

KIC 012268190

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})
012268190-01	OBS	No	0.995576	132.085974	23.2	3.178	11.6	11.3	3.46	6915	1.93	44370.77
012268190-02	OBS	No	1.991368	132.511186	35.5	5.204	12.4	12.5	3.46	6915	3.01	17606.00
012268190-03	OBS	No	59.429660	148.717804	131.5	11.511	8.7	8.9	3.46	6915	4.35	190.19
012268190-04	OBS	No	561.481101	330.332346	241.0	27.332	8.3	7.6	3.46	6915	6.57	9.52
012268190-05	OBS	No	94.817581	195.645350	39.6	21.417	8.2	2.6	3.46	6915	2.40	102.02
012268190-06	OBS	No	46.711873	171.151127	60.2	12.671	8.0	4.1	3.46	6915	3.08	262.20
012268190-07	OBS	No	366.486584	308.497921	55.3	11.921	7.8	2.4	3.46	6915	2.99	16.82
012268190-09	OBS	No	122.032579	217.908251	192.1	6.947	7.5	7.5	3.46	6915	5.32	72.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012268190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
012268190-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
012268190-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
012268190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
012268190-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012268190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

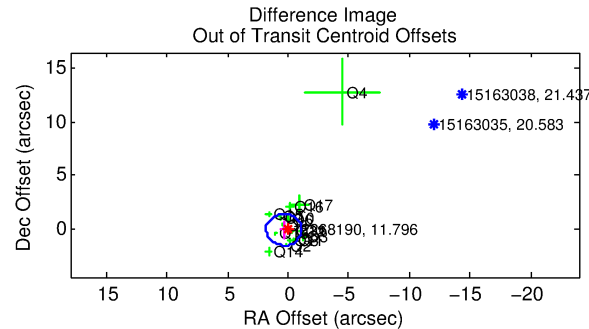
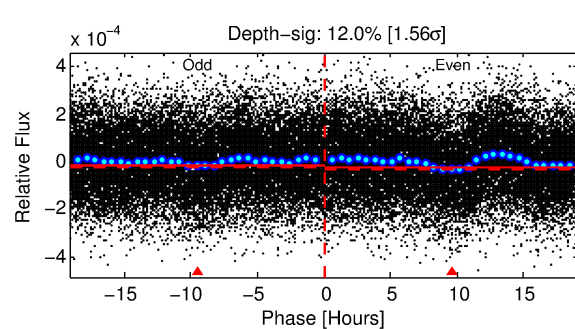
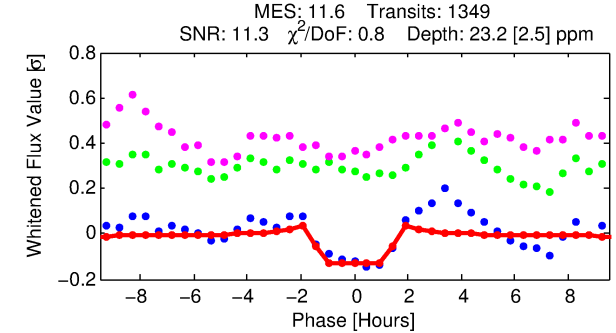
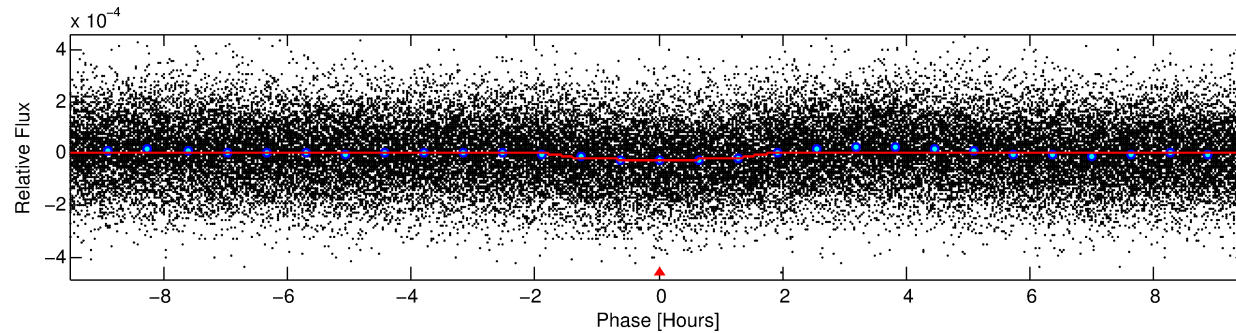
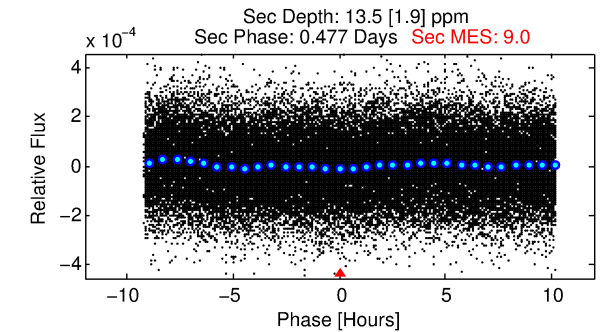
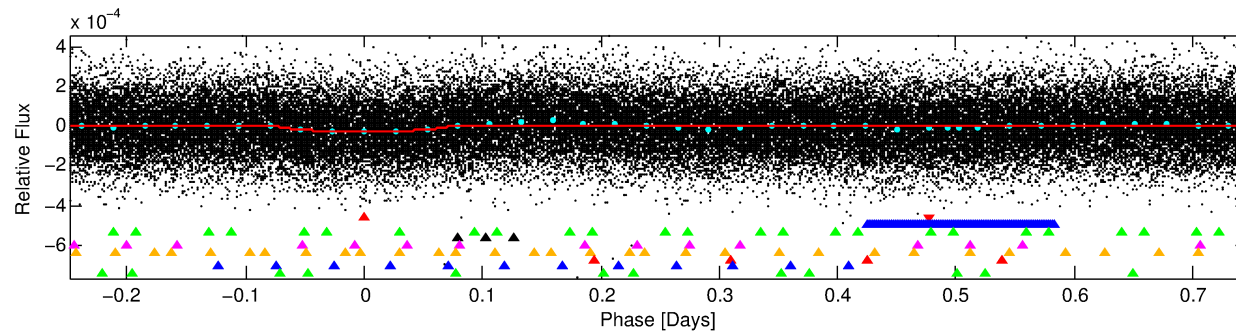
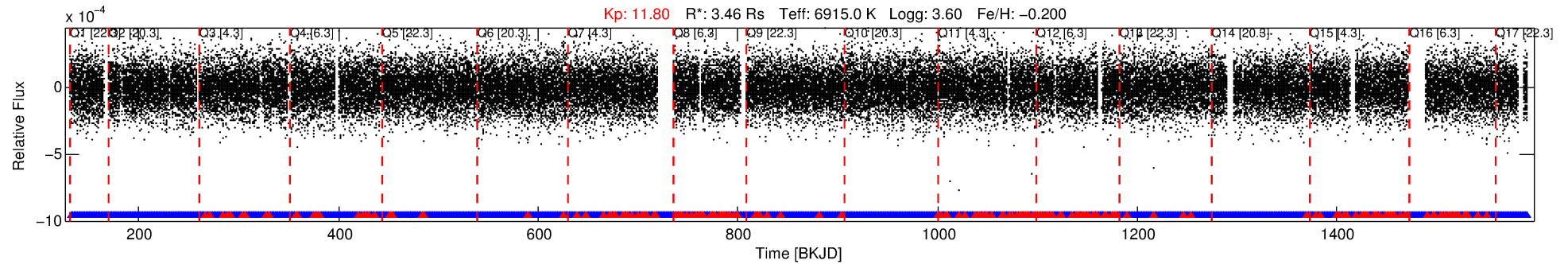
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012268190-01

No Significant Match Found

DV One-Page Summary

KIC: 12268190 Candidate: 1 of 9 Period: 0.996 d



DV Fit Results:

Period = 0.99558 [0.00001] d
Epoch = 132.0860 [0.0025] BKJD
Rp/R* = 0.0051 [0.0010]
a/R* = 1.44 [0.91]
b = 0.89 [0.27]
Seff = 44370.77 [24981.67]
Teq = 3701 [521] K
Rp = 1.93 [0.79] Re
a = 0.0235 [0.0081] AU
Ag = 1.10 [0.77] [0.13 σ]
Teffp = 5856 [656] K [2.57 σ]

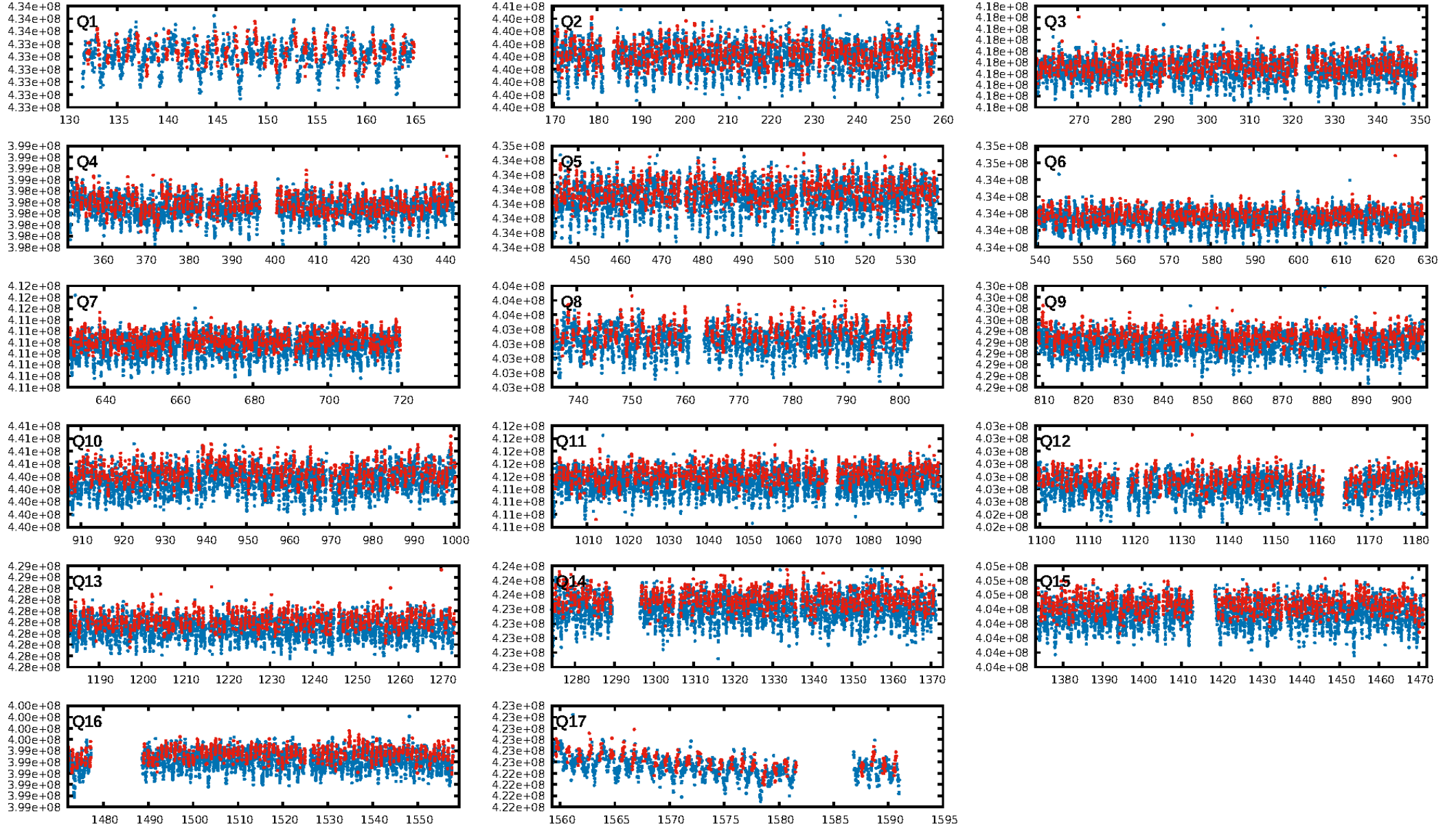
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [3.92 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.58e-17
RollingBand-fgt: 0.85 [1097/1288]
GhostDiagnostic-chr: 21.18
Centroid-sig: 87.3%
Centroid-so: 0.316 arcsec [0.54 σ]
OotOffset-rm: 0.381 arcsec [0.78 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-rm: 0.377 arcsec [0.66 σ]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.06 [1/16]
DiffImageOverlap-fno: 1.00 [17/17]

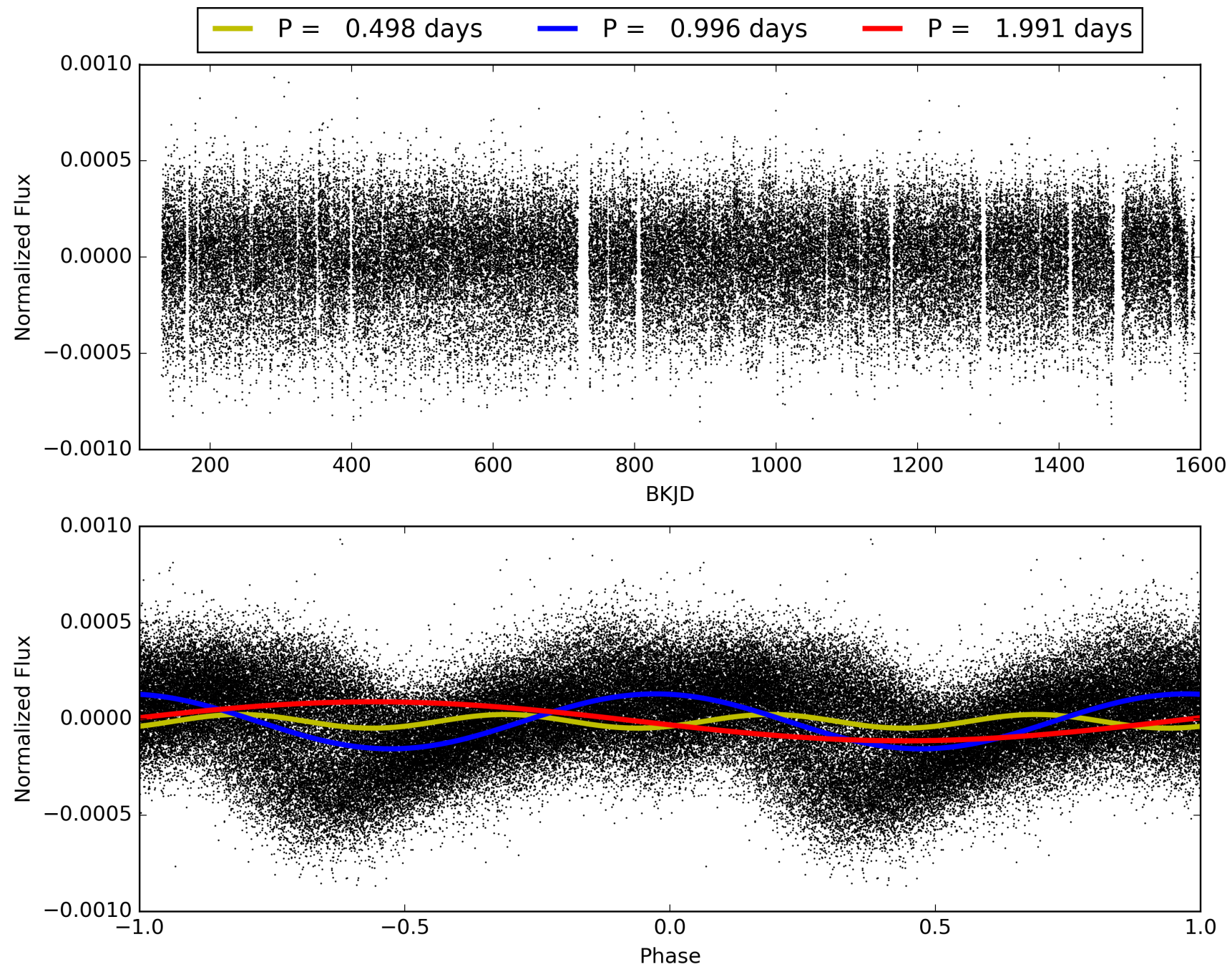
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:16:19 Z

