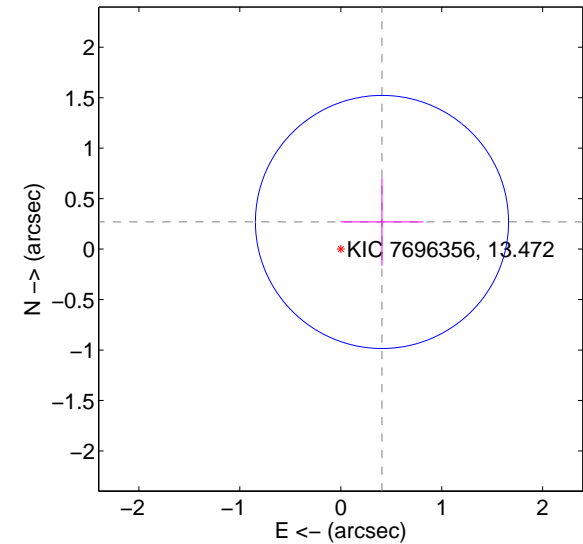
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

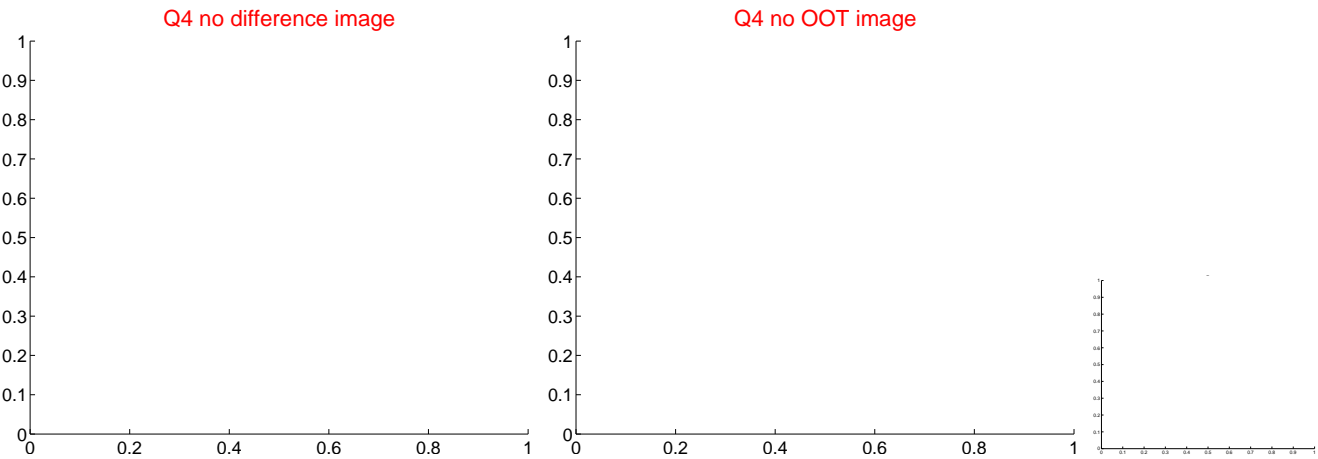
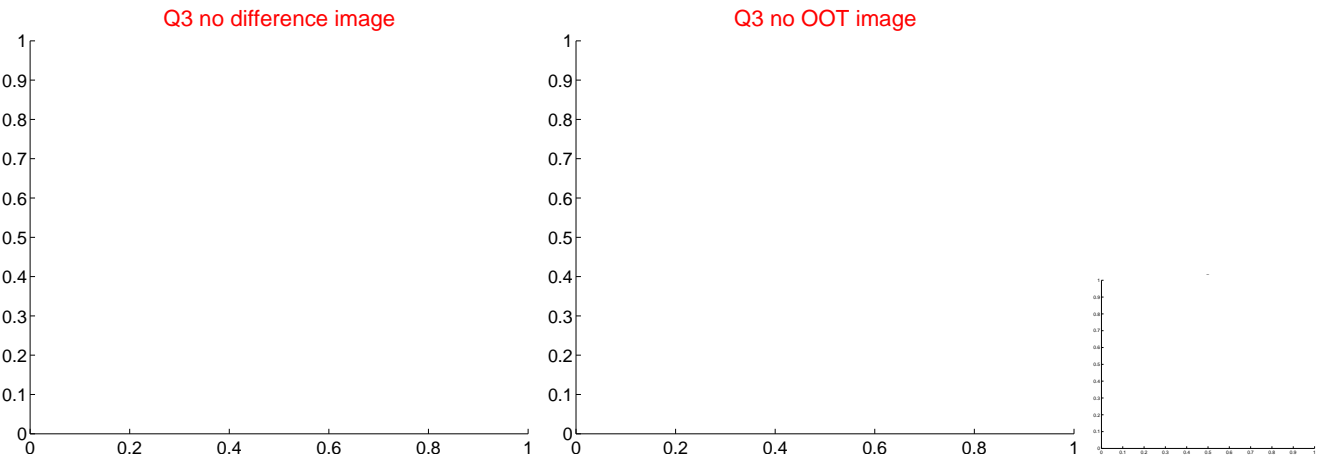
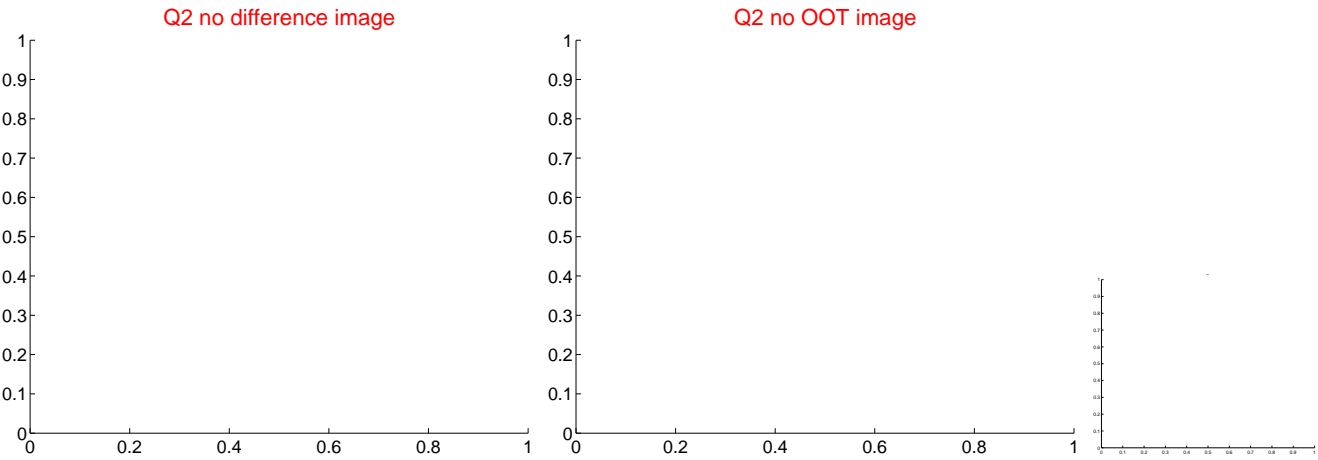
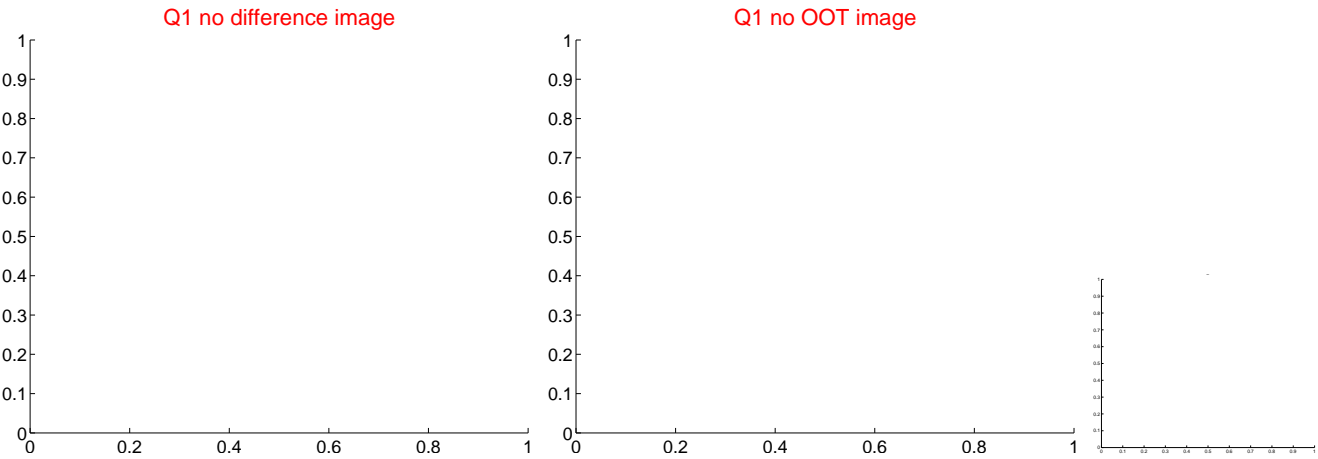


offset from photometric centroids



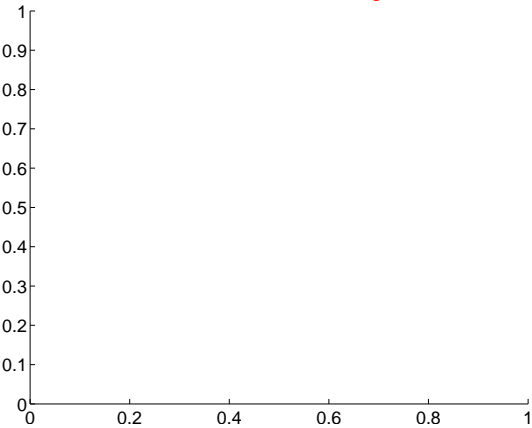
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

