

KIC 007339348

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})
007339348-01	OBS	No	85.006629	174.736102	52.1	2.218	24.7	11.0	1.13	5827	0.98	10.47
007339348-02	OBS	No	117.188421	235.852973	87.7	3.565	22.7	22.0	1.13	5827	1.25	6.82
007339348-03	OBS	No	253.869090	286.492737	47.9	1.456	20.6	6.8	1.13	5827	0.84	2.43
007339348-04	OBS	No	75.903318	135.248398	6.8	7.330	18.3	0.9	1.13	5827	0.32	12.17
007339348-05	OBS	No	33.345513	156.832396	61.3	1.073	19.0	31.2	1.13	5827	0.94	36.45
007339348-06	OBS	No	140.551536	211.926482	108.0	16.401	14.3	13.6	1.13	5827	1.27	5.35
007339348-07	OBS	No	172.817646	161.999799	5.1	10.356	17.1	0.9	1.13	5827	0.30	4.06
007339348-08	OBS	No	95.310334	158.857260	27.7	2.762	17.3	4.2	1.13	5827	0.72	8.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007339348-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

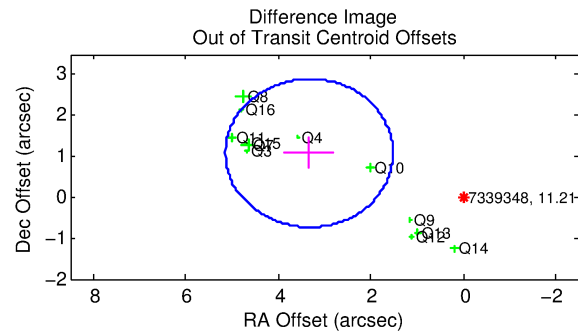
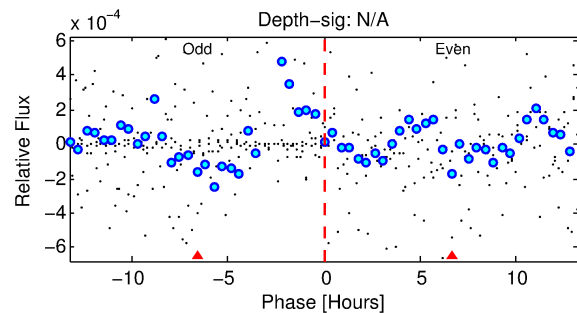
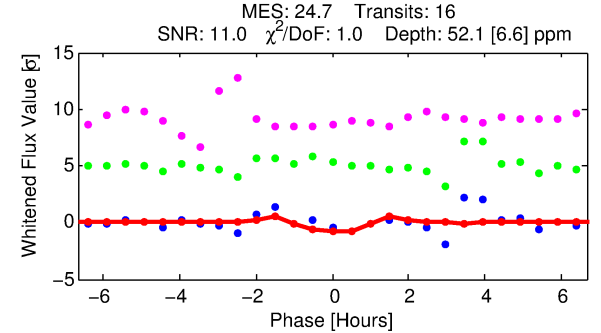
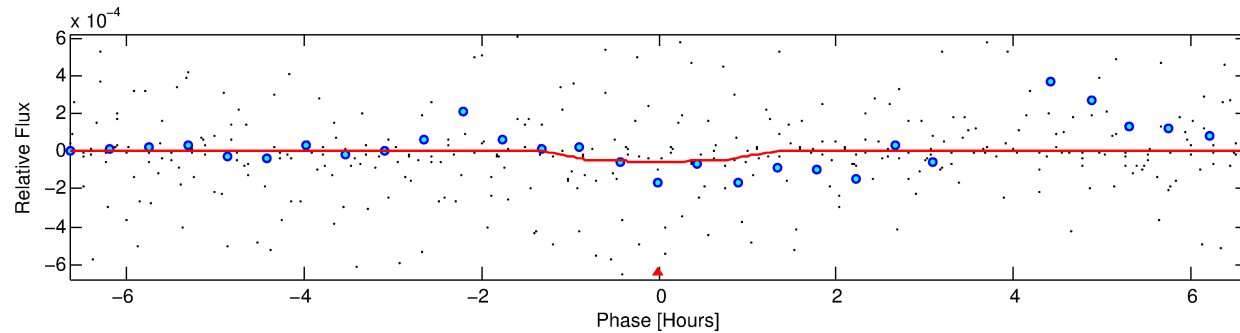
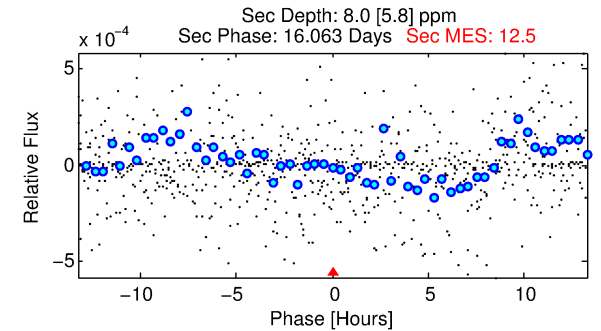
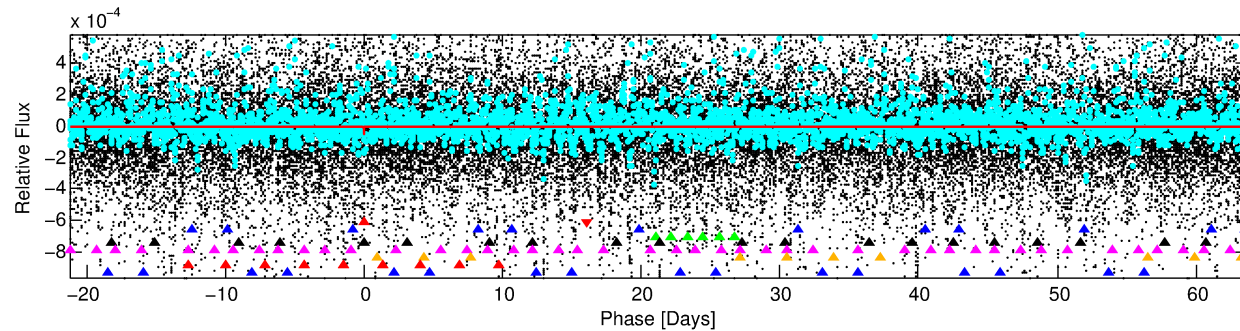
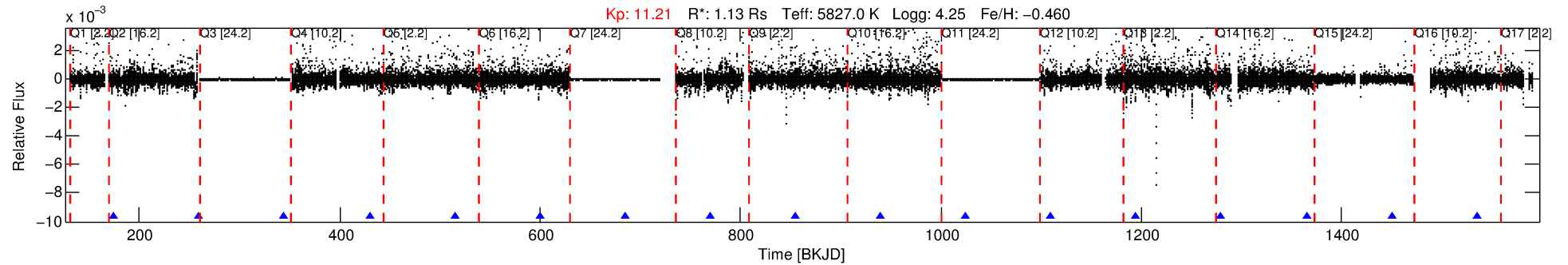
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007339348-01

No Significant Match Found

DV One-Page Summary

KIC: 7339348 Candidate: 1 of 8 Period: 85.007 d



DV Fit Results:

Period = 85.00663 [0.00068] d
Epoch = 174.7361 [0.0063] BKJD
Rp/R* = 0.0080 [0.0101]
a/R* = 117.11 [793.35]
b = 0.93 [1.07]
Seff = 10.47 [5.20]
Teq = 459 [57] K
Rp = 0.98 [1.28] Re
a = 0.3537 [0.1053] AU
Ag = 567.06 [1515.69] [0.37σ]
Teffp = 3460 [2278] K [1.32σ]

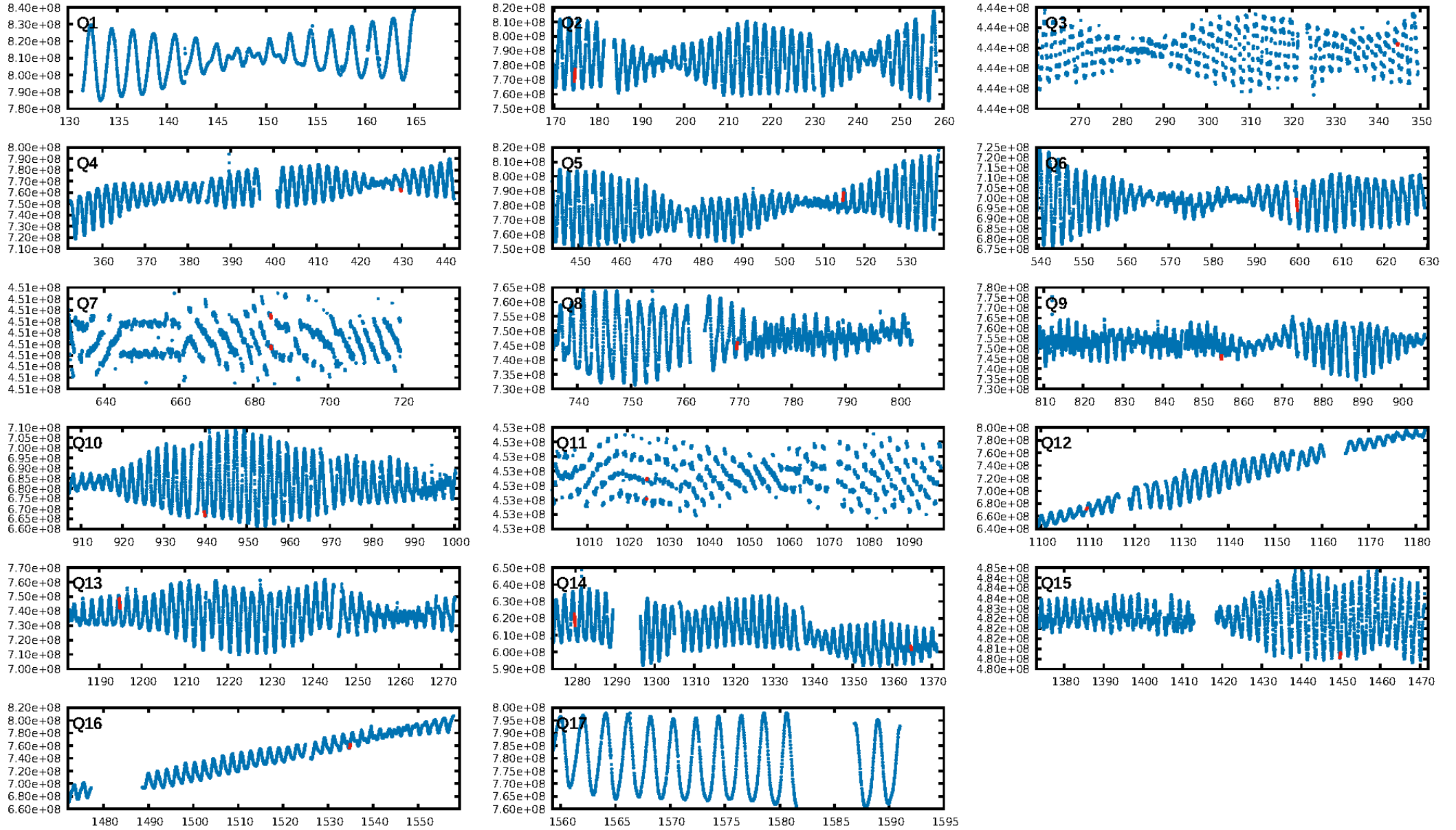
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [28.53σ]
LongPeriod-sig: 100.0% [69.81σ]
ModelChiSquare2-sig: 18.3%
ModelChiSquareGof-sig: 97.0%
Bootstrap-pfa: 6.26e-17
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: -1.345
Centroid-sig: 14.1%
Centroid-so: 11.996 arcsec [0.98σ]
OotOffset-rm: 3.505 arcsec [5.80σ]
KicOffset-rm: 2.505 arcsec [4.38σ]
OotOffset-st: 2/4/4/2 [12]
KicOffset-st: 2/4/4/2 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 0.93 [13/14]

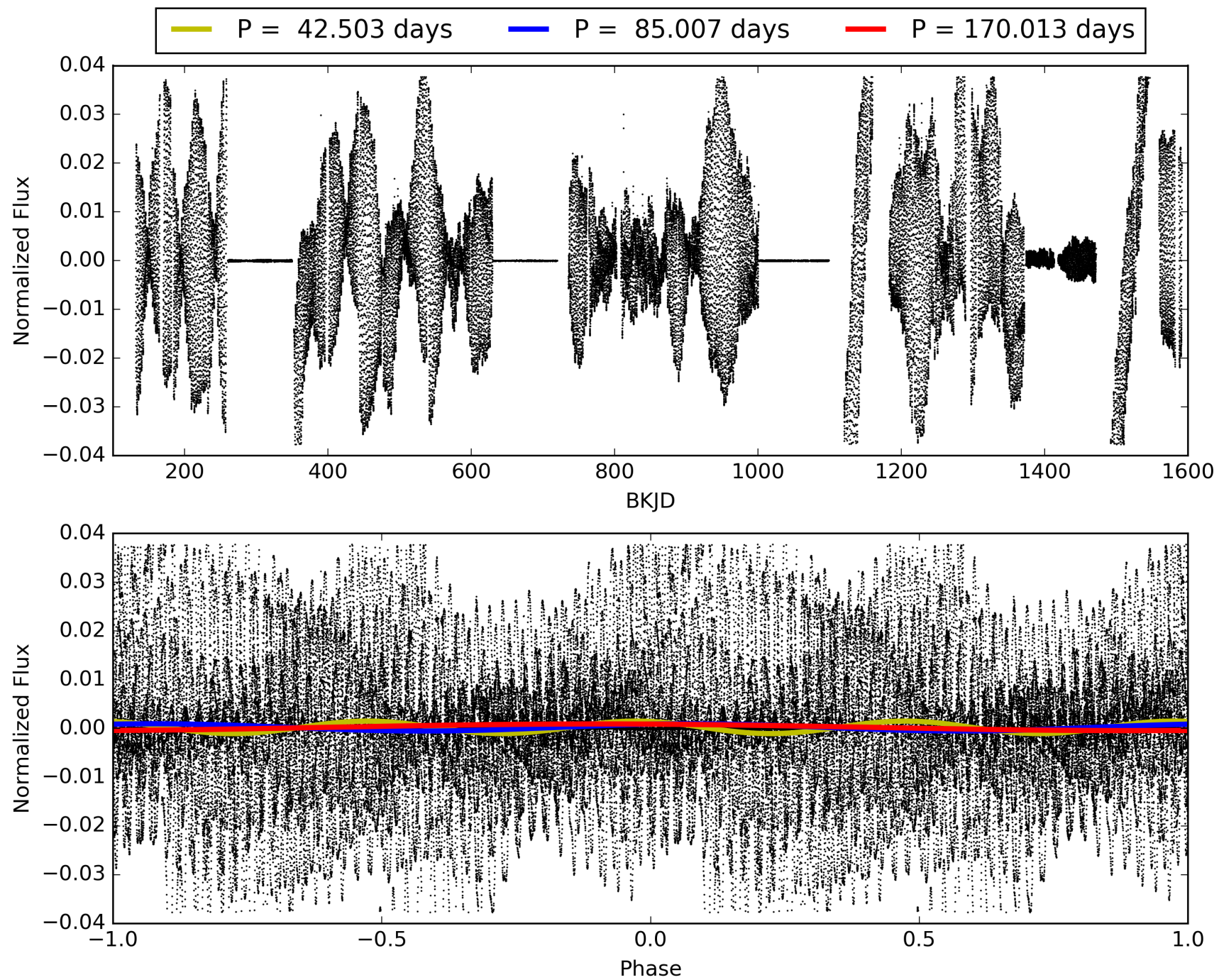
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:29:11 Z

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

TCE 007339348-01, PDC Light Curves

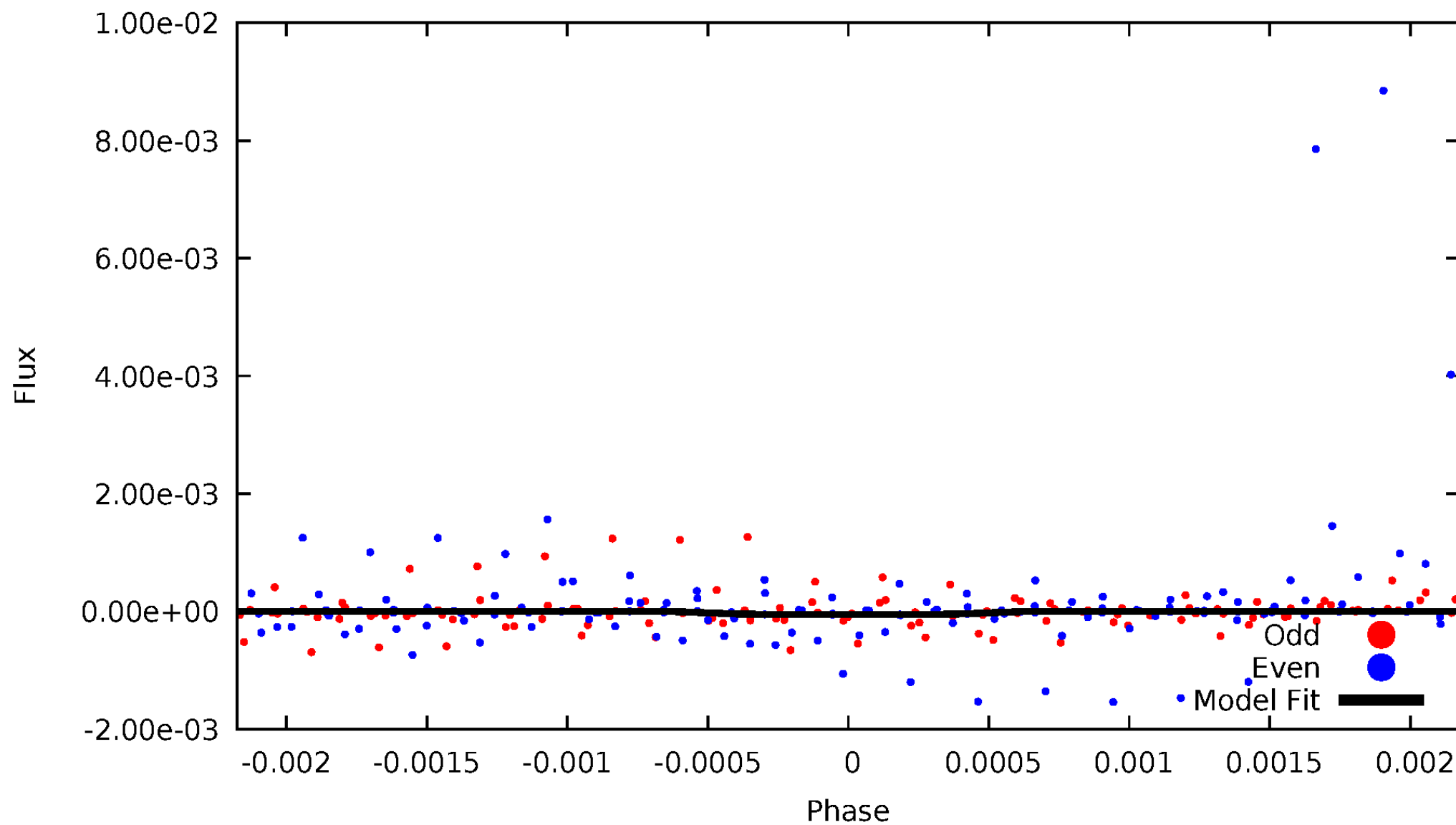


TCE 007339348-01



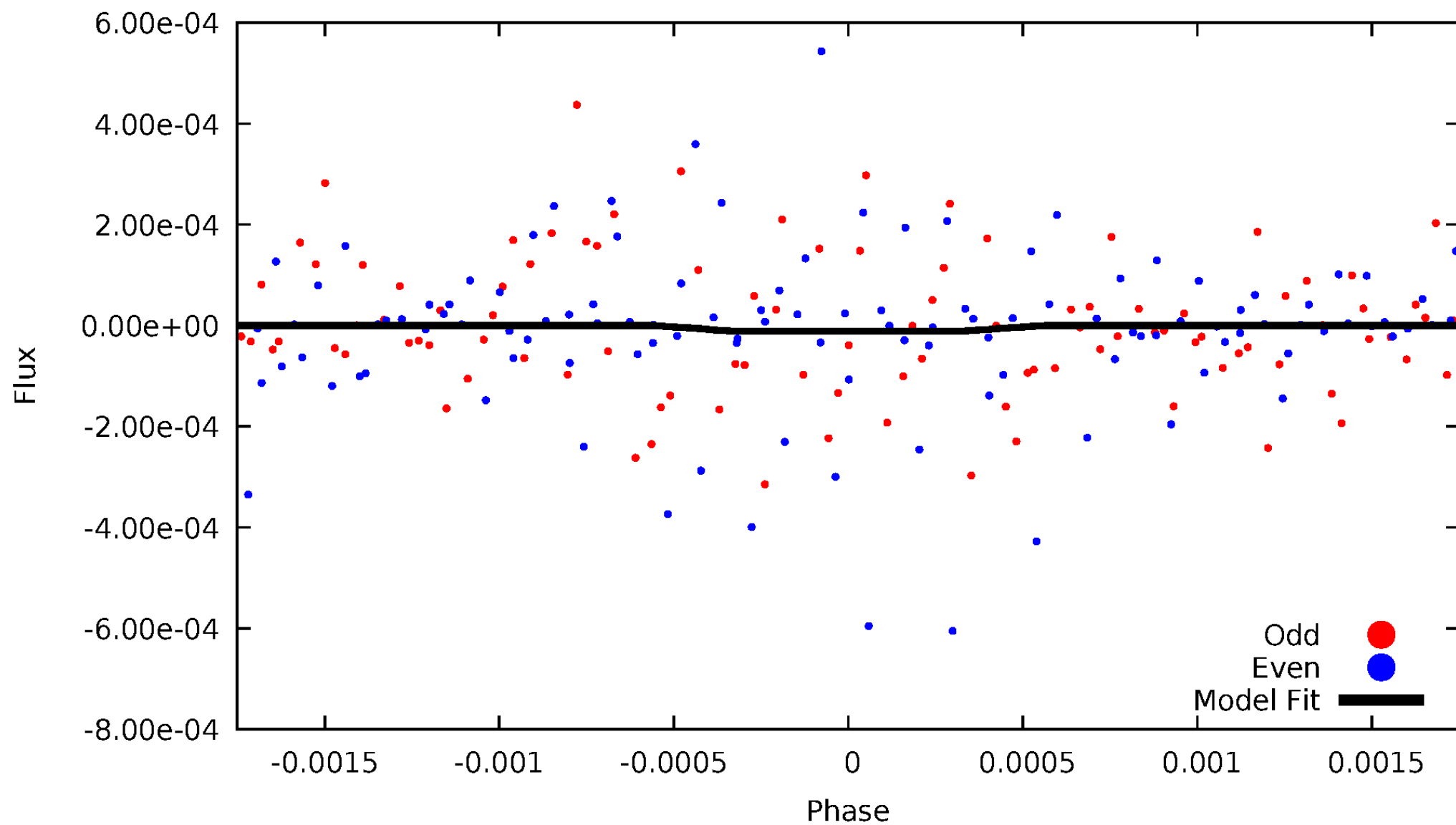
DV Odd/Even

TCE 007339348-01



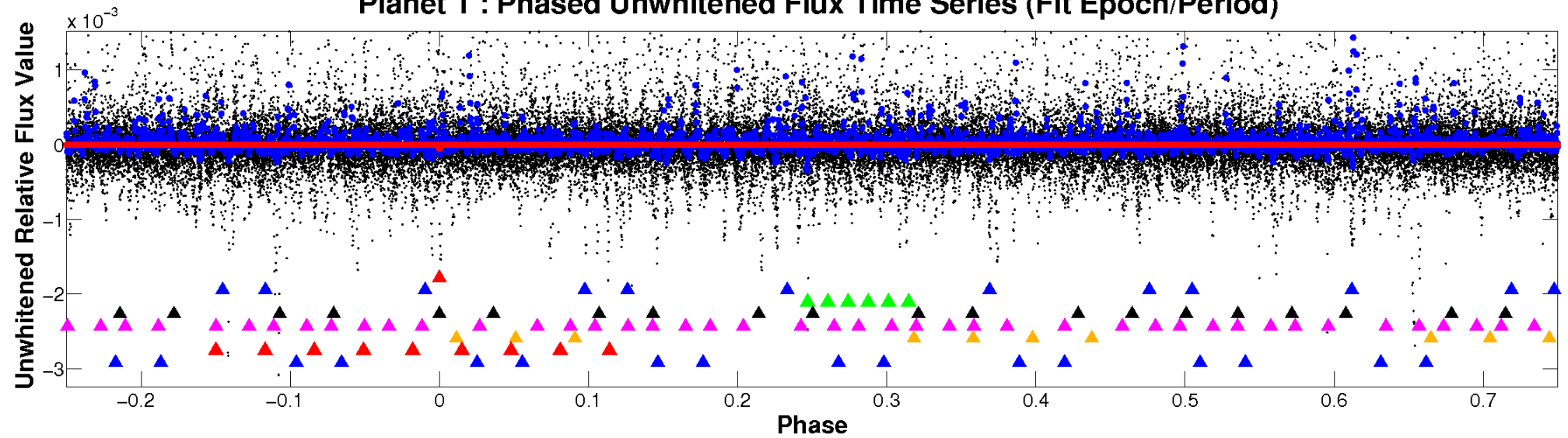
ALT Odd/Even

TCE 007339348-01

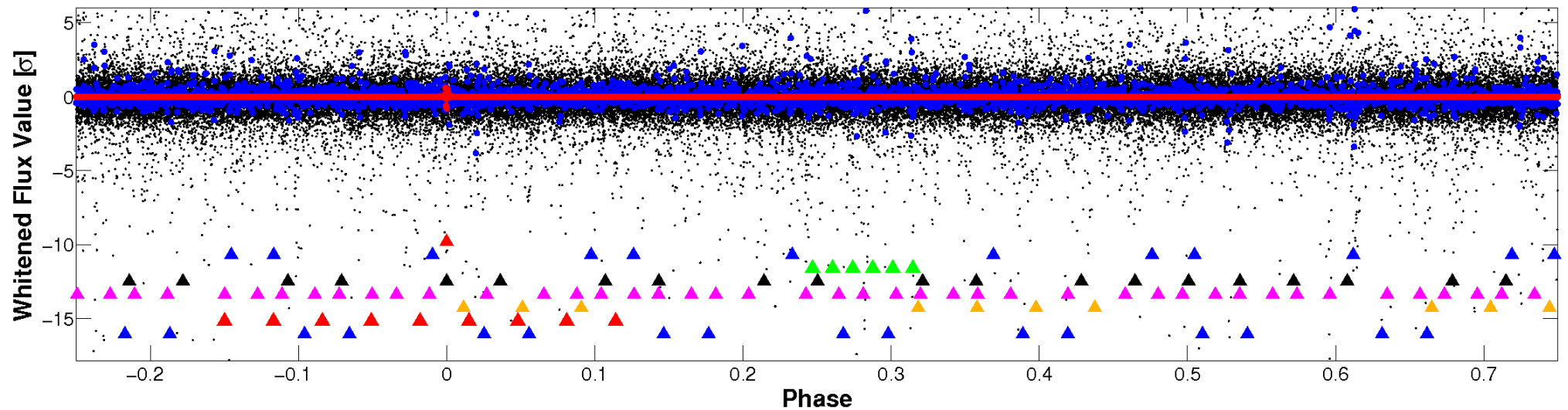


Non-Whitened Vs. Whitened Light Curve

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

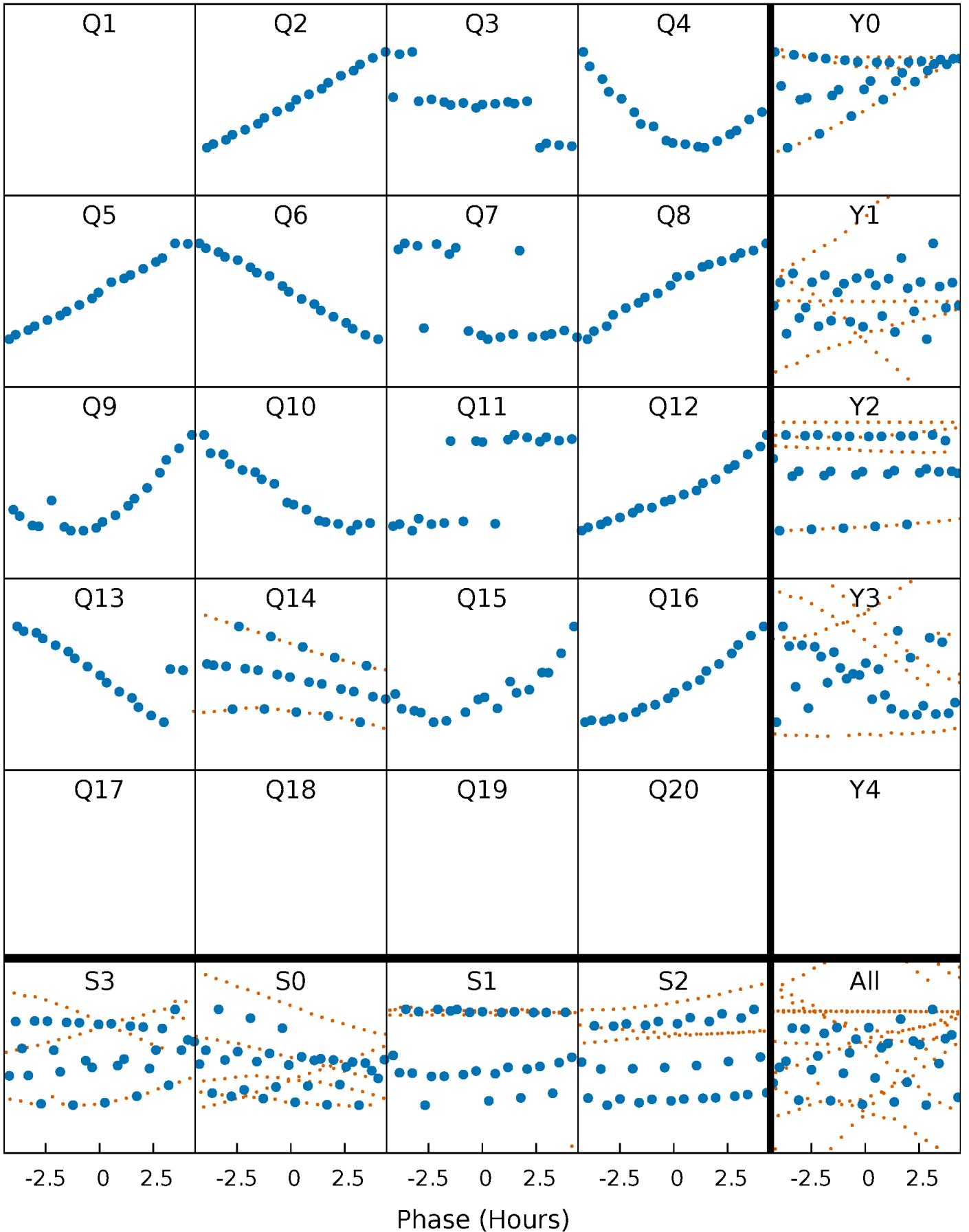


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



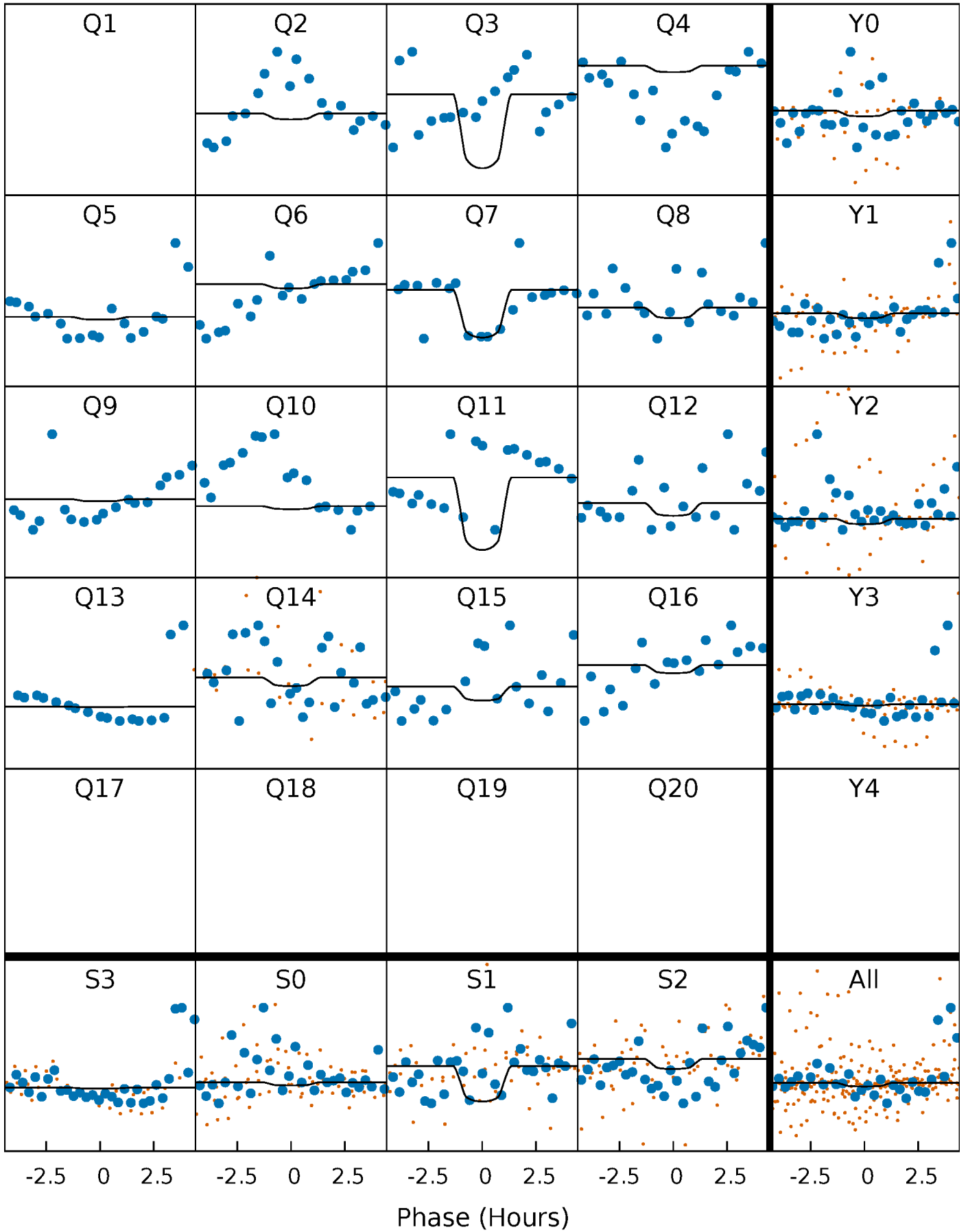
PDC Quarter-Phased Transit Curves

TCE 007339348-01 P= 85.006629 Days $T_0=174.736102$ (BKJD)



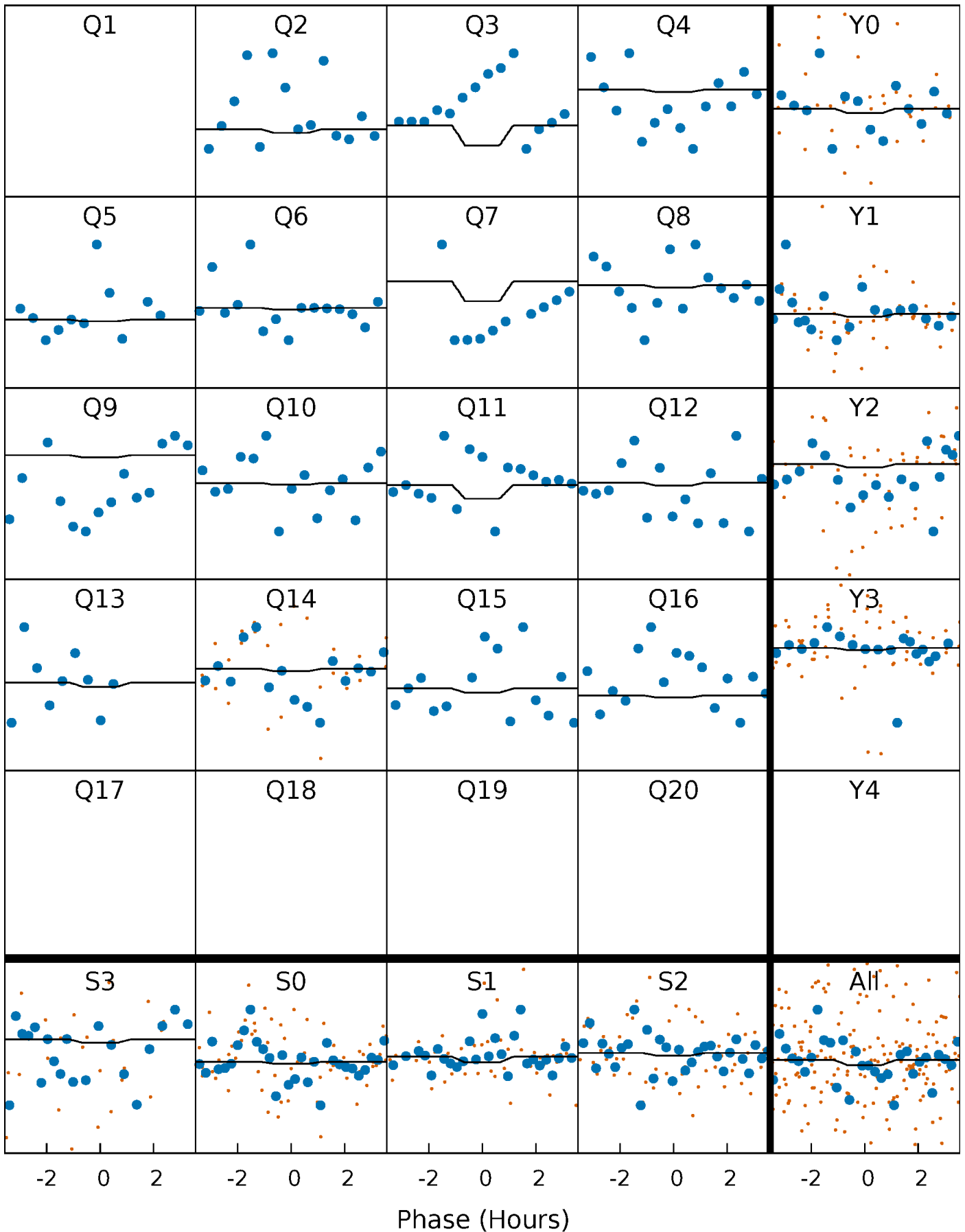
DV Quarter-Phased Transit Curves

TCE 007339348-01 P= 85.006629 Days $T_0=174.736102$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

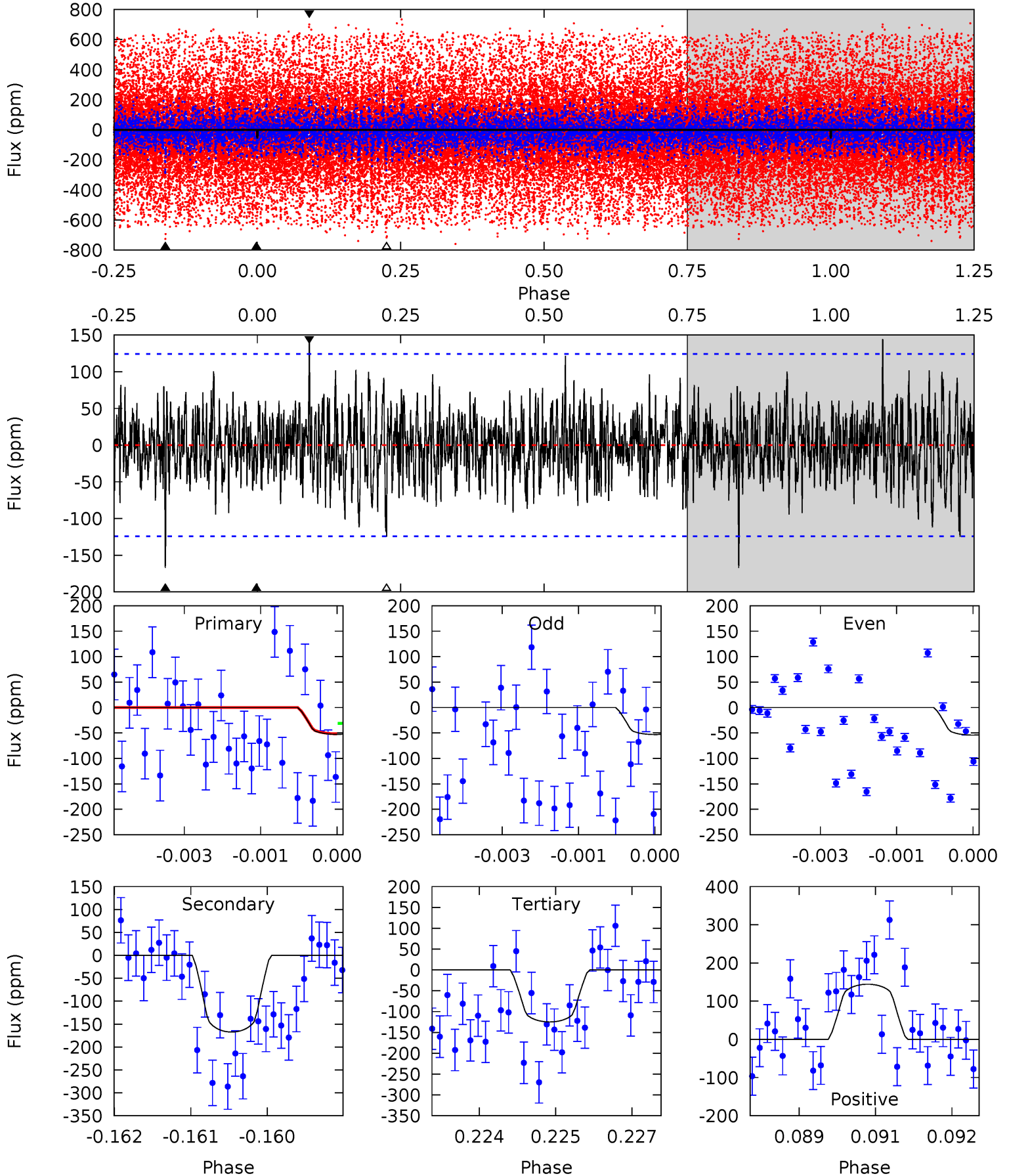
TCE 007339348-01 P= 85.002624 Days $T_0=174.782439$ (BKJD)



DV Model-Shift Uniqueness Test

007339348-01, P = 85.006629 Days, E = 89.729473 Days

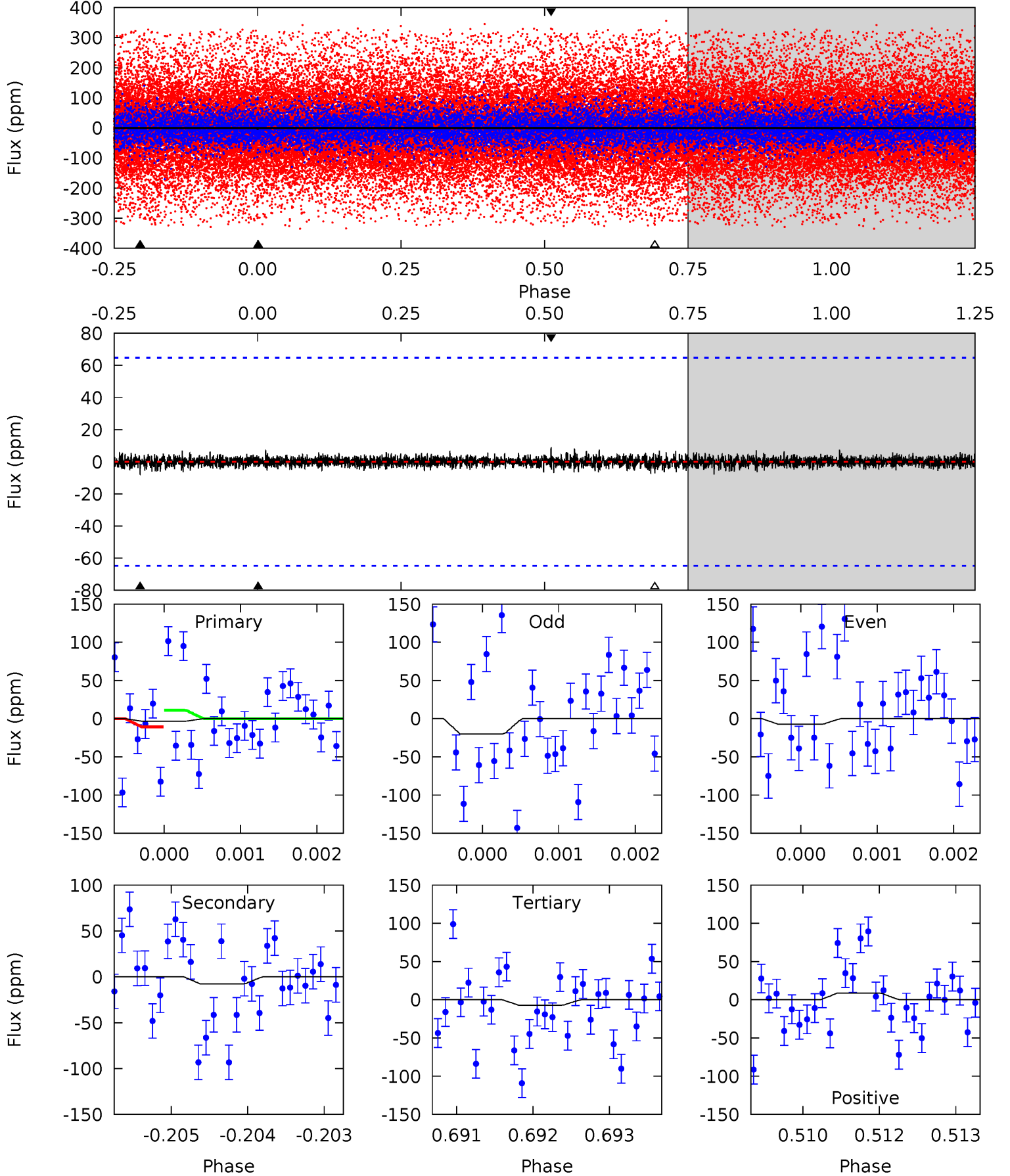
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.30	7.29	5.44	6.29	5.41	3.23	1.54	-3.14	-3.99	1.85	1.00	0.02	3.32	0.46	0.45



Alt Model-Shift Uniqueness Test

007339348-01, P = 85.002624 Days, E = 89.779815 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.28	0.65	0.60	0.72	5.44	3.27	0.17	-0.32	-0.44	0.06	-0.07	0.53	2.82	0.52	0.01



Stellar Parameters For KIC 007339348

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5827^{+193}_{-175}	$4.247^{+0.282}_{-0.212}$	$-0.460^{+0.300}_{-0.300}$	$1.126^{+0.345}_{-0.314}$	$0.816^{+0.126}_{-0.054}$	$0.805^{+1.193}_{-0.421}$
	+3%/-3%	+7%/-5%	+65%/-65%	+31%/-28%	+15%/-7%	+148%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007339348-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-167 ± 23	$1.23^{+1.27}_{-0.80}$	642^{+58}_{-56}	6564^{+6553}_{-1759}	7650^{+56113}_{-5731}
Alt.	-8 ± 12	$1.02^{+1.03}_{-0.71}$	642^{+57}_{-59}	3497^{+2168}_{-6749}	324^{+4587}_{-495}

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

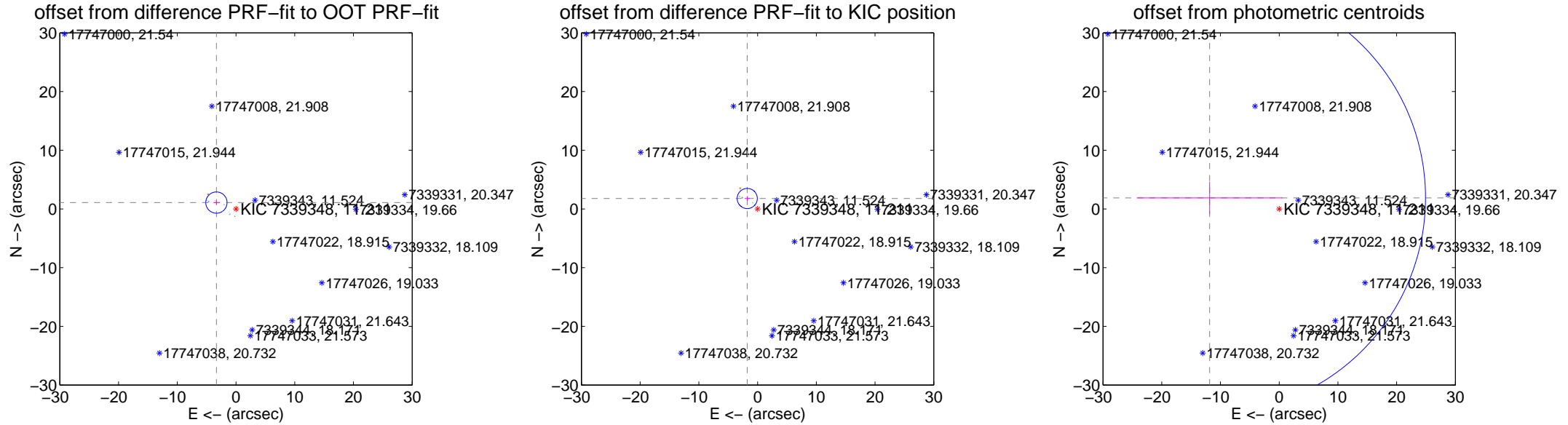
DV Centroid Data

Supplemental centroid analysis for 007339348-01. **Kepler magnitude: 11.21.** Transit SNR 11.04

There are 8 quarters with good PRF difference image offsets

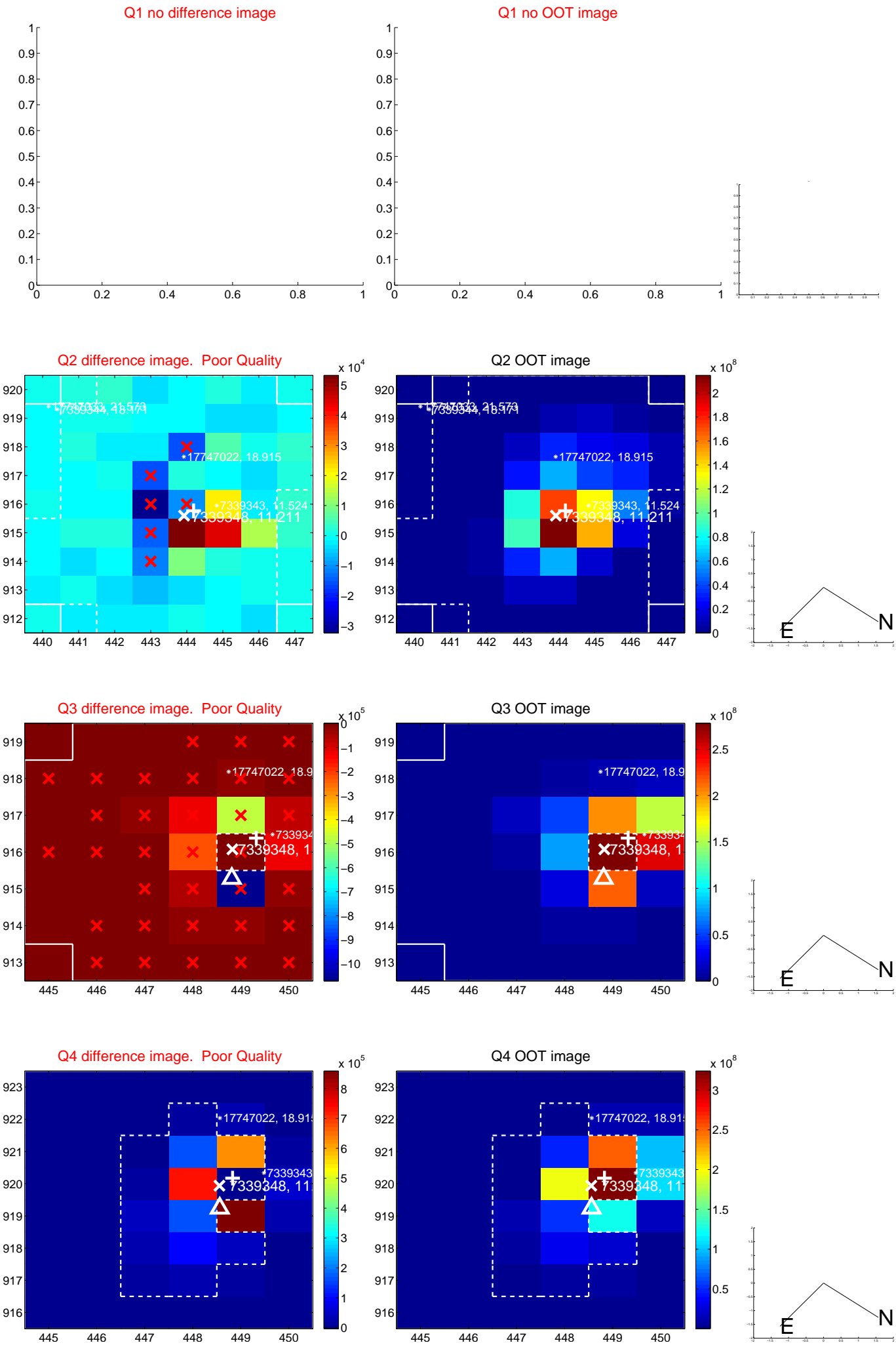
The OOT PRF centroid is offset from the target star catalog position by about 2.16 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.505 ± 0.605	5.80	3.334 ± 0.526	1.081 ± 0.365
PRF-fit source offset from KIC position	2.505 ± 0.572	4.38	1.764 ± 0.433	1.779 ± 0.391
photometric centroid source offset	12.00 ± 12.25	0.98	11.85 ± 12.40	1.88 ± 2.78

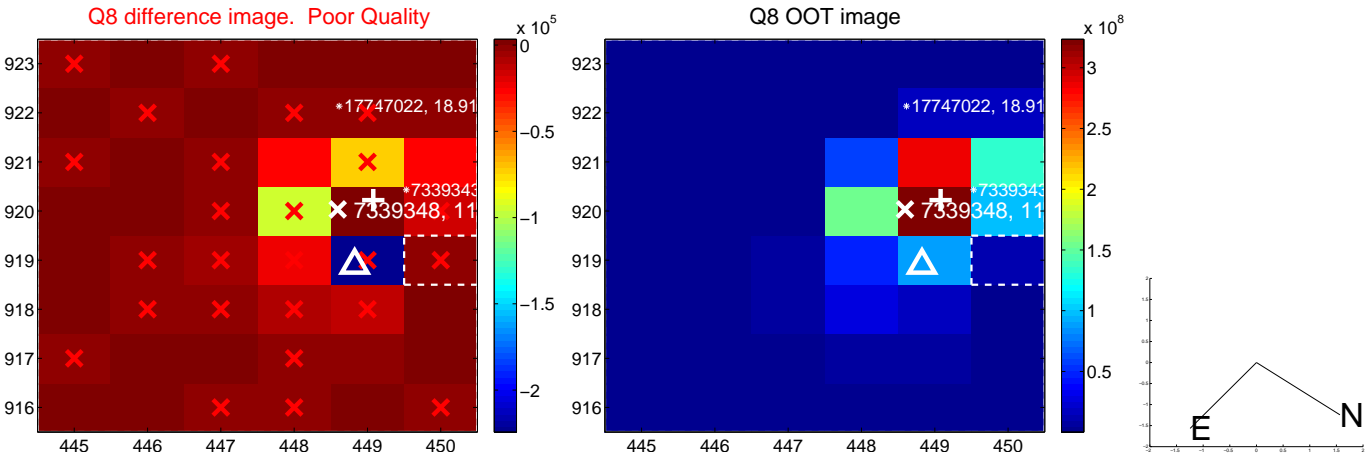
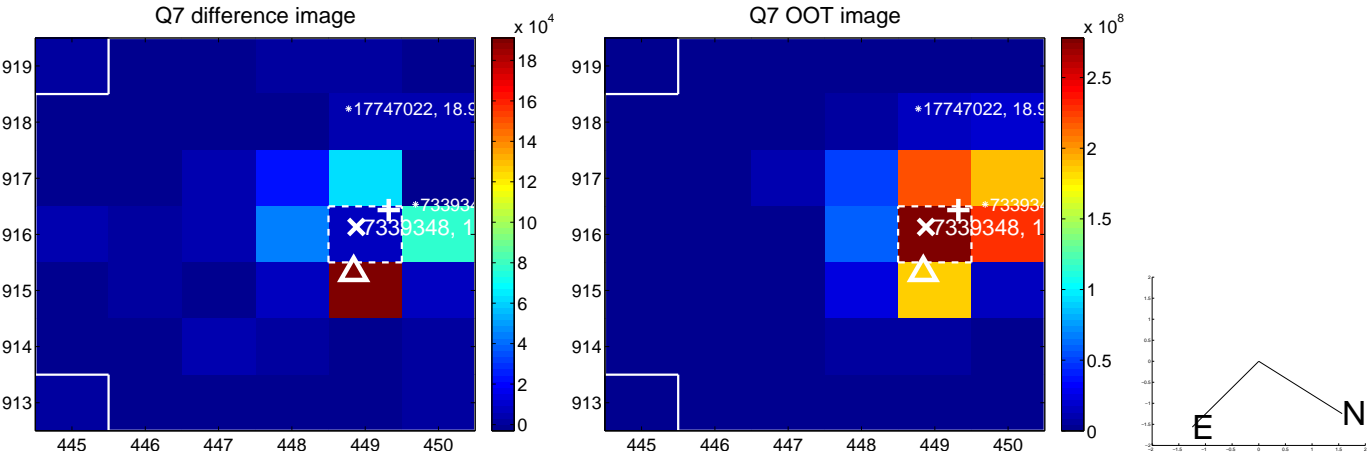
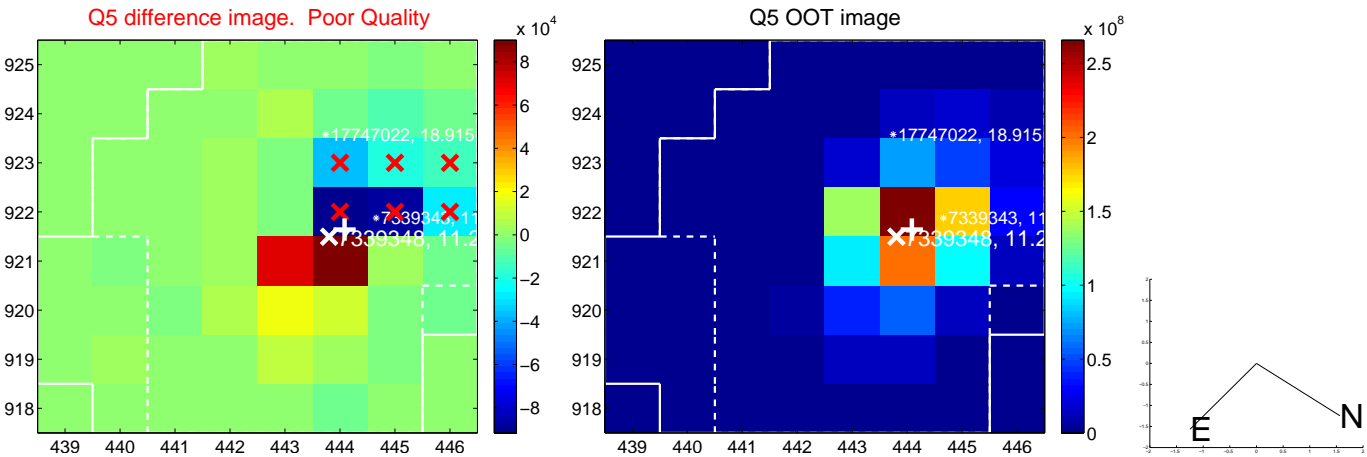


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

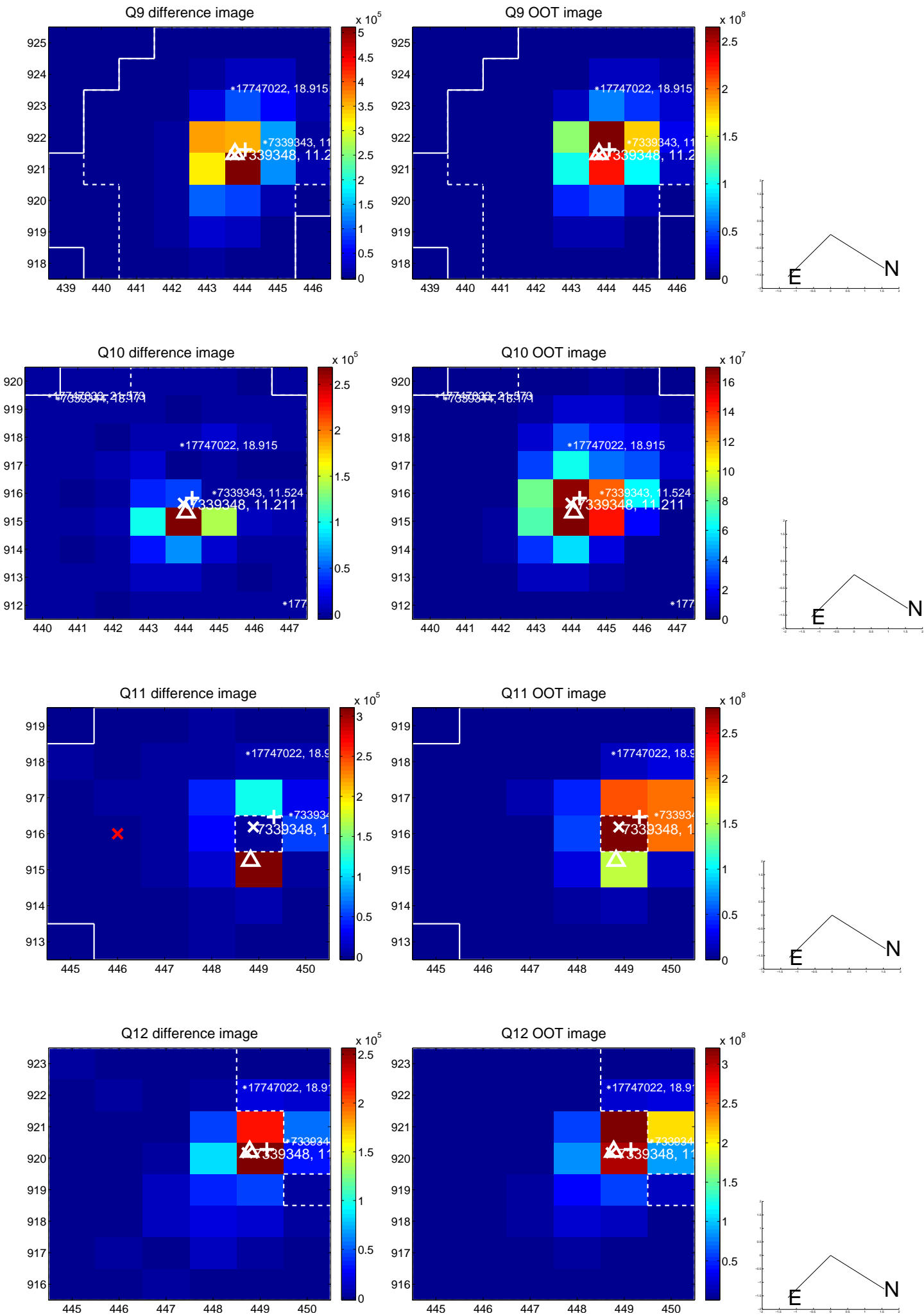
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



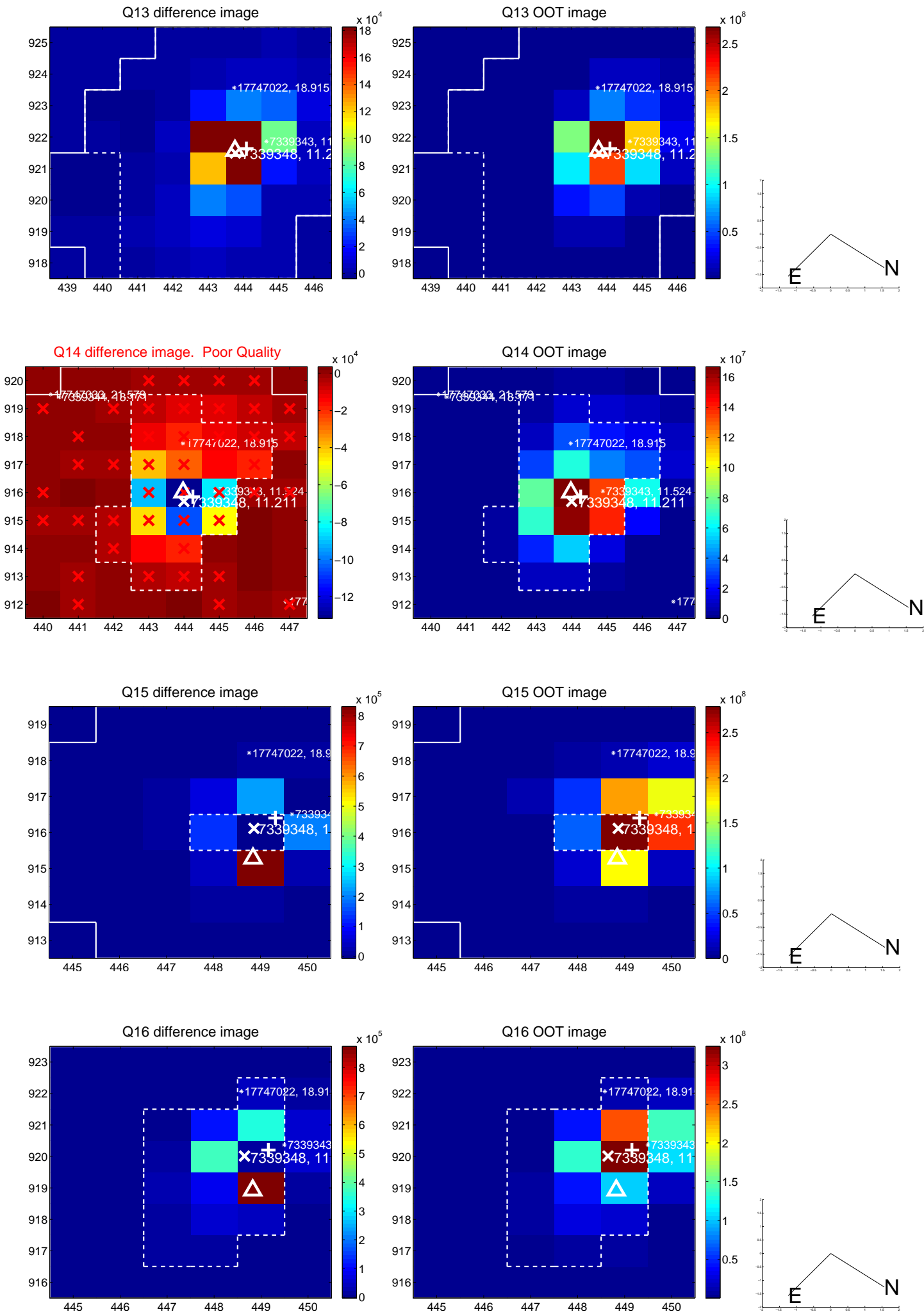
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



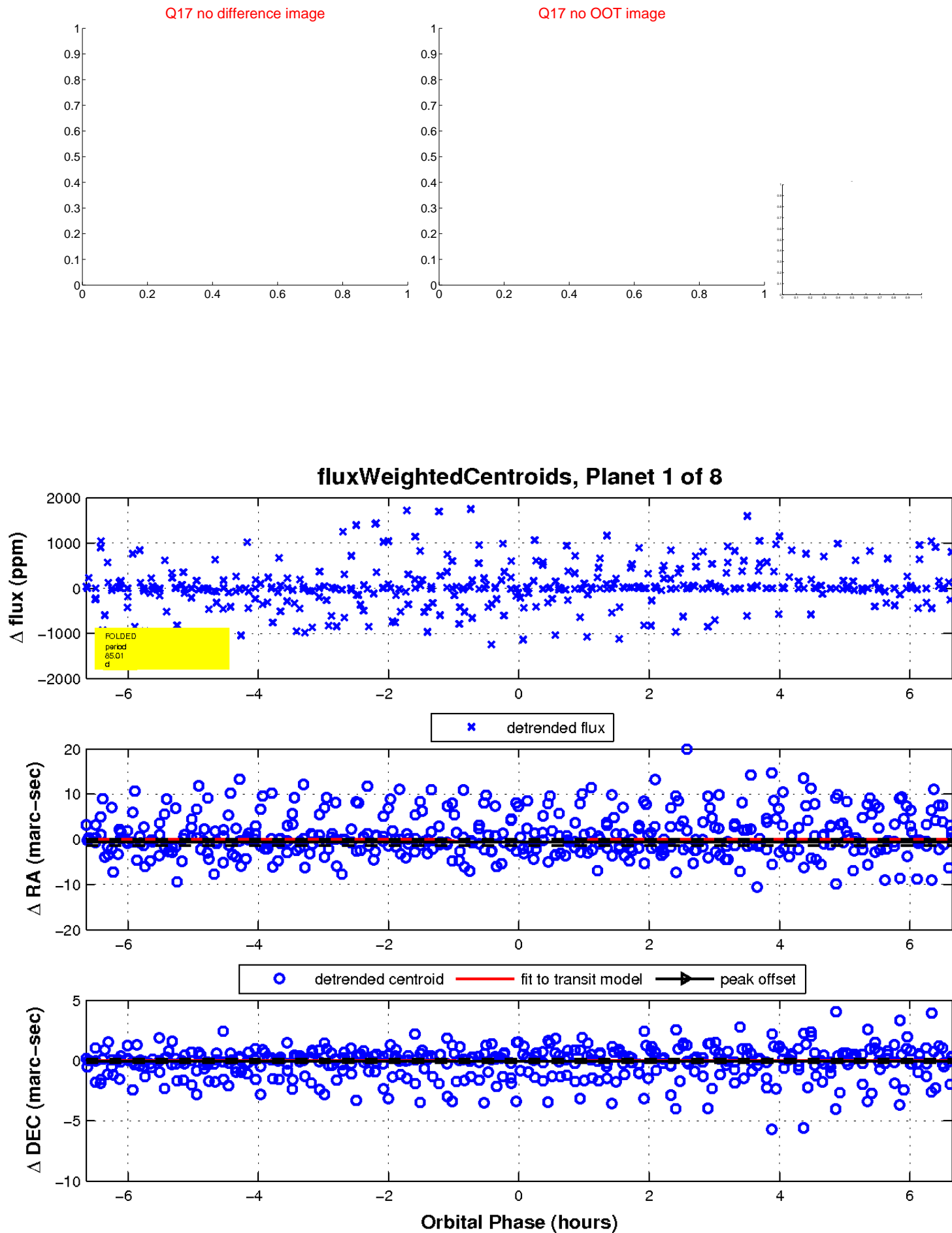
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



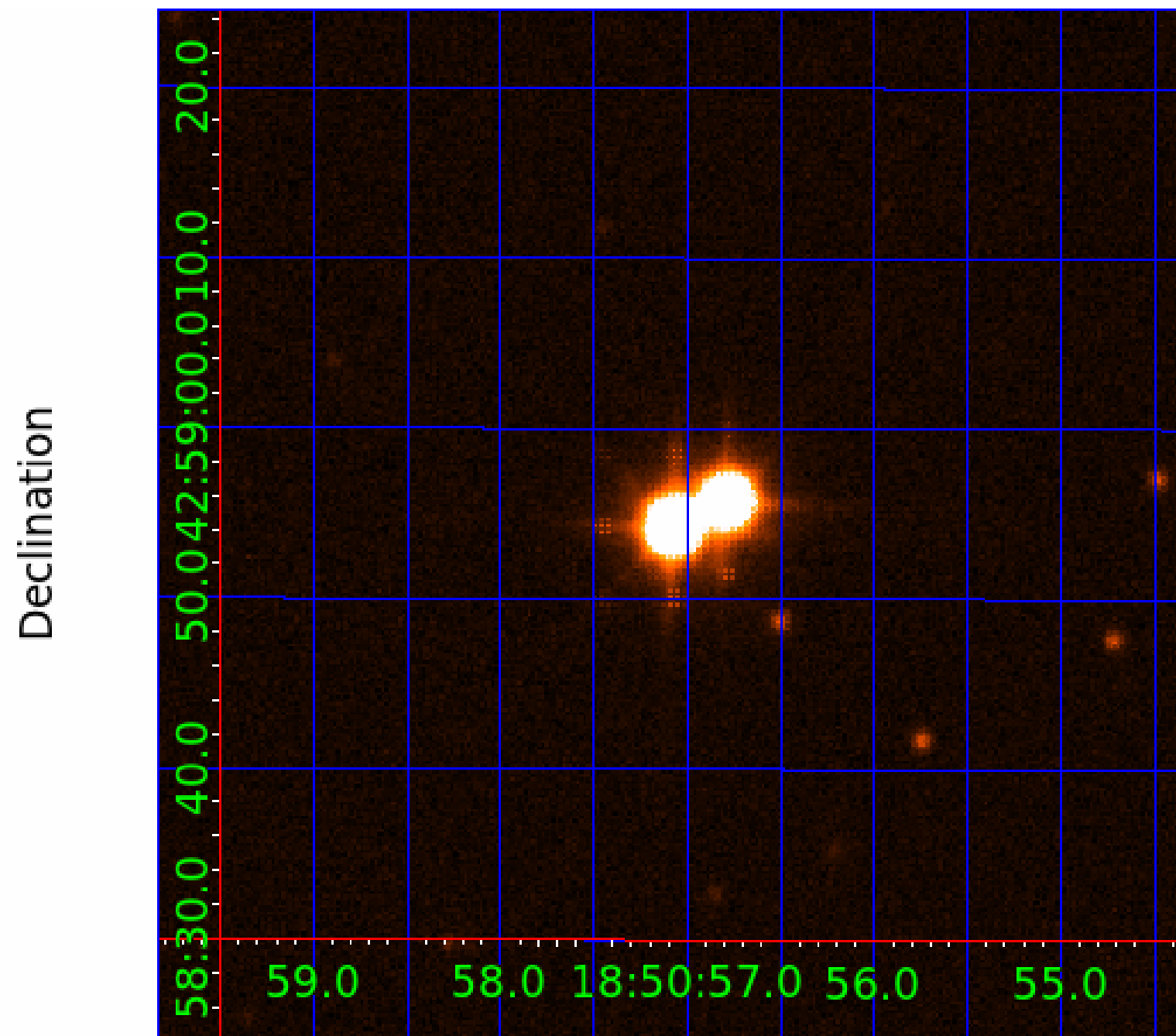
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007339348

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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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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007339348-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

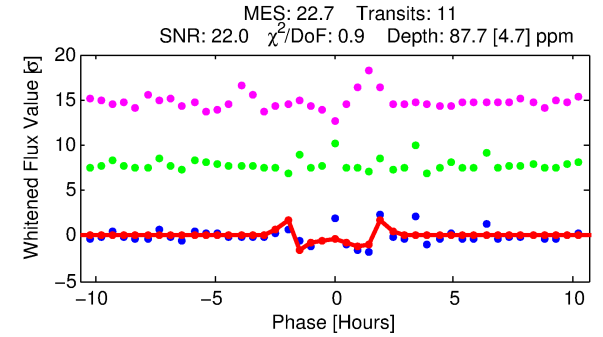
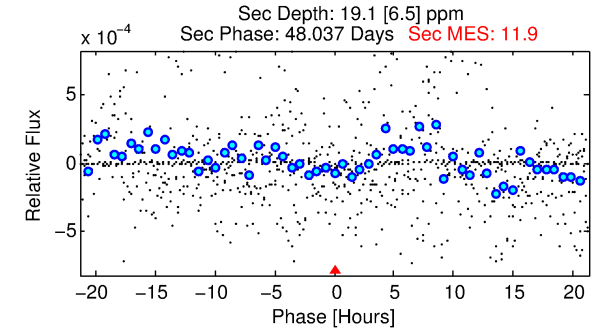
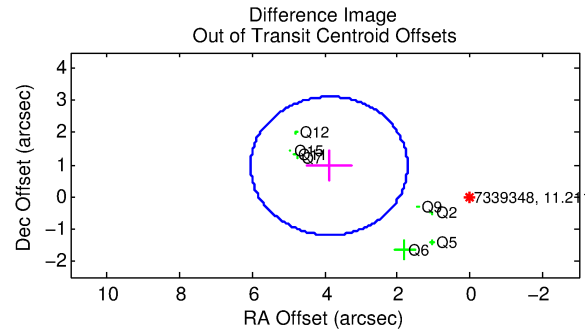
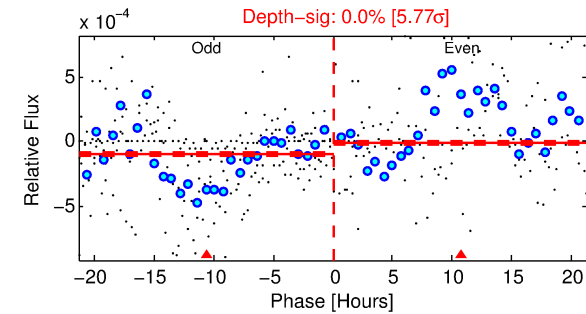
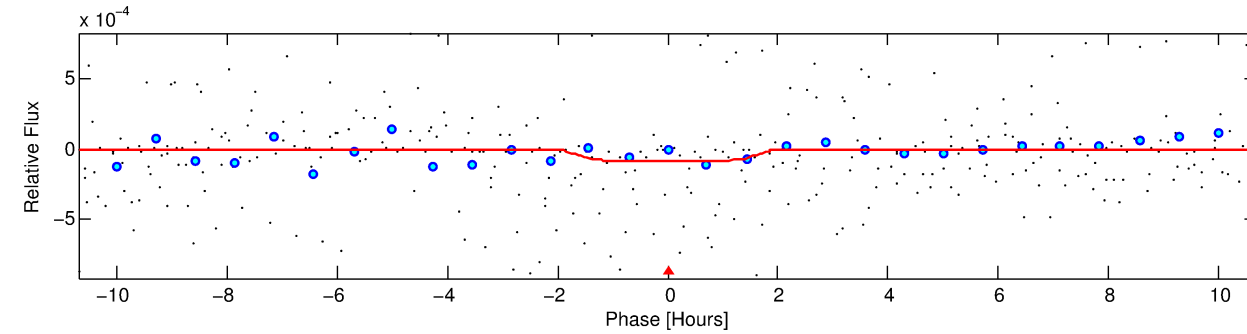
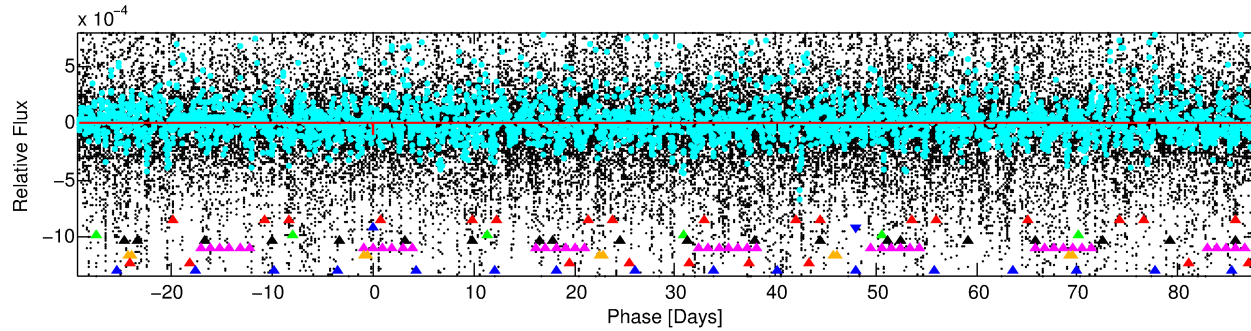
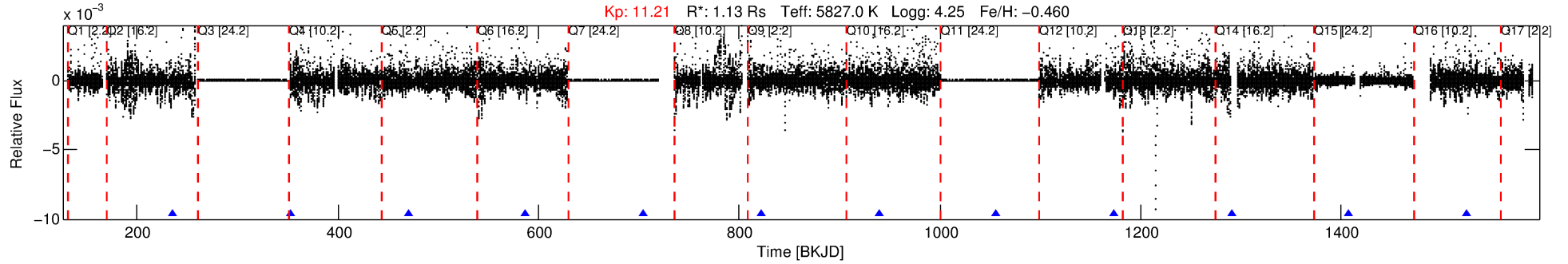
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007339348-02