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

TCE 012268190-01, PDC Light Curves

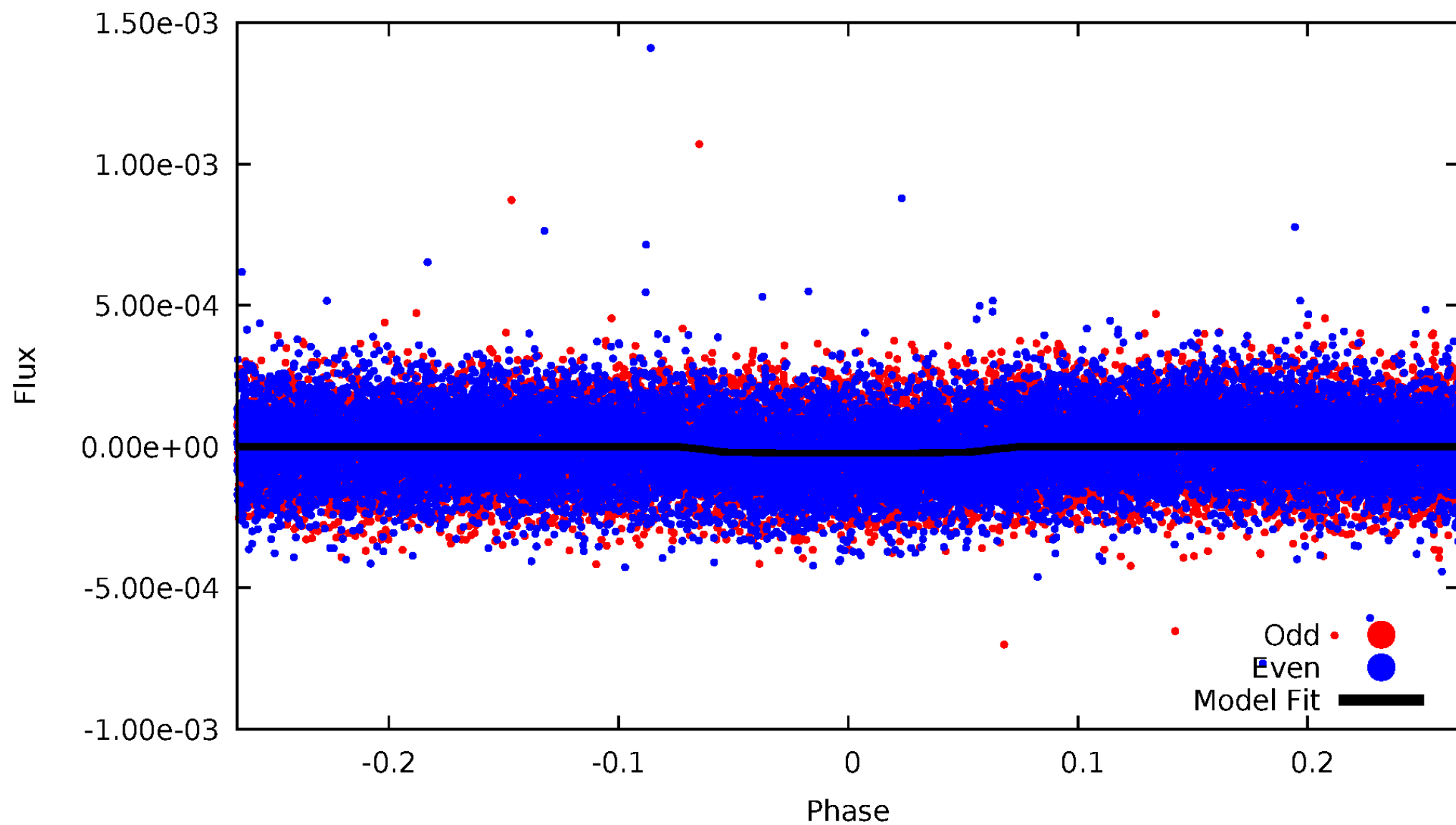


TCE 012268190-01



DV Odd/Even

TCE 012268190-01

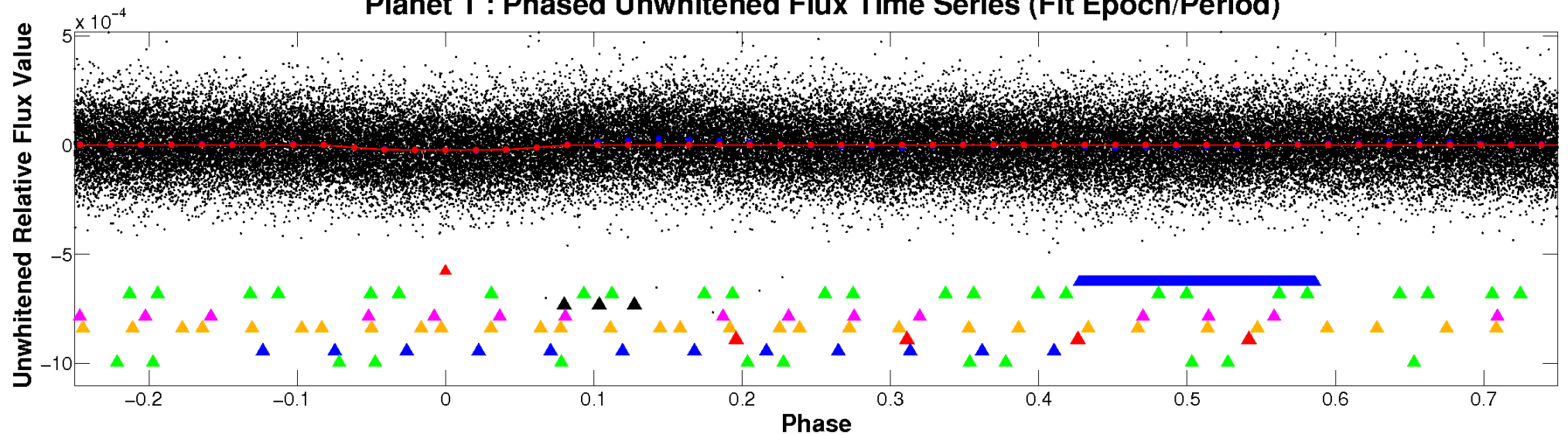


ALT Odd/Even

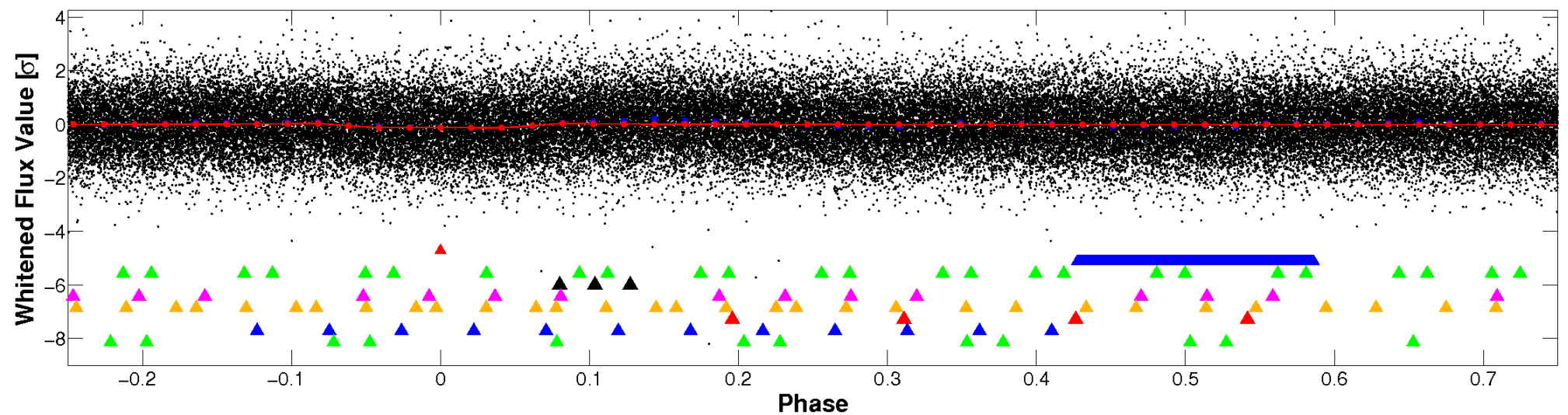
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

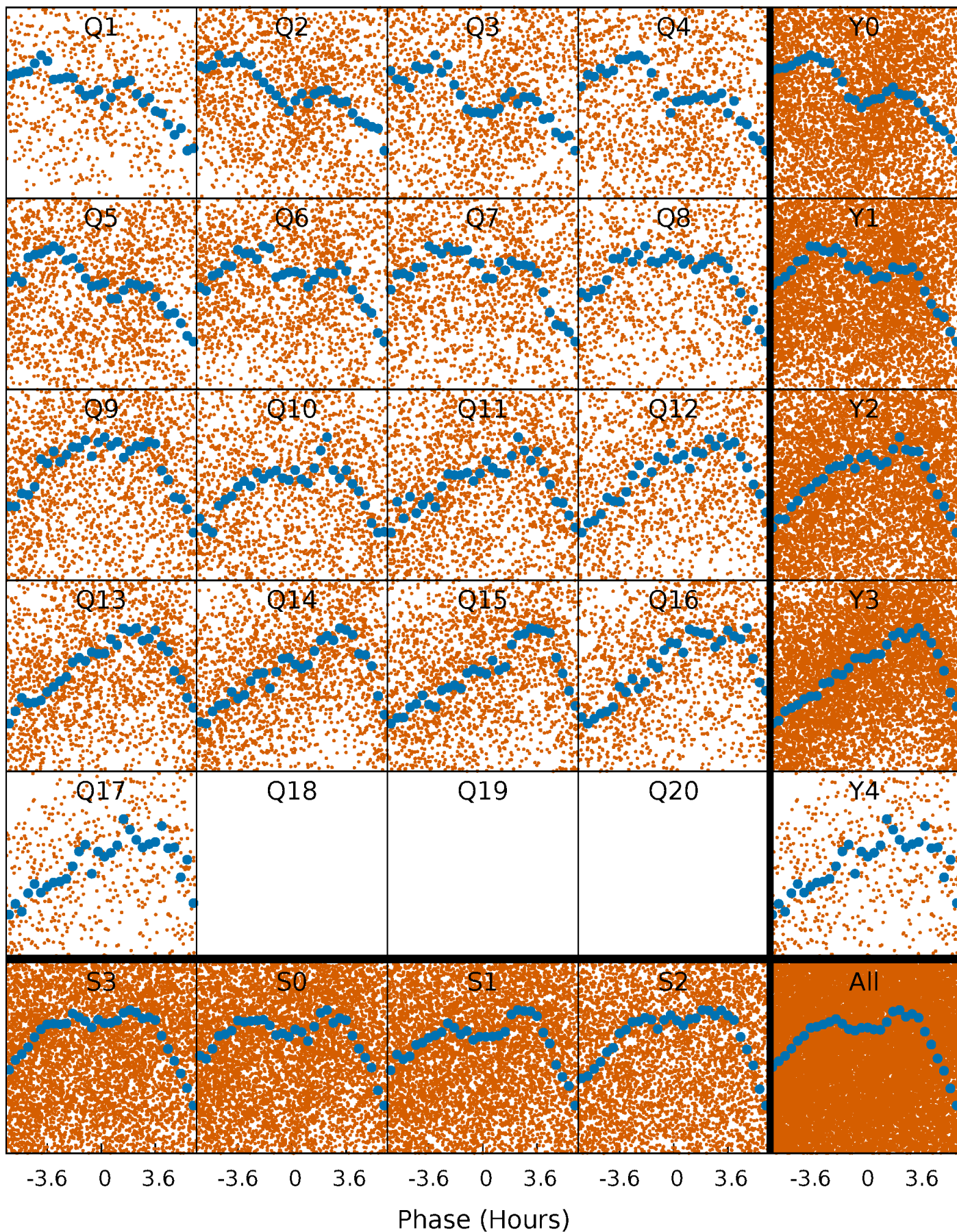


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



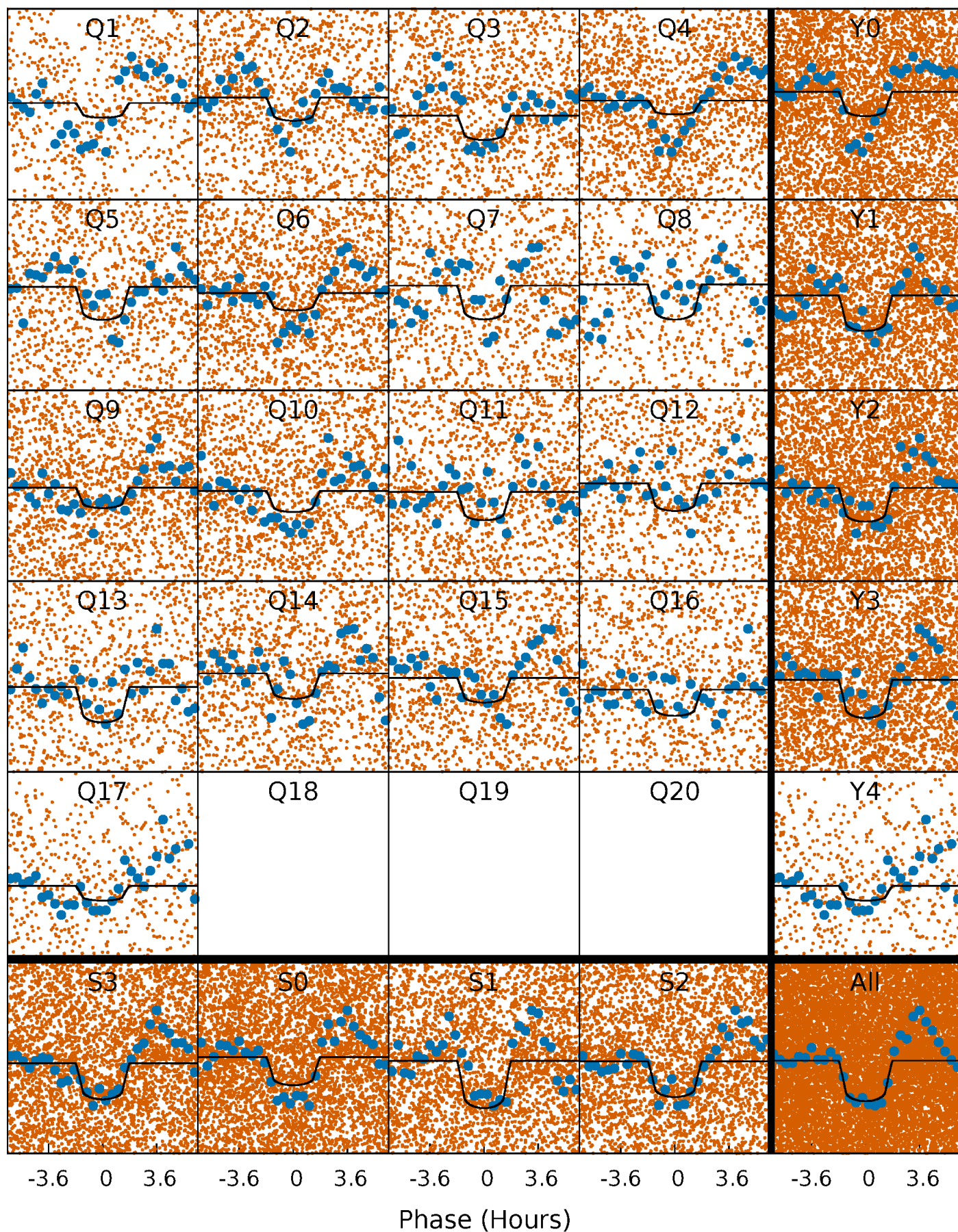
PDC Quarter-Phased Transit Curves

TCE 012268190-01 P= 0.995576 Days $T_0=132.085974$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 012268190-01 P= 0.995576 Days $T_0=132.085974$ (BKJD)