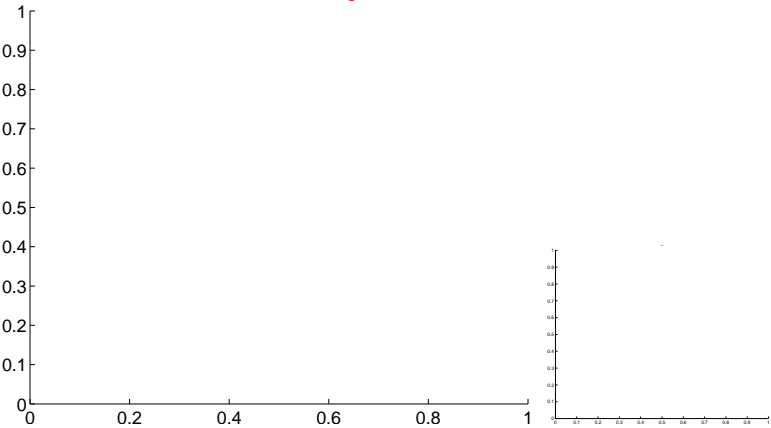


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

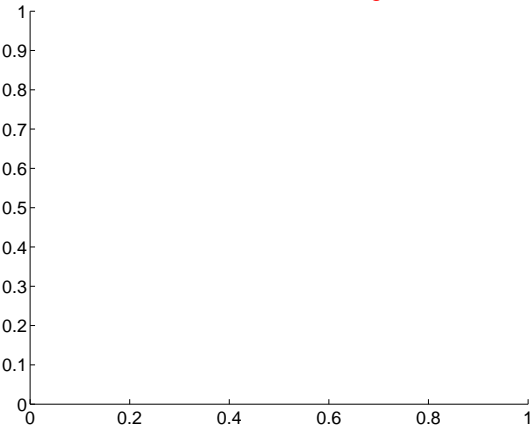
Q5 no difference image



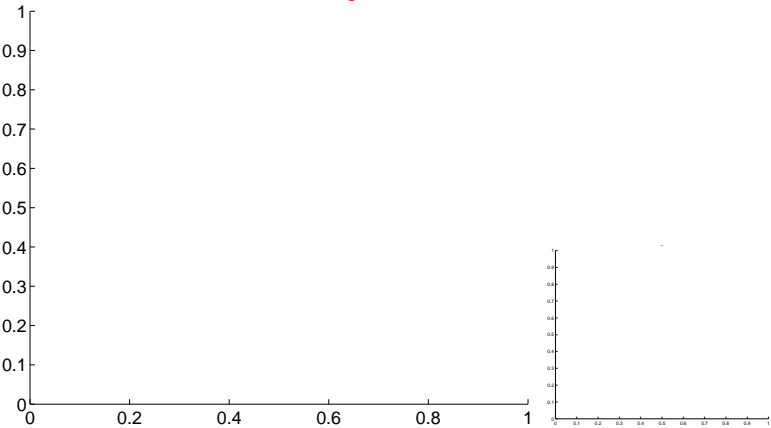
Q5 no OOT image



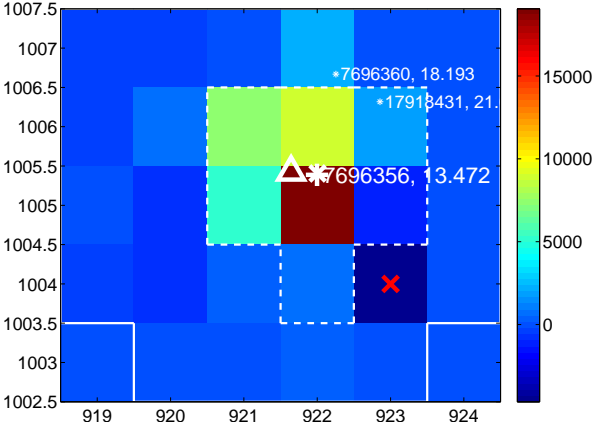
Q6 no difference image



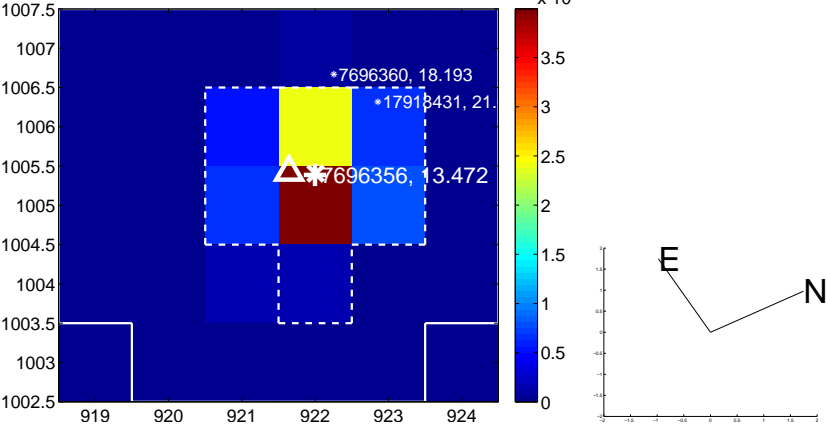
Q6 no OOT image



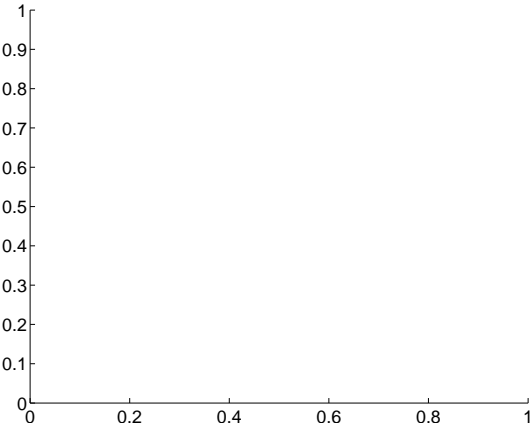
Q7 difference image



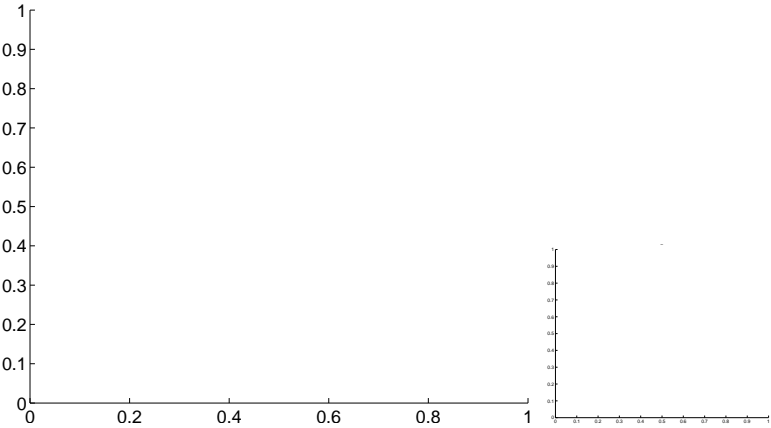
Q7 OOT image



Q8 no difference image

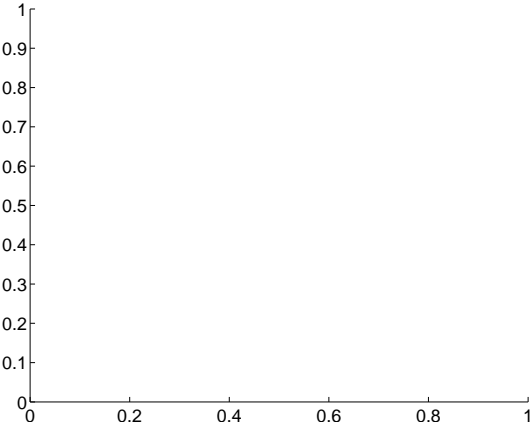


Q8 no OOT image

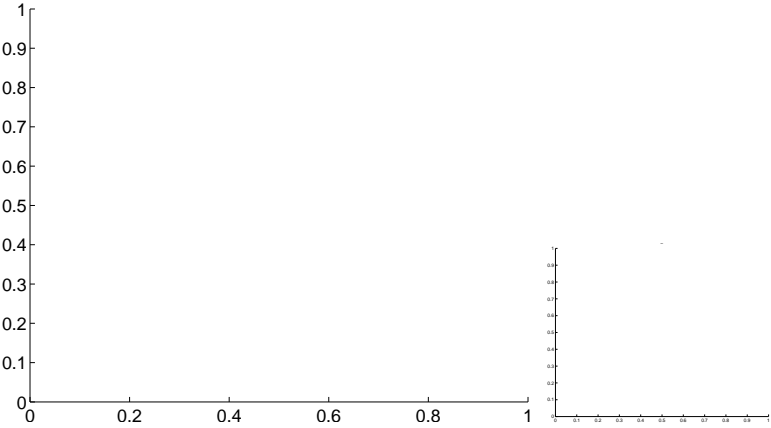


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

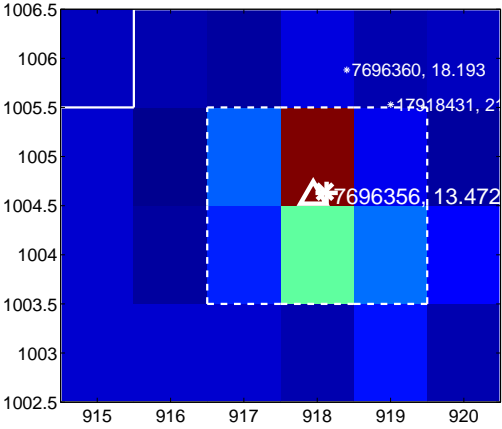
Q9 no difference image



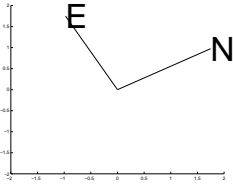
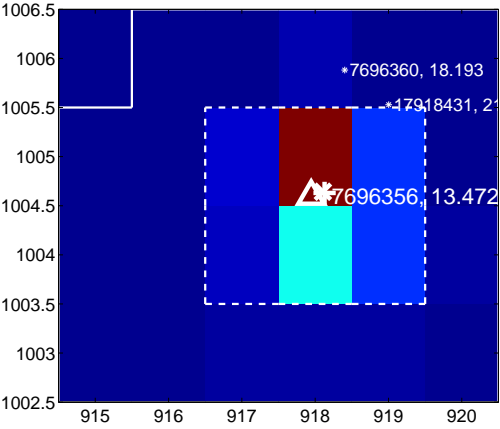
Q9 no OOT image



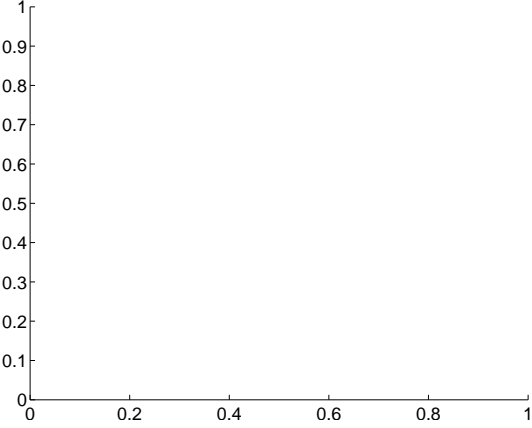
Q10 difference image



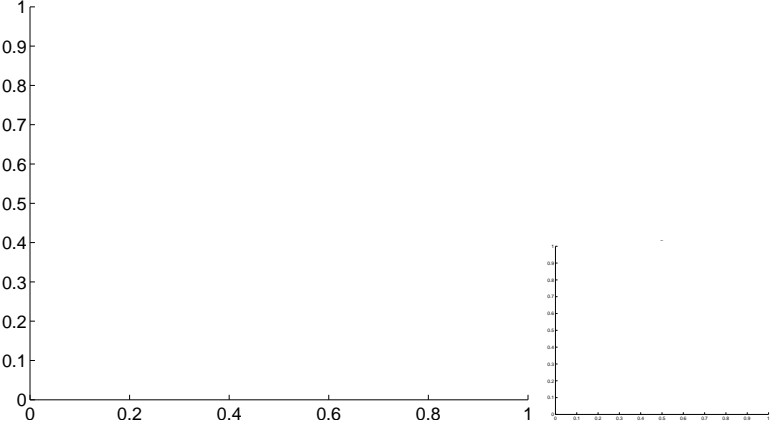
Q10 OOT image



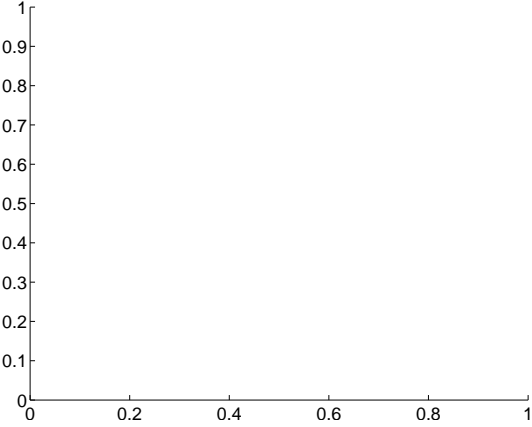
Q11 no difference image



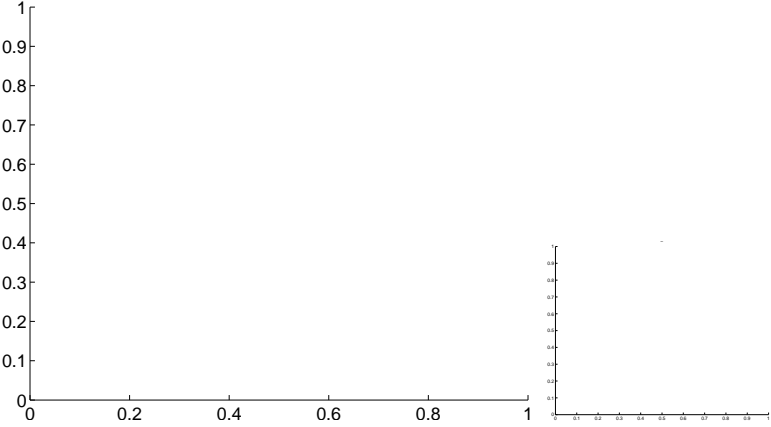
Q11 no OOT image



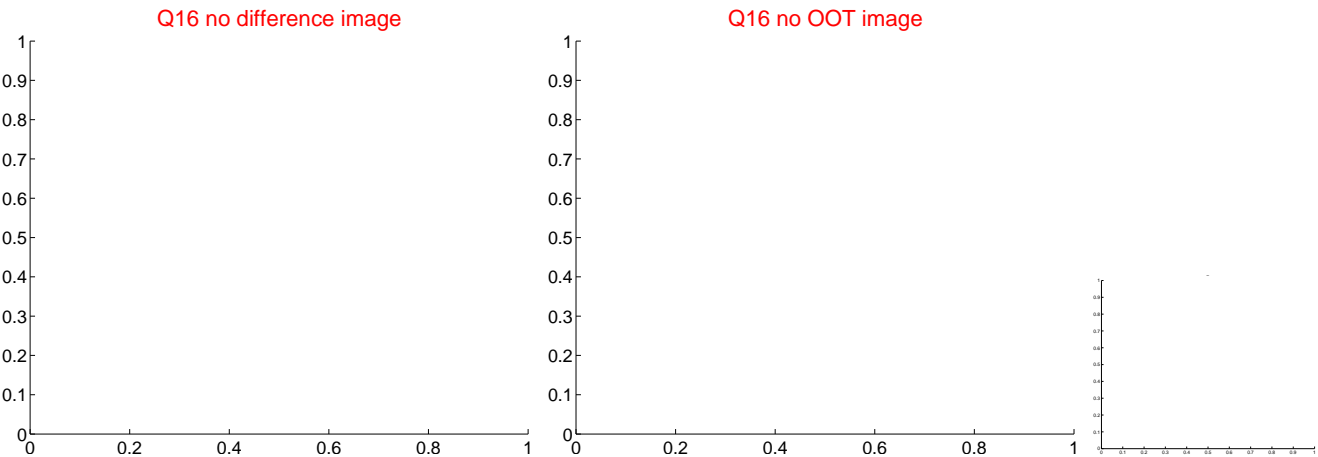
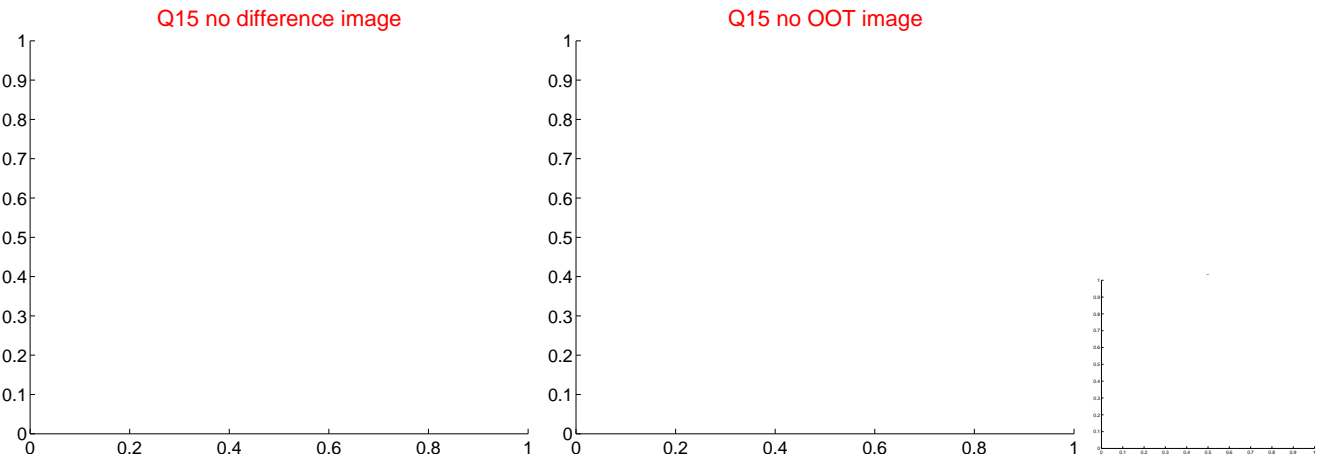
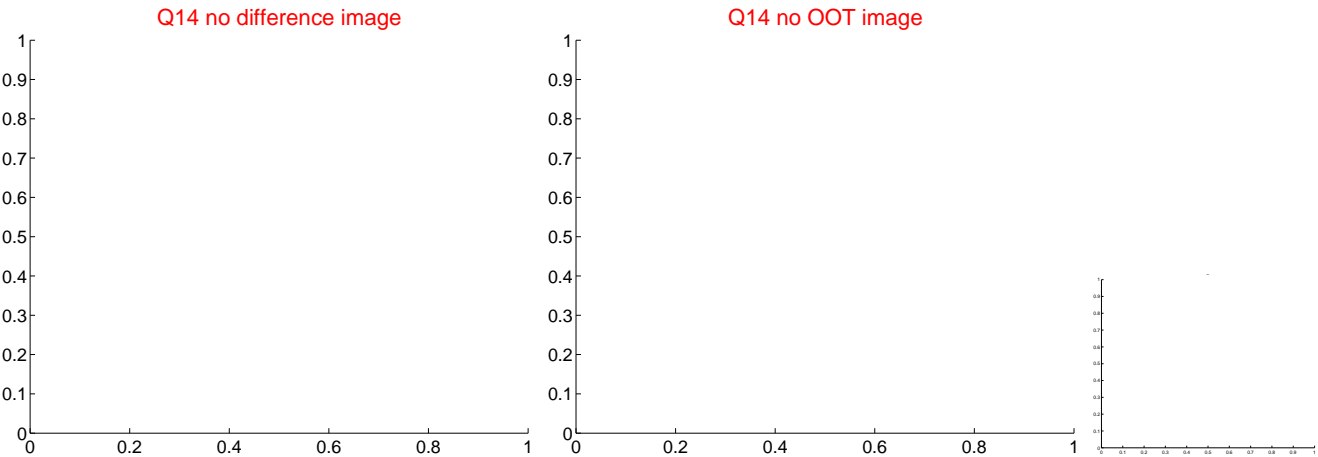
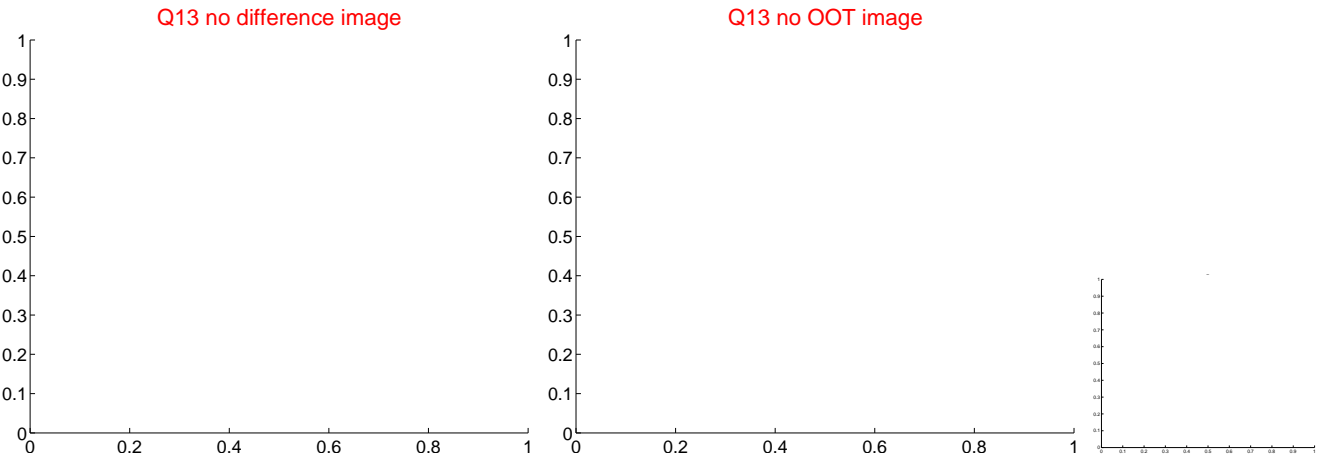
Q12 no difference image