No Significant Match Found

DV One-Page Summary

KIC: 7339348 Candidate: 2 of 8 Period: 117.188 d



DV Fit Results:

Period = 117.18842 [0.00037] d
Epoch = 235.8530 [0.0020] BKJD
Rp/R* = 0.0102 [0.0008]
a/R* = 113.39 [40.44]
b = 0.90 [0.07]
Seff = 6.82 [3.39]
Teq = 412 [51] K
Rp = 1.25 [0.39] Re
a = 0.4382 [0.1304] AU
Ag = 1294.24 [785.78] [1.65 σ]
Teffp = 3821 [379] K [8.92 σ]

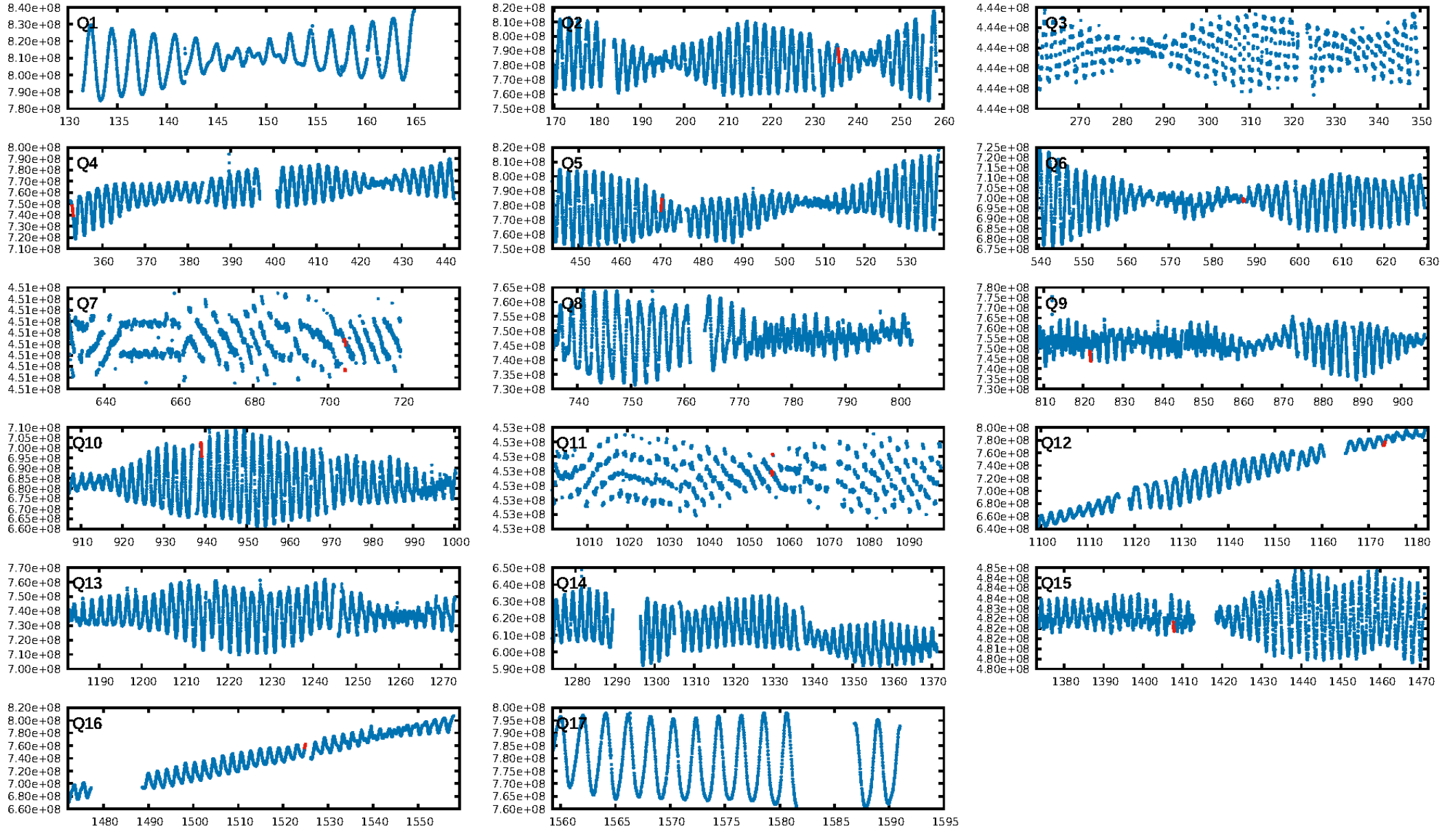
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [116.44 σ]
LongPeriod-sig: 100.0% [33.41 σ]
ModelChiSquare2-sig: 6.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.99e-16
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: -2.19
Centroid-sig: 5.9%
Centroid-so: 7.546 arcsec [0.96 σ]
OotOffset-rm: 3.994 arcsec [5.56 σ]
KicOffset-rm: 2.653 arcsec [3.36 σ]
OotOffset-st: 2/3/1/2 [8]
KicOffset-st: 2/3/1/2 [8]
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DiffImageOverlap-fno: 1.00 [8/8]

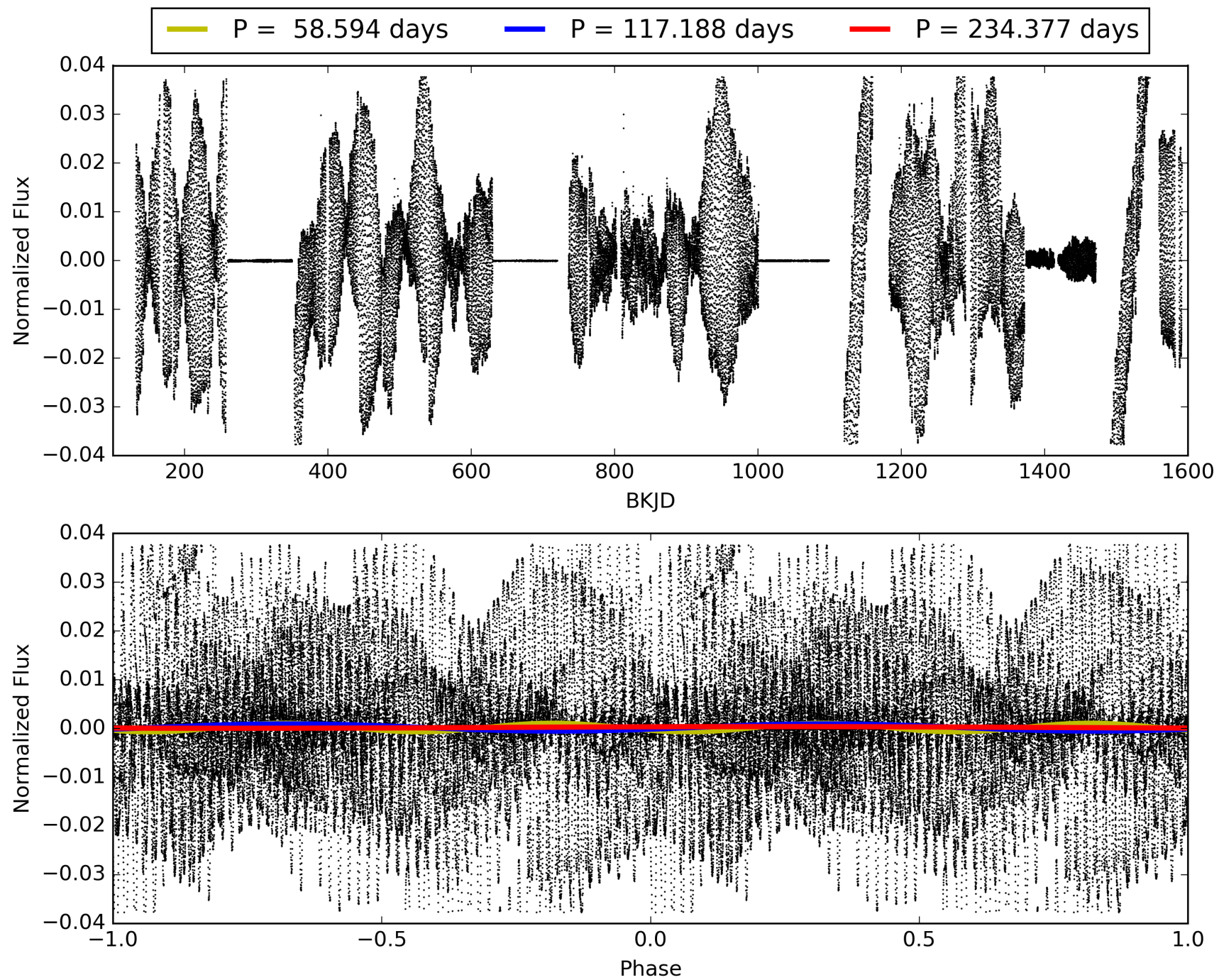
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:29:19 Z

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

TCE 007339348-02, PDC Light Curves

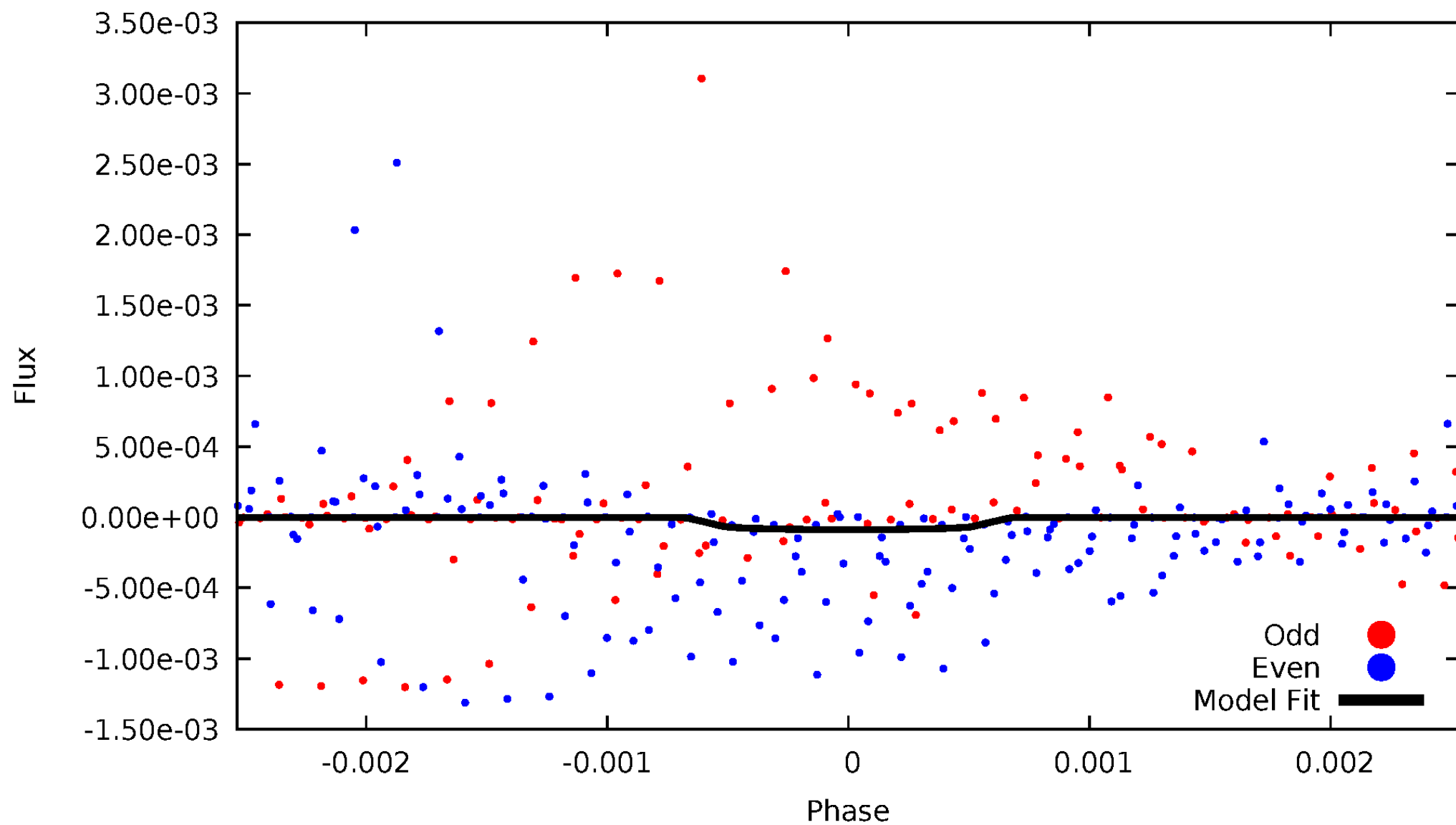


TCE 007339348-02



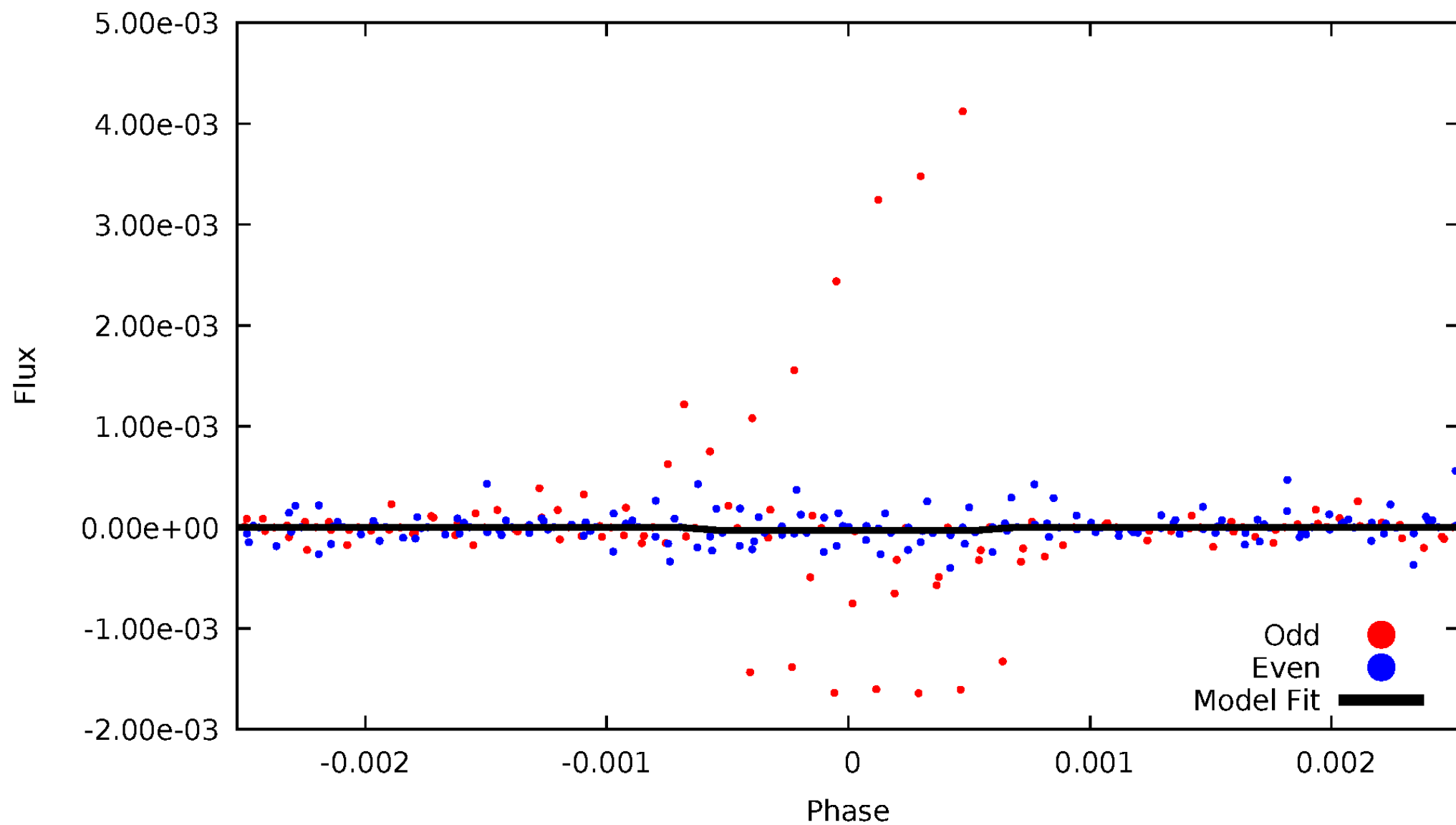
DV Odd/Even

TCE 007339348-02



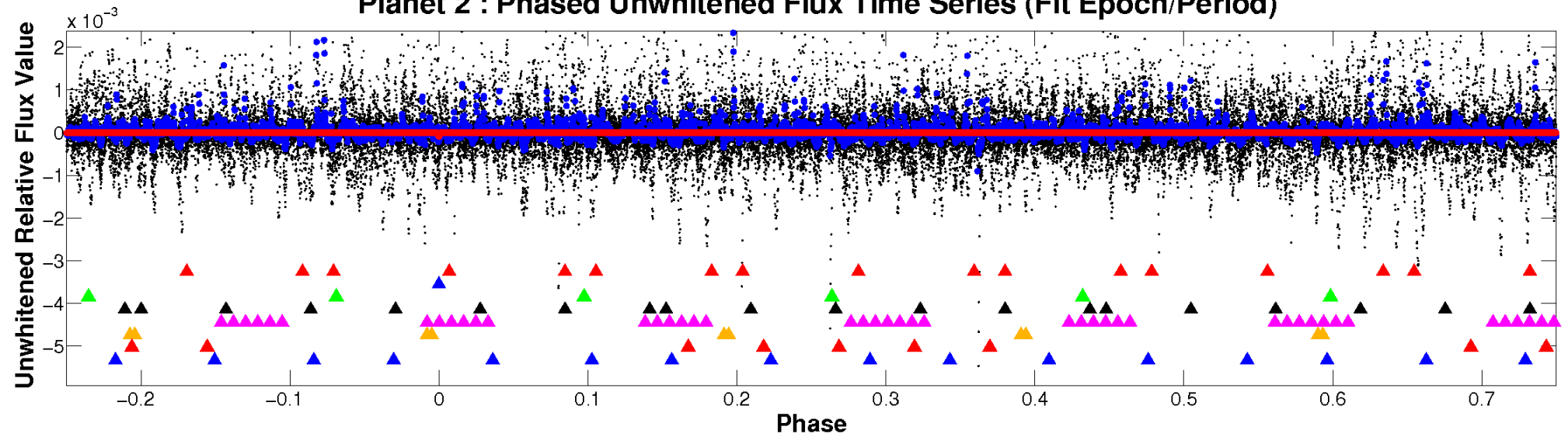
ALT Odd/Even

TCE 007339348-02

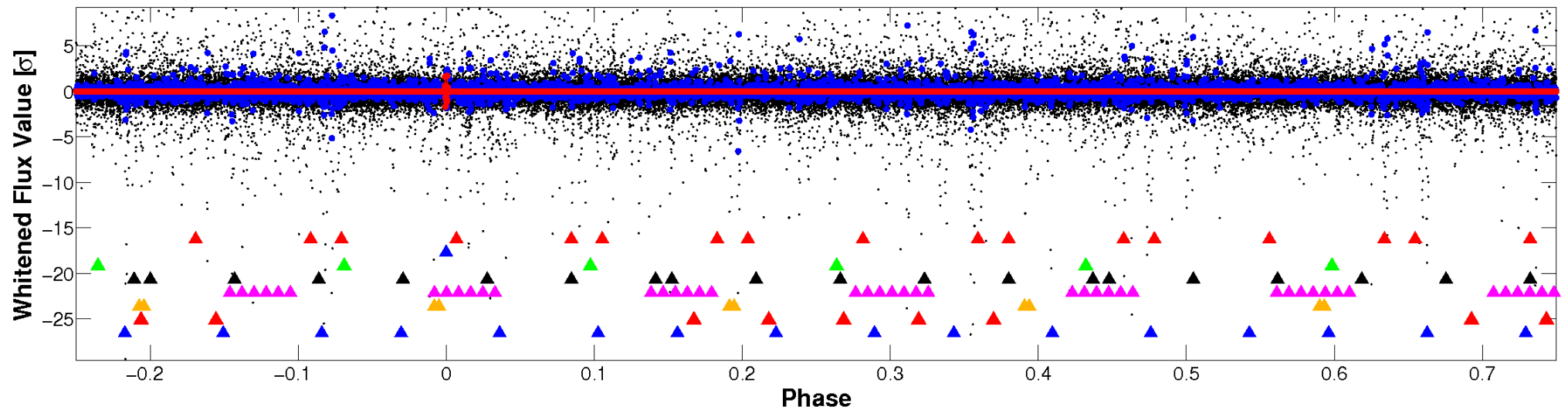


Non-Whitened Vs. Whitened Light Curve

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

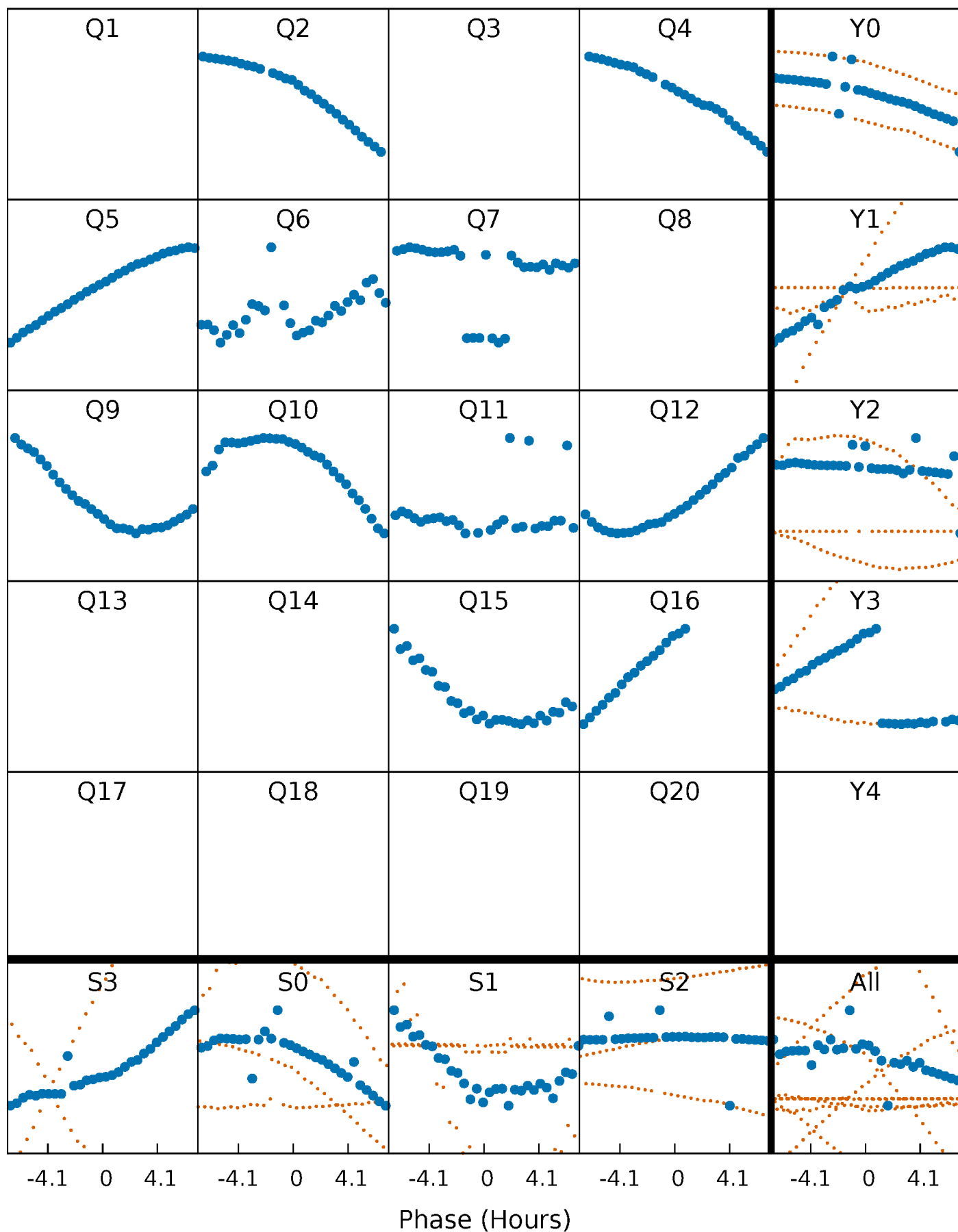


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



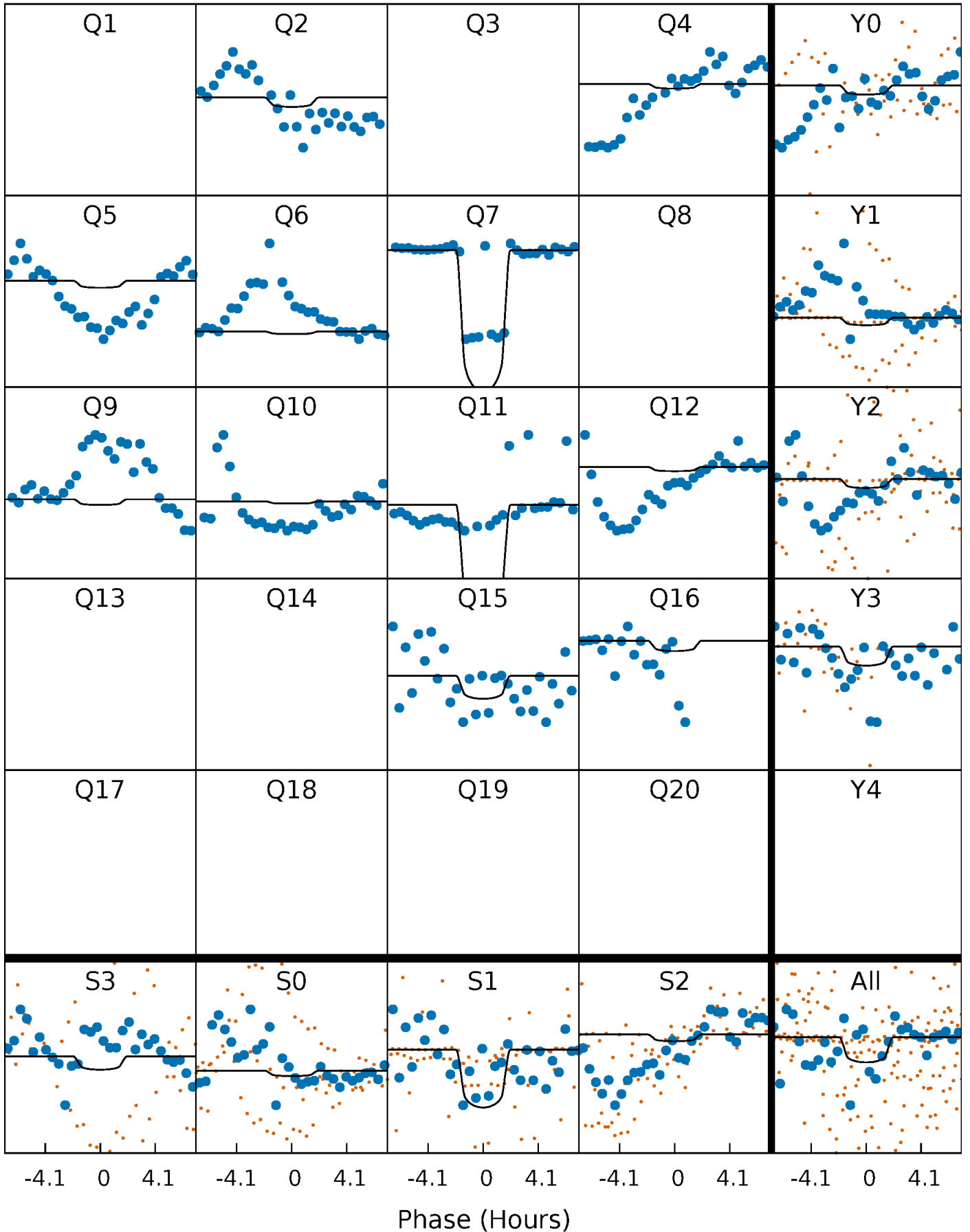
PDC Quarter-Phased Transit Curves

TCE 007339348-02 P=117.188421 Days $T_0=235.852972$ (BKJD)



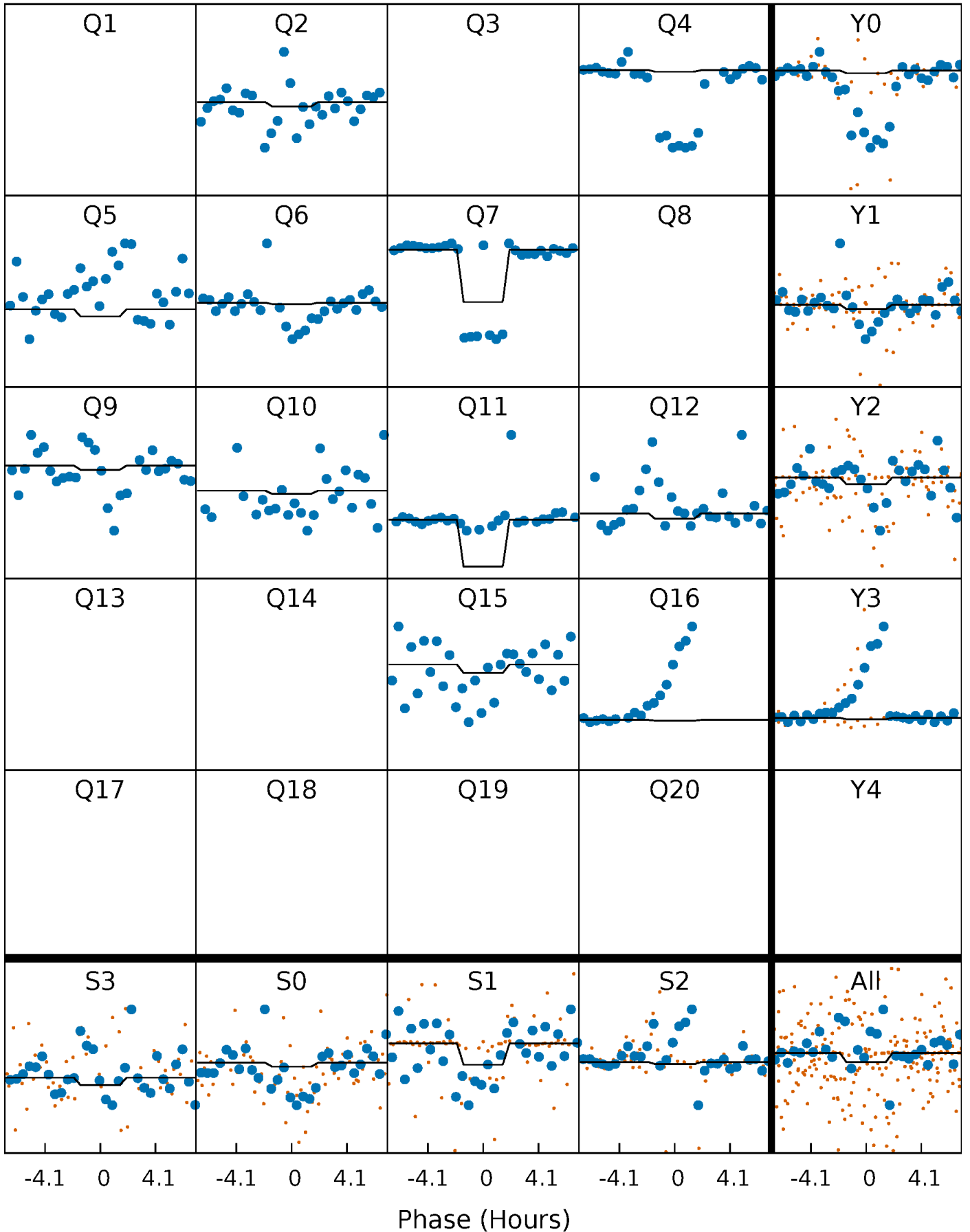
DV Quarter-Phased Transit Curves

TCE 007339348-02 P=117.188421 Days $T_0=235.852972$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

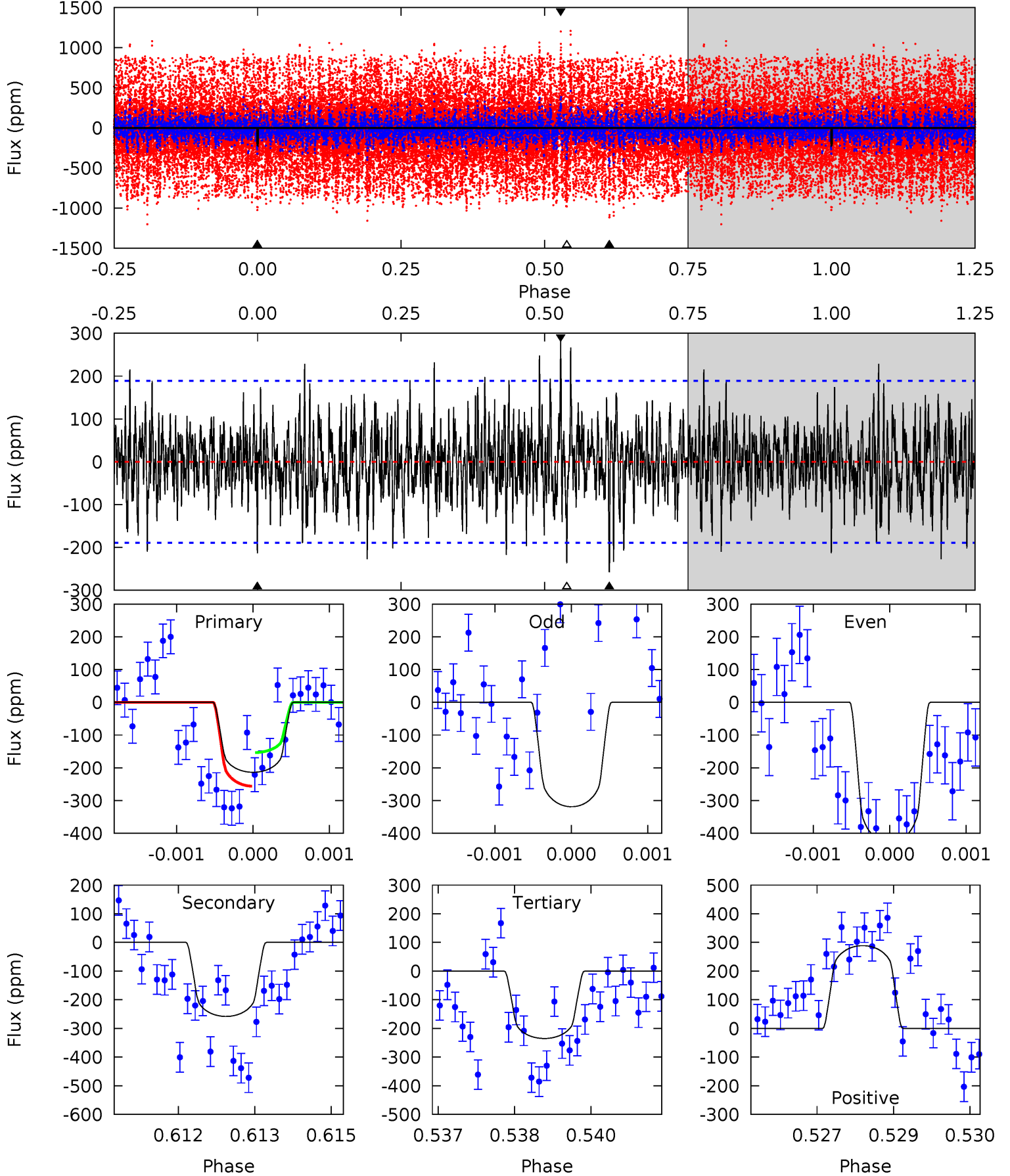
TCE 007339348-02 P=117.184539 Days $T_0=235.872987$ (BKJD)



DV Model-Shift Uniqueness Test

007339348-02, P = 117.188421 Days, E = 118.664551 Days

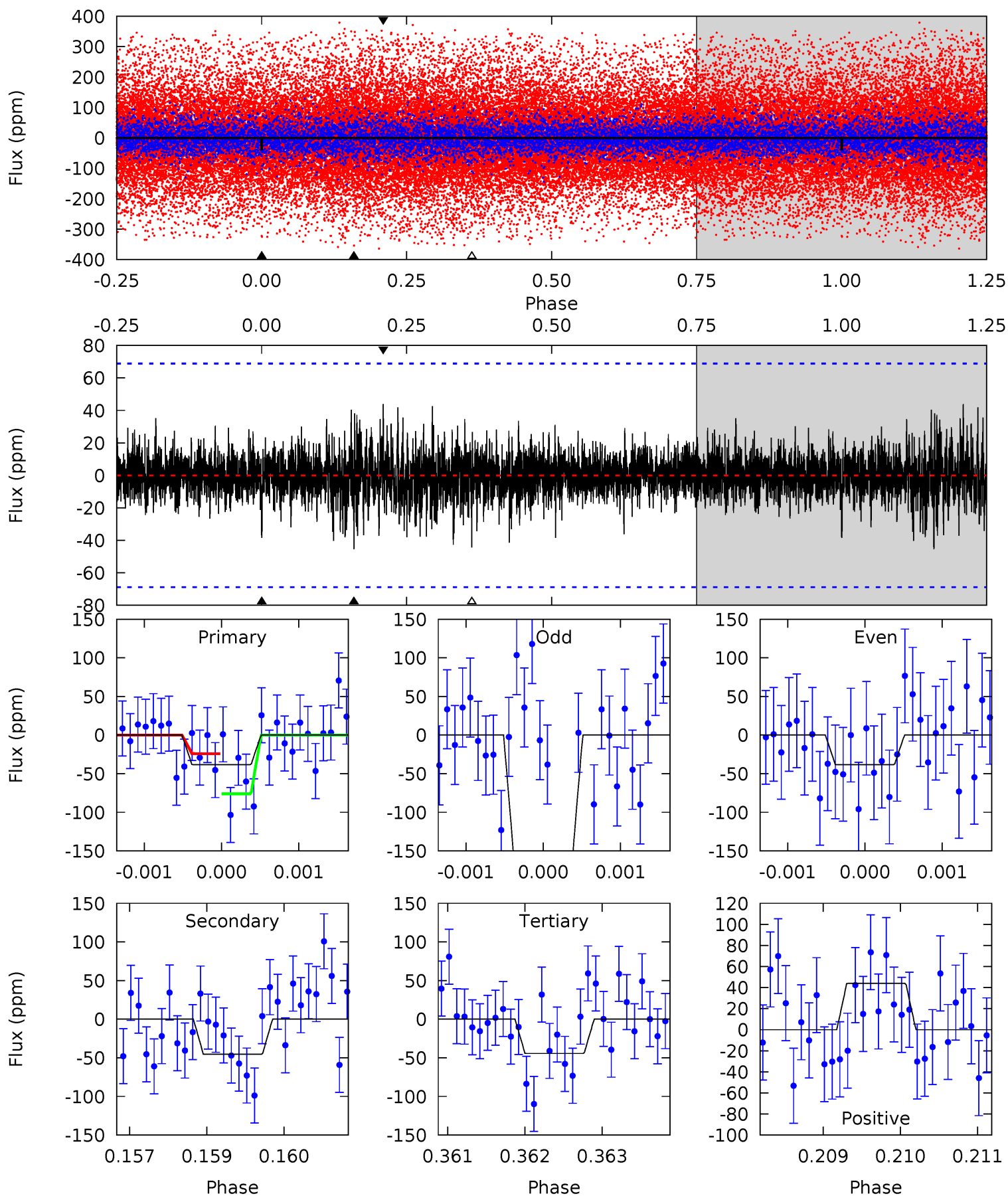
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.10	7.37	6.71	8.24	5.40	3.20	1.94	-0.61	-2.14	0.65	-0.88	1.62	0.86	0.53	1.51



Alt Model-Shift Uniqueness Test

007339348-02, P = 117.184539 Days, E = 118.688448 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.00	3.56	3.48	3.45	5.40	3.20	0.83	-0.48	-0.44	0.08	0.12	4.34	-0.35	0.49	2.06



Stellar Parameters For KIC 007339348

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5827^{+193}_{-175}	$4.247^{+0.282}_{-0.212}$	$-0.460^{+0.300}_{-0.300}$	$1.126^{+0.345}_{-0.314}$	$0.816^{+0.126}_{-0.054}$	$0.805^{+1.193}_{-0.421}$
	+3%/-3%	+7%/-5%	+65%/-65%	+31%/-28%	+15%/-7%	+148%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007339348-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-258 ± 35	$1.25^{+0.24}_{-0.24}$	571^{+53}_{-48}	7417^{+493}_{-511}	17688^{+9117}_{-5331}
Alt.	-45 ± 13	$0.68^{+0.16}_{-0.15}$	572^{+49}_{-50}	6354^{+783}_{-628}	10223^{+7911}_{-4146}

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

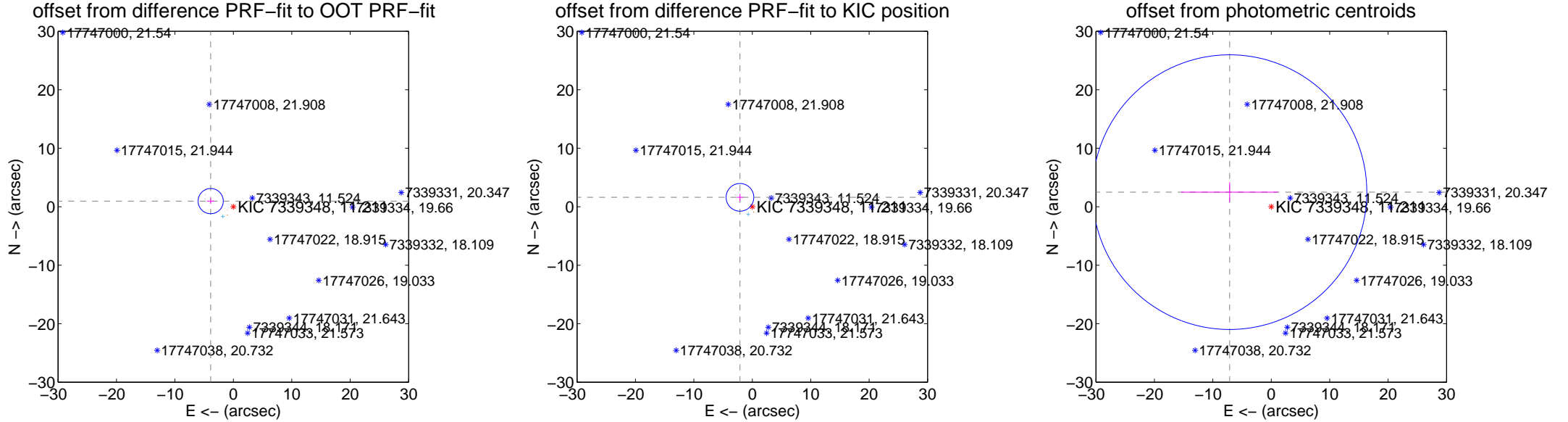
DV Centroid Data

Supplemental centroid analysis for 007339348-02. **Kepler magnitude: 11.21.** Transit SNR 22.01

There are 5 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.02 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.994 ± 0.719	5.56	3.877 ± 0.634	0.958 ± 0.468
PRF-fit source offset from KIC position	2.653 ± 0.790	3.36	2.112 ± 0.538	1.606 ± 0.622
photometric centroid source offset	7.55 ± 7.83	0.96	7.12 ± 8.27	2.49 ± 1.68



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.

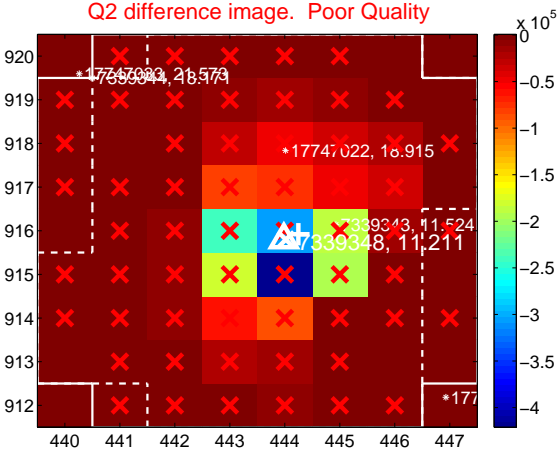
Q1 no difference image



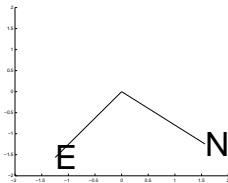
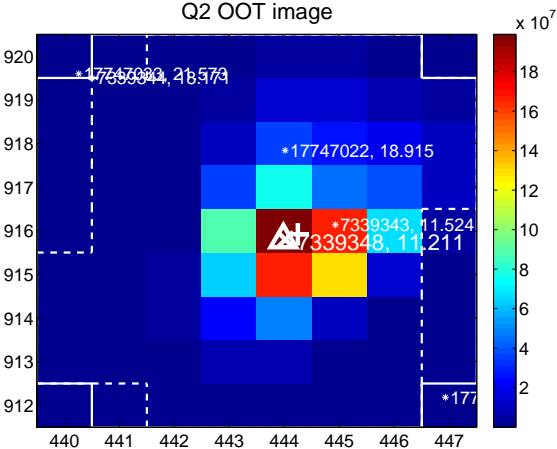
Q1 no OOT image



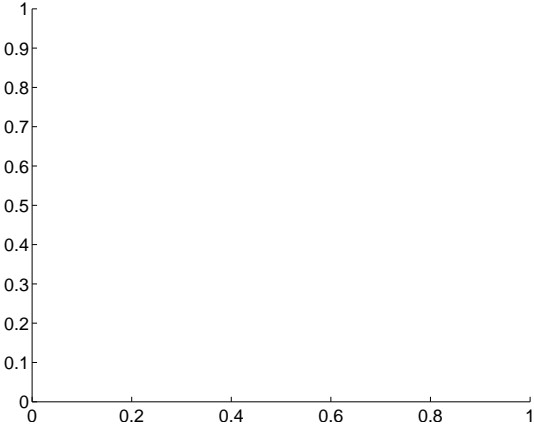
Q2 difference image. Poor Quality



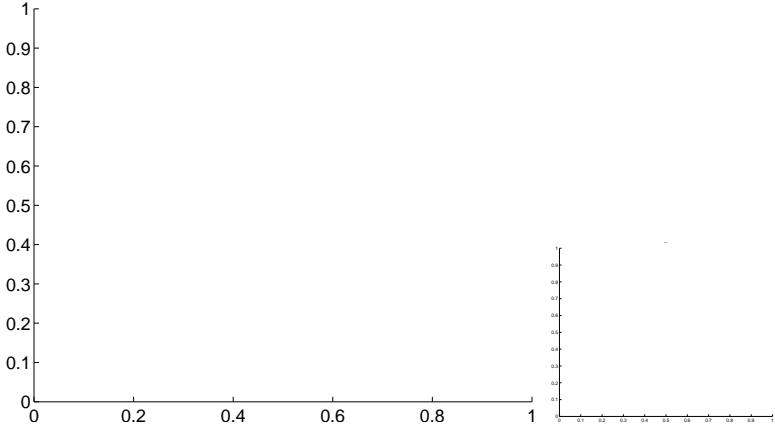
Q2 OOT image



Q3 no difference image



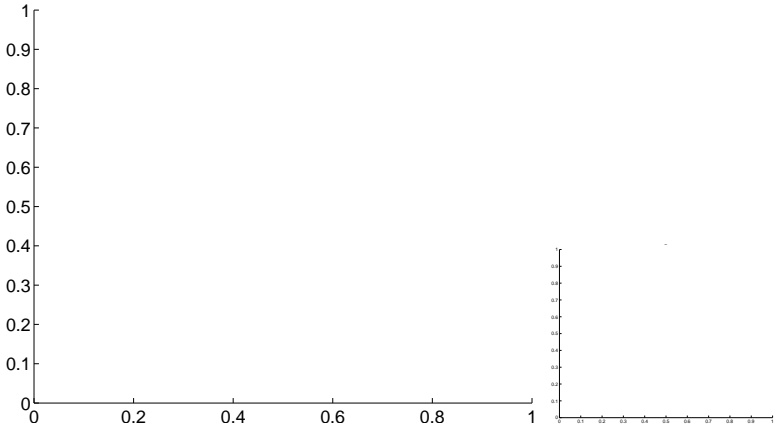
Q3 no OOT image



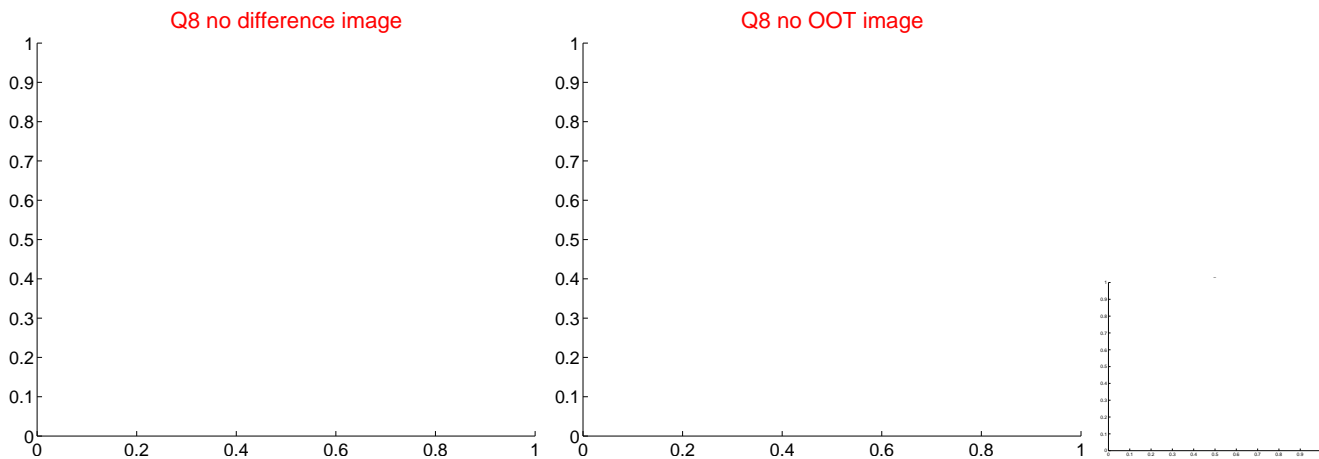
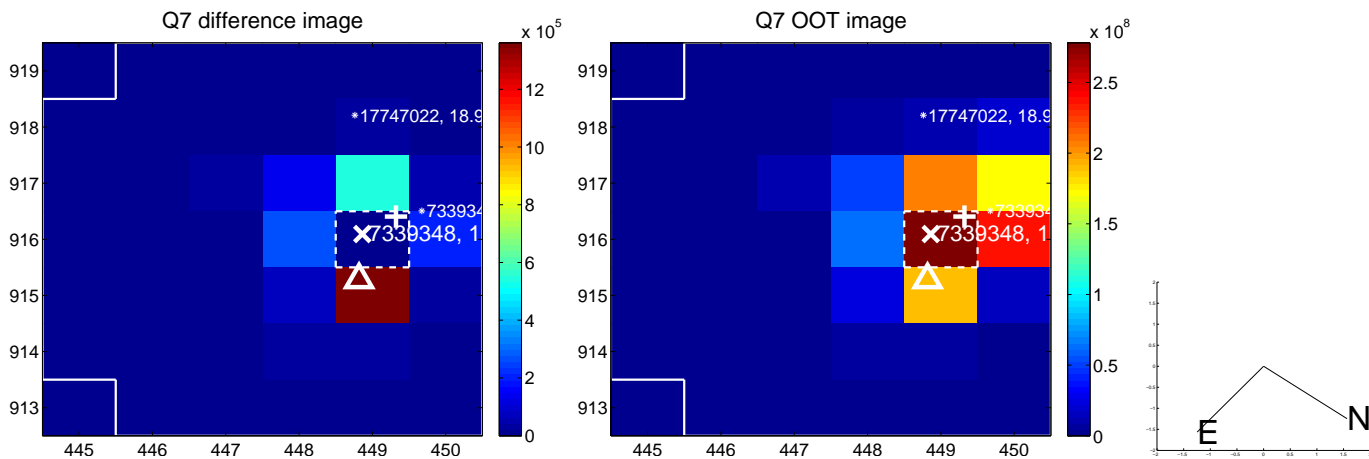
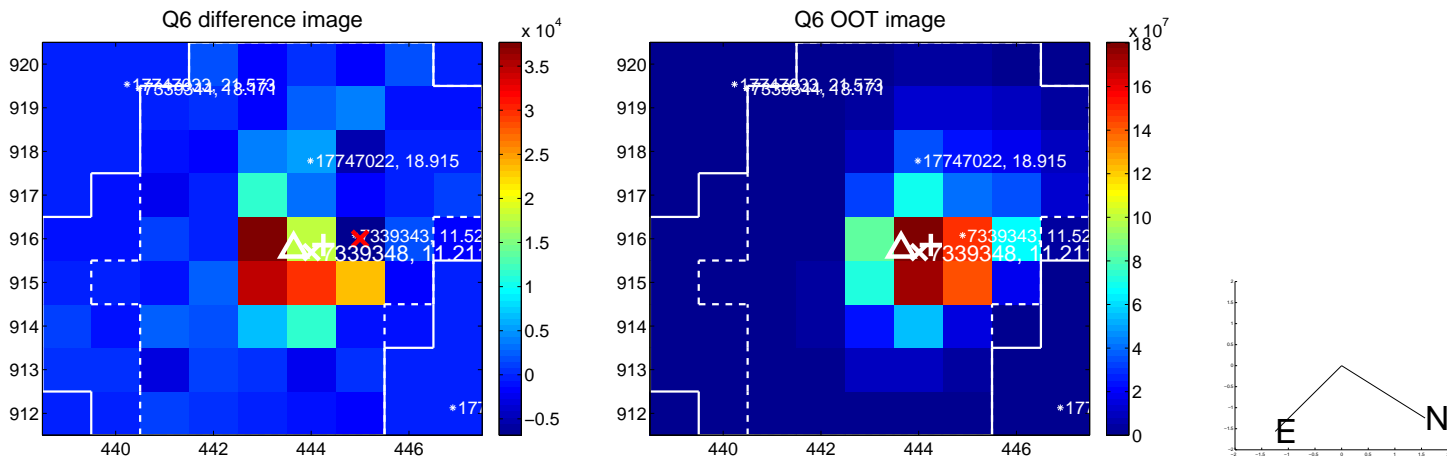
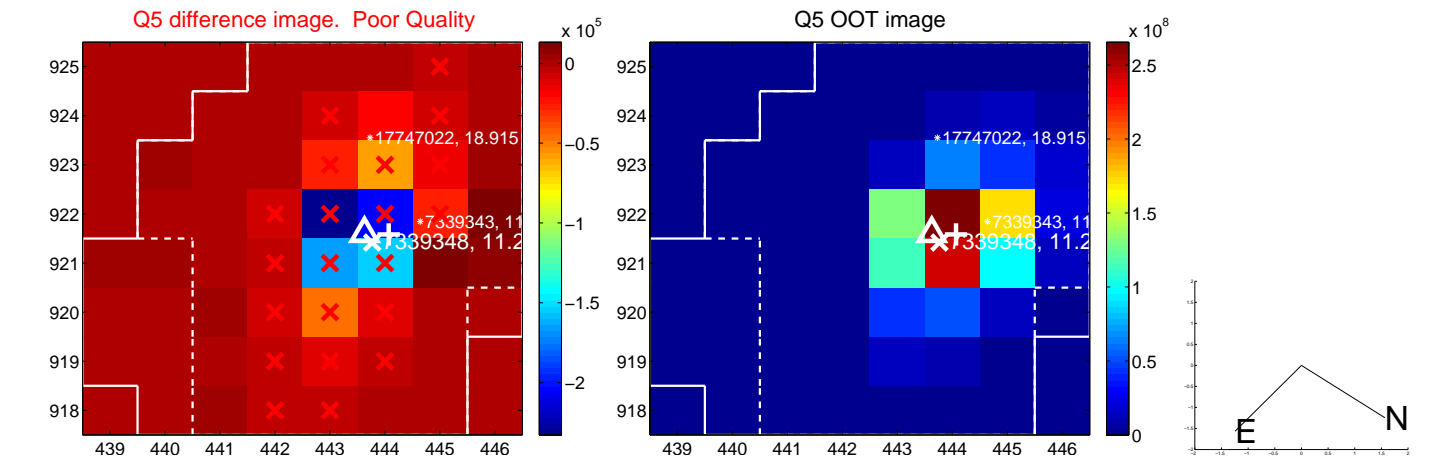
Q4 no difference image



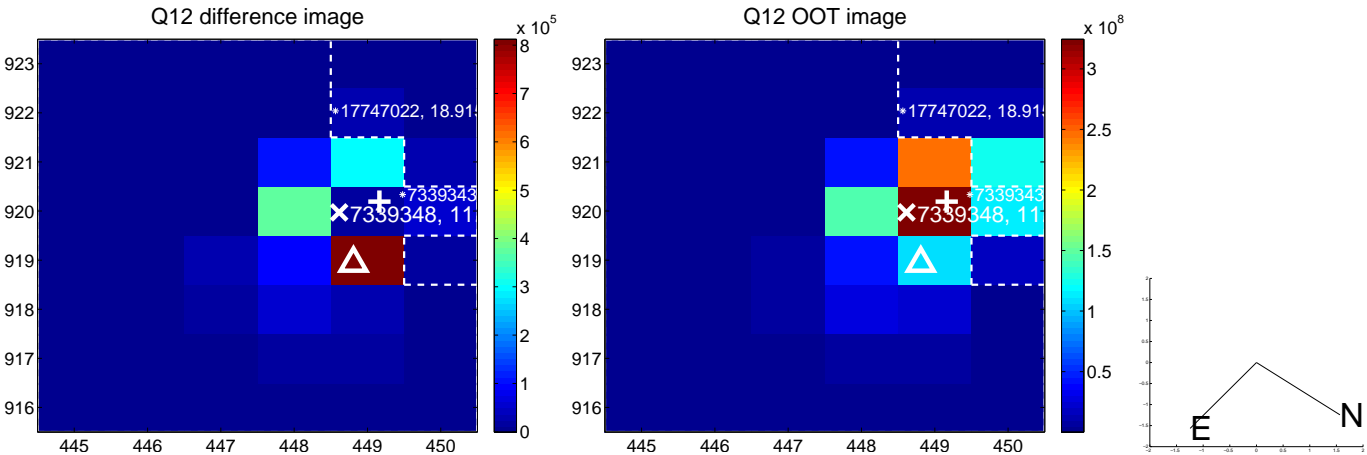
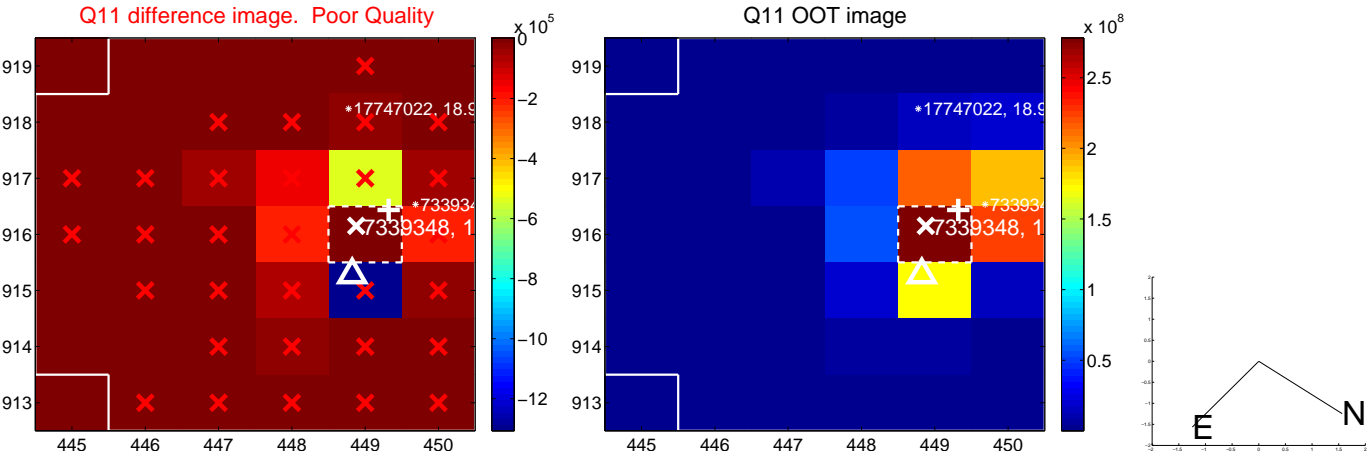
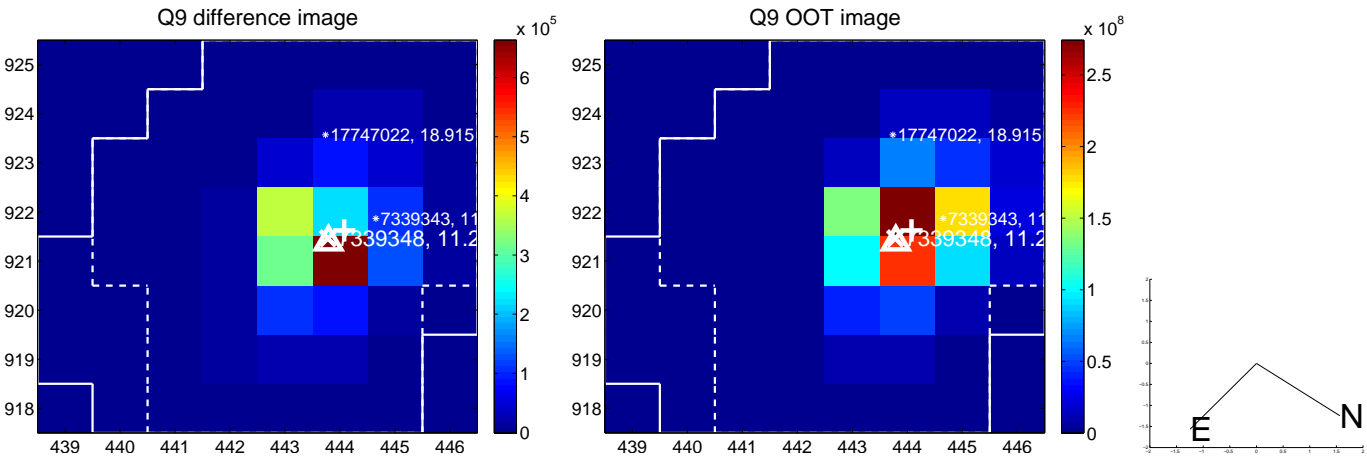
Q4 no OOT image



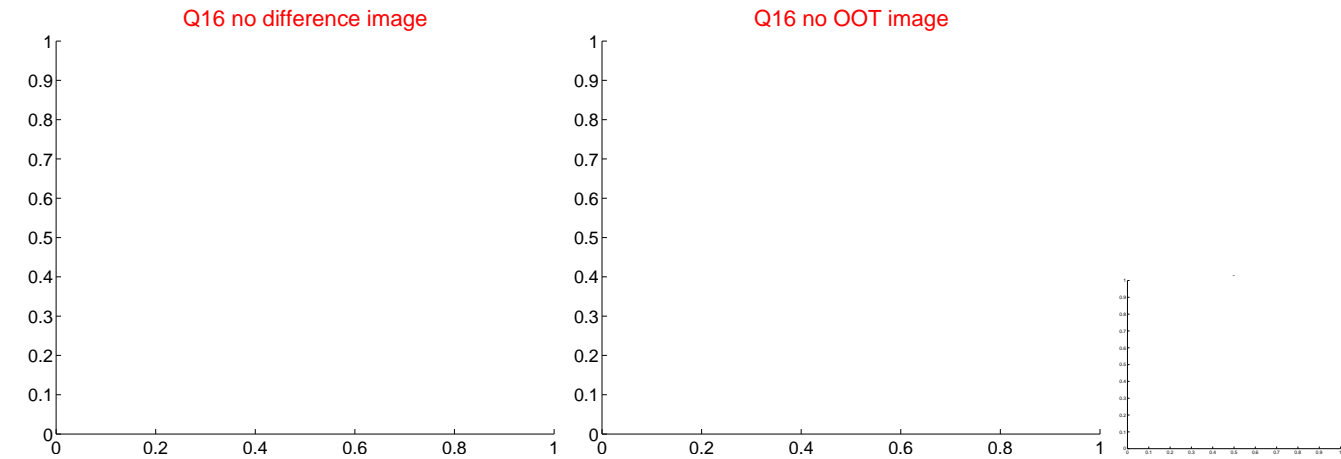
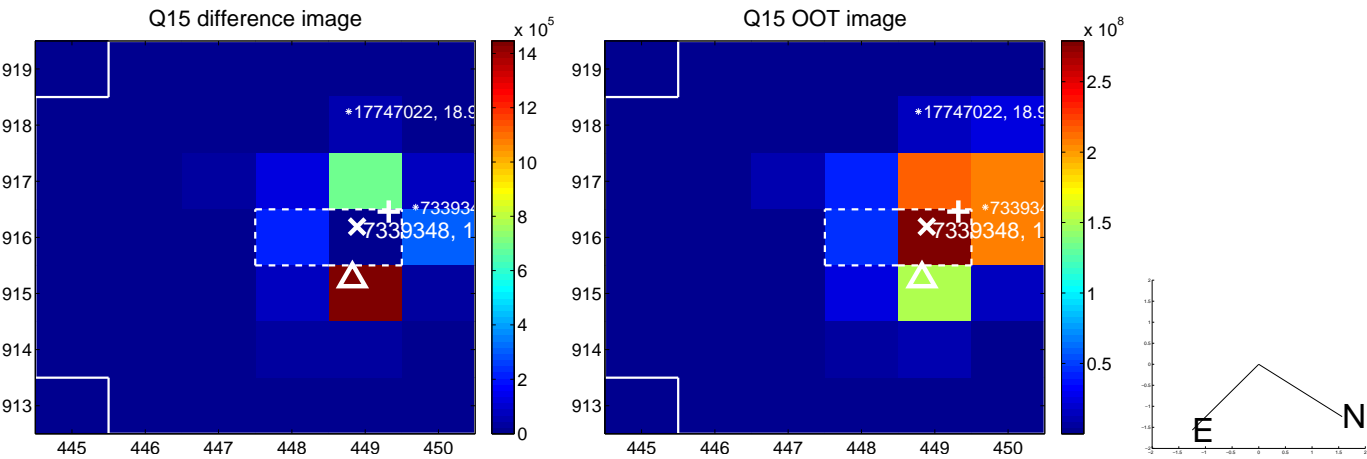
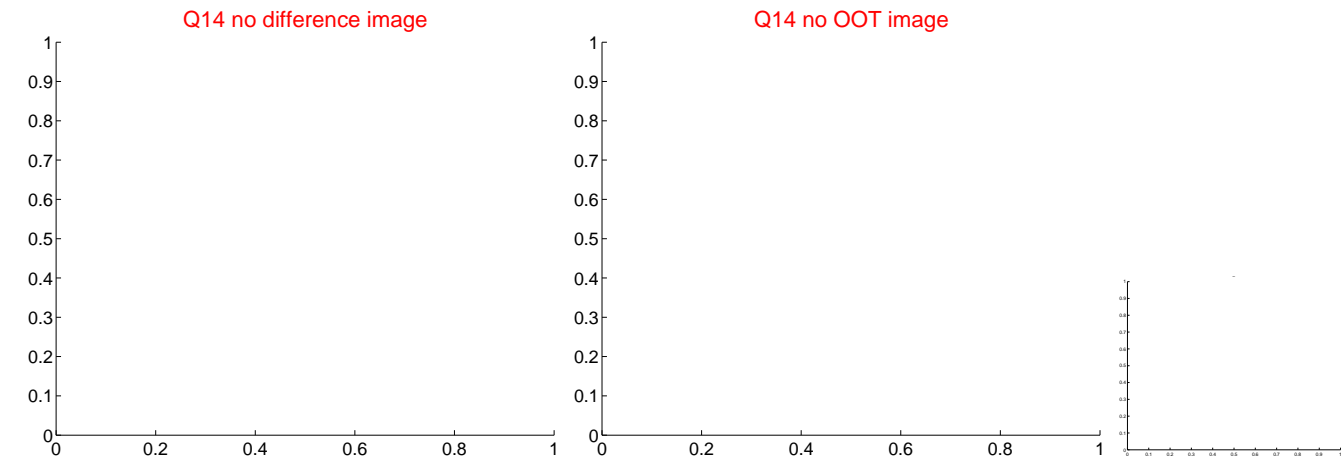
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



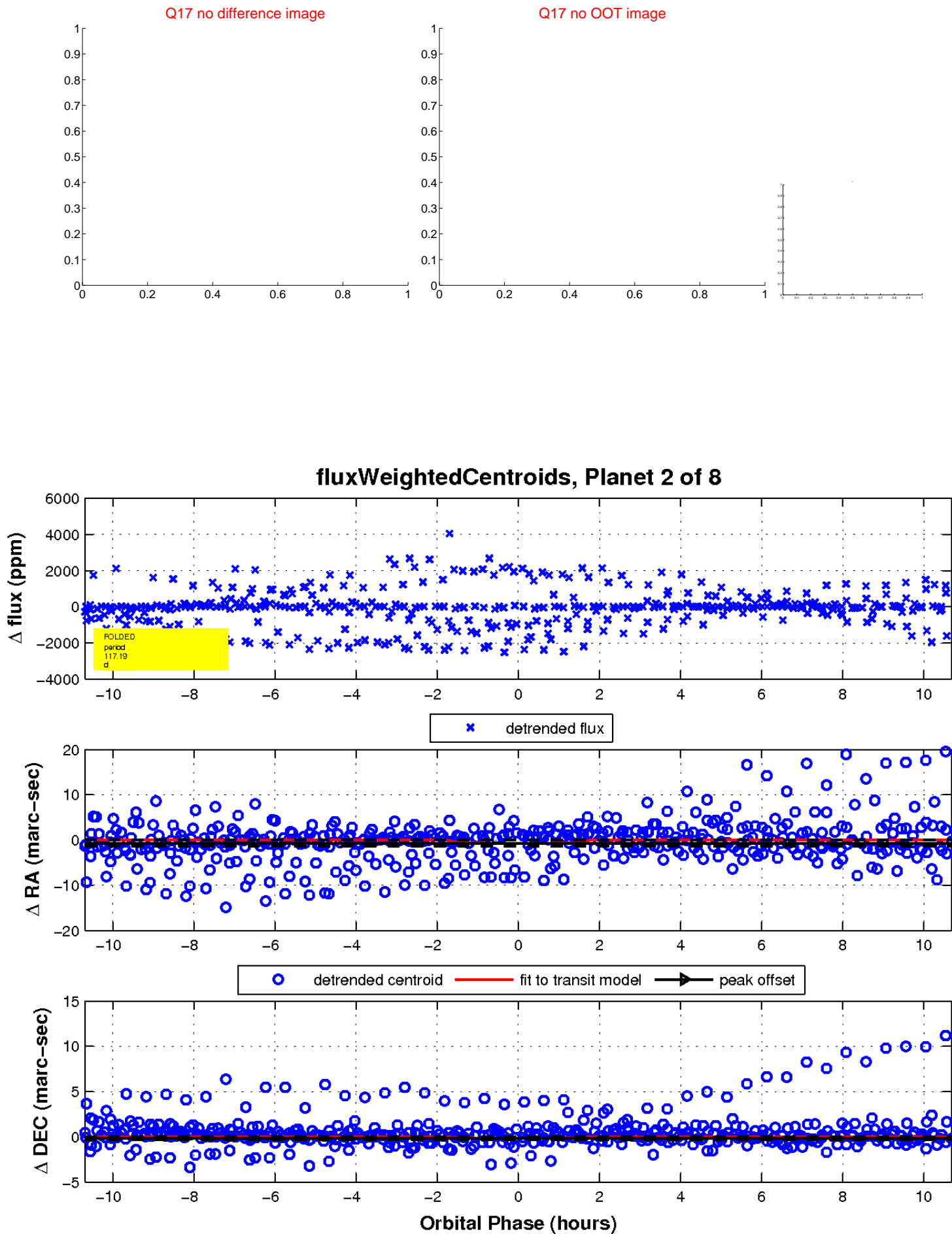
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



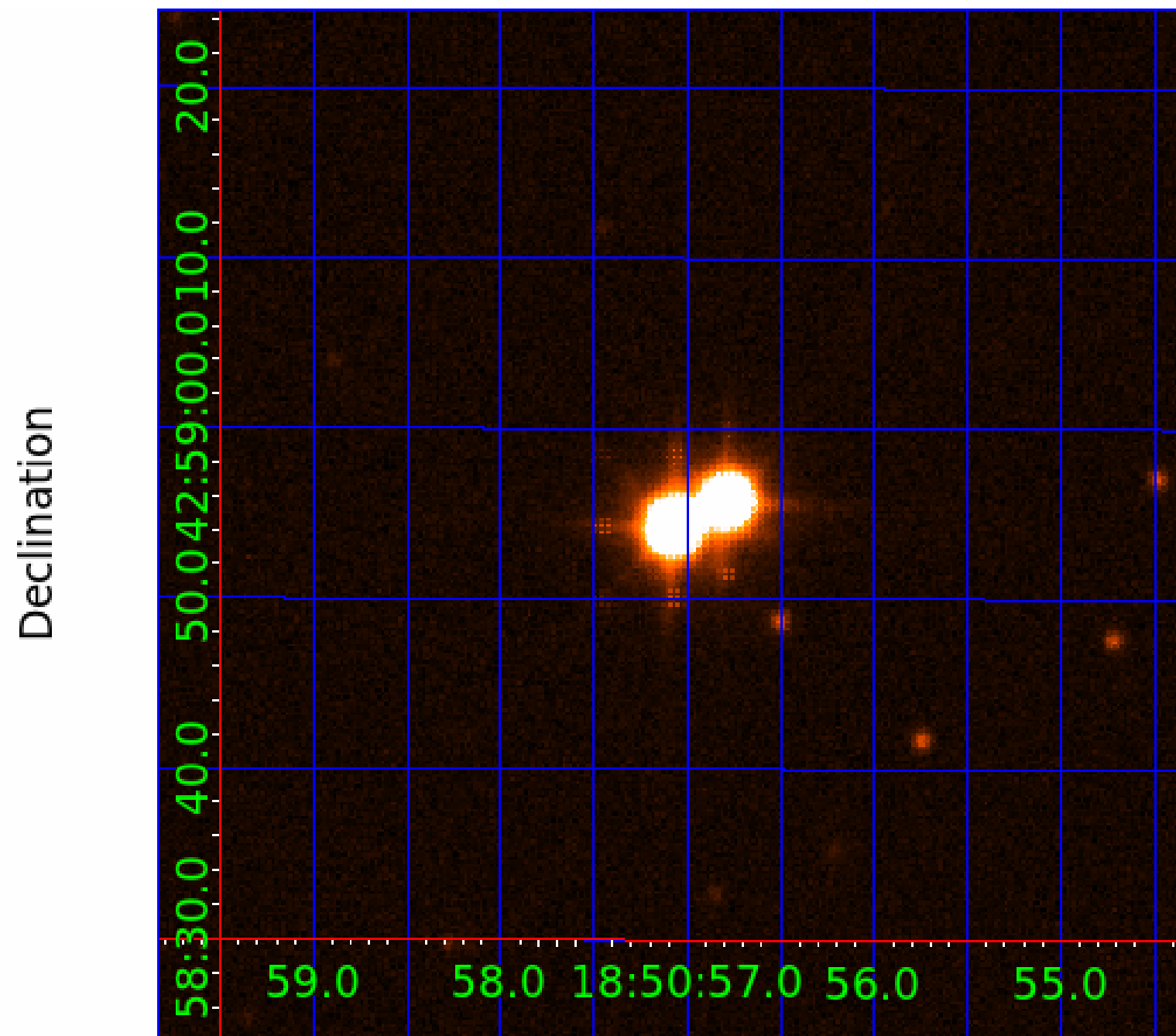
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007339348

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})
007339348-01	OBS	No	85.006629	174.736102	52.1	2.218	24.7	11.0	1.13	5827	0.98	10.47
007339348-02	OBS	No	117.188421	235.852973	87.7	3.565	22.7	22.0	1.13	5827	1.25	6.82
007339348-03	OBS	No	253.869090	286.492737	47.9	1.456	20.6	6.8	1.13	5827	0.84	2.43
007339348-04	OBS	No	75.903318	135.248398	6.8	7.330	18.3	0.9	1.13	5827	0.32	12.17
007339348-05	OBS	No	33.345513	156.832396	61.3	1.073	19.0	31.2	1.13	5827	0.94	36.45
007339348-06	OBS	No	140.551536	211.926482	108.0	16.401	14.3	13.6	1.13	5827	1.27	5.35
007339348-07	OBS	No	172.817646	161.999799	5.1	10.356	17.1	0.9	1.13	5827	0.30	4.06
007339348-08	OBS	No	95.310334	158.857260	27.7	2.762	17.3	4.2	1.13	5827	0.72	8.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007339348-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