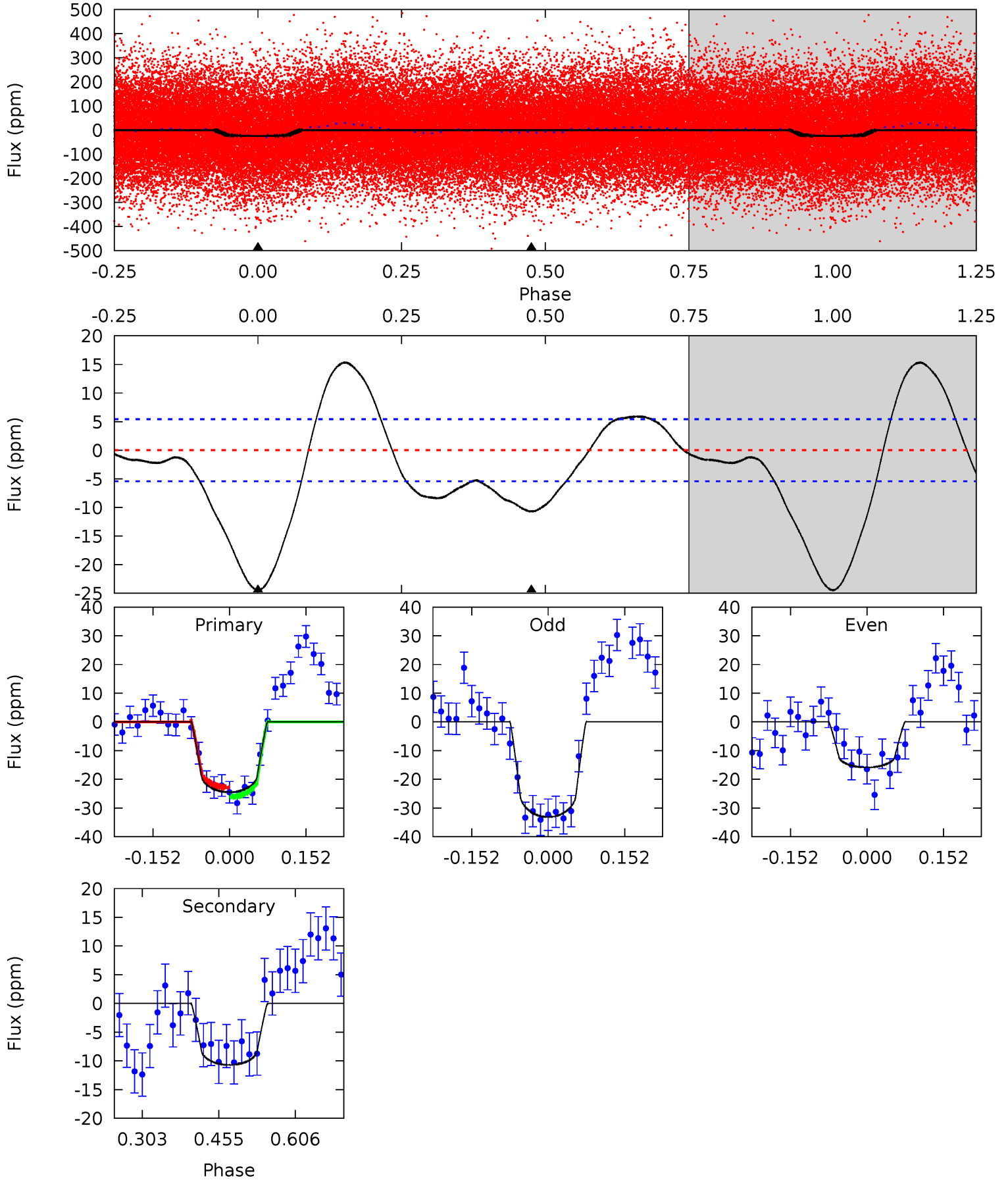


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

012268190-01, P = 0.995576 Days, E = 131.090398 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.2	8.85	0	0	4.48	1.43	5.24	20.2	20.2	8.85	8.85	7.17	1.07	0.39	1.35



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 012268190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6915^{+187}_{-207}	$3.602^{+0.323}_{-0.057}$	$-0.200^{+0.300}_{-0.250}$	$3.457^{+0.412}_{-1.236}$	$1.742^{+0.182}_{-0.339}$	$0.059^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+150%/-125%	+12%/-36%	+10%/-19%	+231%/-19%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 012268190-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-11 ± 1	$1.75^{+0.48}_{-0.45}$	5008^{+292}_{-474}	5106^{+806}_{-624}	$1.035^{+0.873}_{-0.379}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

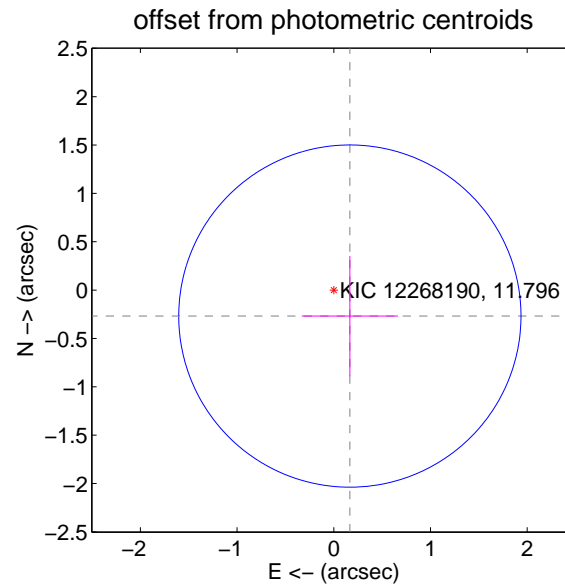
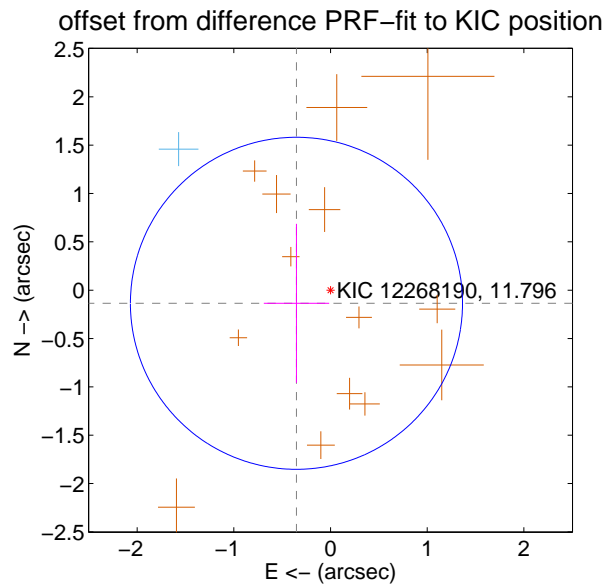
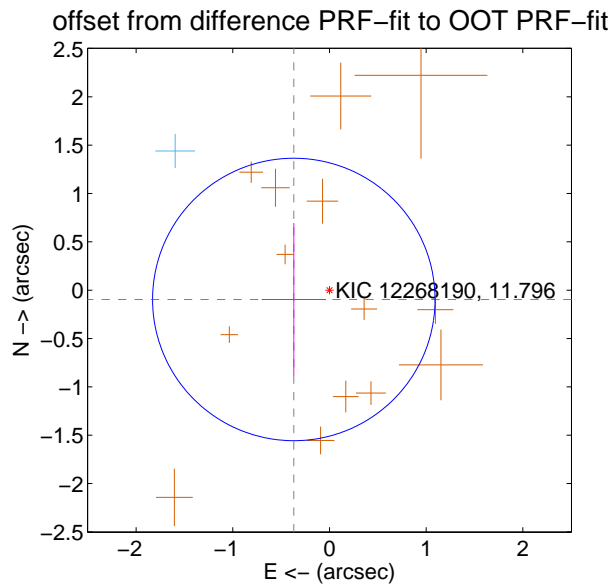
DV Centroid Data

Supplemental centroid analysis for 012268190-01. **Kepler magnitude: 11.80.** Transit SNR 11.29

There are 1 quarters with good PRF difference image offsets

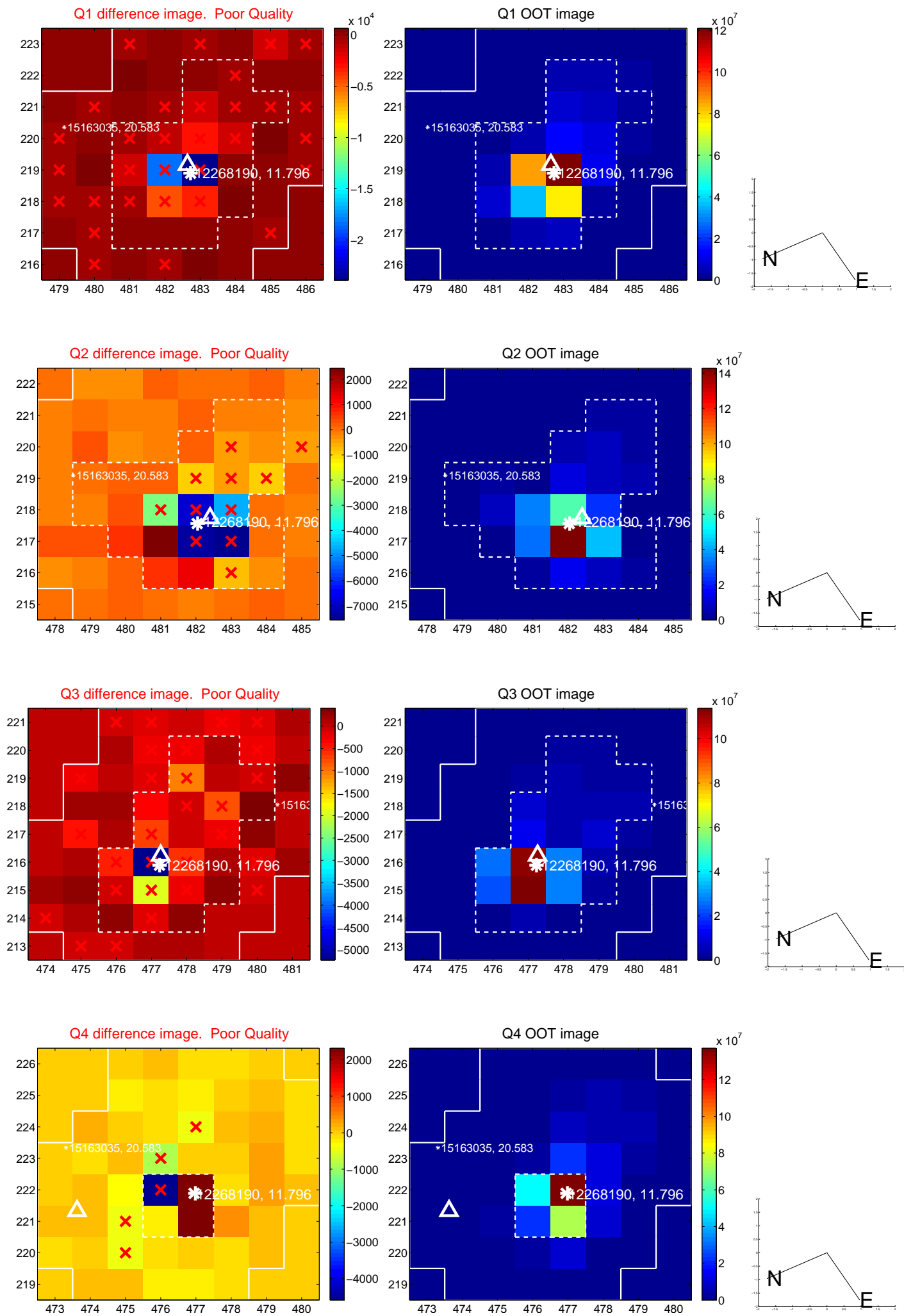
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.381 ± 0.487	0.78	0.369 ± 0.333	-0.096 ± 0.790
PRF-fit source offset from KIC position	0.377 ± 0.572	0.66	0.352 ± 0.338	-0.136 ± 0.821
photometric centroid source offset	0.32 ± 0.59	0.54	-0.17 ± 0.50	-0.27 ± 0.62