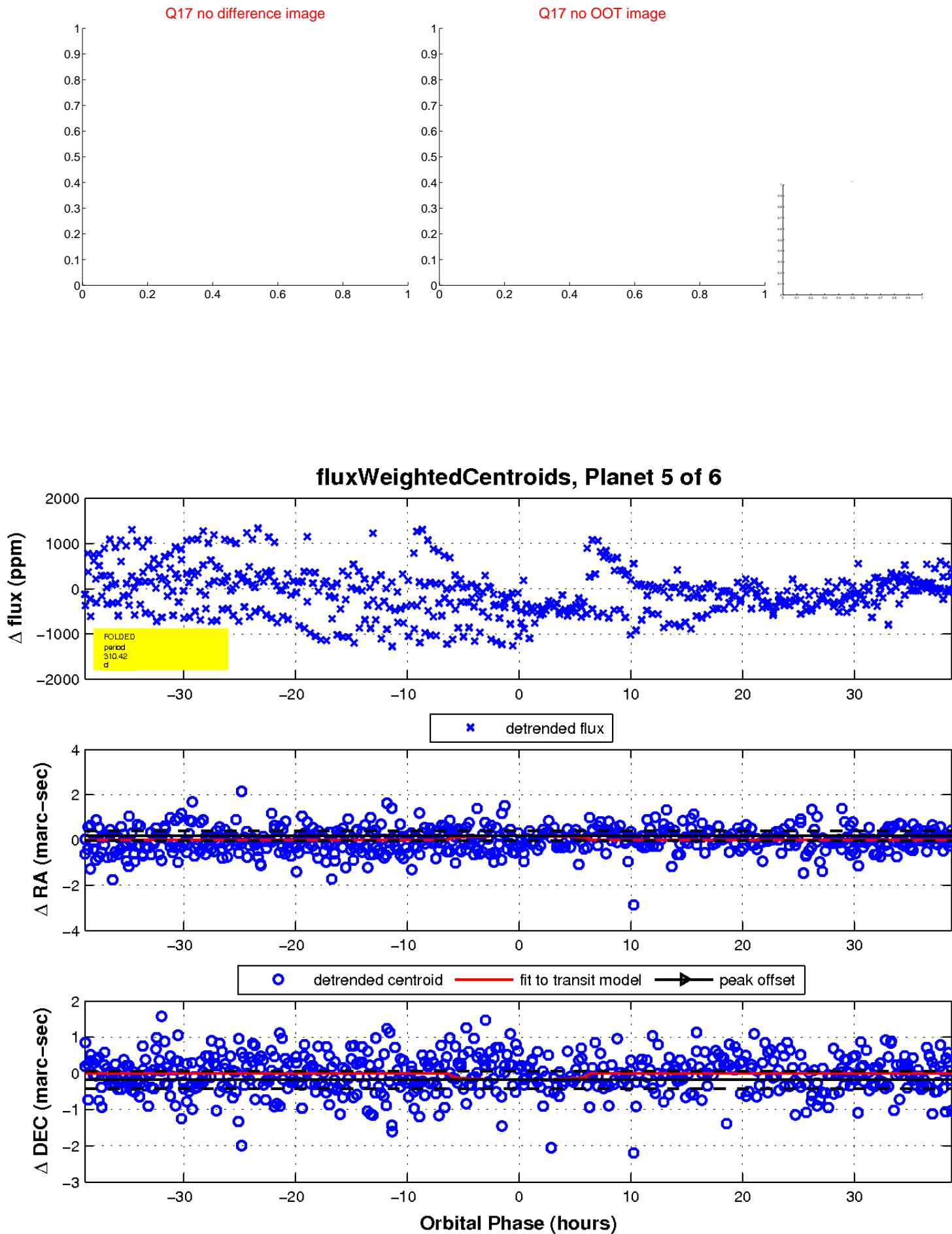
Q12 no OOT image



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

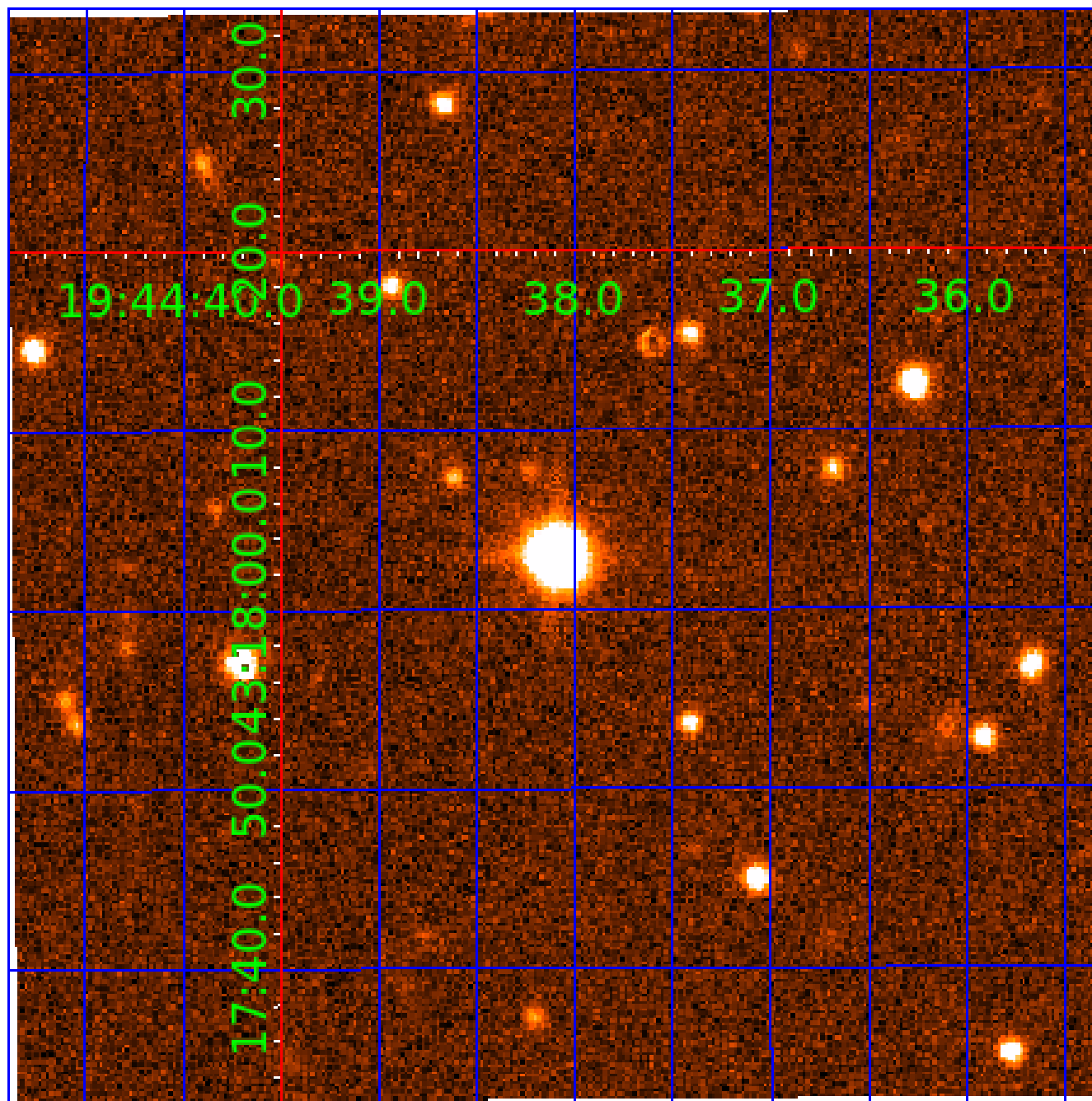


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007696356

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})
007696356-01	OBS	No	292.462794	303.856773	617.7	7.315	14.4	7.4	6.18	5267	16.66	22.49
007696356-02	OBS	No	388.514939	297.400901	355.6	12.056	11.2	5.8	6.18	5267	12.89	15.40
007696356-04	OBS	No	371.523762	285.089642	573.0	6.790	9.1	9.5	6.18	5267	16.09	16.34
007696356-05	OBS	No	310.418956	373.722127	477.4	12.948	8.6	7.2	6.18	5267	14.63	20.77
007696356-06	OBS	No	358.831736	436.354466	443.0	6.816	8.3	6.7	6.18	5267	14.43	17.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007696356-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS
007696356-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007696356-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS
007696356-05	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS
007696356-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

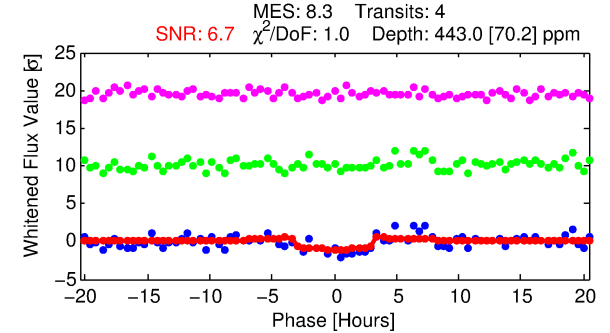
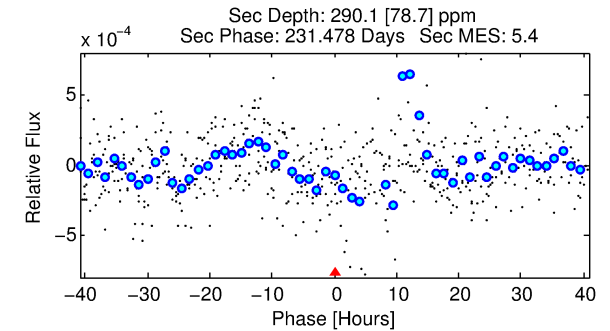
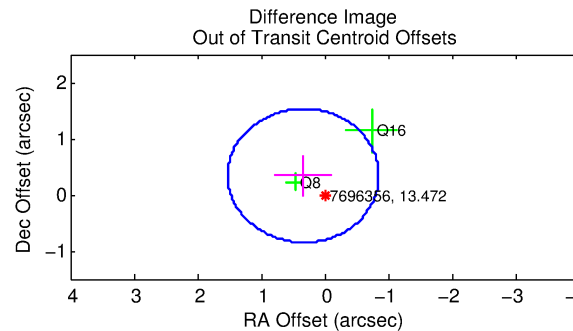
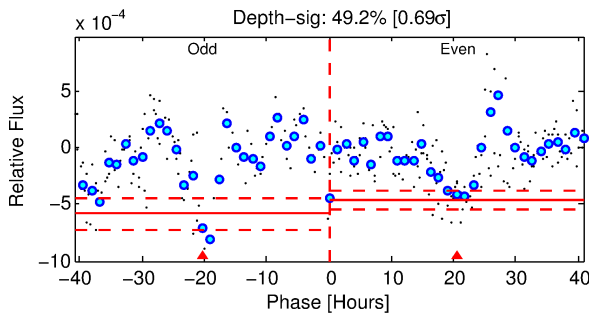
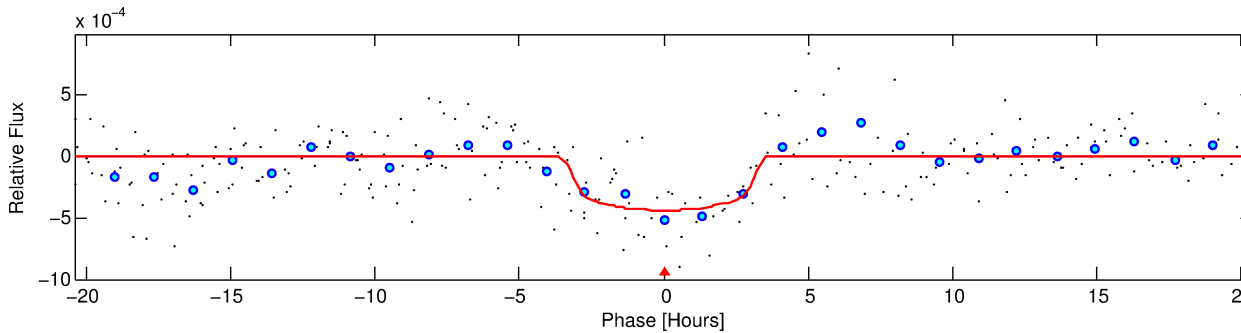
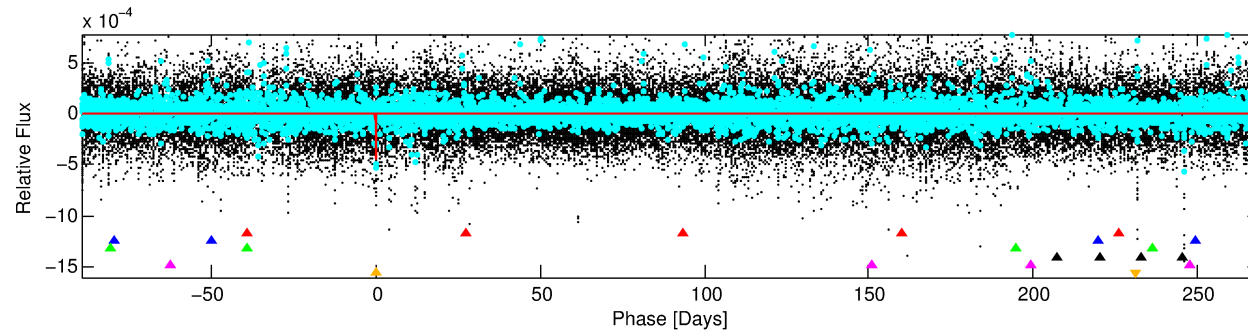
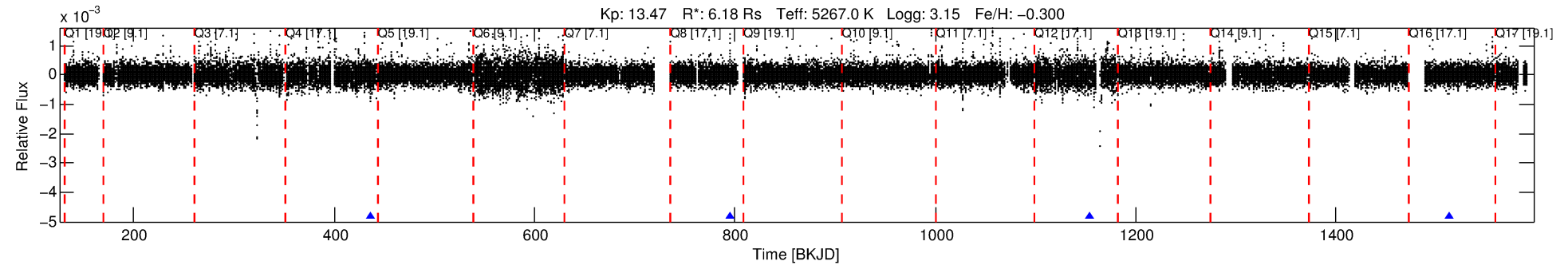
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007696356-06