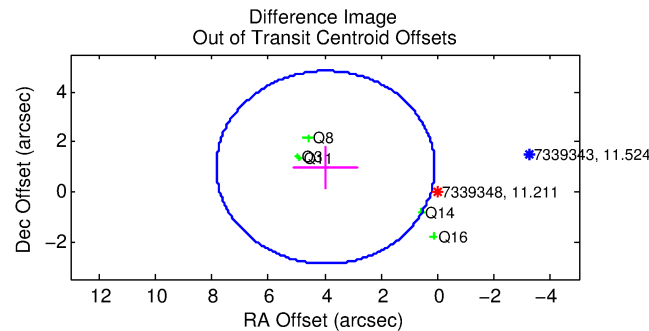
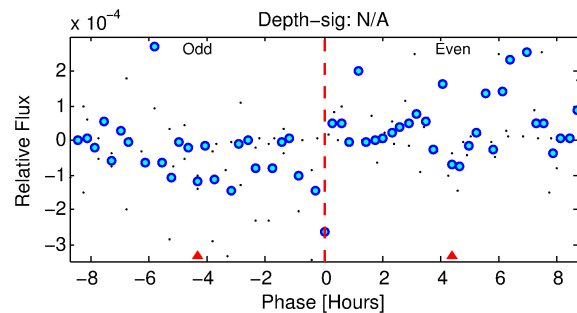
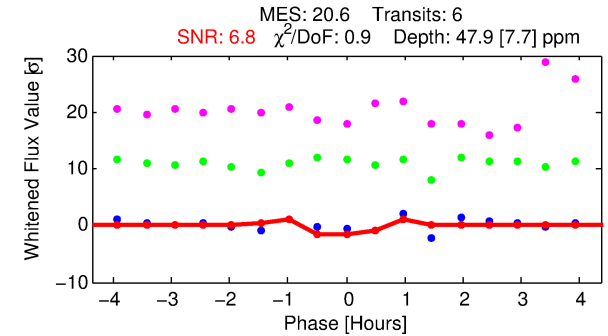
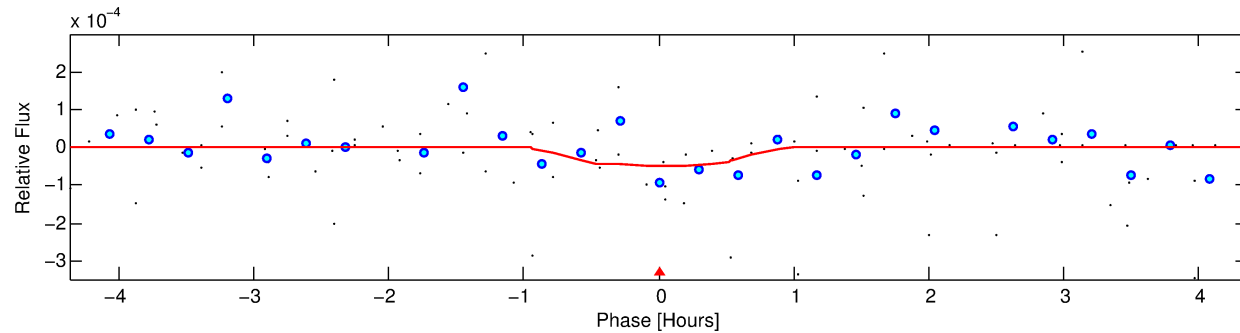
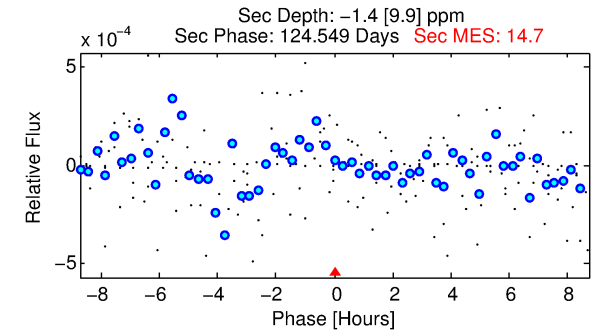
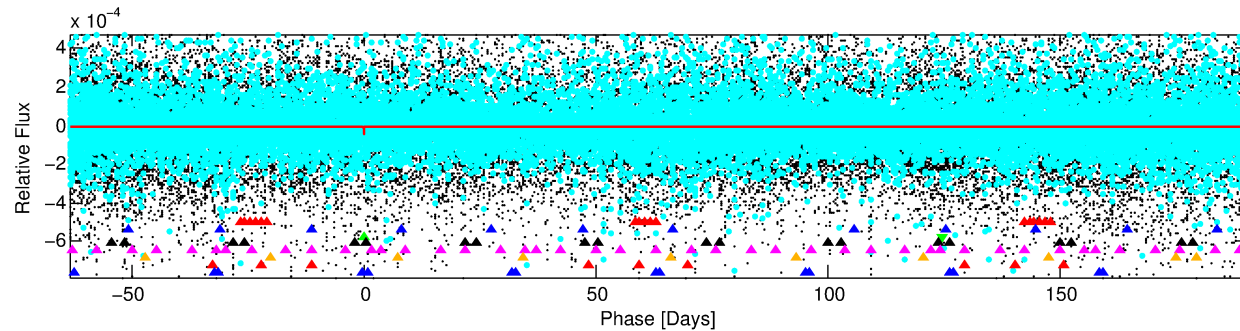
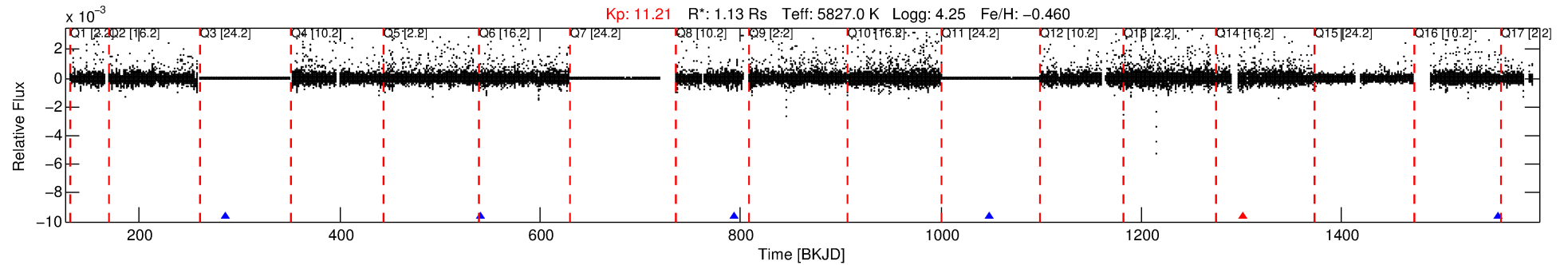
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007339348-03

No Significant Match Found

DV One-Page Summary

KIC: 7339348 Candidate: 3 of 8 Period: 253.869 d



DV Fit Results:

Period = 253.86909 [0.00239] d
Epoch = 286.4927 [0.0036] BKJD
Rp/R* = 0.0068 [0.0326]
a/R* = 967.04 [22002.99]
b = 0.70 [17.23]
Seff = 2.43 [1.21]
Teq = 318 [40] K
Rp = 0.84 [4.02] Re
a = 0.7336 [0.2183] AU
Ag = N/A
Teffp = N/A

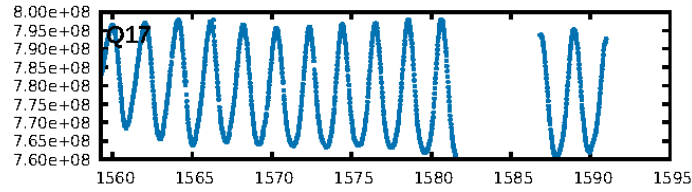
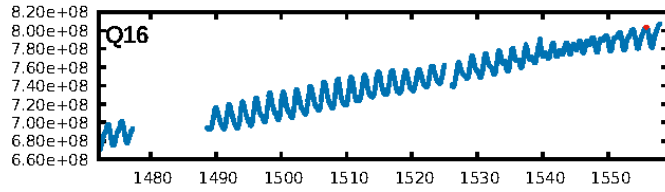
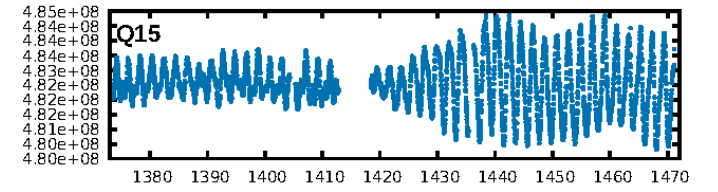
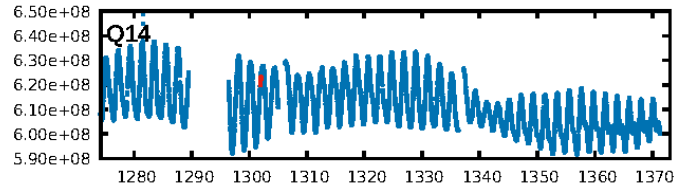
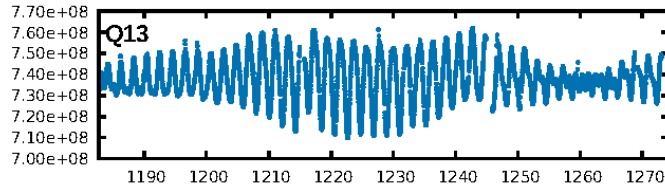
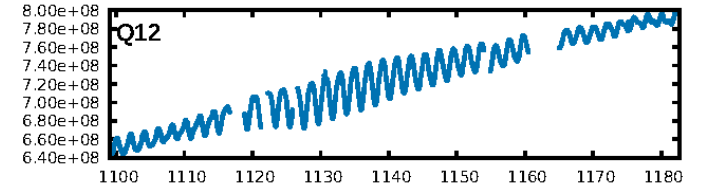
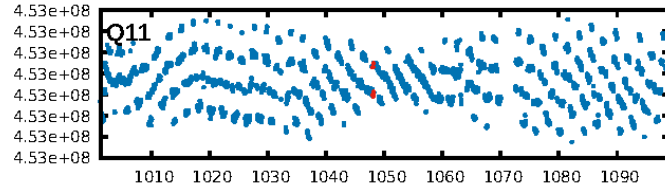
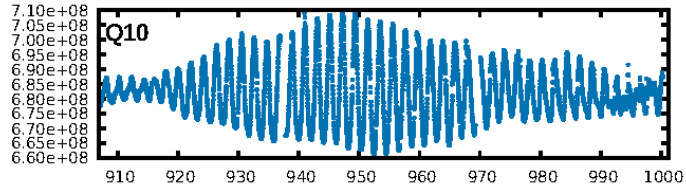
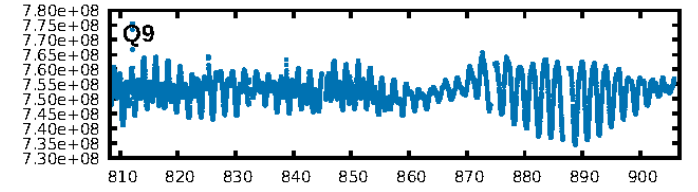
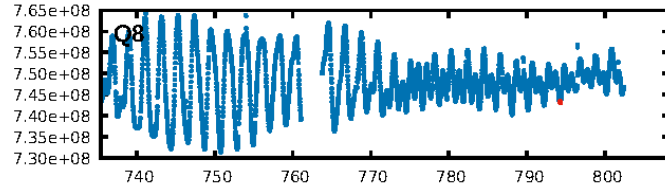
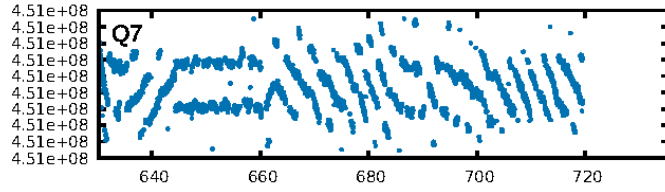
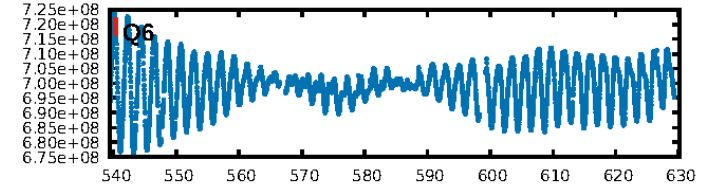
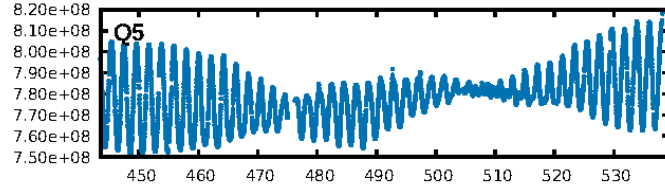
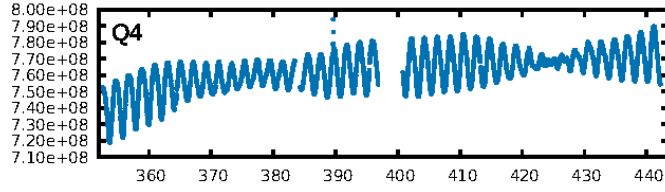
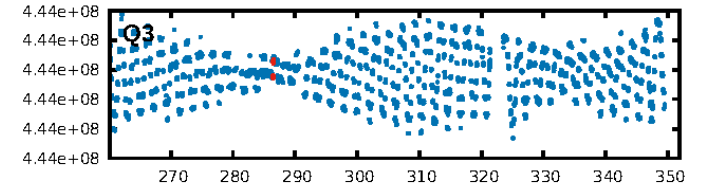
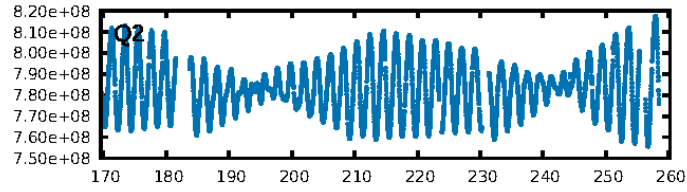
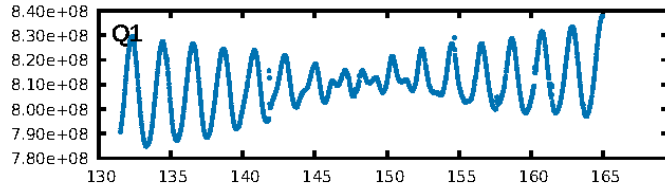
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [186.01 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 51.4%
ModelChiSquareGof-sig: 96.7%
Bootstrap-pfa: 2.61e-14
RollingBand-fgt: 0.83 [5/6]
GhostDiagnostic-chr: 2.284
Centroid-sig: 99.8%
Centroid-so: 1.107 arcsec [0.05 σ]
OotOffset-rm: 4.089 arcsec [3.17 σ]
KicOffset-rm: 2.675 arcsec [2.70 σ]
OotOffset-st: 1/2/2/0 [5]
KicOffset-st: 1/2/2/0 [5]
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DiffImageOverlap-fno: 1.00 [5/5]

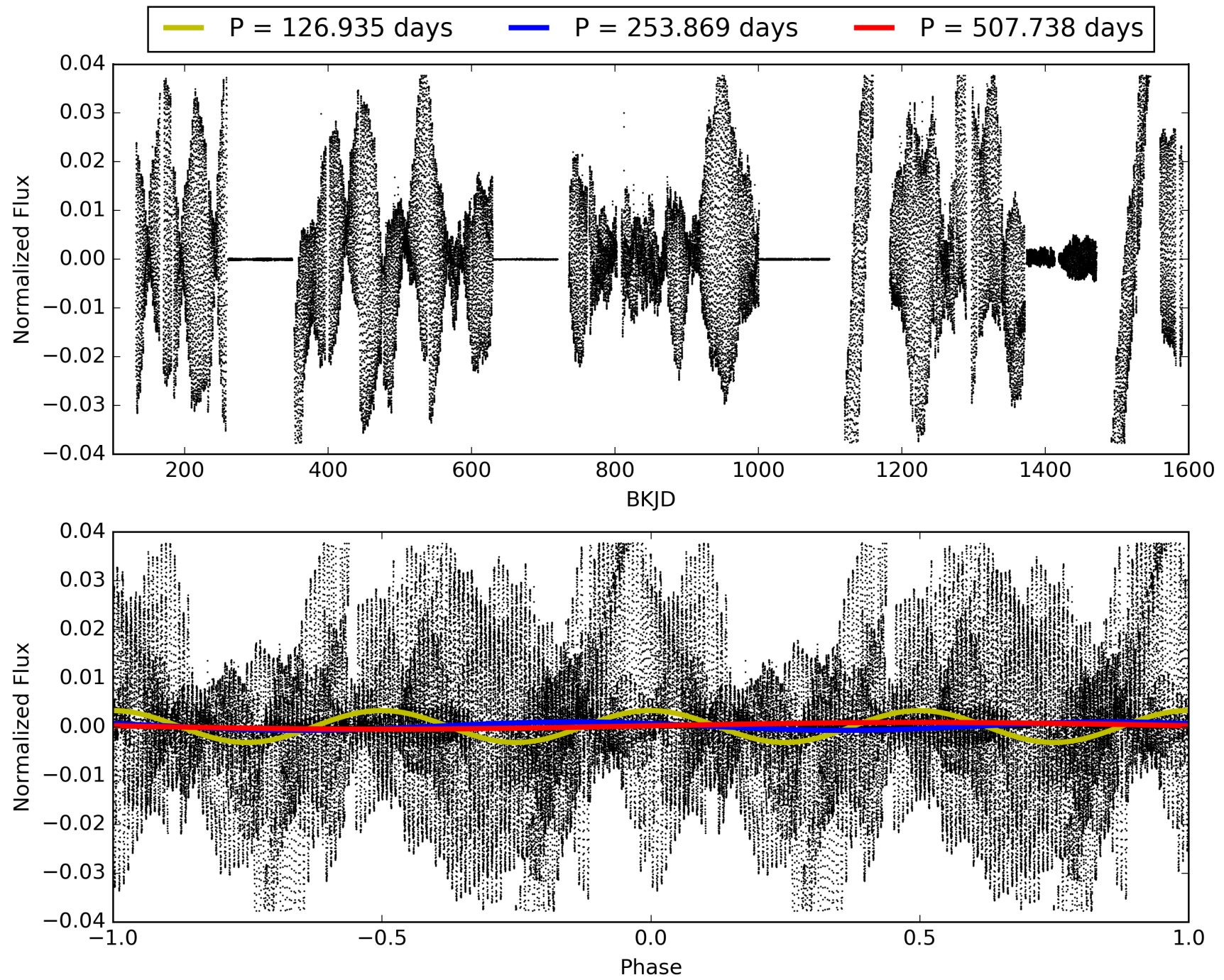
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:29:42 Z

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

TCE 007339348-03, PDC Light Curves

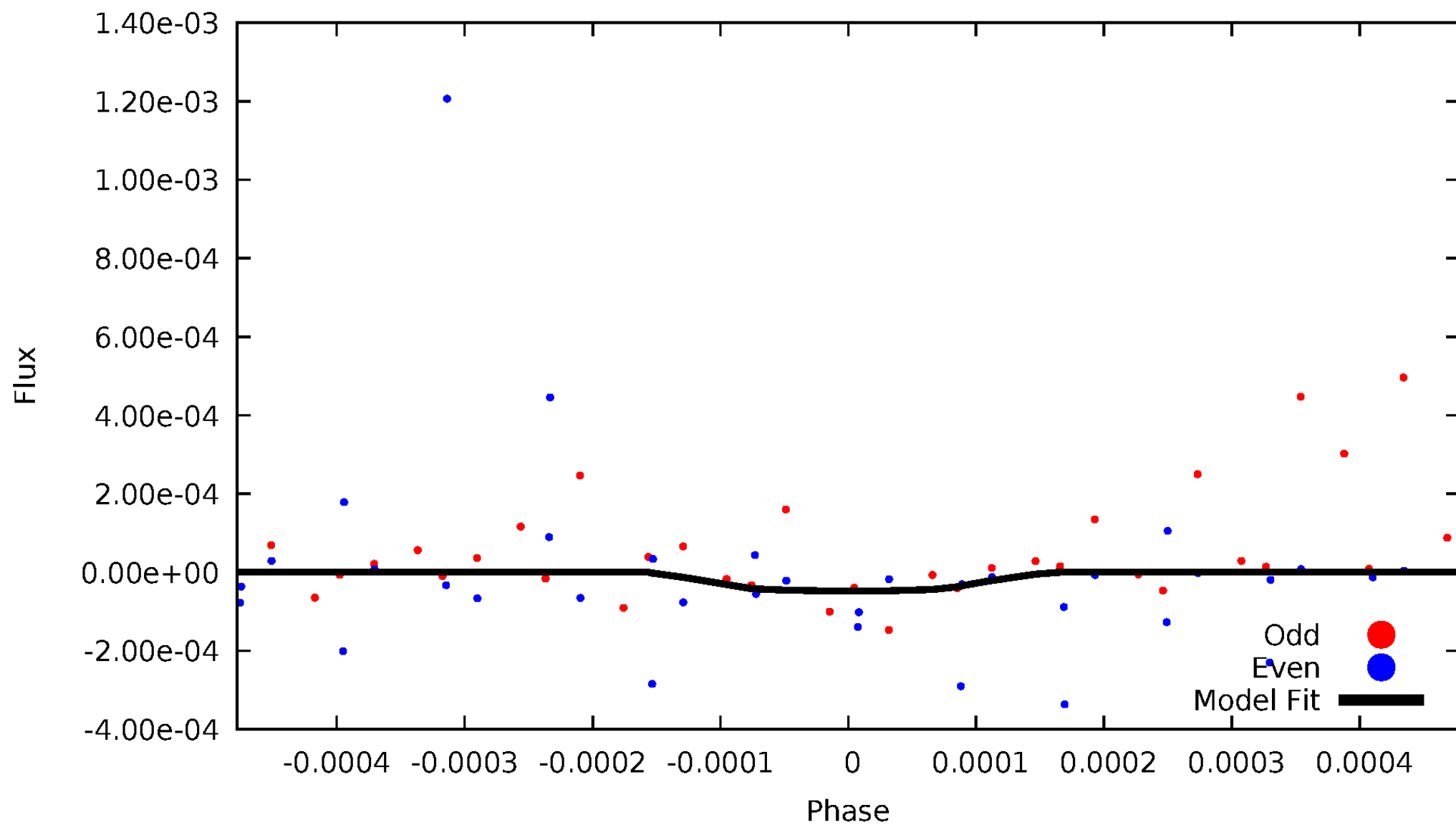


TCE 007339348-03



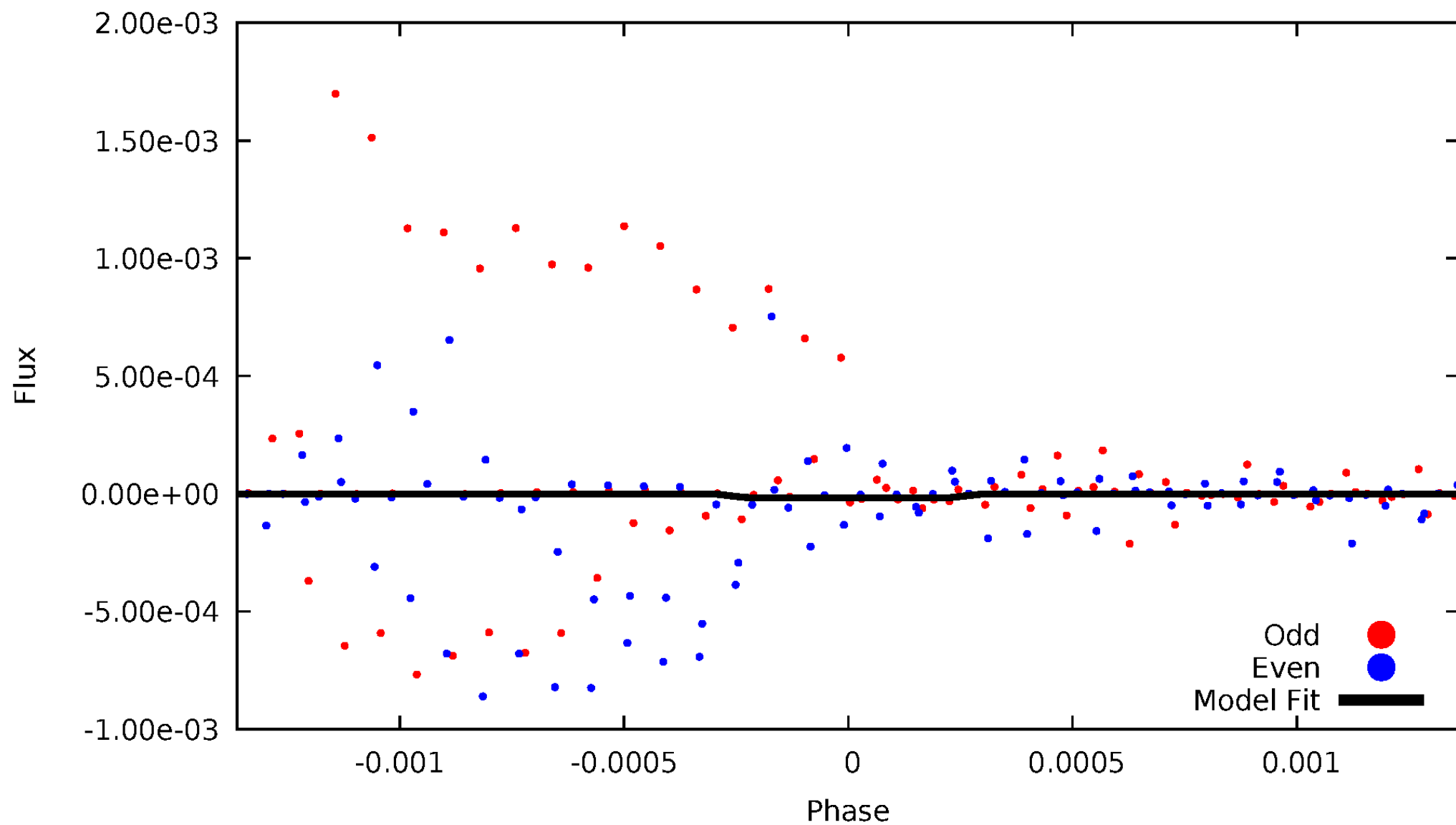
DV Odd/Even

TCE 007339348-03



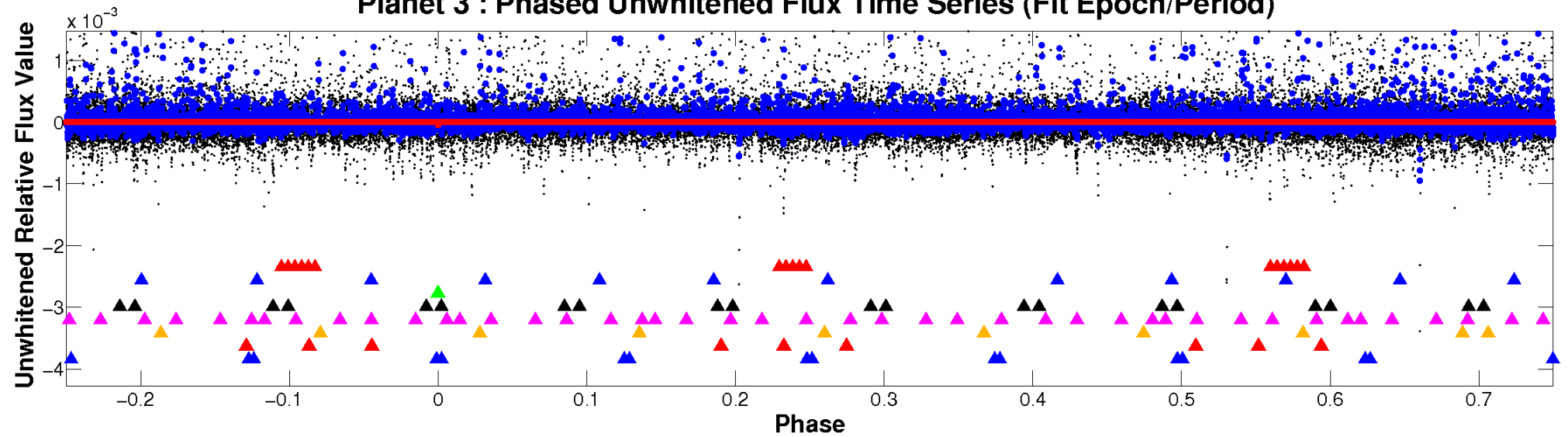
ALT Odd/Even

TCE 007339348-03

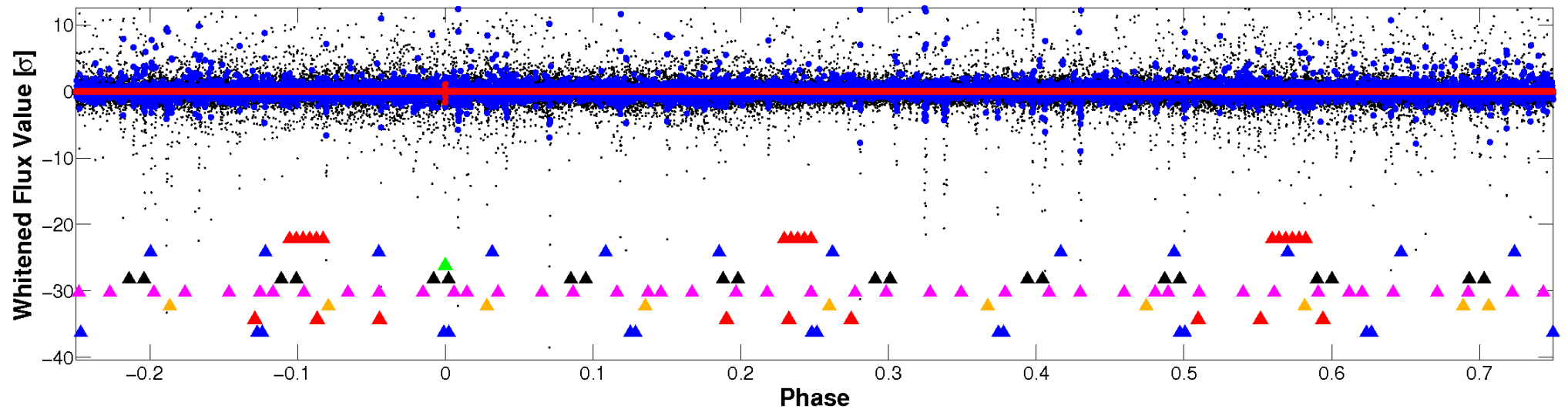


Non-Whitened Vs. Whitened Light Curve

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

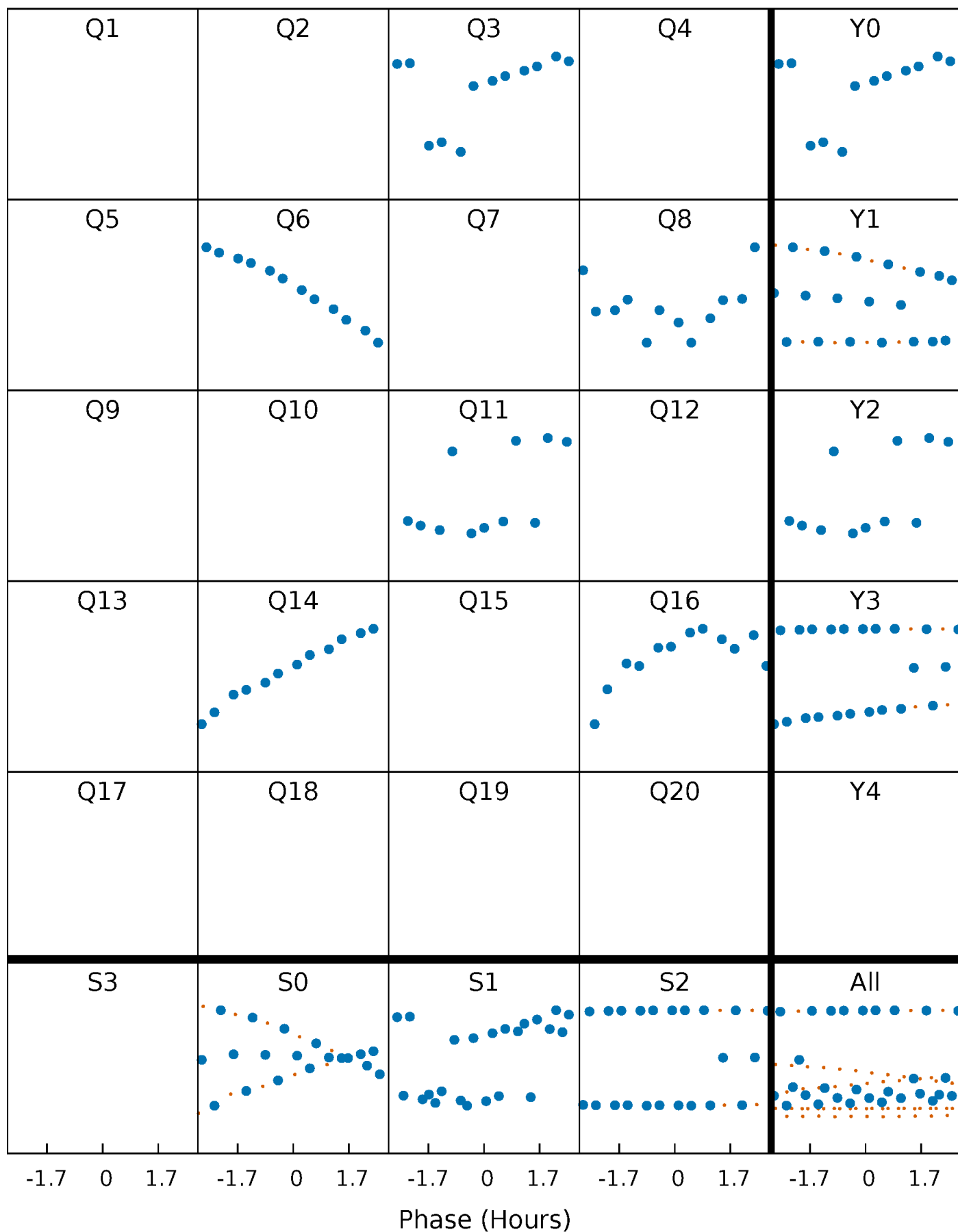


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



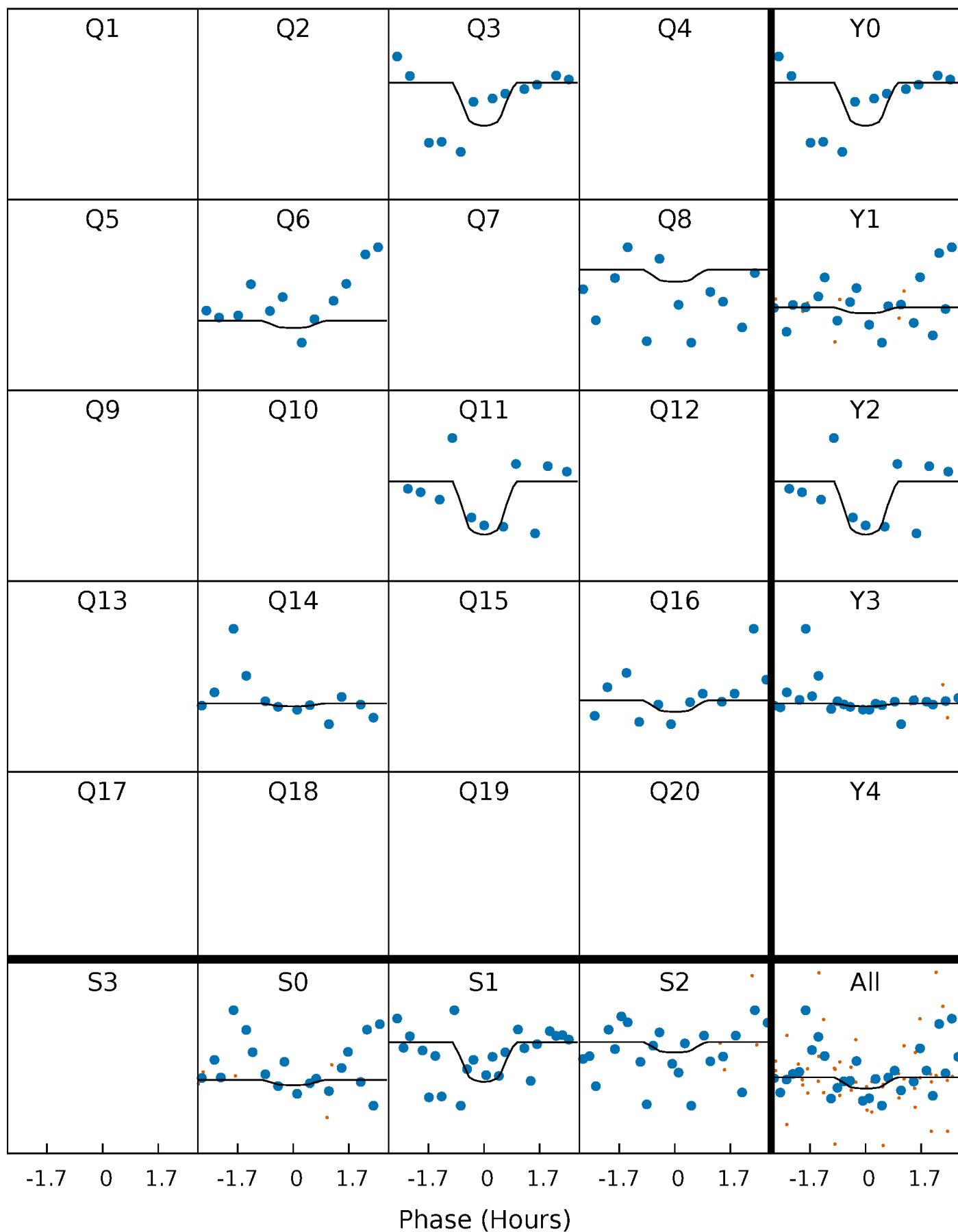
PDC Quarter-Phased Transit Curves

TCE 007339348-03 P=253.869090 Days $T_0=286.492737$ (BKJD)



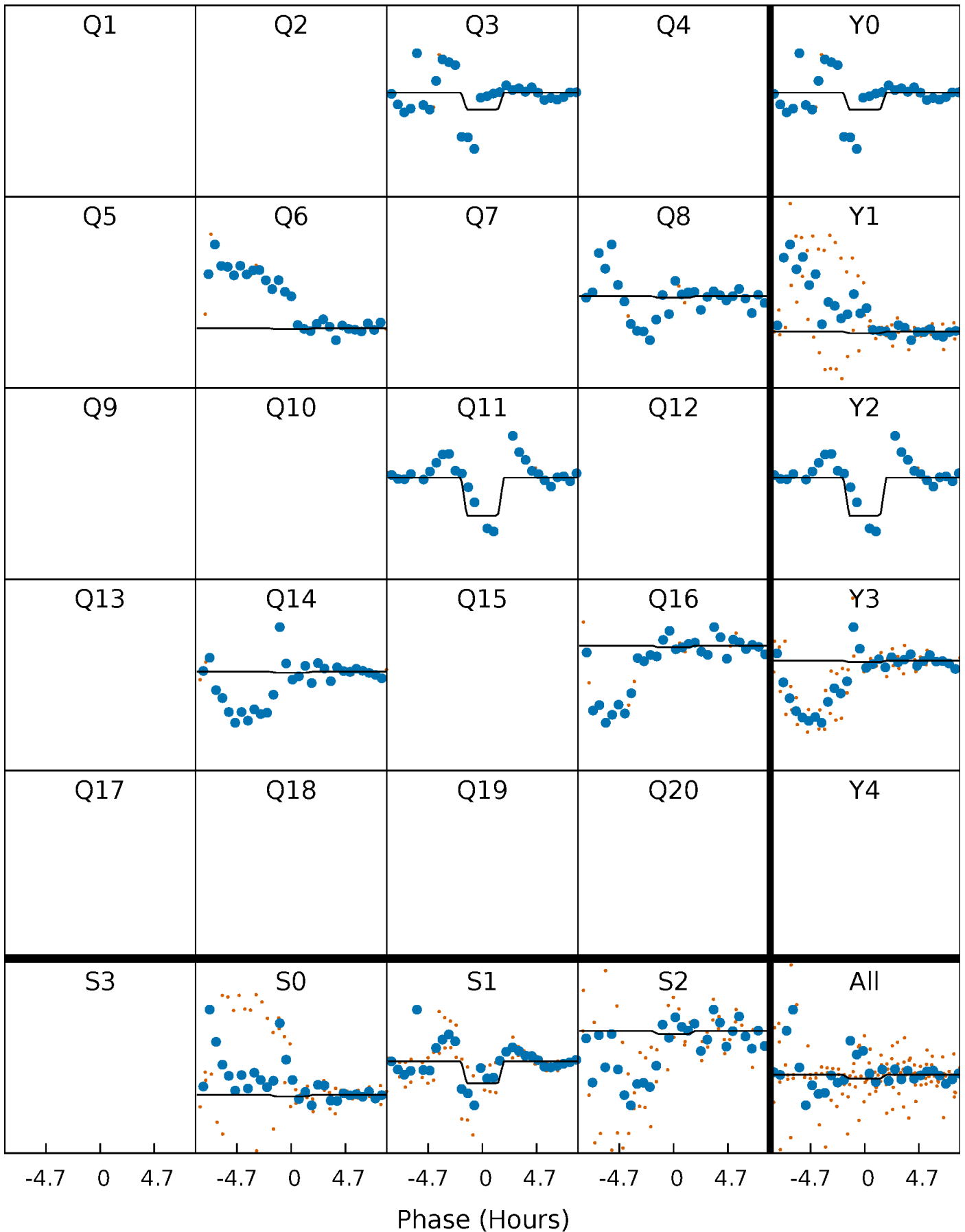
DV Quarter-Phased Transit Curves

TCE 007339348-03 $P=253.869090$ Days $T_0=286.492737$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

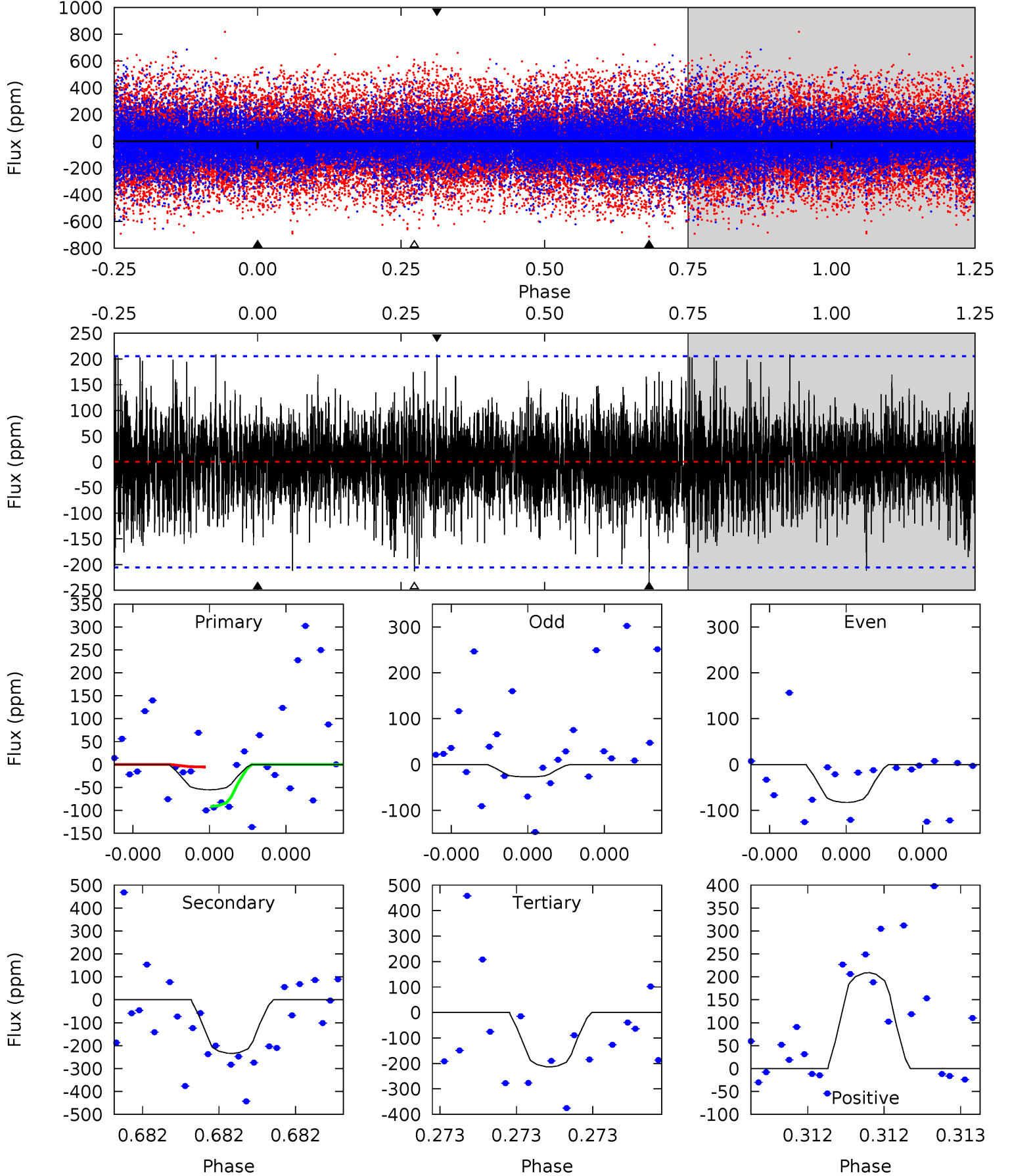
TCE 007339348-03 $P=253.859738$ Days $T_0=286.493909$ (BKJD)



DV Model-Shift Uniqueness Test

007339348-03, P = 253.869090 Days, E = 32.623647 Days

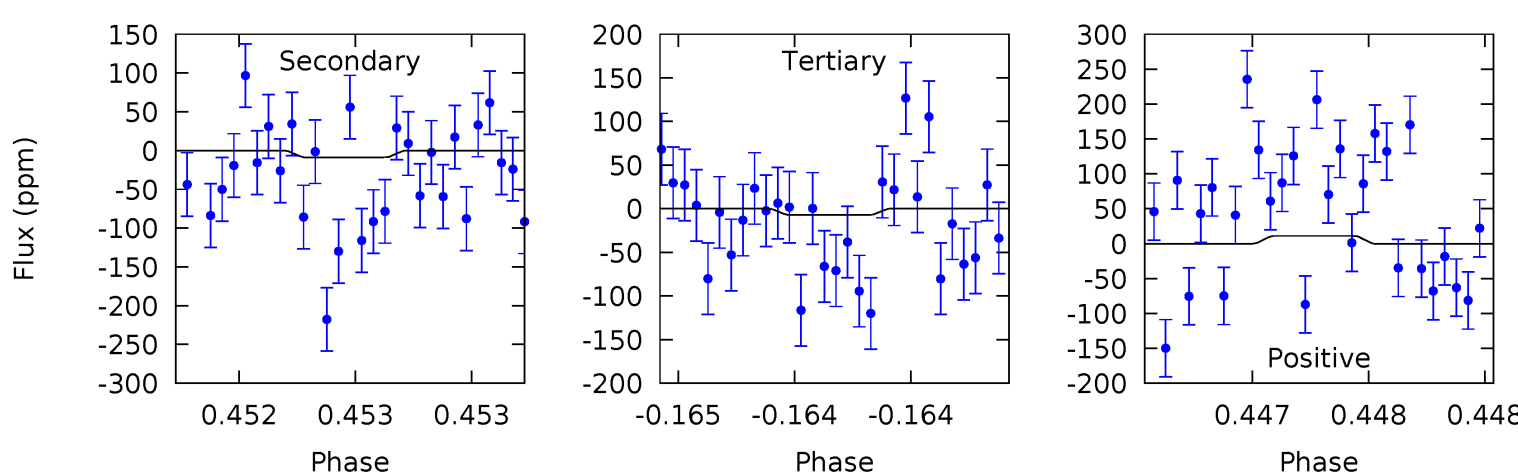
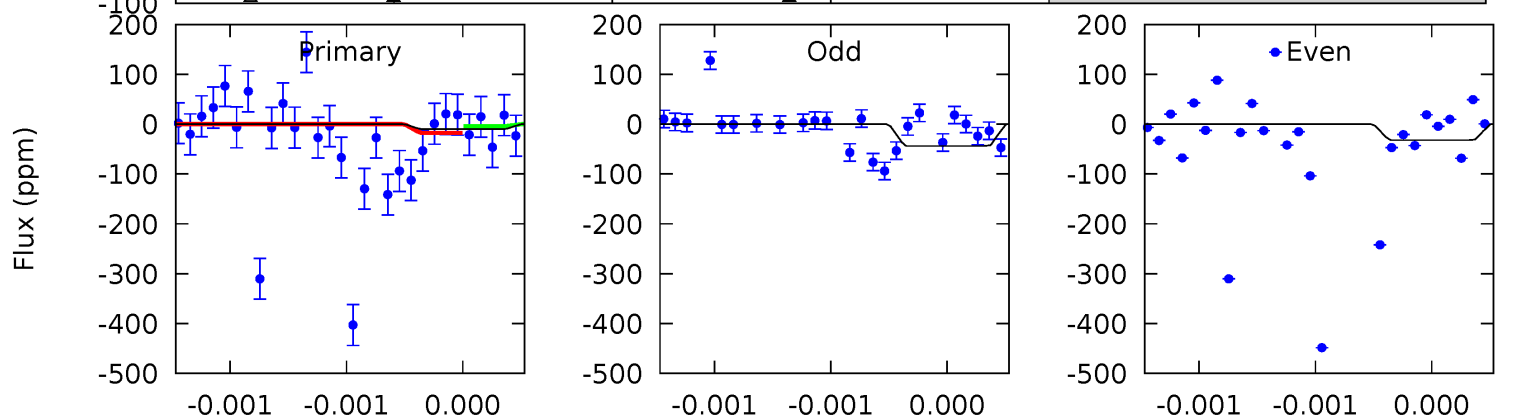
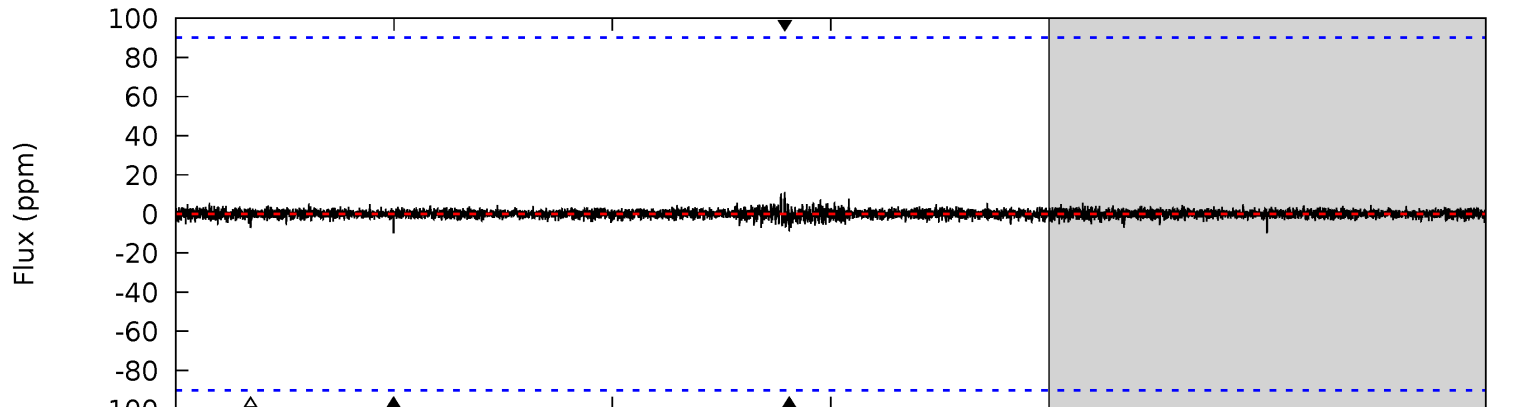
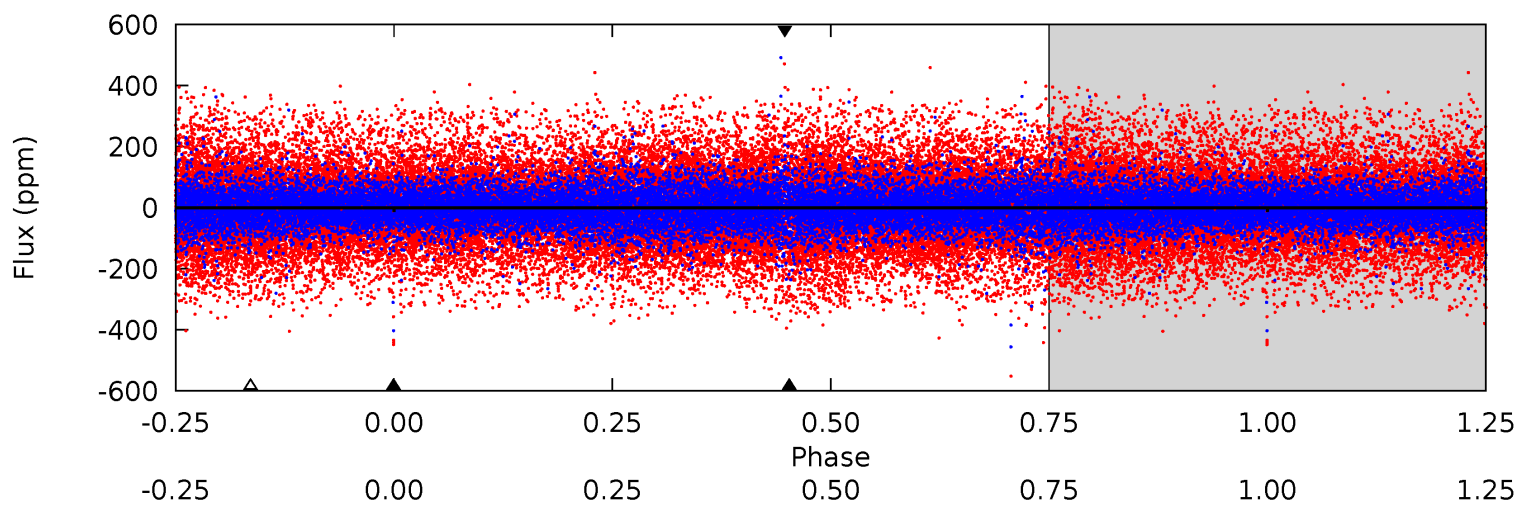
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.52	6.45	5.88	5.76	5.66	3.62	1.44	-4.36	-4.24	0.57	0.69	0.72	1.16	0.47	1.18



Alt Model-Shift Uniqueness Test

007339348-03, P = 253.859738 Days, E = 32.634171 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.61	0.54	0.44	0.68	5.54	3.43	0.09	0.17	-0.07	0.10	-0.14	0.37	-16.1	0.53	0.42



Stellar Parameters For KIC 007339348

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5827^{+193}_{-175}	$4.247^{+0.282}_{-0.212}$	$-0.460^{+0.300}_{-0.300}$	$1.126^{+0.345}_{-0.314}$	$0.816^{+0.126}_{-0.054}$	$0.805^{+1.193}_{-0.421}$
	+3%/-3%	+7%/-5%	+65%/-65%	+31%/-28%	+15%/-7%	+148%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007339348-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-234 ± 36	$3.11^{+3.49}_{-2.28}$	443^{+40}_{-41}	4630^{+4457}_{-1037}	7378^{+94093}_{-5739}
Alt.	-9 ± 16	$2.84^{+3.27}_{-1.88}$	445^{+37}_{-42}	2676^{+1257}_{-5283}	229^{+3501}_{-411}

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

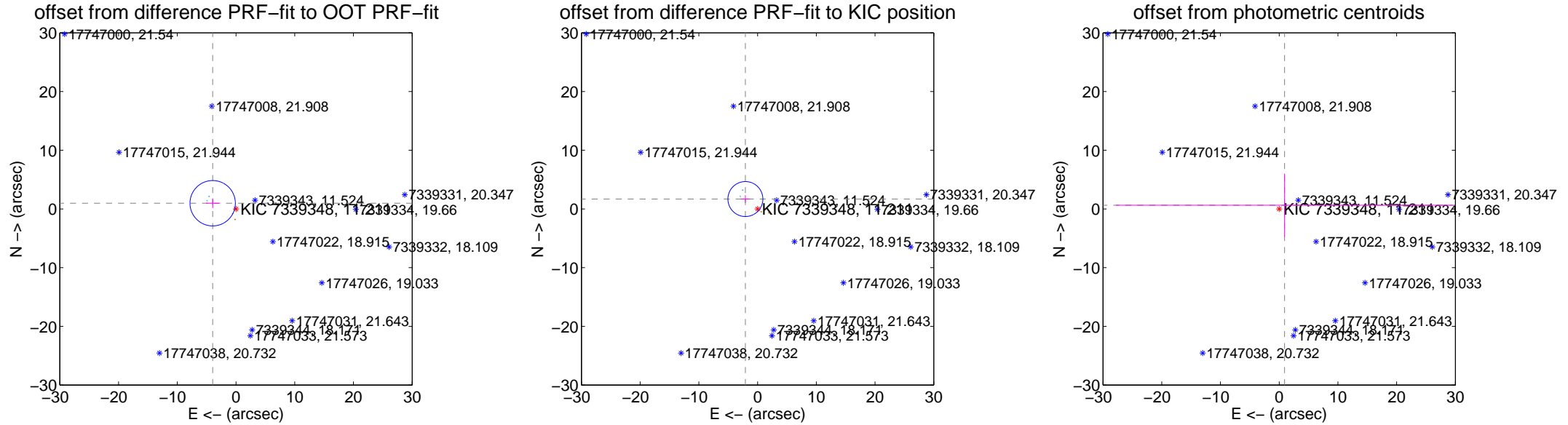
DV Centroid Data

Supplemental centroid analysis for 007339348-03. **Kepler magnitude: 11.21.** Transit SNR 6.77

There are 3 quarters with good PRF difference image offsets

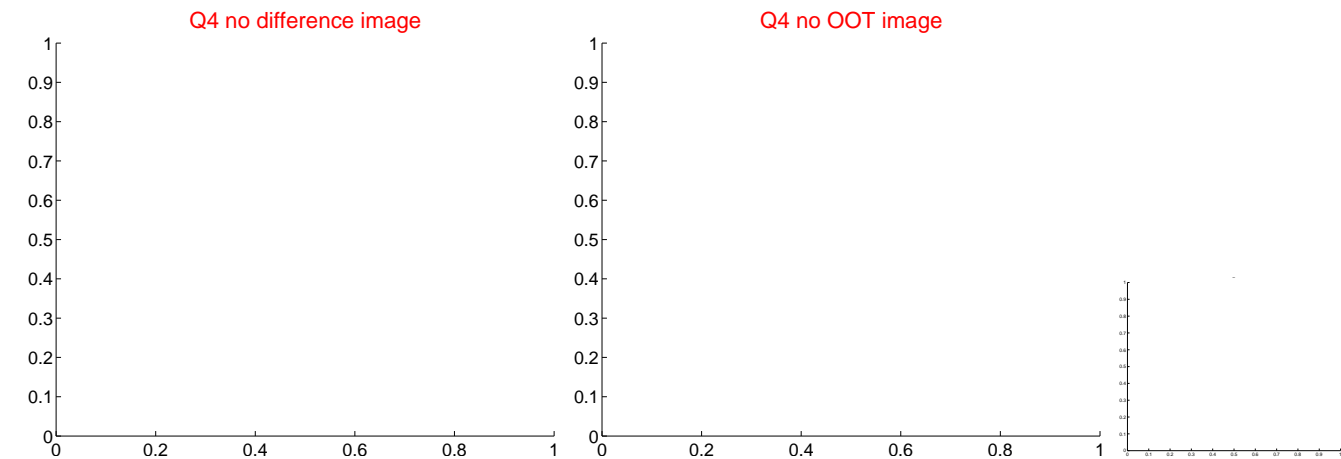
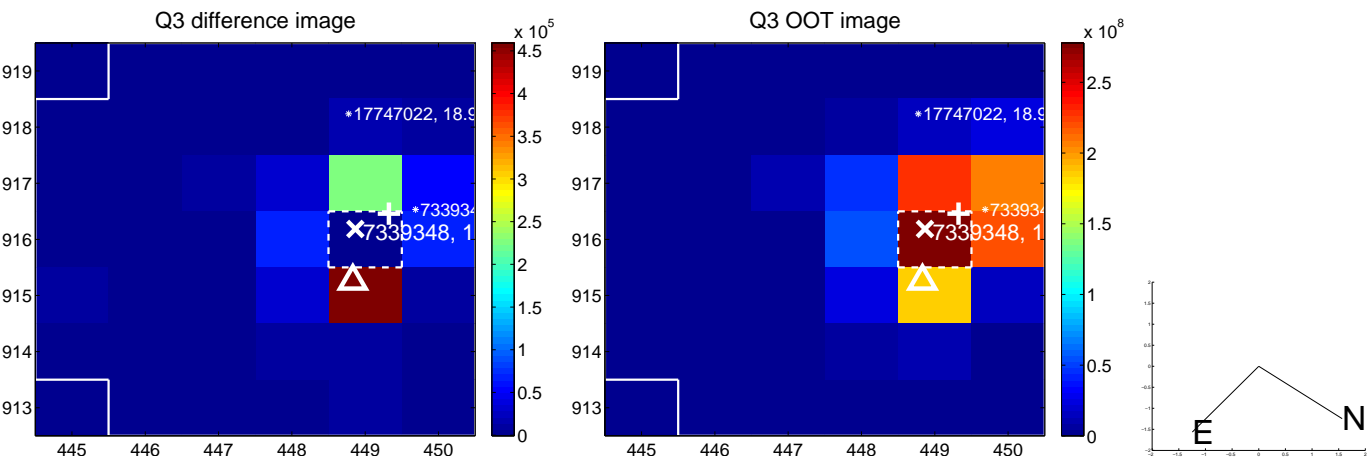
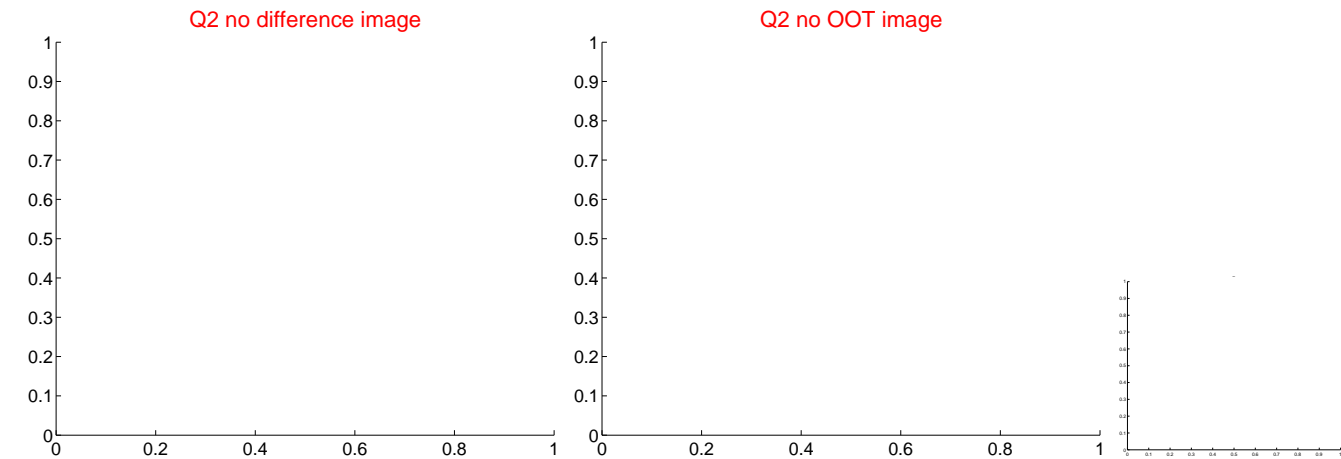
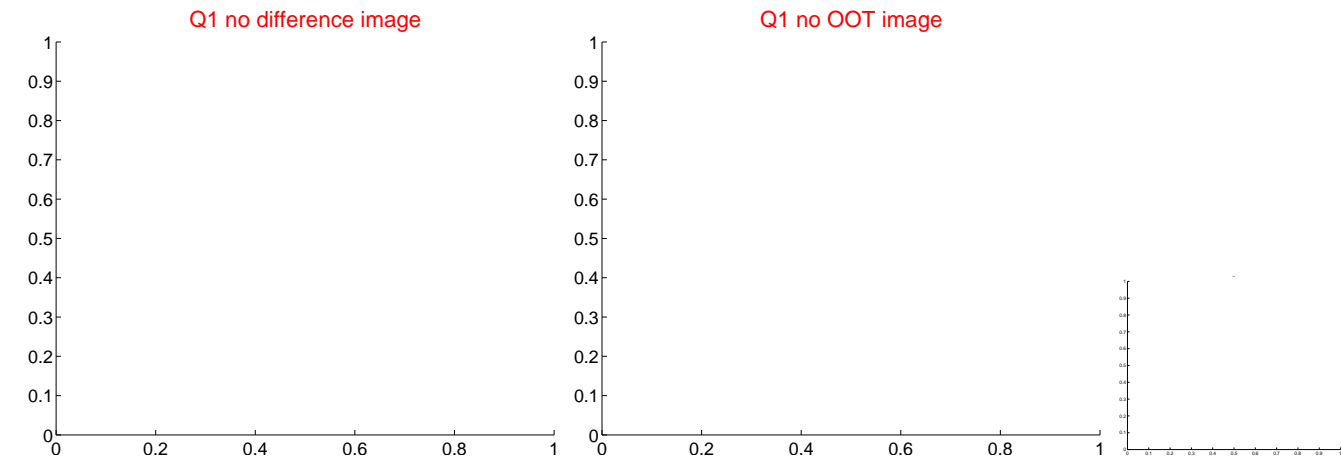
The OOT PRF centroid is offset from the target star catalog position by about 2.35 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.089 ± 1.288	3.17	3.972 ± 1.132	0.972 ± 0.819
PRF-fit source offset from KIC position	2.675 ± 0.992	2.70	2.078 ± 0.800	1.685 ± 0.644
photometric centroid source offset	1.11 ± 23.80	0.05	-0.91 ± 28.72	0.63 ± 5.39

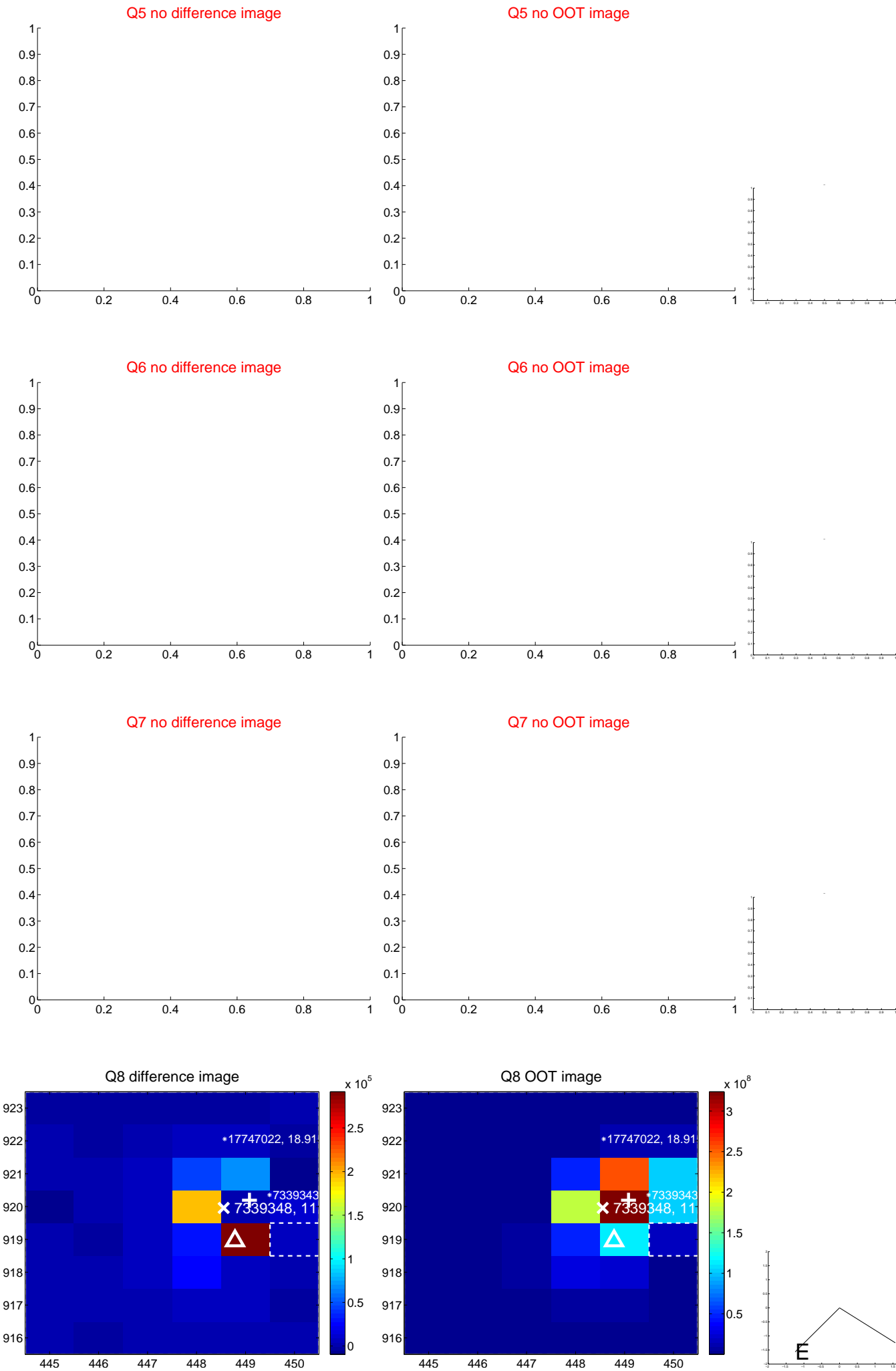


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

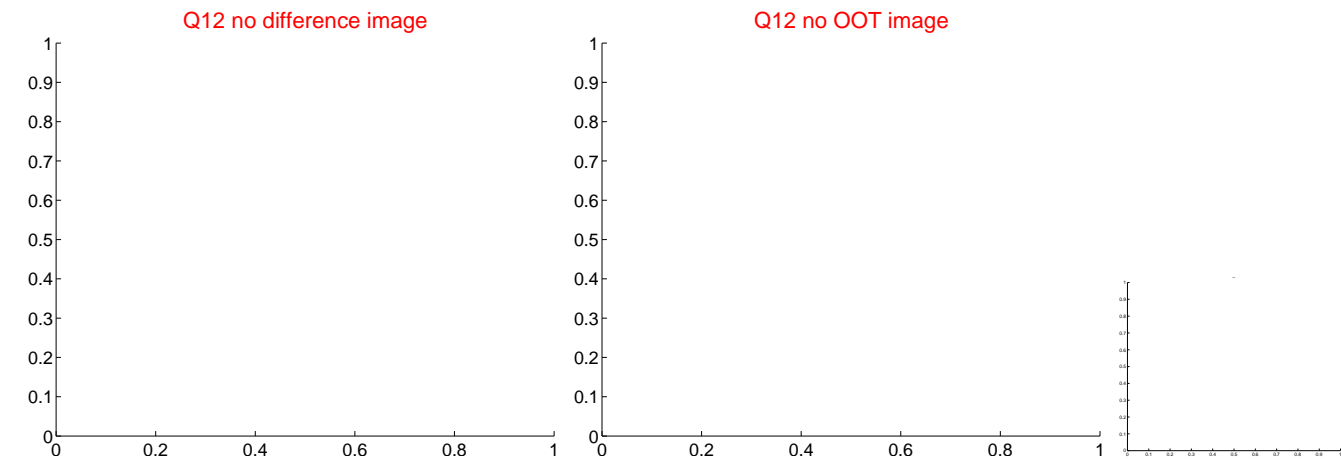
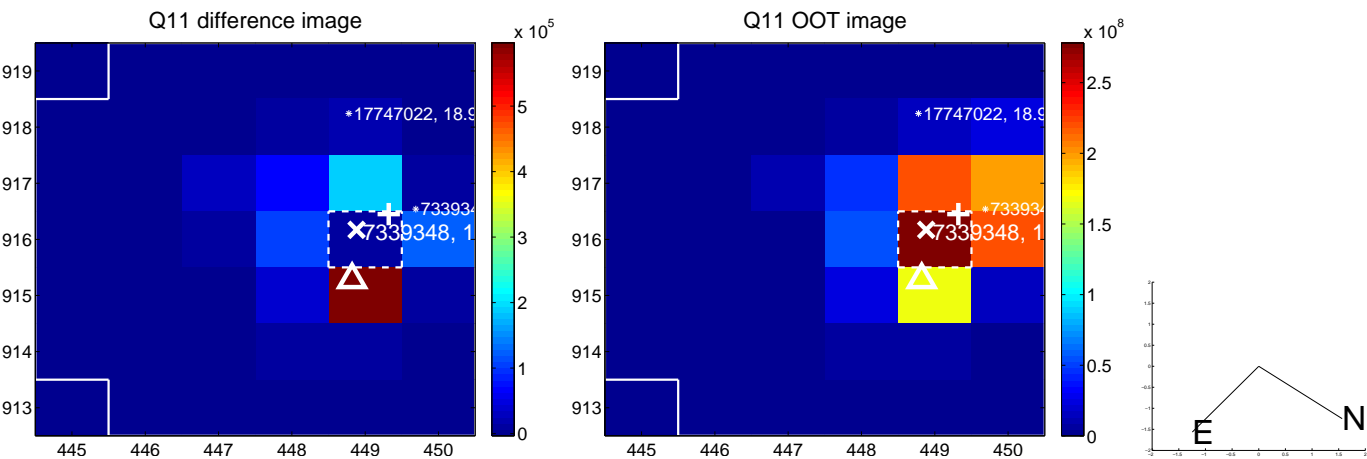
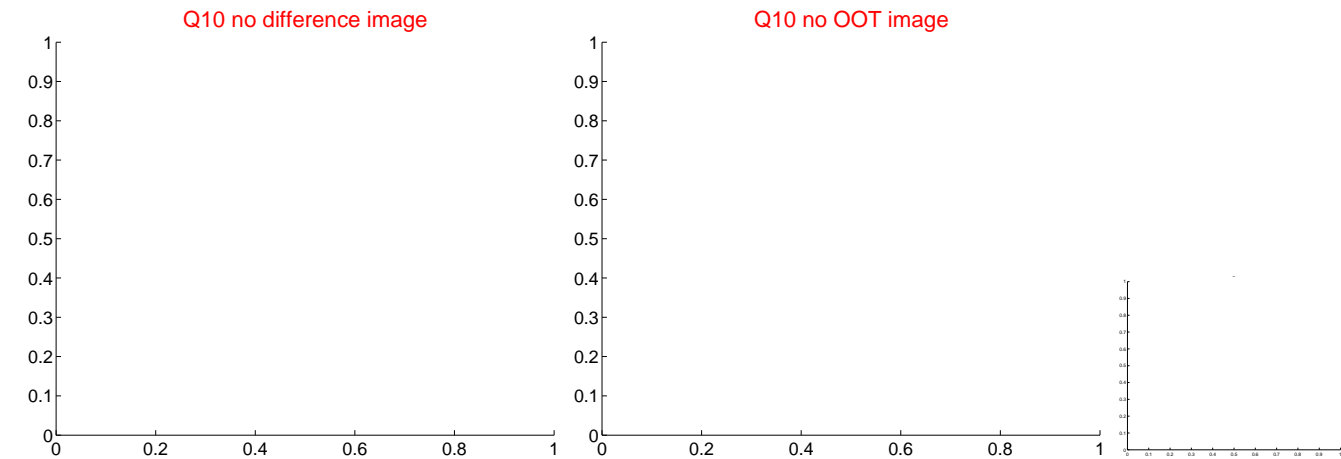
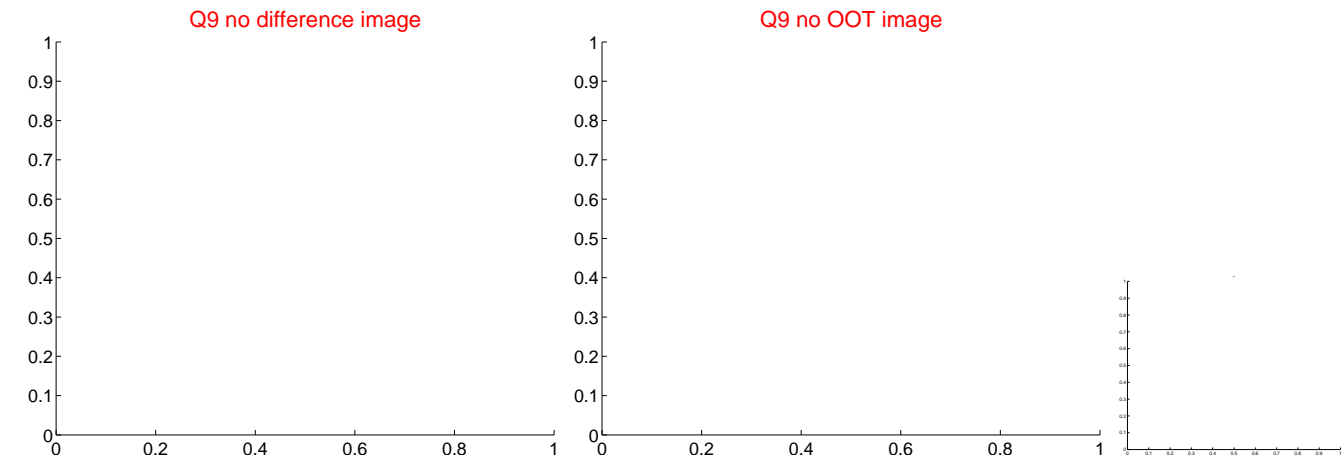
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

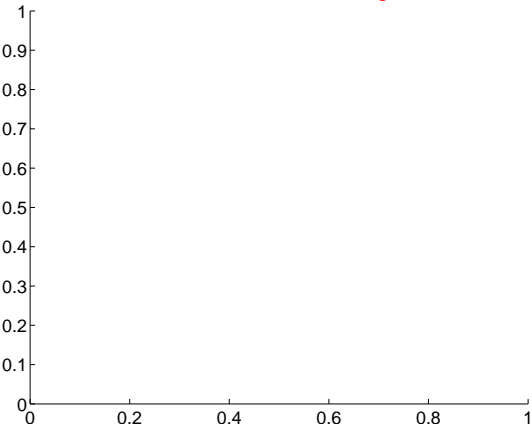


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

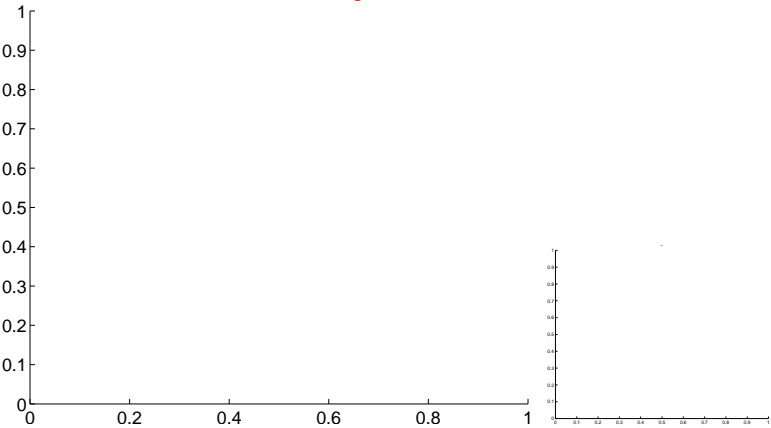


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

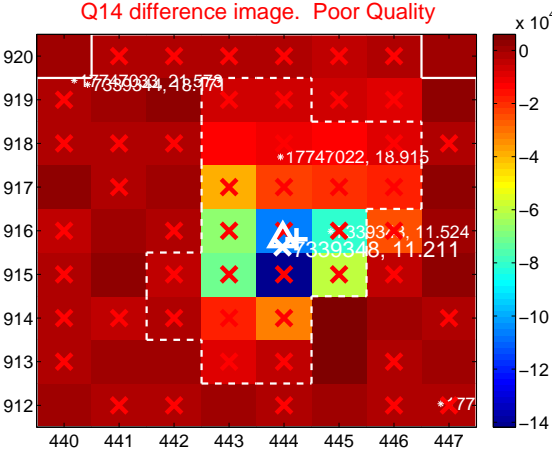
Q13 no difference image



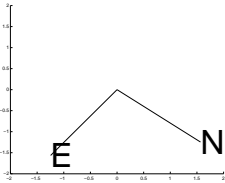
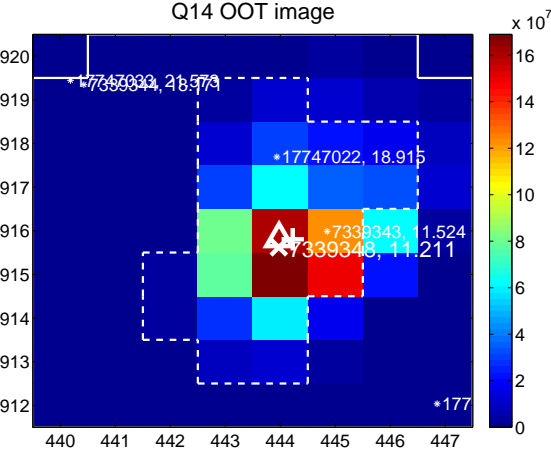
Q13 no OOT image