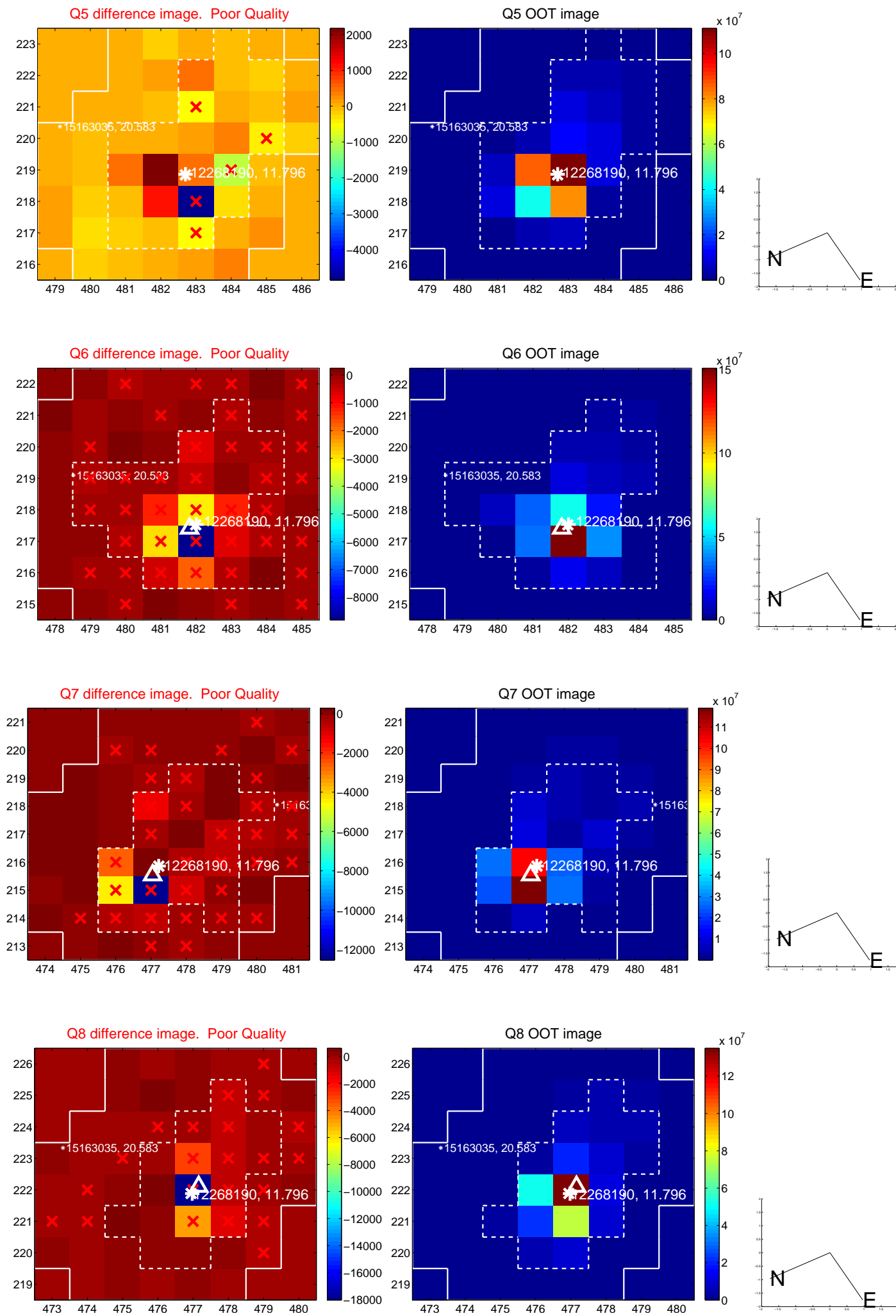


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

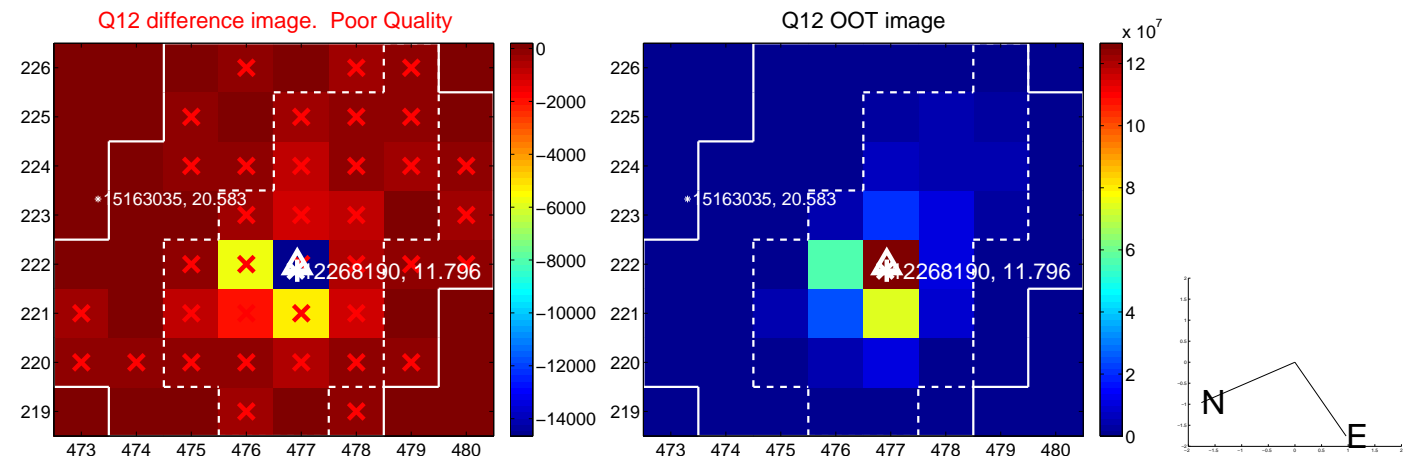
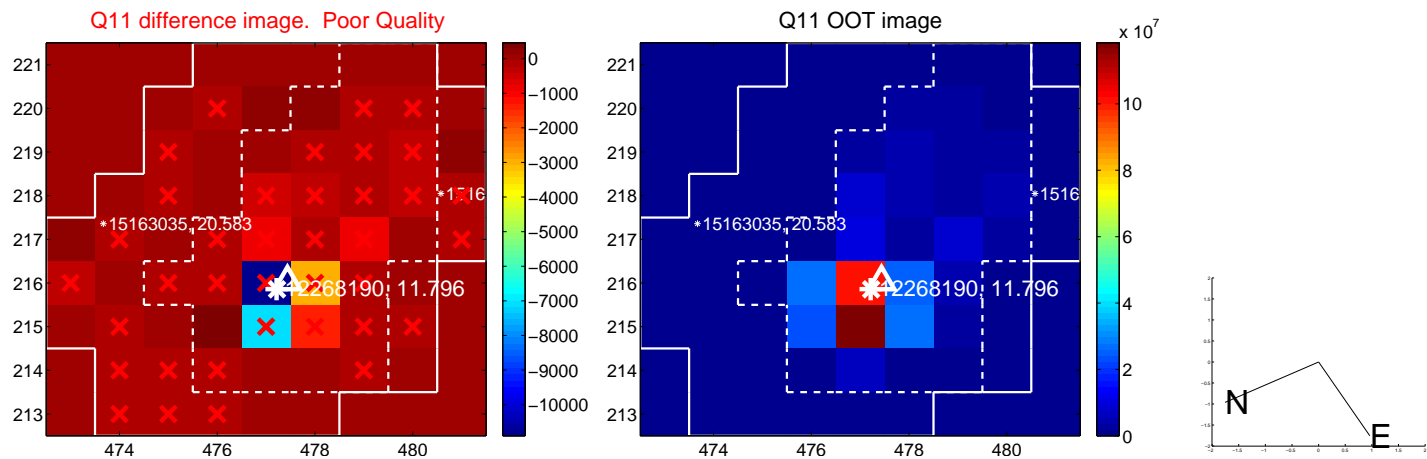
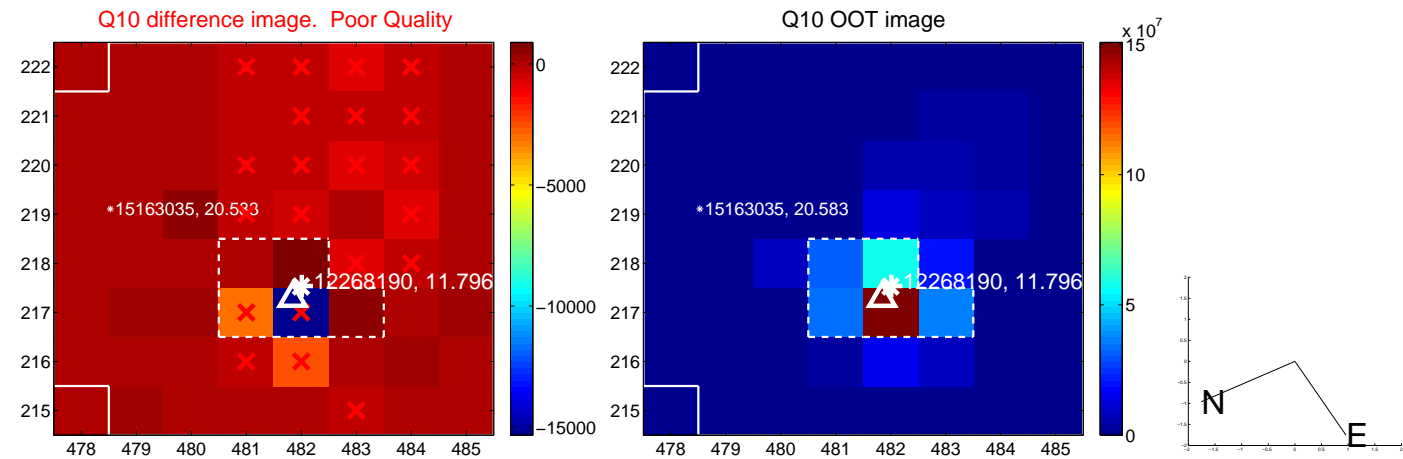
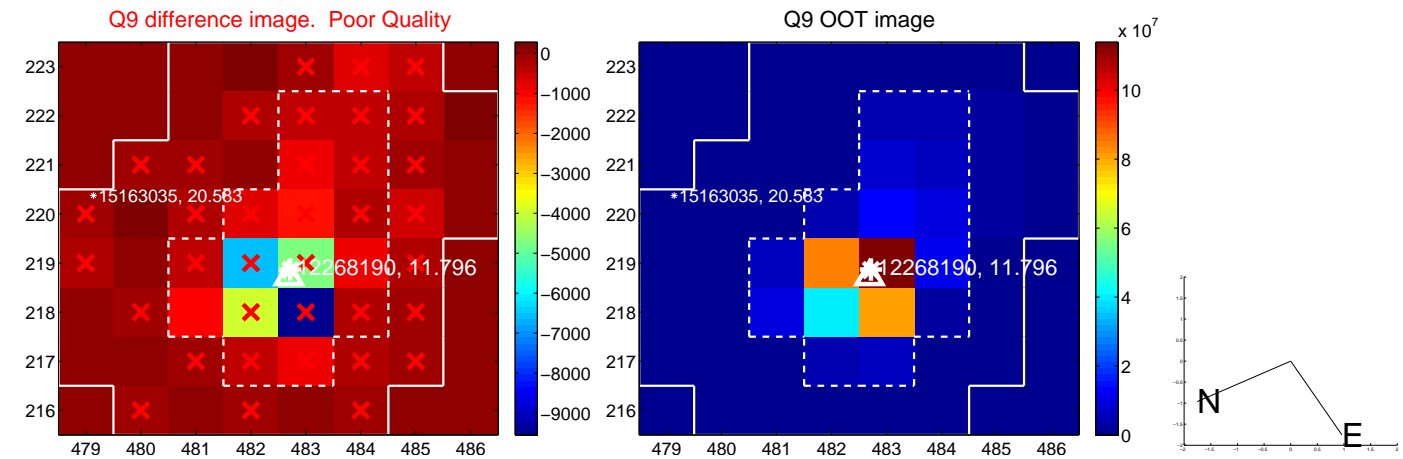
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



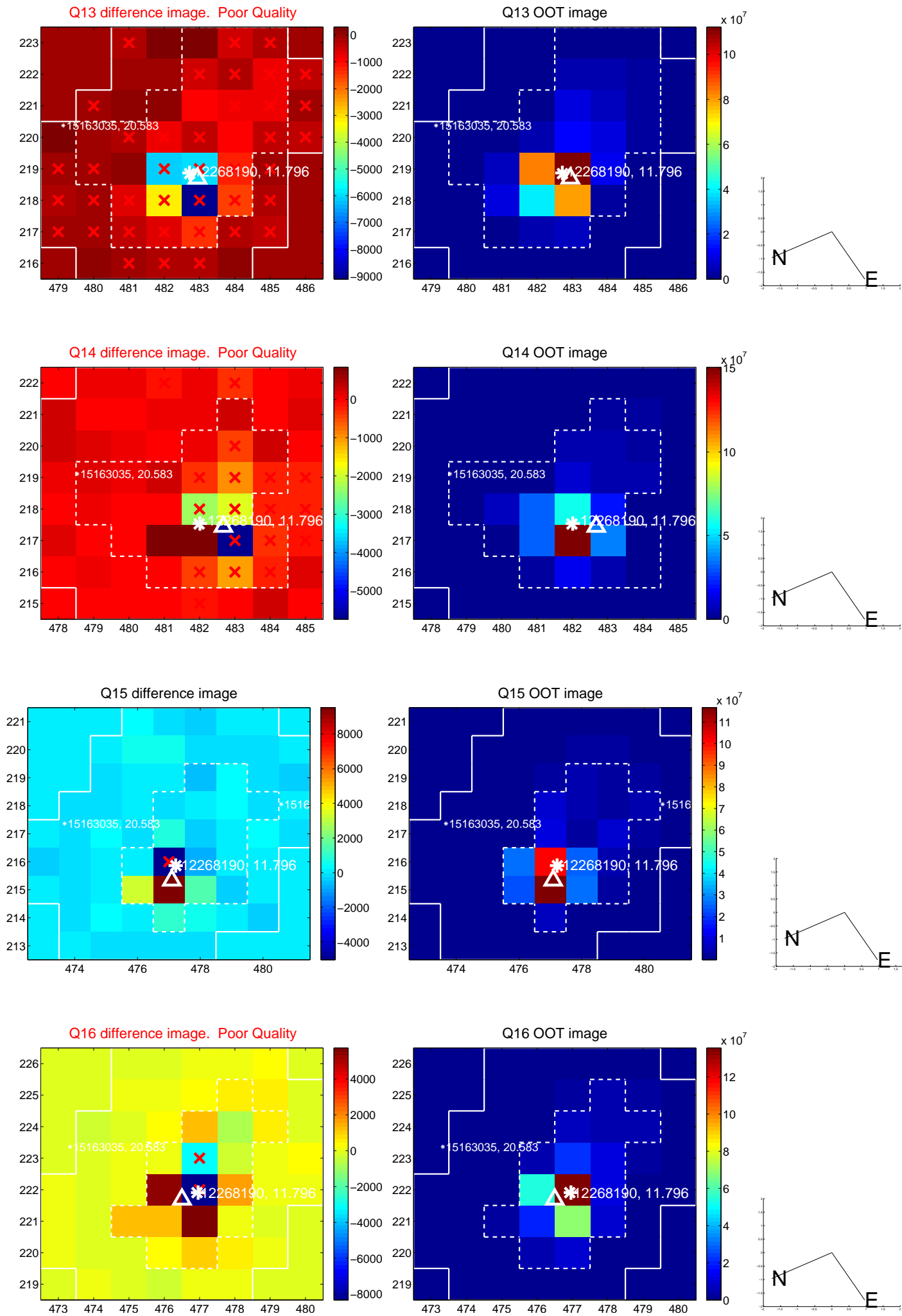
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



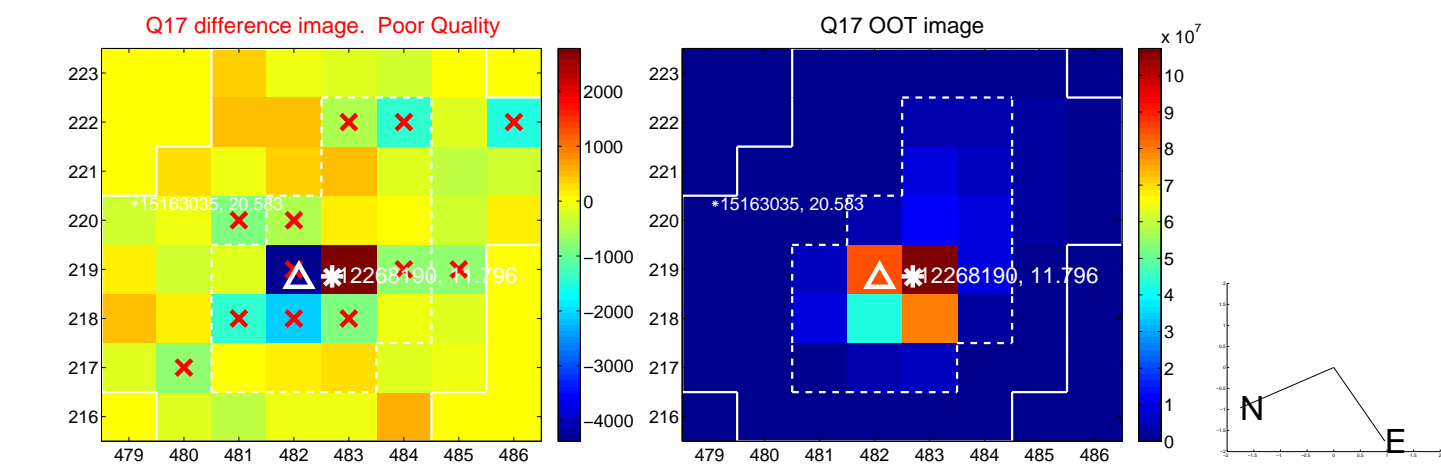
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