No Significant Match Found

DV One-Page Summary

KIC: 7696356 Candidate: 6 of 6 Period: 358.832 d



DV Fit Results:

Period = 358.83174 [0.00525] d
Epoch = 436.3545 [0.0115] BKJD
Rp/R* = 0.0214 [0.0117]
a/R* = 259.52 [580.99]
b = 0.79 [1.07]
Seff = 17.12 [13.80]
Teq = 519 [104] K
Rp = 14.43 [11.29] Re
a = 1.2412 [0.6332] AU
Ag = 1180.96 [1628.62] [0.72σ]
Teffp = 4701 [1340] K [3.11σ]

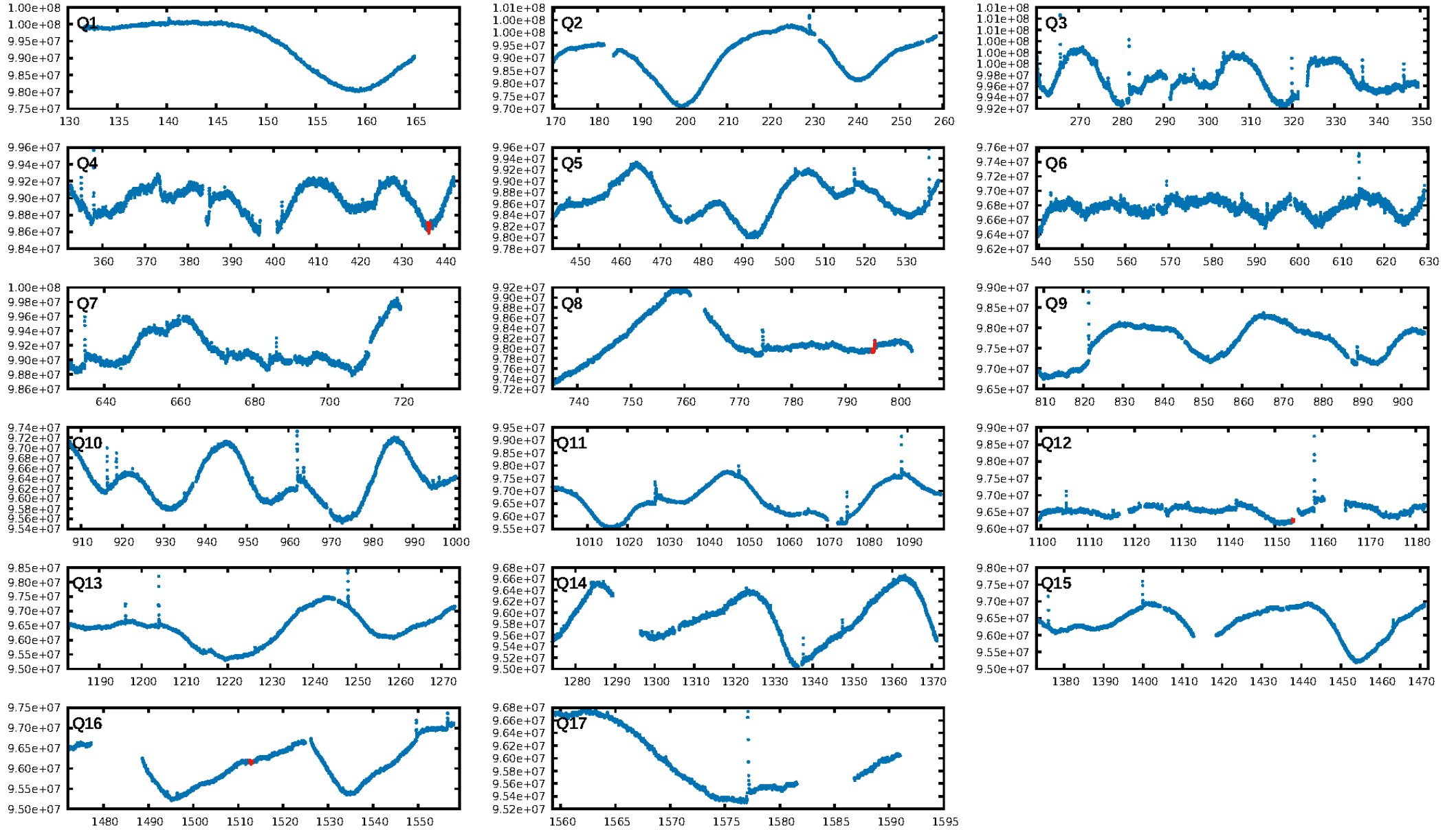
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [79.41σ]
LongPeriod-sig: 100.0% [31.66σ]
ModelChiSquare2-sig: 14.0%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 4.22e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 2.228
Centroid-sig: 23.5%
Centroid-so: 0.424 arcsec [0.79σ]
OotOffset-rm: 0.477 arcsec [1.20σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-rm: 0.327 arcsec [0.81σ]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

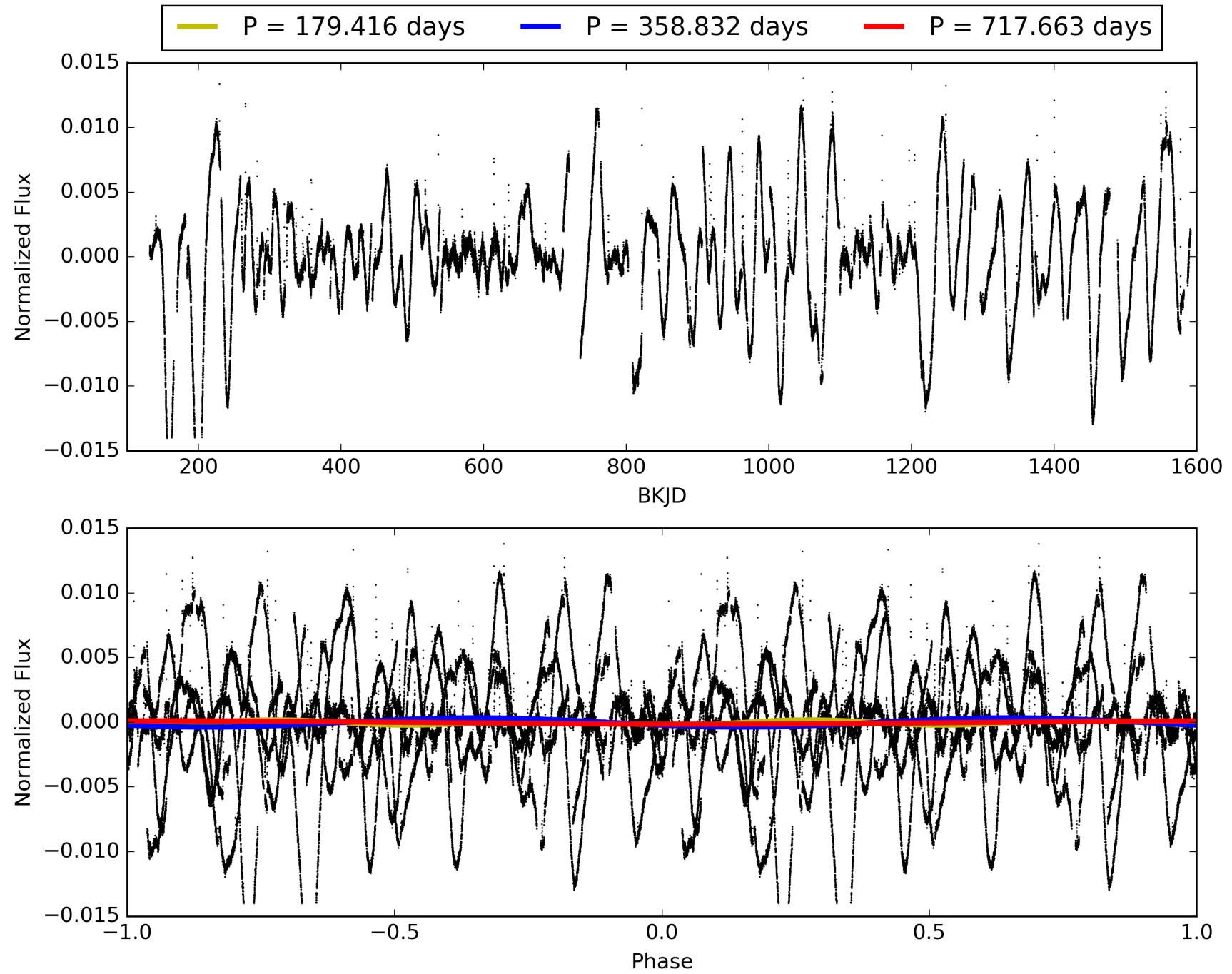
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:23:51 Z