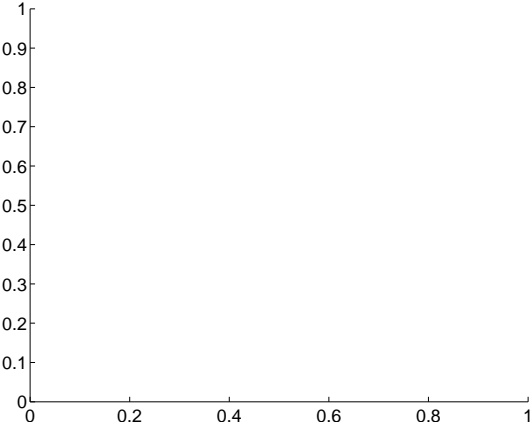
Q14 difference image. Poor Quality



Q14 OOT image



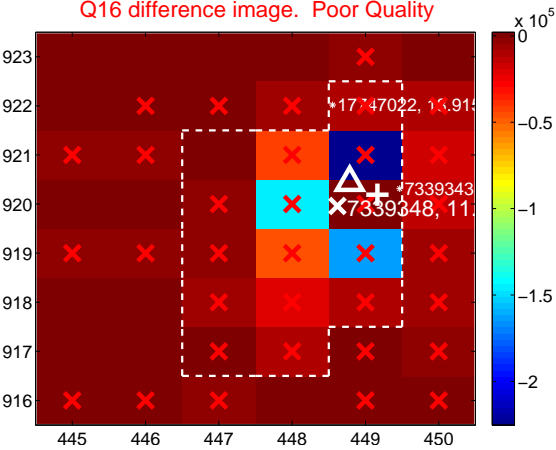
Q15 no difference image



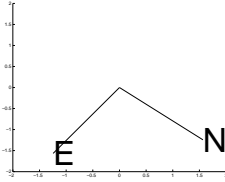
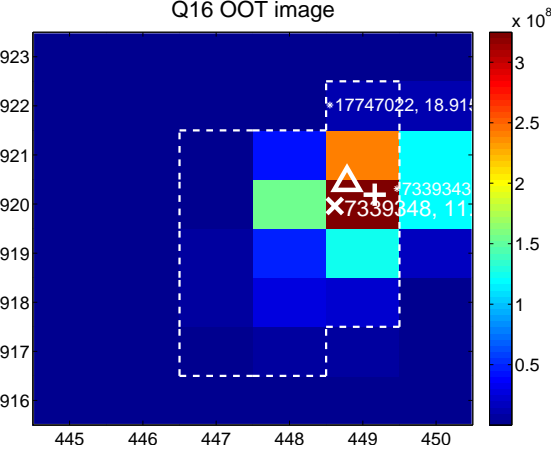
Q15 no OOT image



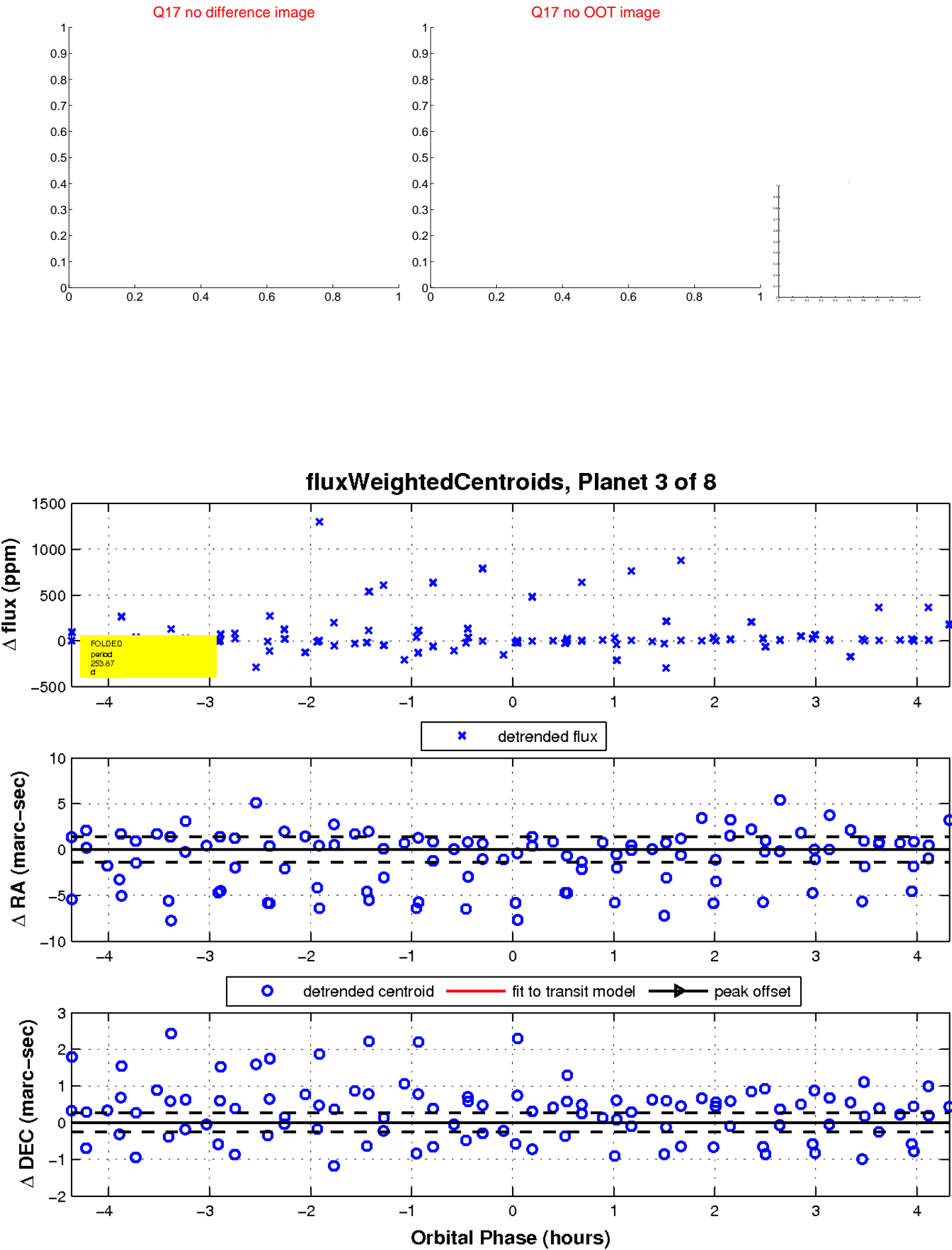
Q16 difference image. Poor Quality



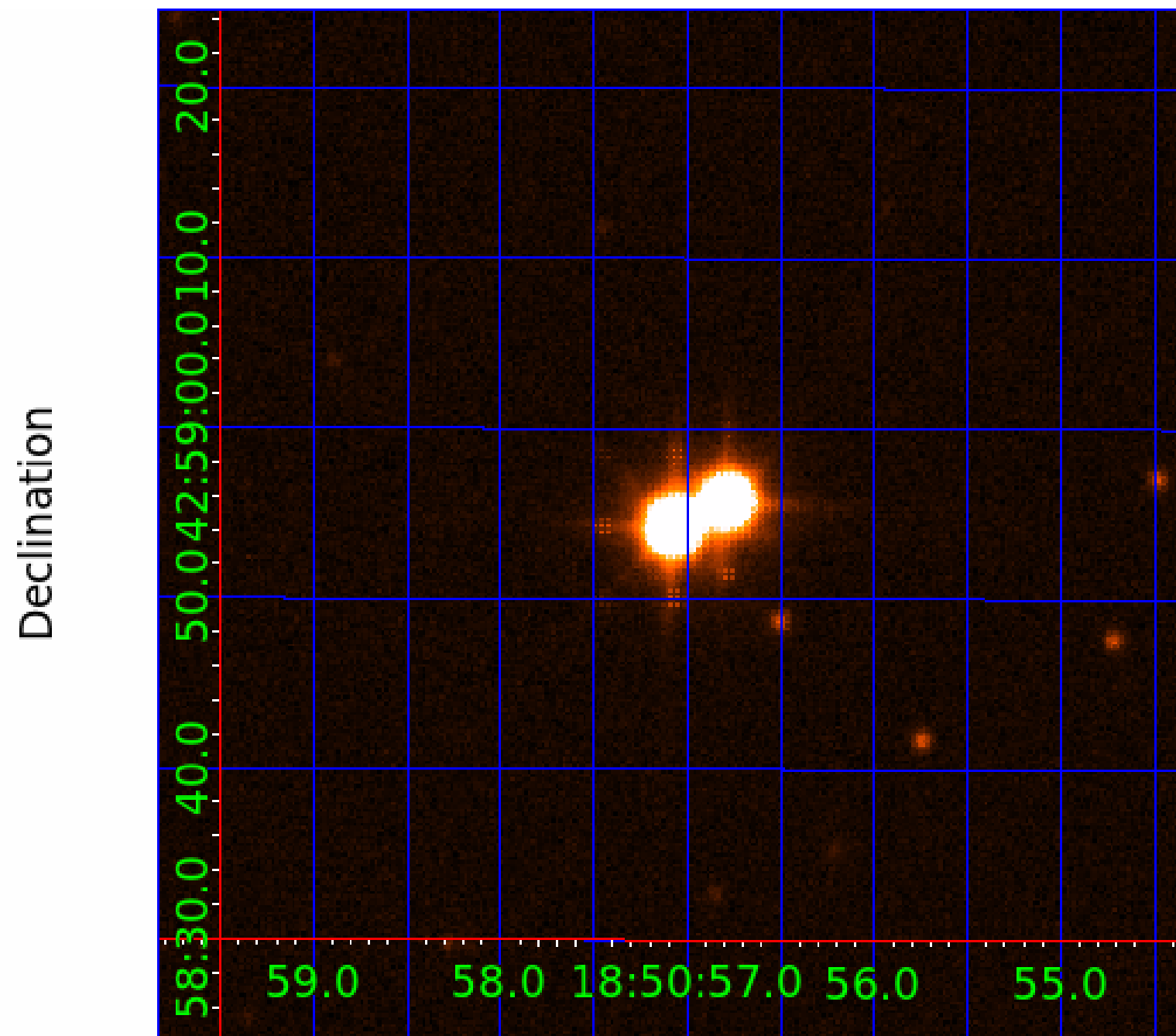
Q16 OOT image



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



UKIRT Image



KIC 007339348

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})
007339348-01	OBS	No	85.006629	174.736102	52.1	2.218	24.7	11.0	1.13	5827	0.98	10.47
007339348-02	OBS	No	117.188421	235.852973	87.7	3.565	22.7	22.0	1.13	5827	1.25	6.82
007339348-03	OBS	No	253.869090	286.492737	47.9	1.456	20.6	6.8	1.13	5827	0.84	2.43
007339348-04	OBS	No	75.903318	135.248398	6.8	7.330	18.3	0.9	1.13	5827	0.32	12.17
007339348-05	OBS	No	33.345513	156.832396	61.3	1.073	19.0	31.2	1.13	5827	0.94	36.45
007339348-06	OBS	No	140.551536	211.926482	108.0	16.401	14.3	13.6	1.13	5827	1.27	5.35
007339348-07	OBS	No	172.817646	161.999799	5.1	10.356	17.1	0.9	1.13	5827	0.30	4.06
007339348-08	OBS	No	95.310334	158.857260	27.7	2.762	17.3	4.2	1.13	5827	0.72	8.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007339348-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

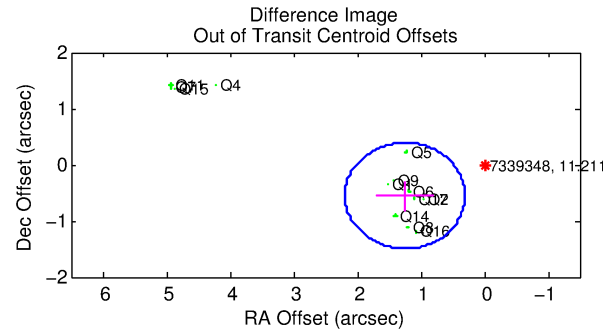
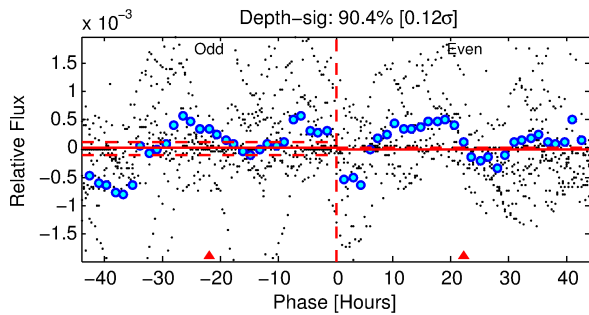
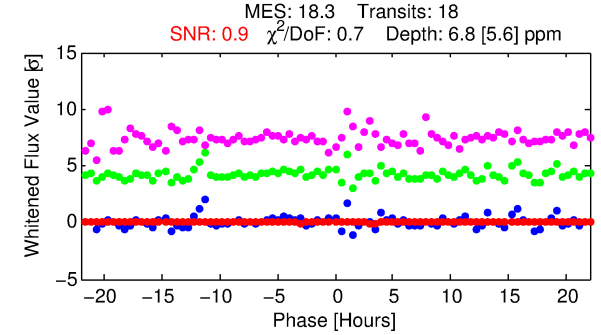
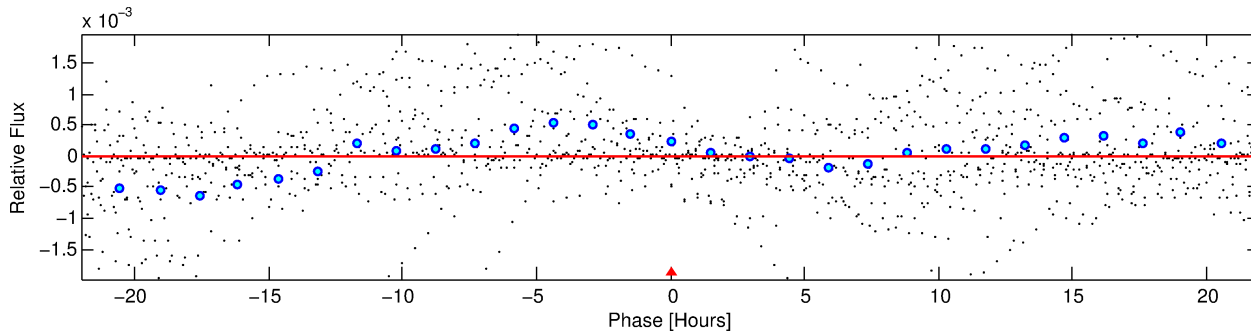
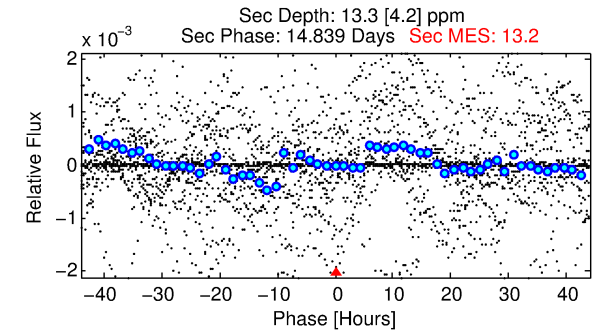
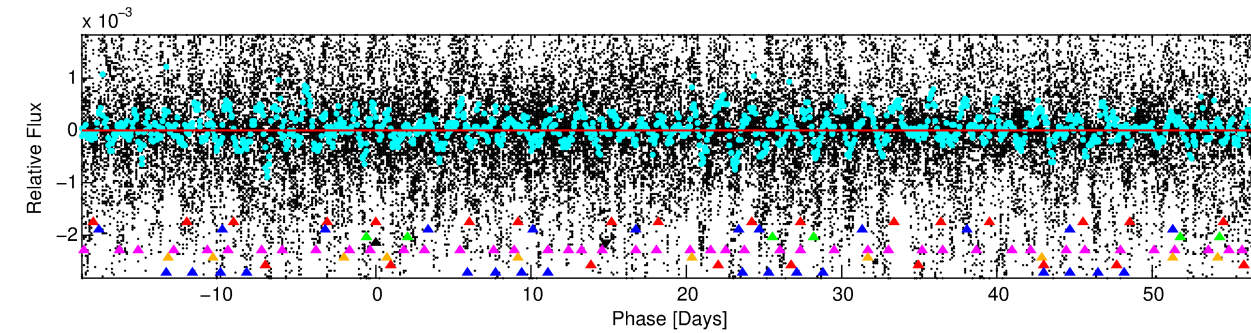
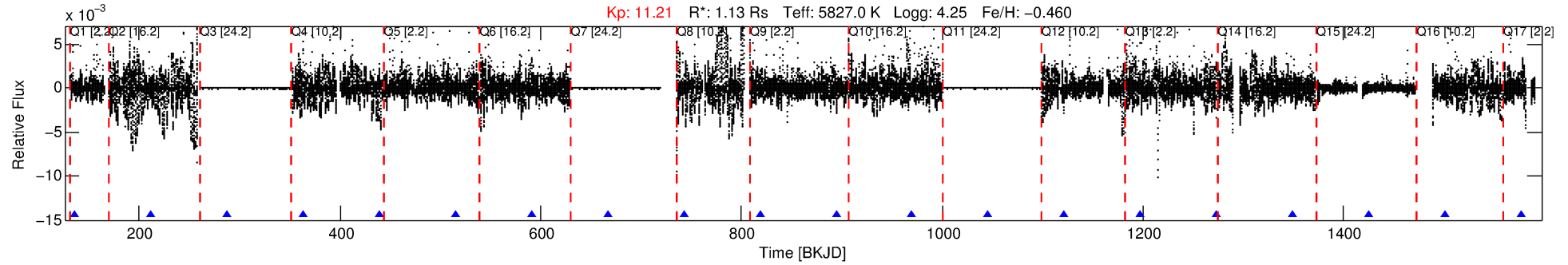
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007339348-04

No Significant Match Found

DV One-Page Summary

KIC: 7339348 Candidate: 4 of 8 Period: 75.903 d



DV Fit Results:

Period = 75.90332 [0.00296] d
Epoch = 135.2484 [0.0367] BKJD
Rp/R* = 0.0026 [0.0039]
a/R* = 48.92 [380.45]
b = 0.79 [3.68]
Seff = 12.17 [6.05]
Teq = 476 [59] K
Rp = 0.32 [0.49] Re
a = 0.3280 [0.0976] AU
Ag = 7519.89 [22745.76] [0.33 σ]
Teffp = 6857 [5125] K [1.24 σ]

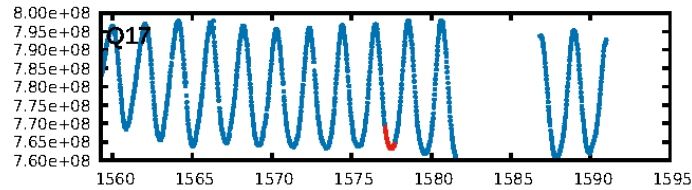
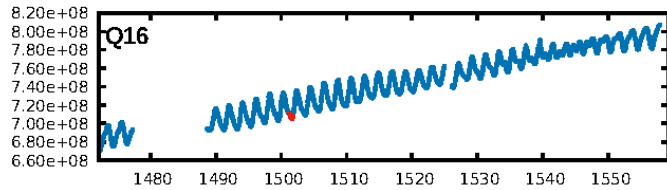
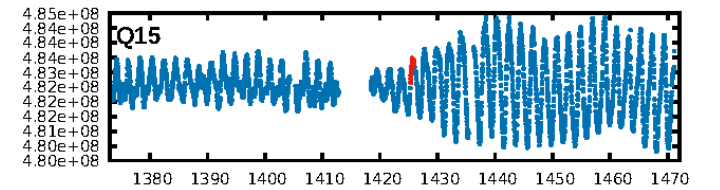
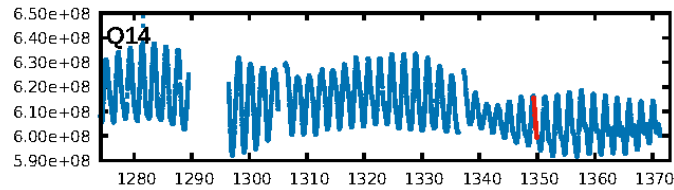
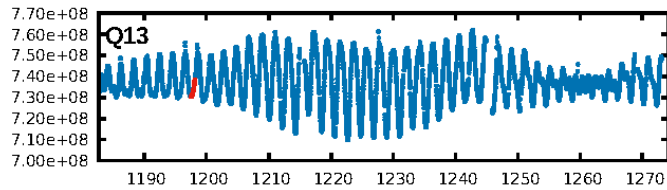
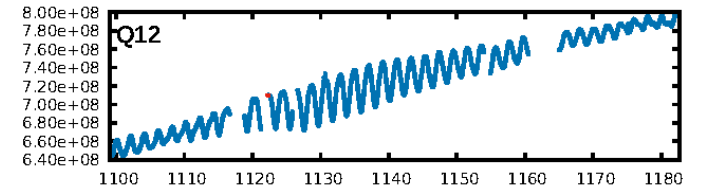
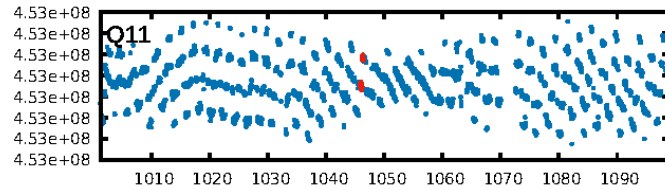
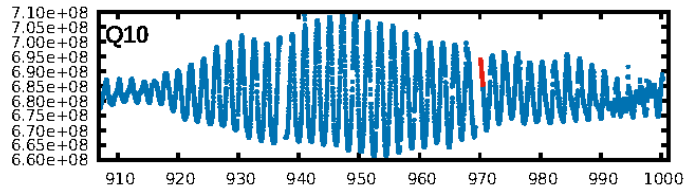
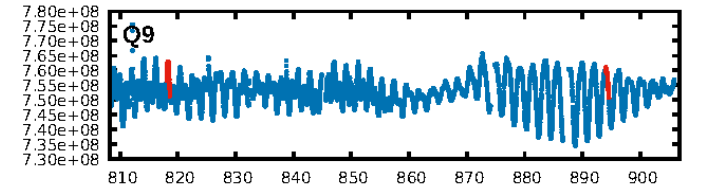
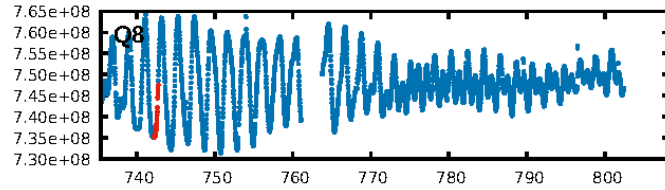
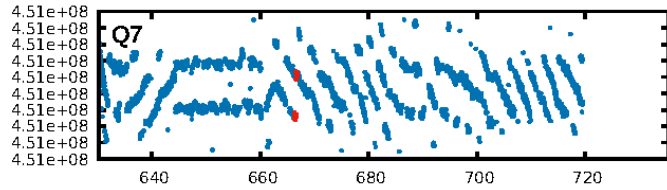
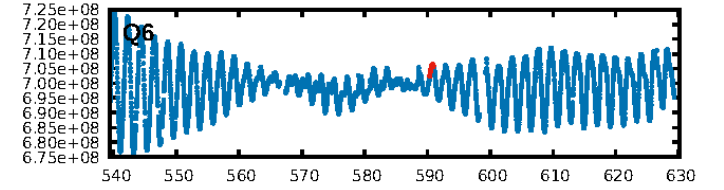
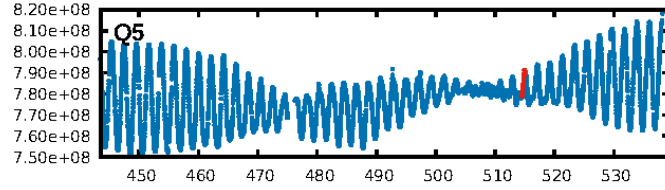
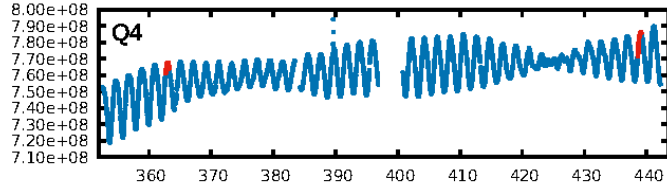
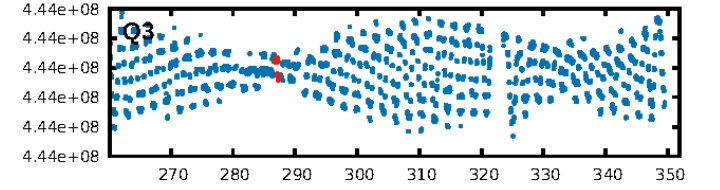
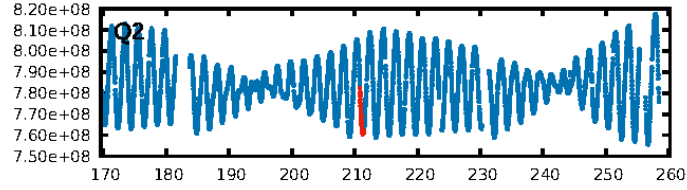
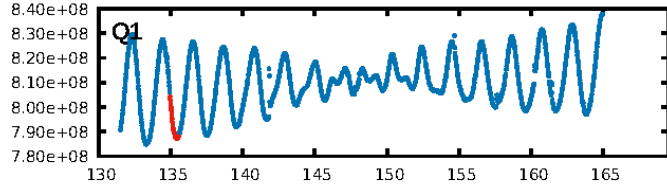
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [137.88 σ]
LongPeriod-sig: 100.0% [28.53 σ]
ModelChiSquare2-sig: 30.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.00e-10
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: -2.278
Centroid-sig: 76.5%
Centroid-so: 52.251 arcsec [0.56 σ]
OotOffset-rm: 1.370 arcsec [4.36 σ]
KicOffset-rm: 0.093 arcsec [0.24 σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 0.71 [10/14]

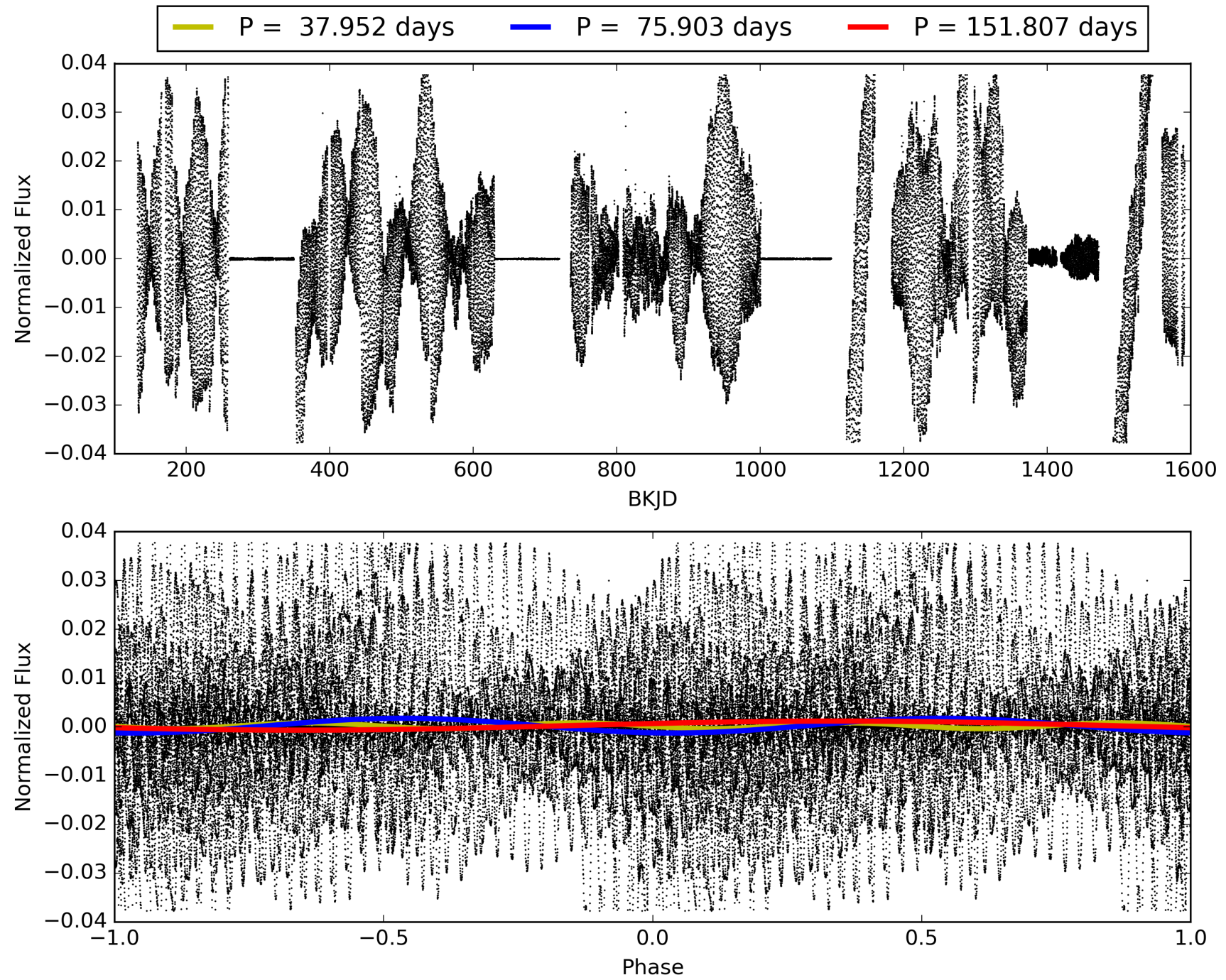
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:29:49 Z

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

TCE 007339348-04, PDC Light Curves

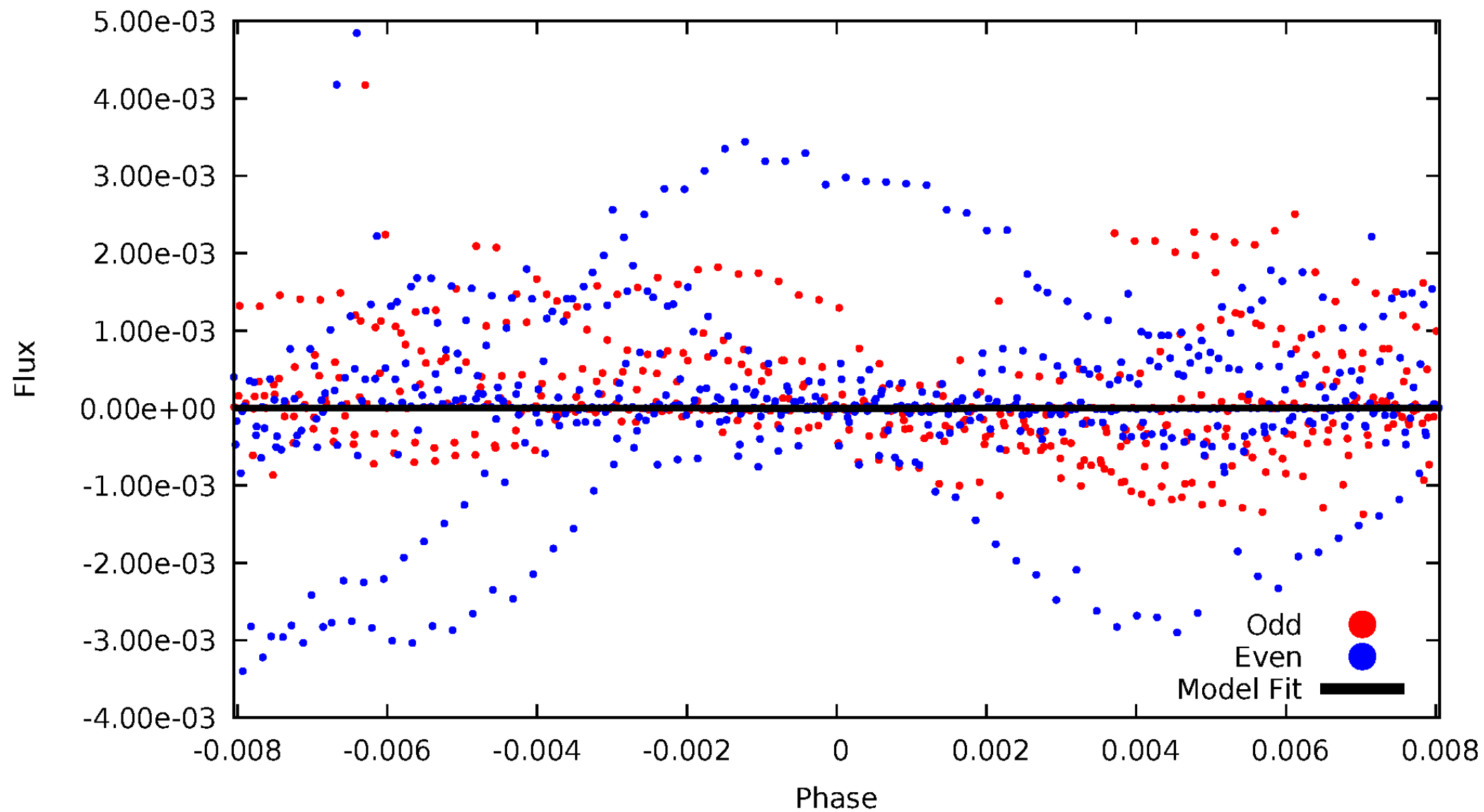


TCE 007339348-04



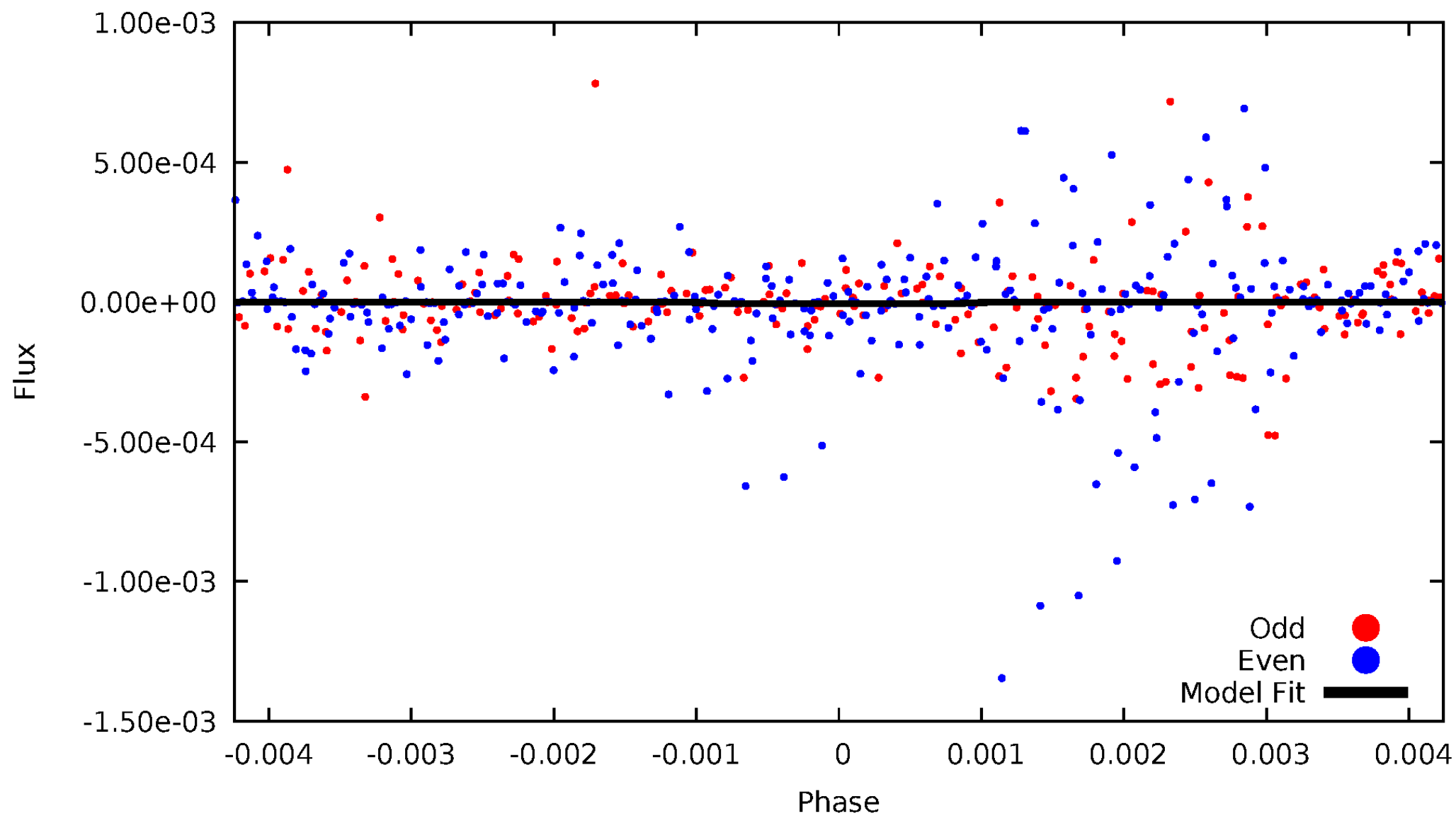
DV Odd/Even

TCE 007339348-04



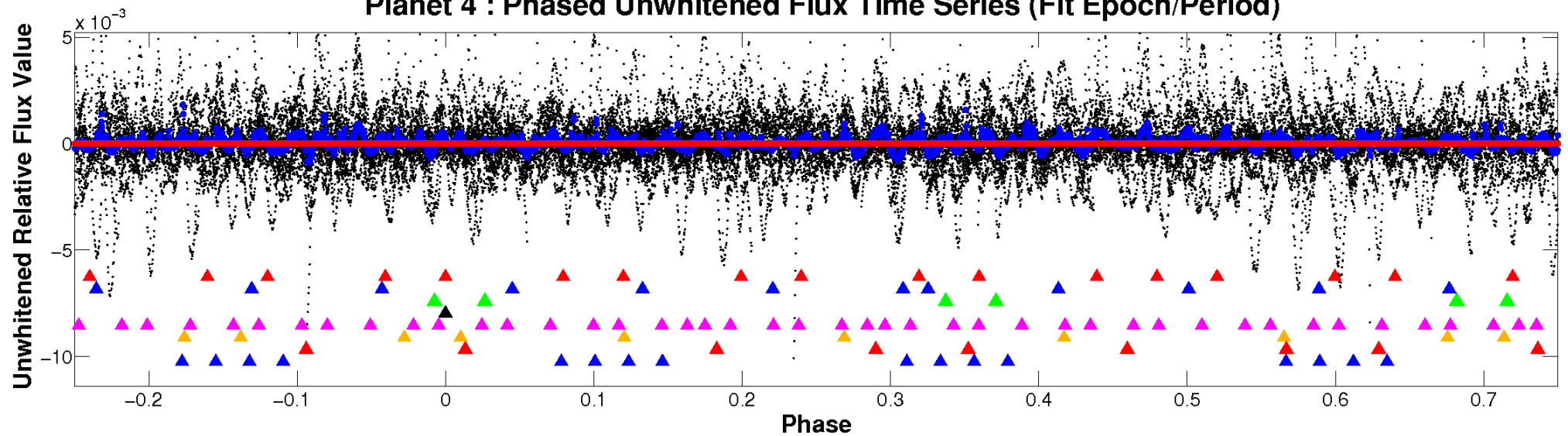
ALT Odd/Even

TCE 007339348-04

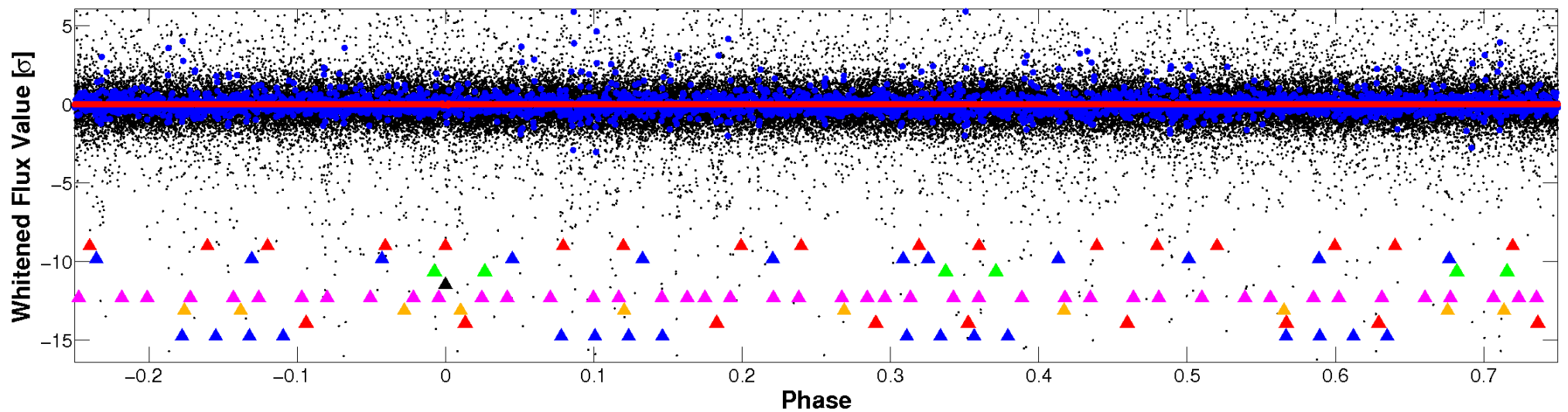


Non-Whitened Vs. Whitened Light Curve

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

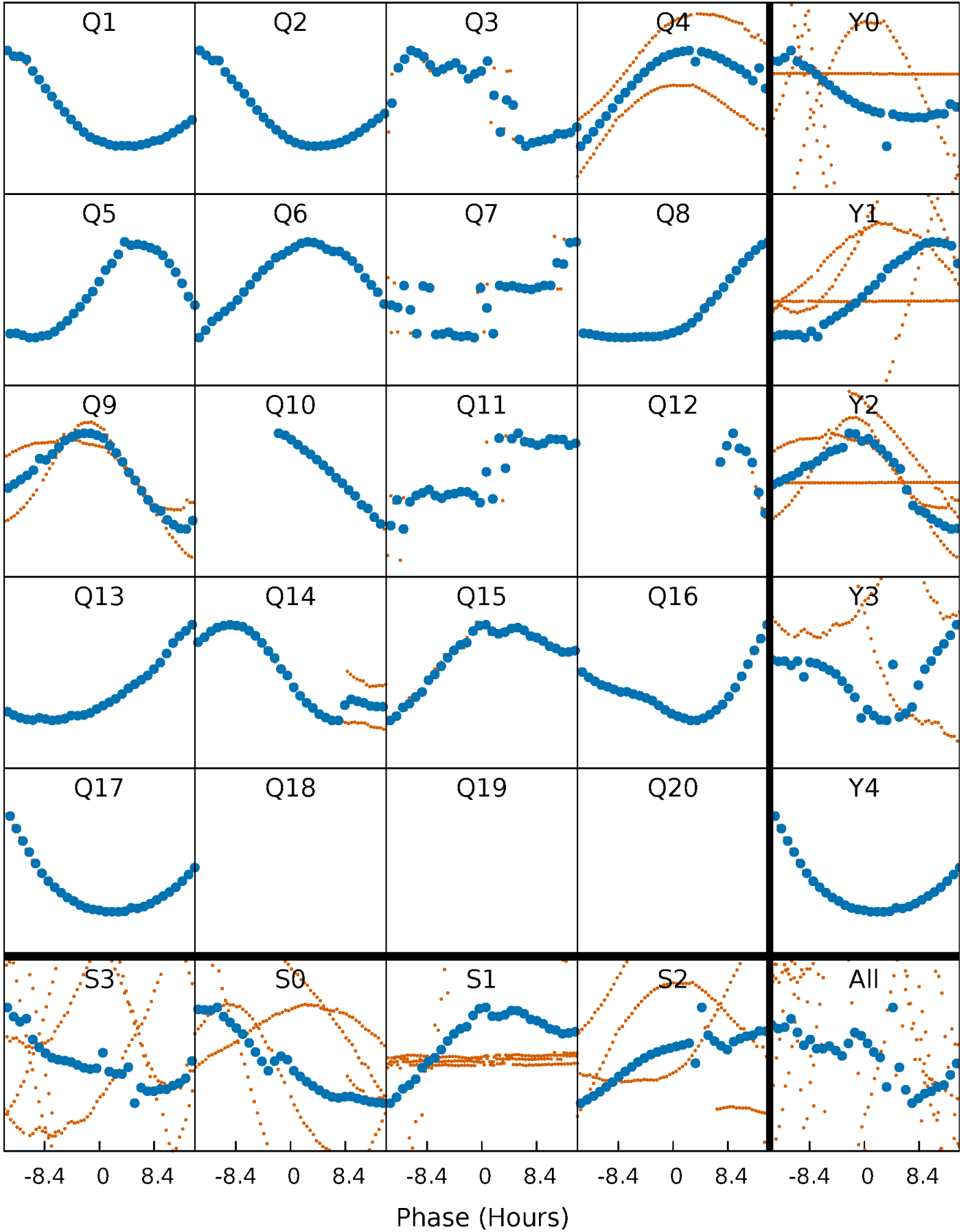


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



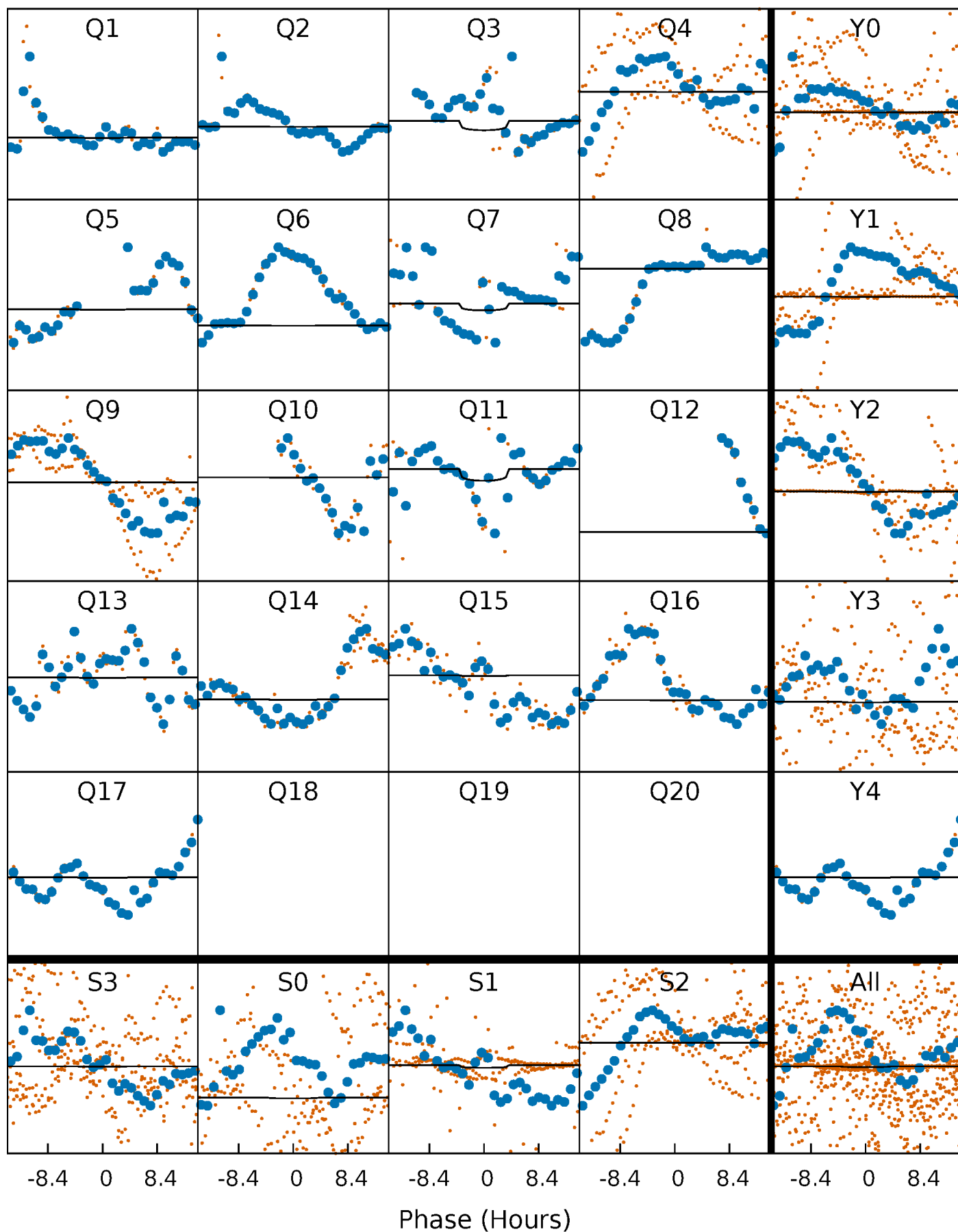
PDC Quarter-Phased Transit Curves

TCE 007339348-04 P= 75.903318 Days $T_0=135.248398$ (BKJD)



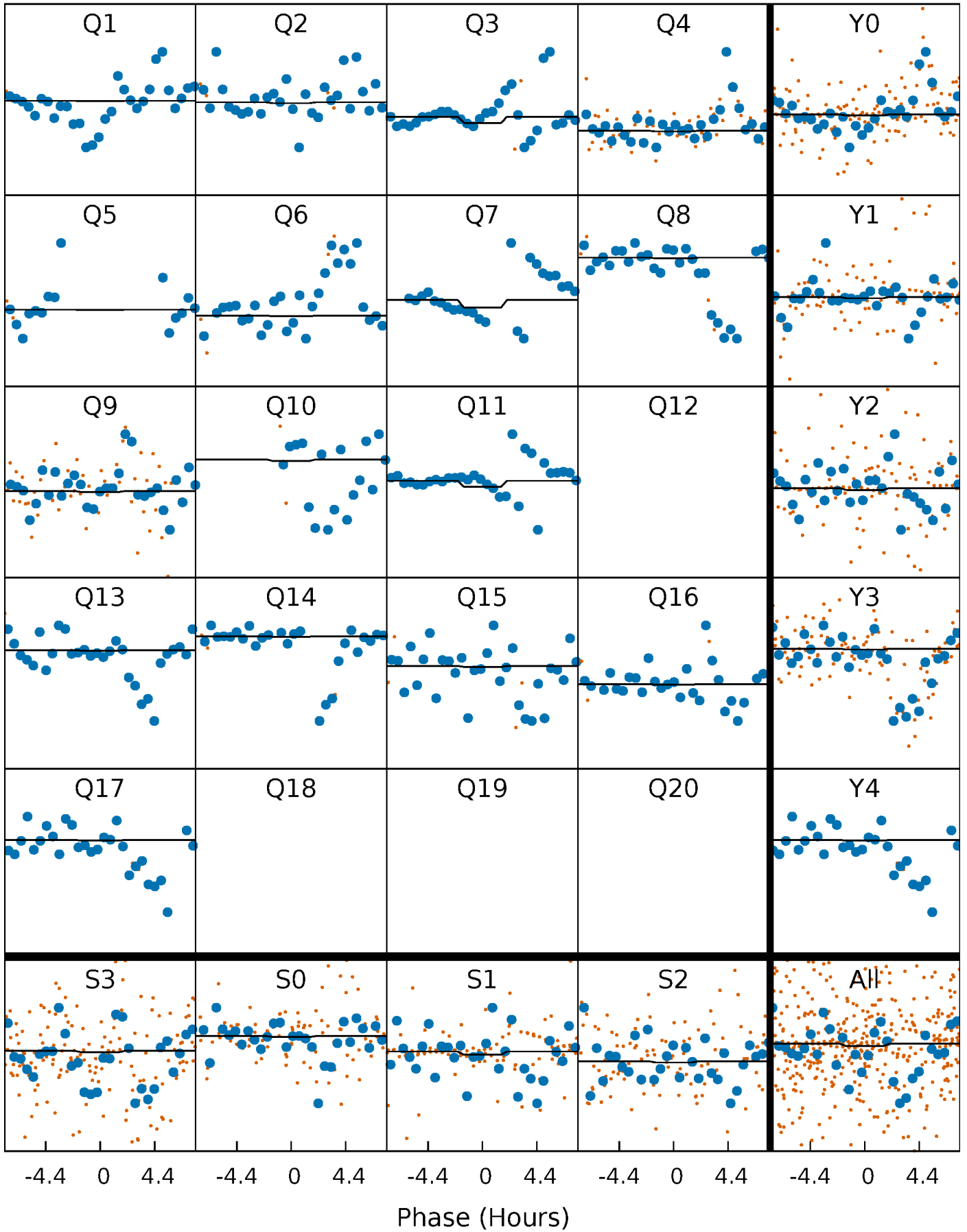
DV Quarter-Phased Transit Curves

TCE 007339348-04 P= 75.903318 Days $T_0=135.248398$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

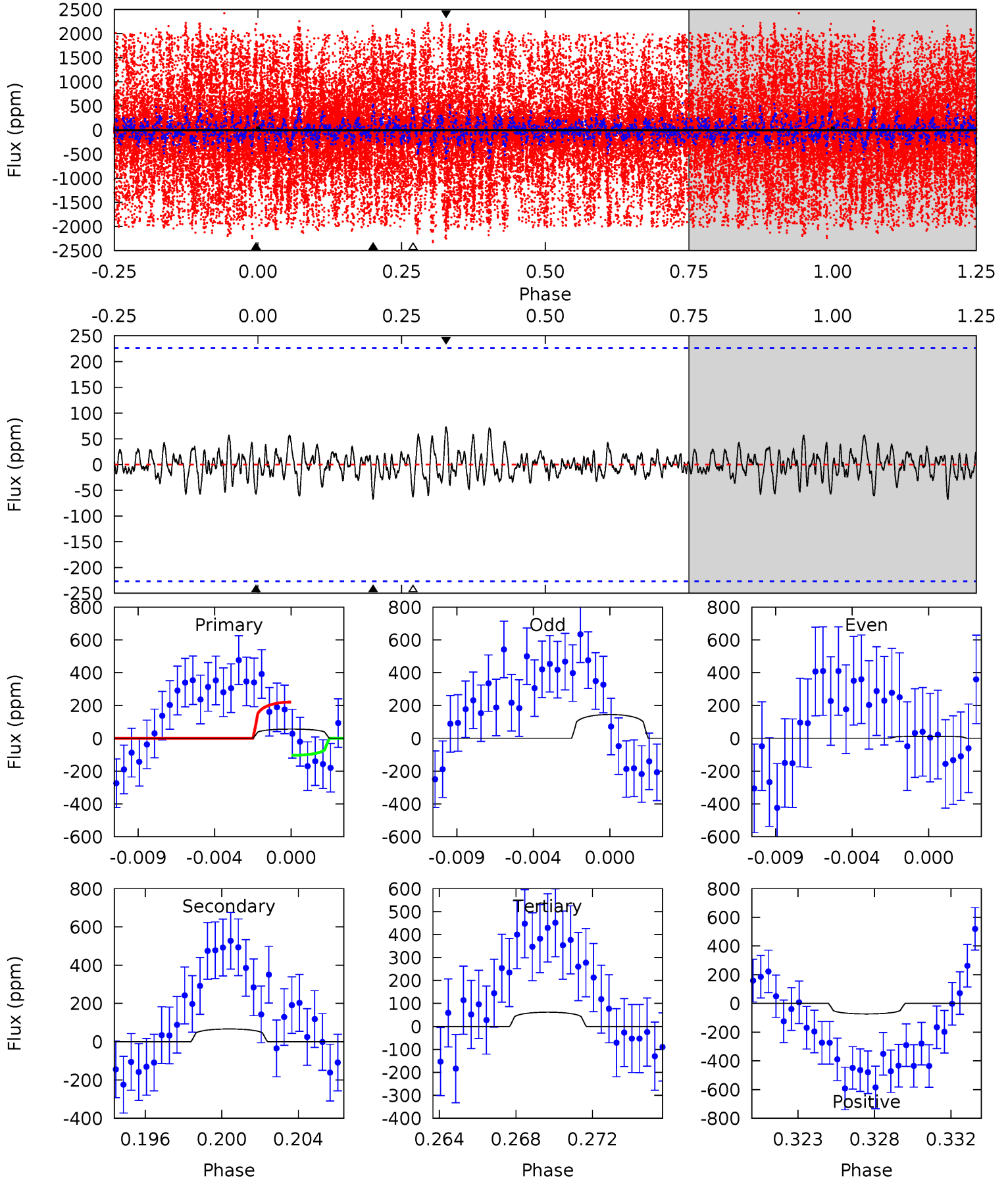
TCE 007339348-04 P= 75.902334 Days $T_0=135.199989$ (BKJD)



DV Model-Shift Uniqueness Test

007339348-04, P = 75.903318 Days, E = 59.345080 Days

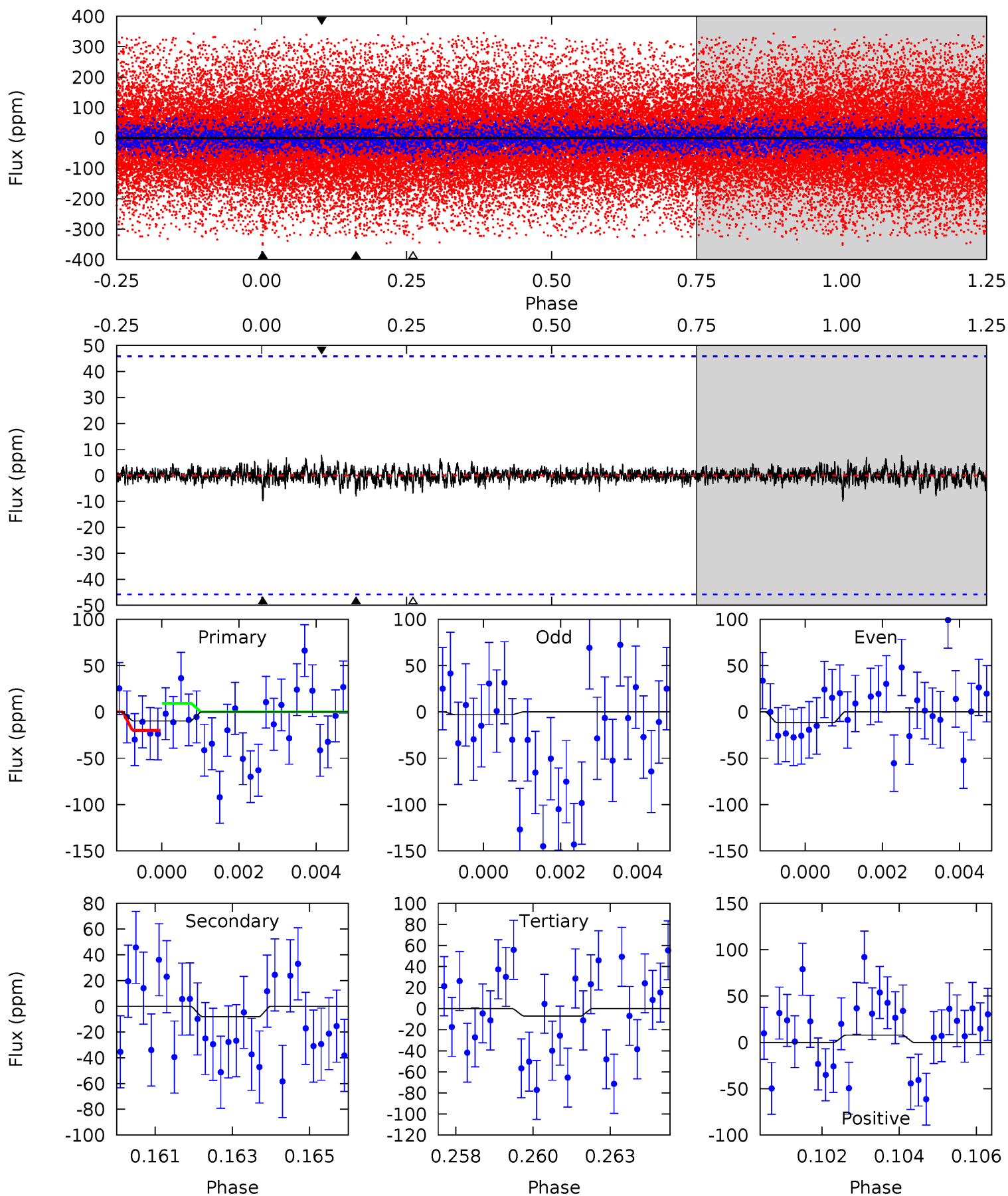
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.29	1.53	1.42	1.67	5.19	2.86	0.49	-0.13	-0.38	0.11	-0.14	1.48	18.7	0.52	1.38



Alt Model-Shift Uniqueness Test

007339348-04, P = 75.902334 Days, E = 59.297655 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.14	0.94	0.81	0.90	5.31	3.07	0.21	0.33	0.24	0.12	0.04	0.49	1.87	0.44	0.62



Stellar Parameters For KIC 007339348

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5827^{+193}_{-175}	$4.247^{+0.282}_{-0.212}$	$-0.460^{+0.300}_{-0.300}$	$1.126^{+0.345}_{-0.314}$	$0.816^{+0.126}_{-0.054}$	$0.805^{+1.193}_{-0.421}$
	+3%/-3%	+7%/-5%	+65%/-65%	+31%/-28%	+15%/-7%	+148%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007339348-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-67 ± 44	$0.48^{+0.43}_{-0.30}$	666^{+60}_{-60}	8382^{+11942}_{-3022}	$14389^{+107301}_{-11580}$
Alt.	-8 ± 9	$0.45^{+0.41}_{-0.32}$	665^{+58}_{-64}	4935^{+4076}_{-7628}	1871^{+19400}_{-1920}

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

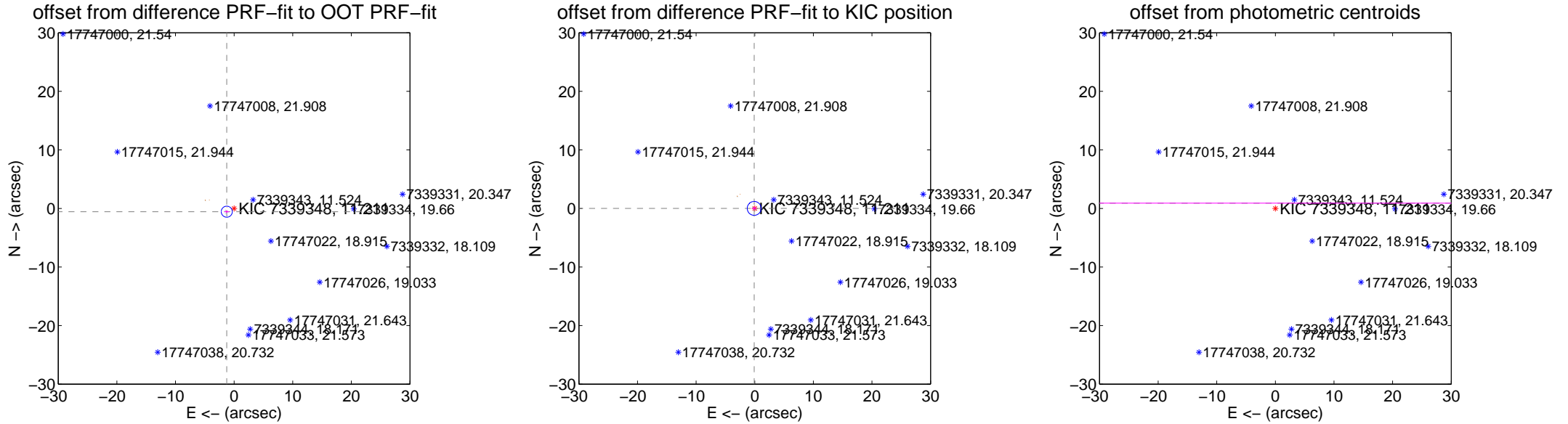
DV Centroid Data

Supplemental centroid analysis for 007339348-04. **Kepler magnitude: 11.21.** Transit SNR 0.94

There are 7 quarters with good PRF difference image offsets

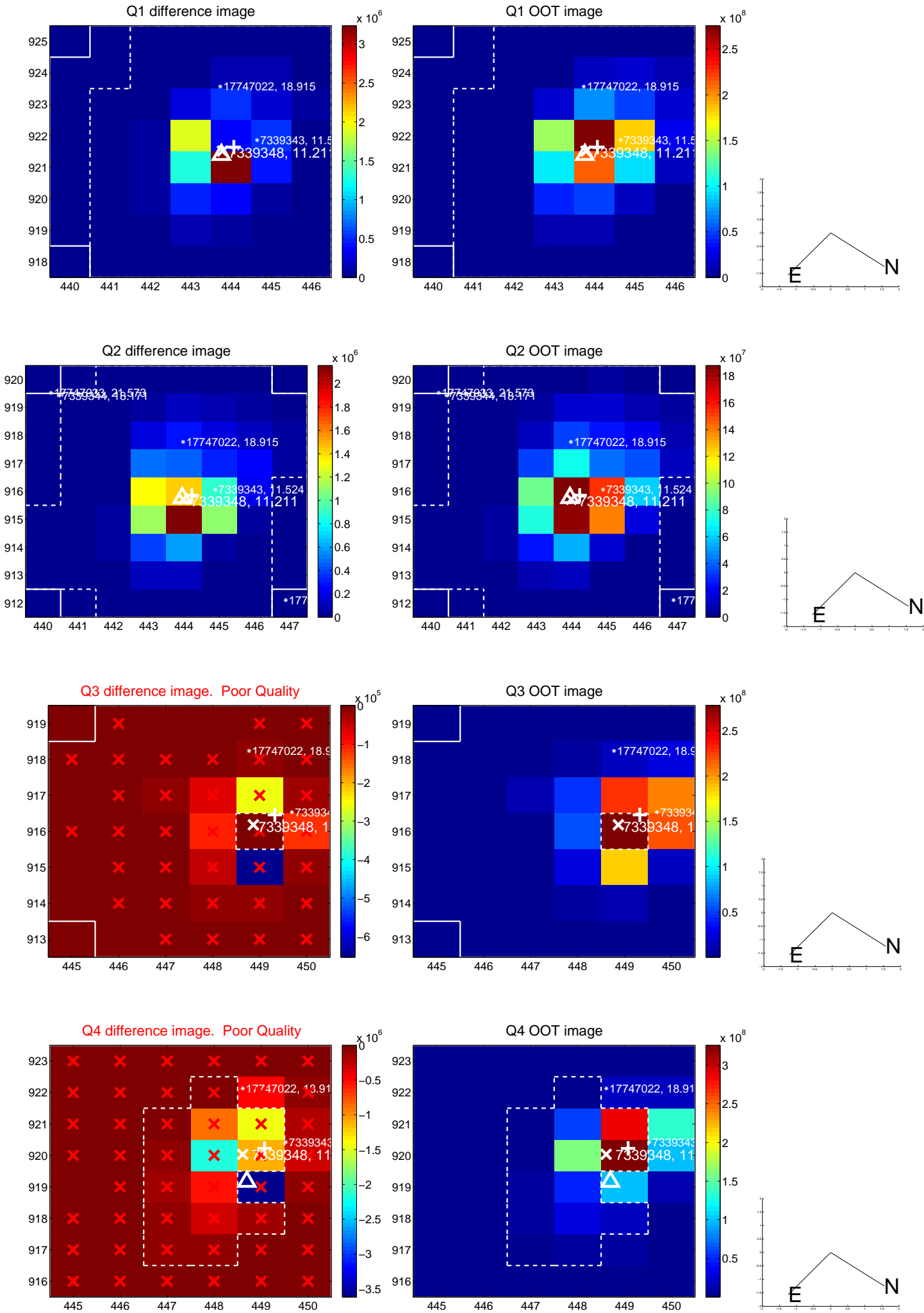
The direct PRF centroid is offset from the target star catalog position by about 1.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.370 ± 0.314	4.36	1.252 ± 0.435	-0.555 ± 0.247
PRF-fit source offset from KIC position	0.093 ± 0.395	0.24	0.092 ± 0.362	0.012 ± 0.292
photometric centroid source offset	52.25 ± 93.04	0.56	-52.24 ± 93.05	0.90 ± 22.02

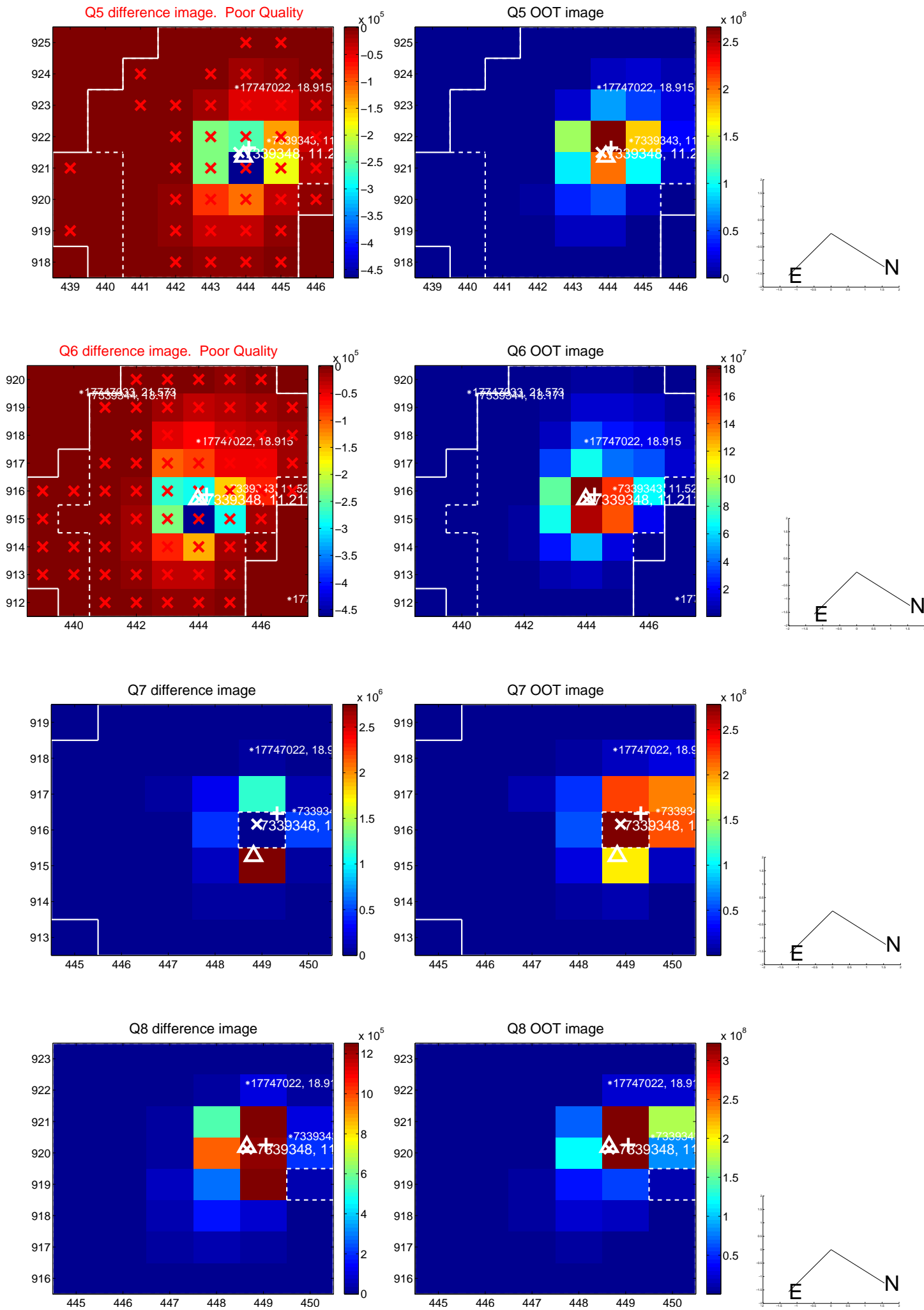


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

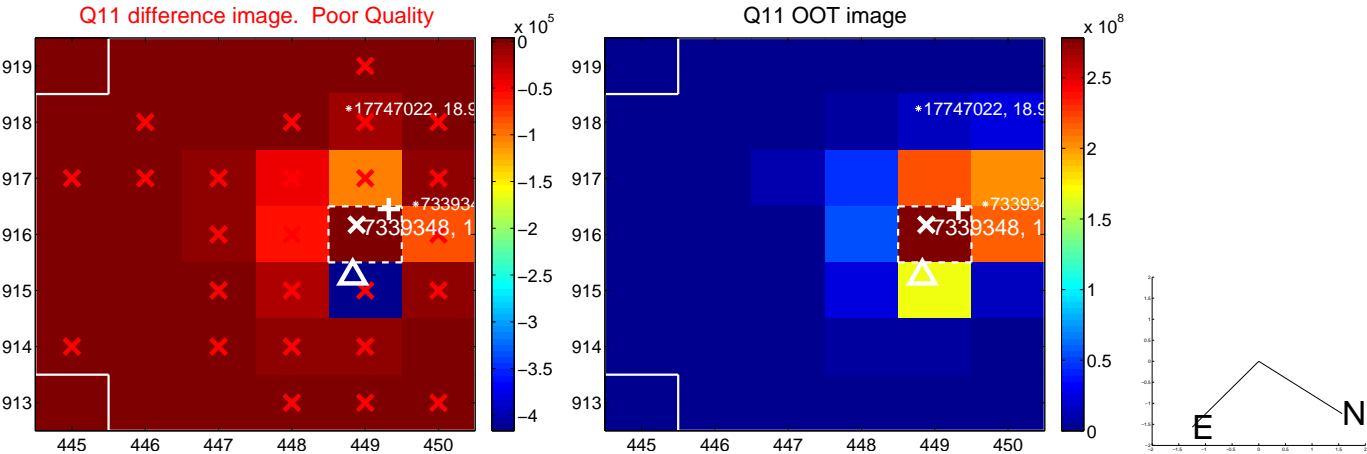
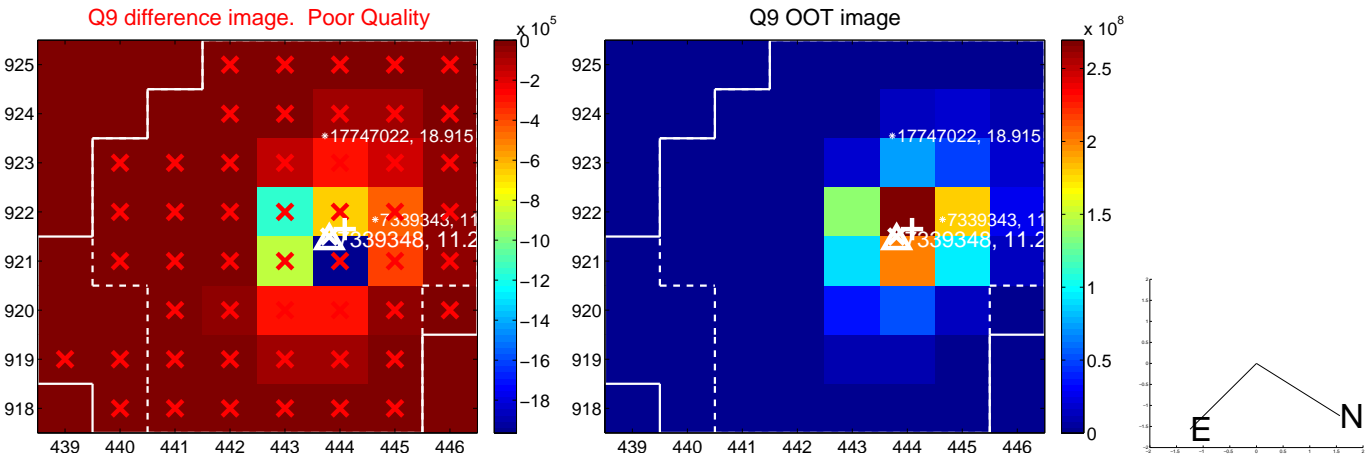
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

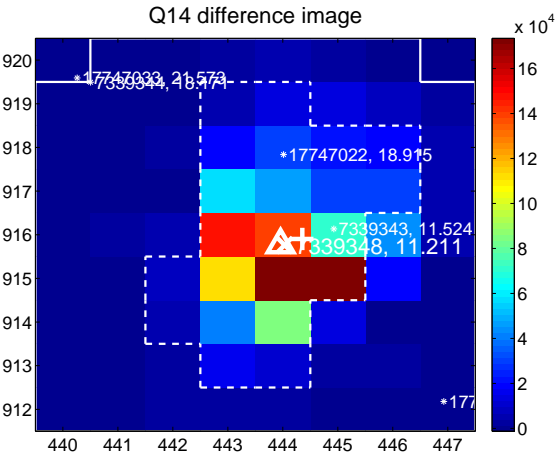
Q13 no difference image



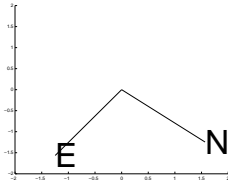
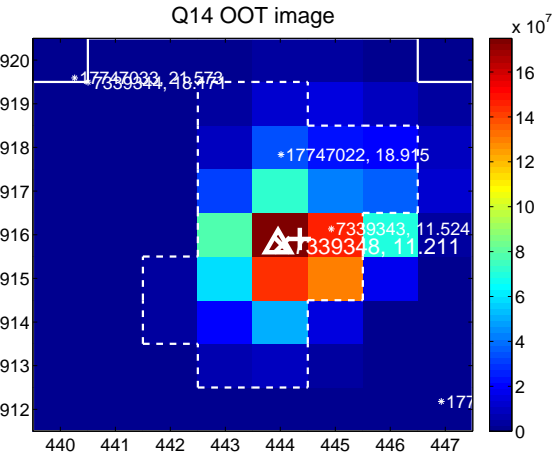
Q13 no OOT image



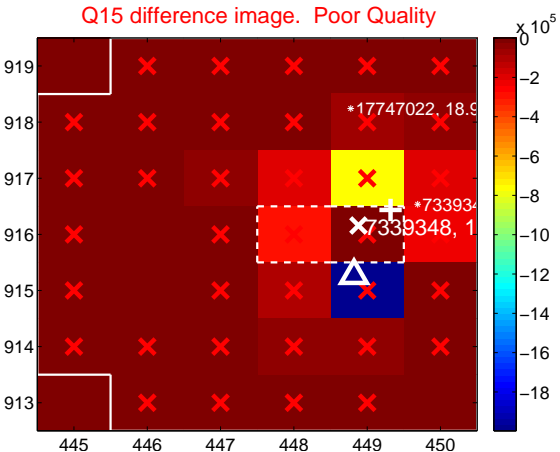
Q14 difference image



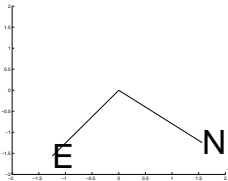
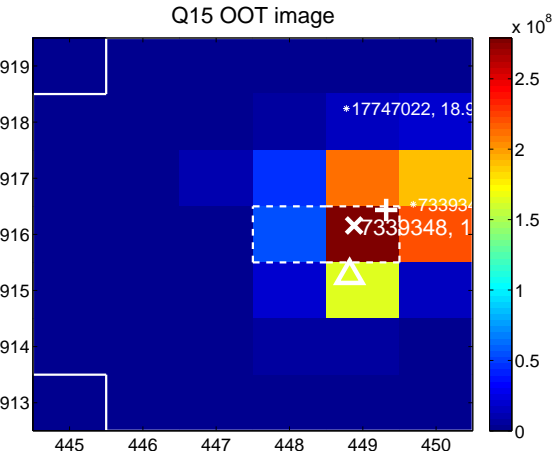
Q14 OOT image



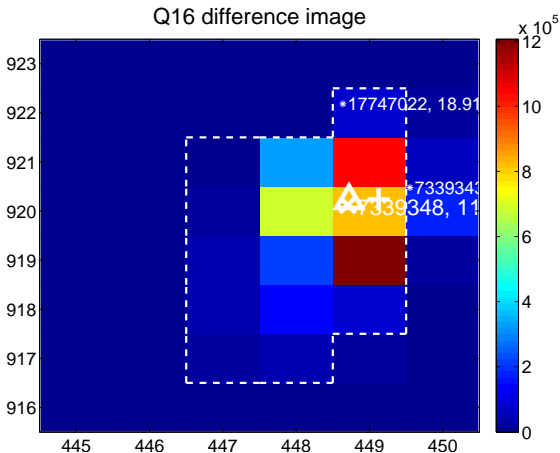
Q15 difference image. Poor Quality



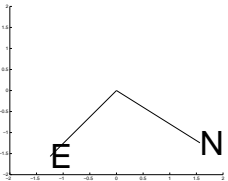
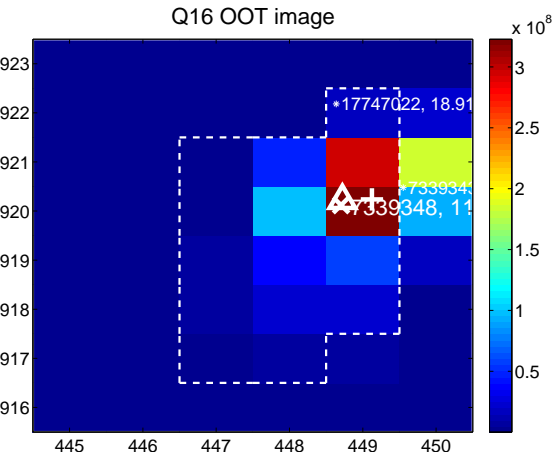
Q15 OOT image