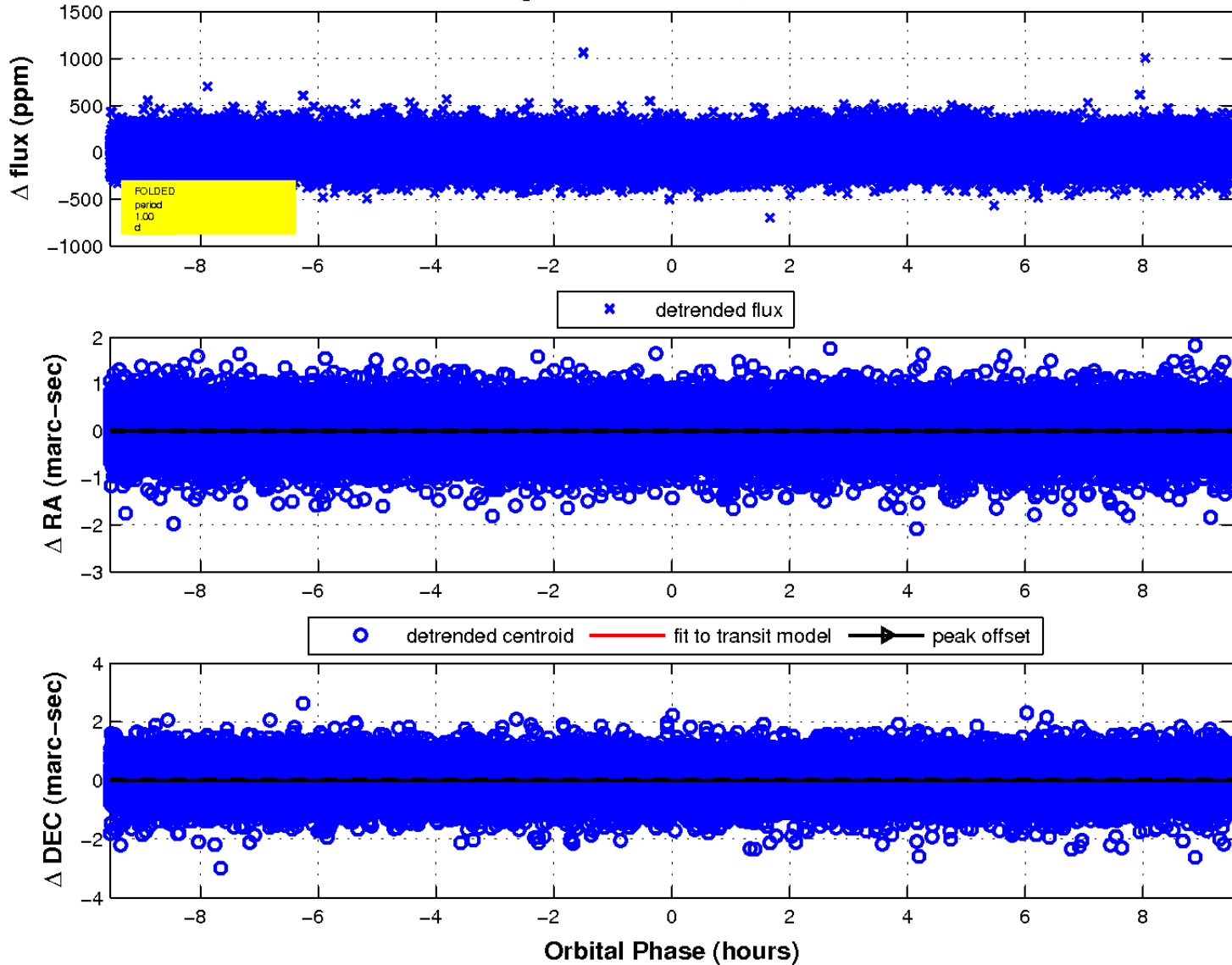
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

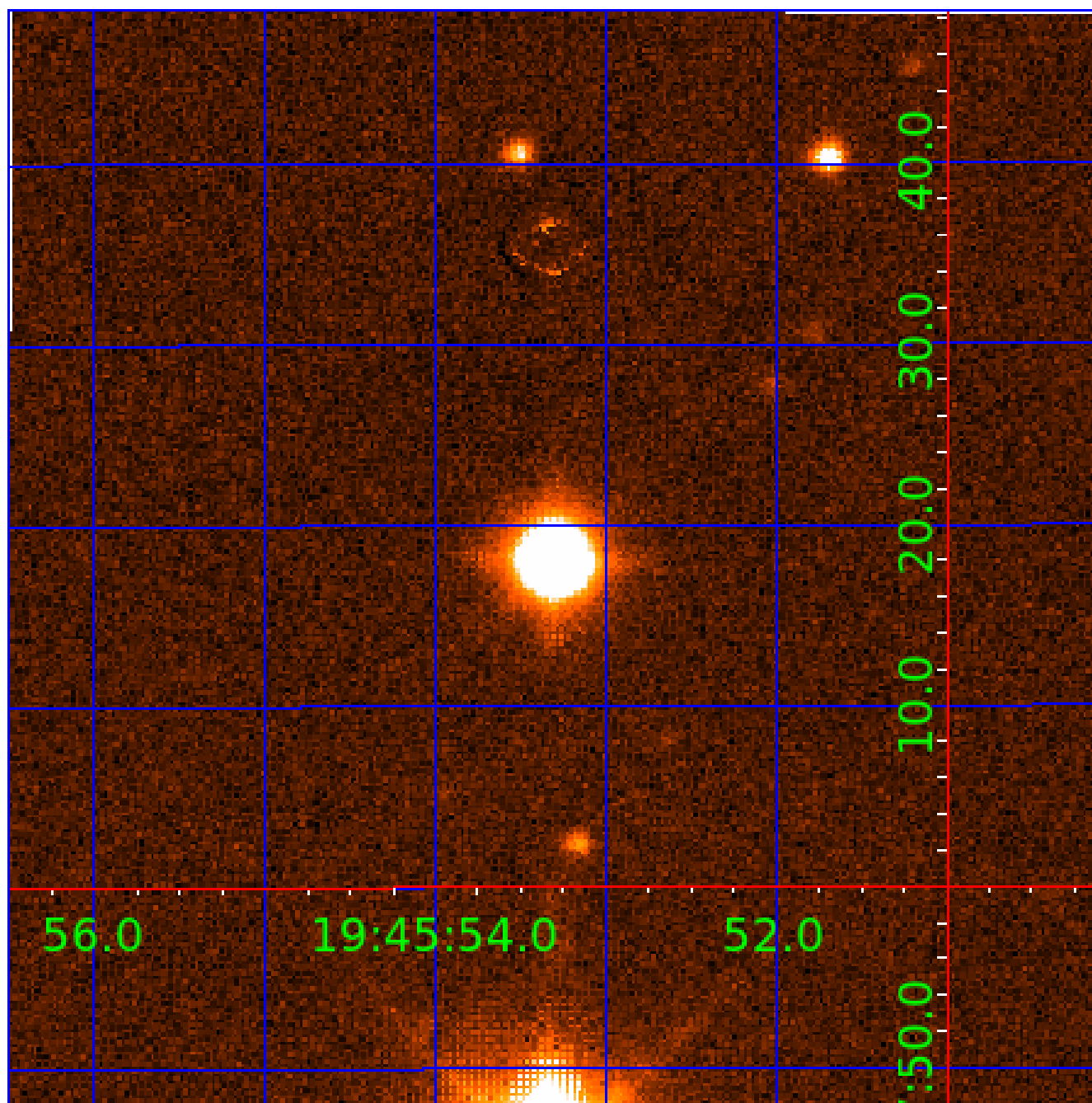


fluxWeightedCentroids, Planet 1 of 9



UKIRT Image

Declination



KIC 012268190

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})
012268190-01	OBS	No	0.995576	132.085974	23.2	3.178	11.6	11.3	3.46	6915	1.93	44370.77
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012268190-09	OBS	No	122.032579	217.908251	192.1	6.947	7.5	7.5	3.46	6915	5.32	72.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012268190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
012268190-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
012268190-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
012268190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
012268190-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012268190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

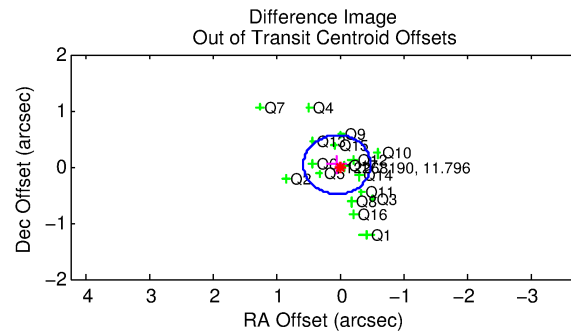
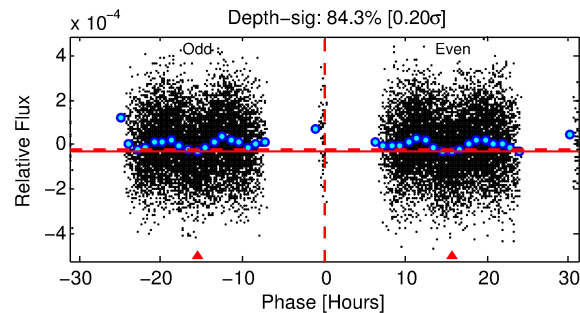
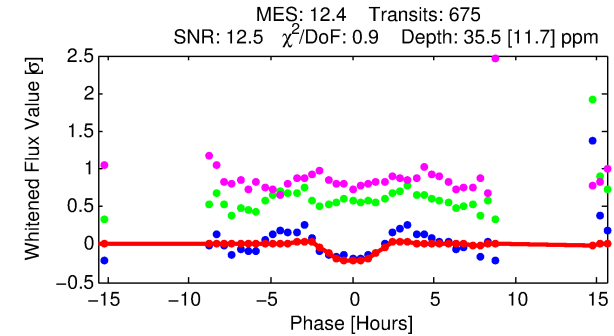
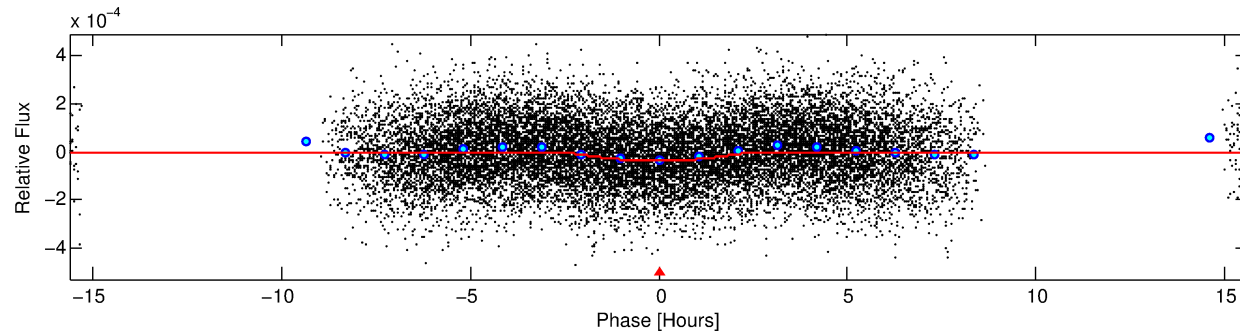
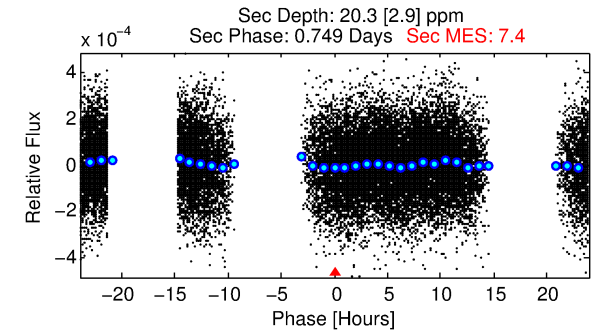
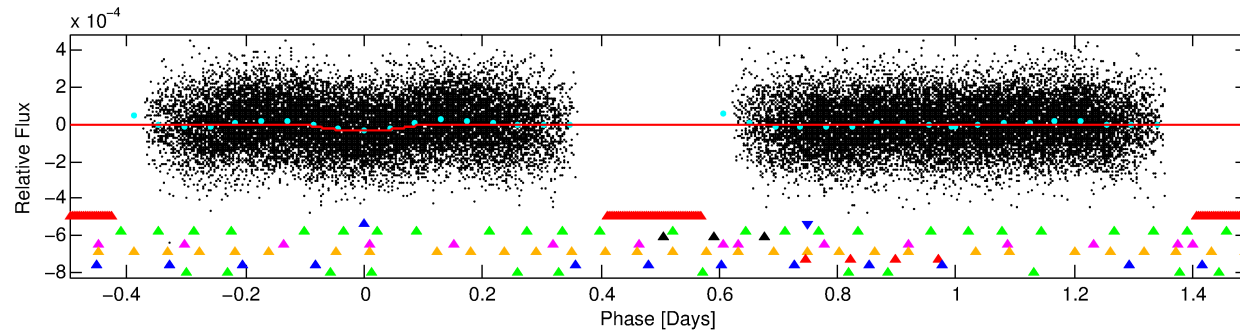
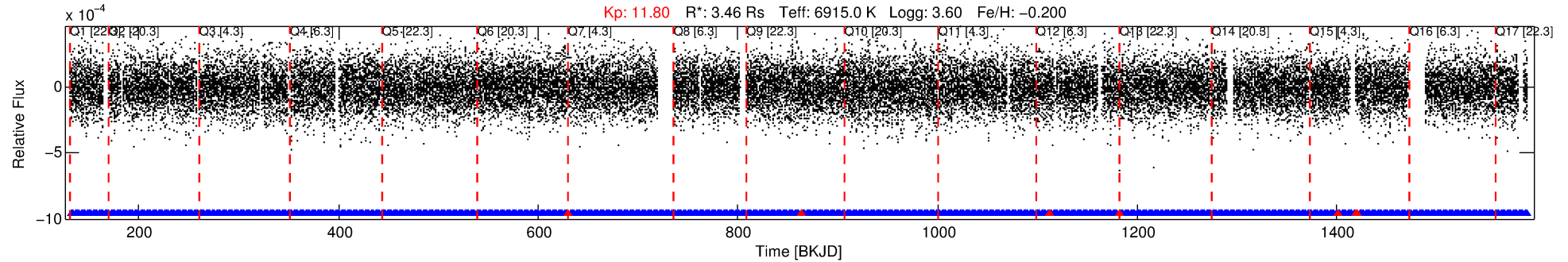
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012268190-02

No Significant Match Found

DV One-Page Summary

KIC: 12268190 Candidate: 2 of 9 Period: 1.991 d



DV Fit Results:

Period = 1.99137 [0.00002] d
Epoch = 132.5112 [0.0067] BKJD
Rp/R* = 0.0080 [0.0021]
a/R* = 1.11 [0.04]
b = 0.99 [0.01]
Seff = 17606.00 [9912.54]
Teq = 2937 [413] K
Rp = 3.01 [1.33] Re
a = 0.0373 [0.0128] AU
Ag = 1.72 [1.33] [0.54σ]
Teffp = 5197 [722] K [2.72σ]