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

TCE 007696356-06, PDC Light Curves

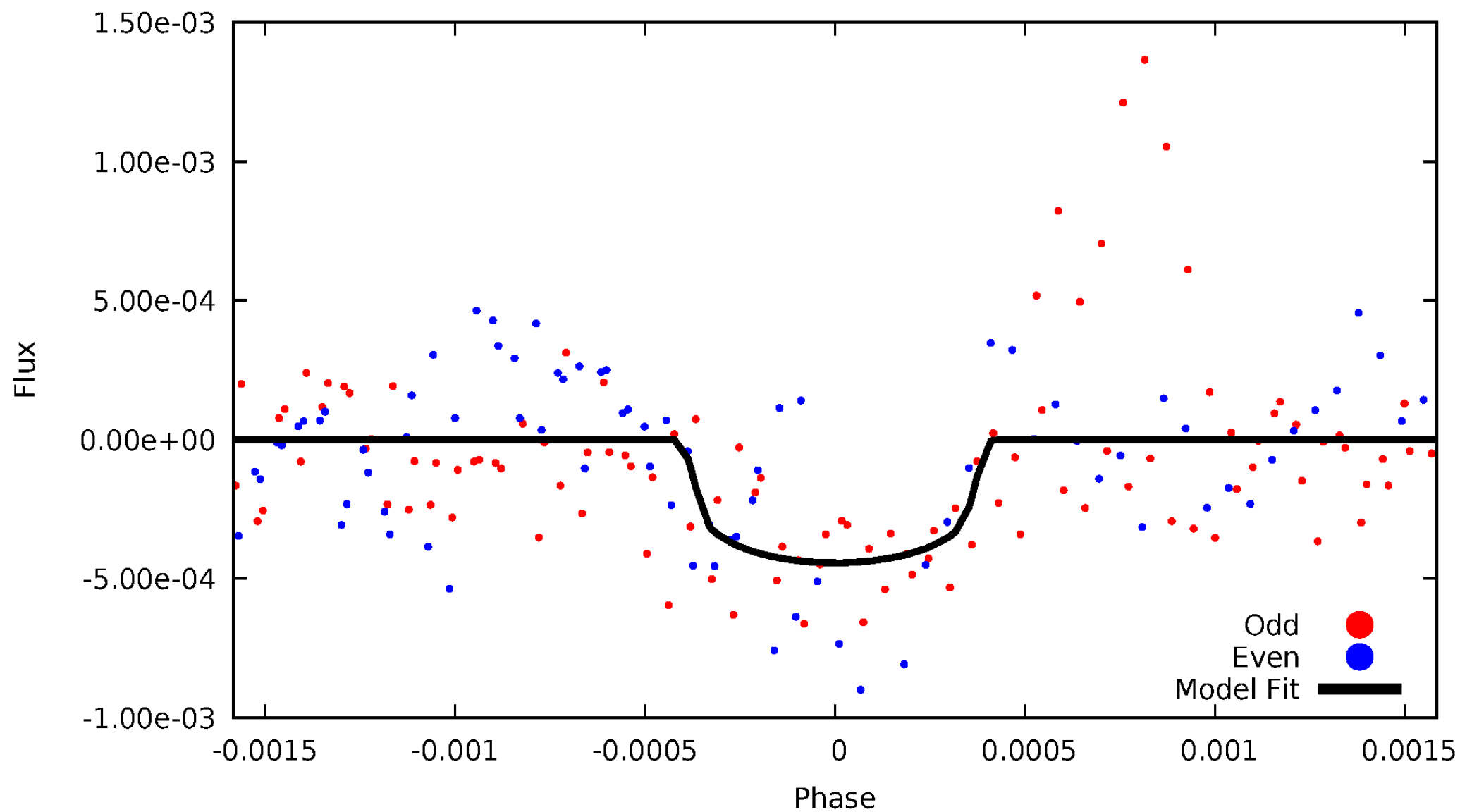


TCE 007696356-06



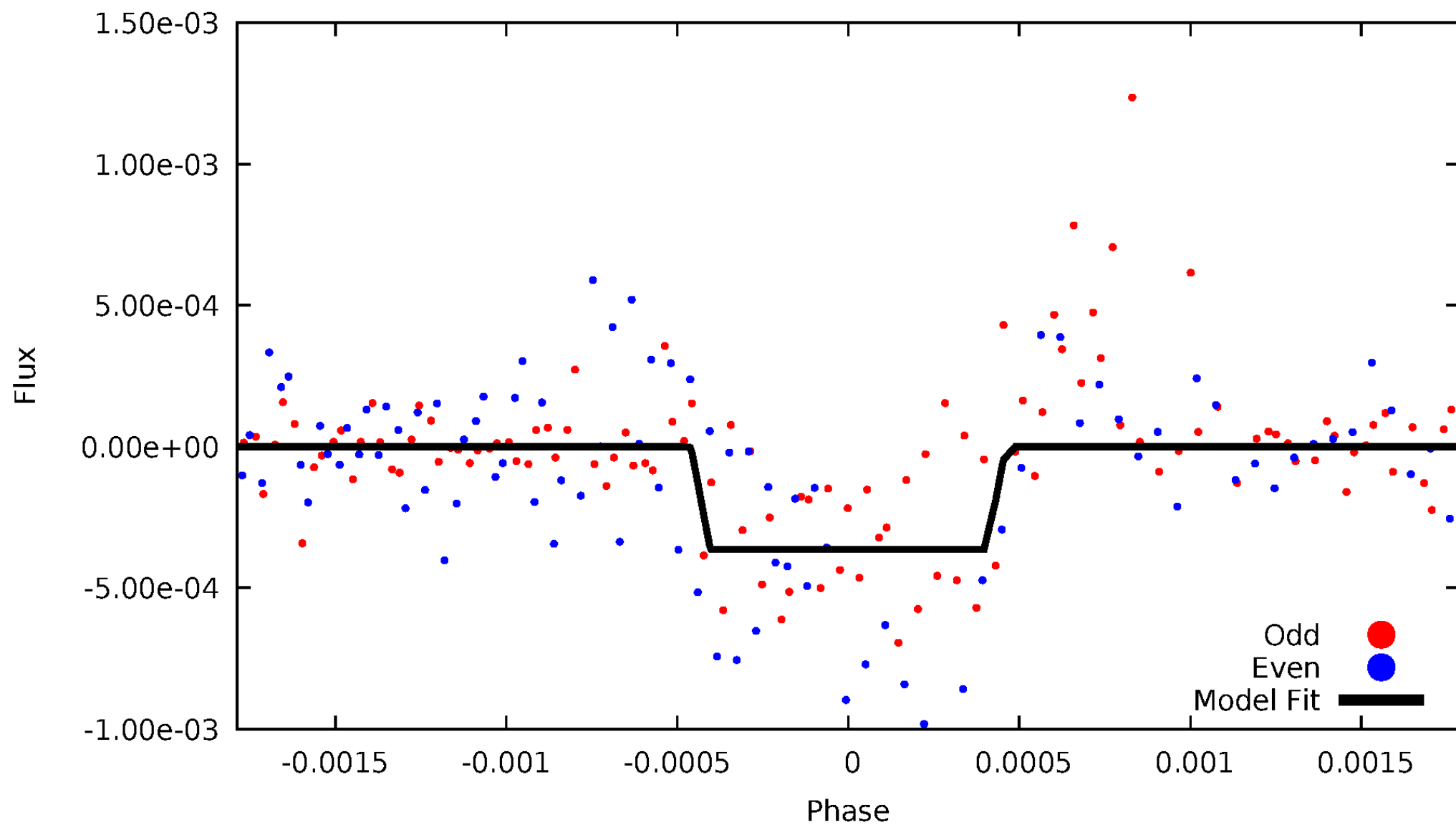
DV Odd/Even

TCE 007696356-06



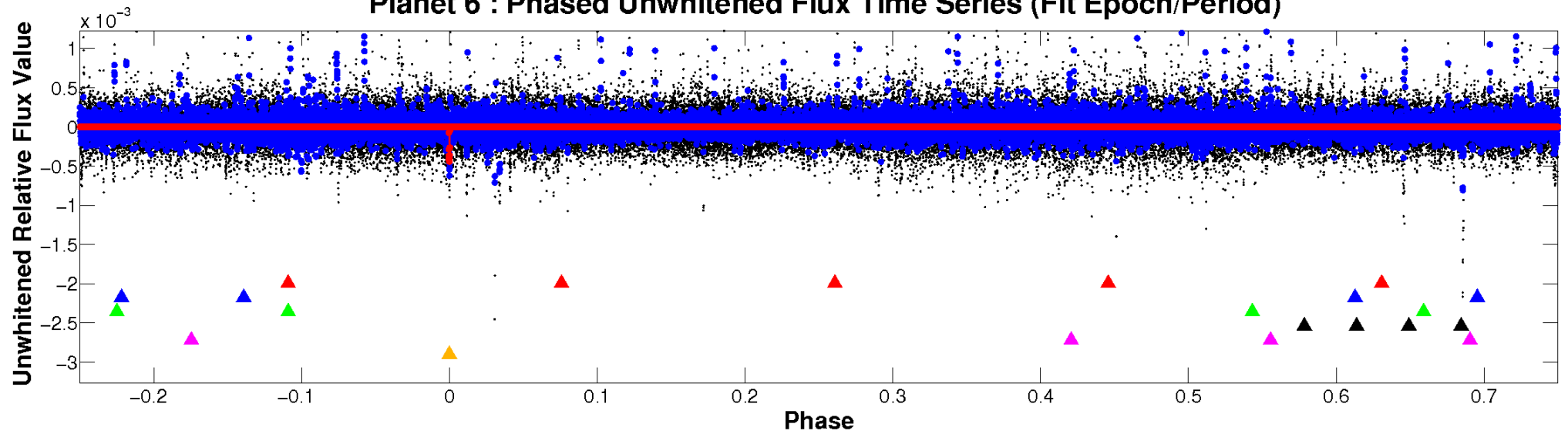
ALT Odd/Even

TCE 007696356-06

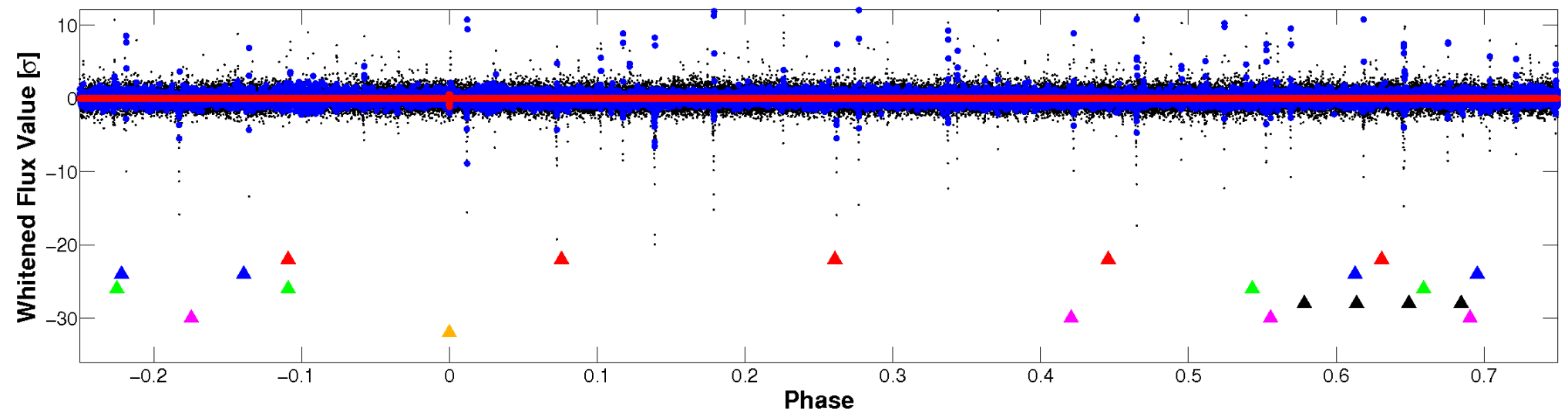


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

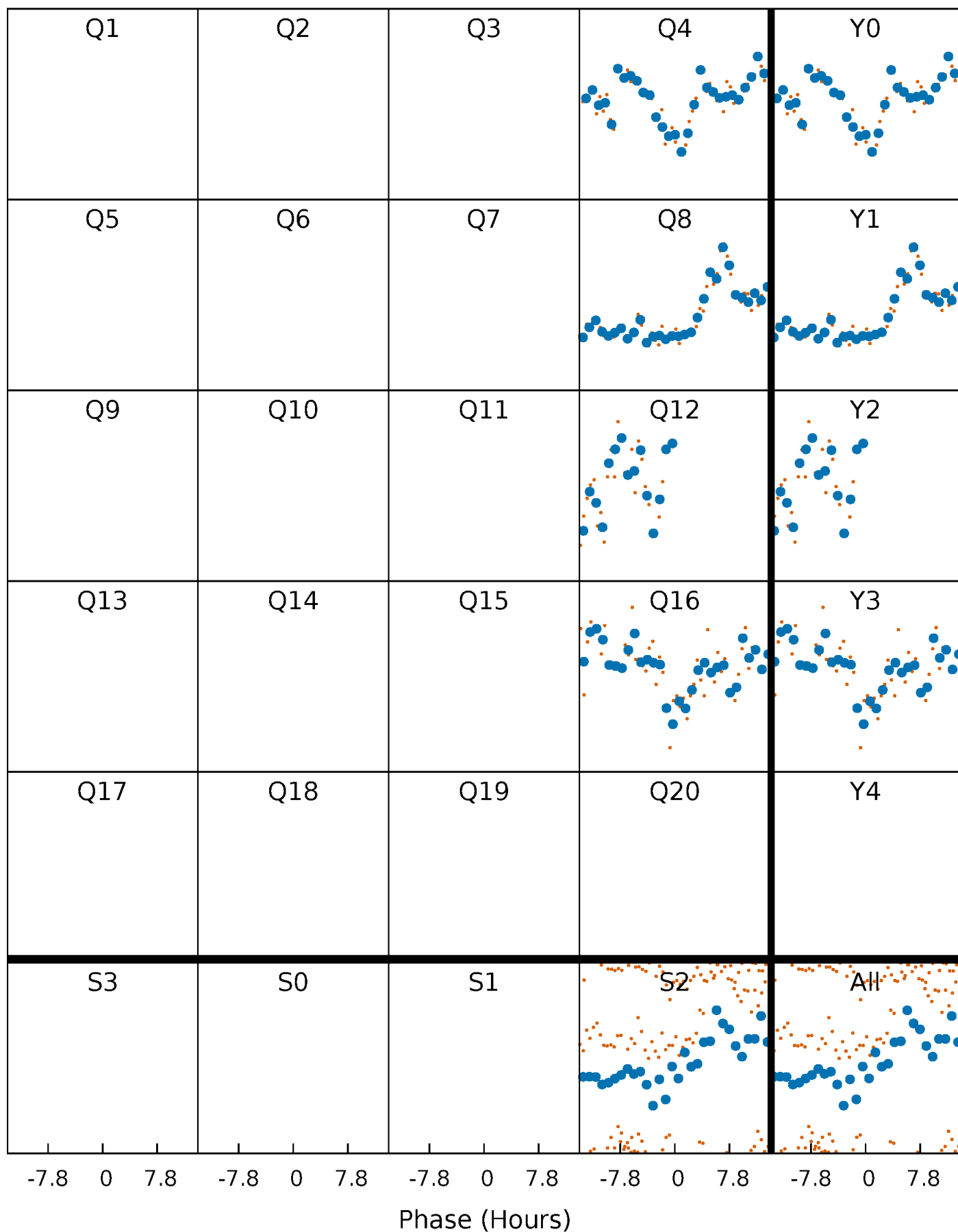


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007696356-06 $P=358.831736$ Days $T_0=436.354466$ (BKJD)



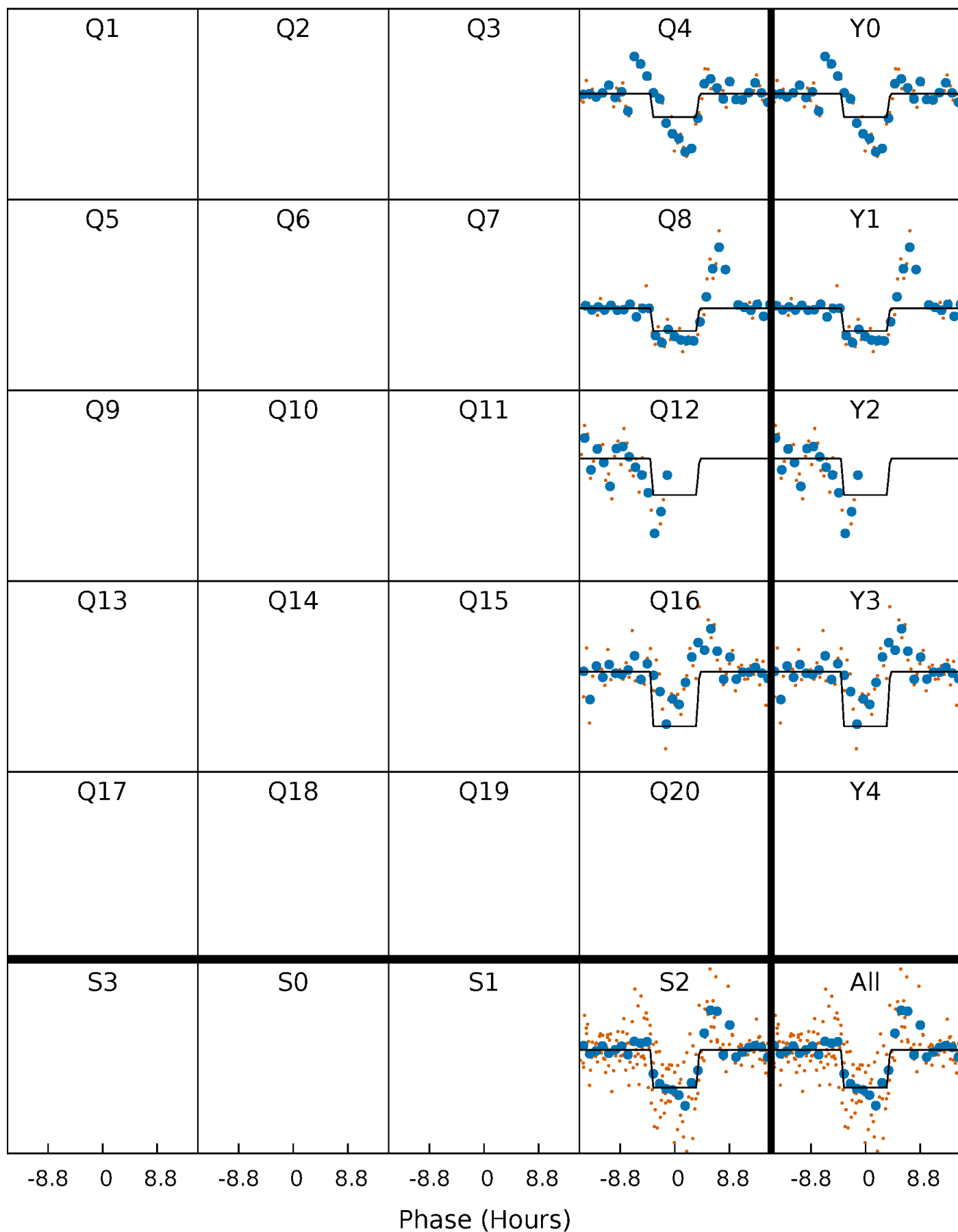
DV Quarter-Phased Transit Curves

TCE 007696356-06 $P=358.831736$ Days $T_0=436.354466$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