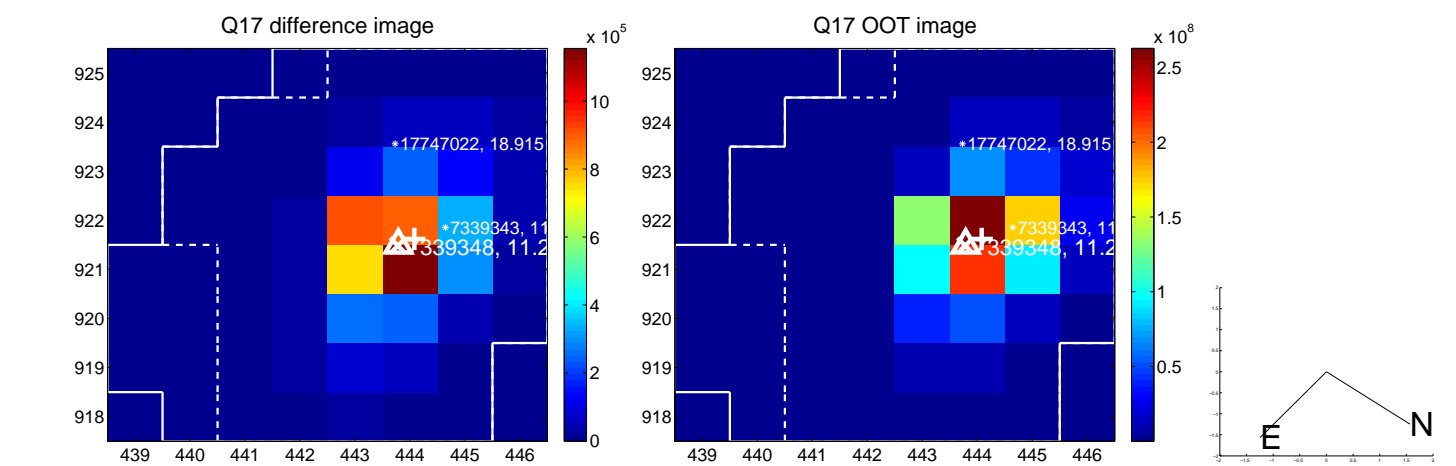
Q16 difference image



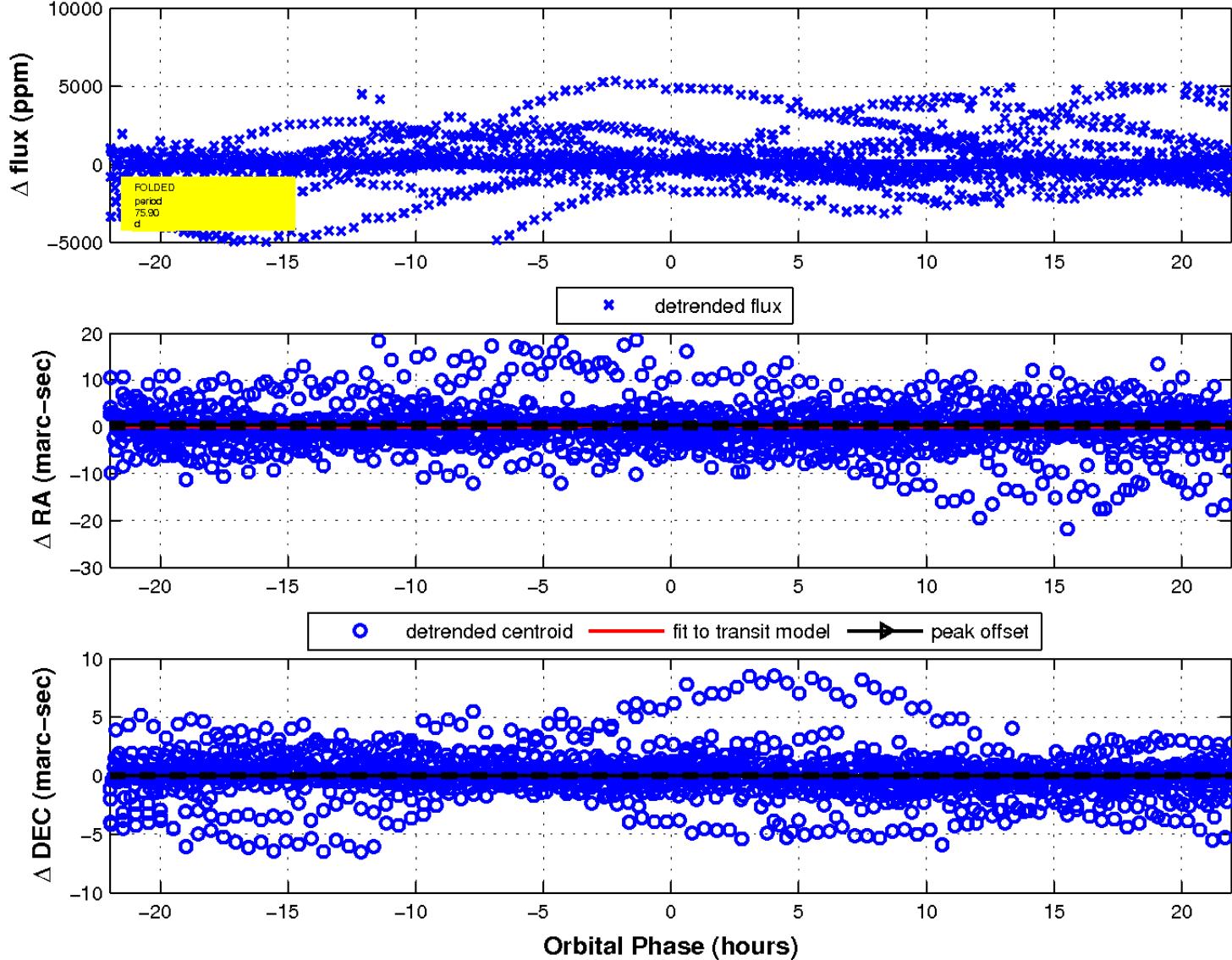
Q16 OOT image



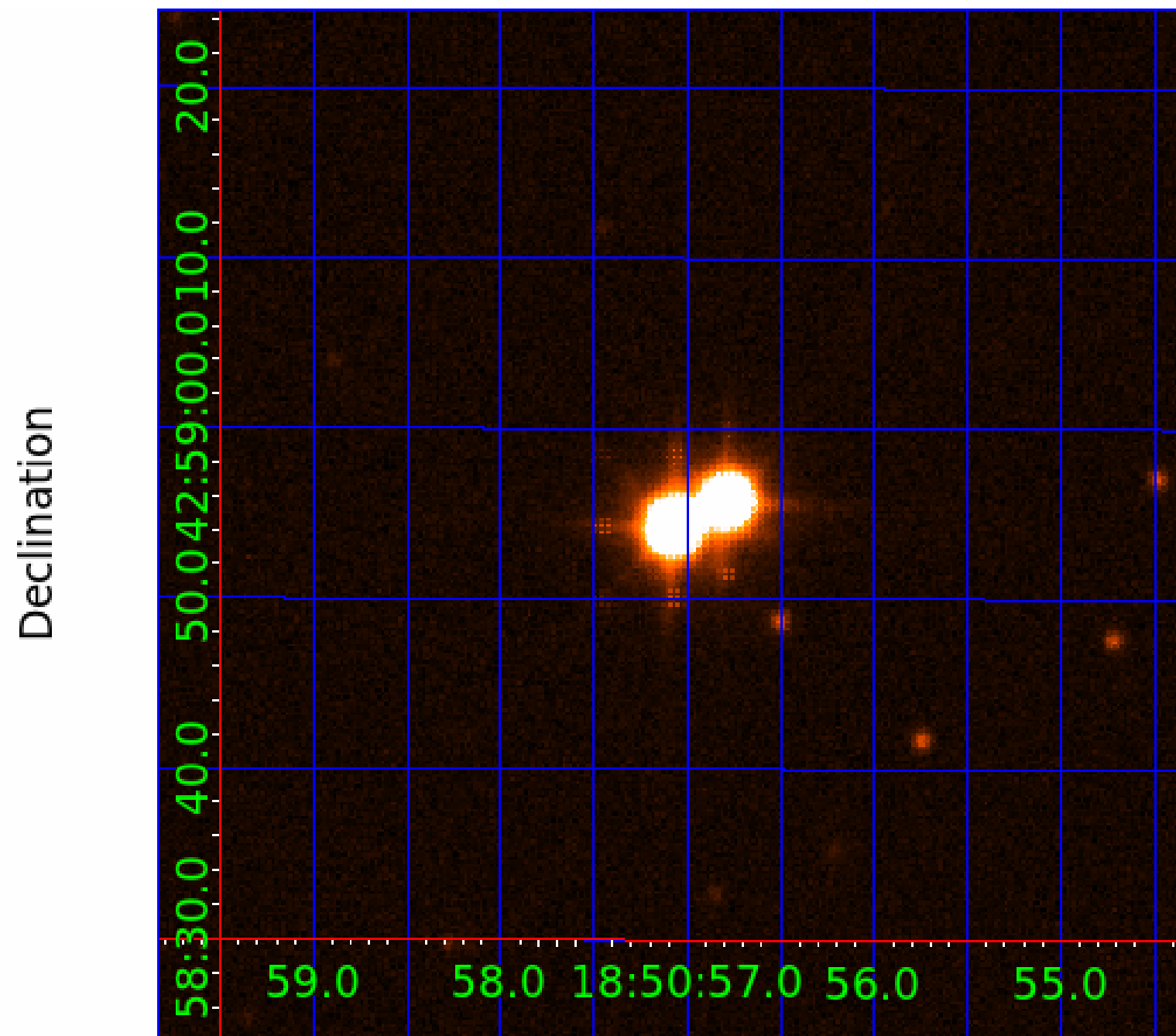
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 4 of 8



UKIRT Image



KIC 007339348

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})
007339348-01	OBS	No	85.006629	174.736102	52.1	2.218	24.7	11.0	1.13	5827	0.98	10.47
007339348-02	OBS	No	117.188421	235.852973	87.7	3.565	22.7	22.0	1.13	5827	1.25	6.82
007339348-03	OBS	No	253.869090	286.492737	47.9	1.456	20.6	6.8	1.13	5827	0.84	2.43
007339348-04	OBS	No	75.903318	135.248398	6.8	7.330	18.3	0.9	1.13	5827	0.32	12.17
007339348-05	OBS	No	33.345513	156.832396	61.3	1.073	19.0	31.2	1.13	5827	0.94	36.45
007339348-06	OBS	No	140.551536	211.926482	108.0	16.401	14.3	13.6	1.13	5827	1.27	5.35
007339348-07	OBS	No	172.817646	161.999799	5.1	10.356	17.1	0.9	1.13	5827	0.30	4.06
007339348-08	OBS	No	95.310334	158.857260	27.7	2.762	17.3	4.2	1.13	5827	0.72	8.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007339348-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

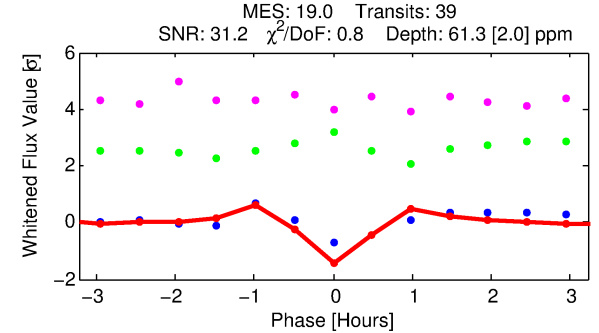
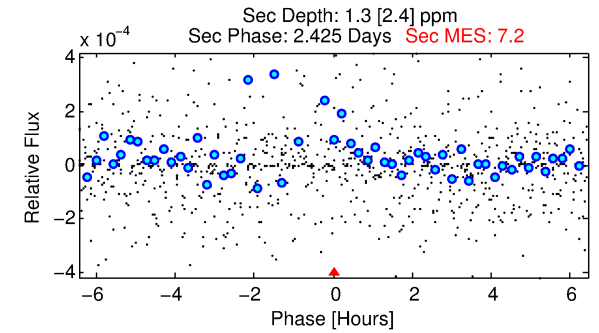
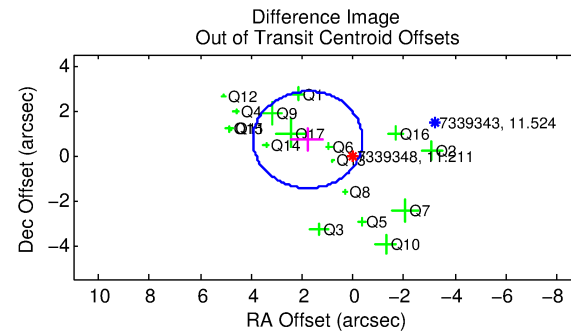
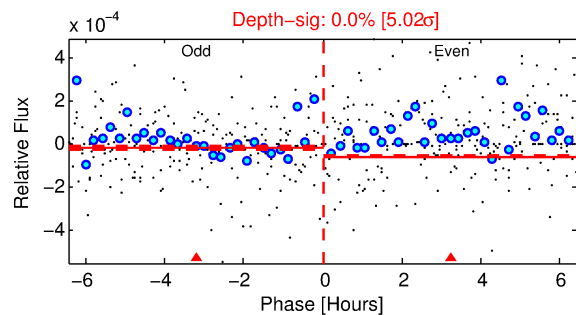
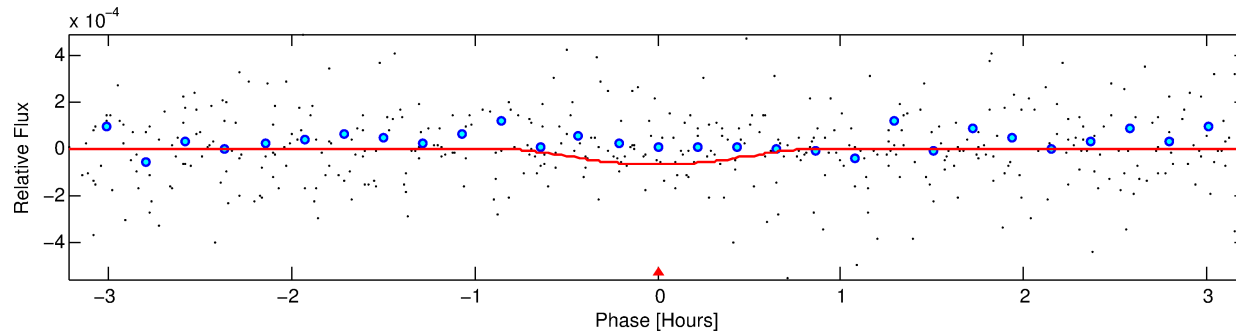
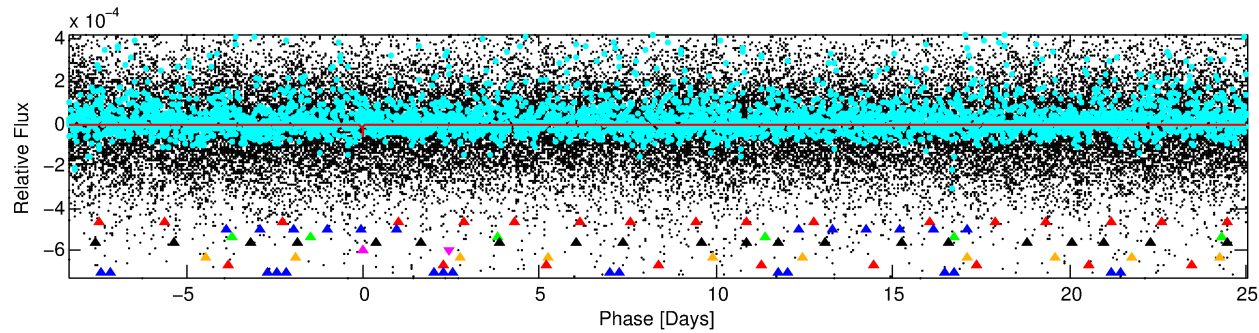
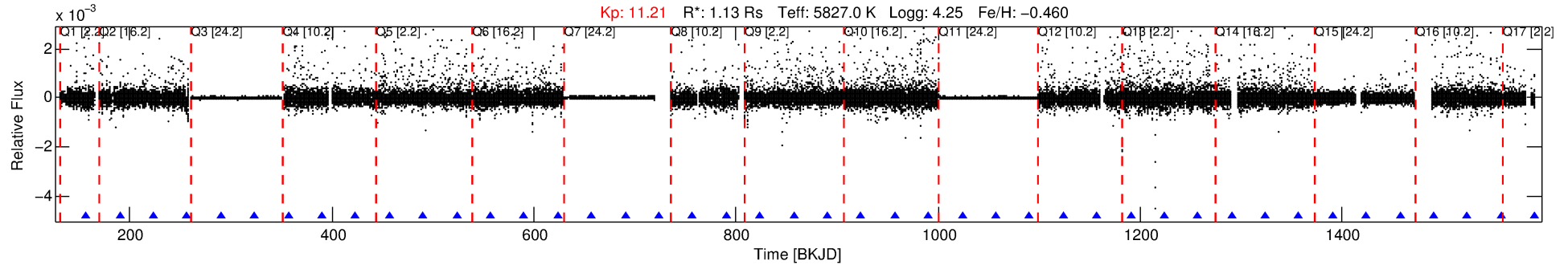
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007339348-05

No Significant Match Found

DV One-Page Summary

KIC: 7339348 Candidate: 5 of 8 Period: 33.346 d



DV Fit Results:

Period = 33.34551 [0.00006] d
Epoch = 156.8324 [0.0014] BKJD
Rp/R* = 0.0077 [0.0033]
a/R* = 179.63 [376.96]
b = 0.67 [1.78]
Seff = 36.45 [18.10]
Teq = 627 [78] K
Rp = 0.94 [0.50] Re
a = 0.1896 [0.0564] AU
Ag = 29.32 [61.24] [0.46σ]
Teffp = 2254 [1148] K [1.41σ]

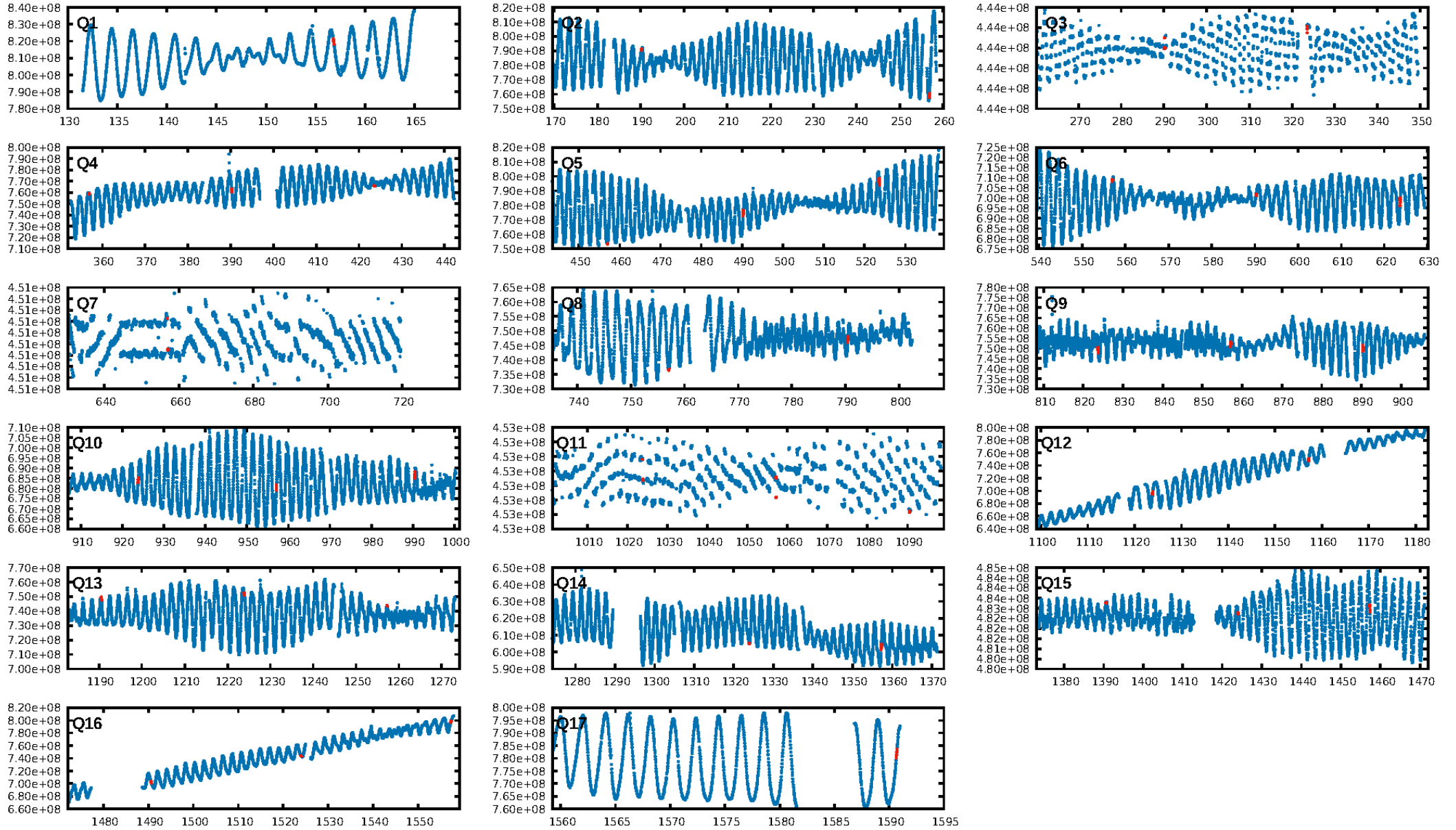
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [137.88σ]
ModelChiSquare2-sig: 92.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.80e-12
RollingBand-fgt: 1.00 [37/37]
GhostDiagnostic-chr: -0.3452
Centroid-sig: 17.5%
Centroid-so: 13.343 arcsec [1.57σ]
OotOffset-rm: 1.913 arcsec [2.66σ]
KicOffset-rm: 1.969 arcsec [2.85σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.41 [7/17]
DiffImageOverlap-fno: 1.00 [17/17]

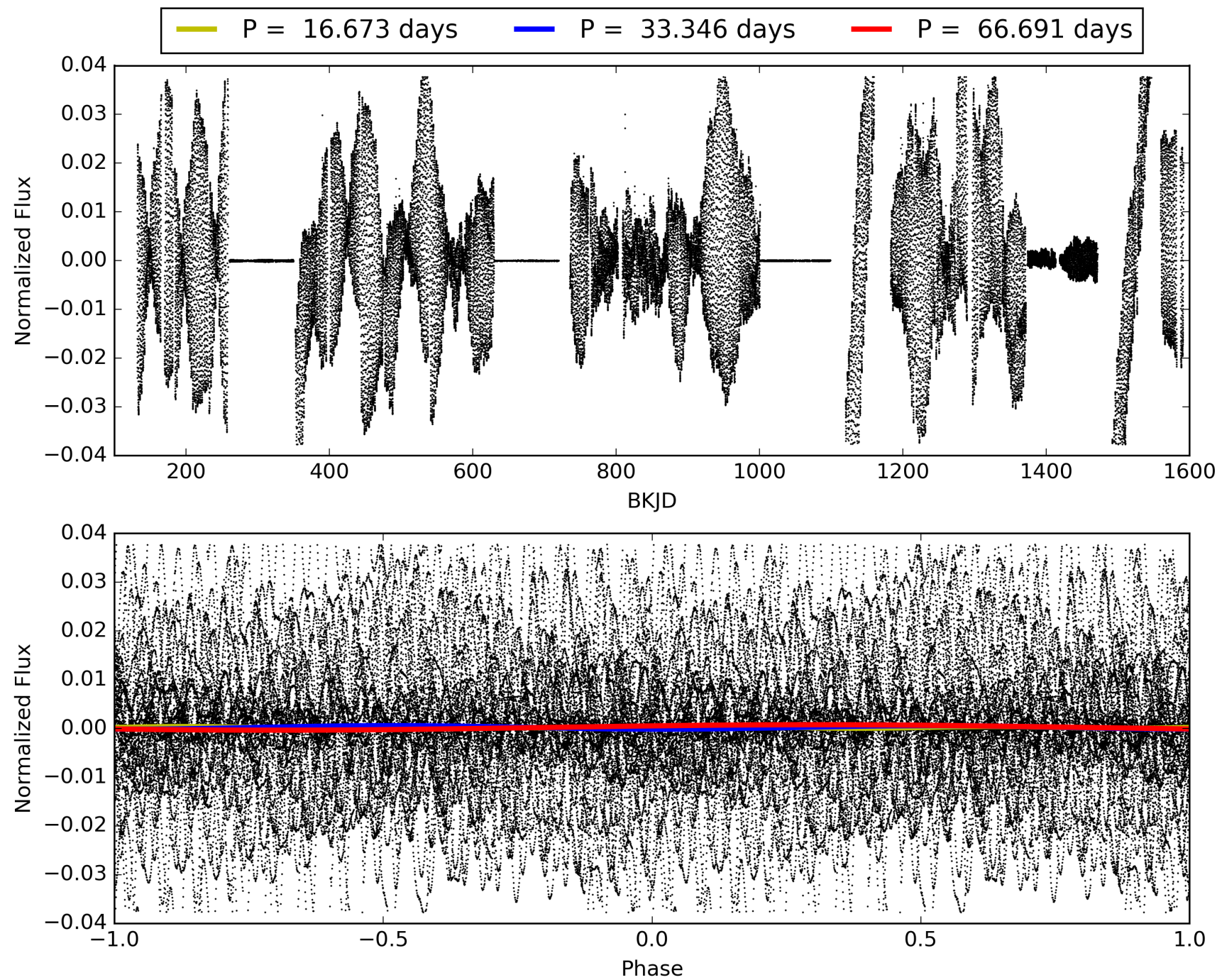
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:29:57 Z

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

TCE 007339348-05, PDC Light Curves

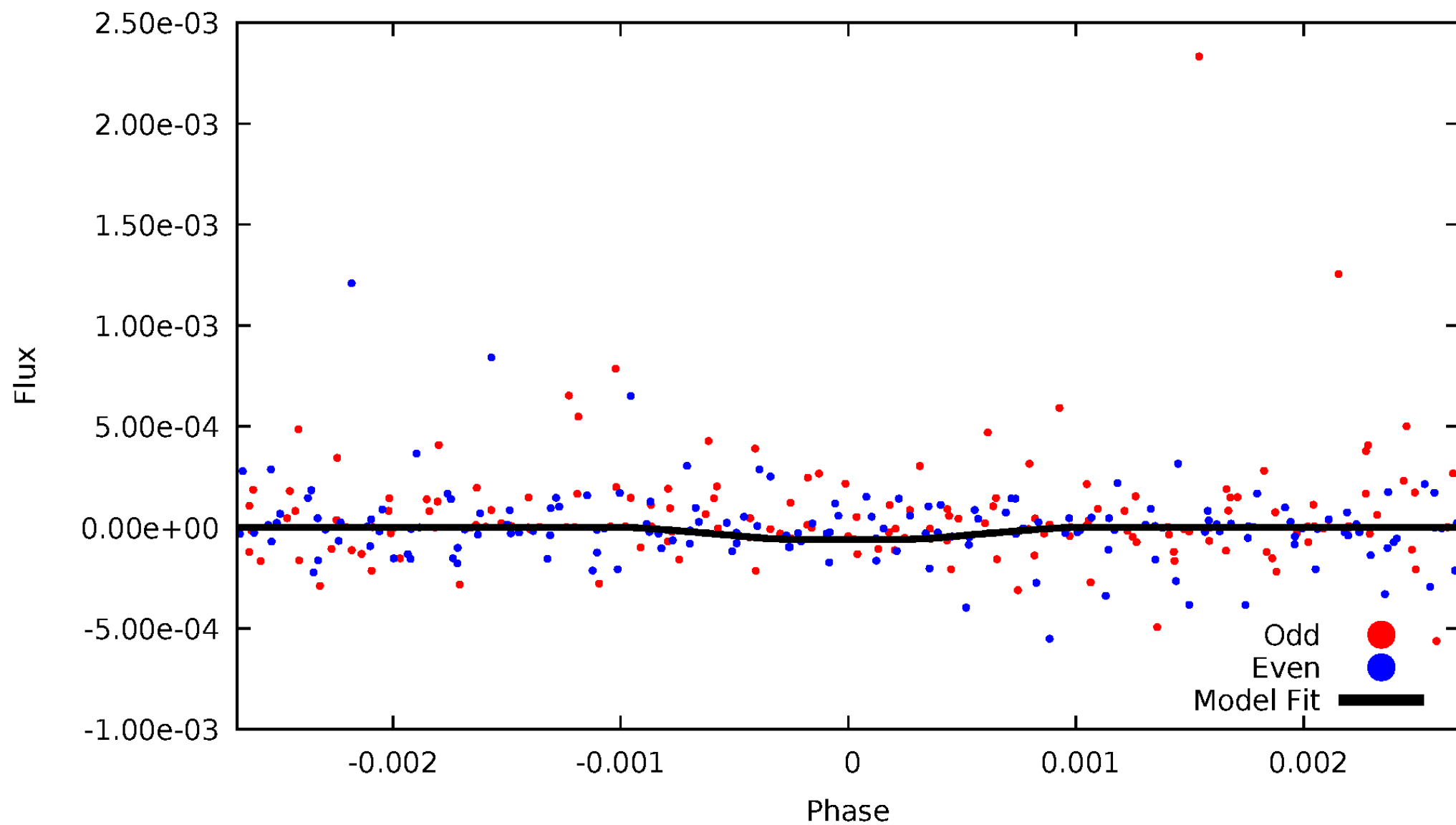


TCE 007339348-05



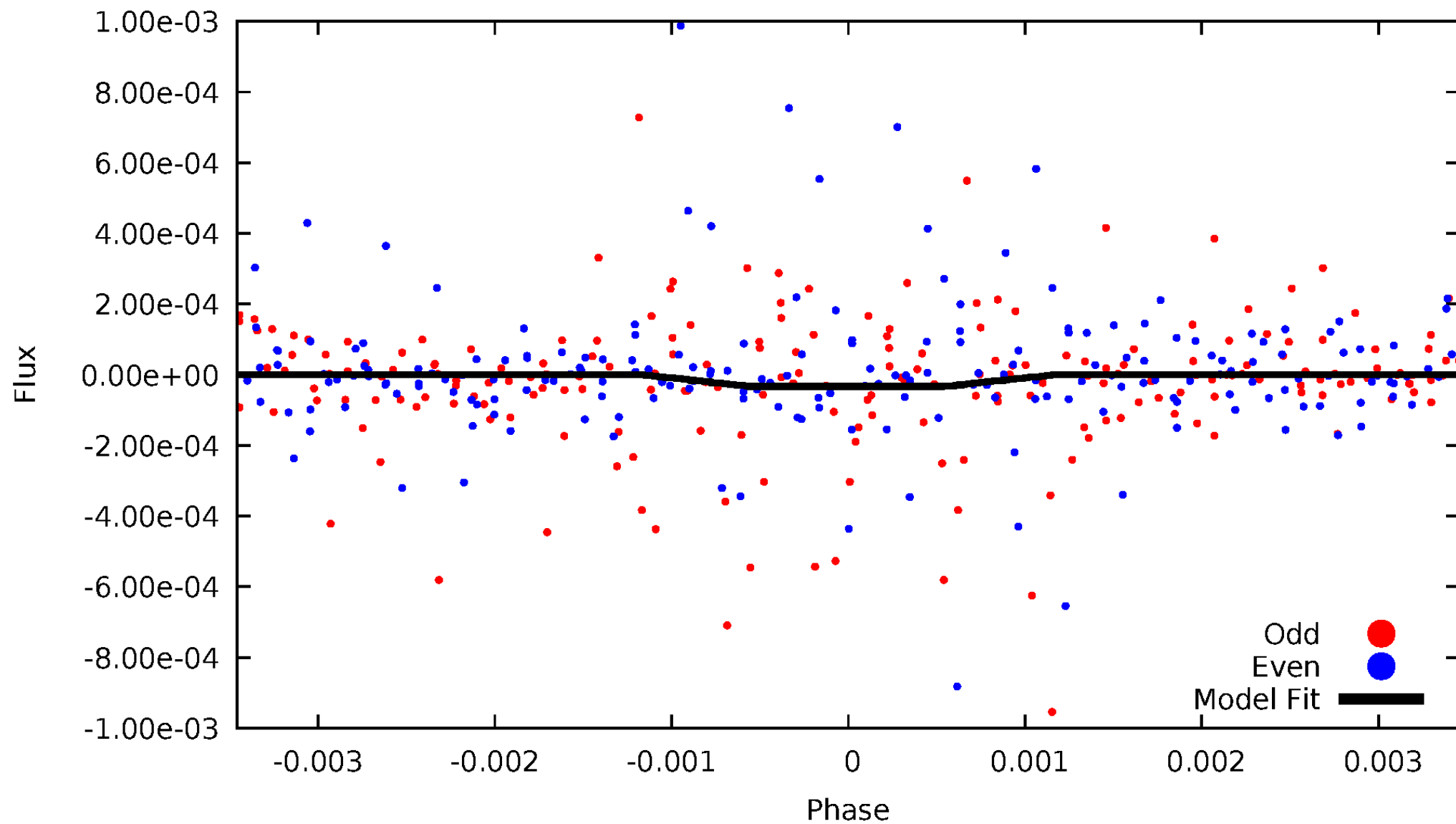
DV Odd/Even

TCE 007339348-05



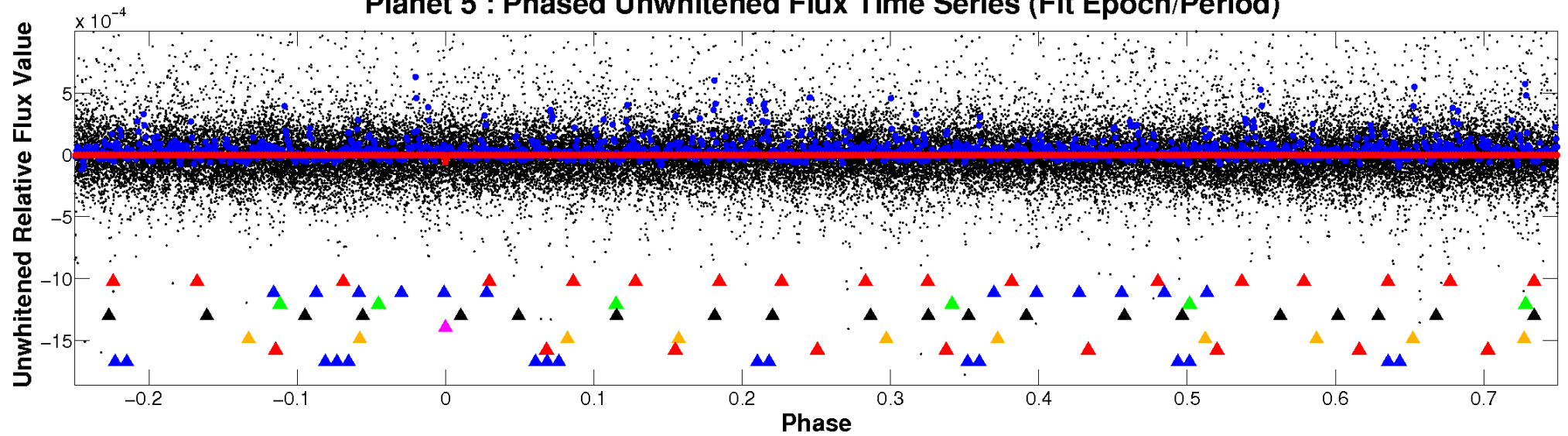
ALT Odd/Even

TCE 007339348-05

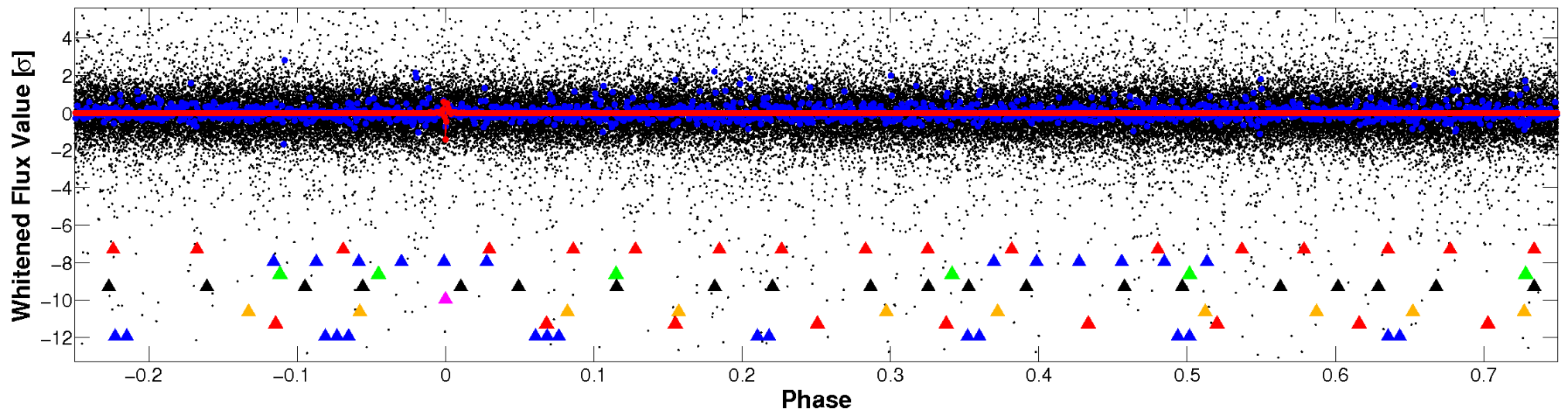


Non-Whitened Vs. Whitened Light Curve

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

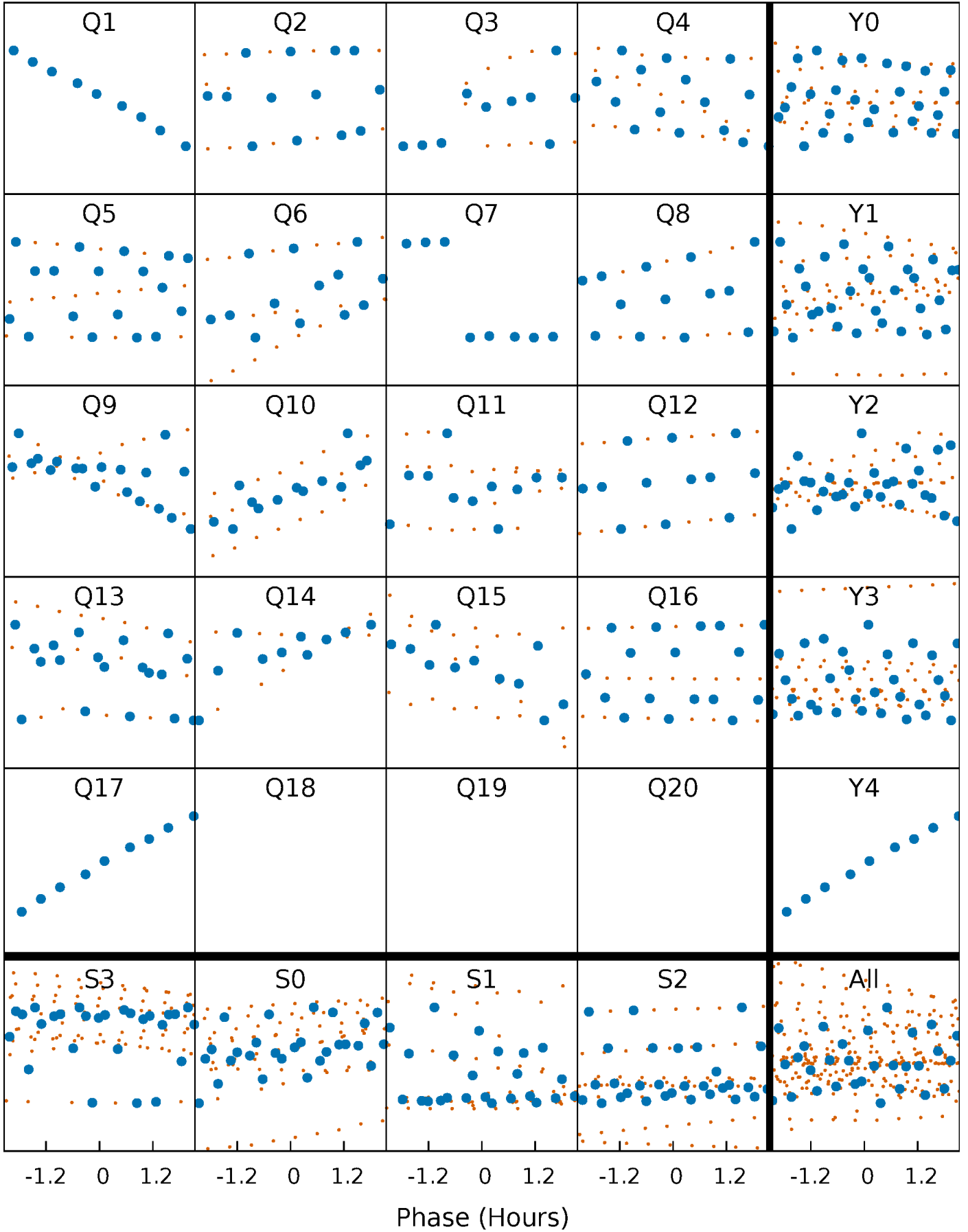


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



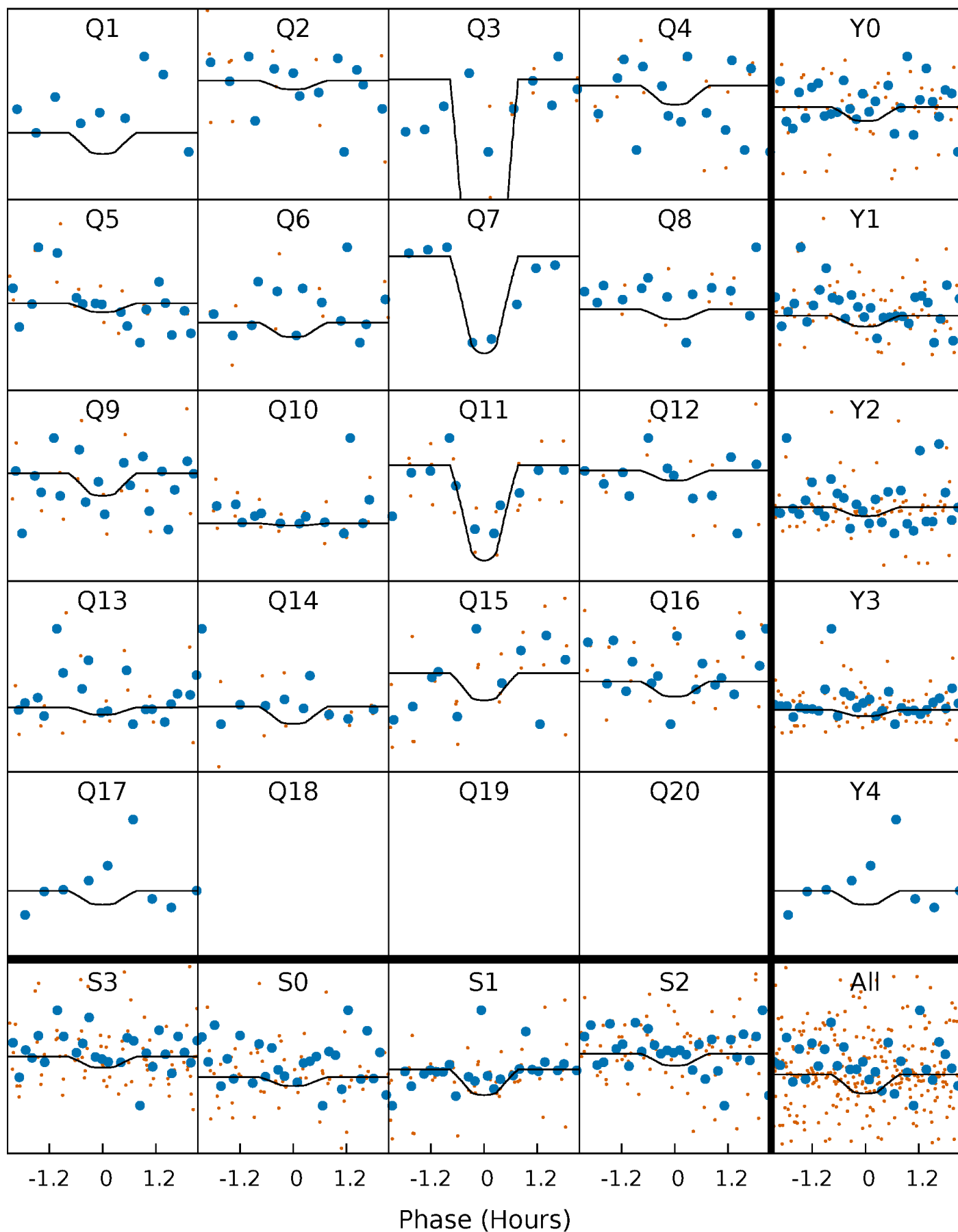
PDC Quarter-Phased Transit Curves

TCE 007339348-05 P= 33.345513 Days $T_0=156.832396$ (BKJD)



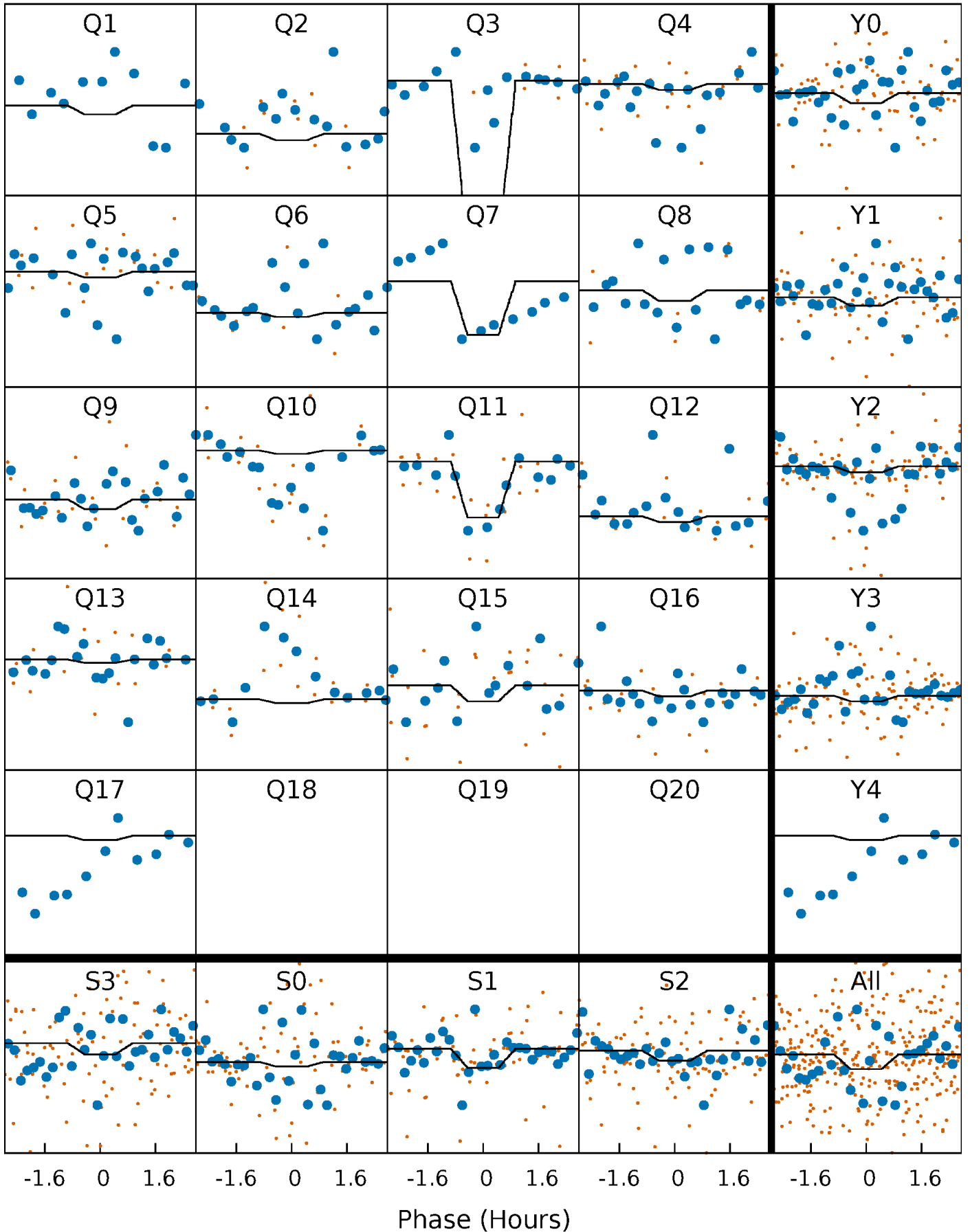
DV Quarter-Phased Transit Curves

TCE 007339348-05 P= 33.345513 Days $T_0=156.832396$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

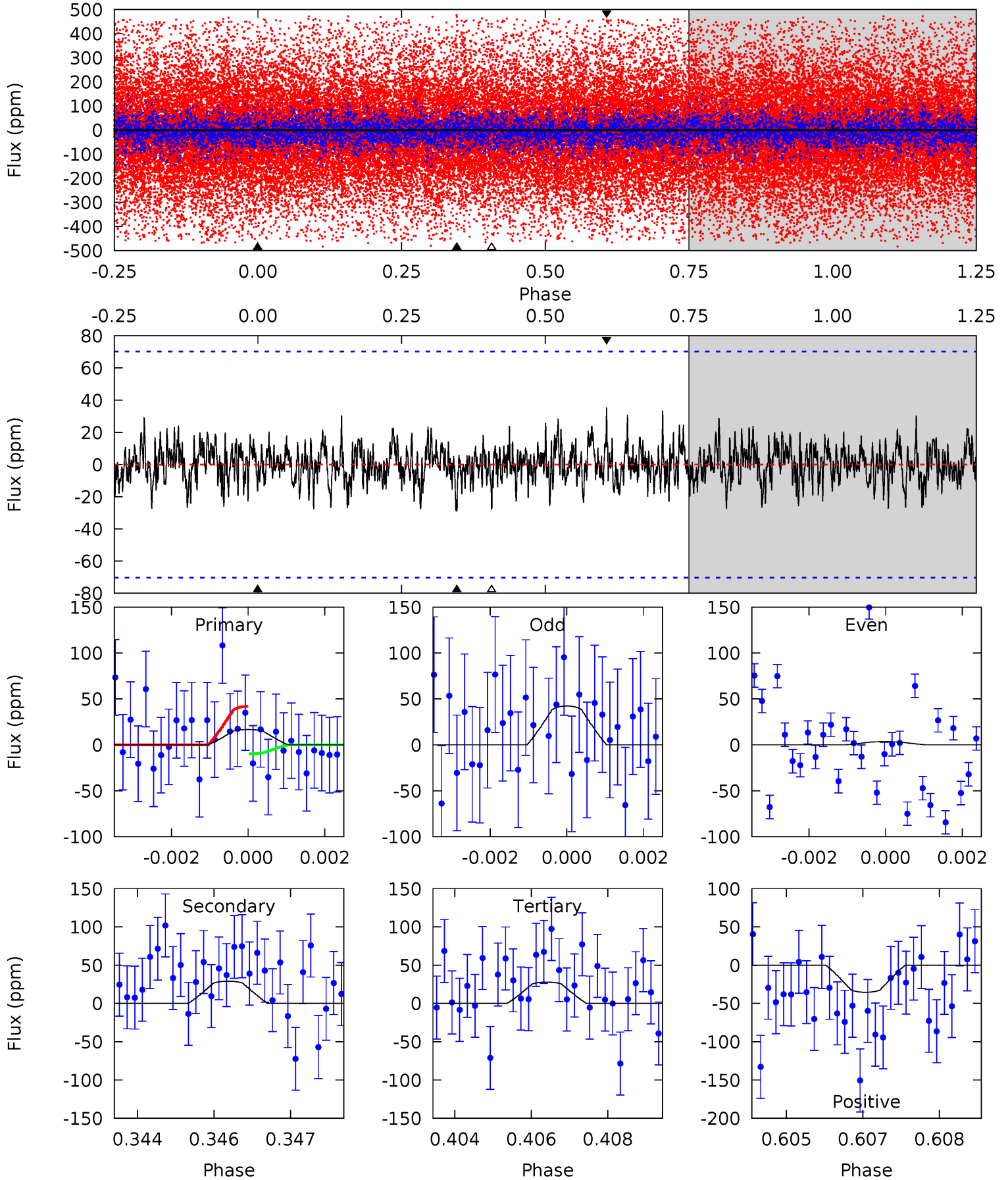
TCE 007339348-05 $P = 33.345125$ Days $T_0 = 156.850659$ (BKJD)



DV Model-Shift Uniqueness Test

007339348-05, $P = 33.345513$ Days, $E = 123.486883$ Days

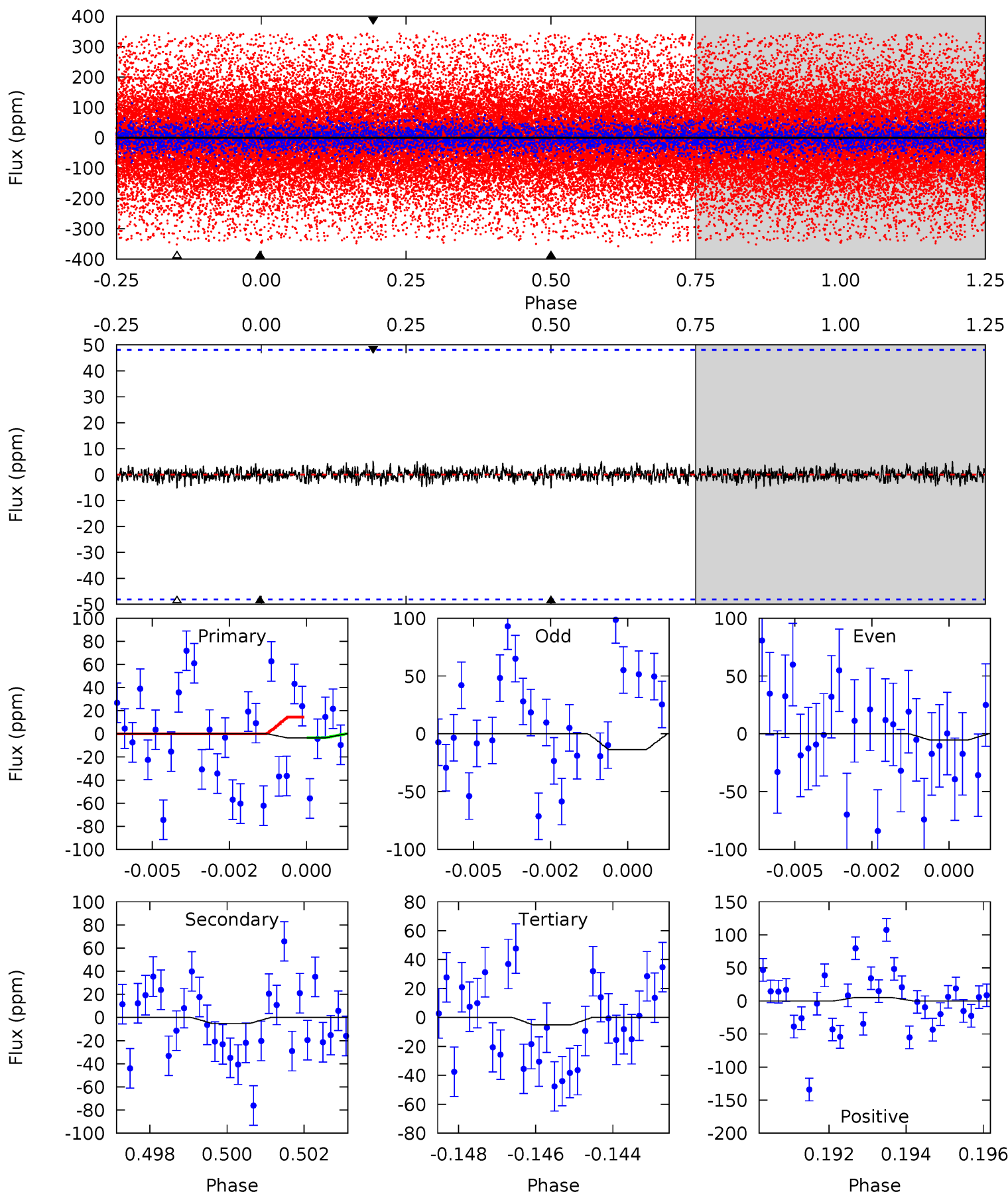
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.27	2.21	2.12	2.69	5.34	3.12	0.73	-0.86	-1.43	0.09	-0.48	1.50	8.65	0.55	1.24



Alt Model-Shift Uniqueness Test

007339348-05, P = 33.345125 Days, E = 123.505534 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.39	0.57	0.57	0.57	5.30	3.05	0.17	-0.18	-0.18	0.00	0.00	0.46	0.93	0.50	0.61



Stellar Parameters For KIC 007339348

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5827^{+193}_{-175}	$4.247^{+0.282}_{-0.212}$	$-0.460^{+0.300}_{-0.300}$	$1.126^{+0.345}_{-0.314}$	$0.816^{+0.126}_{-0.054}$	$0.805^{+1.193}_{-0.421}$
	+3%/-3%	+7%/-5%	+65%/-65%	+31%/-28%	+15%/-7%	+148%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007339348-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29 ± 13	$0.94^{+0.47}_{-0.42}$	875^{+76}_{-75}	4884^{+1693}_{-845}	610^{+1524}_{-390}
Alt.	-5 ± 9	$0.68^{+0.44}_{-0.34}$	873^{+80}_{-81}	3864^{+1744}_{-7585}	181^{+1030}_{-322}

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

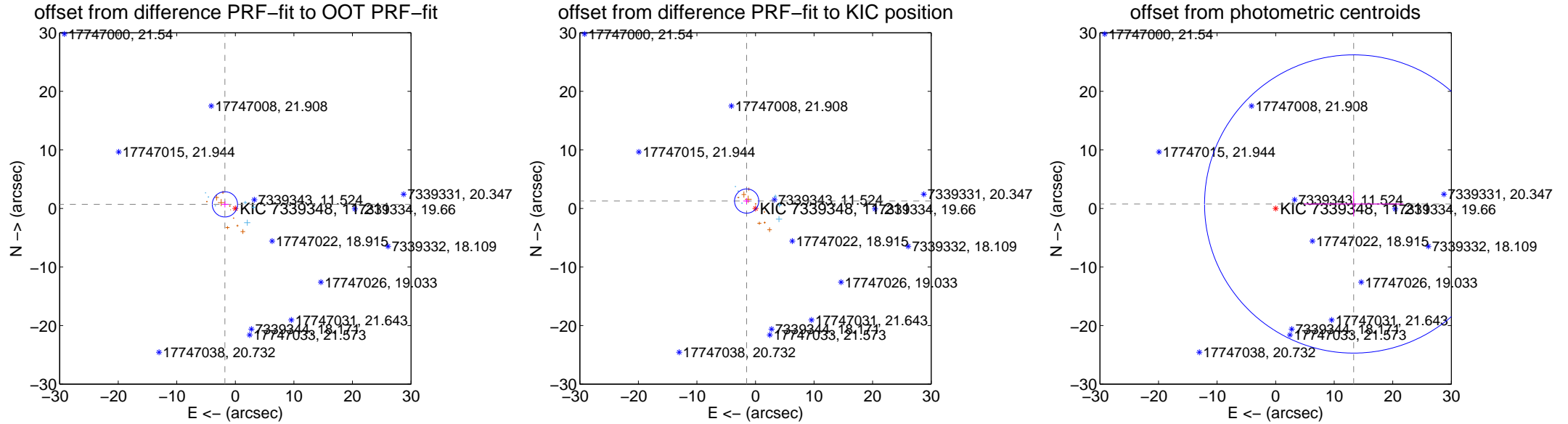
DV Centroid Data

Supplemental centroid analysis for 007339348-05. **Kepler magnitude: 11.21.** Transit SNR 31.24

There are 7 quarters with good PRF difference image offsets

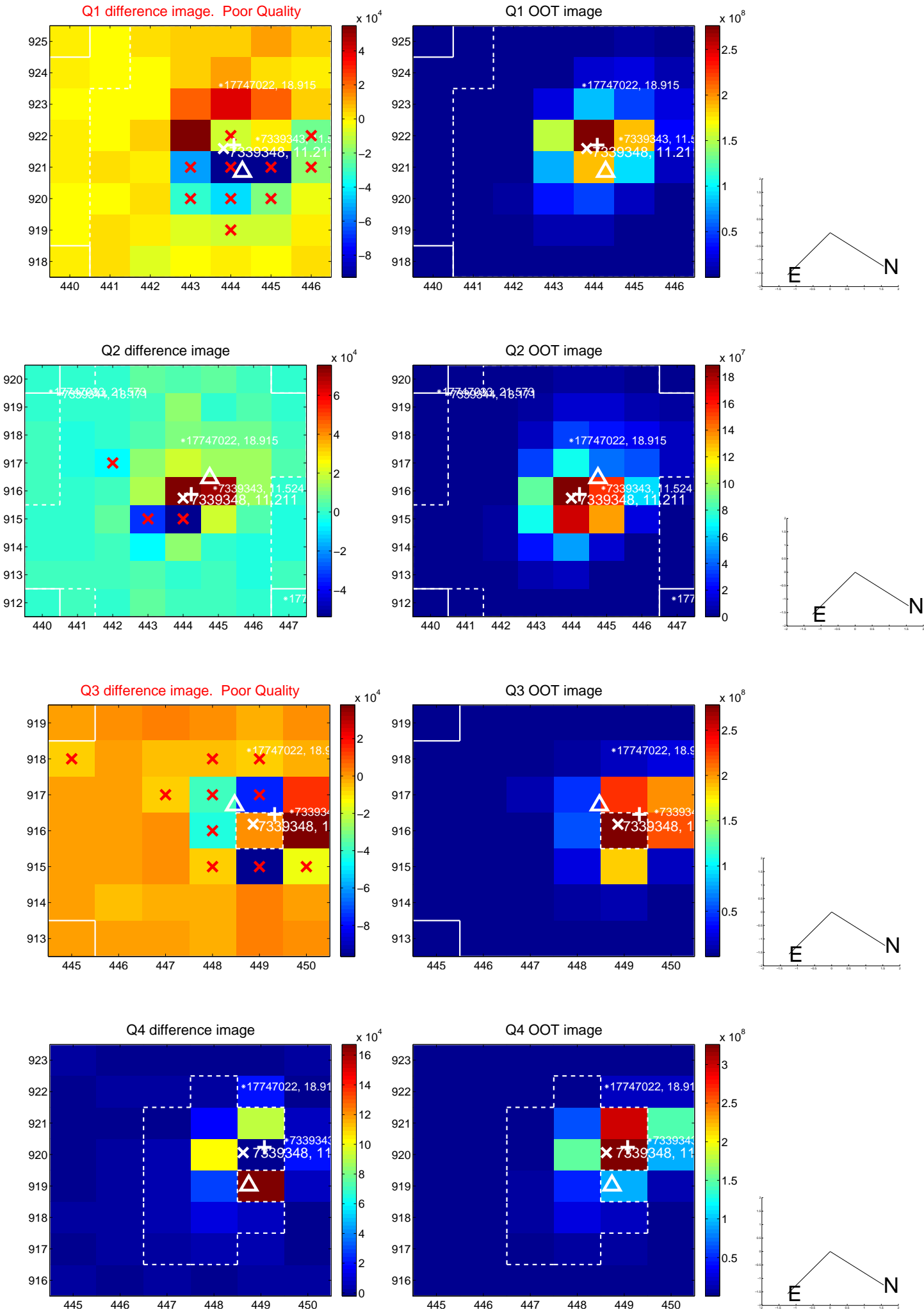
The direct PRF centroid is offset from the target star catalog position by about 1.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.913 ± 0.719	2.66	1.782 ± 0.628	0.698 ± 0.527
PRF-fit source offset from KIC position	1.969 ± 0.690	2.85	1.509 ± 0.577	1.265 ± 0.501
photometric centroid source offset	13.34 ± 8.49	1.57	-13.32 ± 8.50	0.76 ± 2.08

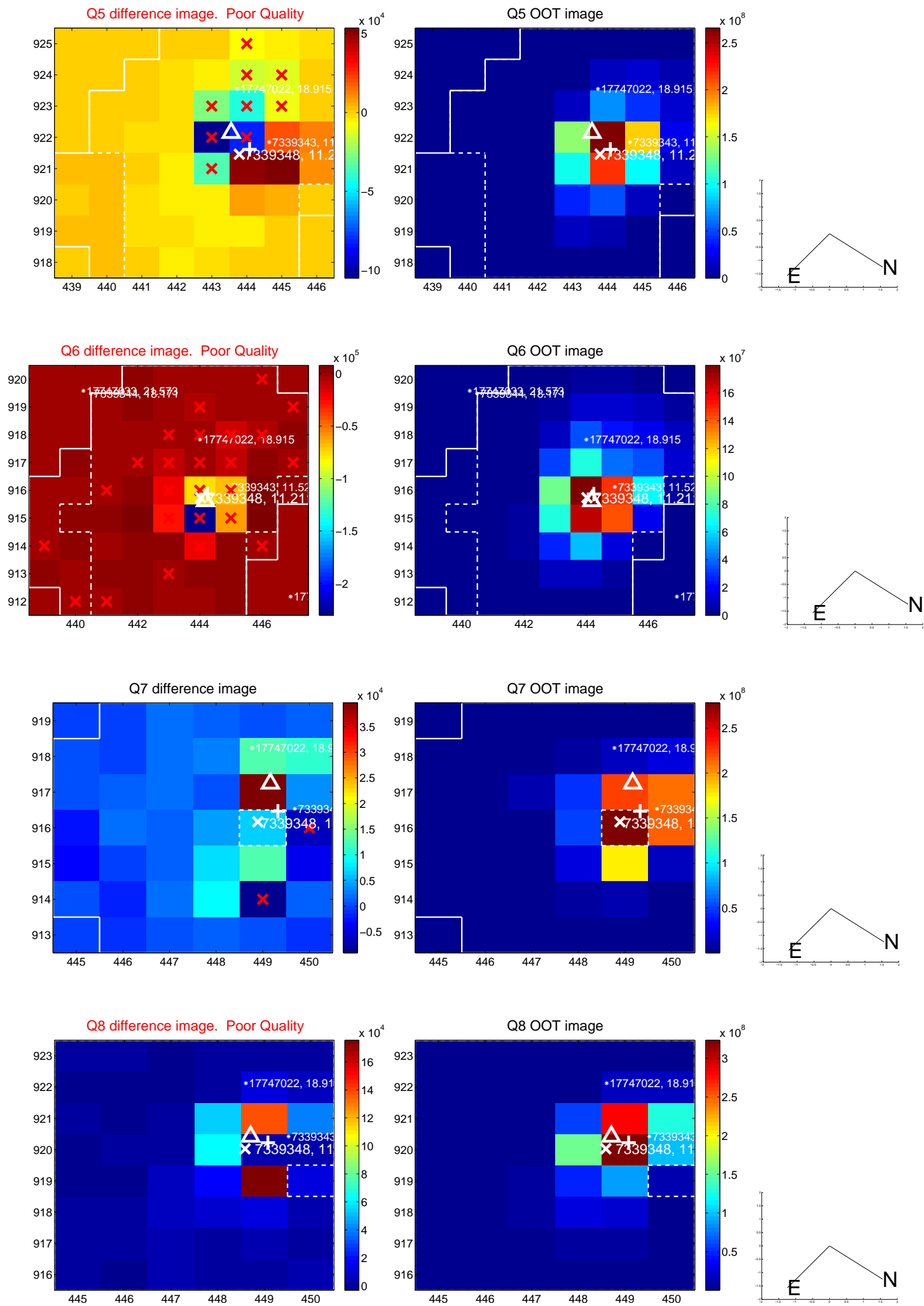


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

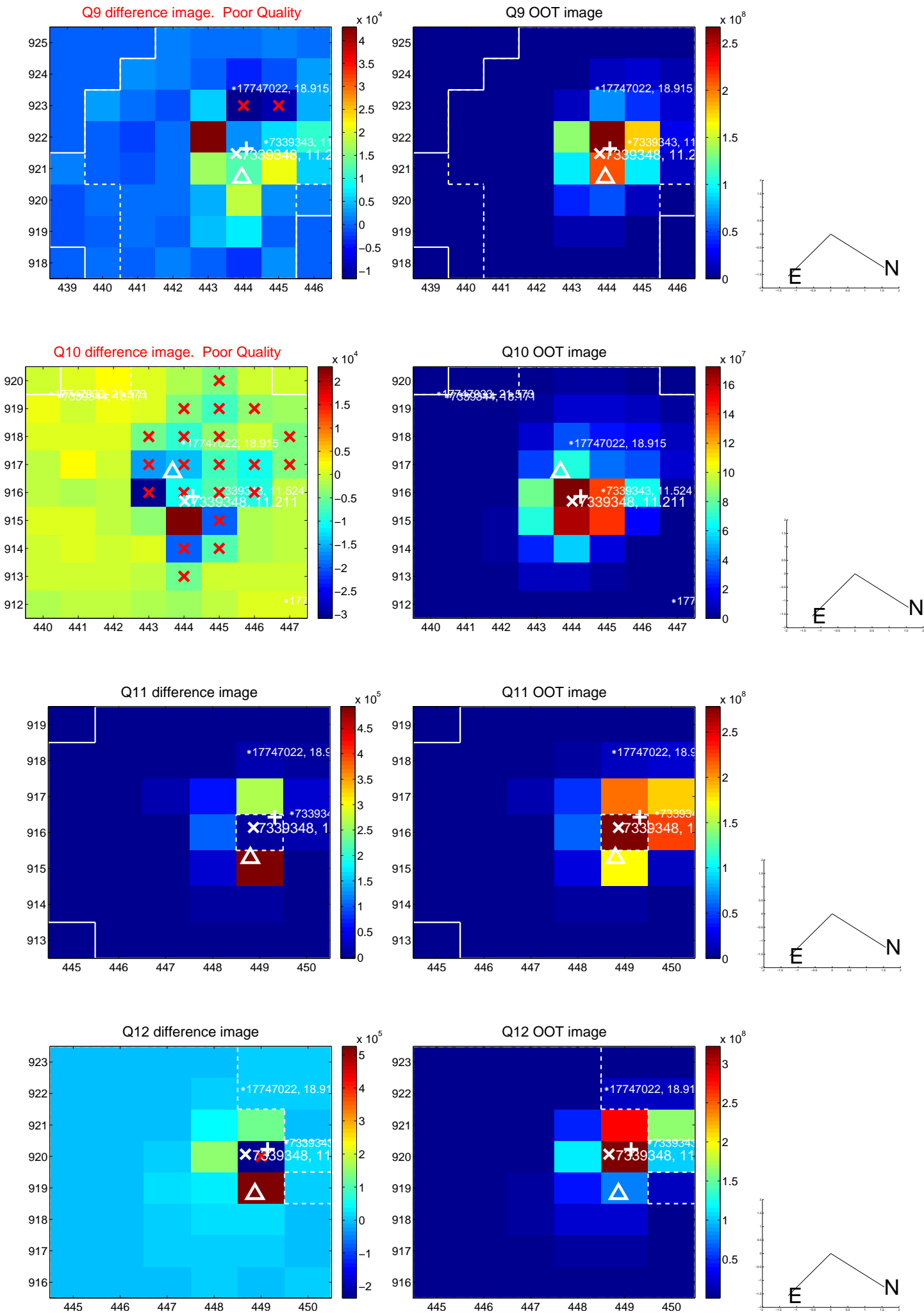
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



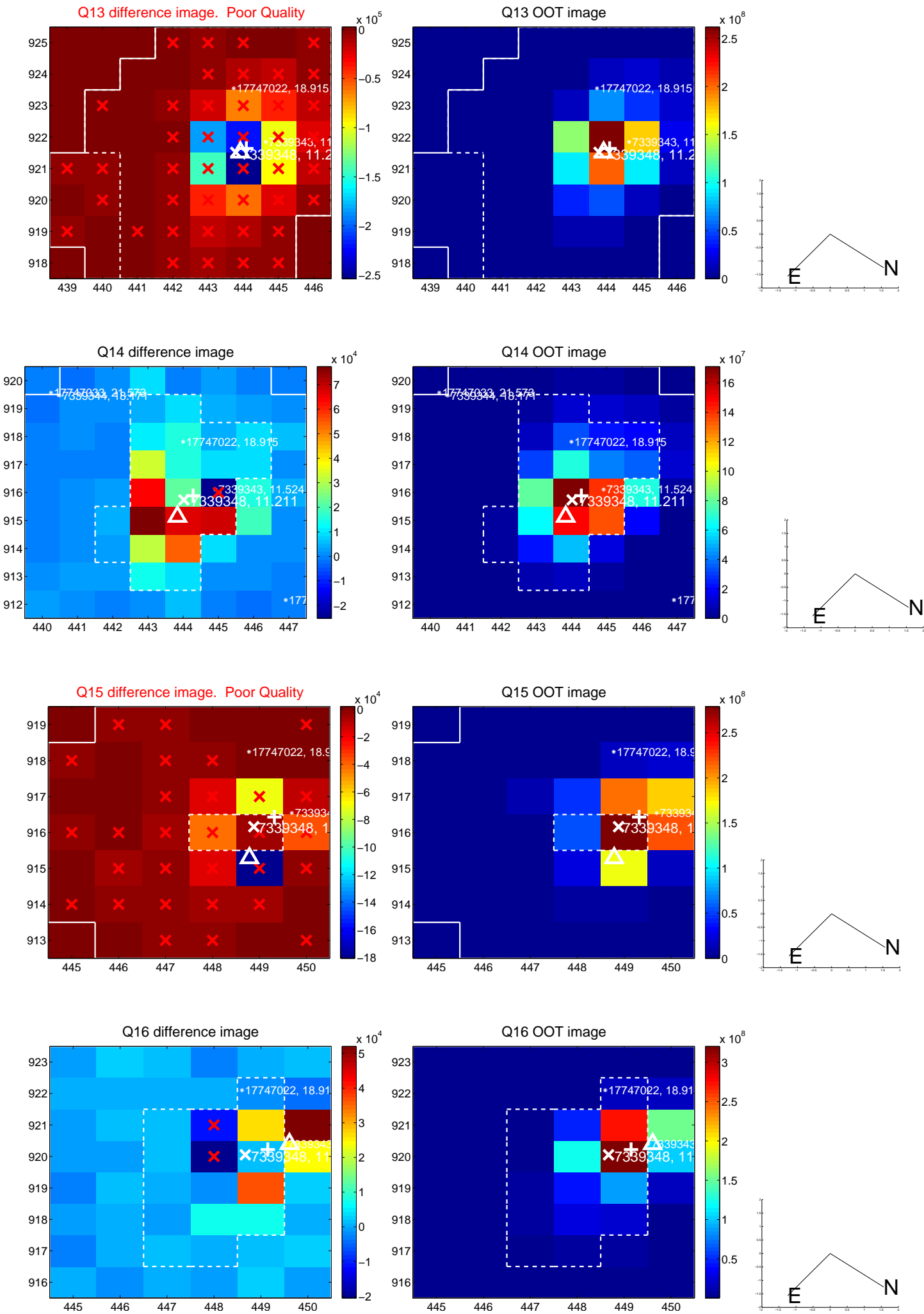
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



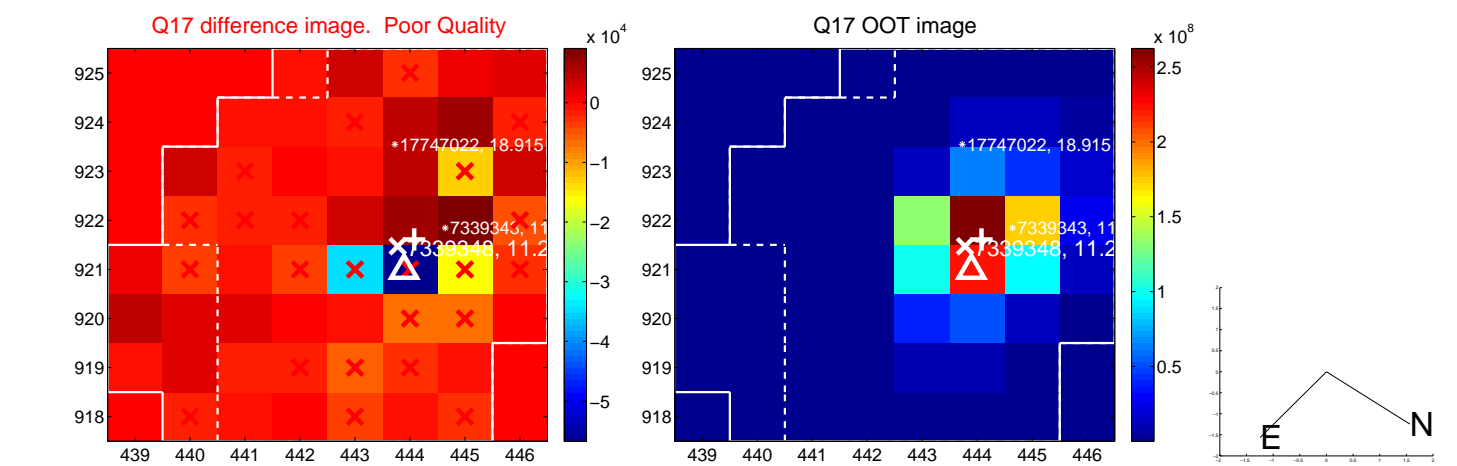
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



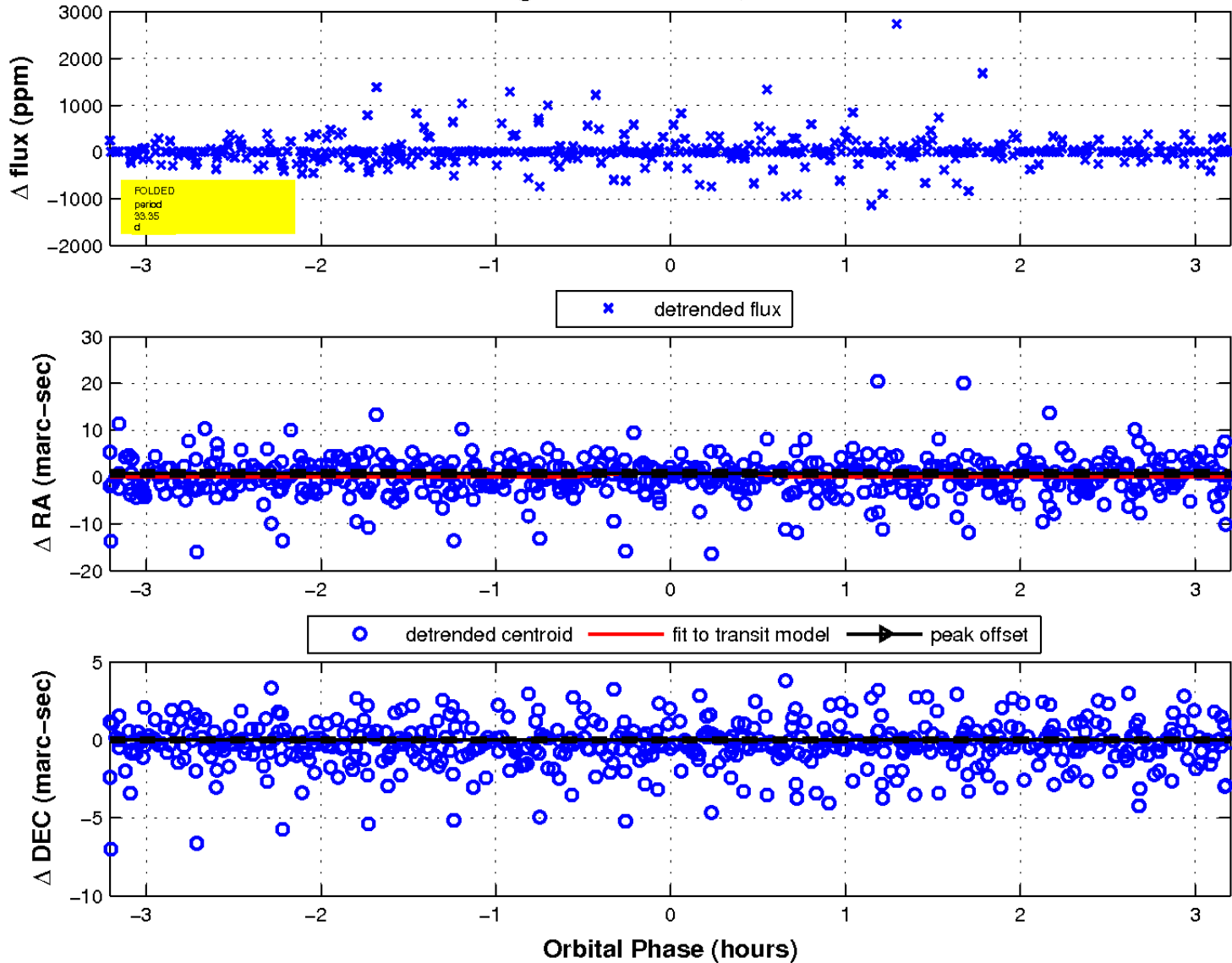
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