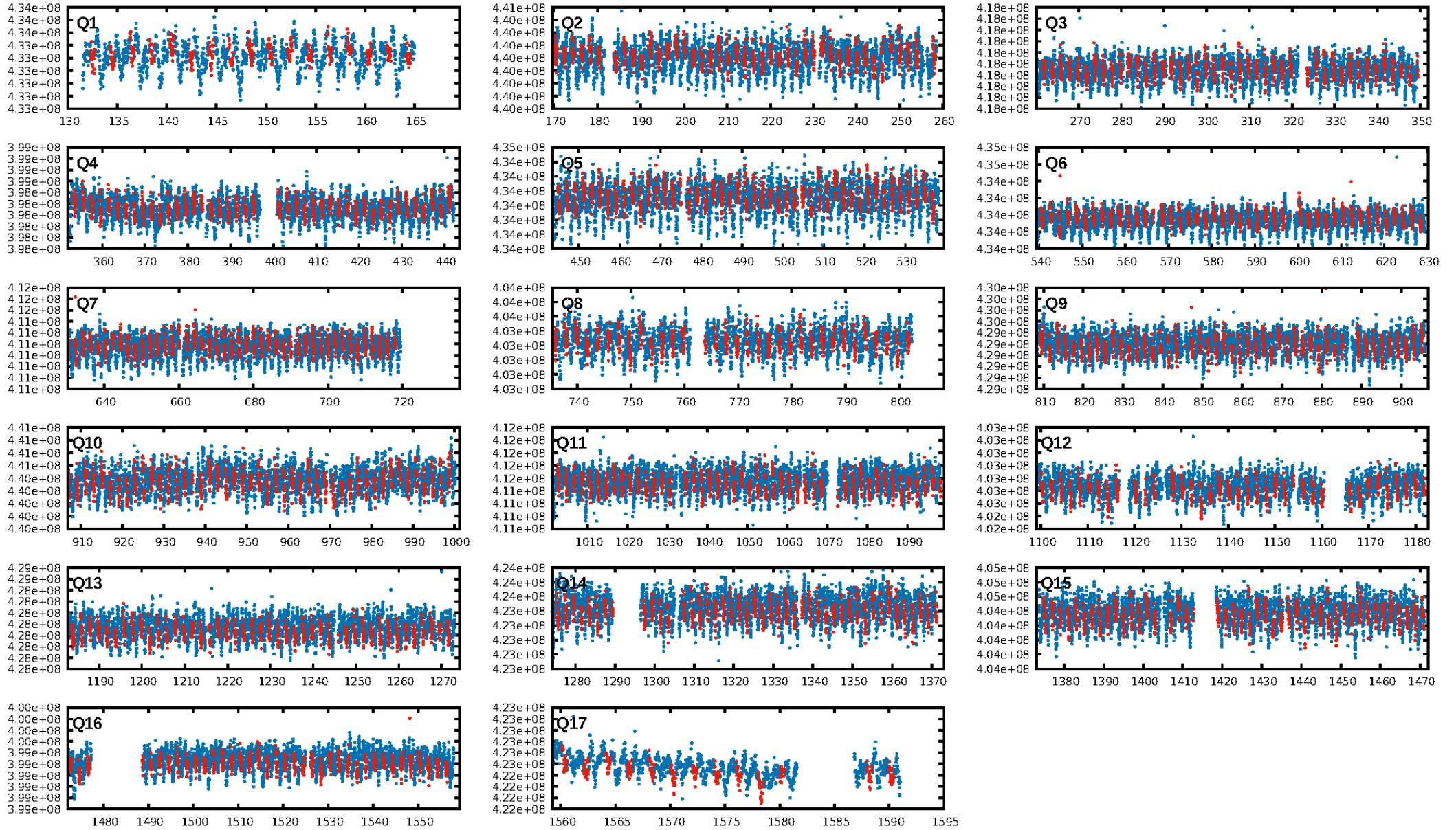
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [3.92σ]
LongPeriod-sig: 100.0% [78.35σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.91e-18
RollingBand-fgt: 0.99 [638/645]
GhostDiagnostic-chr: 1.925
Centroid-sig: 0.5%
Centroid-so: 1.172 arcsec [2.06σ]
OotOffset-rm: 0.068 arcsec [0.39σ]
KicOffset-rm: 0.044 arcsec [0.31σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

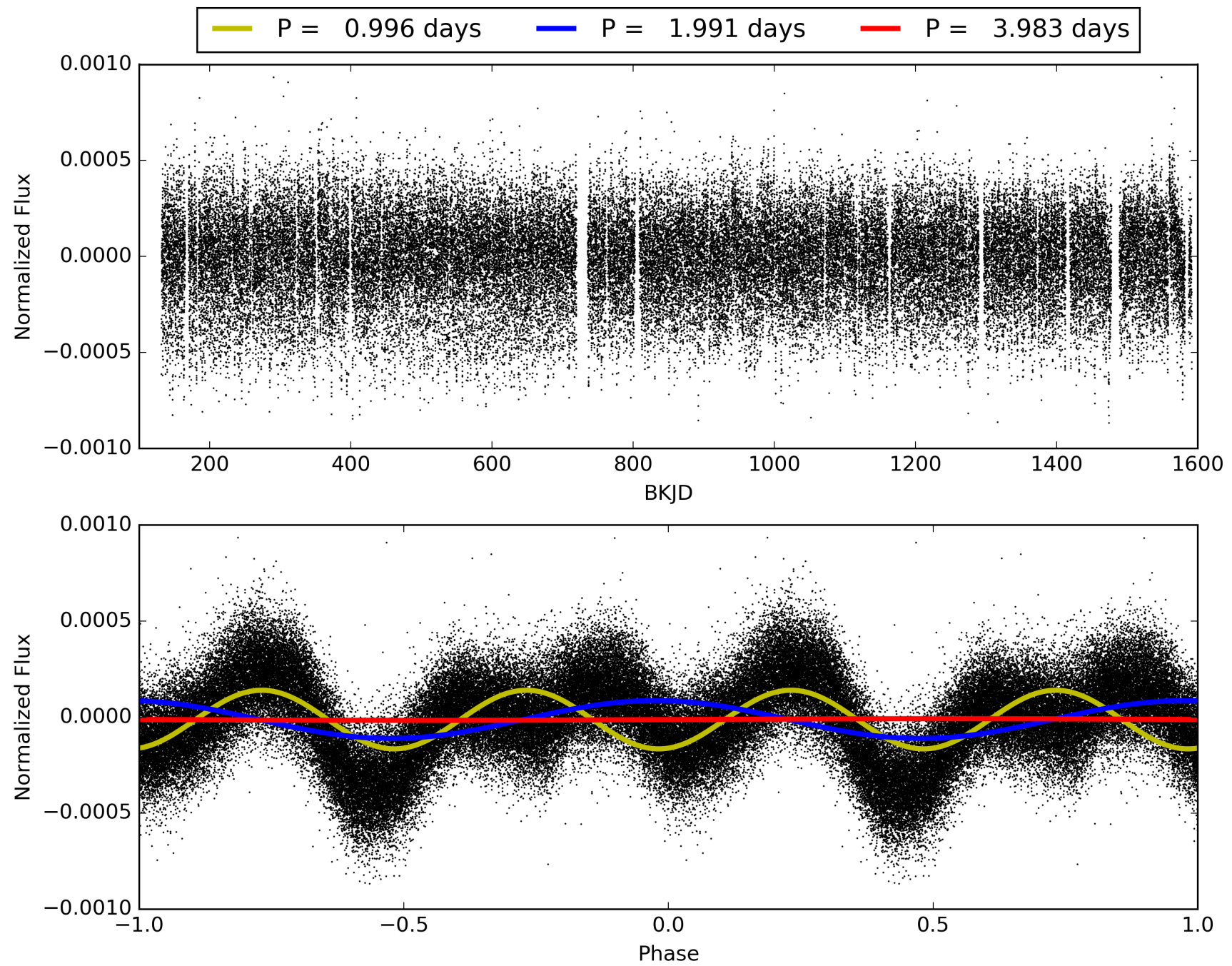
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:16:30 Z