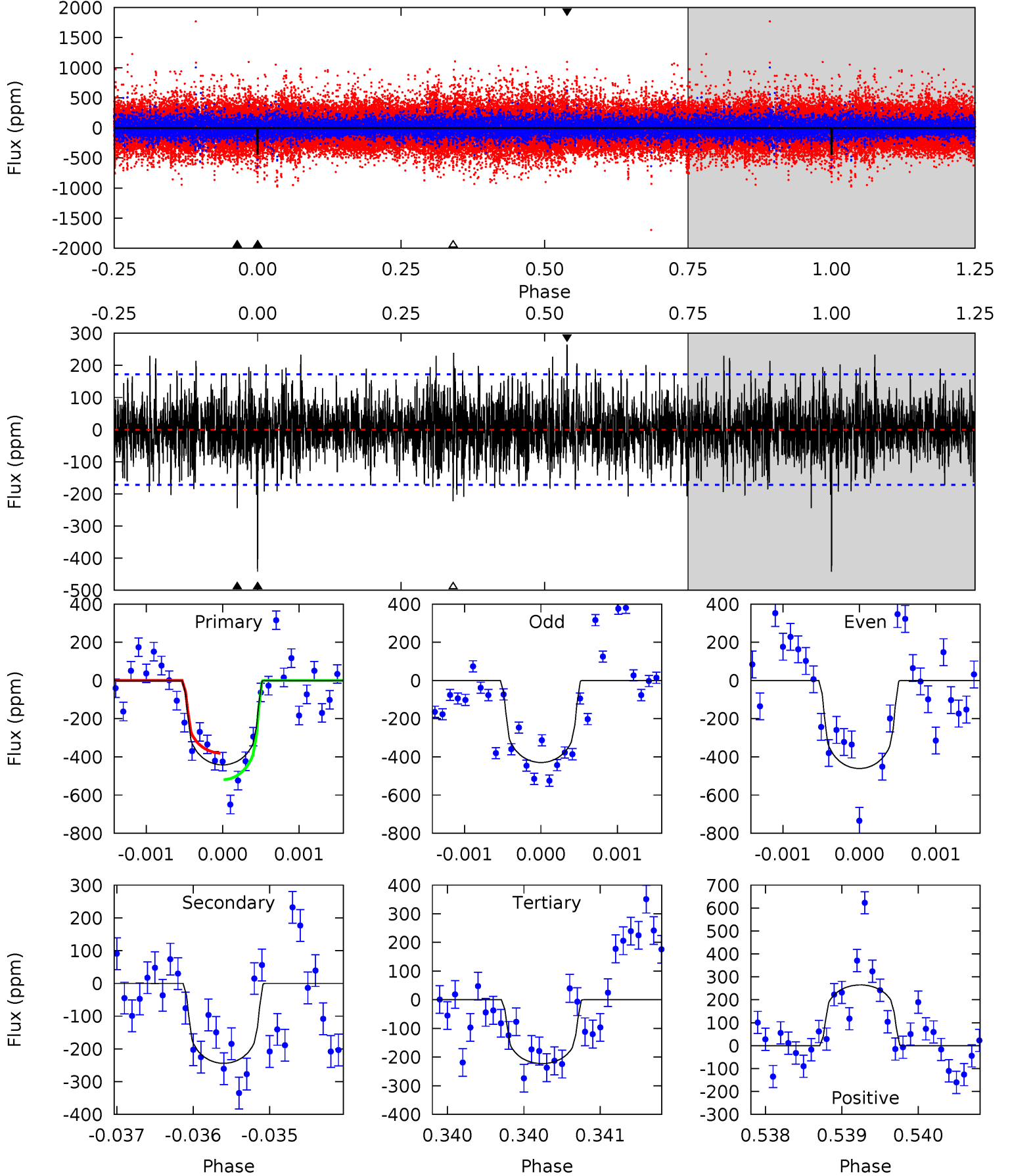
TCE 007696356-06 P=358.860992 Days $T_0=436.299423$ (BKJD)



DV Model-Shift Uniqueness Test

007696356-06, P = 358.831736 Days, E = 77.522730 Days

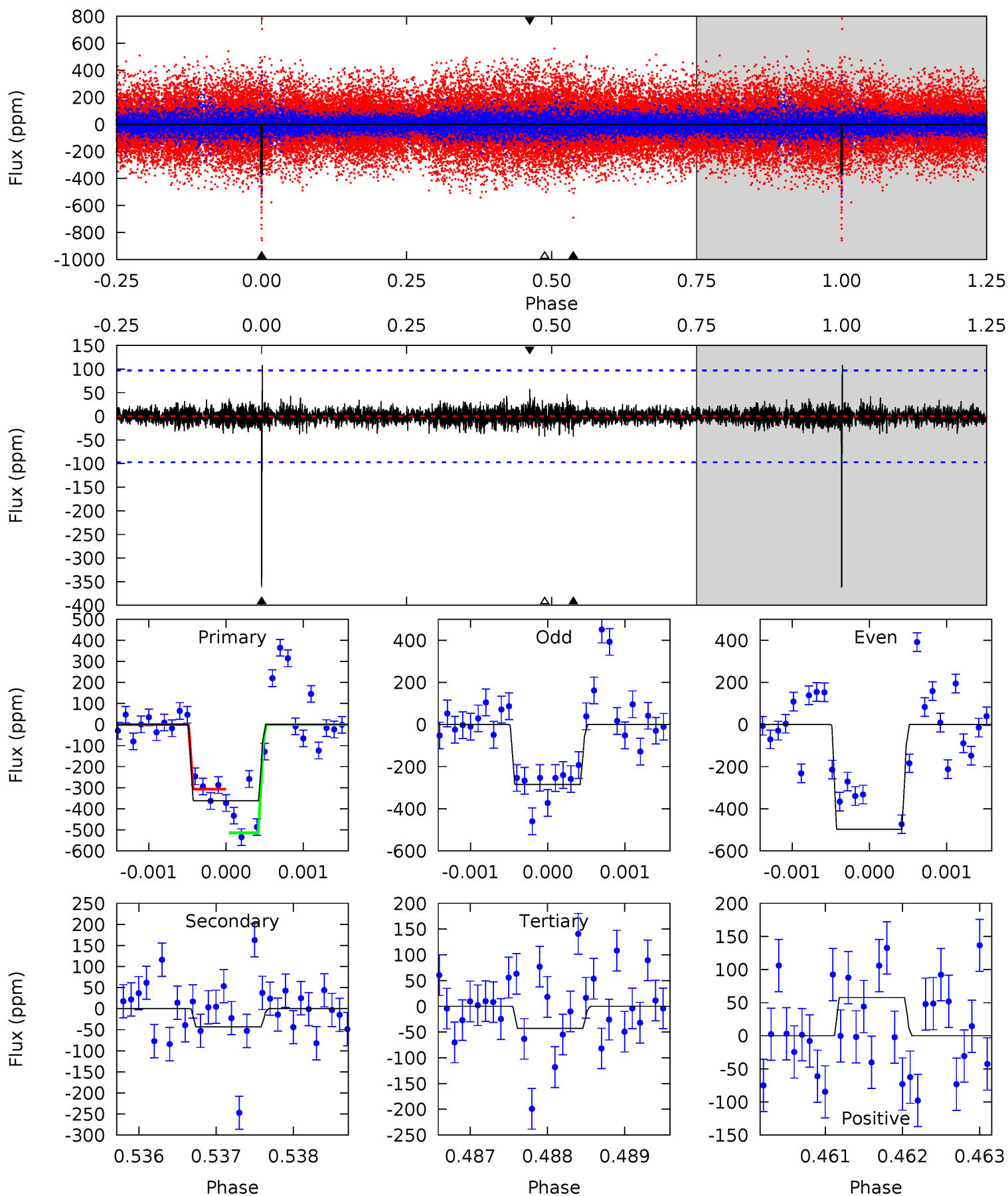
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	7.79	7.11	8.45	5.49	3.35	2.10	7.00	5.66	0.68	-0.66	0.45	0.94	0.37	2.21



Alt Model-Shift Uniqueness Test

007696356-06, P = 358.860992 Days, E = 77.438431 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.3	2.42	2.41	3.24	5.46	3.31	0.56	17.9	17.1	0.02	-0.82	5.88	0.82	0.23	5.60



Stellar Parameters For KIC 007696356

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5267^{+128}_{-201}	$3.152^{+0.455}_{-0.227}$	$-0.300^{+0.250}_{-0.350}$	$6.185^{+1.725}_{-3.450}$	$1.981^{+0.527}_{-0.979}$	$0.012^{+0.055}_{-0.006}$
	+2%/-4%	+14%/-7%	+83%/-117%	+28%/-56%	+27%/-49%	+468%/-52%
Source	PHO1	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 007696356-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-244 ± 31	$14.03^{+8.98}_{-7.40}$	721^{+62}_{-88}	4547^{+1735}_{-673}	1024^{+3388}_{-643}
Alt.	-43 ± 18	$12.58^{+9.21}_{-6.76}$	713^{+71}_{-91}	3444^{+1013}_{-501}	223^{+895}_{-160}

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 $A_{obs} \gg 1.0$

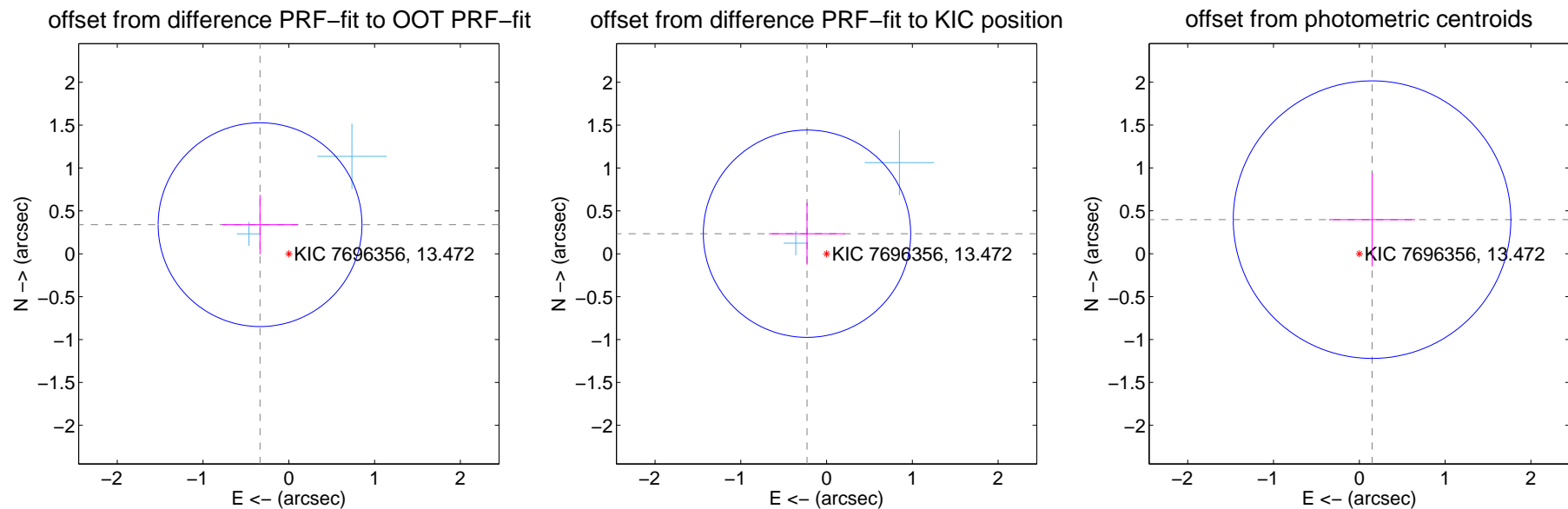
DV Centroid Data

Supplemental centroid analysis for 007696356-06. Kepler magnitude: 13.47. Transit SNR 6.71

There are 2 quarters with good PRF difference image offsets

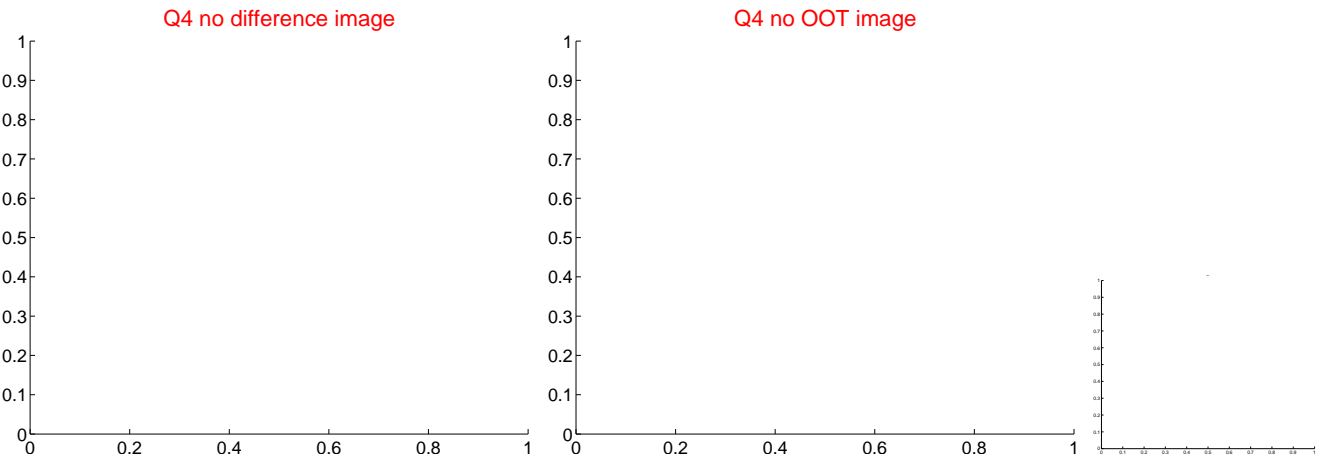
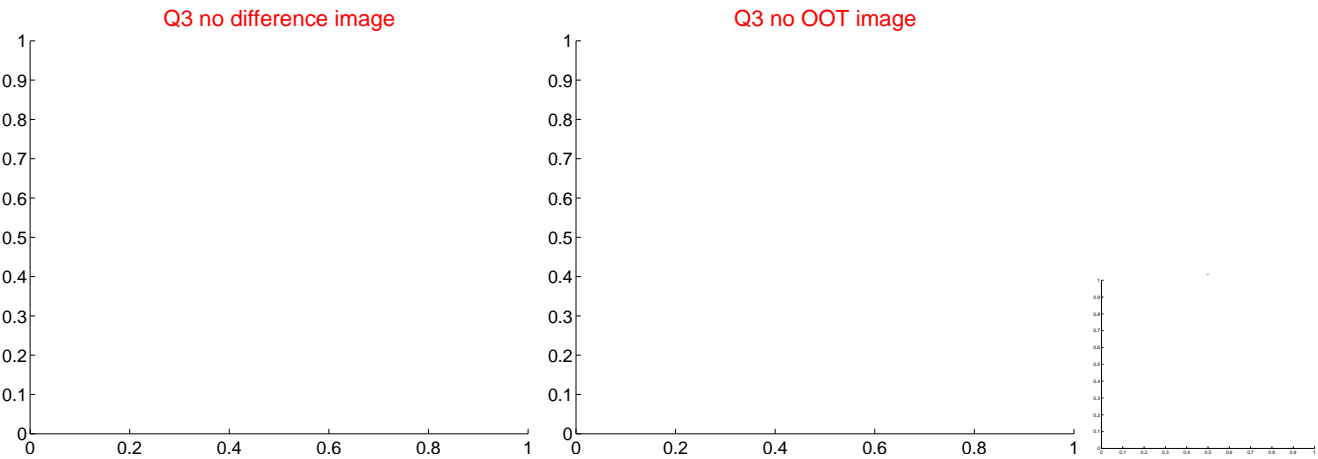
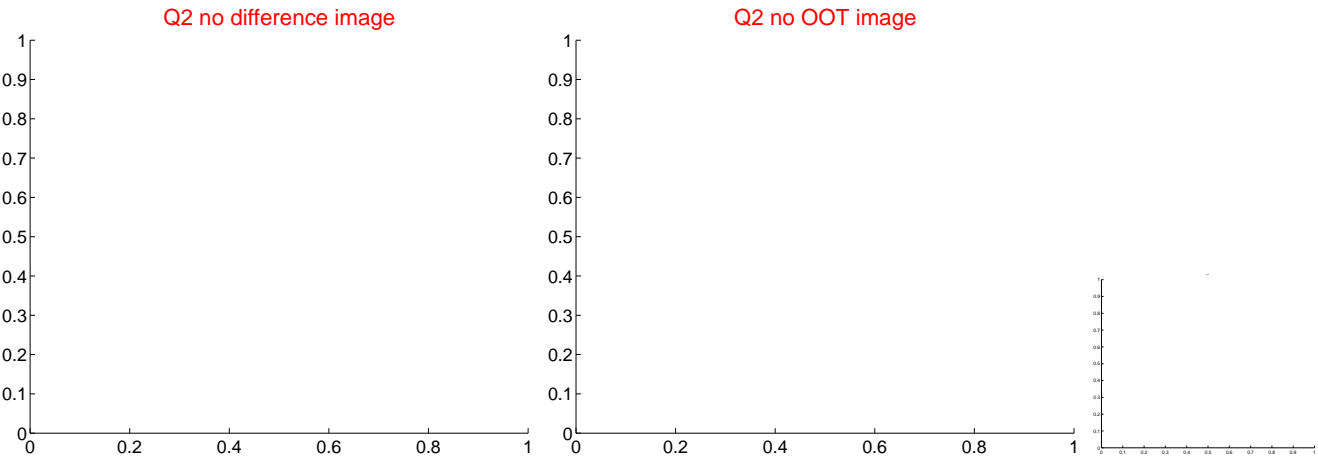
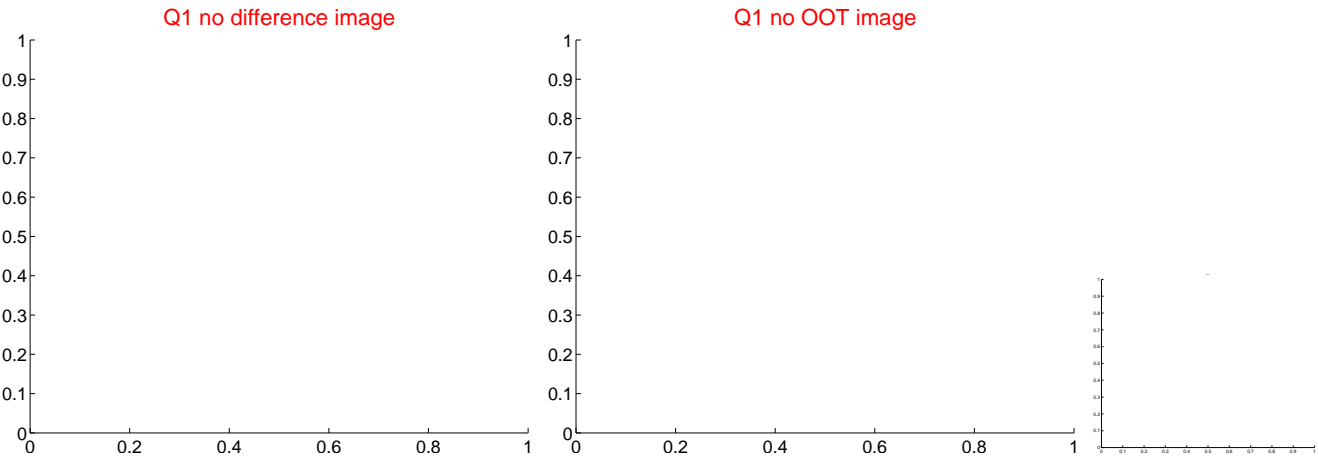
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.477 ± 0.396	1.20	0.336 ± 0.440	0.339 ± 0.347
PRF-fit source offset from KIC position	0.327 ± 0.403	0.81	0.228 ± 0.443	0.234 ± 0.361
photometric centroid source offset	0.42 ± 0.54	0.79	-0.15 ± 0.50	0.40 ± 0.54