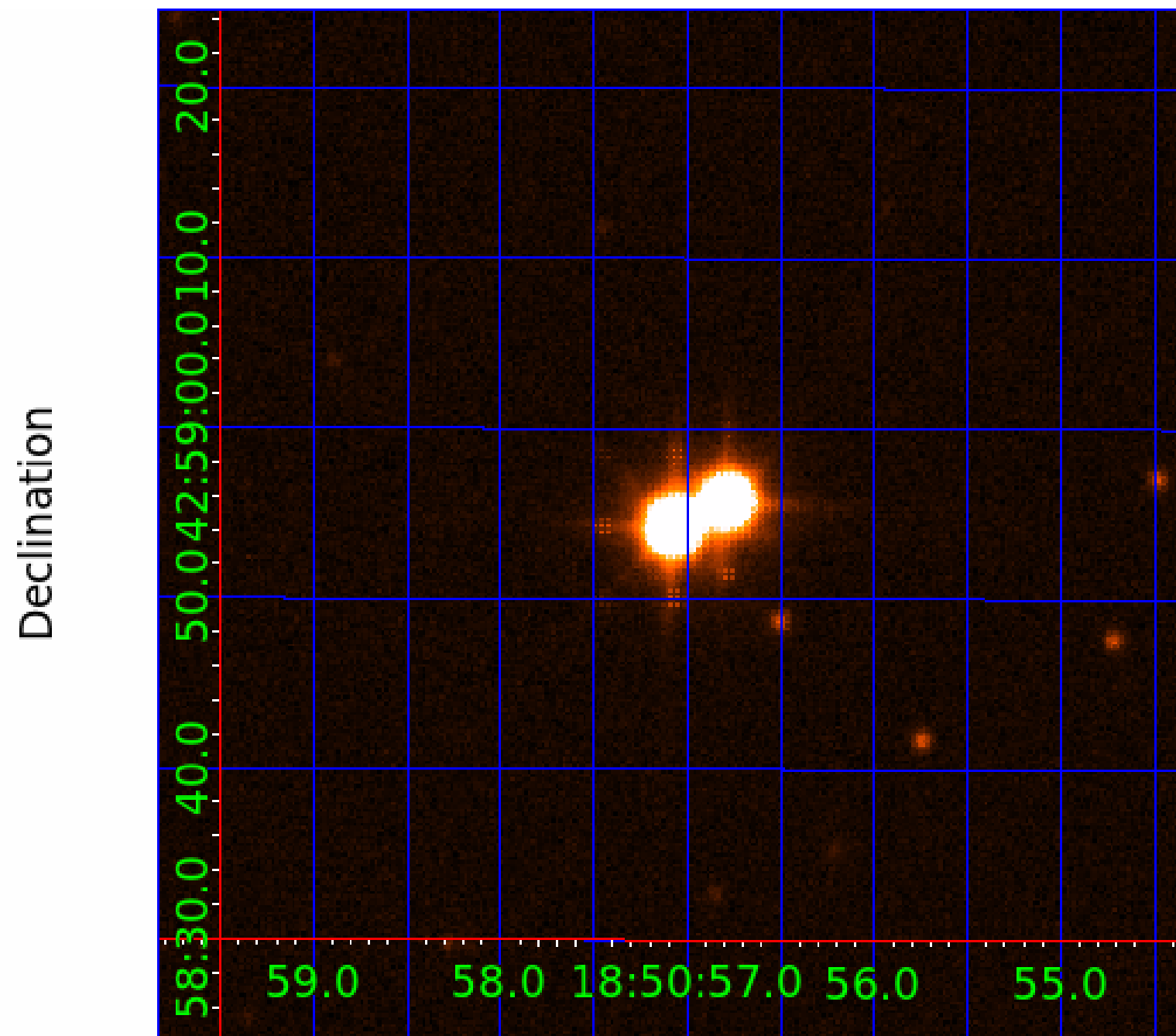
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 5 of 8



UKIRT Image



KIC 007339348

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})
007339348-01	OBS	No	85.006629	174.736102	52.1	2.218	24.7	11.0	1.13	5827	0.98	10.47
007339348-02	OBS	No	117.188421	235.852973	87.7	3.565	22.7	22.0	1.13	5827	1.25	6.82
007339348-03	OBS	No	253.869090	286.492737	47.9	1.456	20.6	6.8	1.13	5827	0.84	2.43
007339348-04	OBS	No	75.903318	135.248398	6.8	7.330	18.3	0.9	1.13	5827	0.32	12.17
007339348-05	OBS	No	33.345513	156.832396	61.3	1.073	19.0	31.2	1.13	5827	0.94	36.45
007339348-06	OBS	No	140.551536	211.926482	108.0	16.401	14.3	13.6	1.13	5827	1.27	5.35
007339348-07	OBS	No	172.817646	161.999799	5.1	10.356	17.1	0.9	1.13	5827	0.30	4.06
007339348-08	OBS	No	95.310334	158.857260	27.7	2.762	17.3	4.2	1.13	5827	0.72	8.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007339348-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

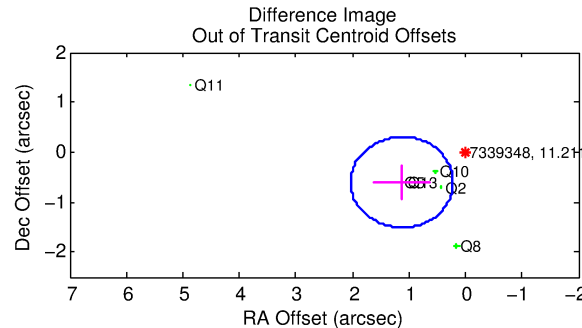
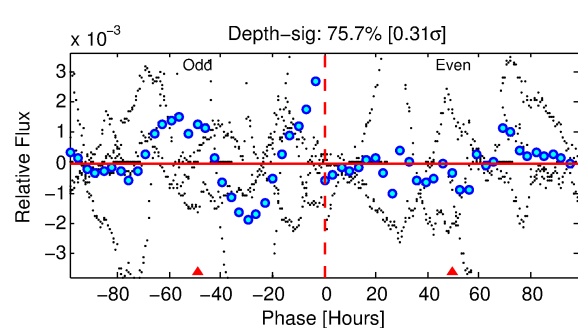
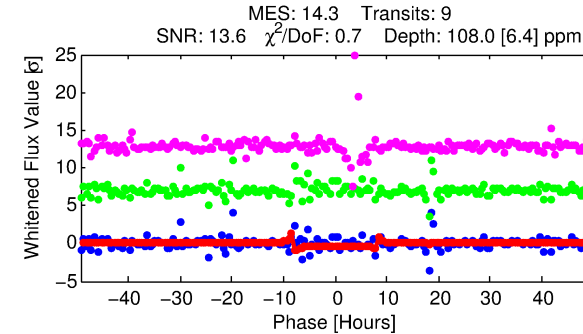
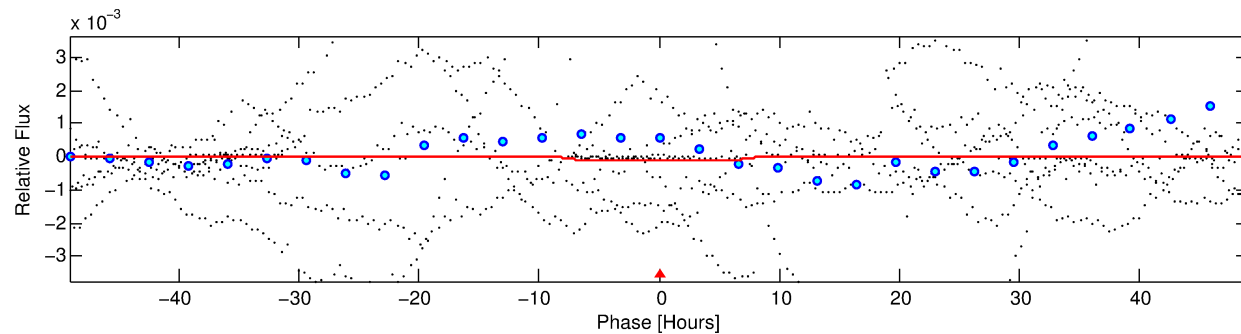
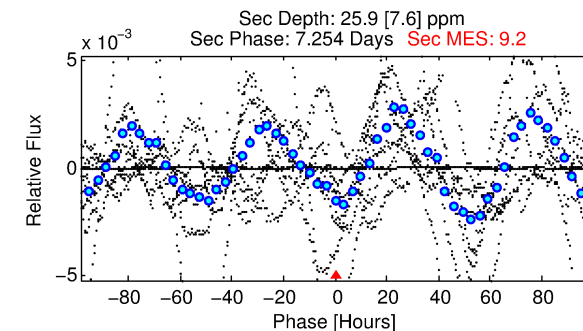
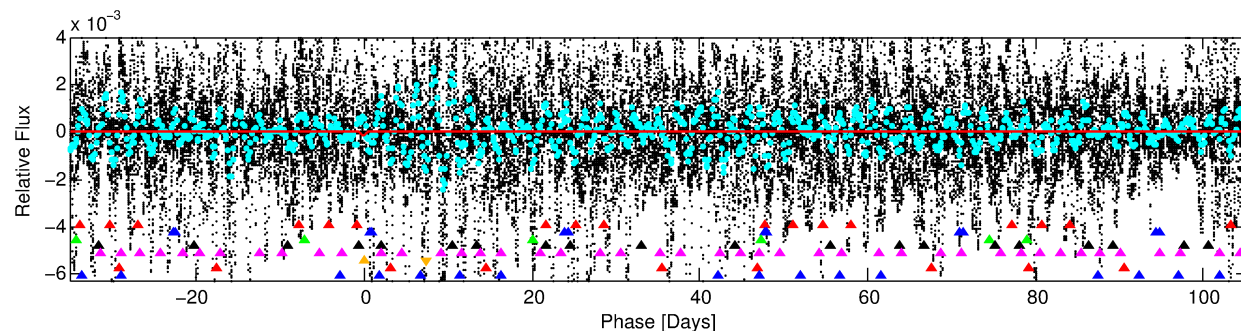
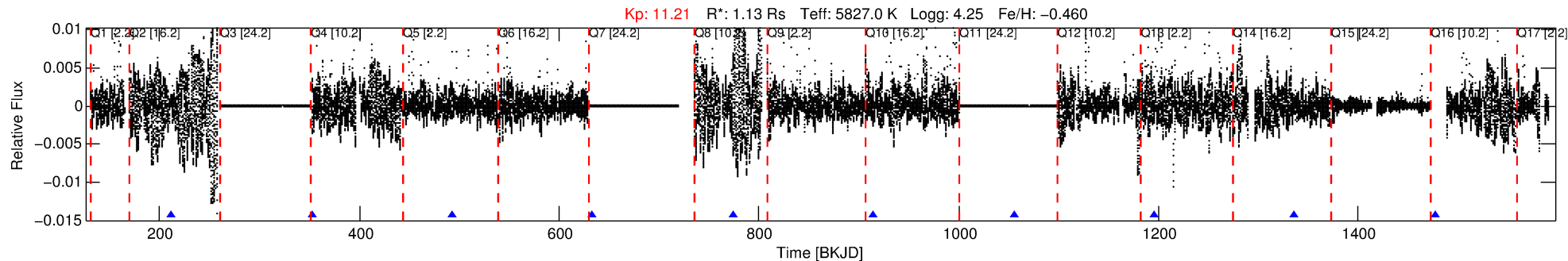
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007339348-06

No Significant Match Found

DV One-Page Summary

KIC: 7339348 Candidate: 6 of 8 Period: 140.552 d



DV Fit Results:

Period = 140.55154 [0.00085] d
Epoch = 211.9265 [0.0051] BKJD
Rp/R* = 0.0103 [0.0004]
a/R* = 44.90 [4.83]
b = 0.74 [0.07]
Seff = 5.35 [2.66]
Teq = 388 [48] K
Rp = 1.27 [0.39] Re
a = 0.4946 [0.1472] AU
Ag = 2174.01 [1235.32] [1.76σ]
Teff = 4095 [342] K [10.75σ]

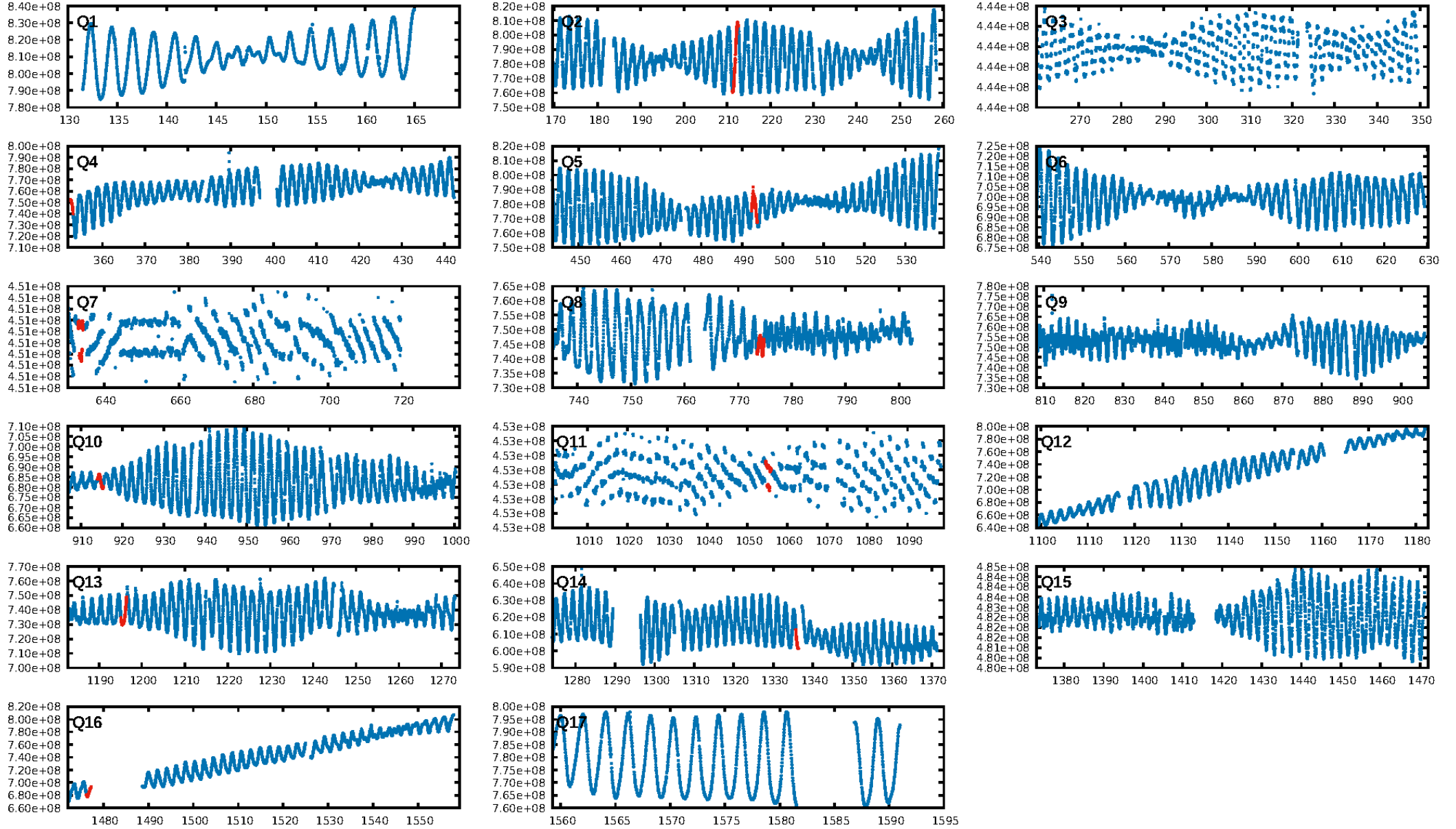
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [33.41σ]
LongPeriod-sig: 100.0% [39.92σ]
ModelChiSquare2-sig: 29.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.53e-09
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -1.008
Centroid-sig: 12.6%
Centroid-so: 5.863 arcsec [0.63σ]
OotOffset-rm: 1.280 arcsec [4.24σ]
KicOffset-rm: 0.107 arcsec [0.14σ]
OotOffset-st: 2/1/1/2 [6]
KicOffset-st: 2/1/1/2 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 0.50 [3/6]

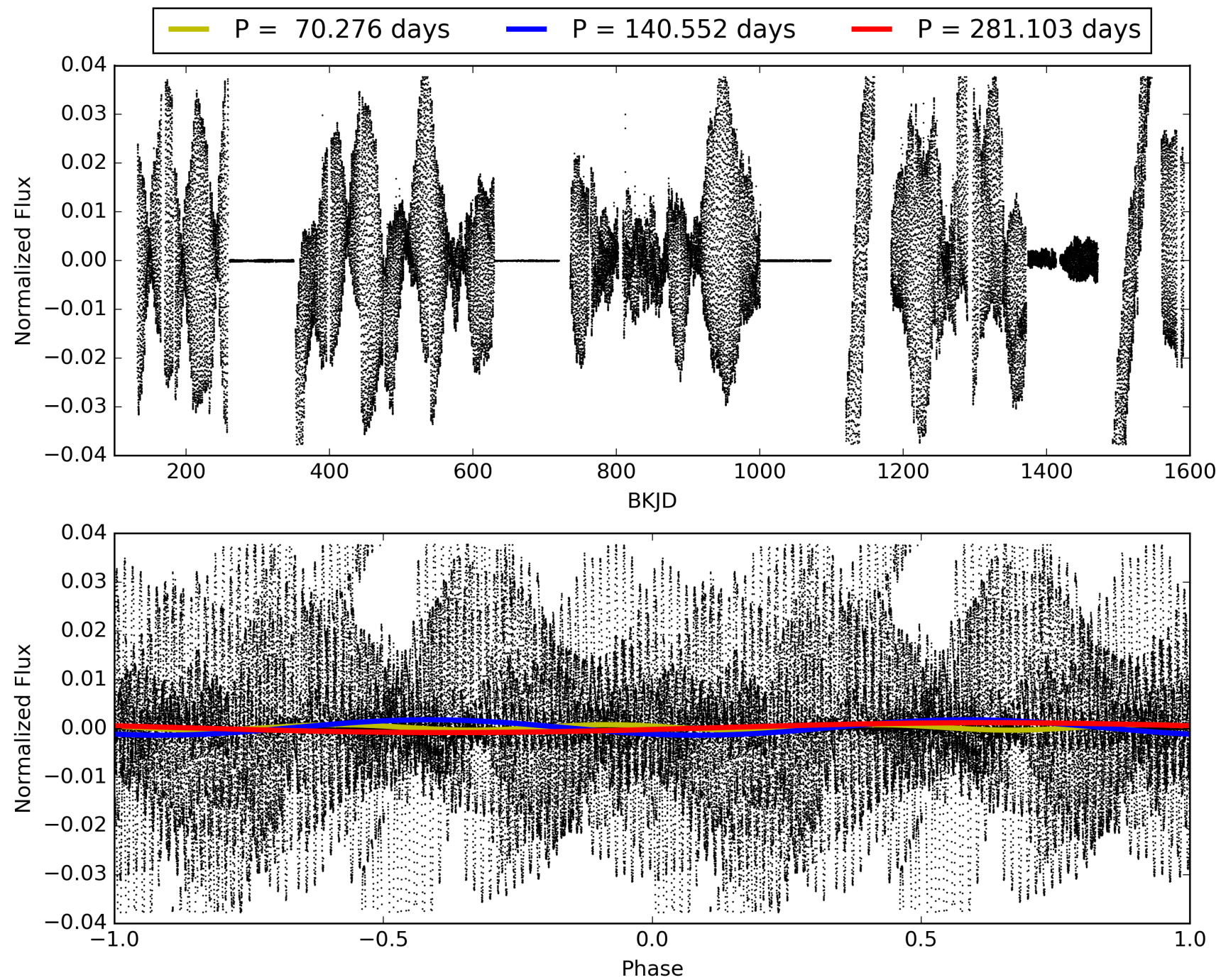
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:30:03 Z

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

TCE 007339348-06, PDC Light Curves

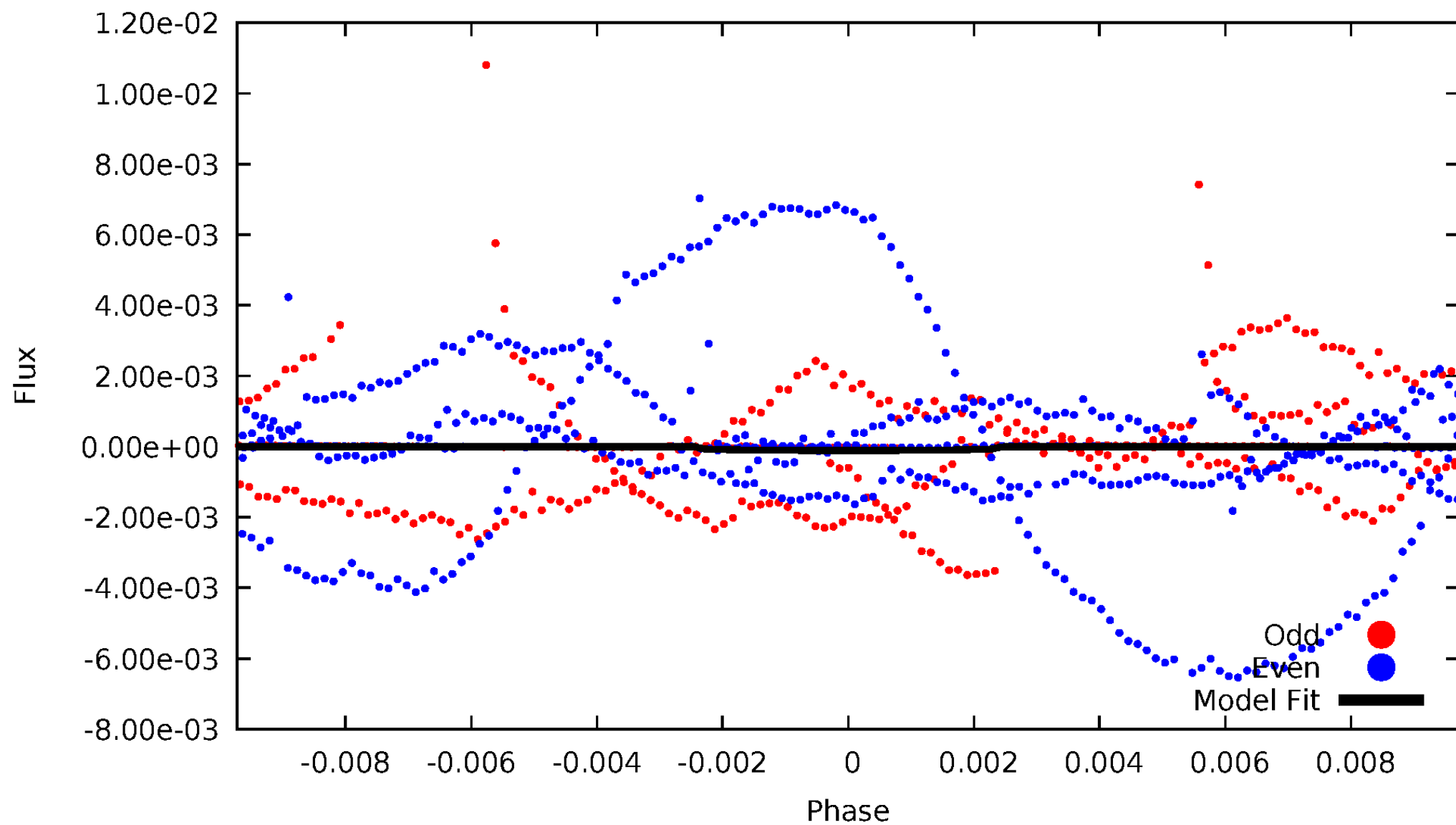


TCE 007339348-06



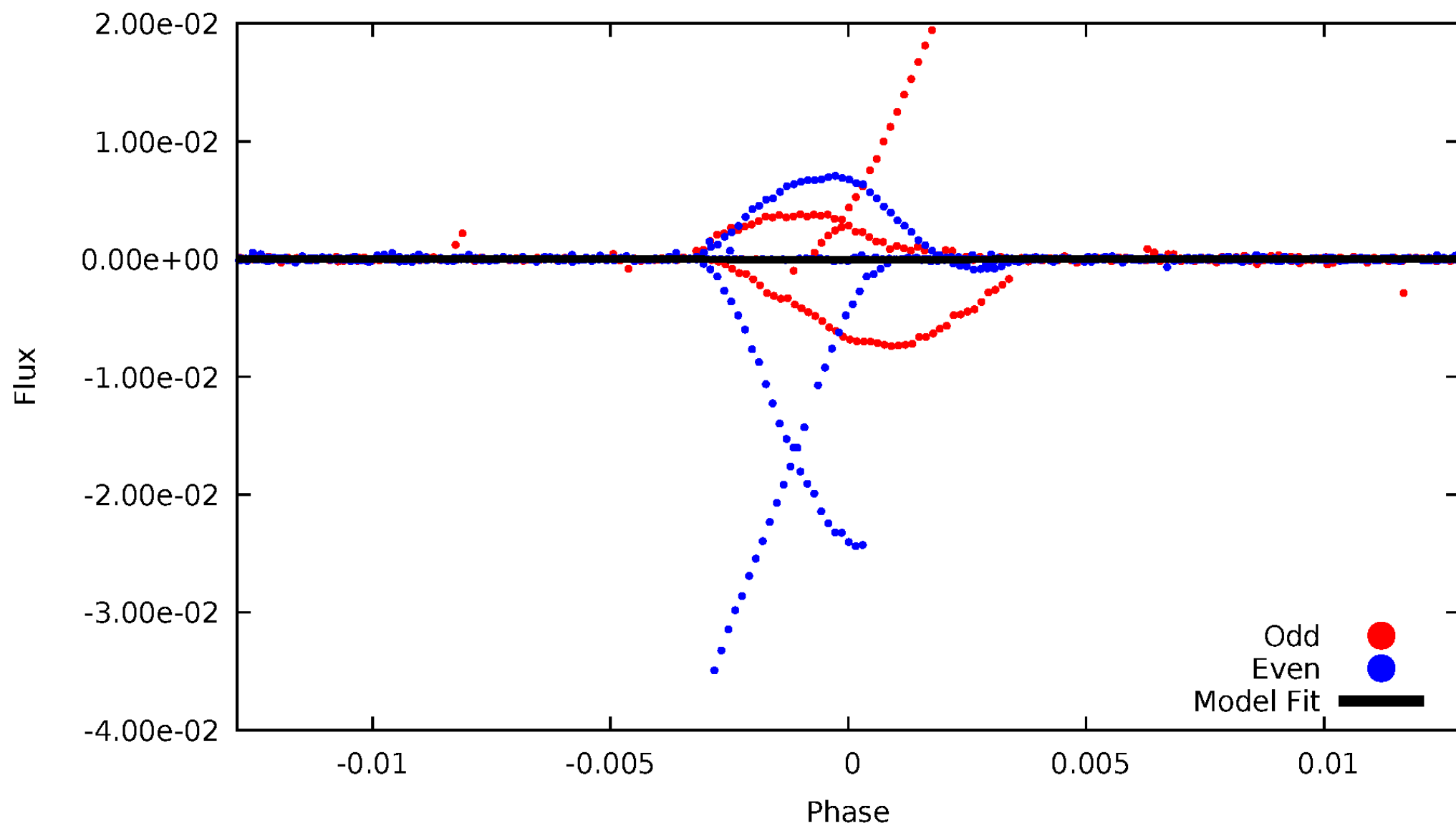
DV Odd/Even

TCE 007339348-06



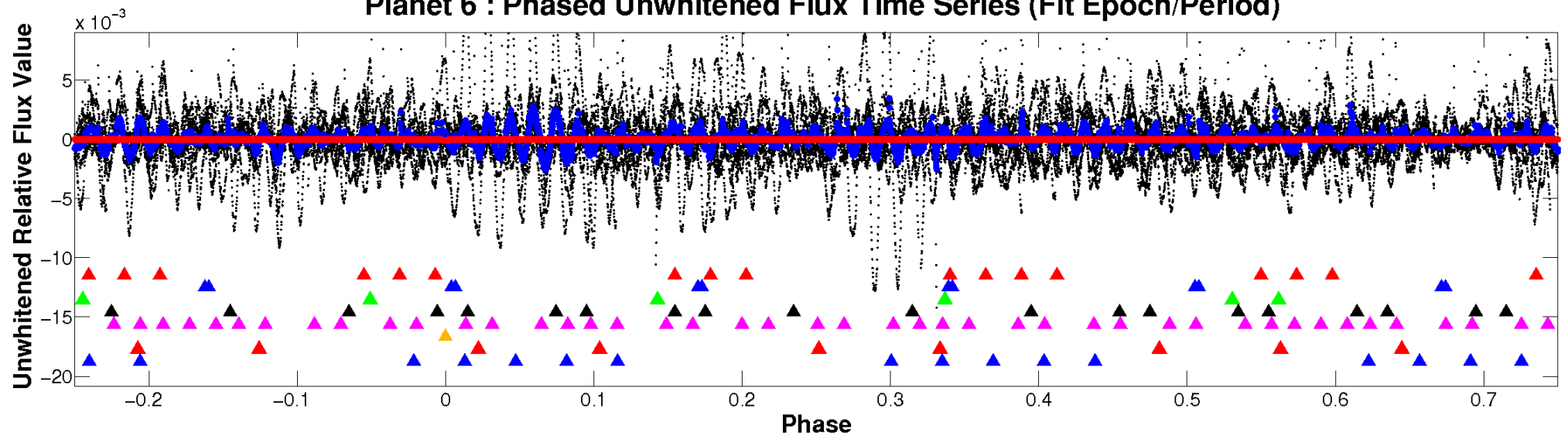
ALT Odd/Even

TCE 007339348-06

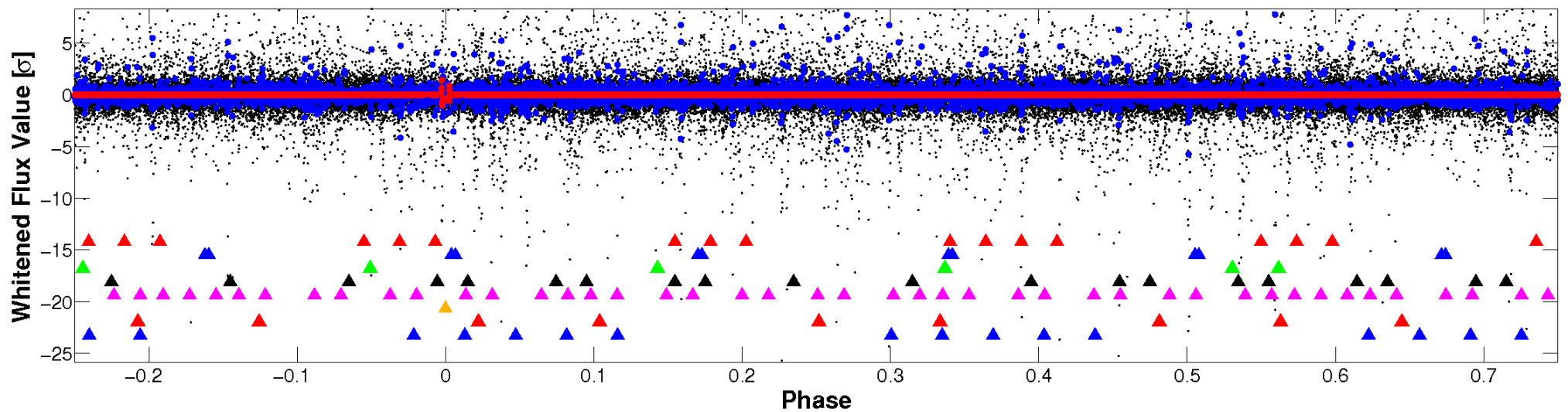


Non-Whitened Vs. Whitened Light Curve

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

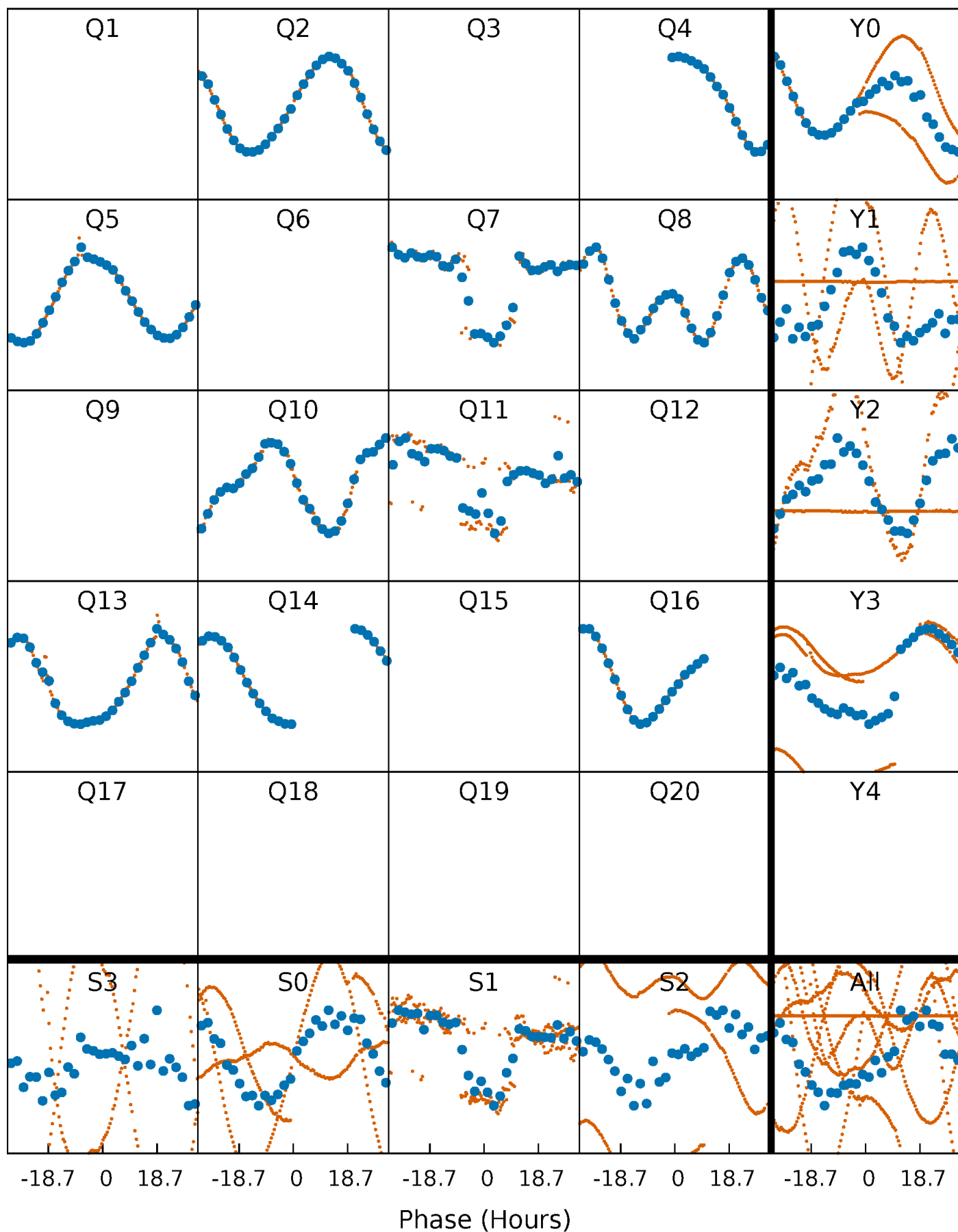


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



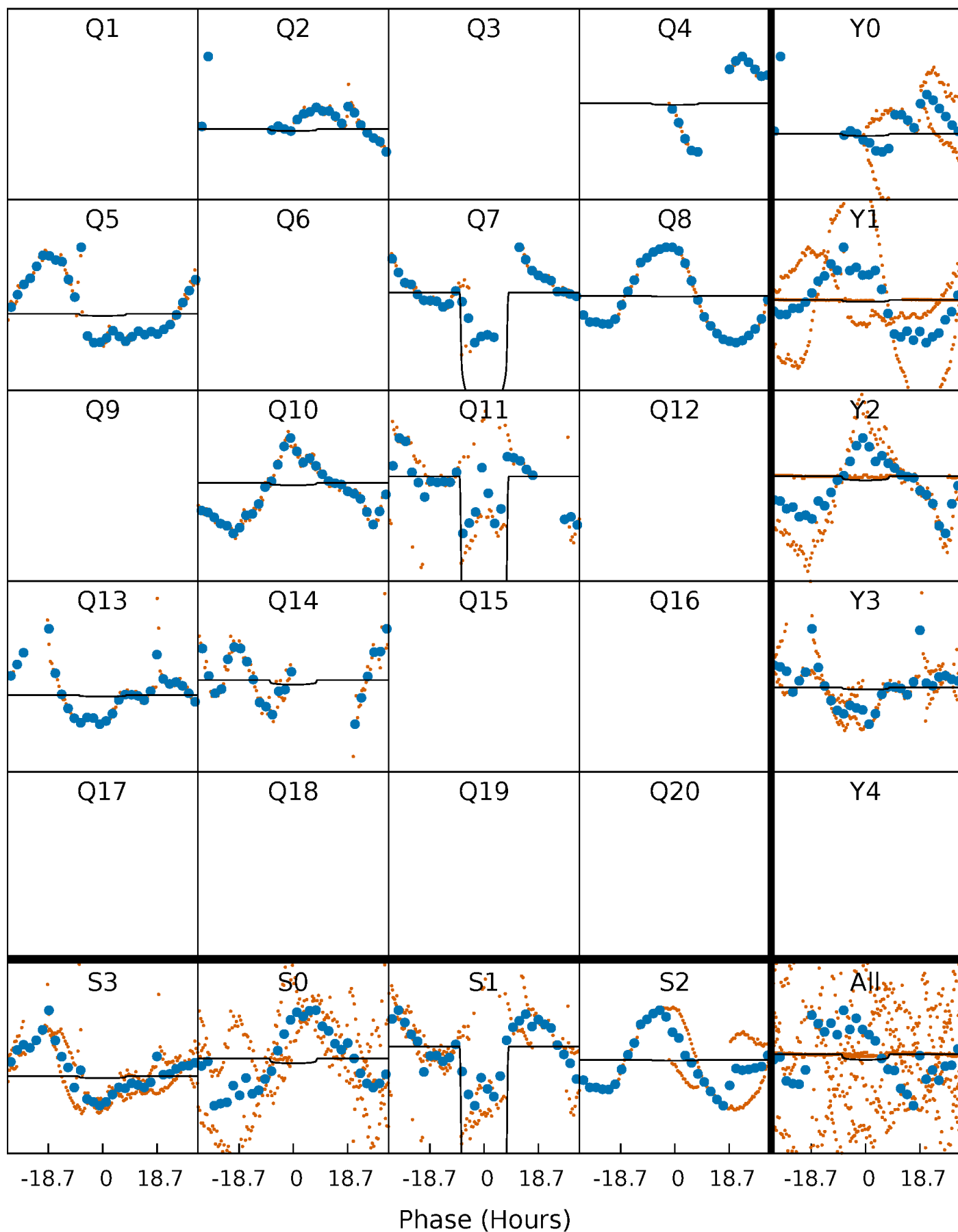
PDC Quarter-Phased Transit Curves

TCE 007339348-06 P=140.551536 Days $T_0=211.926482$ (BKJD)



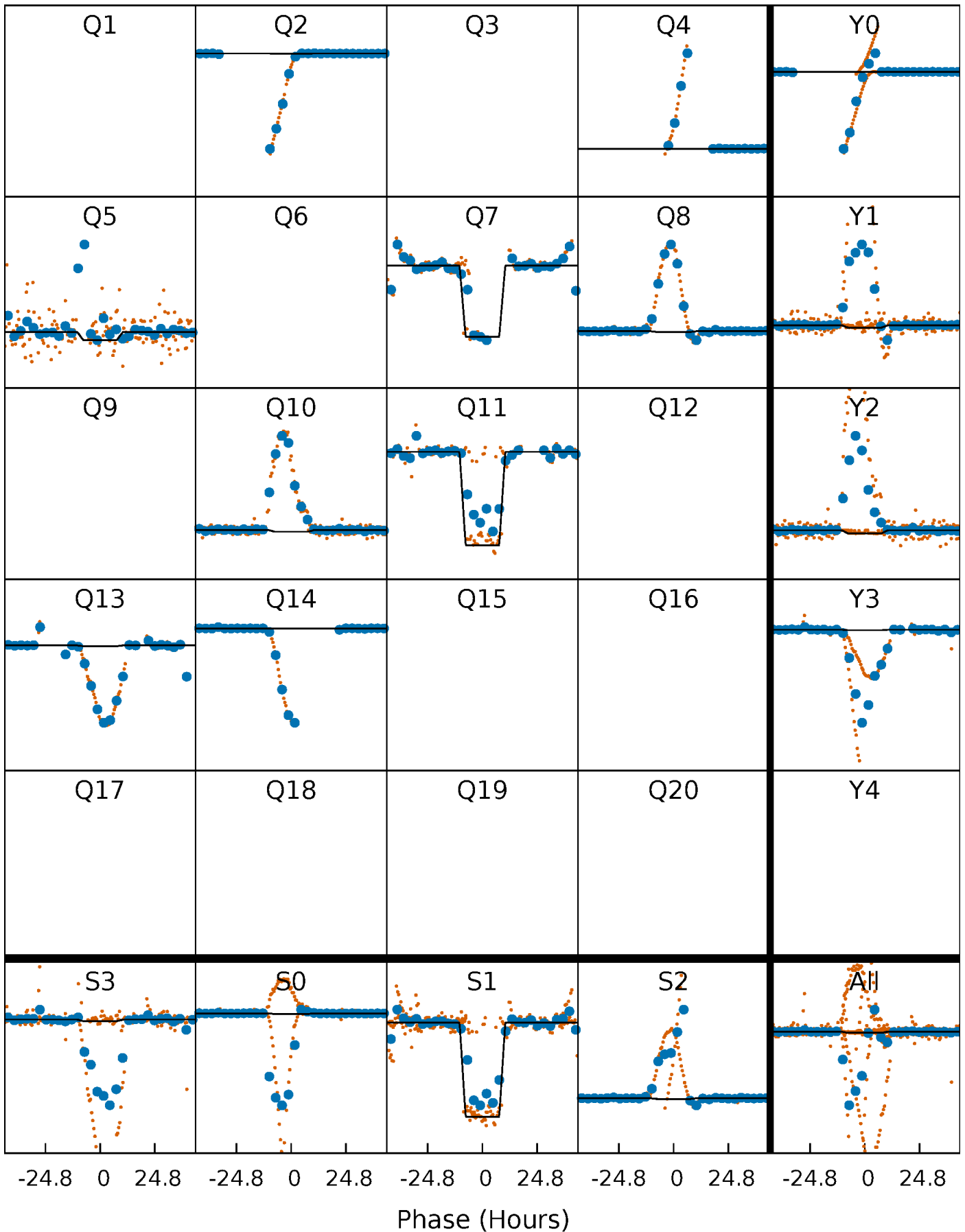
DV Quarter-Phased Transit Curves

TCE 007339348-06 P=140.551536 Days $T_0=211.926482$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

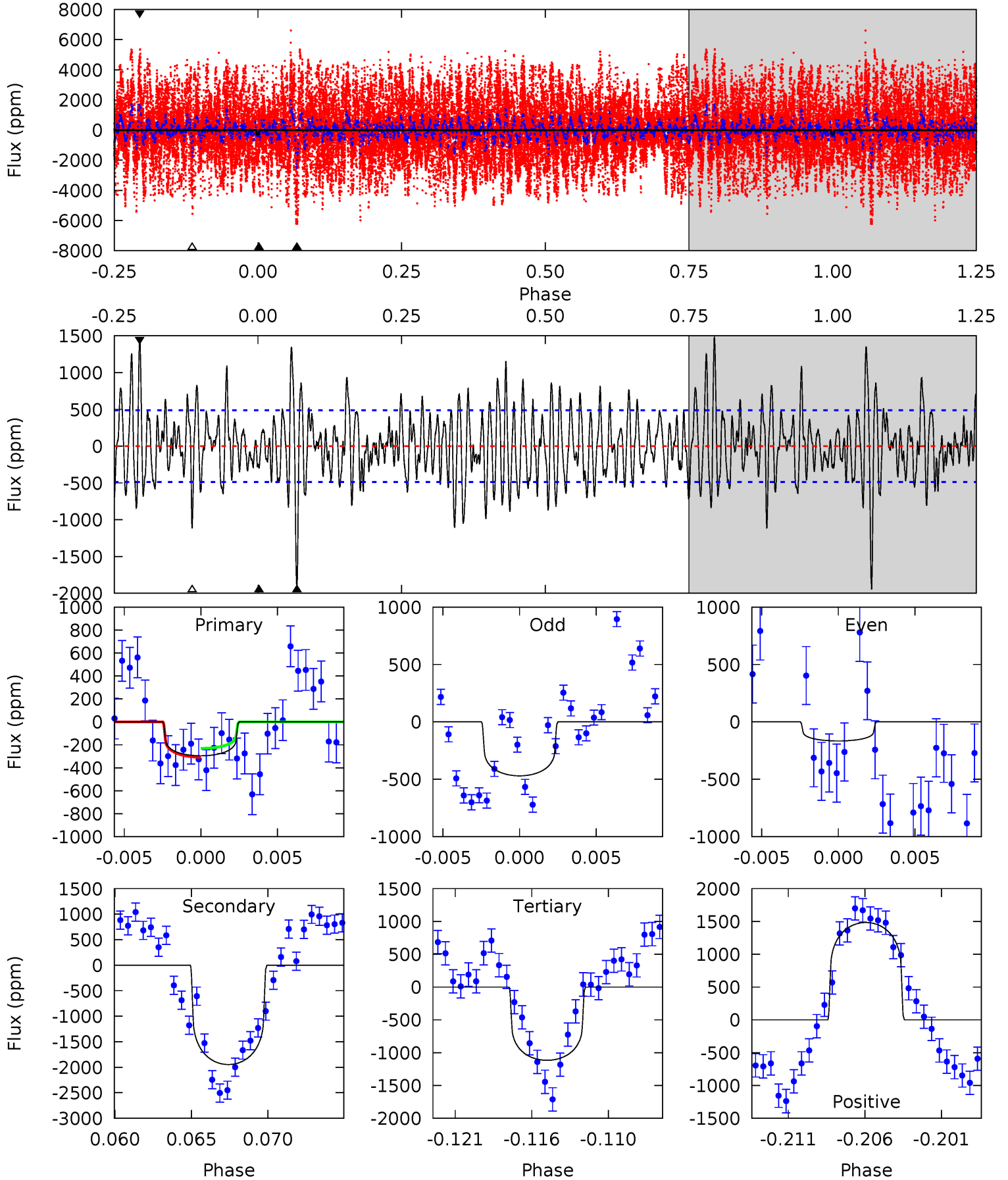
TCE 007339348-06 P=140.528403 Days $T_0=212.029978$ (BKJD)



DV Model-Shift Uniqueness Test

007339348-06, P = 140.551536 Days, E = 71.374946 Days

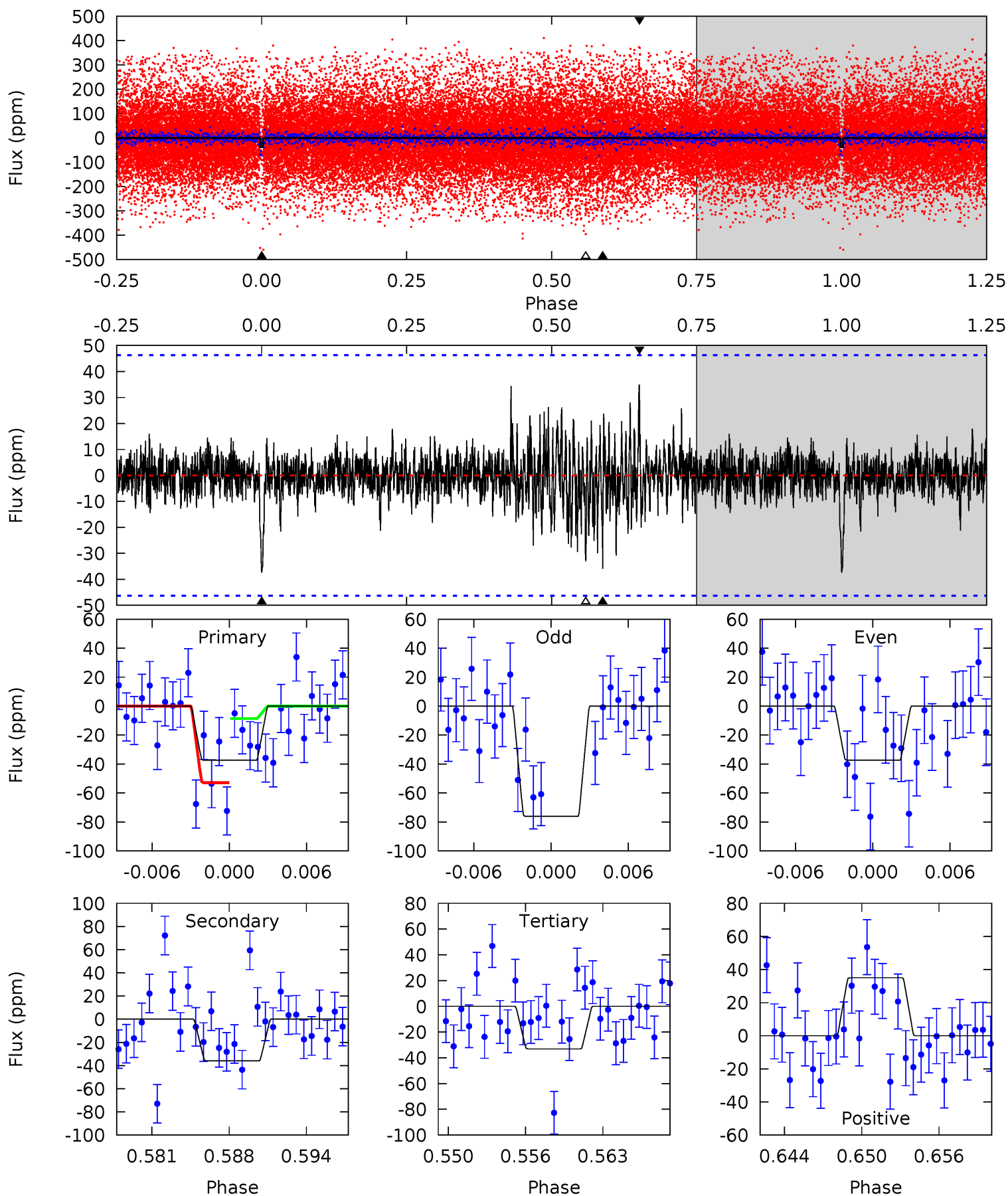
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.13	20.6	11.8	15.7	5.16	2.81	4.34	-8.68	-12.6	8.79	4.90	1.55	-6.53	0.43	0.41



Alt Model-Shift Uniqueness Test

007339348-06, P = 140.528403 Days, E = 71.501575 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.13	3.97	3.66	3.87	5.12	2.73	0.81	0.47	0.26	0.31	0.11	2.18	43.3	0.48	2.50



Stellar Parameters For KIC 007339348

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5827^{+193}_{-175}	$4.247^{+0.282}_{-0.212}$	$-0.460^{+0.300}_{-0.300}$	$1.126^{+0.345}_{-0.314}$	$0.816^{+0.126}_{-0.054}$	$0.805^{+1.193}_{-0.421}$
	+3%/-3%	+7%/-5%	+65%/-65%	+31%/-28%	+15%/-7%	+148%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007339348-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1947 ± 95	$1.27^{+0.23}_{-0.21}$	541^{+48}_{-50}	15878^{+1287}_{-1230}	166863^{+72941}_{-47548}
Alt.	-36 ± 9	$0.99^{+0.21}_{-0.16}$	539^{+54}_{-43}	5102^{+329}_{-364}	5038^{+2582}_{-1932}

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

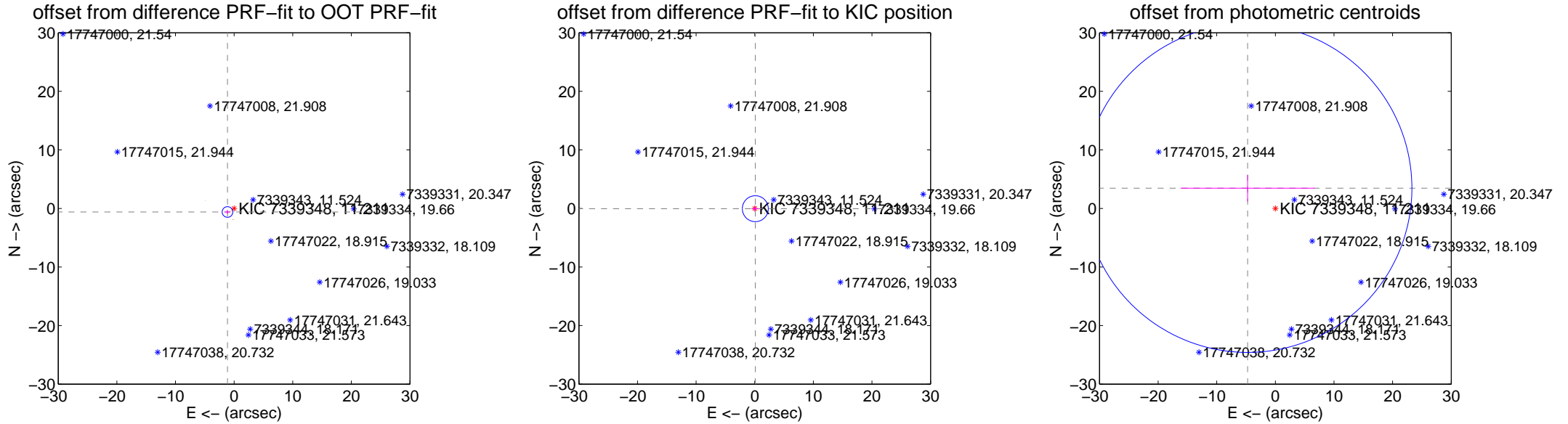
DV Centroid Data

Supplemental centroid analysis for 007339348-06. **Kepler magnitude: 11.21.** Transit SNR 13.58

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.280 ± 0.302	4.24	1.128 ± 0.487	-0.605 ± 0.347
PRF-fit source offset from KIC position	0.107 ± 0.738	0.14	-0.097 ± 0.634	-0.043 ± 0.399
photometric centroid source offset	5.86 ± 9.34	0.63	4.74 ± 11.44	3.45 ± 2.26



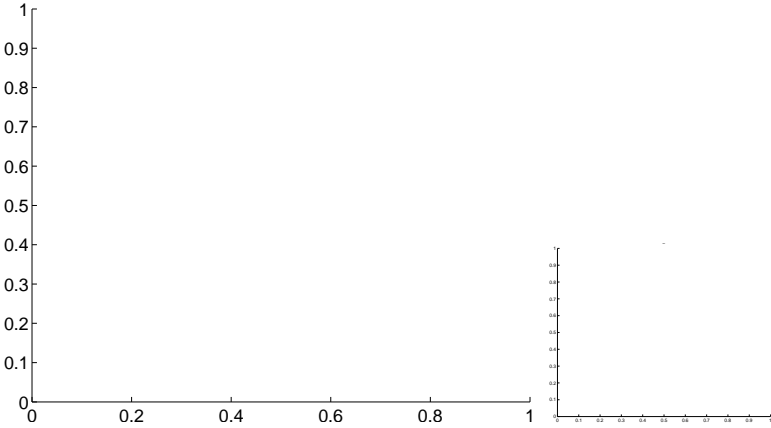
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

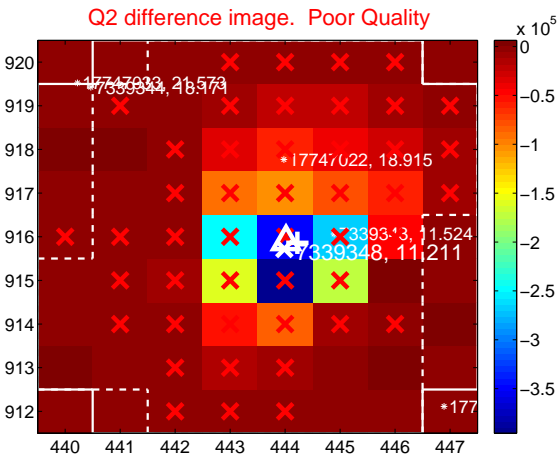
Q1 no difference image



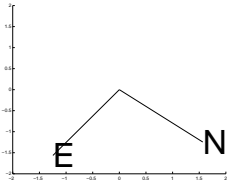
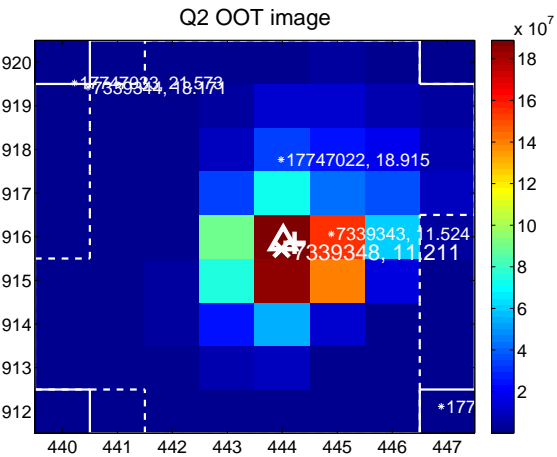
Q1 no OOT image



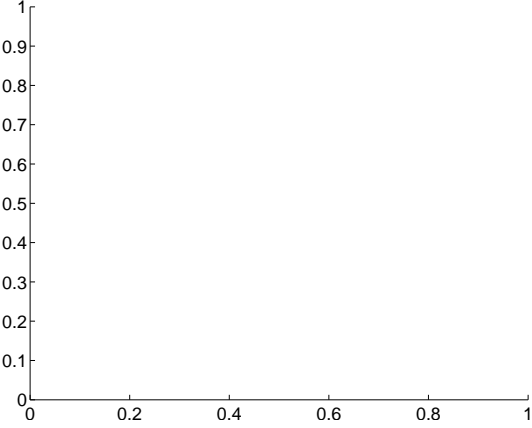
Q2 difference image. Poor Quality



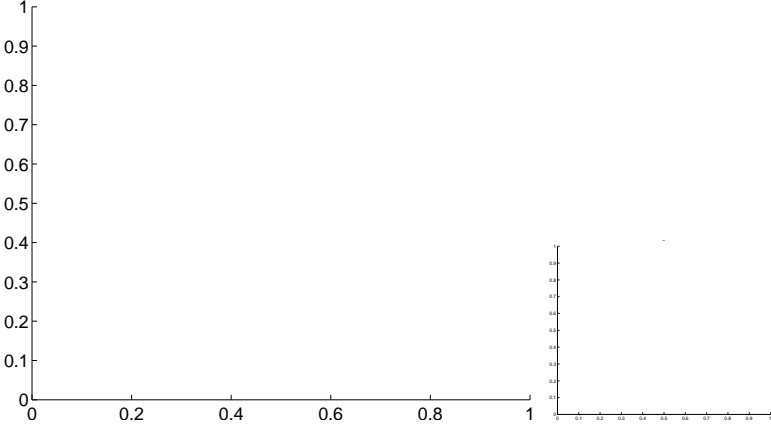
Q2 OOT image



Q3 no difference image



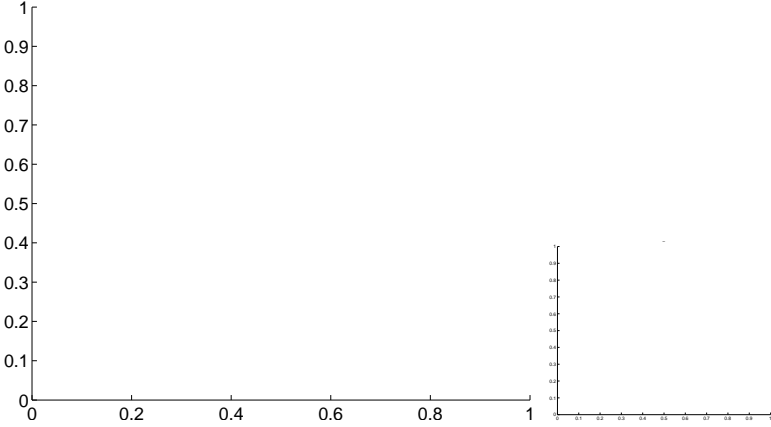
Q3 no OOT image



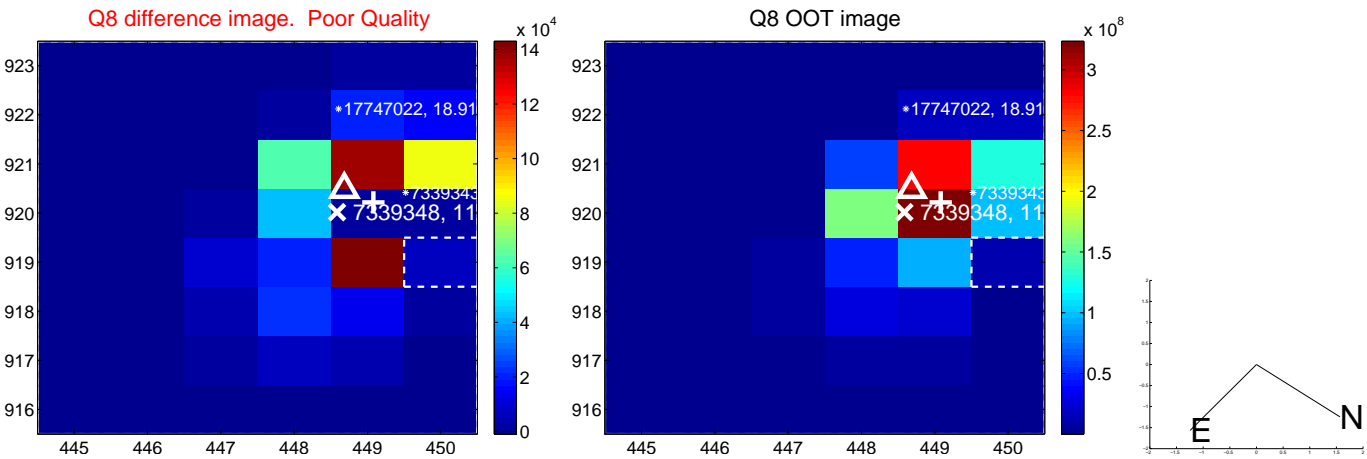
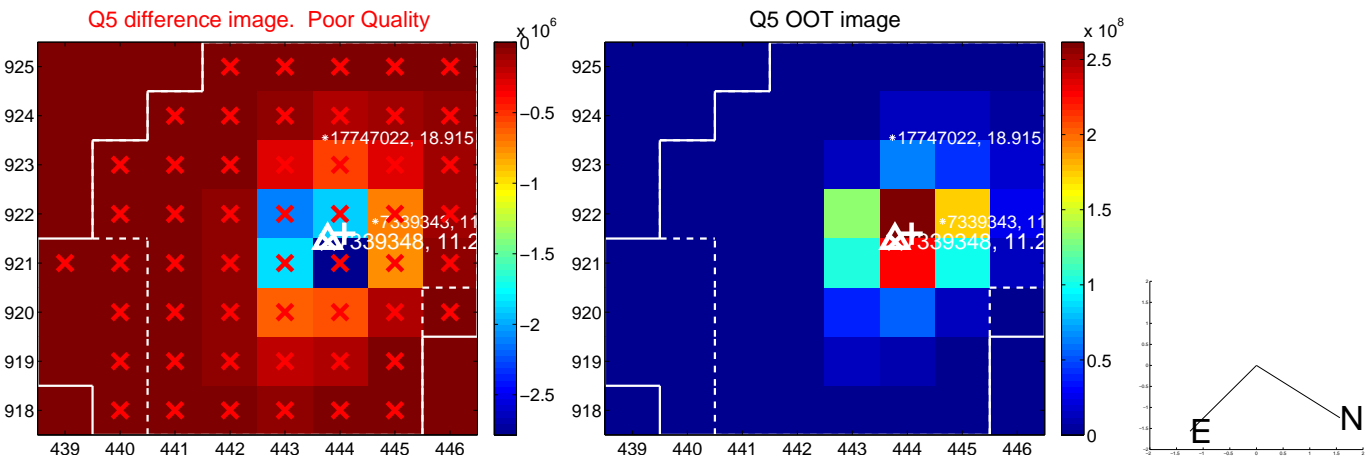
Q4 no difference image



Q4 no OOT image



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



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

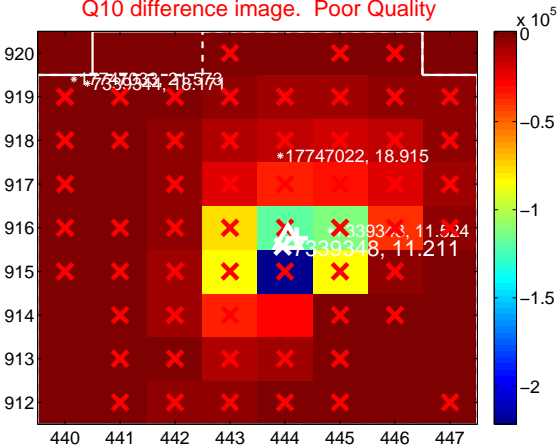
Q9 no difference image



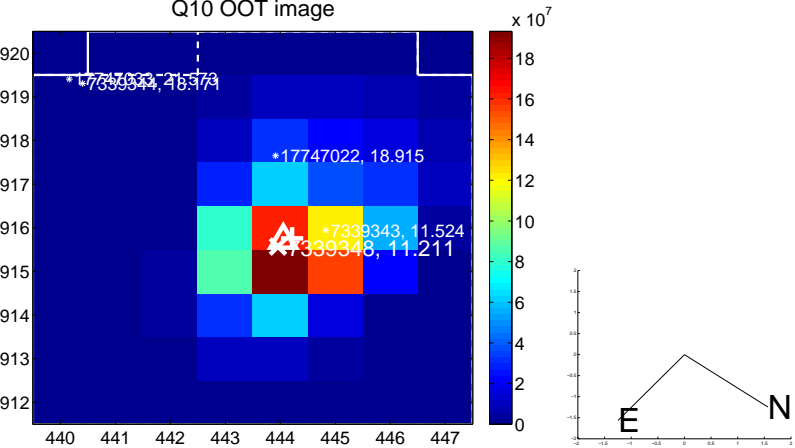
Q9 no OOT image



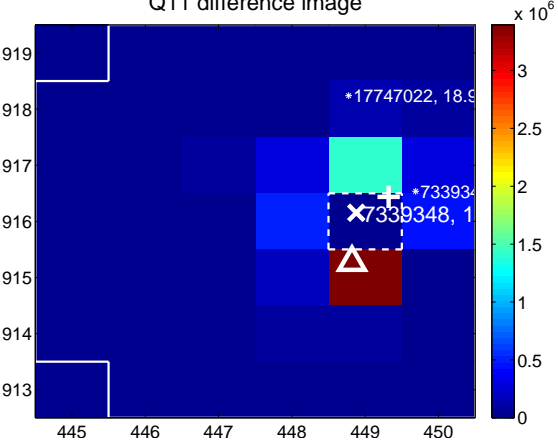
Q10 difference image. Poor Quality



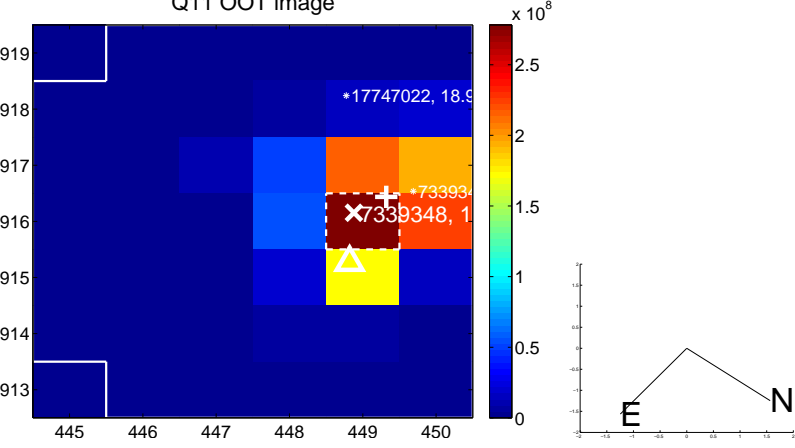
Q10 OOT image



Q11 difference image



Q11 OOT image



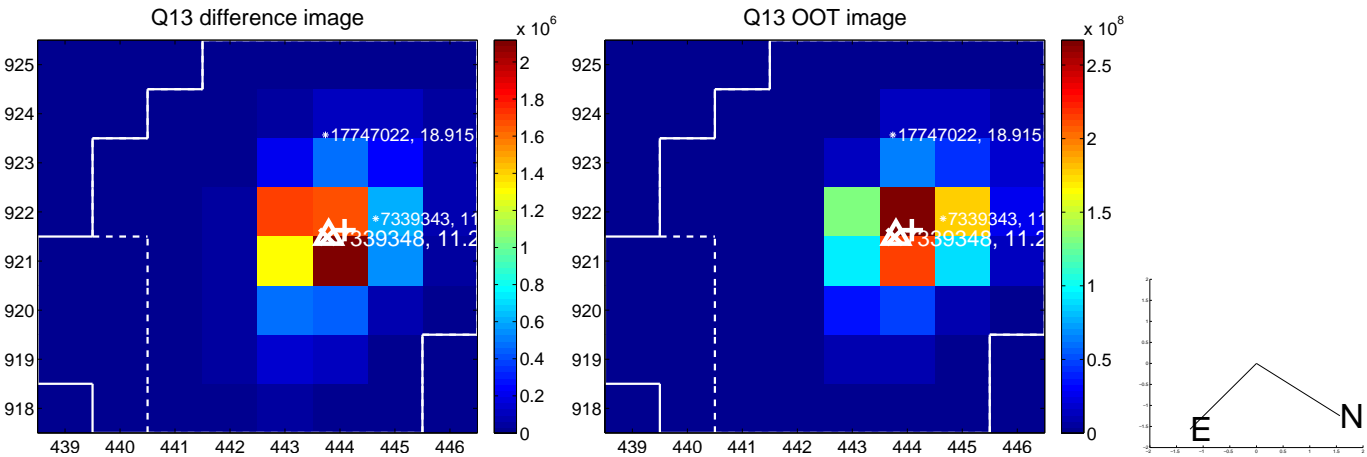
Q12 no difference image



Q12 no OOT image



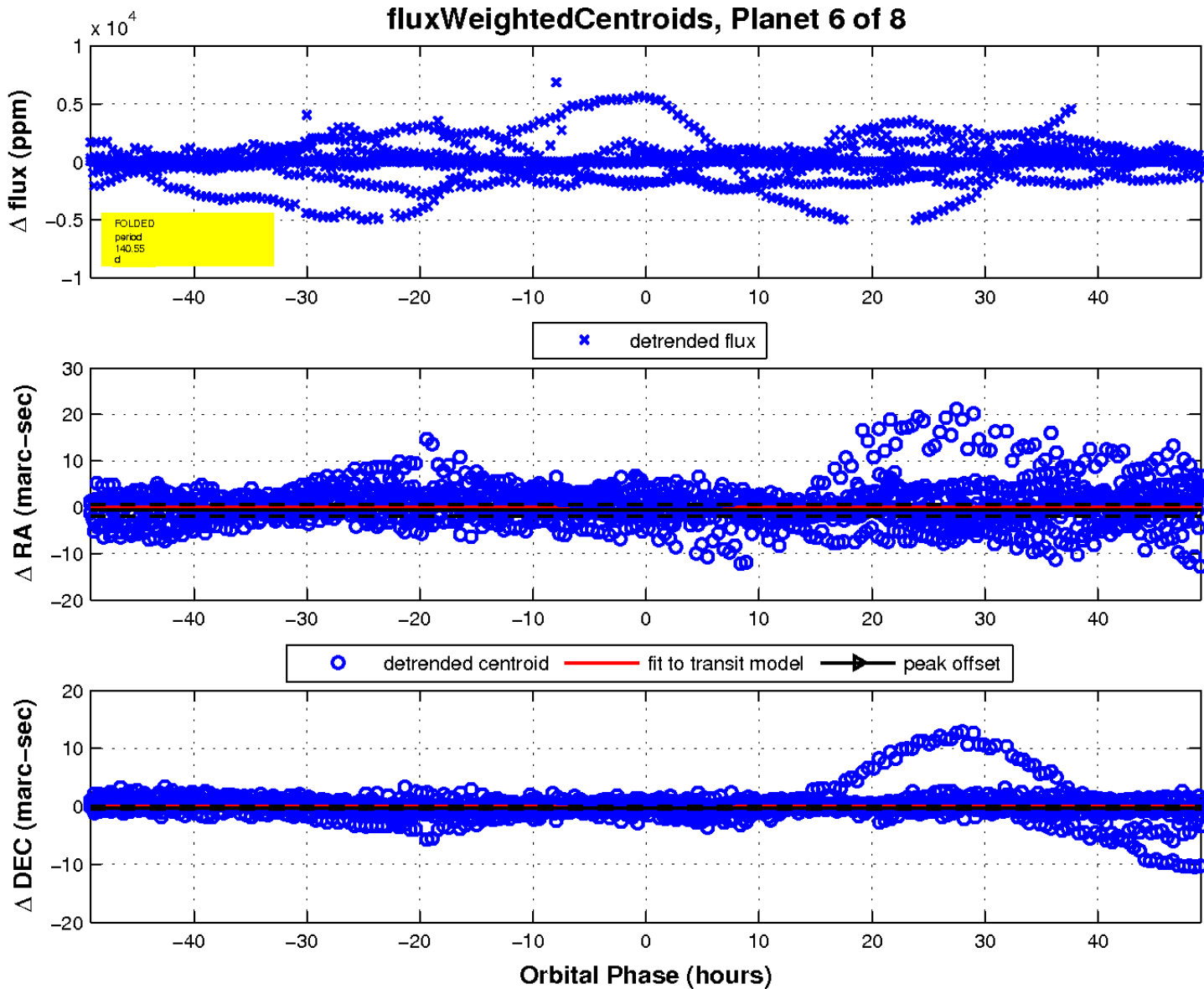
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



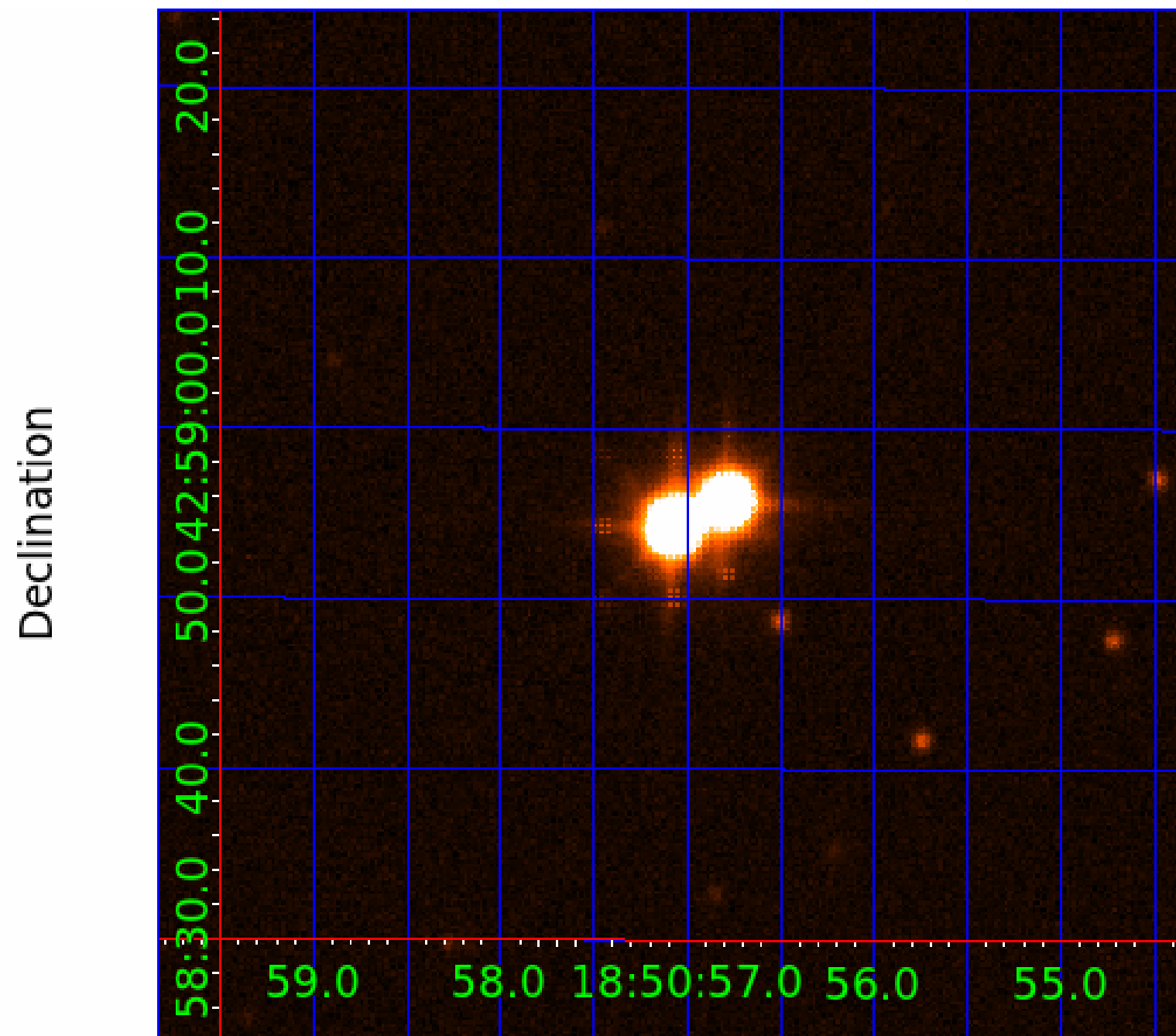
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image



UKIRT Image



KIC 007339348

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})
007339348-01	OBS	No	85.006629	174.736102	52.1	2.218	24.7	11.0	1.13	5827	0.98	10.47
007339348-02	OBS	No	117.188421	235.852973	87.7	3.565	22.7	22.0	1.13	5827	1.25	6.82
007339348-03	OBS	No	253.869090	286.492737	47.9	1.456	20.6	6.8	1.13	5827	0.84	2.43
007339348-04	OBS	No	75.903318	135.248398	6.8	7.330	18.3	0.9	1.13	5827	0.32	12.17
007339348-05	OBS	No	33.345513	156.832396	61.3	1.073	19.0	31.2	1.13	5827	0.94	36.45
007339348-06	OBS	No	140.551536	211.926482	108.0	16.401	14.3	13.6	1.13	5827	1.27	5.35
007339348-07	OBS	No	172.817646	161.999799	5.1	10.356	17.1	0.9	1.13	5827	0.30	4.06
007339348-08	OBS	No	95.310334	158.857260	27.7	2.762	17.3	4.2	1.13	5827	0.72	8.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007339348-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