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

TCE 012268190-02, PDC Light Curves

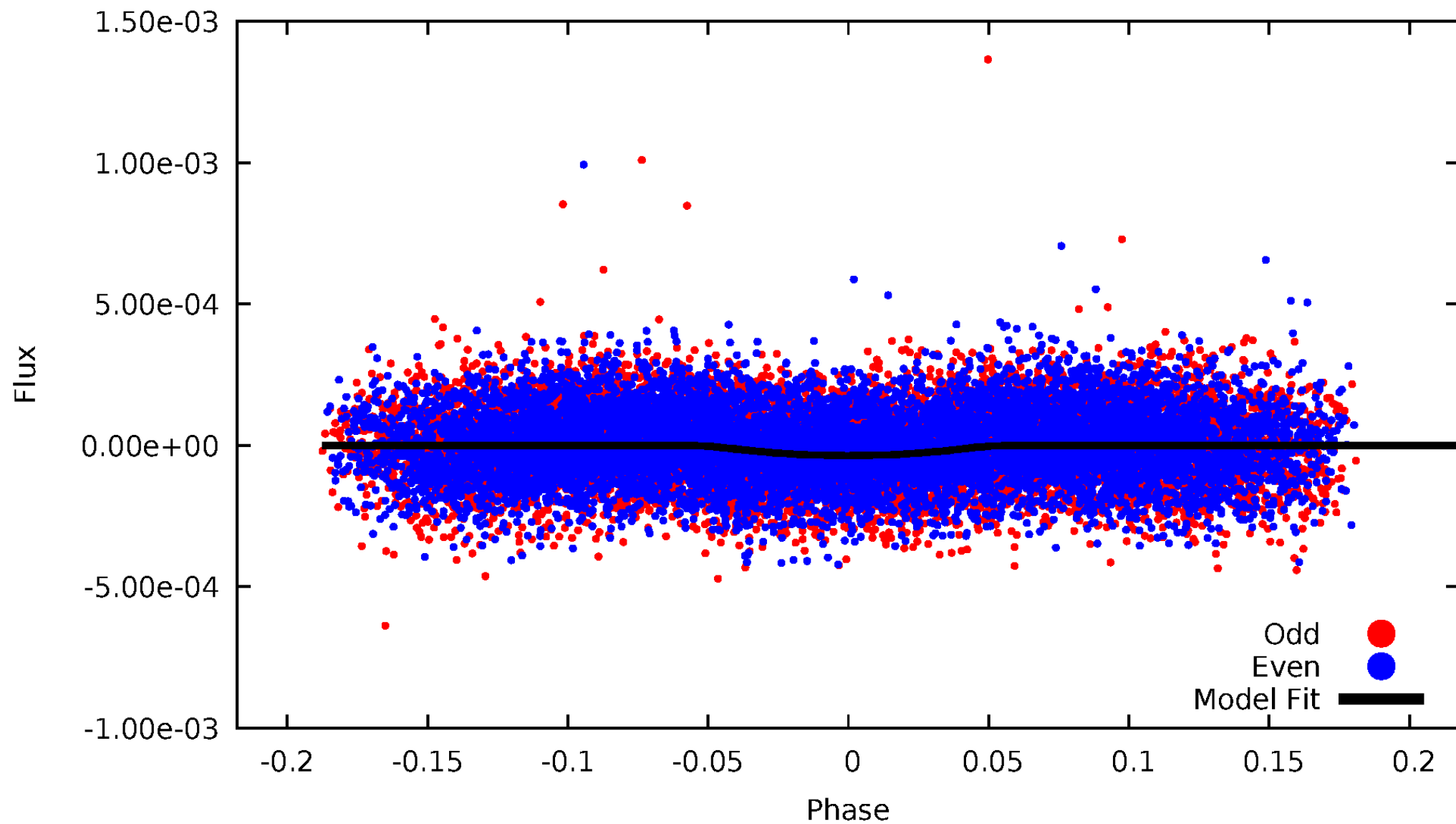


TCE 012268190-02



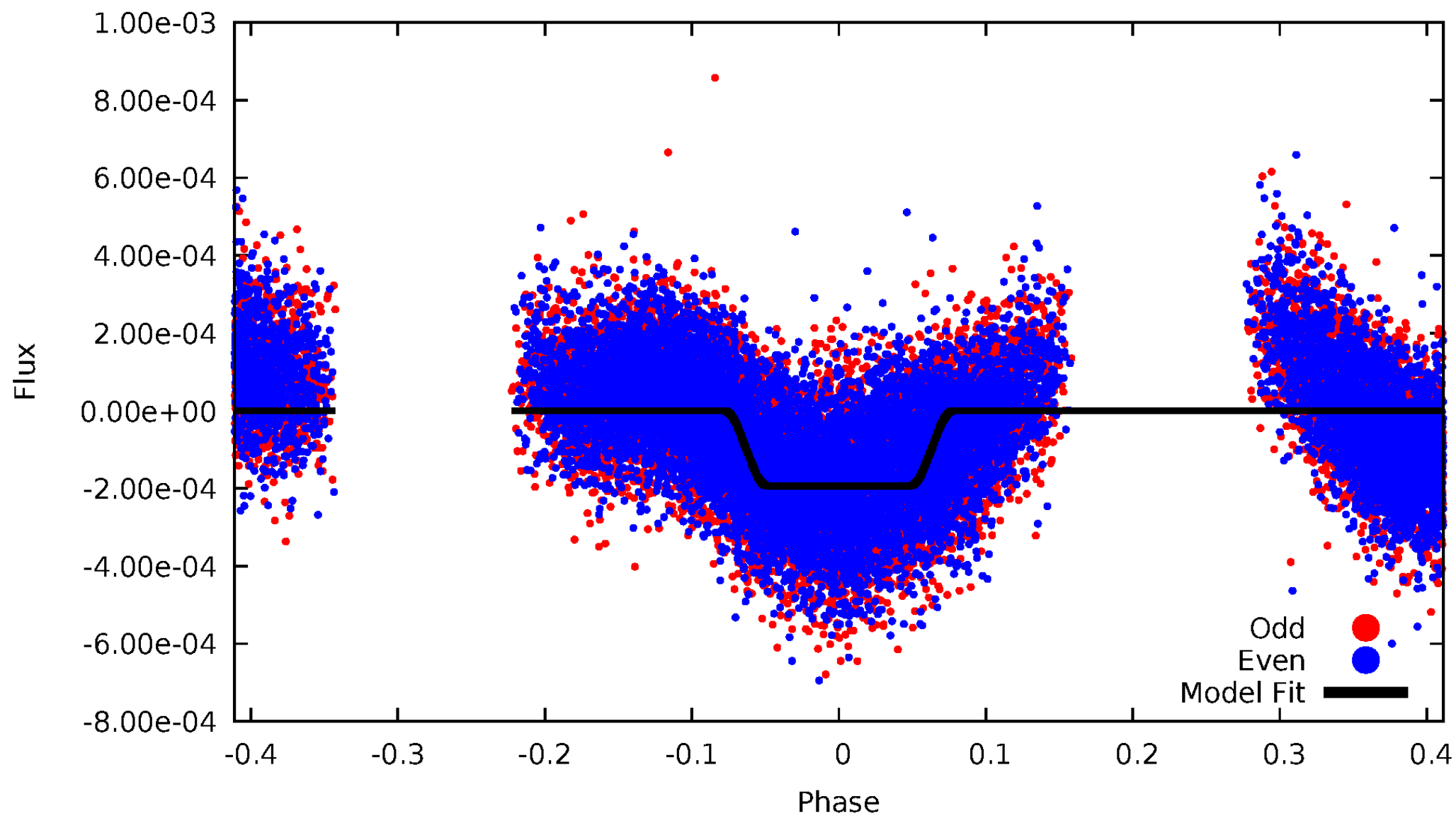
DV Odd/Even

TCE 012268190-02



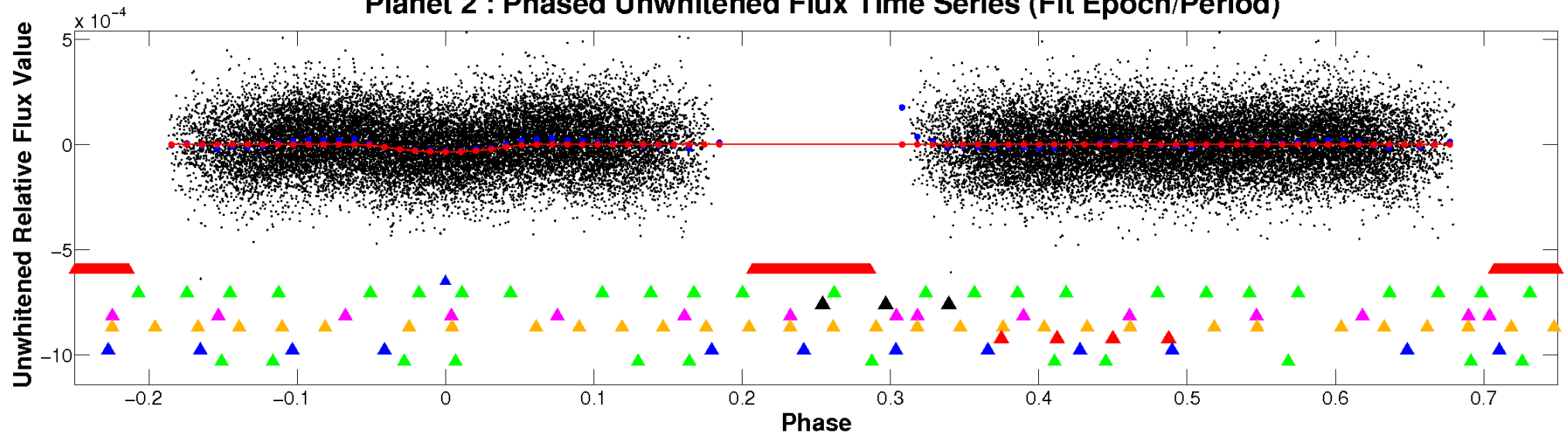
ALT Odd/Even

TCE 012268190-02

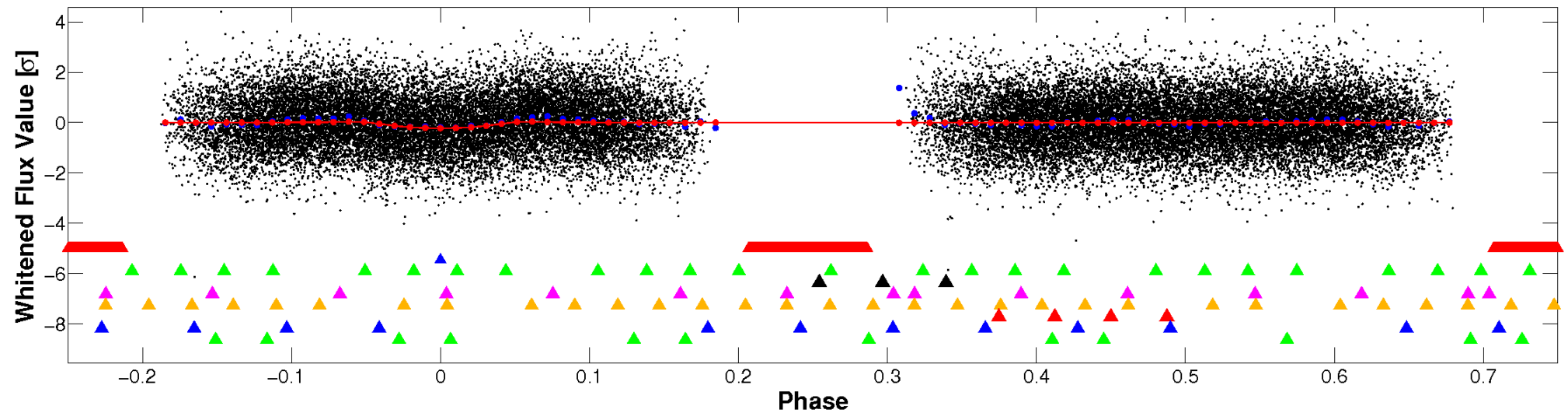


Non-Whitened Vs. Whitened Light Curve

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

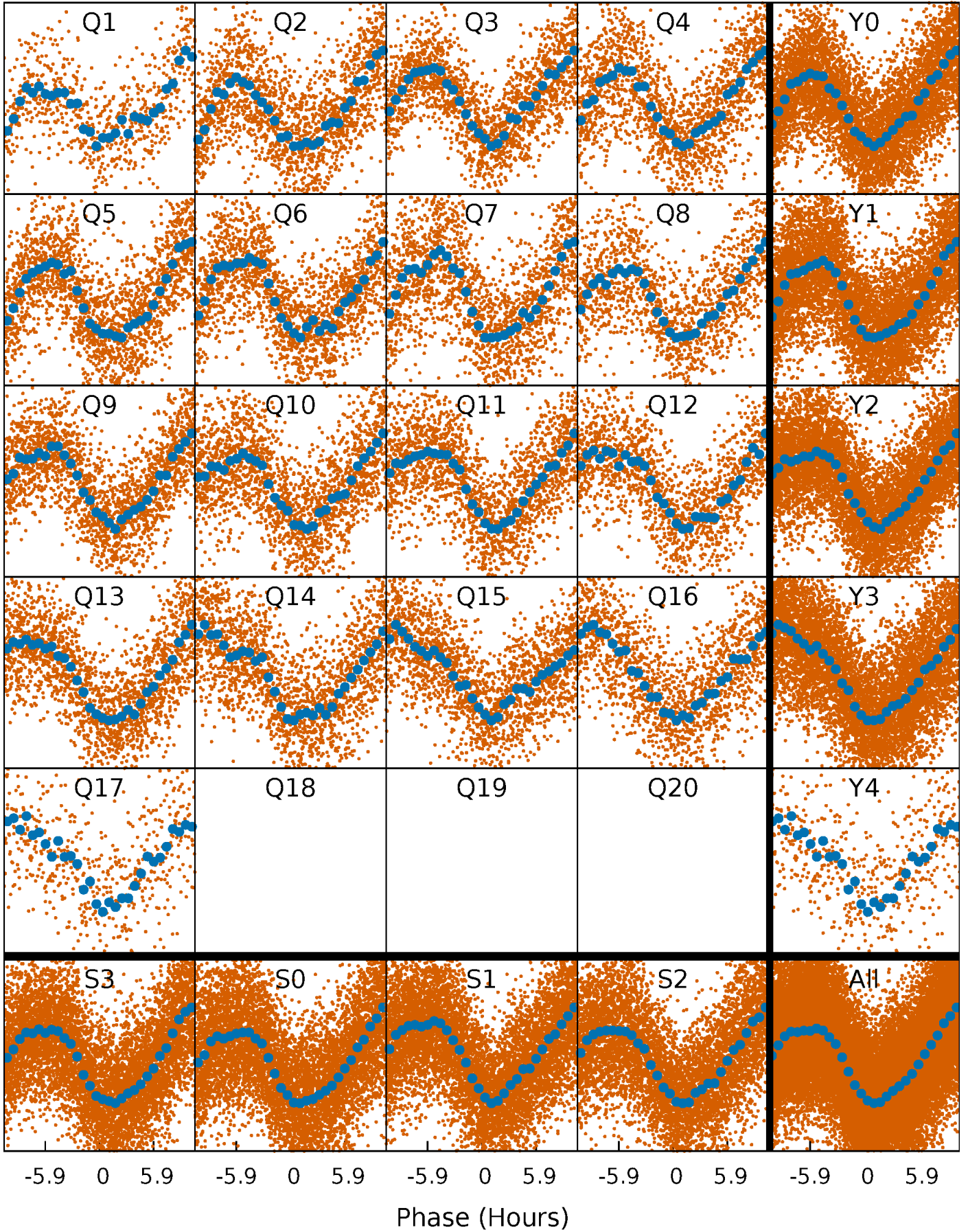


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



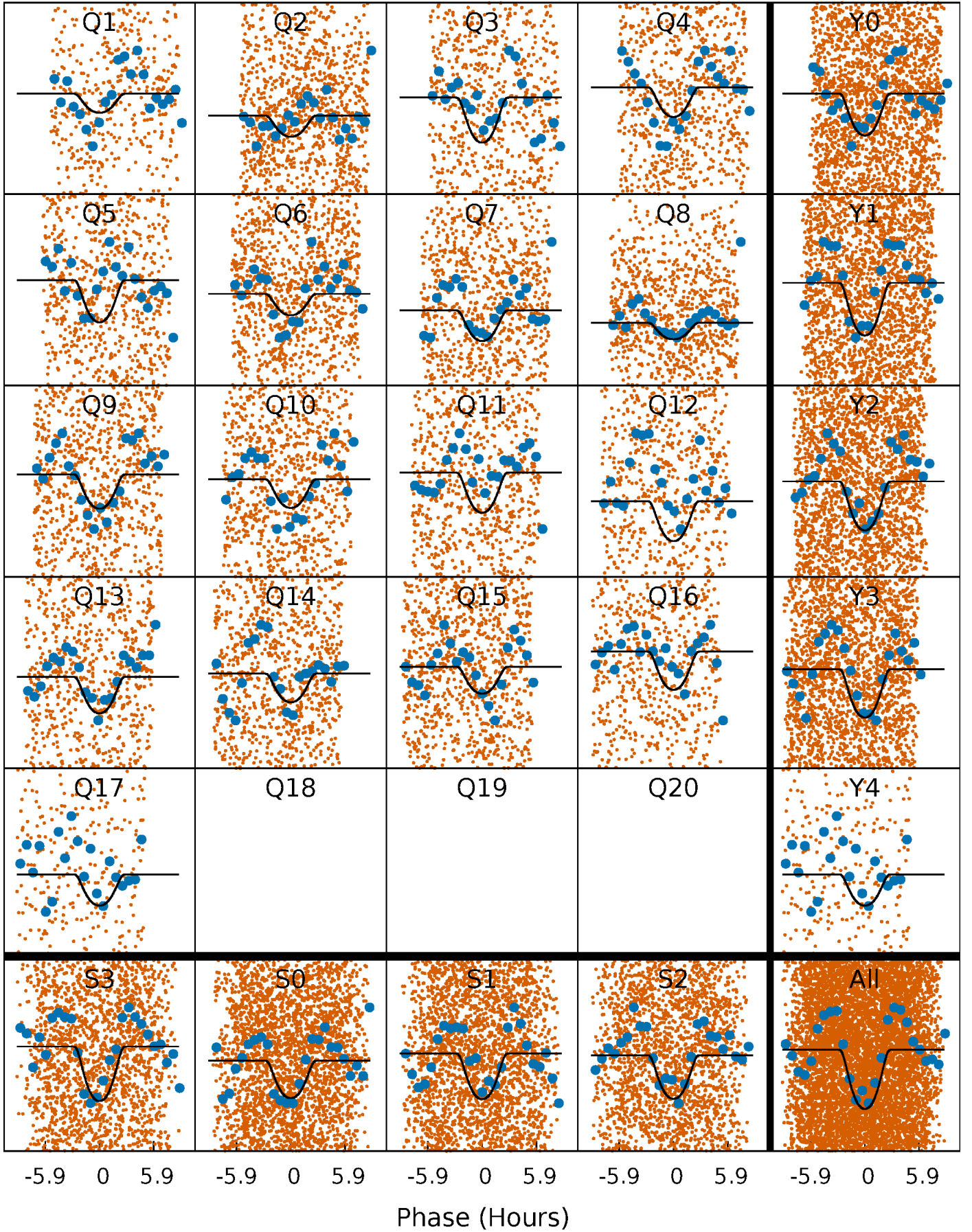
PDC Quarter-Phased Transit Curves

TCE 012268190-02 P= 1.991368 Days $T_0=132.511186$ (BKJD)



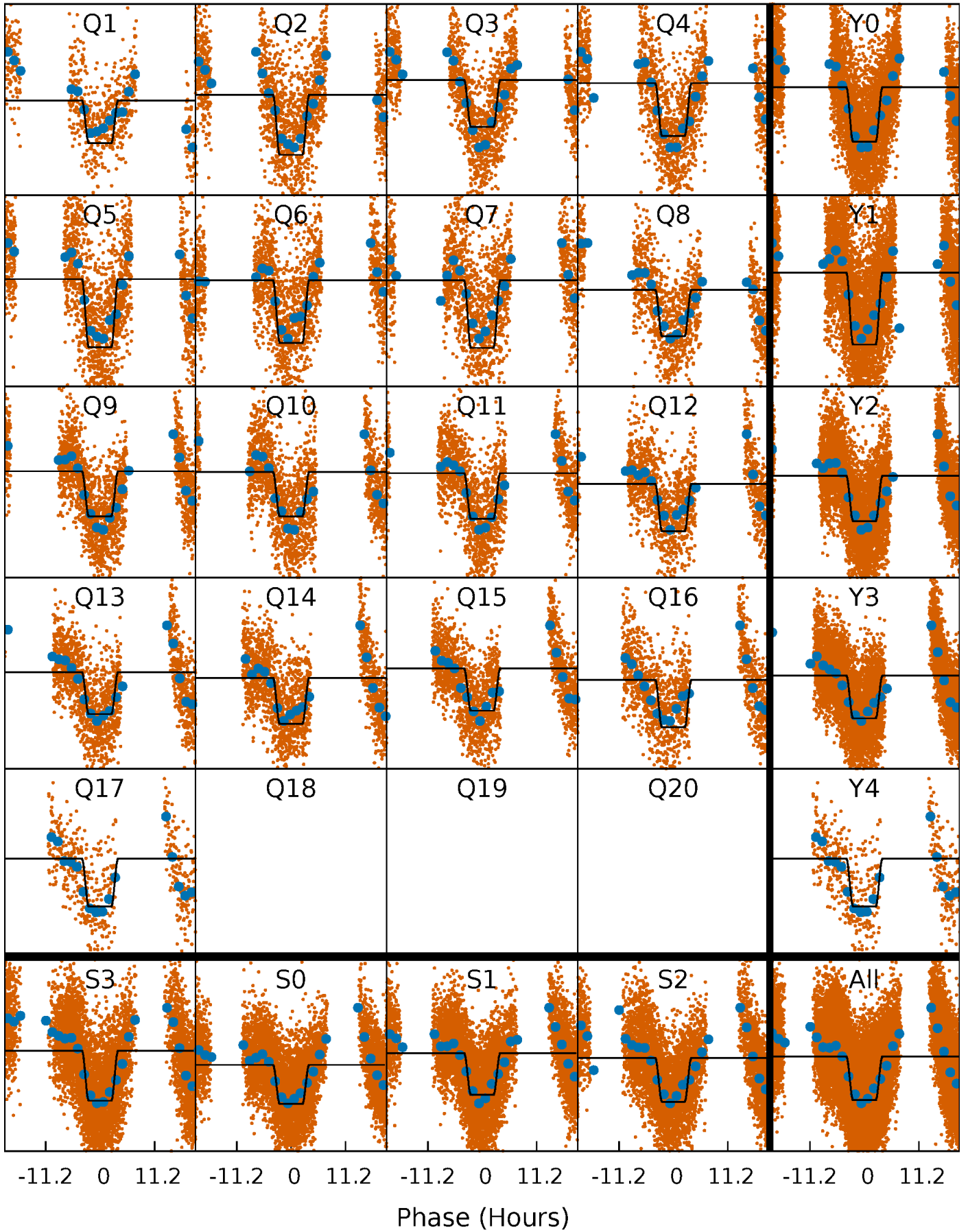
DV Quarter-Phased Transit Curves

TCE 012268190-02 P= 1.991368 Days $T_0=132.511186$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