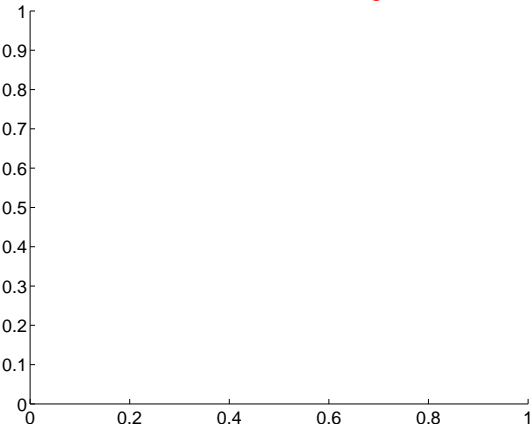
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

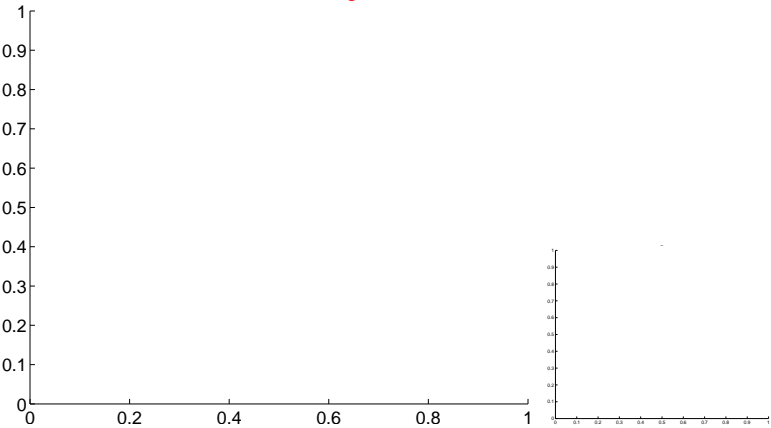


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

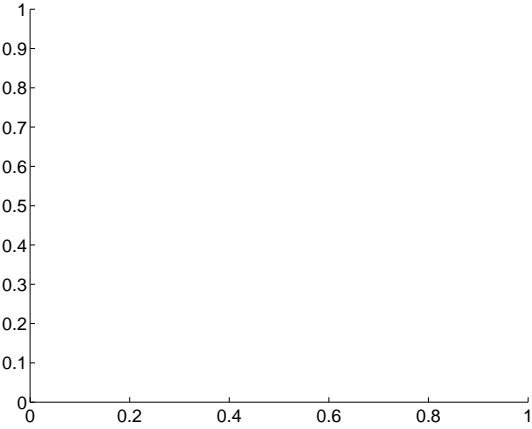
Q5 no difference image



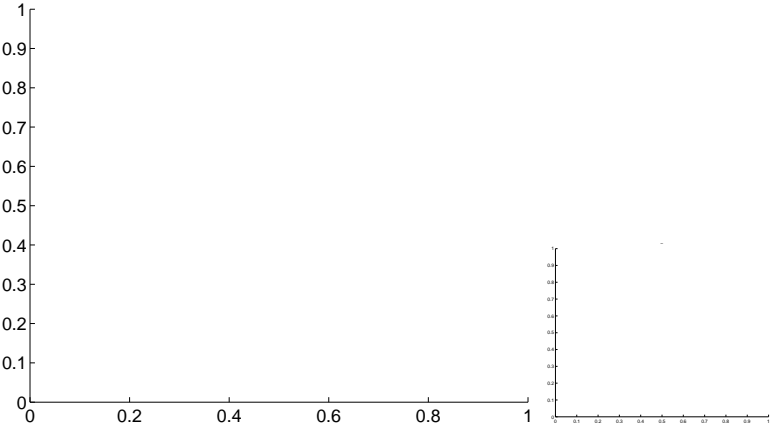
Q5 no OOT image



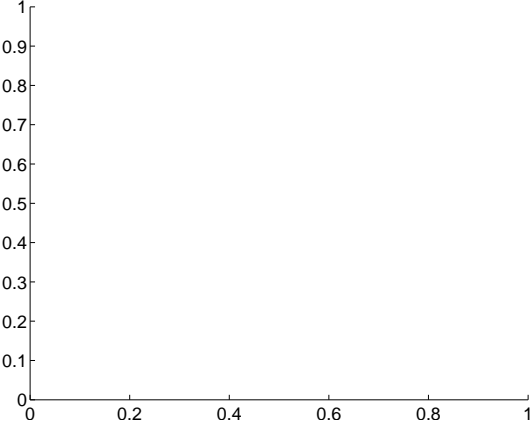
Q6 no difference image



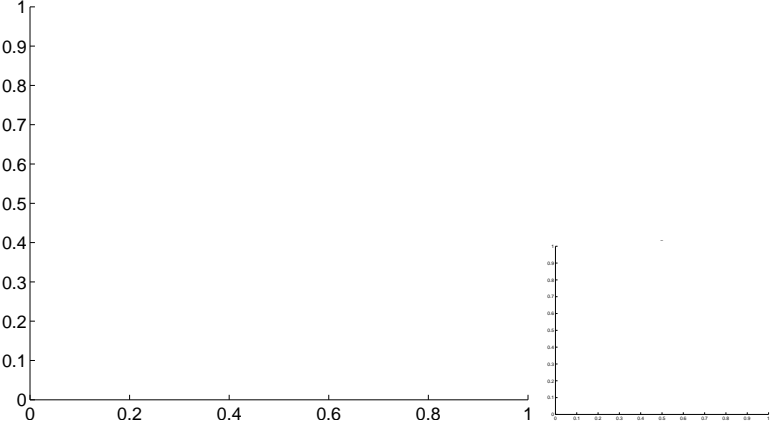
Q6 no OOT image



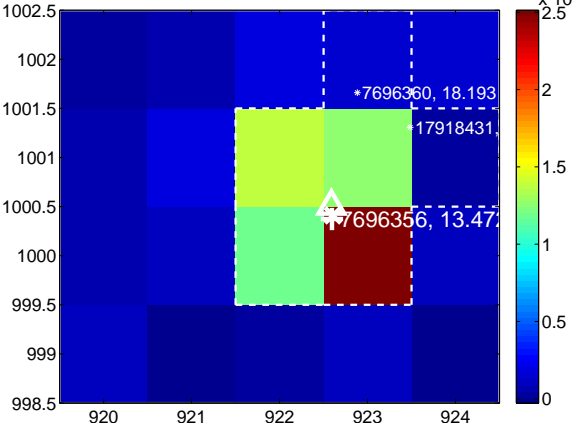
Q7 no difference image



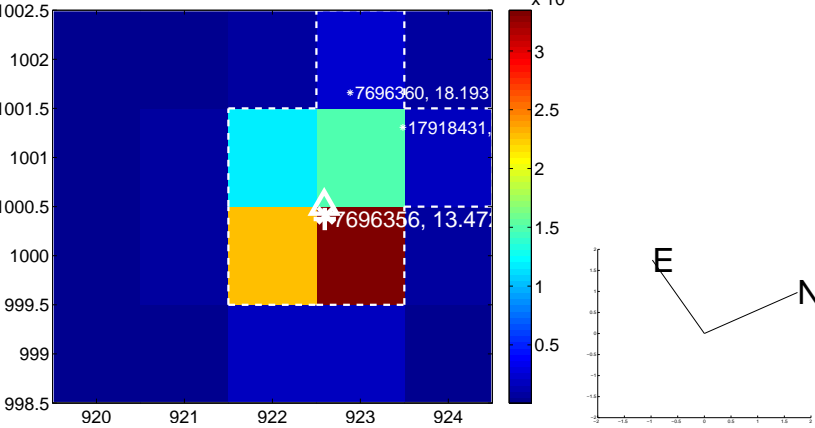
Q7 no OOT image



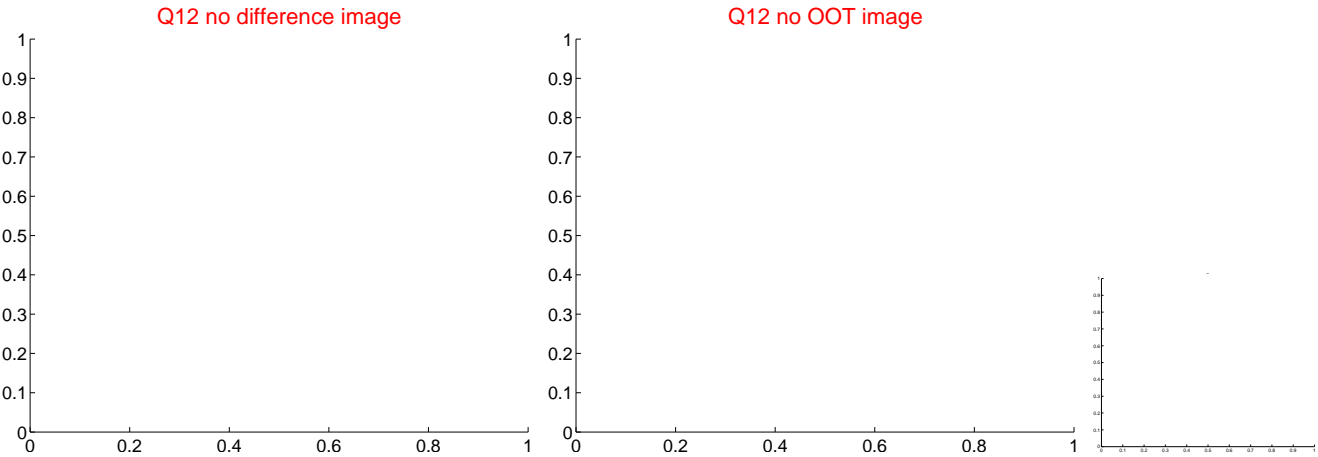
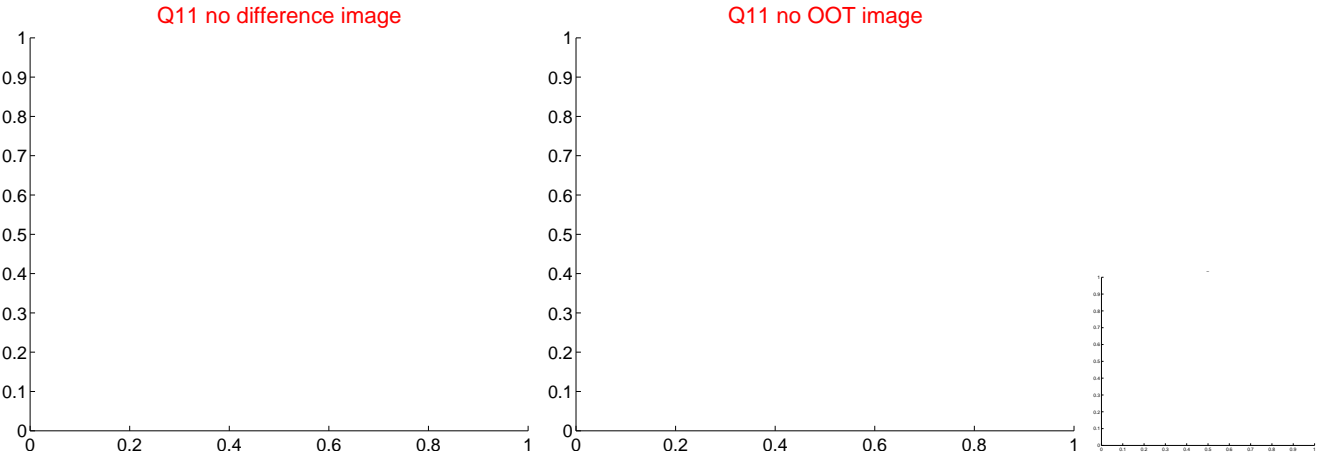
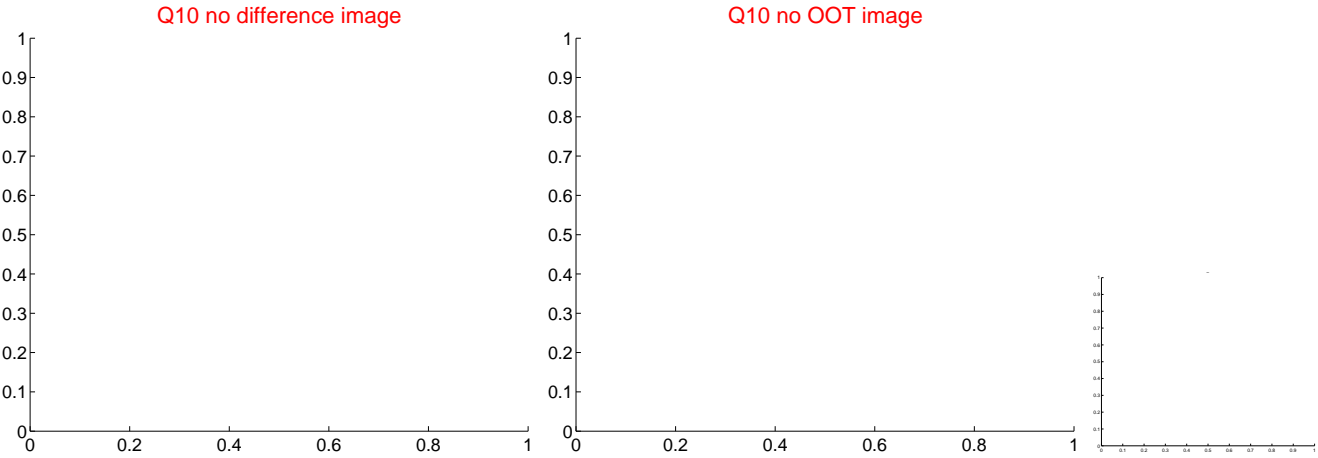
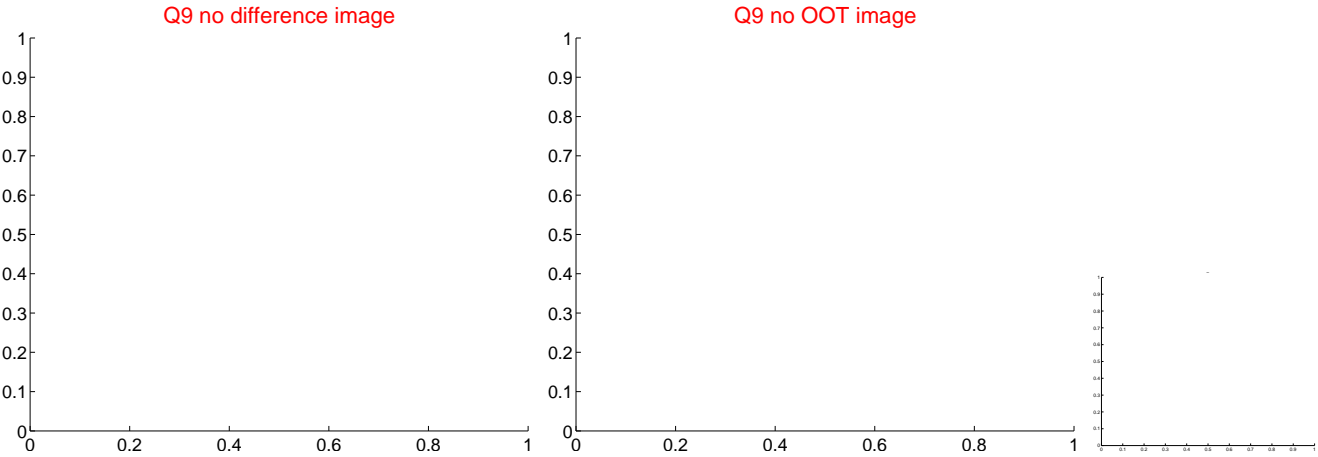
Q8 difference image



Q8 OOT image