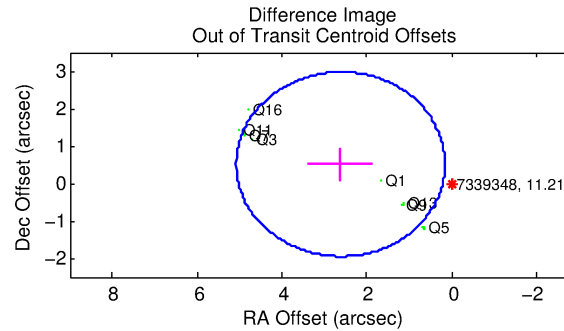
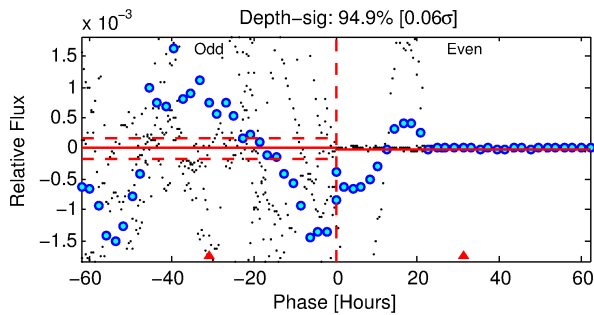
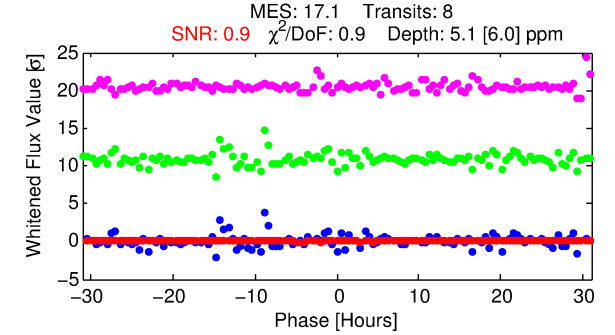
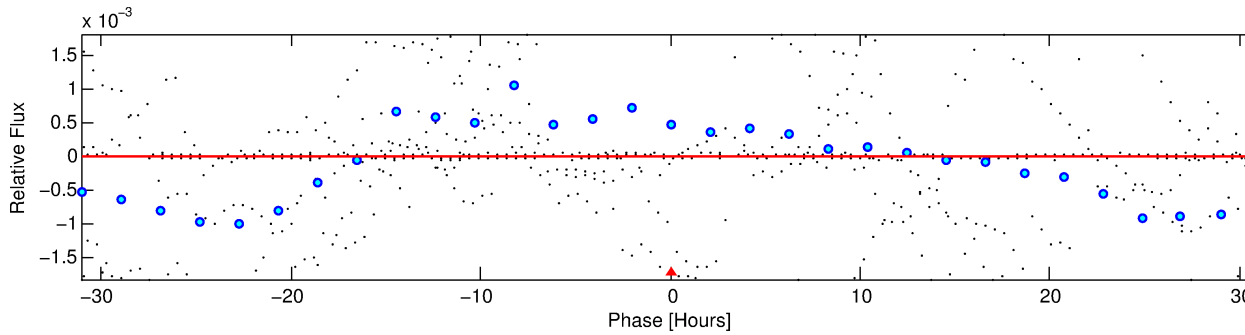
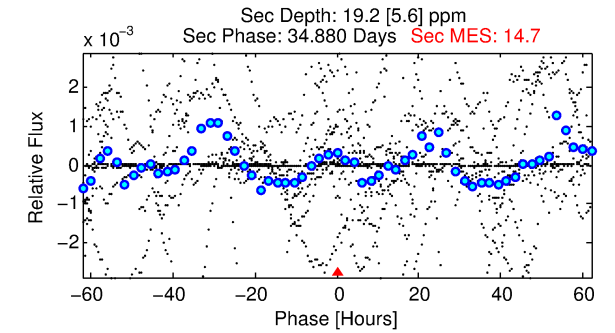
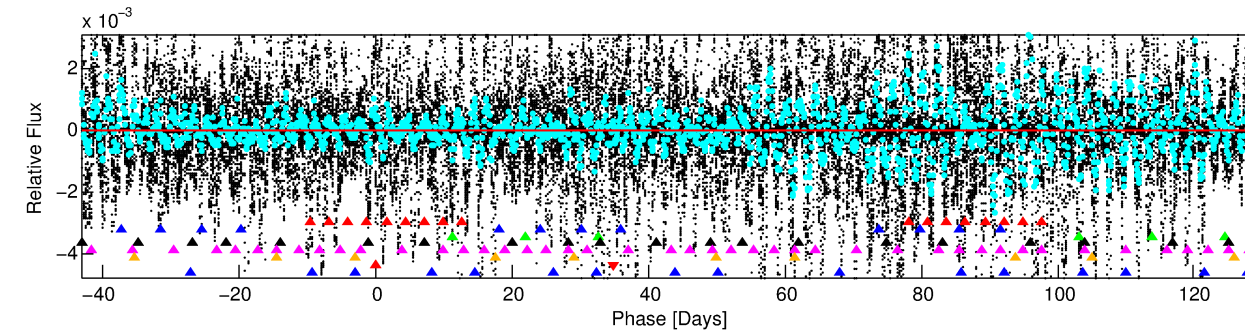
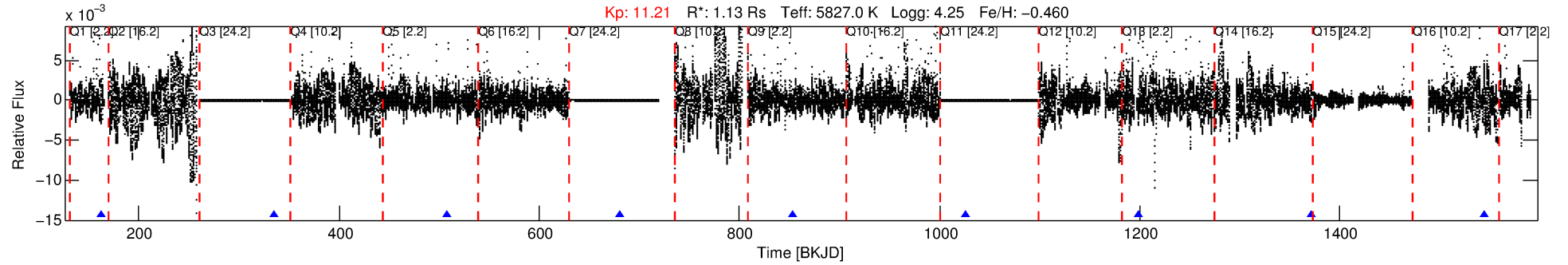
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007339348-07

No Significant Match Found

DV One-Page Summary

KIC: 7339348 Candidate: 7 of 8 Period: 172.818 d



DV Fit Results:

Period = 172.81765 [0.01906] d
Epoch = 161.9998 [0.0700] BKJD
Rp/R* = 0.0024 [0.0051]
a/R* = 58.06 [671.03]
b = 0.89 [2.63]
Seff = 4.06 [2.02]
Teq = 362 [45] K
Rp = 0.30 [0.63] Re
a = 0.5677 [0.1690] AU
Ag = 38043.09 [159494.25] [0.24σ]
Teffp = 7817 [8144] K [0.92σ]

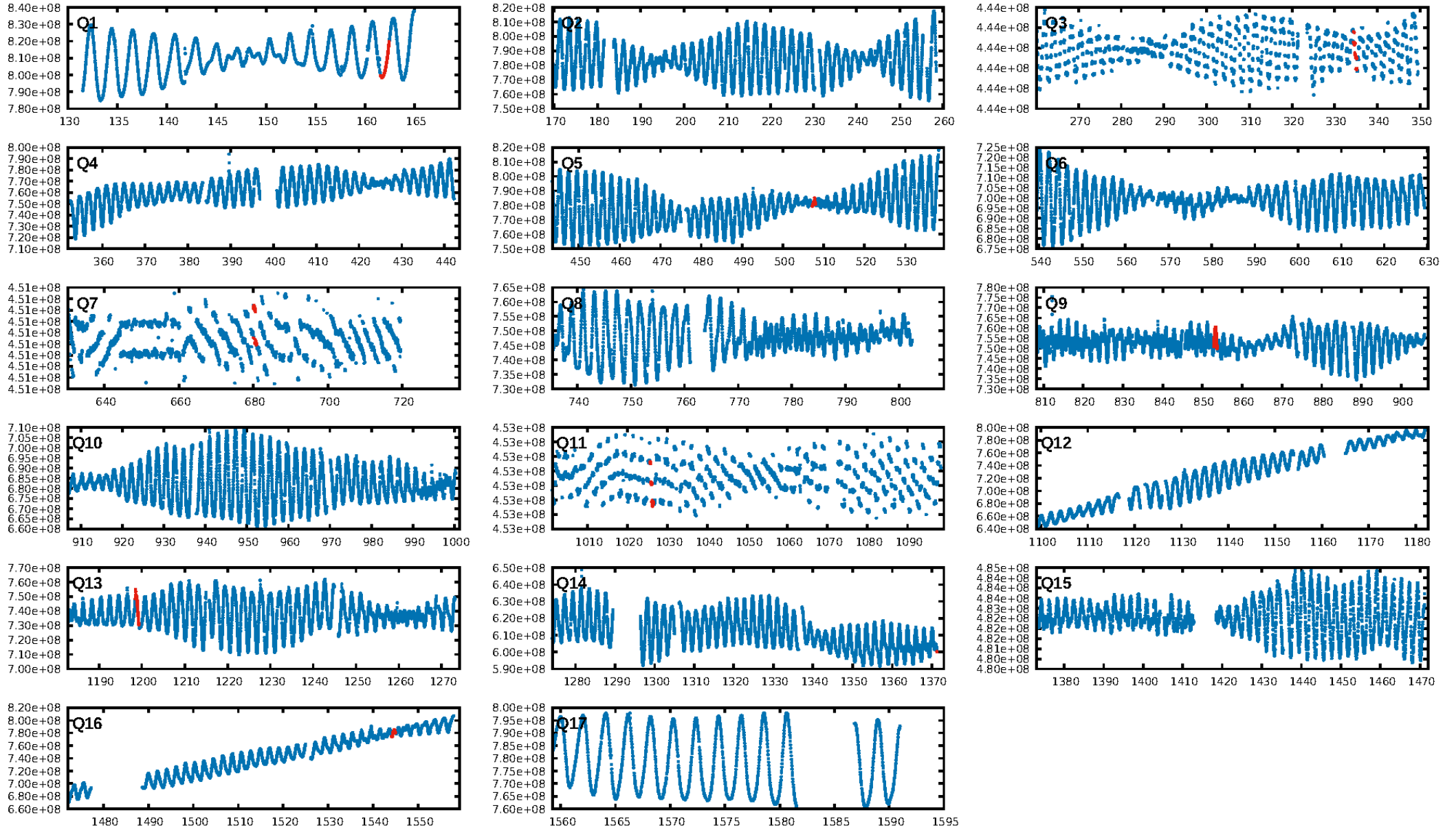
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [39.92σ]
LongPeriod-sig: 100.0% [186.01σ]
ModelChiSquare2-sig: 54.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.25e-09
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 1.066
Centroid-sig: 9.0%
Centroid-so: 308.911 arcsec [1.74σ]
OotOffset-rm: 2.662 arcsec [3.24σ]
KicOffset-rm: 1.609 arcsec [2.46σ]
OotOffset-st: 0/3/1/4 [8]
KicOffset-st: 0/3/1/4 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 1.00 [8/8]

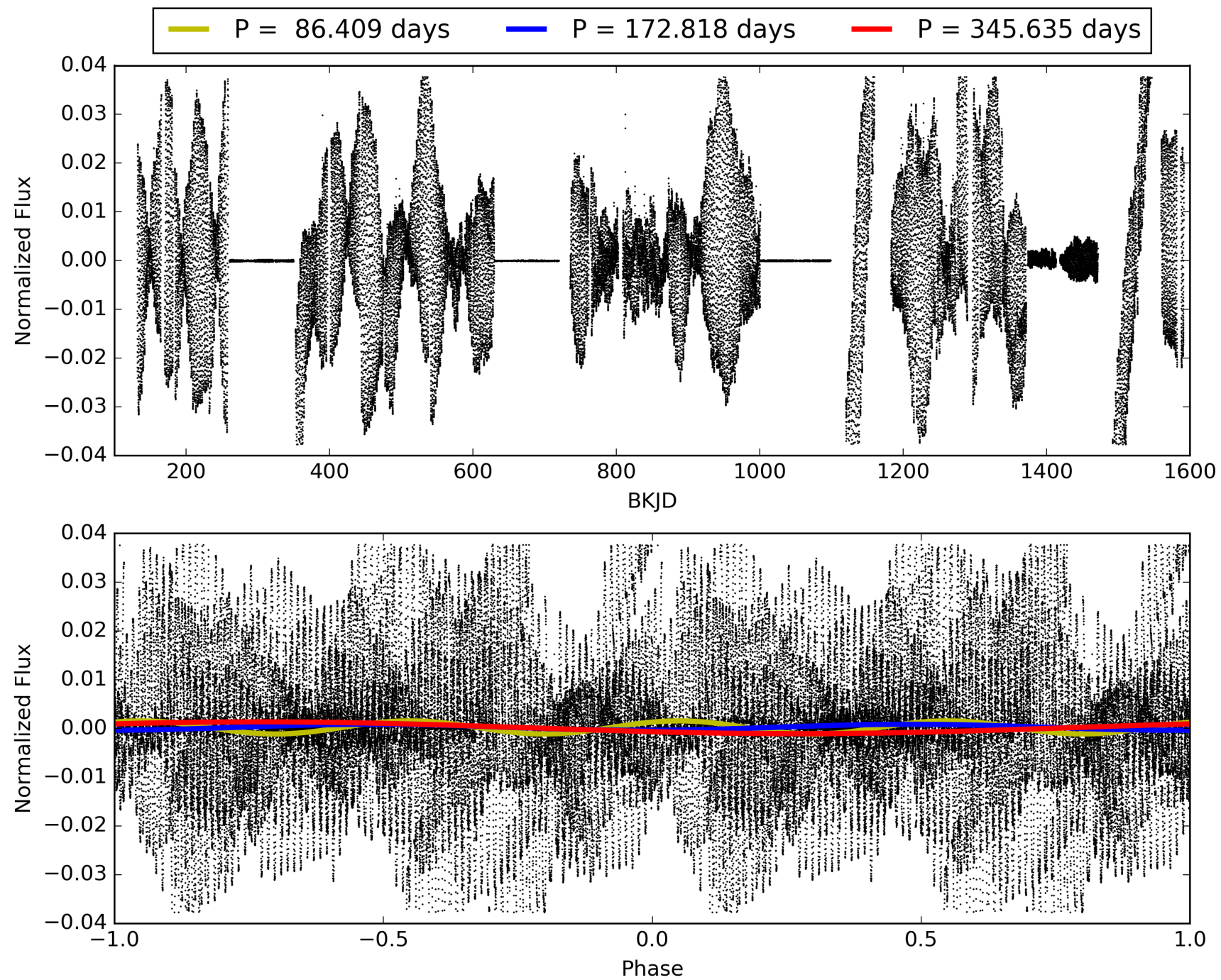
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:30:10 Z

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

TCE 007339348-07, PDC Light Curves

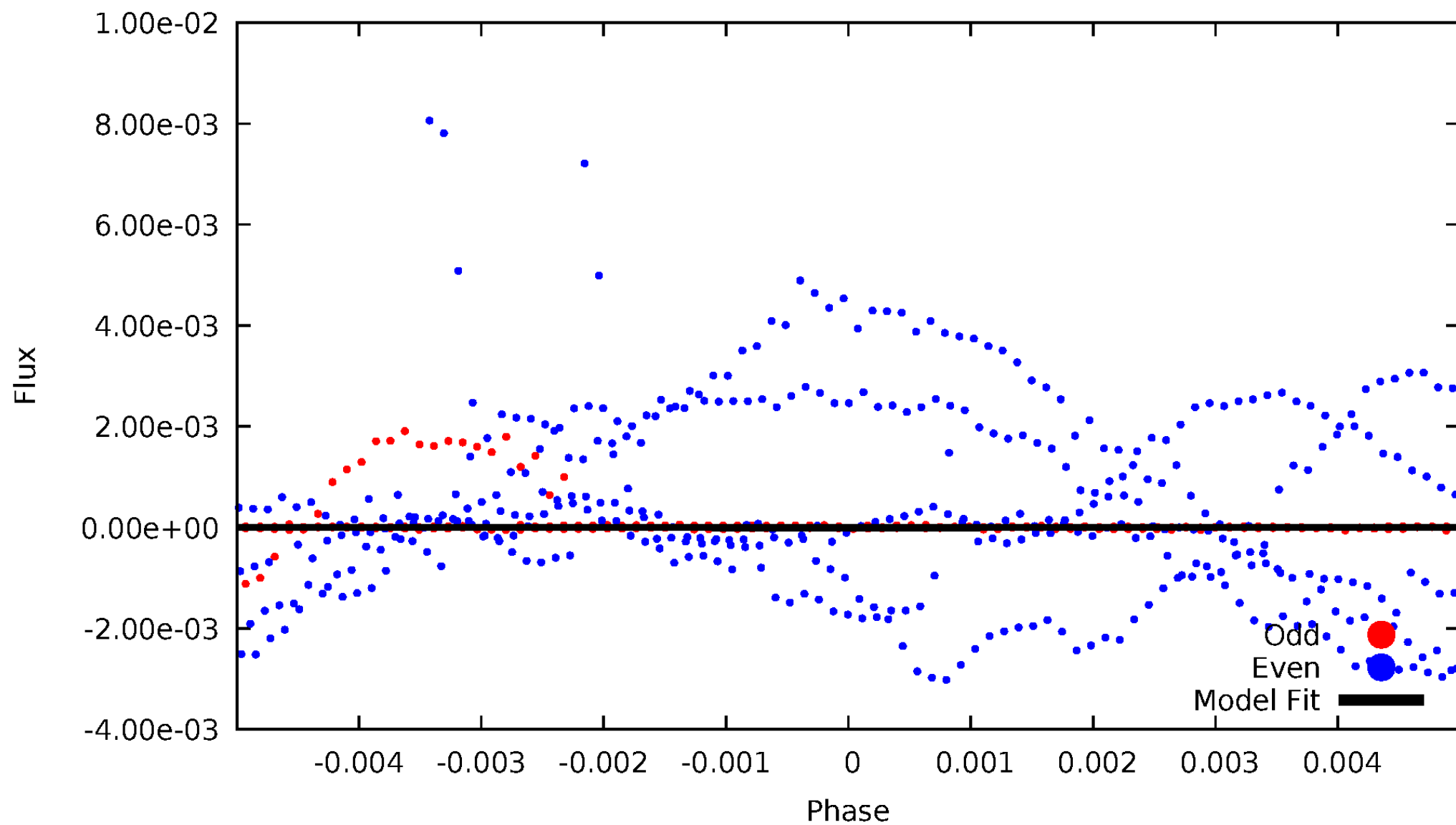


TCE 007339348-07



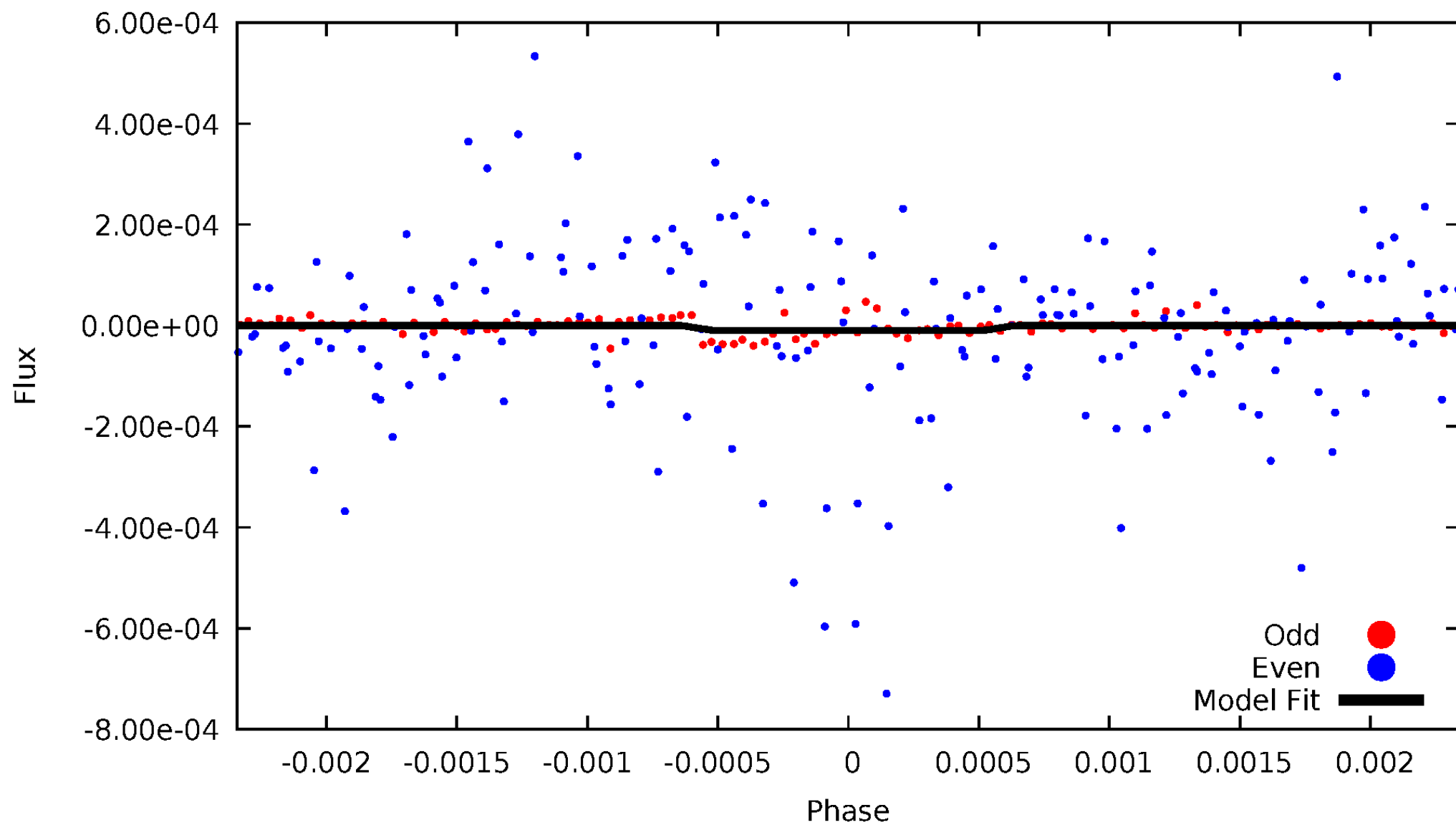
DV Odd/Even

TCE 007339348-07



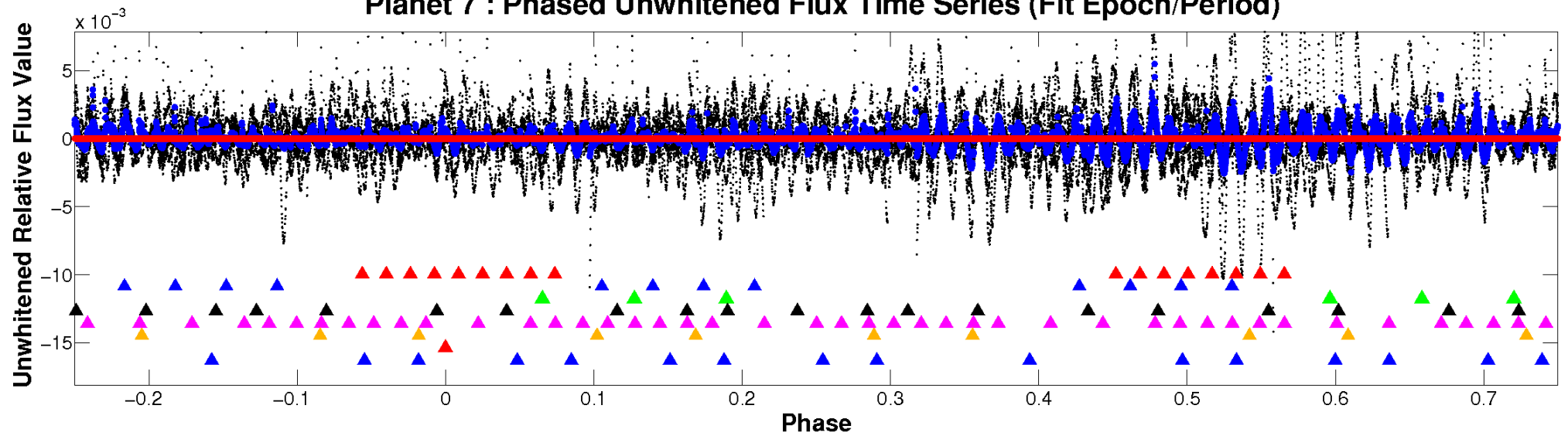
ALT Odd/Even

TCE 007339348-07

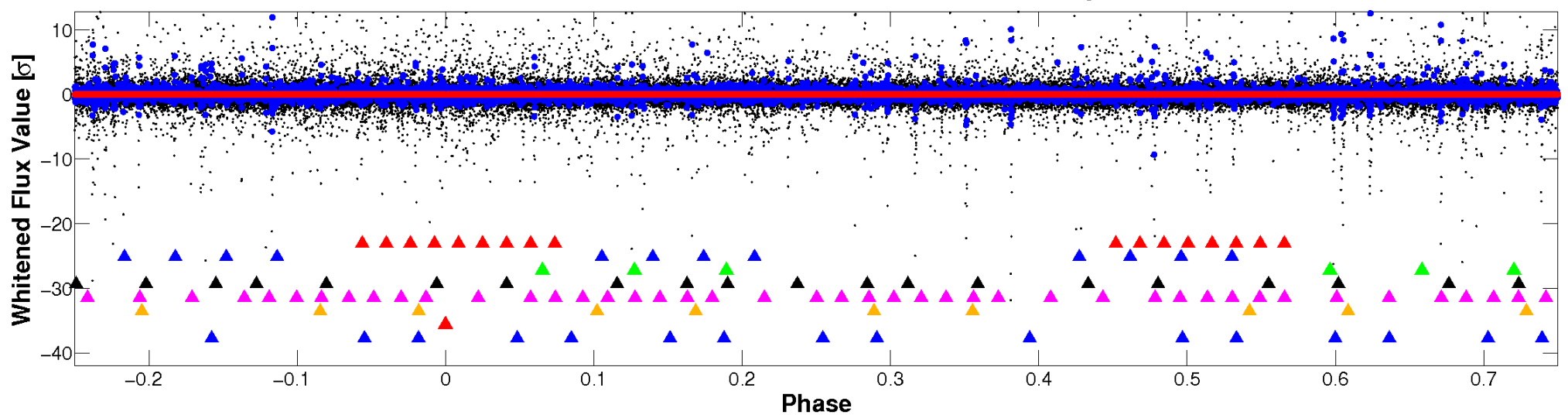


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

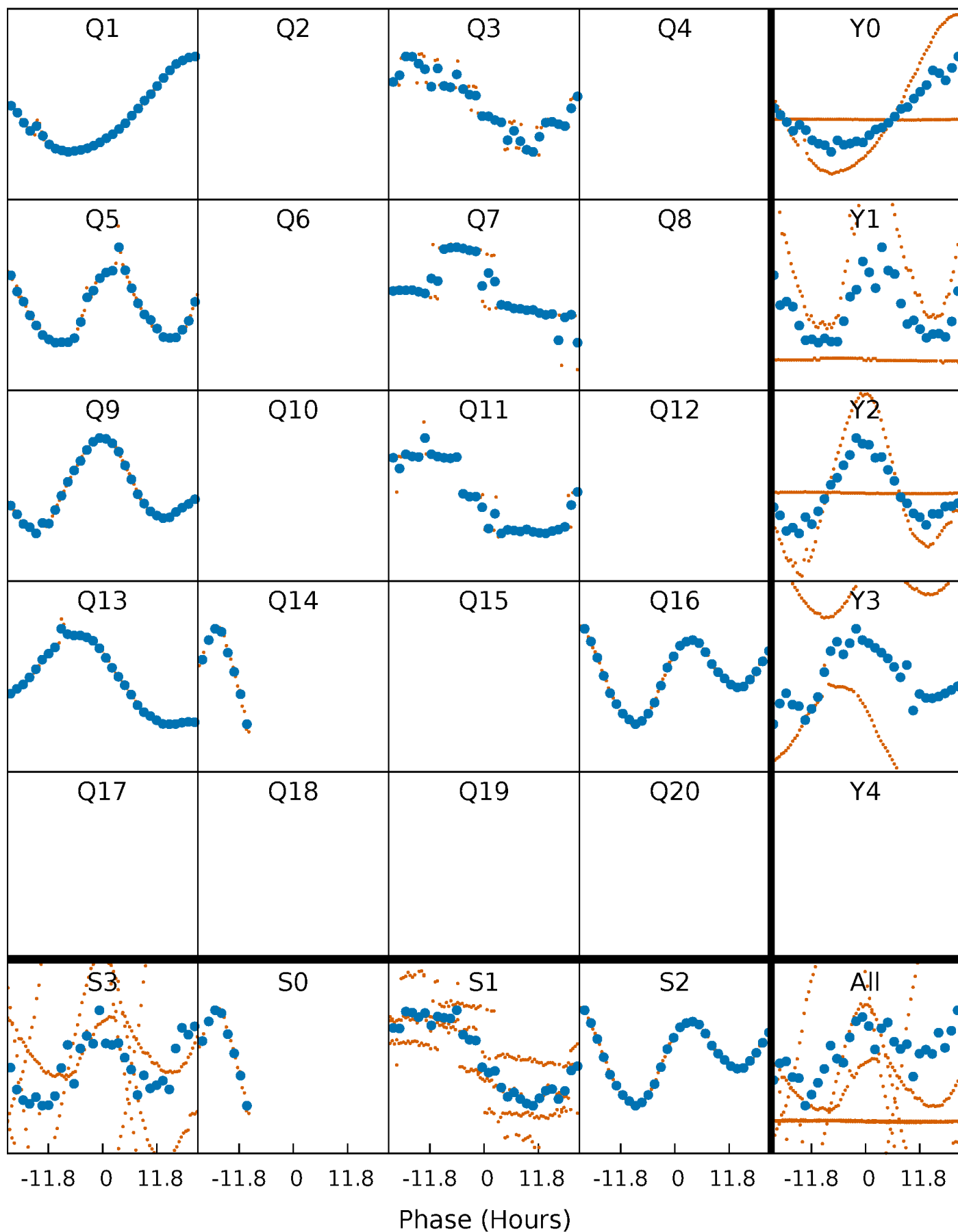


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



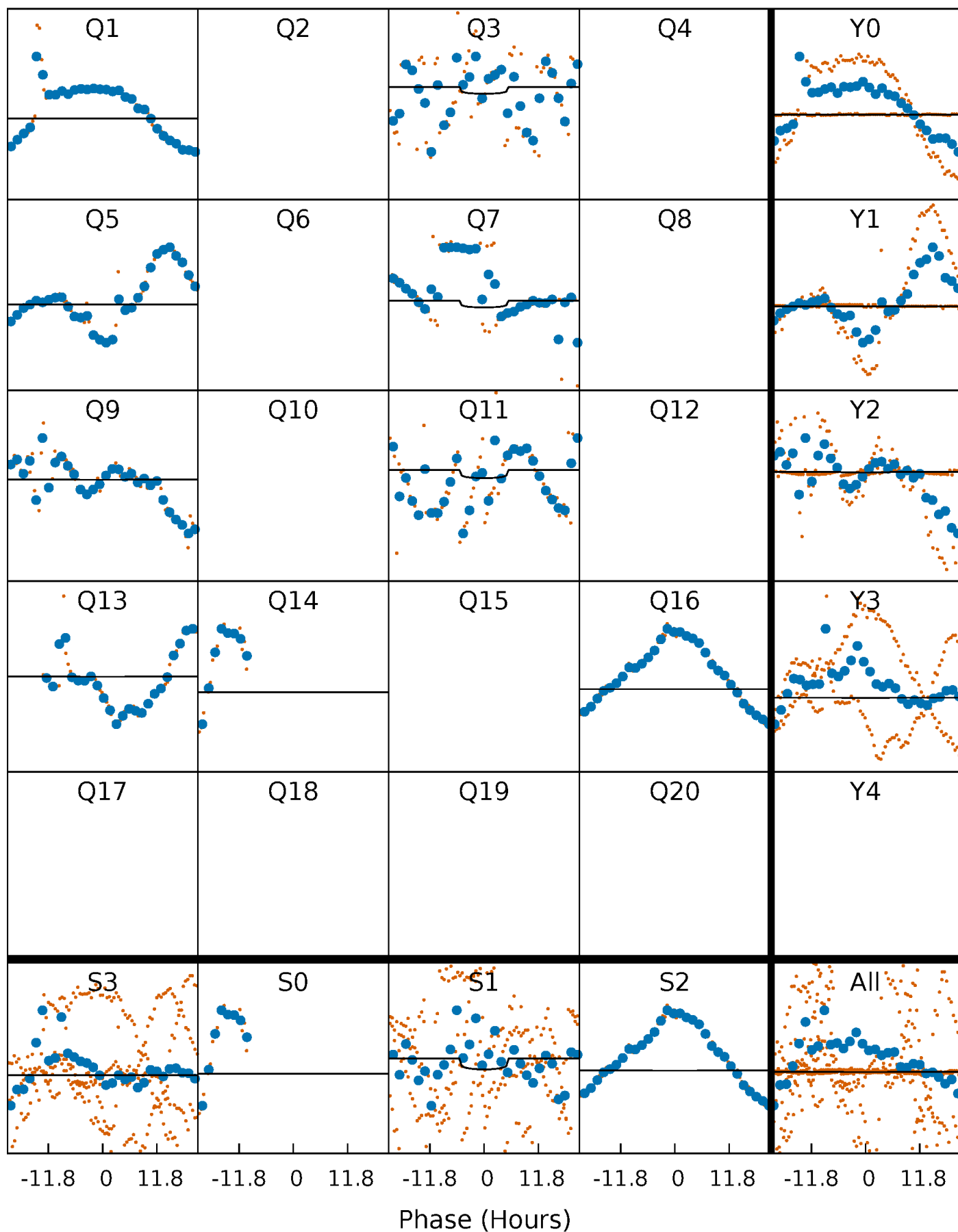
PDC Quarter-Phased Transit Curves

TCE 007339348-07 $P=172.817646$ Days $T_0=161.999799$ (BKJD)



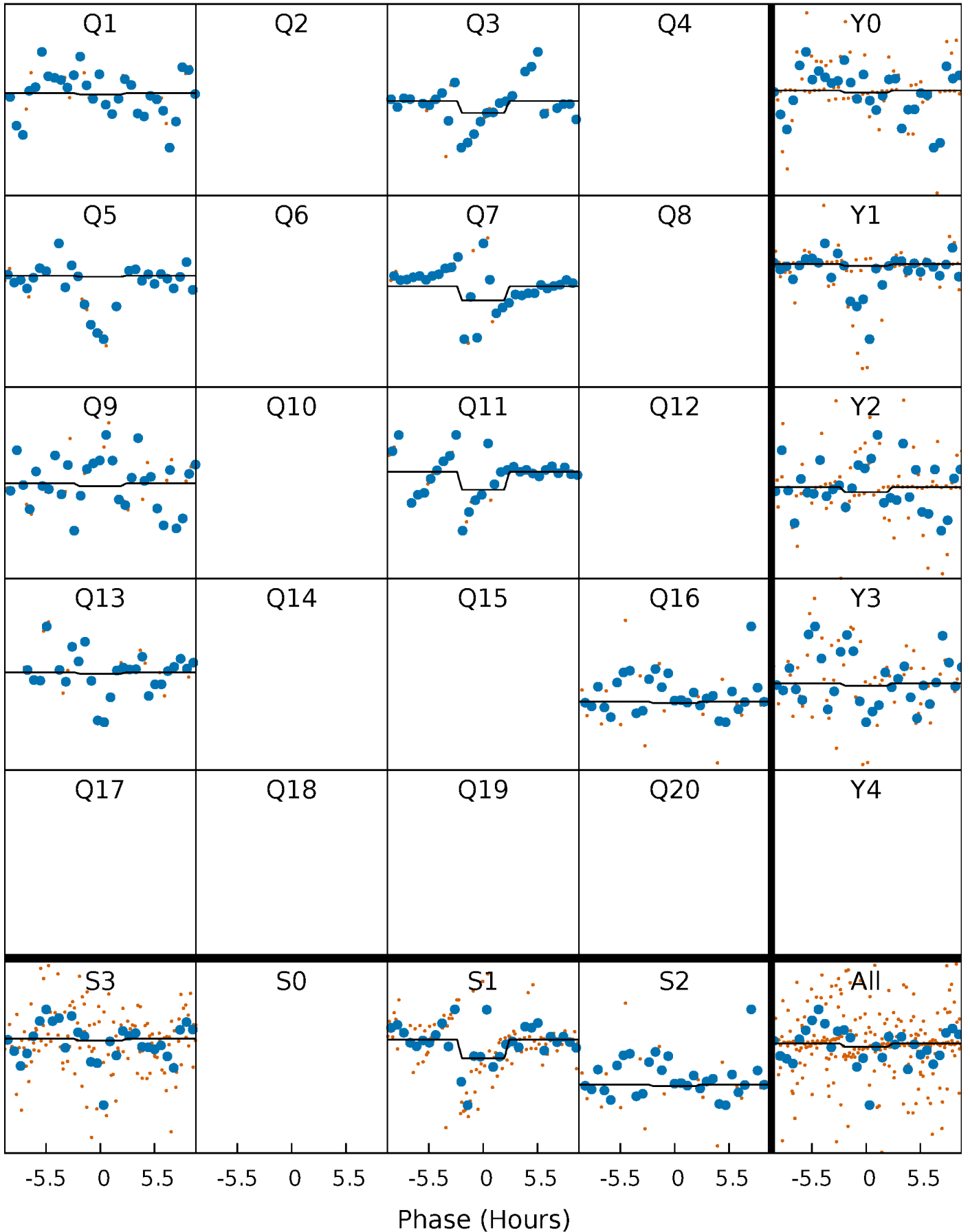
DV Quarter-Phased Transit Curves

TCE 007339348-07 $P=172.817646$ Days $T_0=161.999799$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

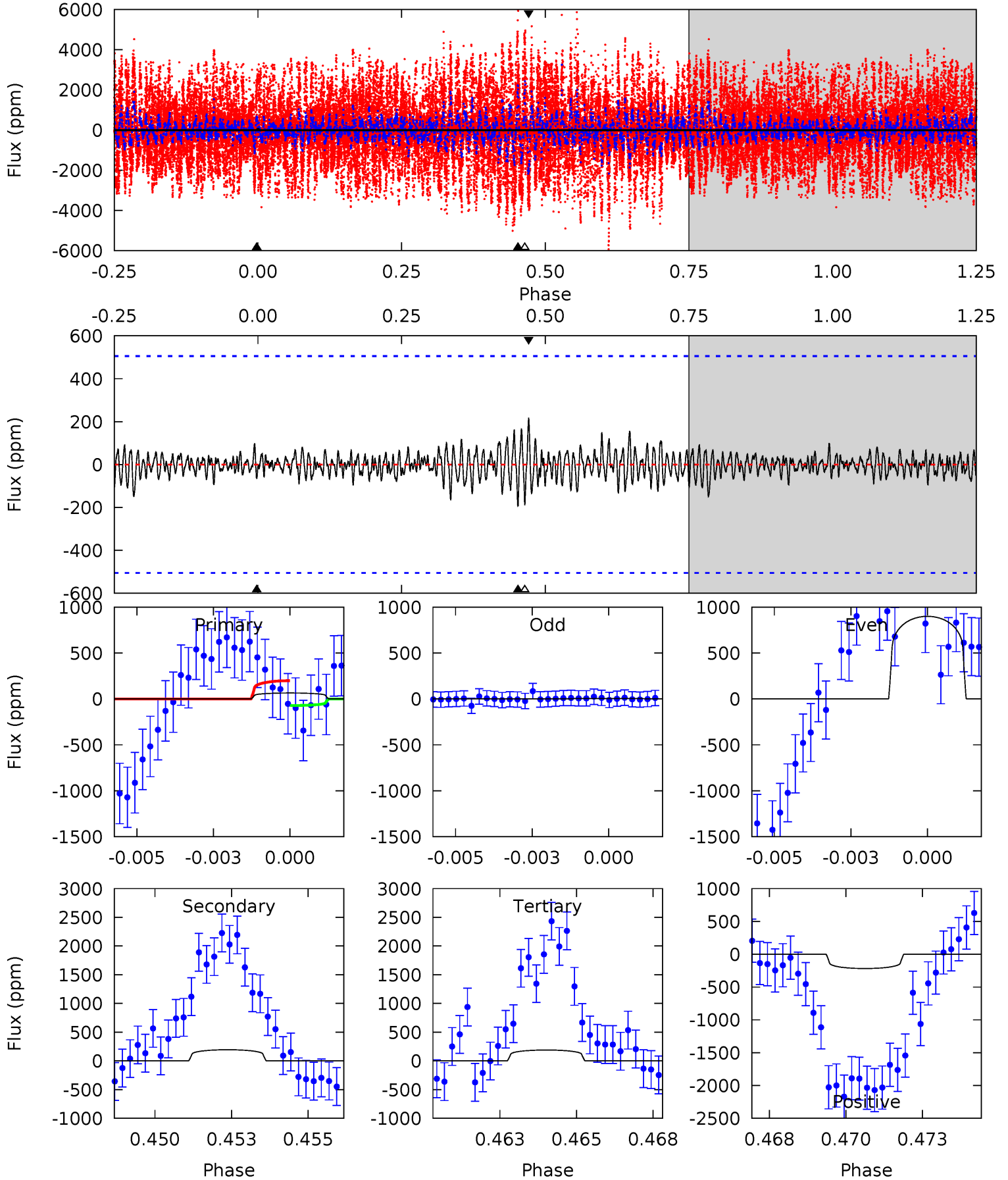
TCE 007339348-07 P=172.831626 Days $T_0=162.027634$ (BKJD)



DV Model-Shift Uniqueness Test

007339348-07, P = 172.817646 Days, E = 161.999799 Days

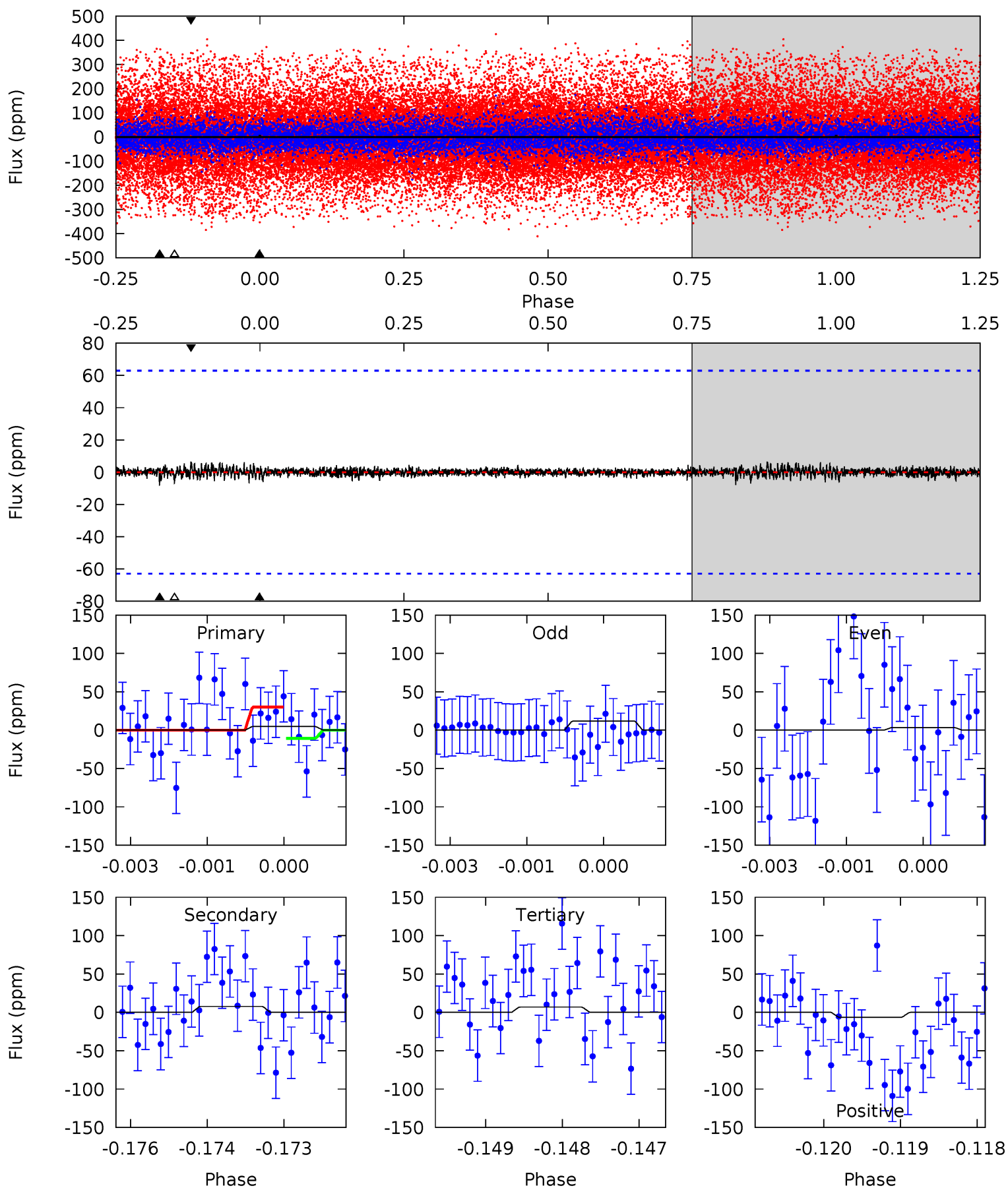
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.67	2.02	1.97	2.28	5.28	3.02	0.53	-1.30	-1.61	0.05	-0.26	4.99	-201.4	0.53	0.68



Alt Model-Shift Uniqueness Test

007339348-07, P = 172.831626 Days, E = 162.027634 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.41	0.67	0.60	0.56	5.41	3.23	0.13	-0.18	-0.14	0.07	0.11	0.38	6.00	0.45	0.84



Stellar Parameters For KIC 007339348

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5827^{+193}_{-175}	$4.247^{+0.282}_{-0.212}$	$-0.460^{+0.300}_{-0.300}$	$1.126^{+0.345}_{-0.314}$	$0.816^{+0.126}_{-0.054}$	$0.805^{+1.193}_{-0.421}$
	+3%/-3%	+7%/-5%	+65%/-65%	+31%/-28%	+15%/-7%	+148%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007339348-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-194 ± 96	$0.57^{+0.55}_{-0.37}$	506^{+47}_{-46}	11017^{+24709}_{-4218}	$99016^{+718505}_{-77259}$
Alt.	-8 ± 12	$0.61^{+0.57}_{-0.42}$	505^{+41}_{-46}	4304^{+3056}_{-7722}	3010^{+27721}_{-3742}

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

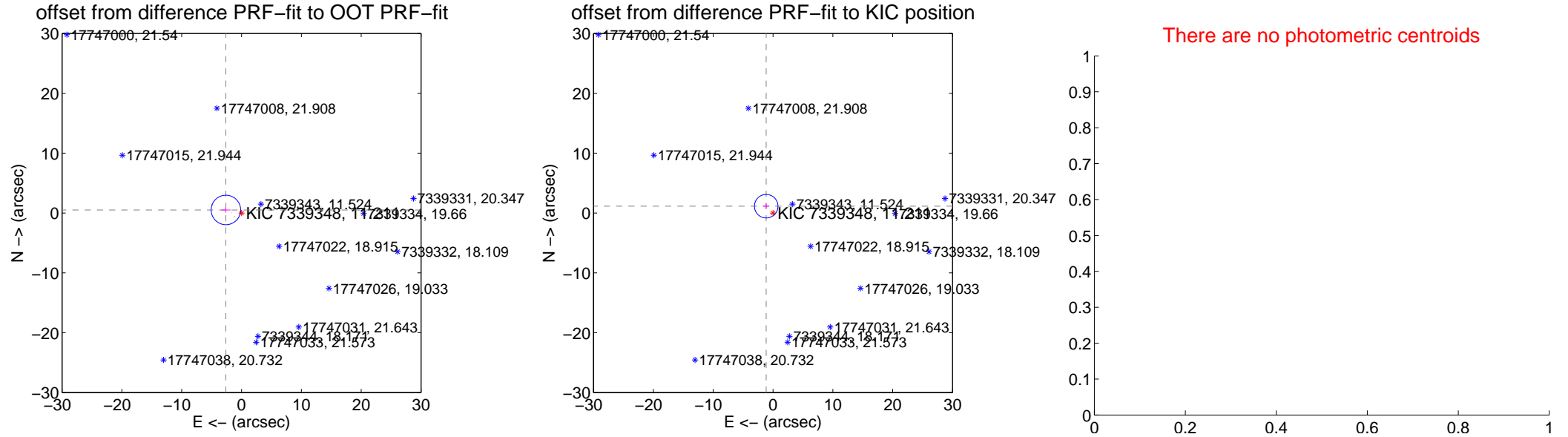
DV Centroid Data

Supplemental centroid analysis for 007339348-07. **Kepler magnitude: 11.21.** Transit SNR 0.90

There are 3 quarters with good PRF difference image offsets

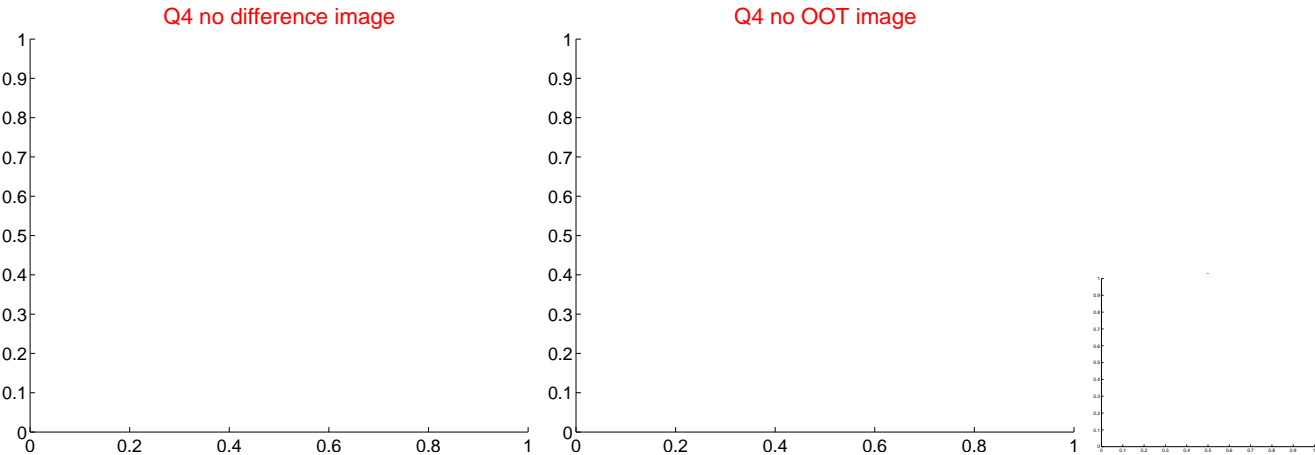
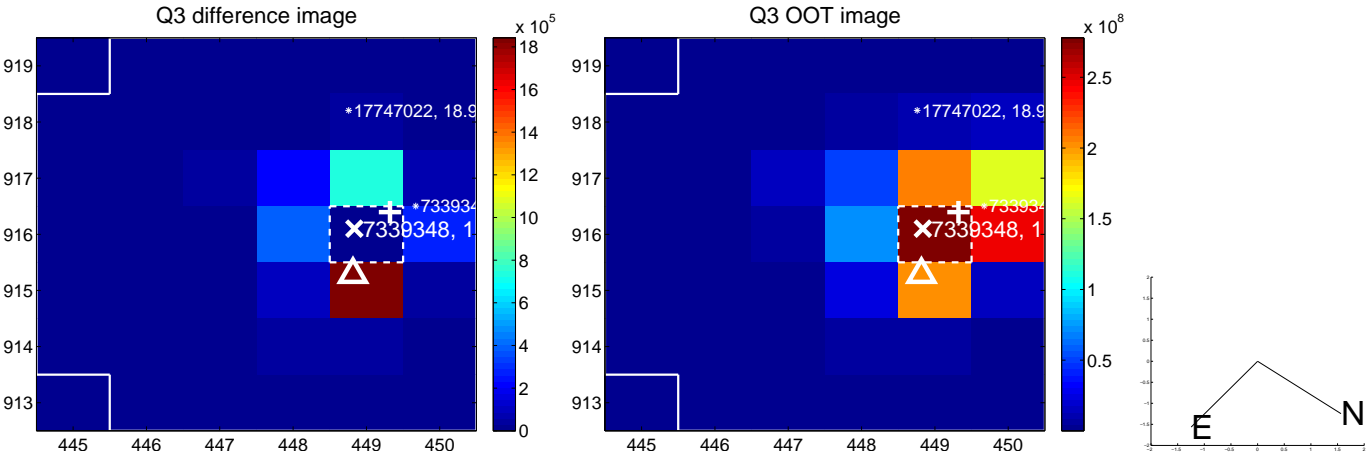
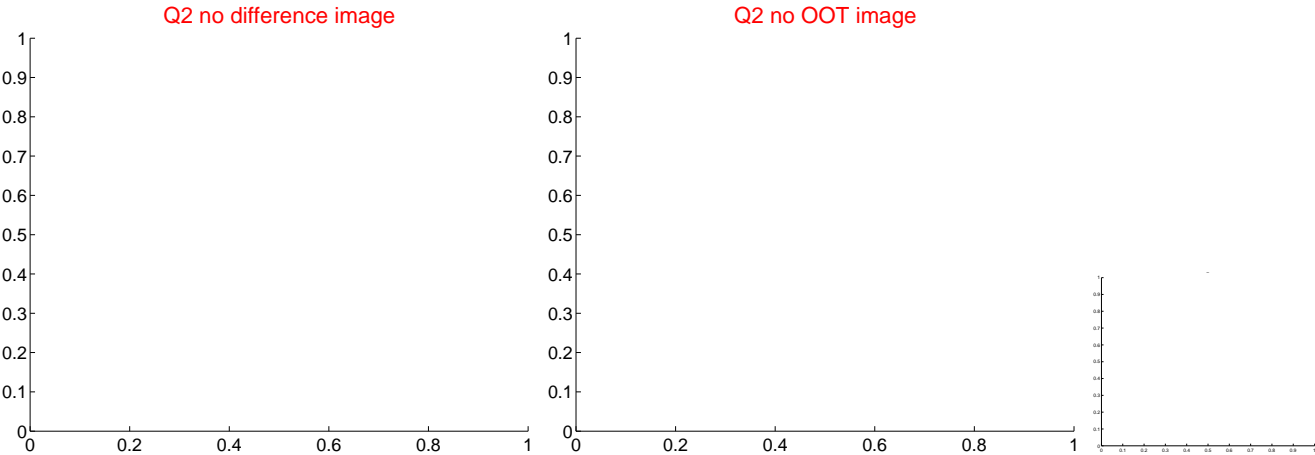
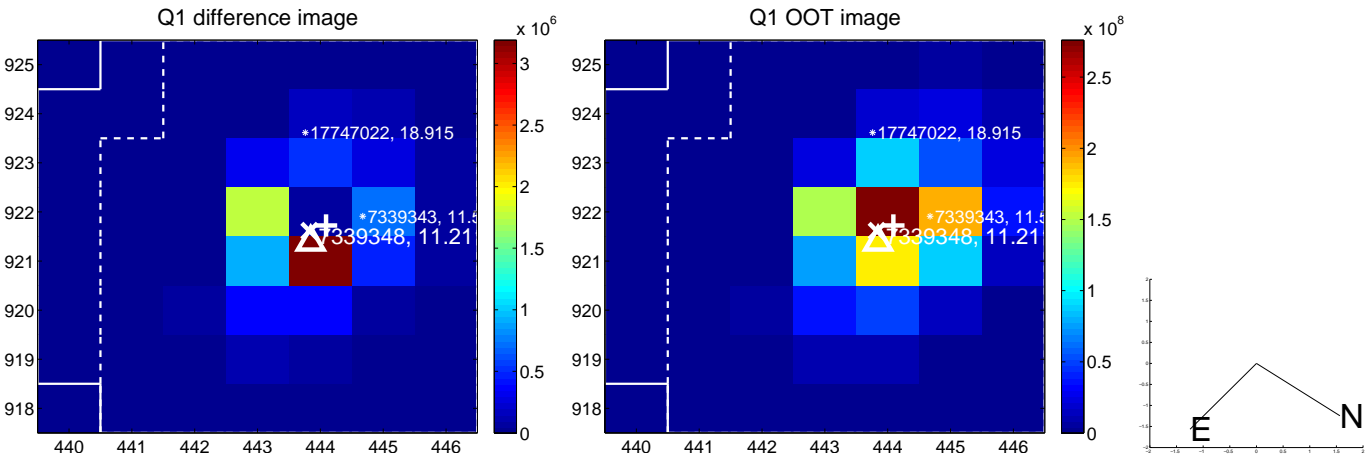
The OOT PRF centroid is offset from the target star catalog position by about 2.27 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.662 ± 0.821	3.24	2.613 ± 0.755	0.511 ± 0.433
PRF-fit source offset from KIC position	1.609 ± 0.655	2.46	1.138 ± 0.528	1.138 ± 0.415
photometric centroid source offset	—	—	—	—

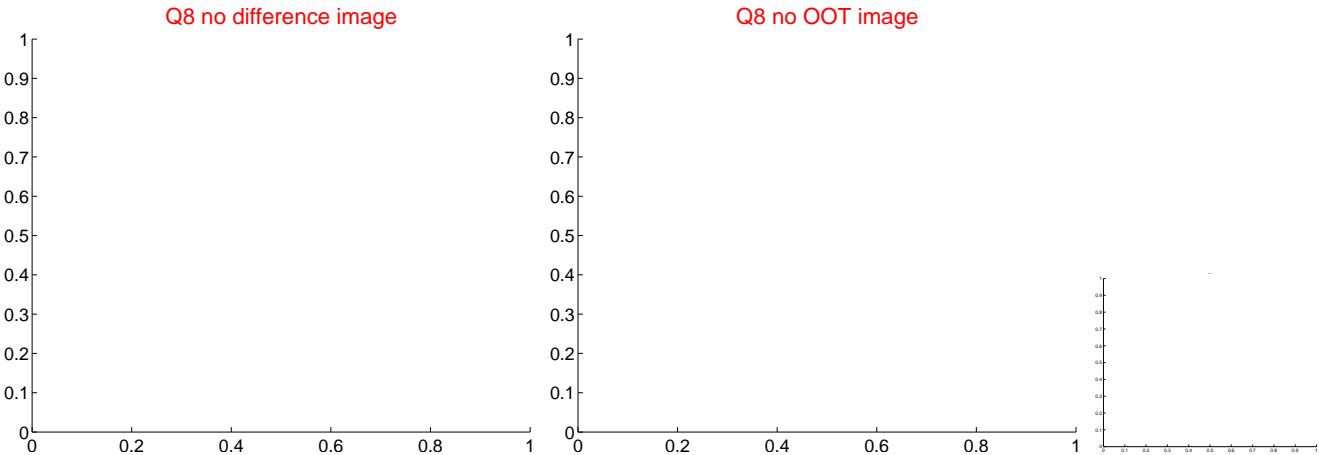
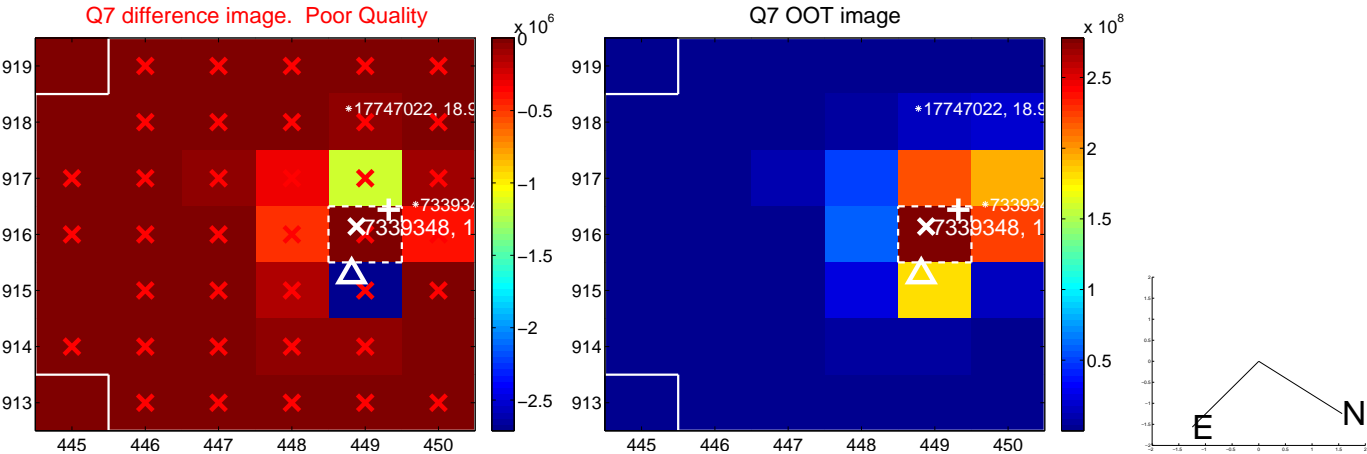
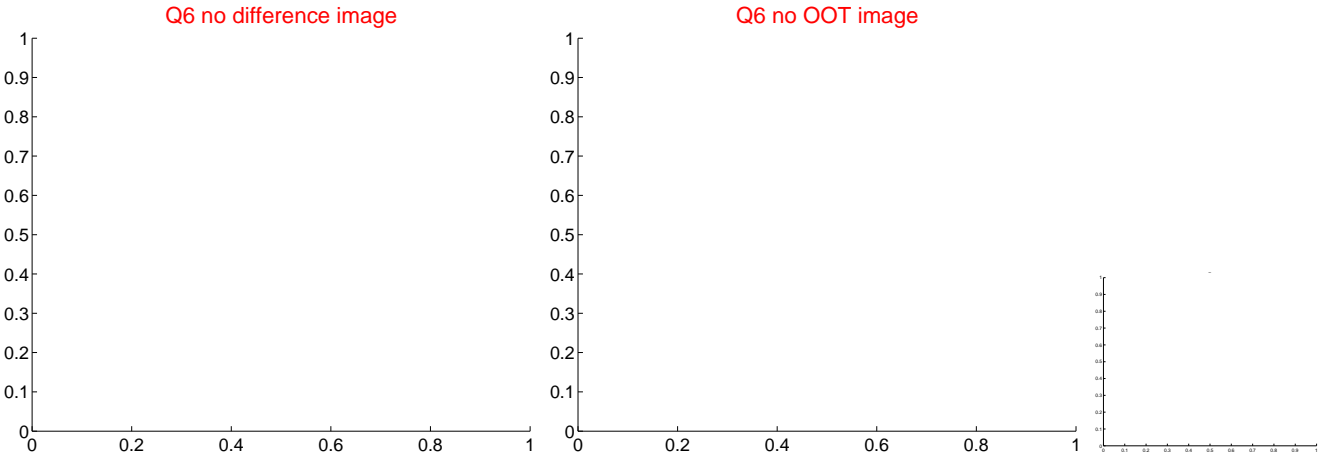
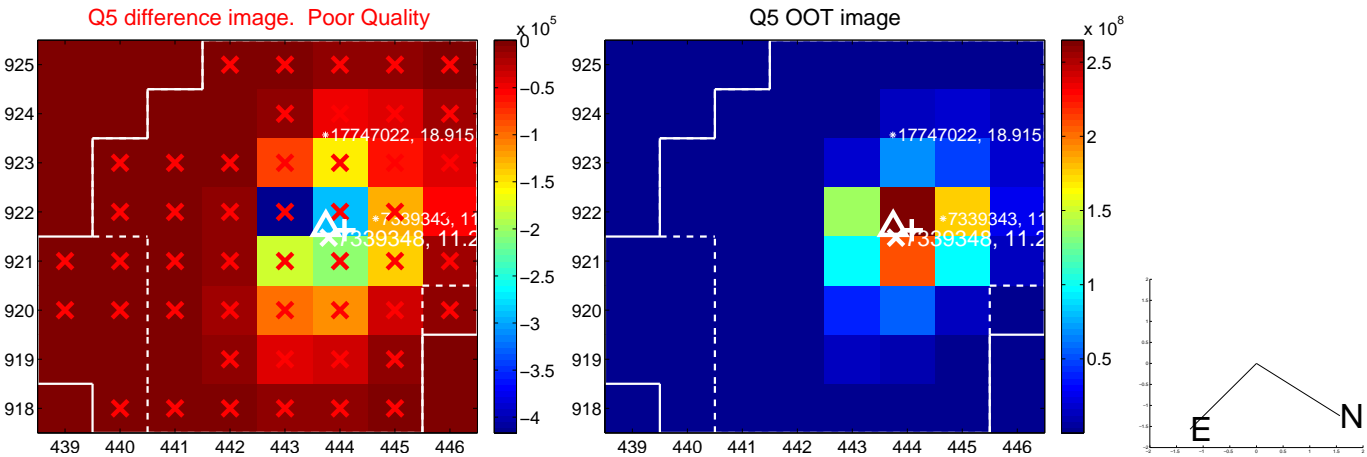


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

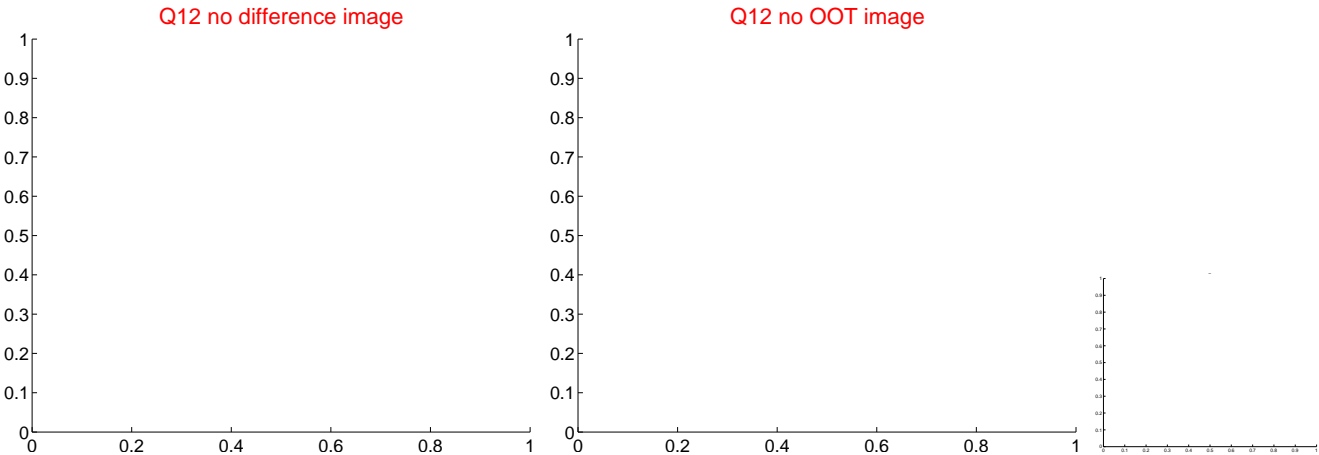
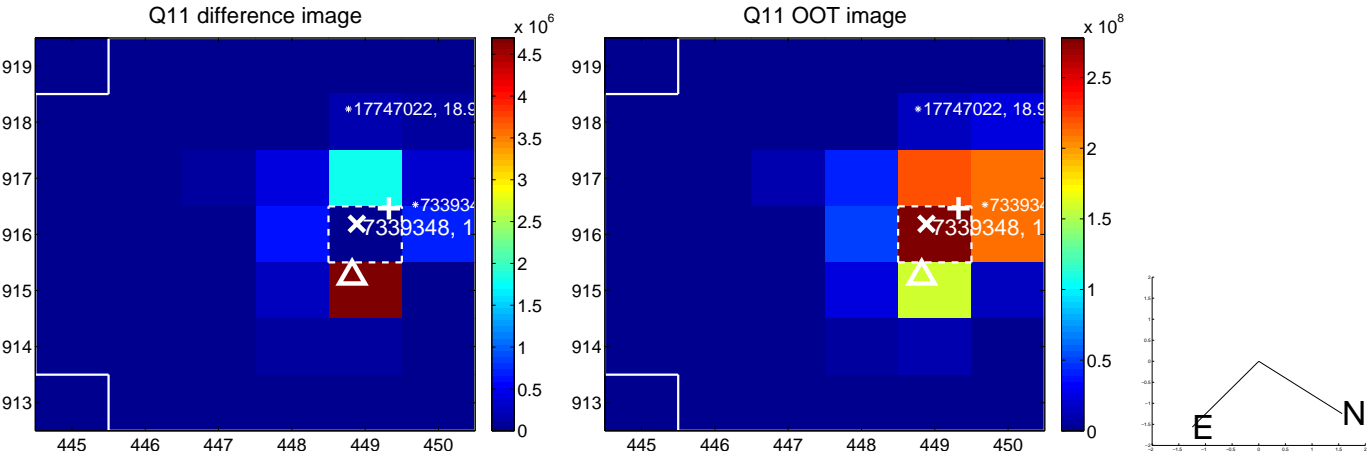
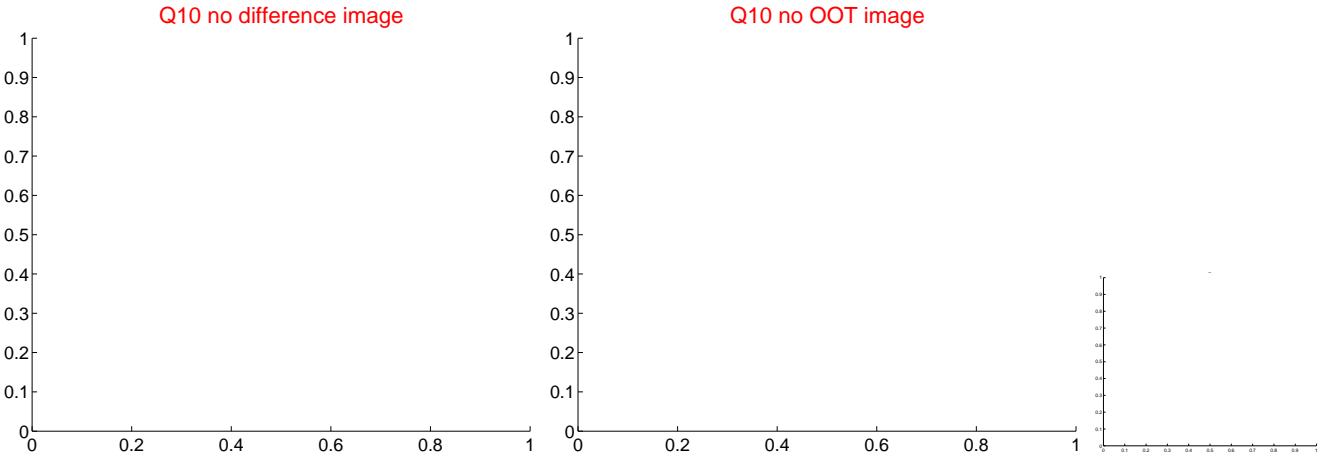
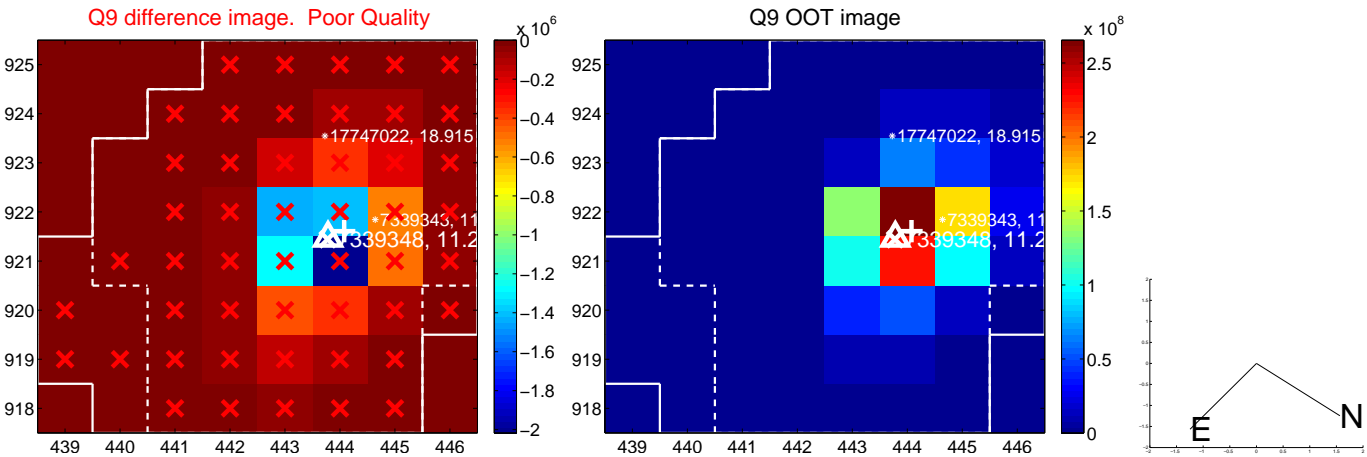
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



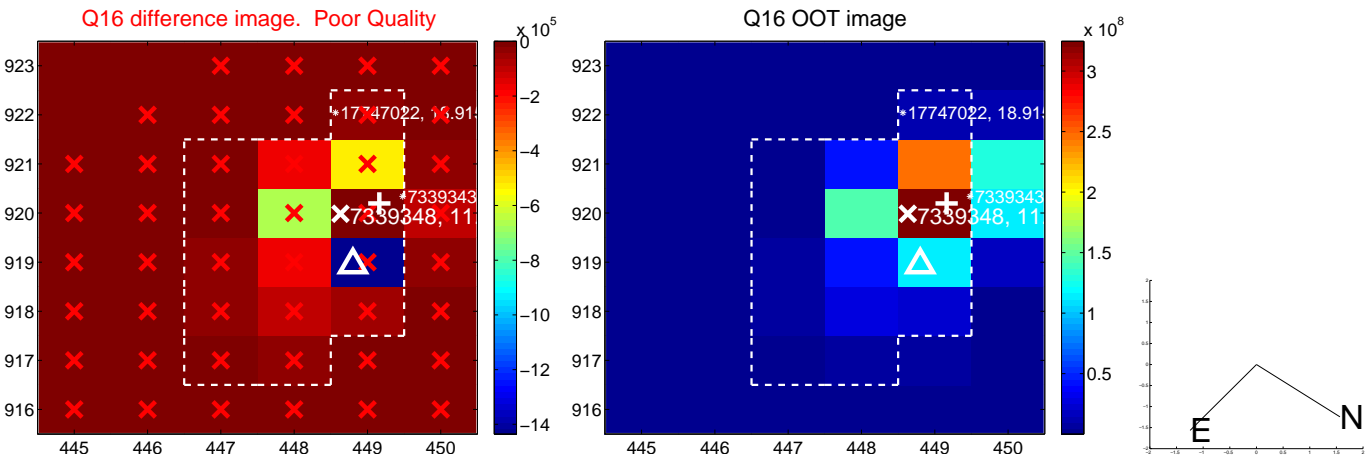
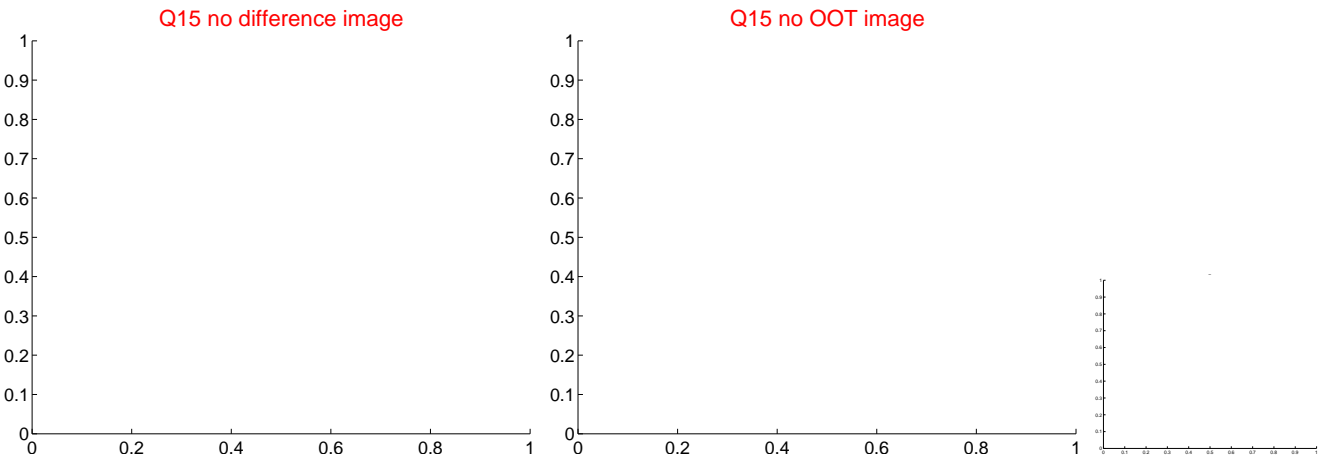
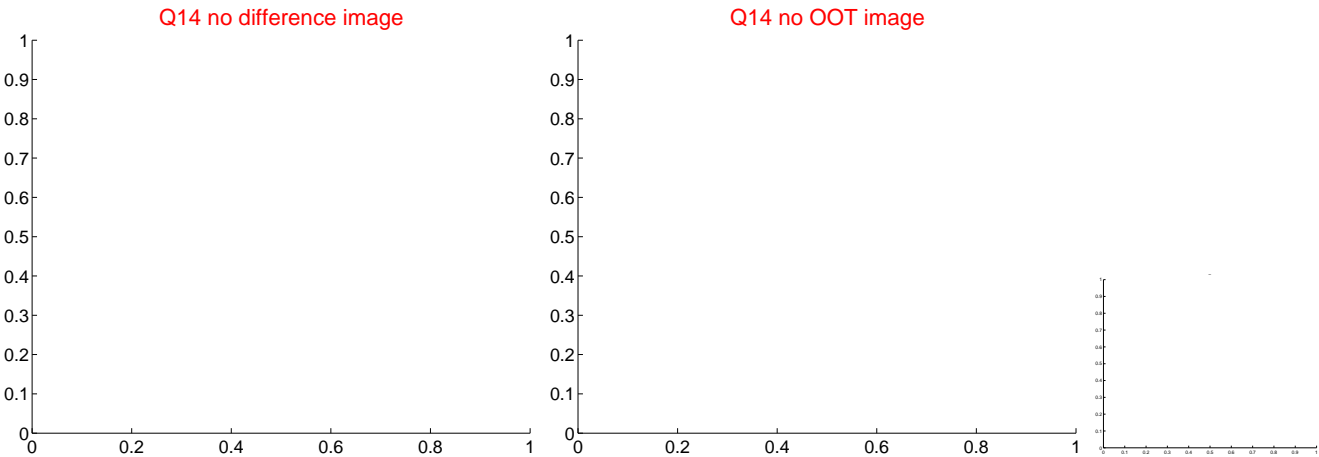
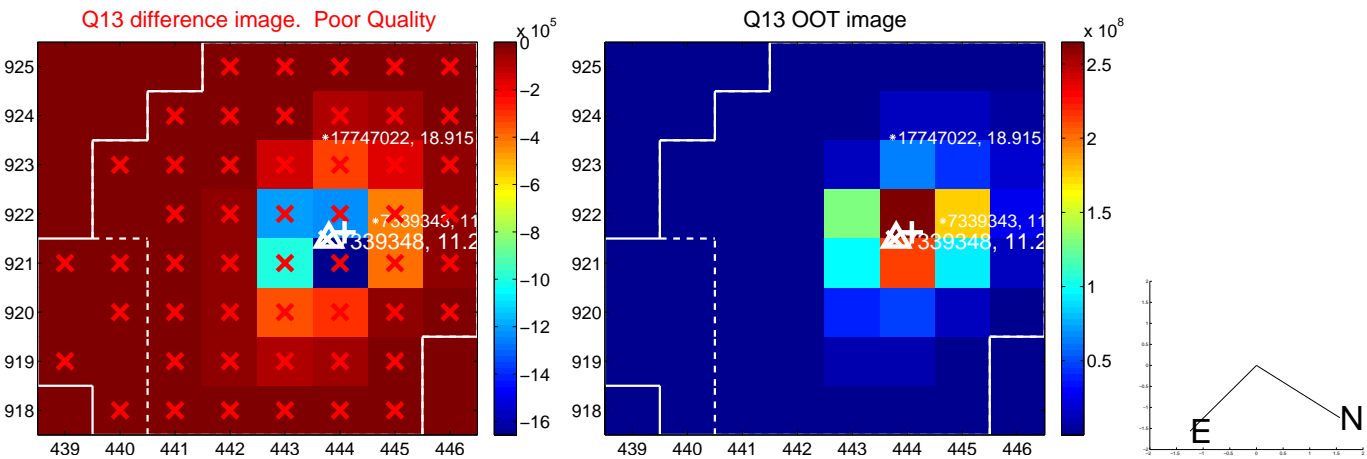
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