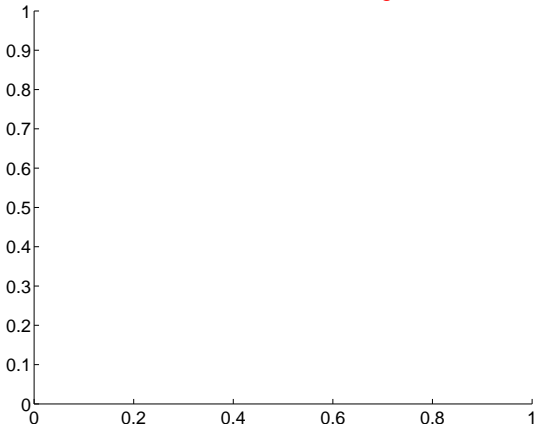


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

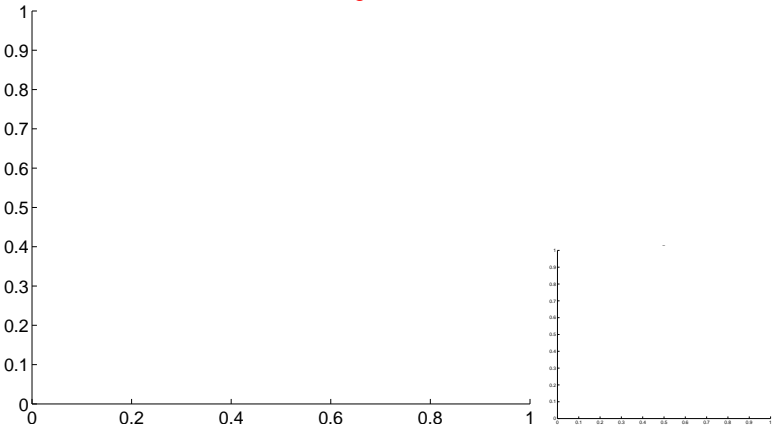


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

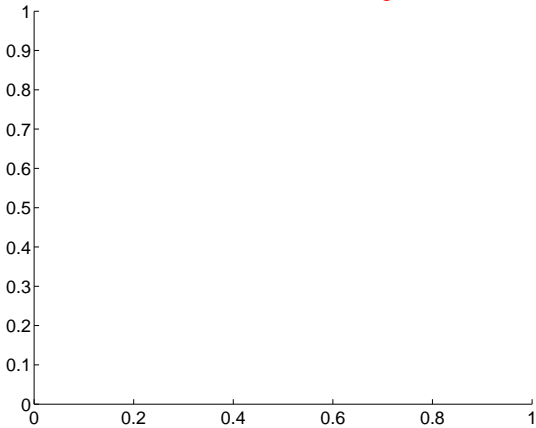
Q13 no difference image



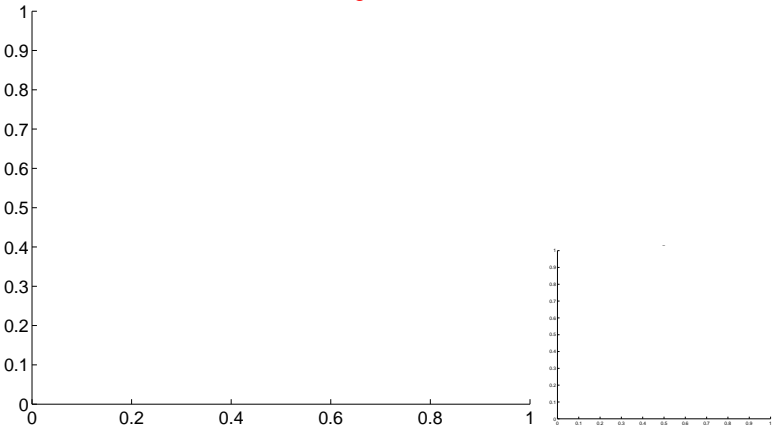
Q13 no OOT image



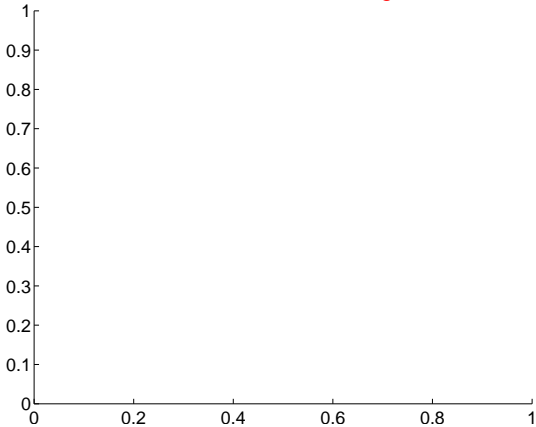
Q14 no difference image



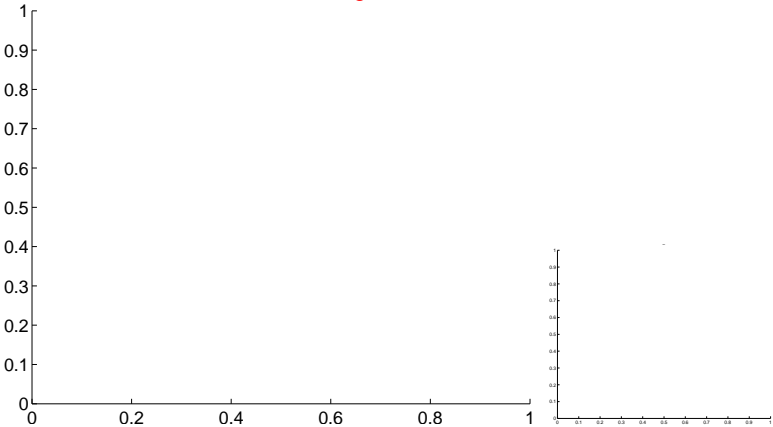
Q14 no OOT image



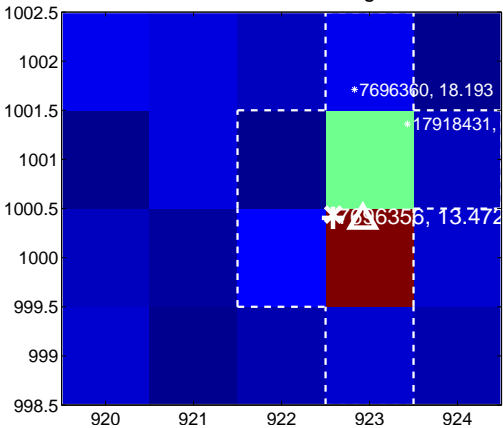
Q15 no difference image



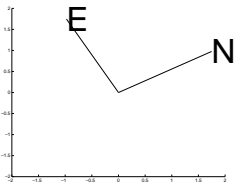
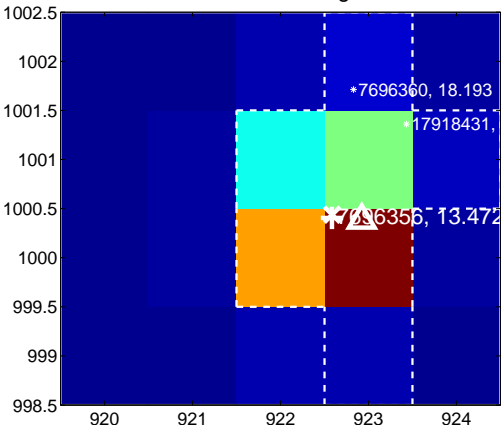
Q15 no OOT image



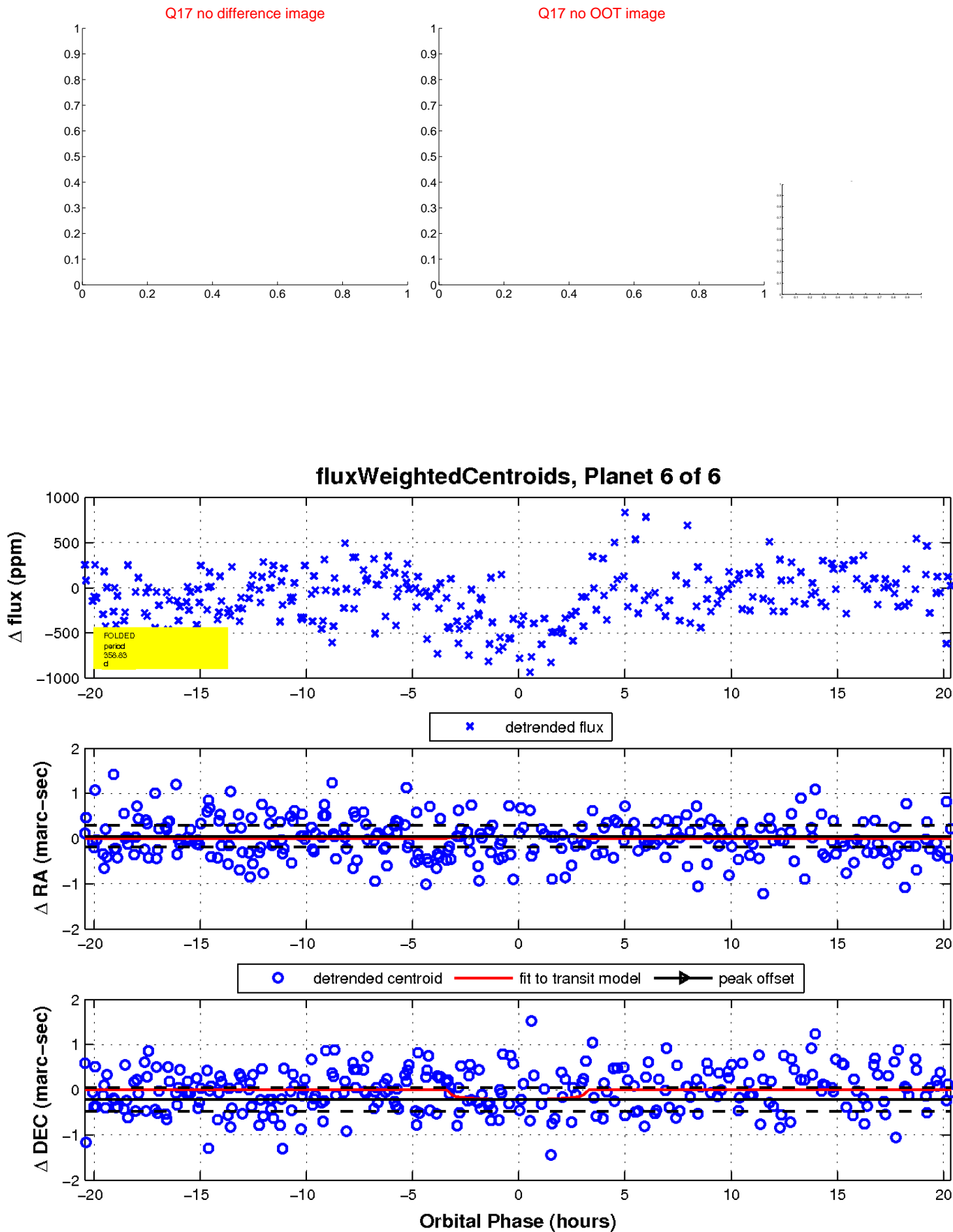
Q16 difference image



Q16 OOT image



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



UKIRT Image

Declination