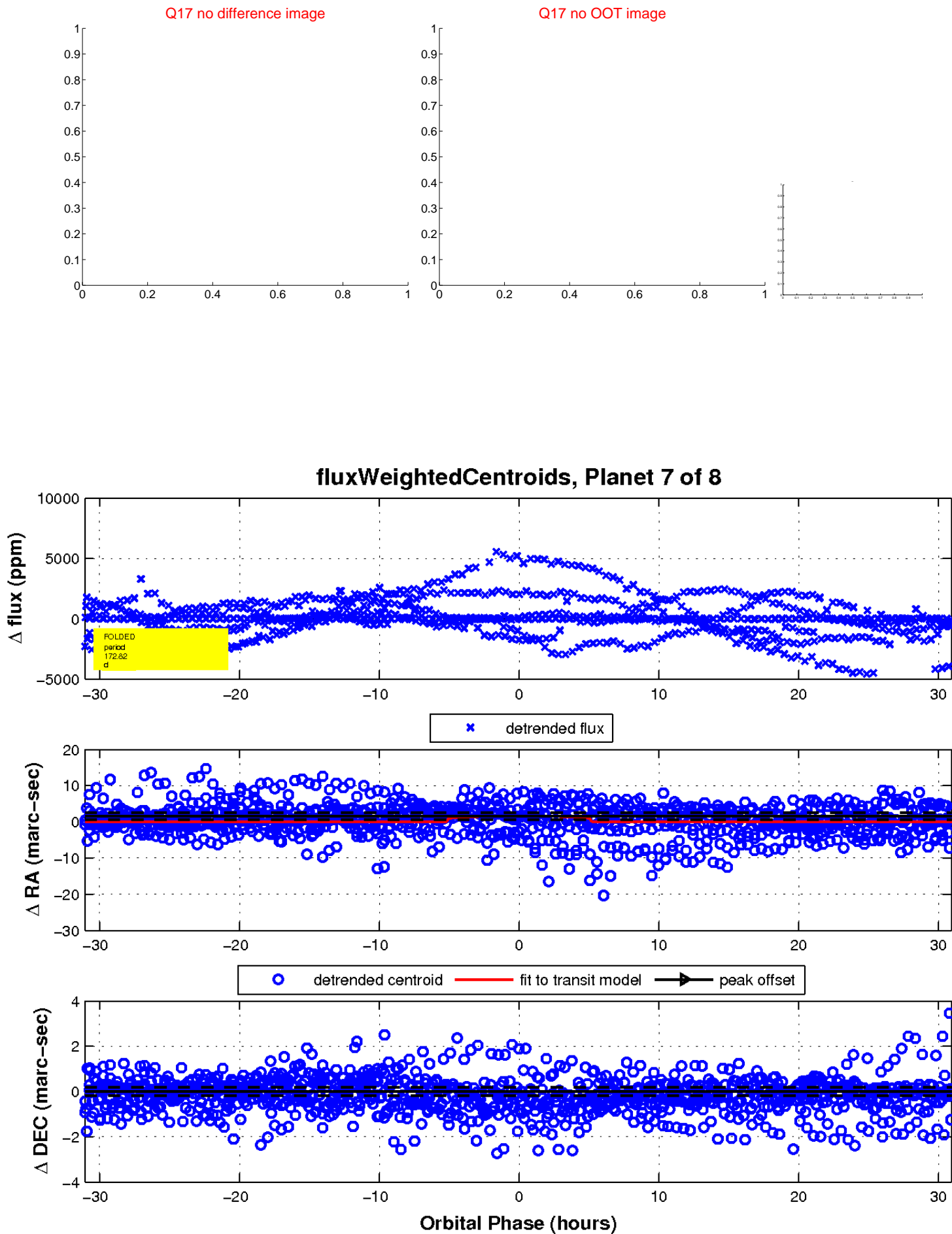
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



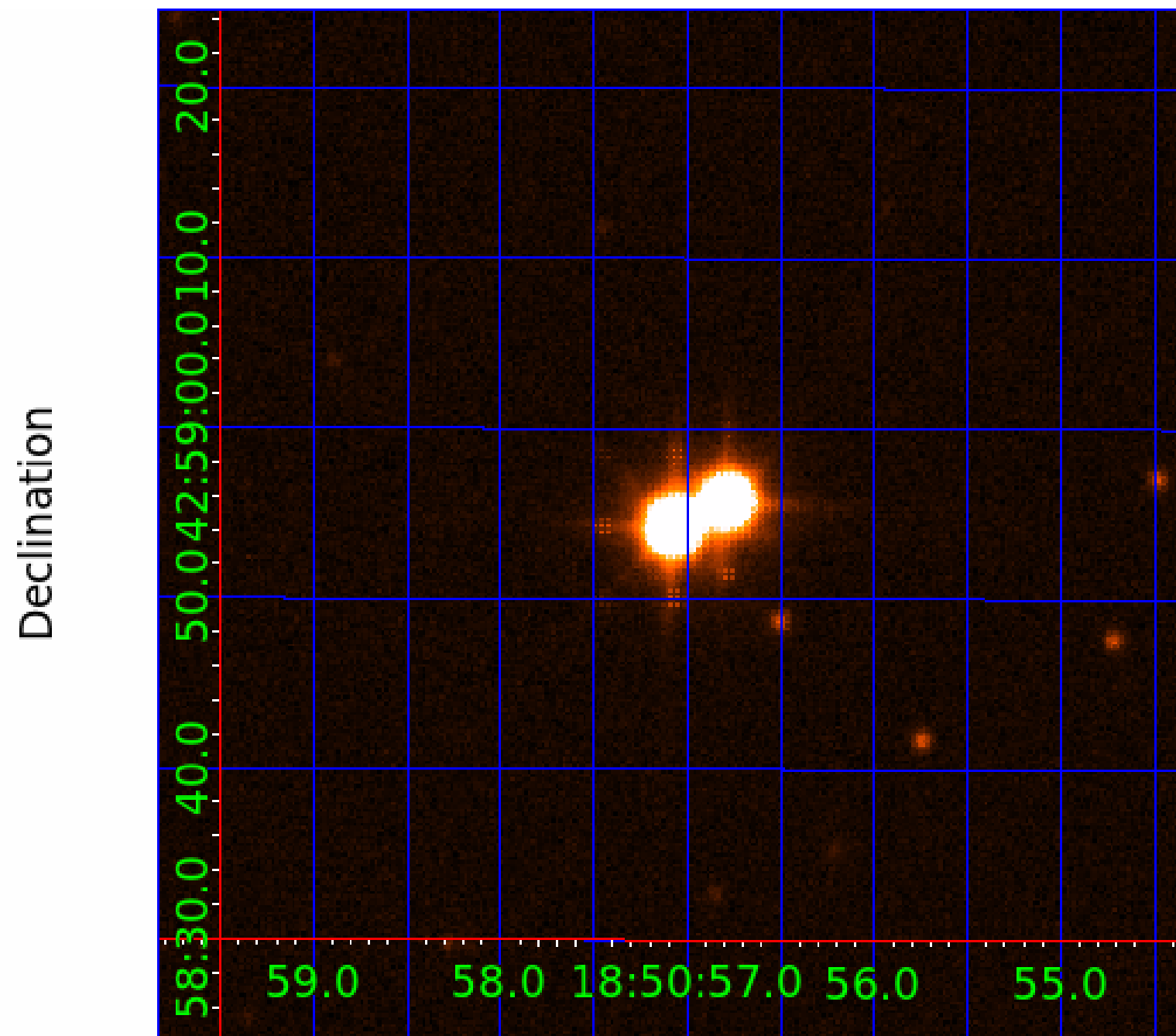
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007339348

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})
007339348-01	OBS	No	85.006629	174.736102	52.1	2.218	24.7	11.0	1.13	5827	0.98	10.47
007339348-02	OBS	No	117.188421	235.852973	87.7	3.565	22.7	22.0	1.13	5827	1.25	6.82
007339348-03	OBS	No	253.869090	286.492737	47.9	1.456	20.6	6.8	1.13	5827	0.84	2.43
007339348-04	OBS	No	75.903318	135.248398	6.8	7.330	18.3	0.9	1.13	5827	0.32	12.17
007339348-05	OBS	No	33.345513	156.832396	61.3	1.073	19.0	31.2	1.13	5827	0.94	36.45
007339348-06	OBS	No	140.551536	211.926482	108.0	16.401	14.3	13.6	1.13	5827	1.27	5.35
007339348-07	OBS	No	172.817646	161.999799	5.1	10.356	17.1	0.9	1.13	5827	0.30	4.06
007339348-08	OBS	No	95.310334	158.857260	27.7	2.762	17.3	4.2	1.13	5827	0.72	8.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007339348-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007339348-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007339348-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

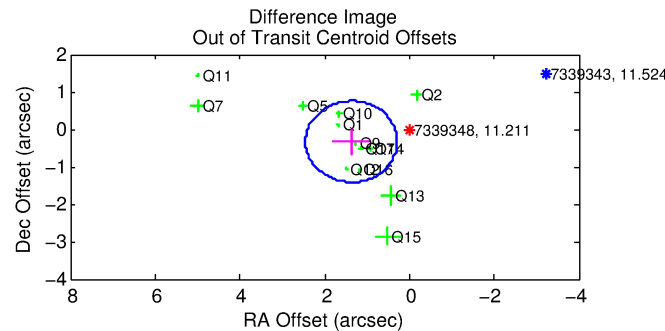
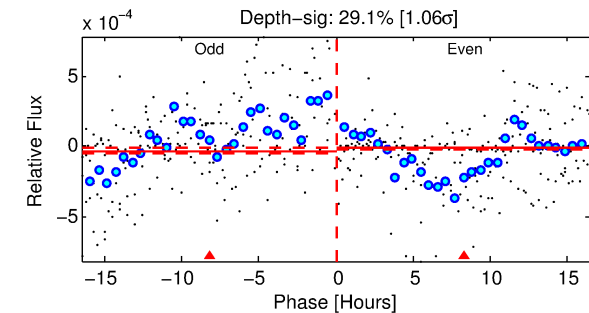
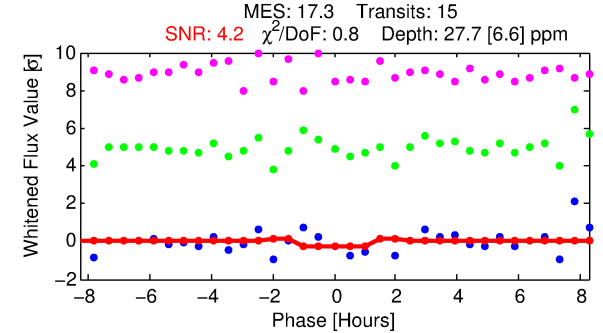
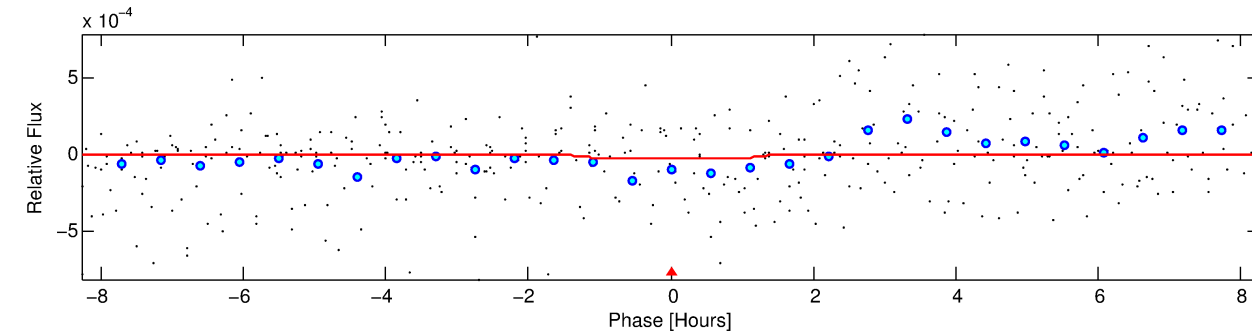
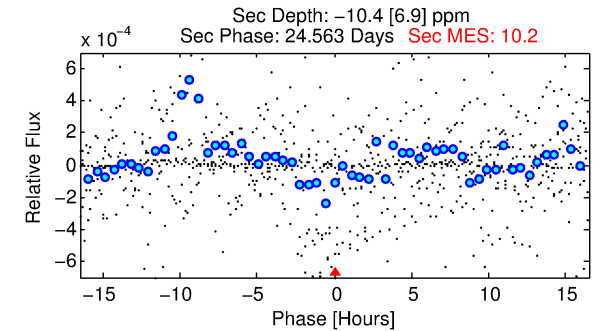
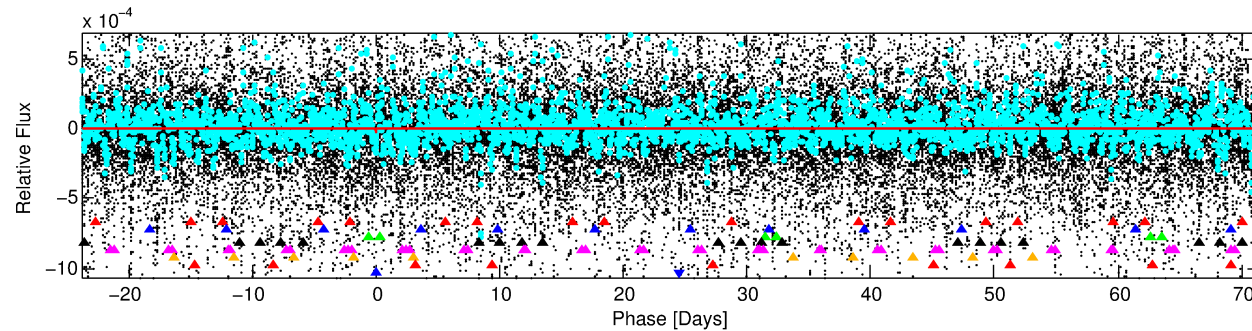
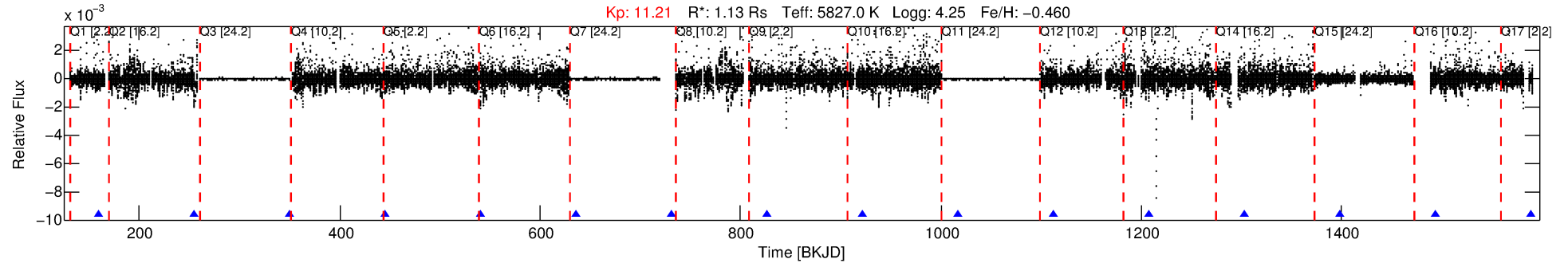
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007339348-08

No Significant Match Found

DV One-Page Summary

KIC: 7339348 Candidate: 8 of 8 Period: 95.310 d



DV Fit Results:

Period = 95.31033 [0.00213] d
Epoch = 158.8573 [0.0119] BKJD
Rp/R* = 0.0058 [0.0025]
a/R* = 105.44 [217.06]
b = 0.92 [0.33]
Seff = 8.98 [4.46]
Teff = 441 [55] K
Rp = 0.72 [0.37] Re
a = 0.3818 [0.1136] AU
Ag = N/A
Teffp = N/A

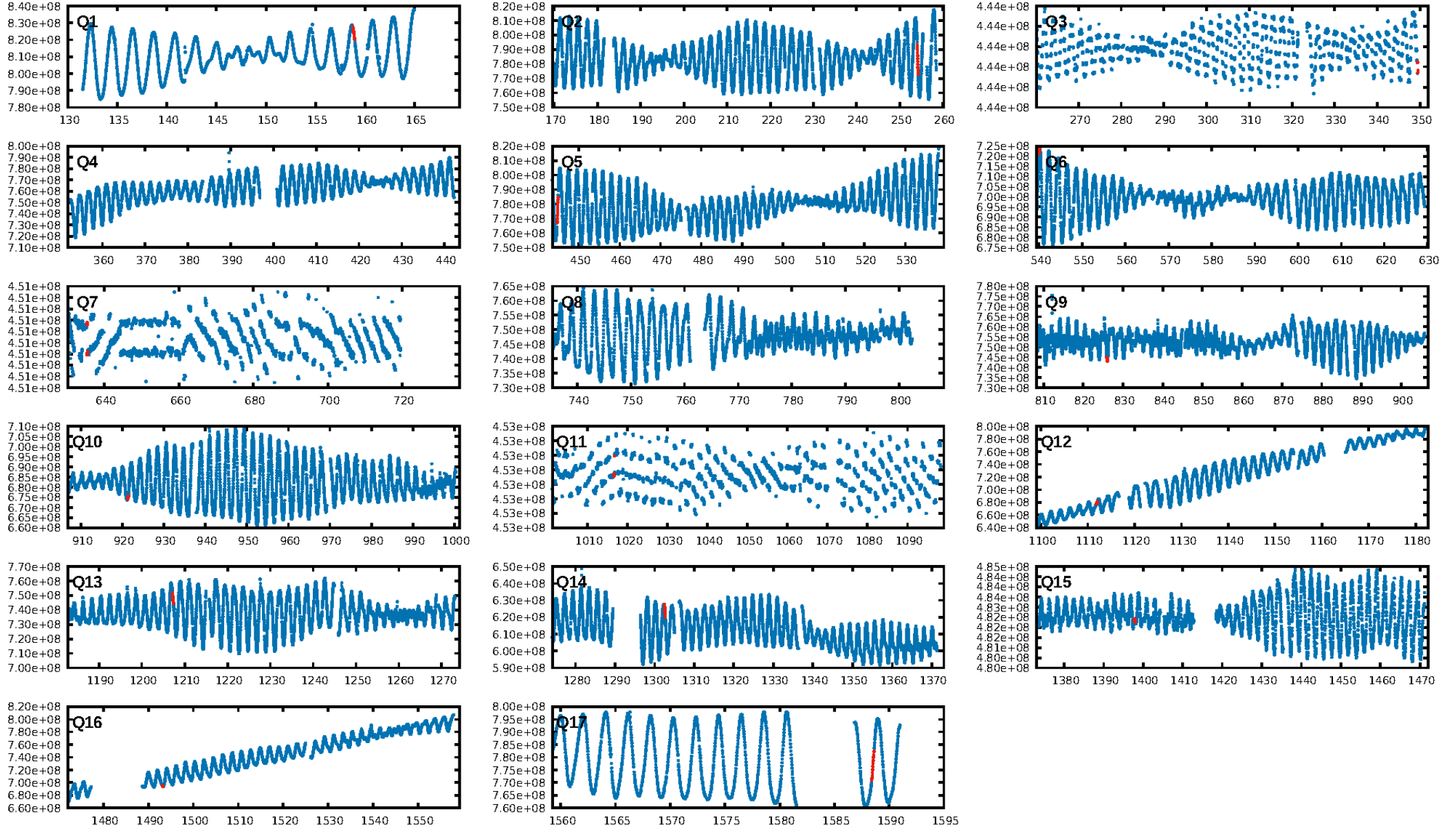
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [69.81σ]
LongPeriod-sig: 100.0% [116.44σ]
ModelChiSquare2-sig: 49.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.21e-09
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: 1.549
Centroid-sig: 1.6%
Centroid-so: 25.518 arcsec [1.11σ]
OotOffset-rm: 1.409 arcsec [3.90σ]
OotOffset-st: 3/3/2/5 [13]
KicOffset-rm: 0.233 arcsec [0.71σ]
KicOffset-st: 3/3/2/5 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 1.00 [13/13]

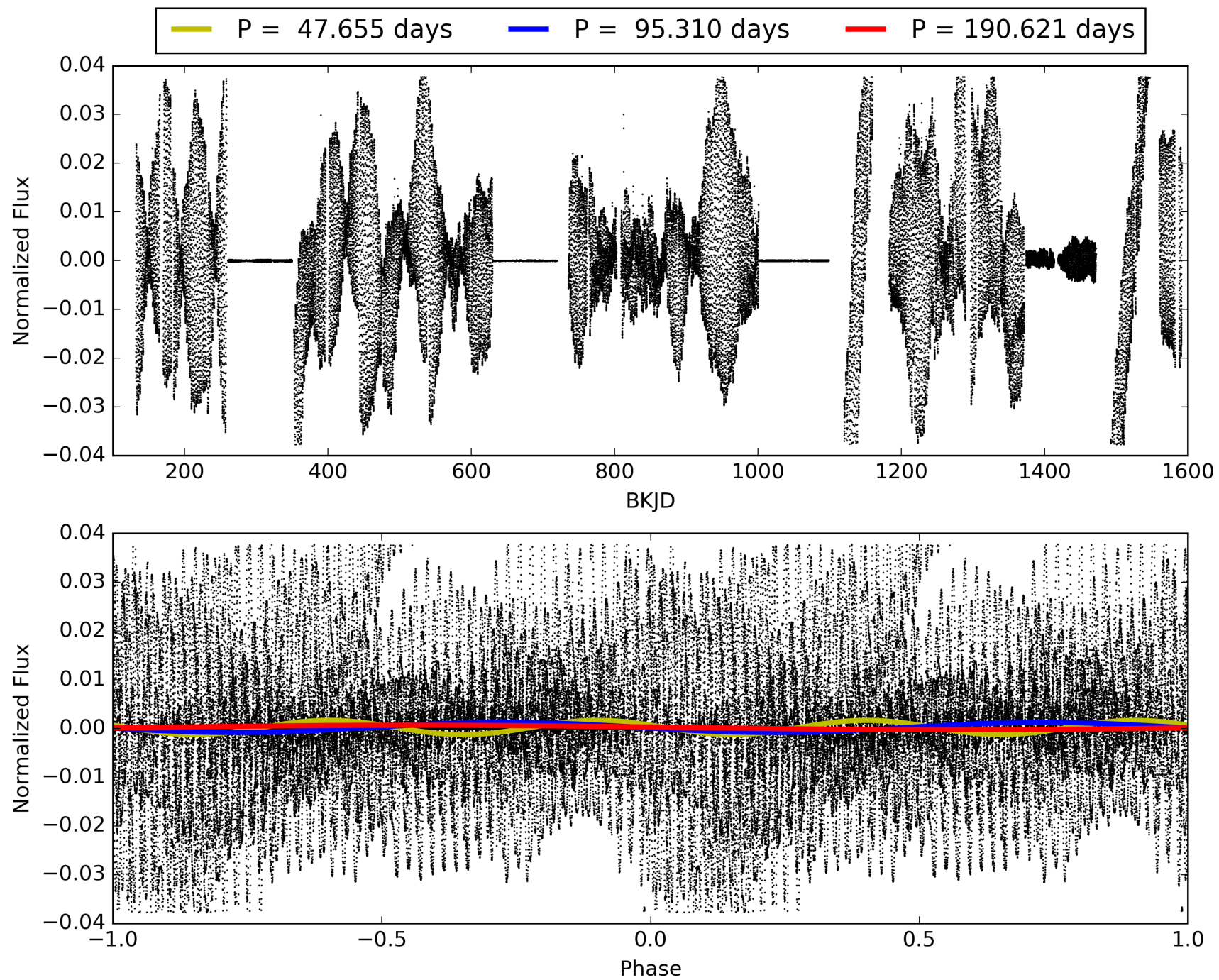
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 09:30:18 Z

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

TCE 007339348-08, PDC Light Curves

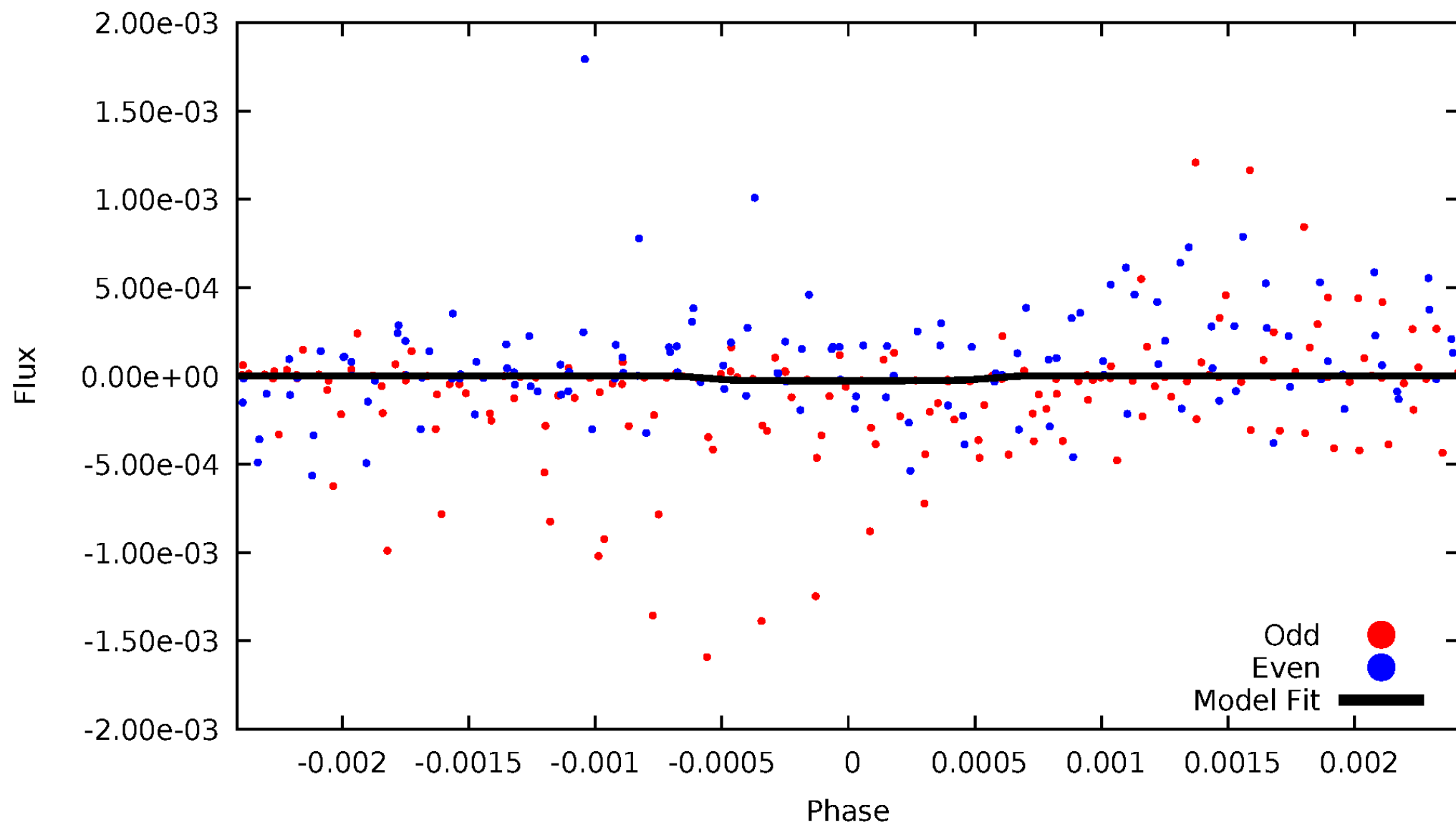


TCE 007339348-08



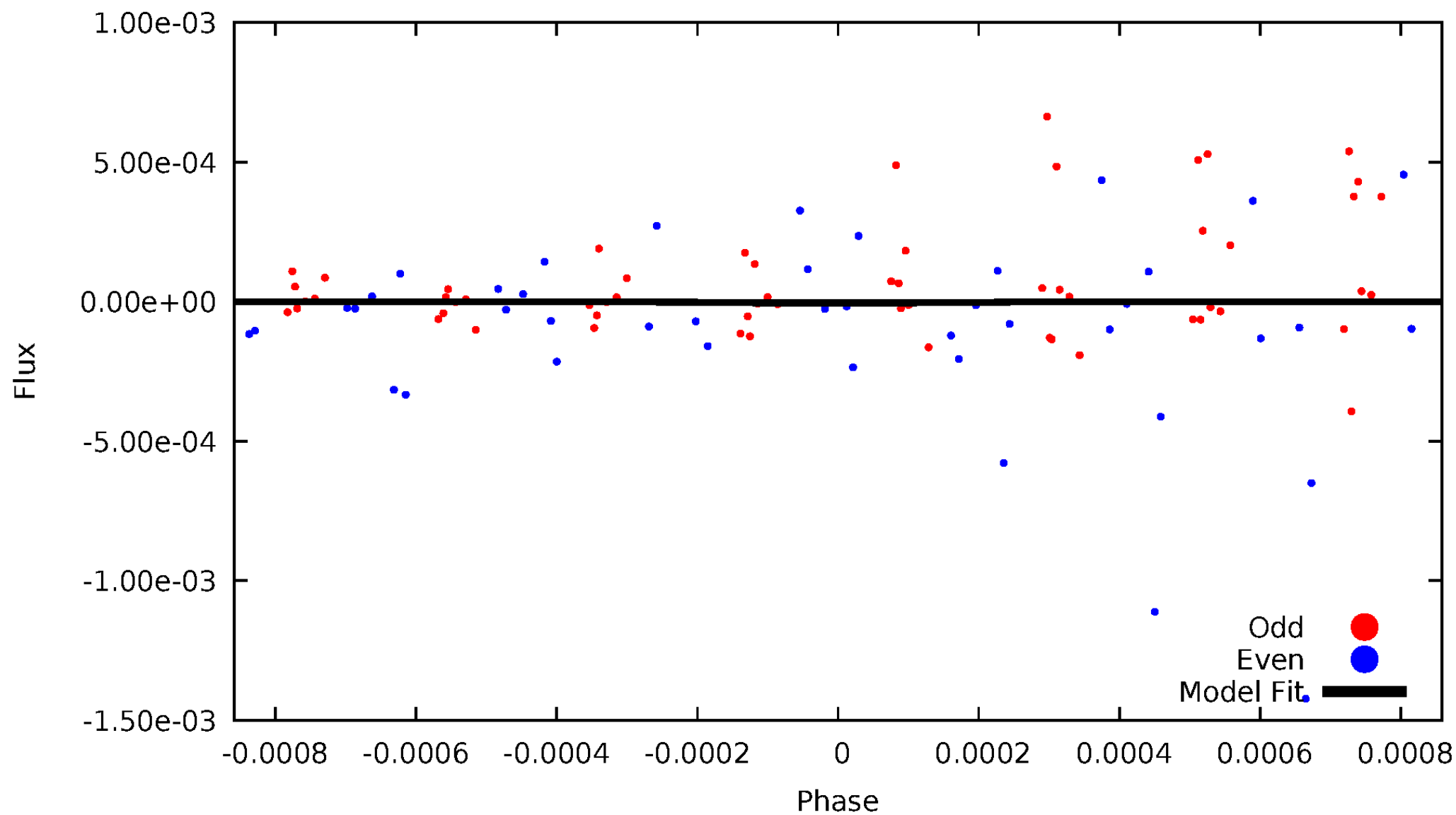
DV Odd/Even

TCE 007339348-08



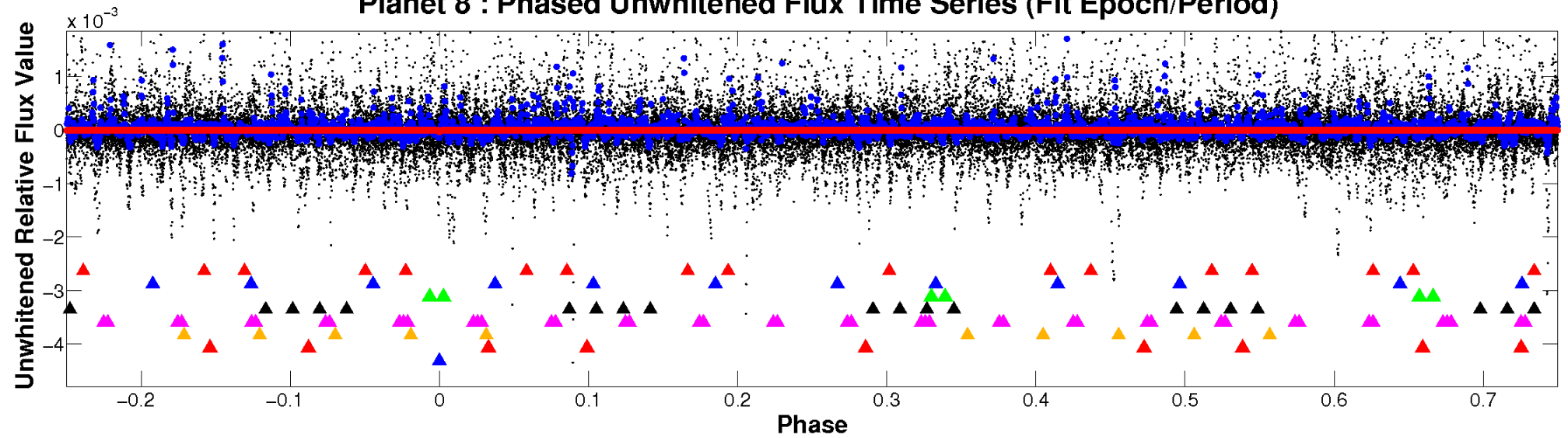
ALT Odd/Even

TCE 007339348-08

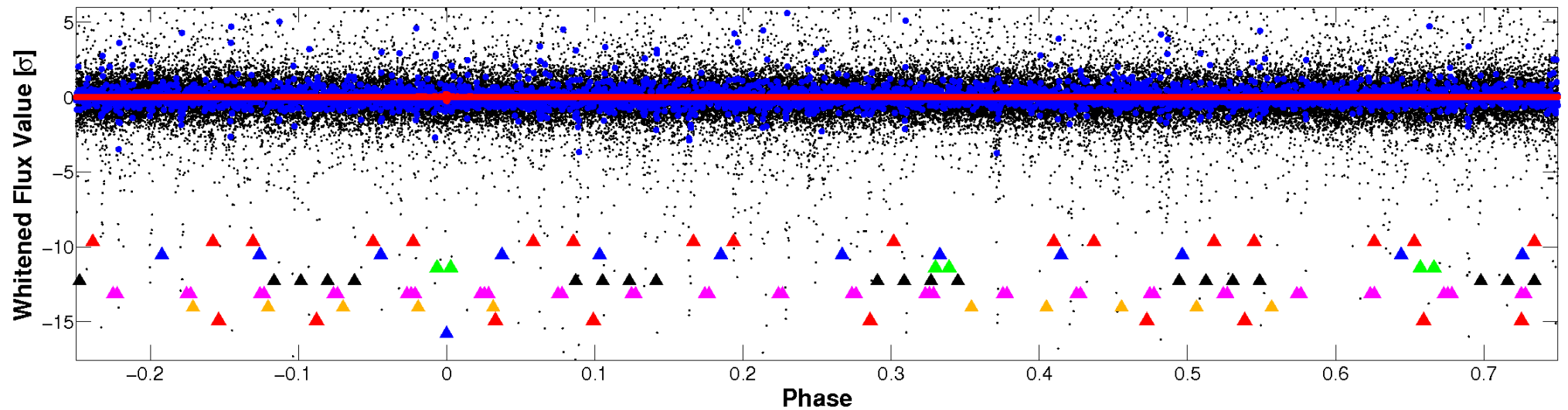


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

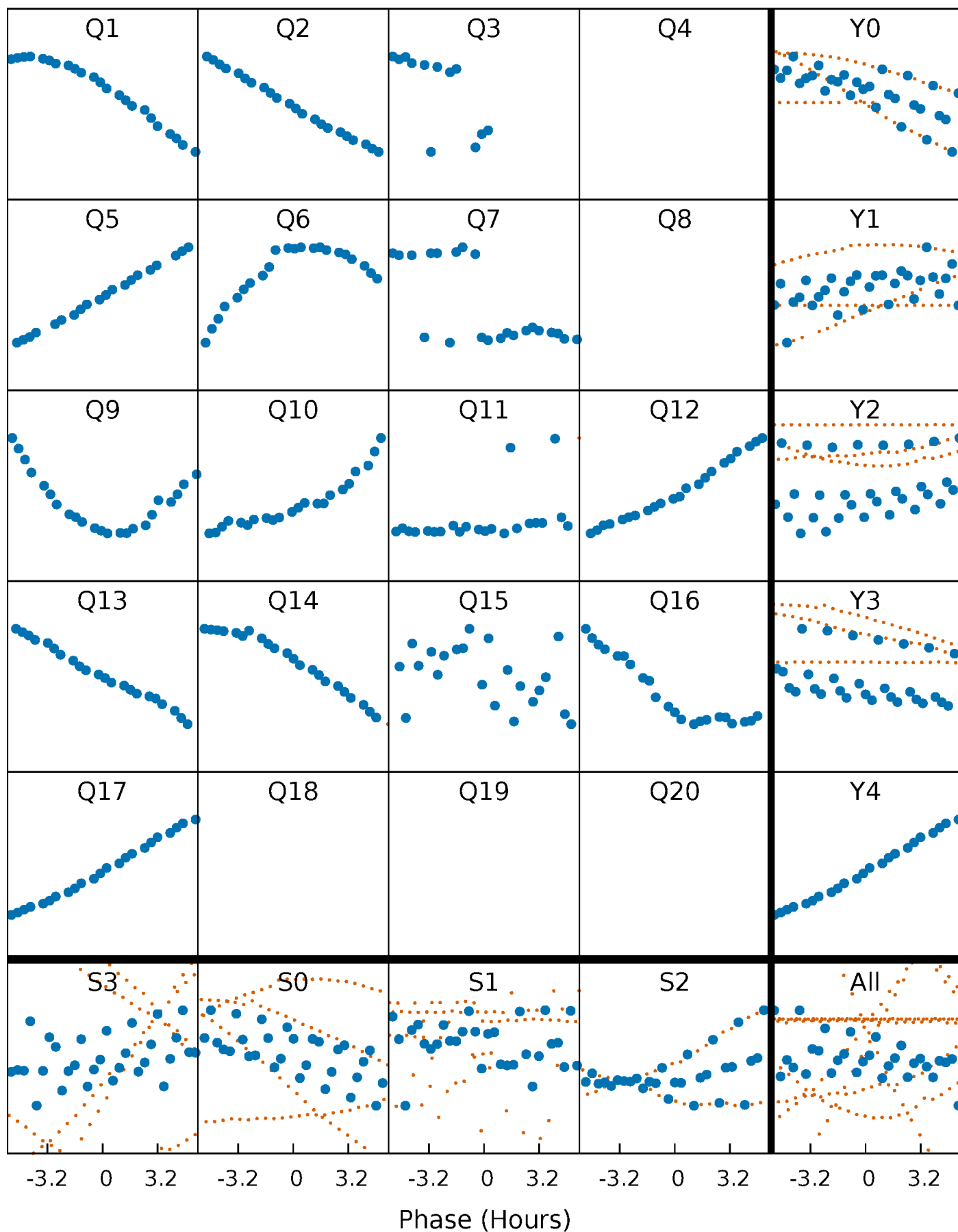


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



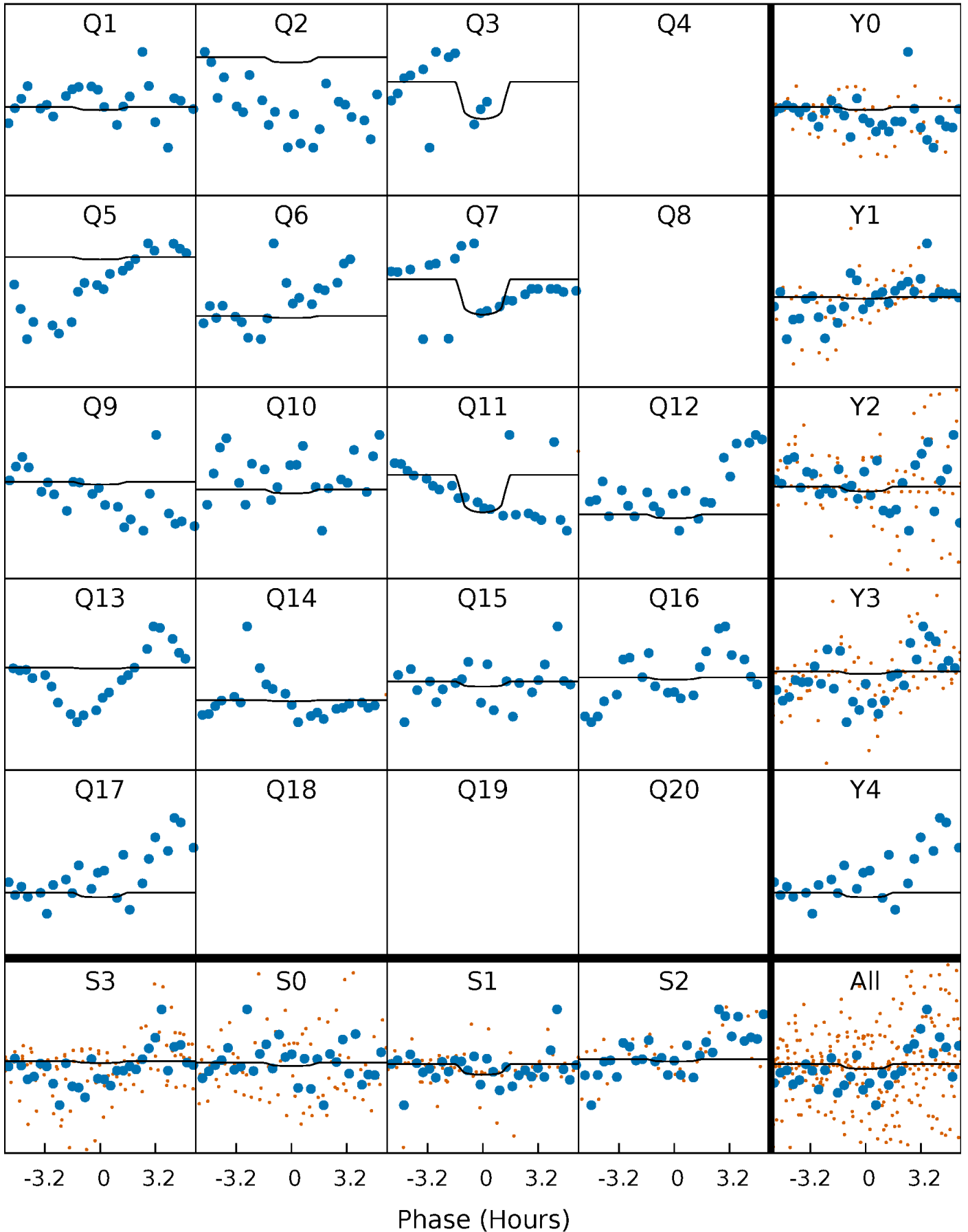
PDC Quarter-Phased Transit Curves

TCE 007339348-08 P= 95.310334 Days $T_0=158.857260$ (BKJD)



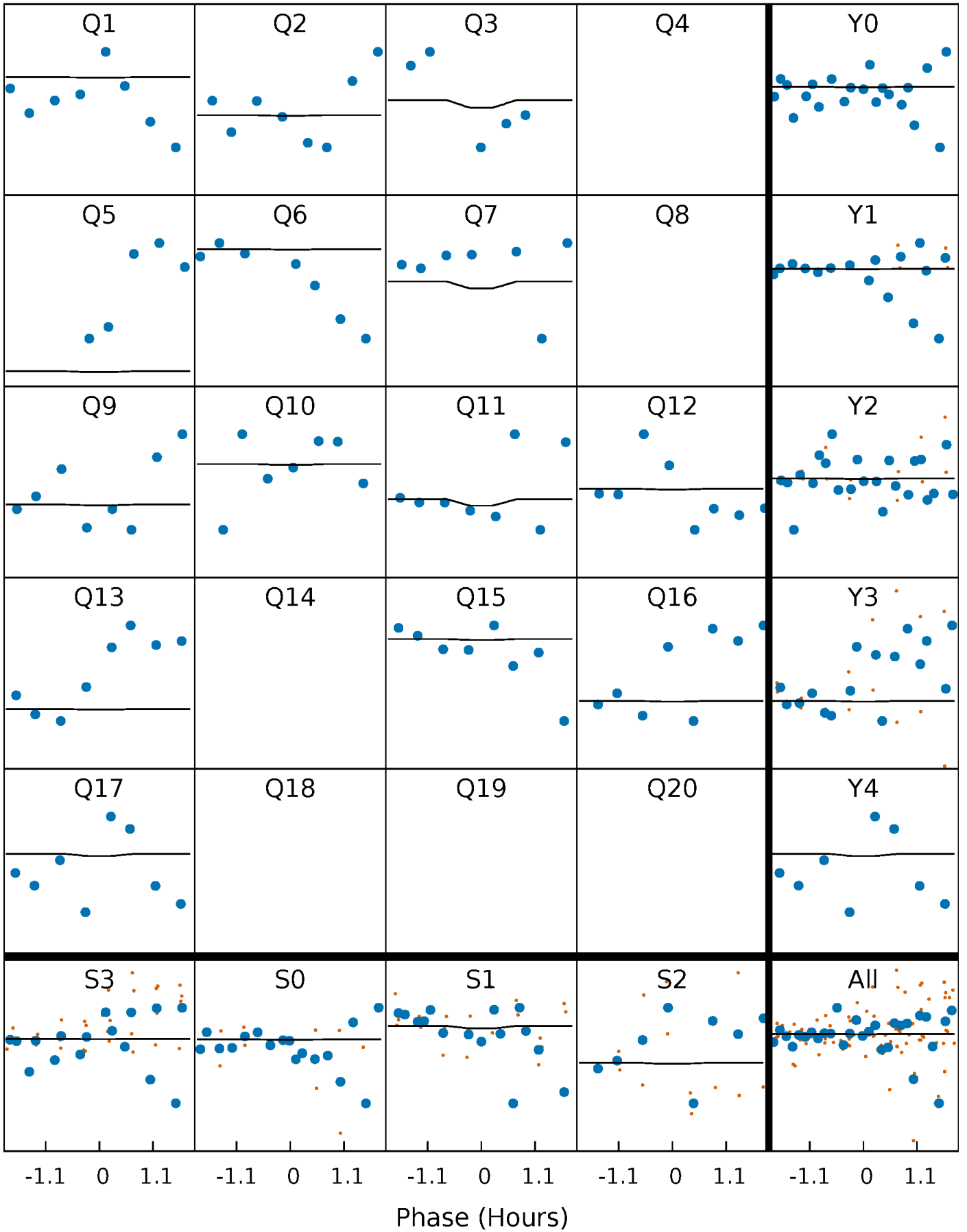
DV Quarter-Phased Transit Curves

TCE 007339348-08 P= 95.310334 Days $T_0=158.857260$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

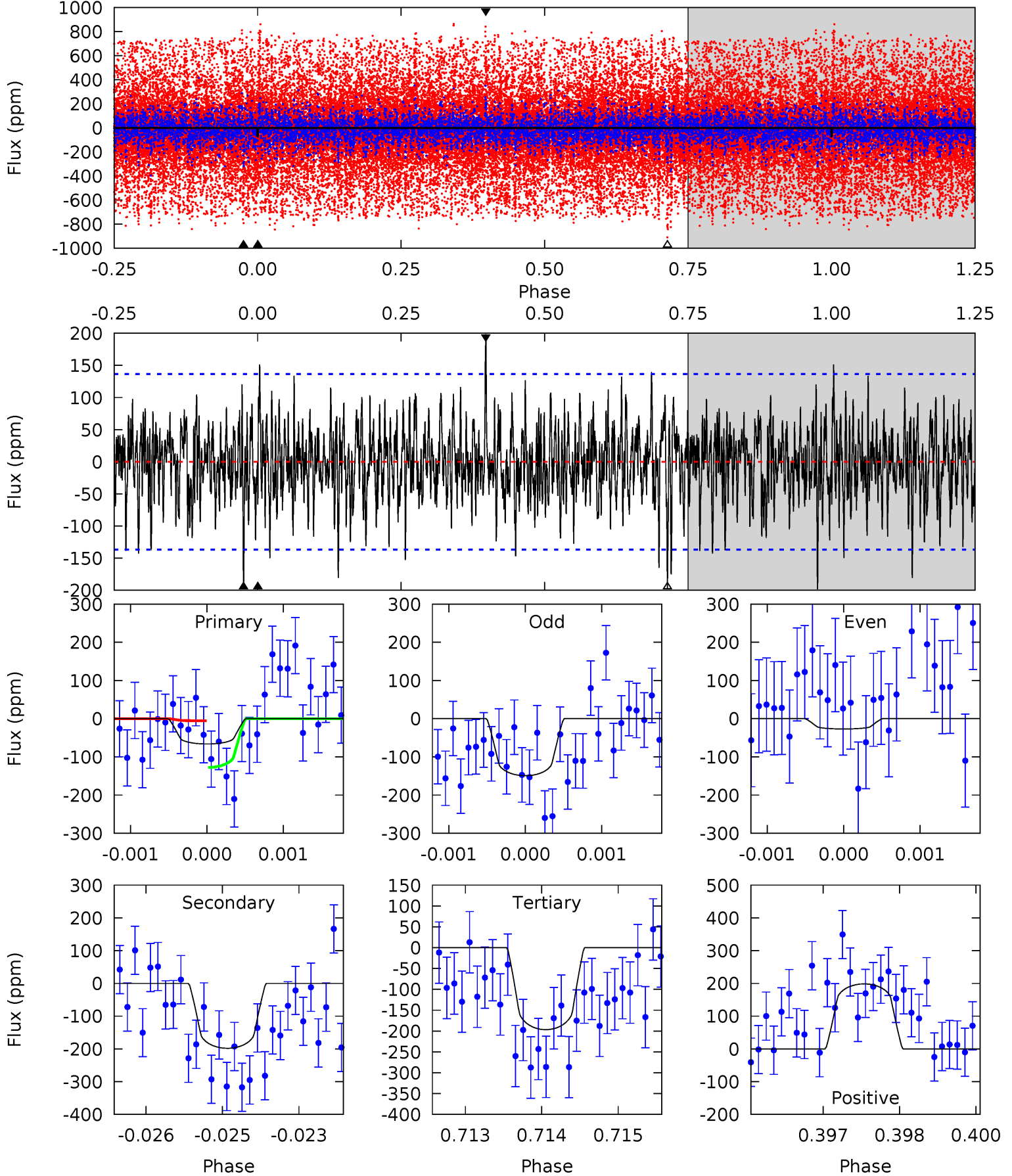
TCE 007339348-08 $P = 95.251469$ Days $T_0 = 158.953298$ (BKJD)



DV Model-Shift Uniqueness Test

007339348-08, P = 95.310334 Days, E = 63.546926 Days

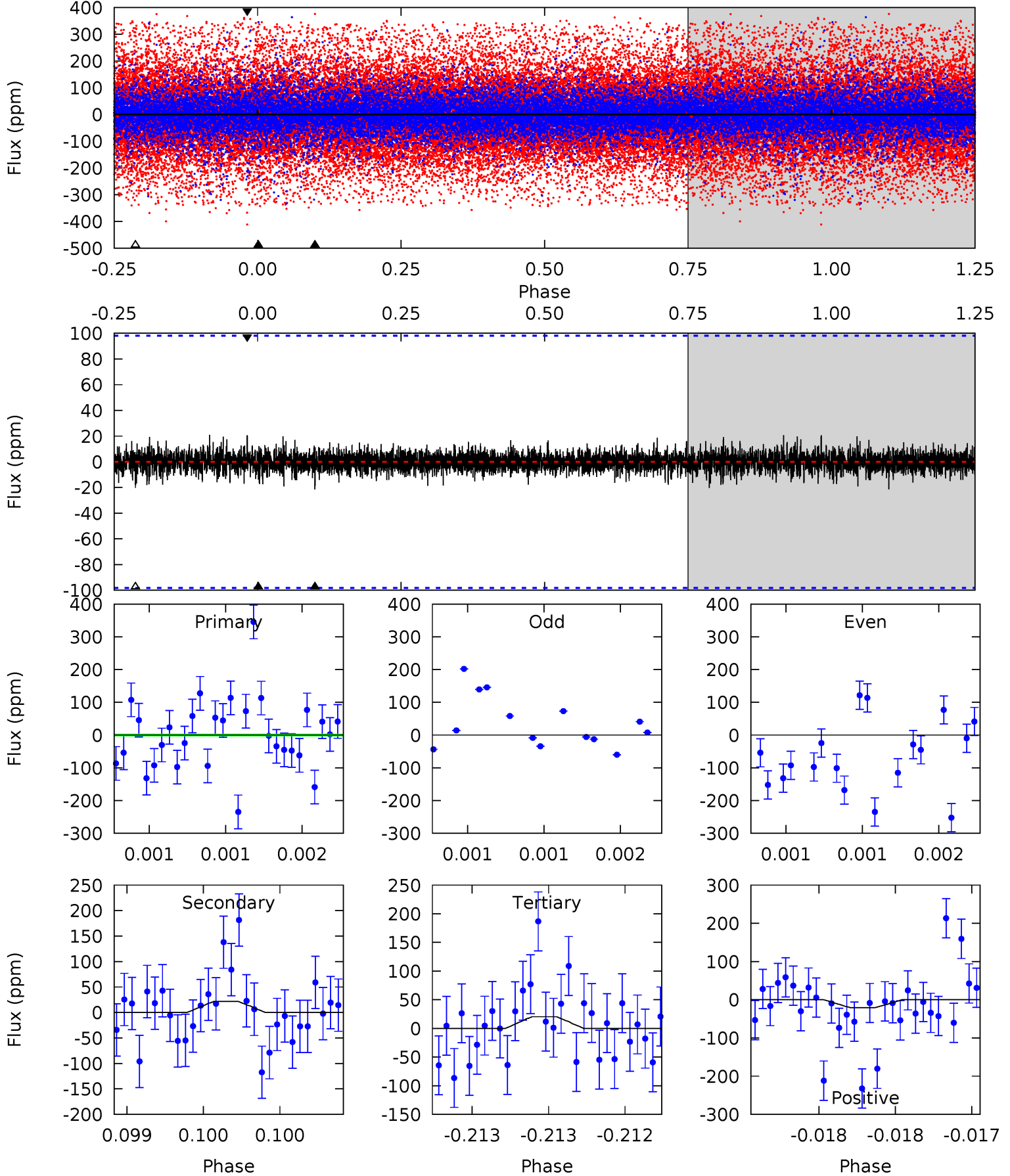
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.62	7.82	7.77	7.83	5.39	3.20	1.95	-5.15	-5.22	0.06	-0.01	2.35	4.97	0.50	2.47



Alt Model-Shift Uniqueness Test

007339348-08, P = 95.251469 Days, E = 63.701829 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.73	1.22	1.15	1.16	5.54	3.42	0.29	-0.42	-0.43	0.07	0.05	0.02	-2.17	0.49	0.14



Stellar Parameters For KIC 007339348

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5827^{+193}_{-175}	$4.247^{+0.282}_{-0.212}$	$-0.460^{+0.300}_{-0.300}$	$1.126^{+0.345}_{-0.314}$	$0.816^{+0.126}_{-0.054}$	$0.805^{+1.193}_{-0.421}$
	+3%/-3%	+7%/-5%	+65%/-65%	+31%/-28%	+15%/-7%	+148%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007339348-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-198 ± 25	$0.70^{+0.37}_{-0.31}$	615^{+56}_{-51}	9785^{+5902}_{-2089}	33172^{+76315}_{-19157}
Alt.	-22 ± 18	$0.34^{+0.30}_{-0.22}$	616^{+57}_{-54}	7320^{+8762}_{-2797}	12881^{+89726}_{-11103}

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

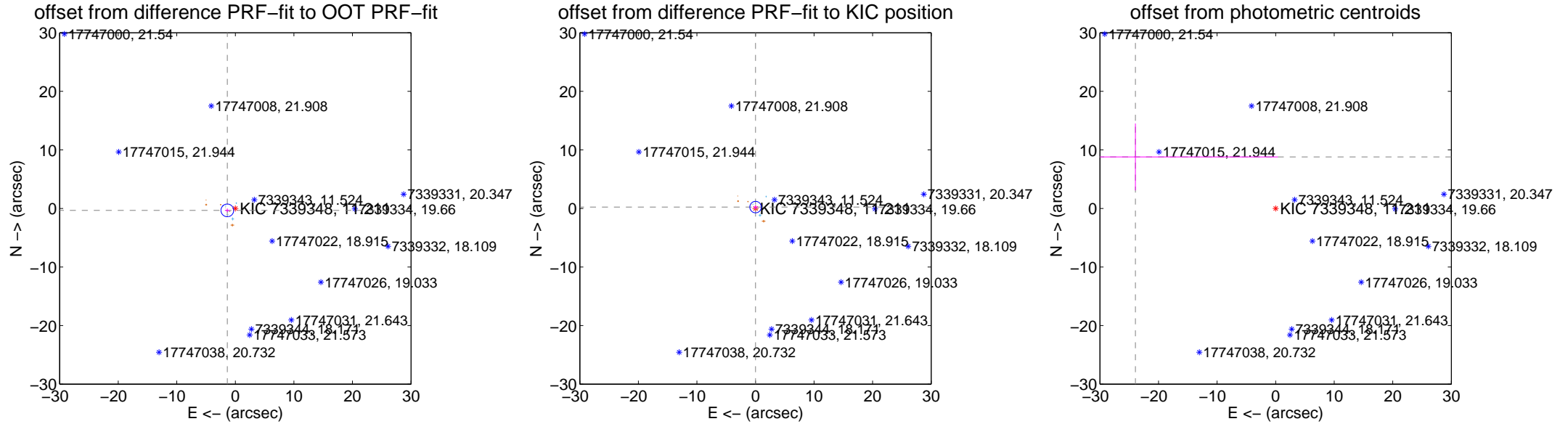
DV Centroid Data

Supplemental centroid analysis for 007339348-08. **Kepler magnitude: 11.21.** Transit SNR 4.20

There are 7 quarters with good PRF difference image offsets

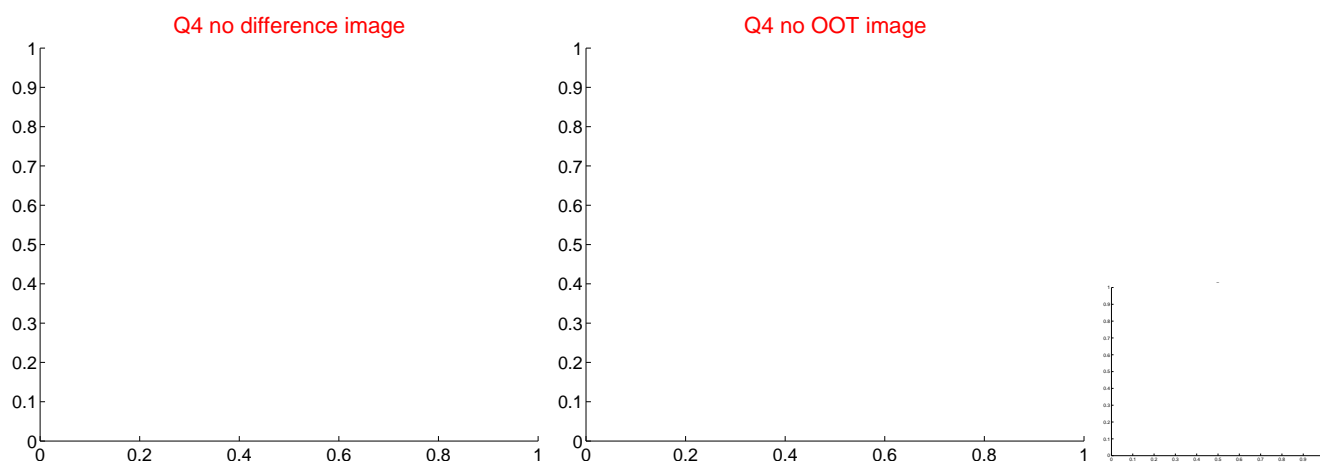
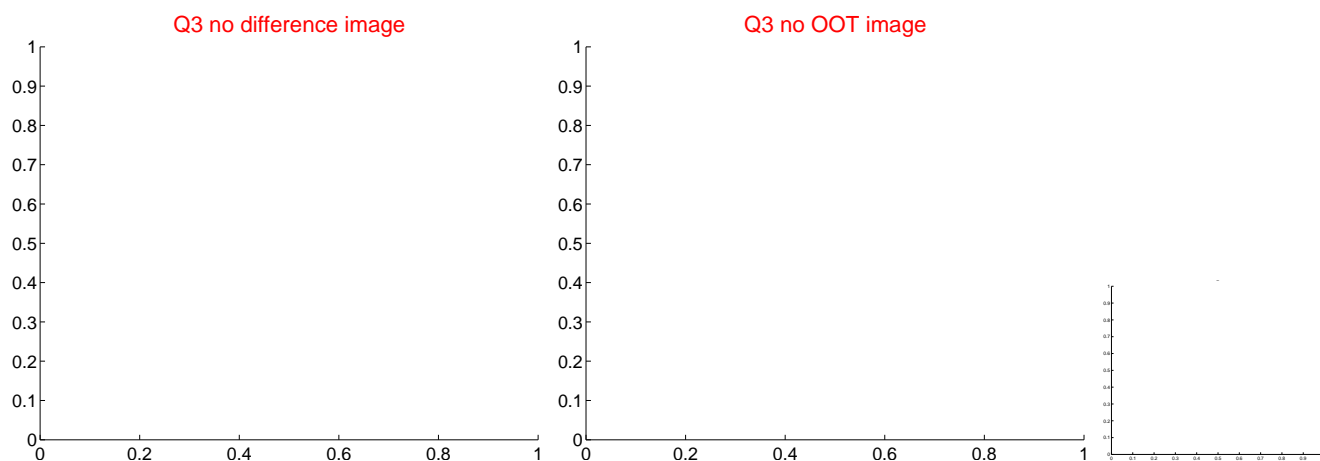
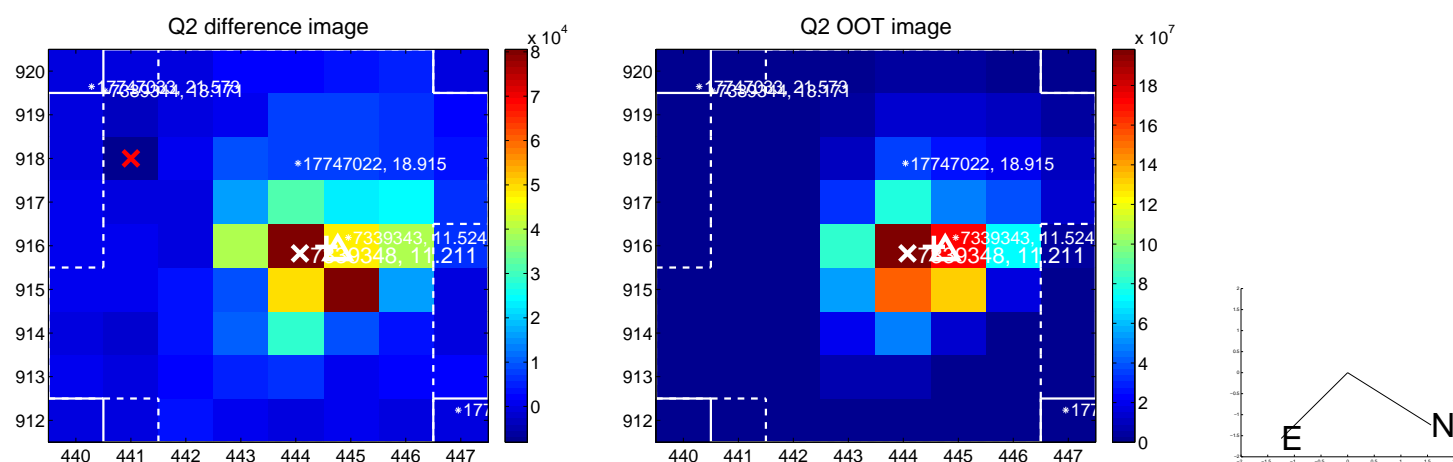
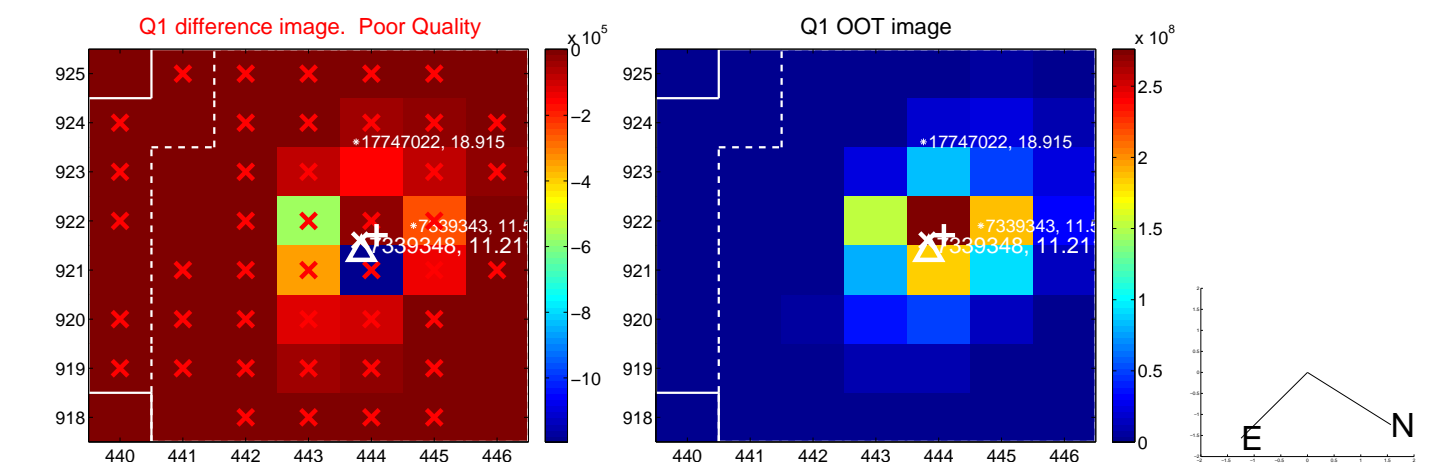
The direct PRF centroid is offset from the target star catalog position by about 1.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.409 ± 0.361	3.90	1.370 ± 0.409	-0.331 ± 0.327
PRF-fit source offset from KIC position	0.233 ± 0.326	0.71	-0.010 ± 0.371	0.233 ± 0.334
photometric centroid source offset	25.52 ± 22.92	1.11	23.95 ± 24.33	8.80 ± 5.71

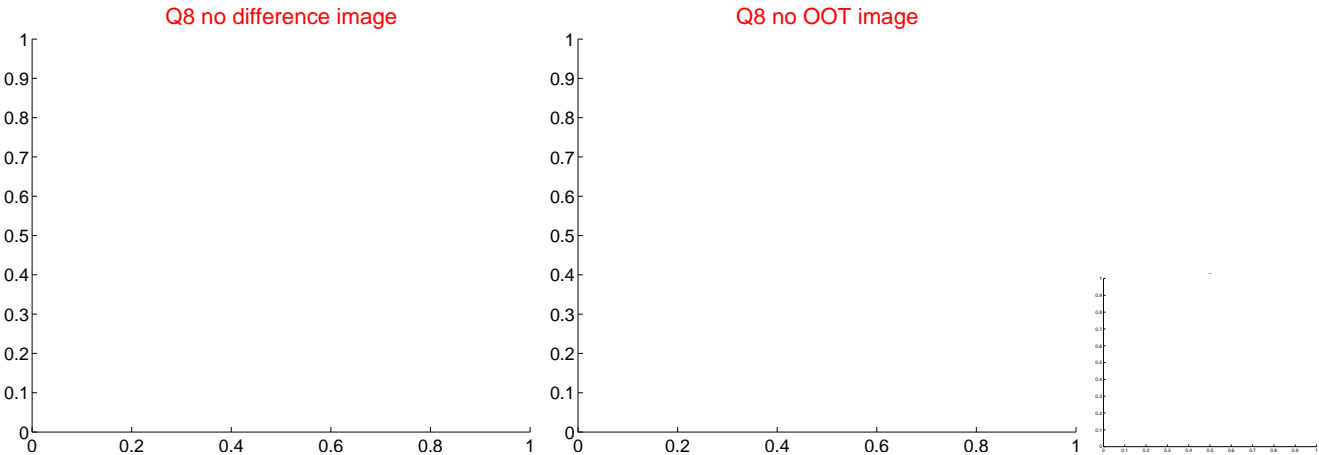
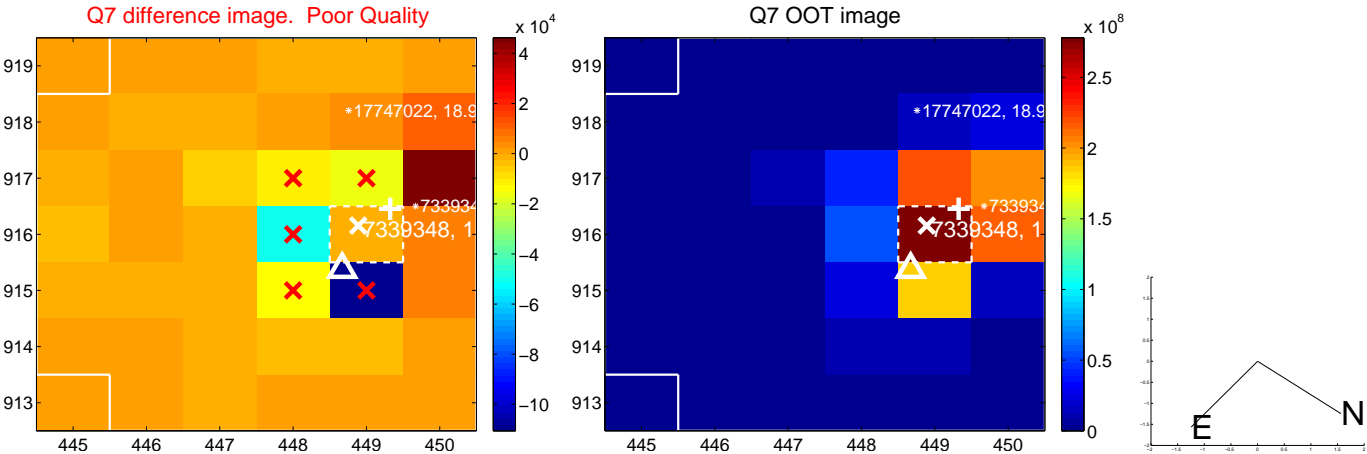
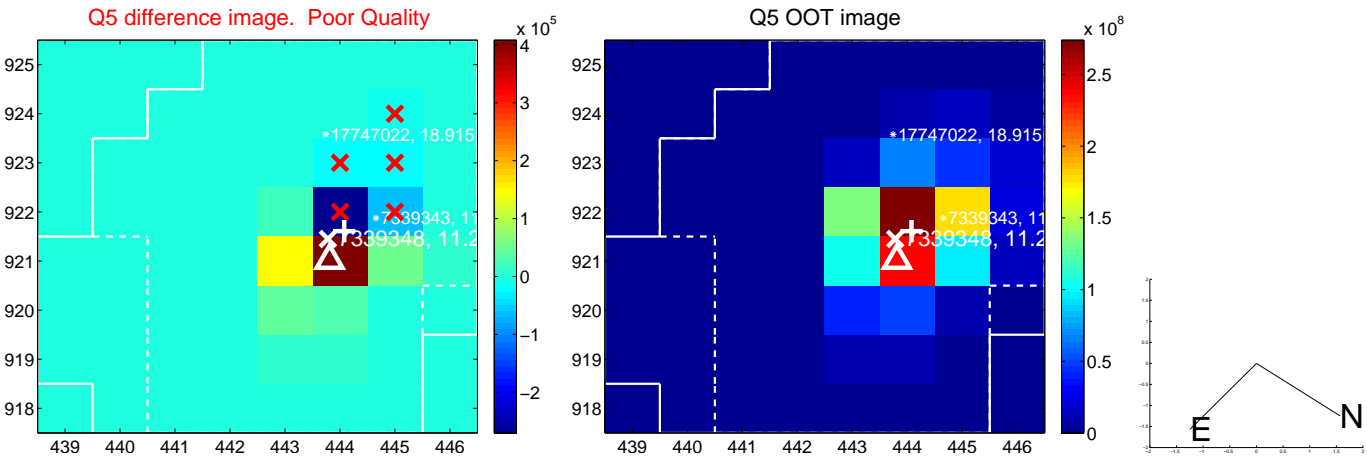


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

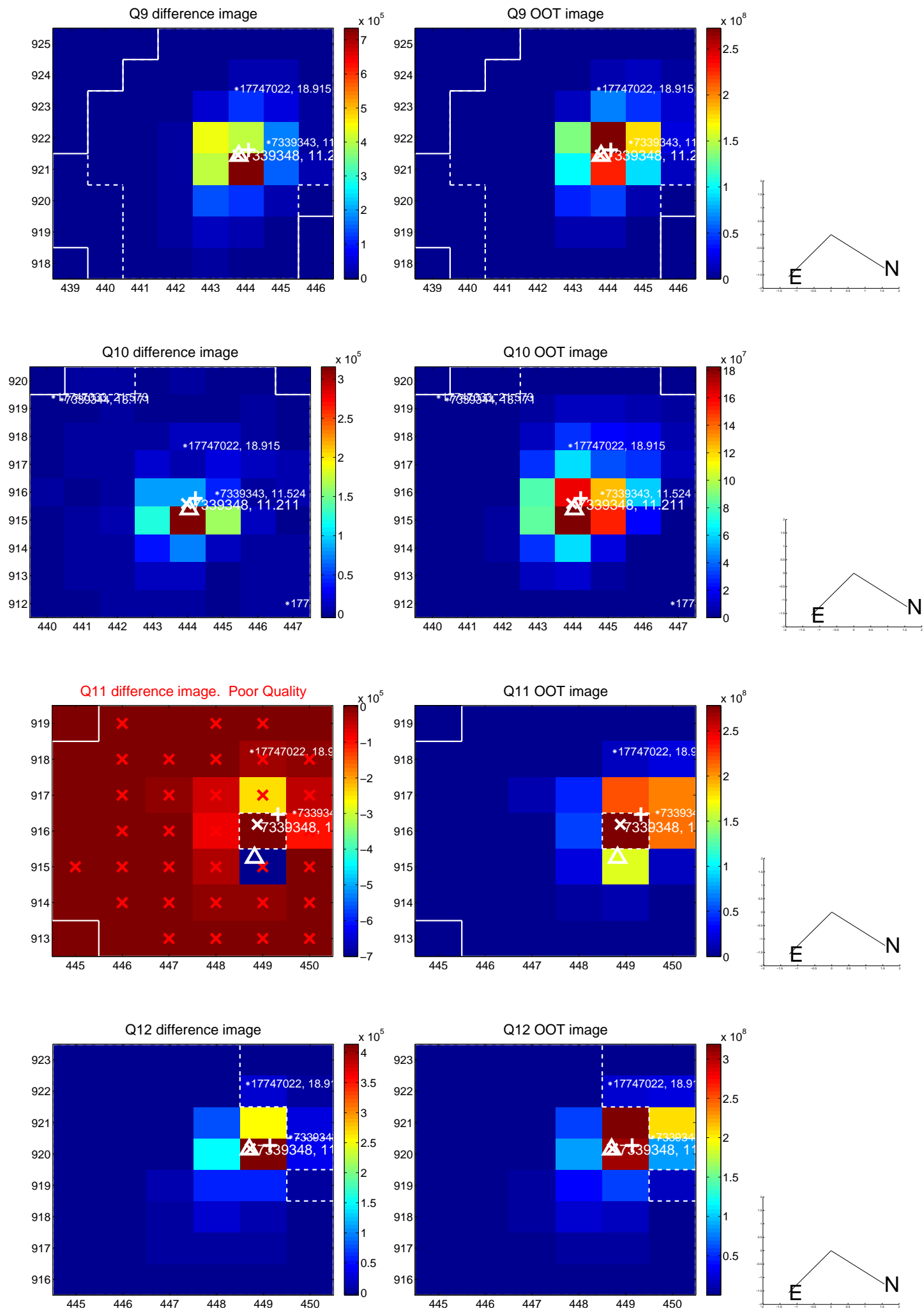
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



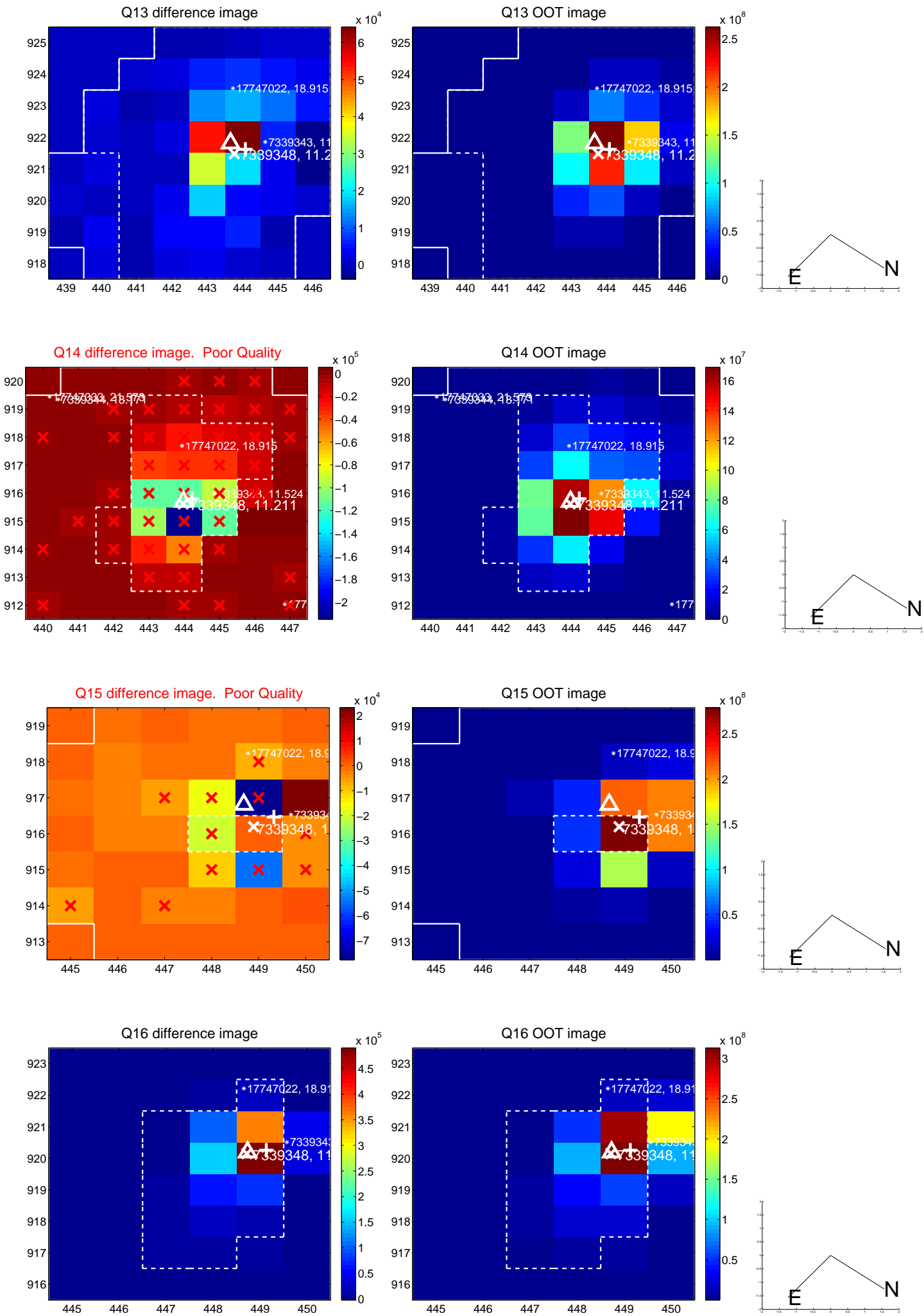
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