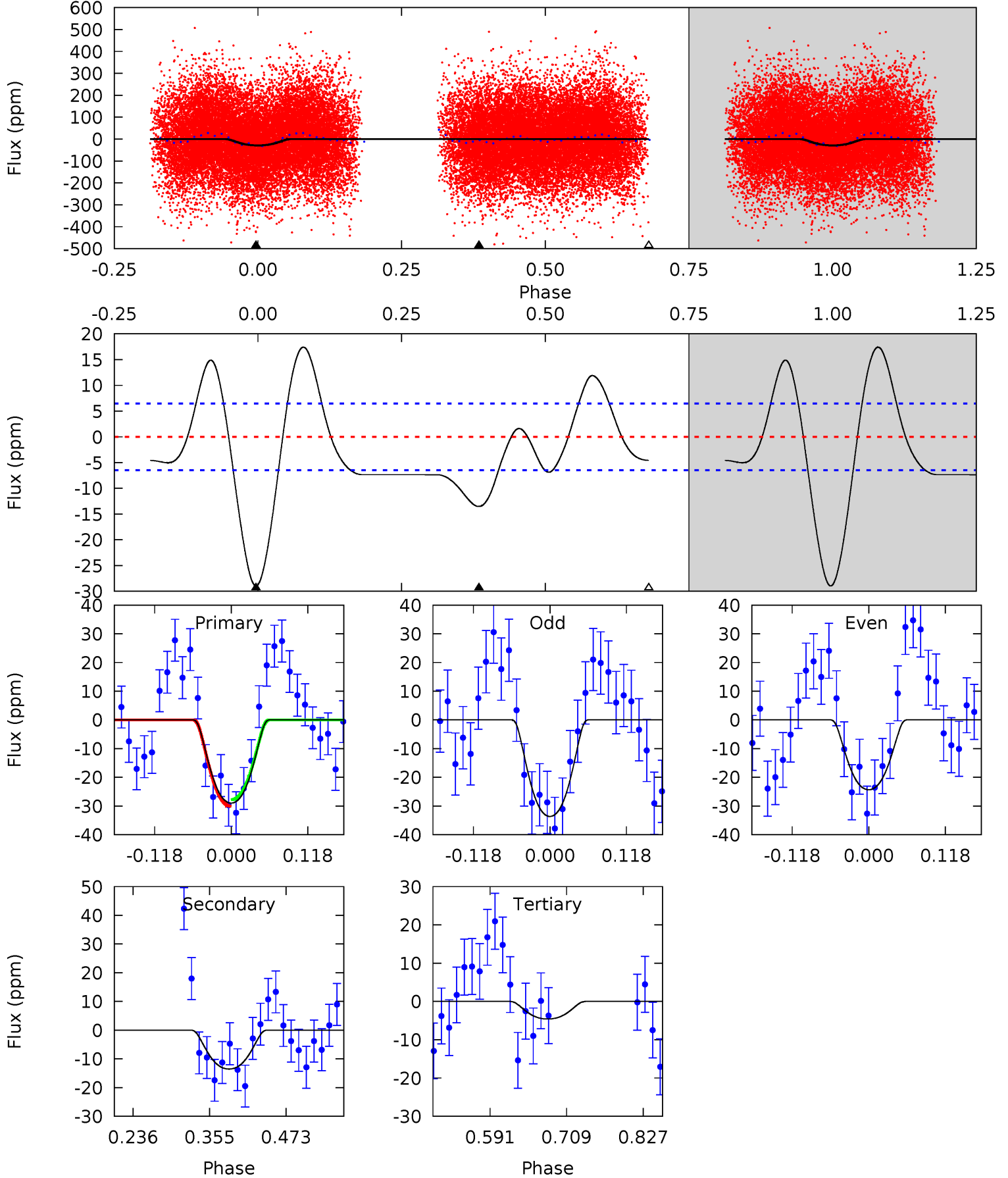
TCE 012268190-02 $P = 1.991402$ Days $T_0 = 132.556314$ (BKJD)



DV Model-Shift Uniqueness Test

012268190-02, P = 1.991368 Days, E = 130.519818 Days

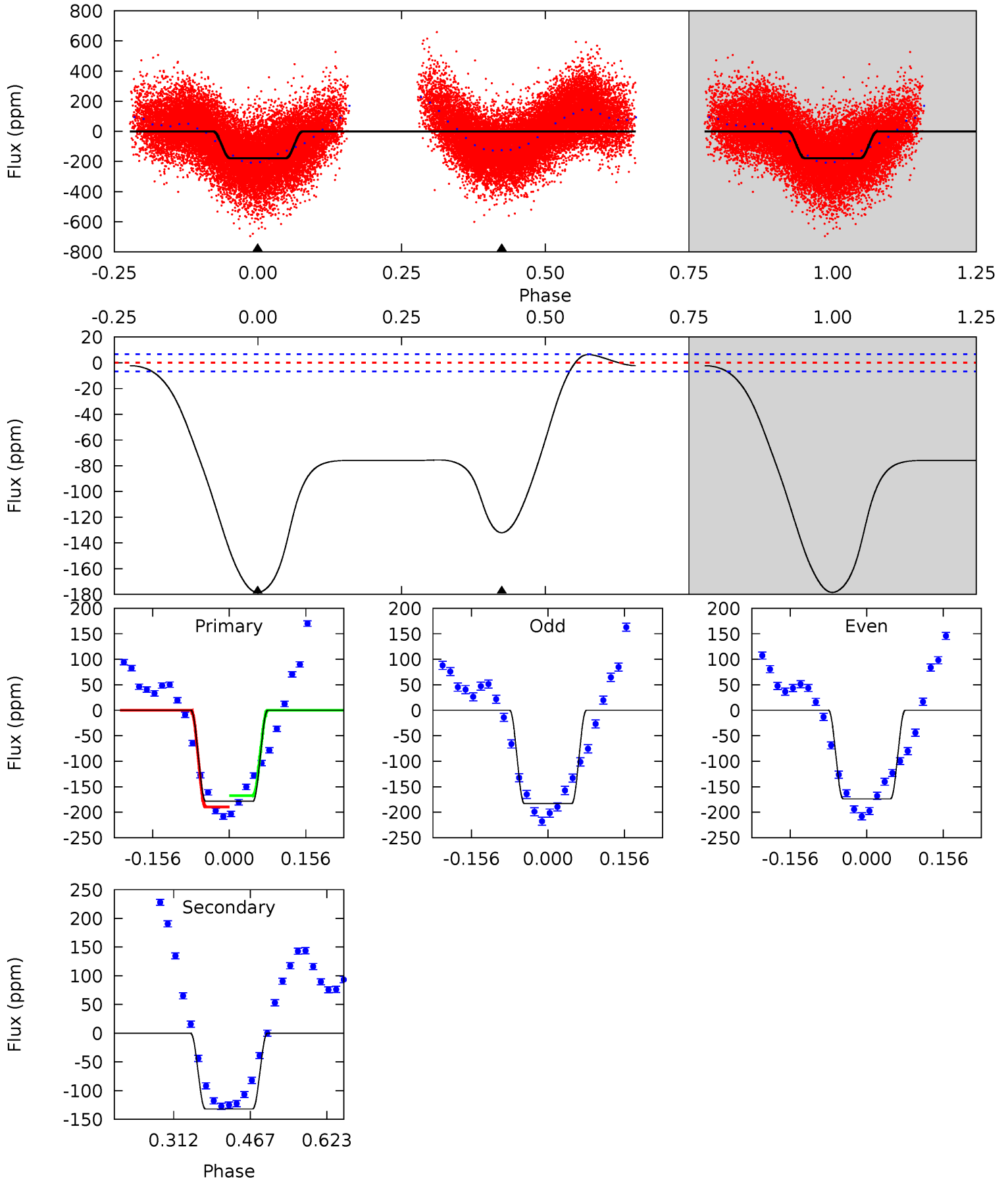
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.2	9.45	3.20	0	4.53	1.56	4.29	17.0	20.2	6.25	9.45	3.25	1.11	0.38	0.79



Alt Model-Shift Uniqueness Test

012268190-02, P = 1.991402 Days, E = 130.564912 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
119.1	88.1	0	0	4.47	1.42	5.14	119.1	119.1	88.1	88.1	3.07	1.03	0.03	7.38



Stellar Parameters For KIC 012268190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6915^{+187}_{-207}	$3.602^{+0.323}_{-0.057}$	$-0.200^{+0.300}_{-0.250}$	$3.457^{+0.412}_{-1.236}$	$1.742^{+0.182}_{-0.339}$	$0.059^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+150%/-125%	+12%/-36%	+10%/-19%	+231%/-19%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 012268190-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-14 ± 1	$2.76^{+0.88}_{-0.86}$	4010^{+193}_{-372}	4532^{+791}_{-550}	$1.348^{+1.372}_{-0.571}$
Alt.	-132 ± 1	$4.80^{+1.10}_{-1.10}$	3981^{+238}_{-379}	6161^{+602}_{-464}	$4.457^{+2.716}_{-1.439}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

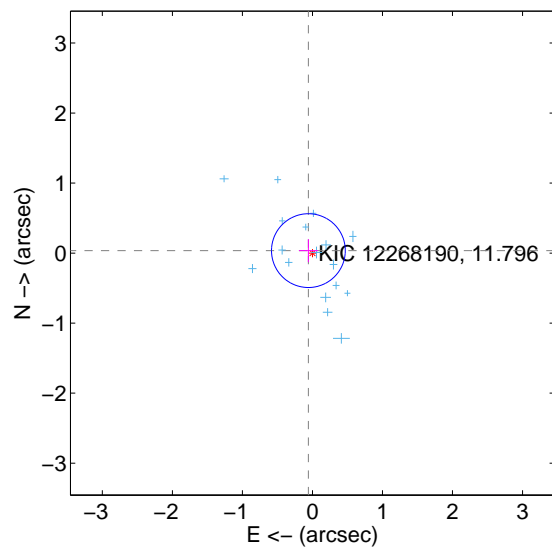
Supplemental centroid analysis for 012268190-02. **Kepler magnitude: 11.80.** Transit SNR 12.49

There are 17 quarters with good PRF difference image offsets

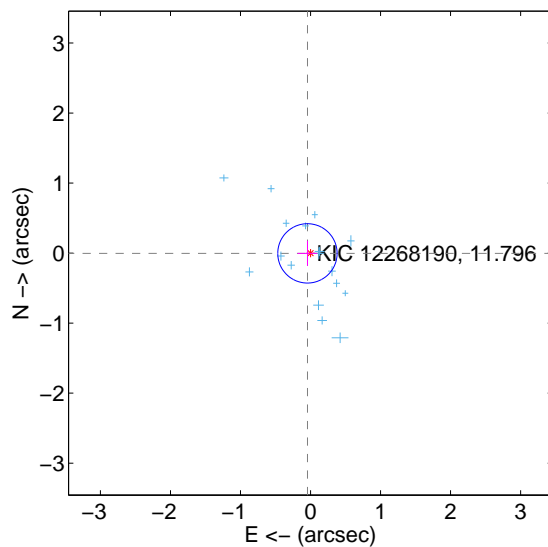
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.068 ± 0.176	0.39	0.058 ± 0.135	0.035 ± 0.164
PRF-fit source offset from KIC position	0.044 ± 0.141	0.31	0.044 ± 0.141	-0.004 ± 0.180
photometric centroid source offset	1.17 ± 0.57	2.06	-0.58 ± 0.47	-1.02 ± 0.60

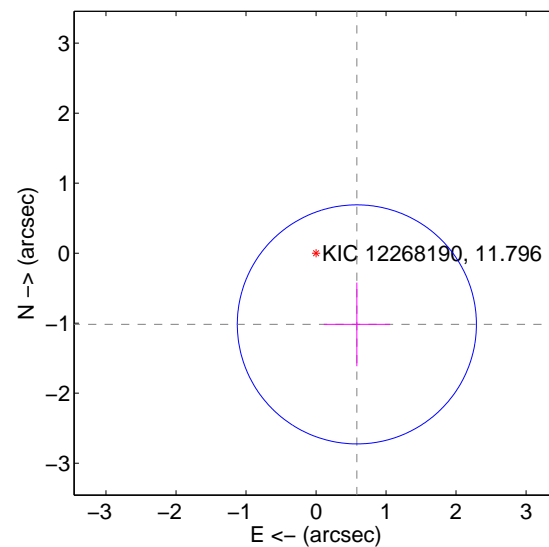
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

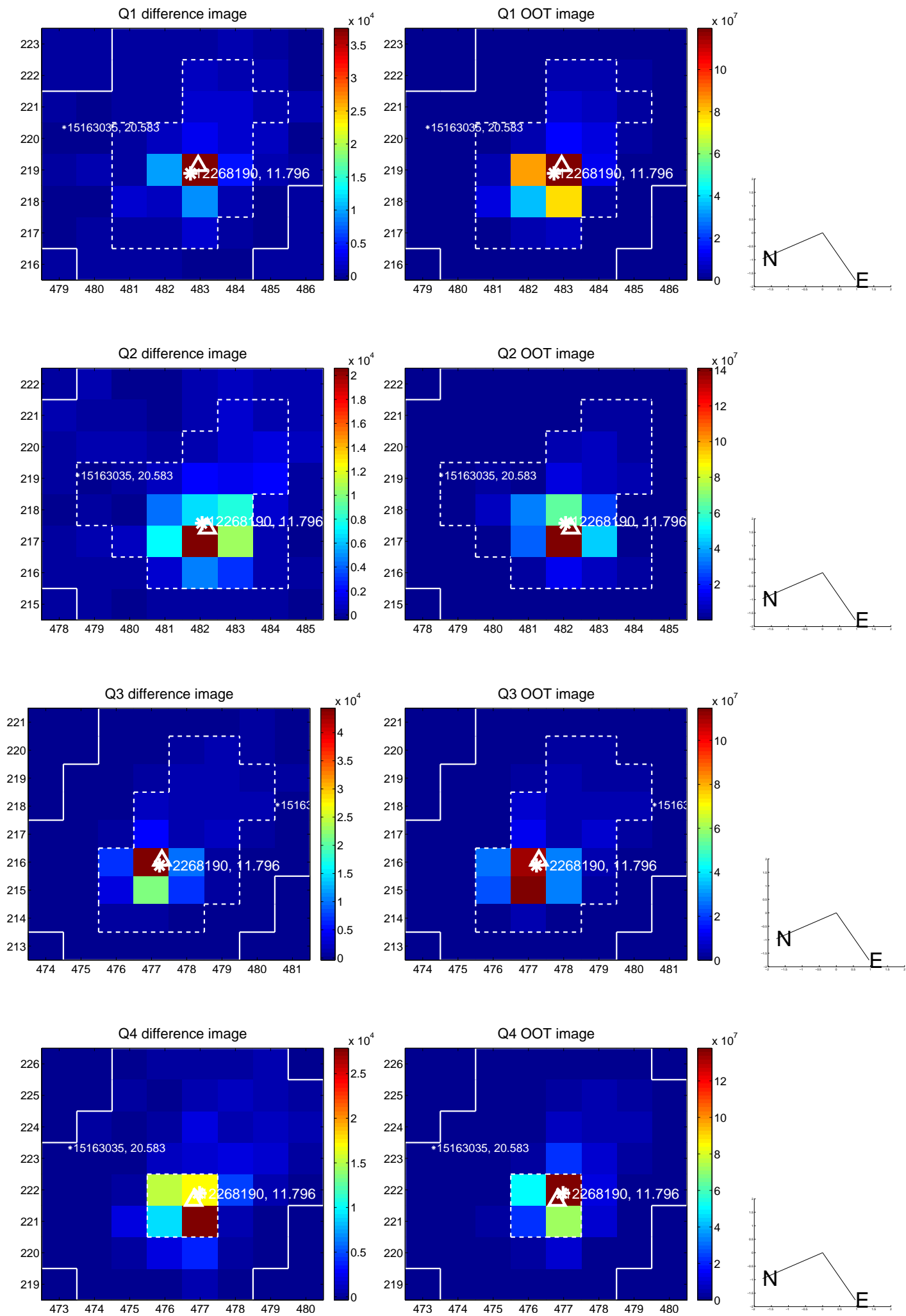


offset from photometric centroids

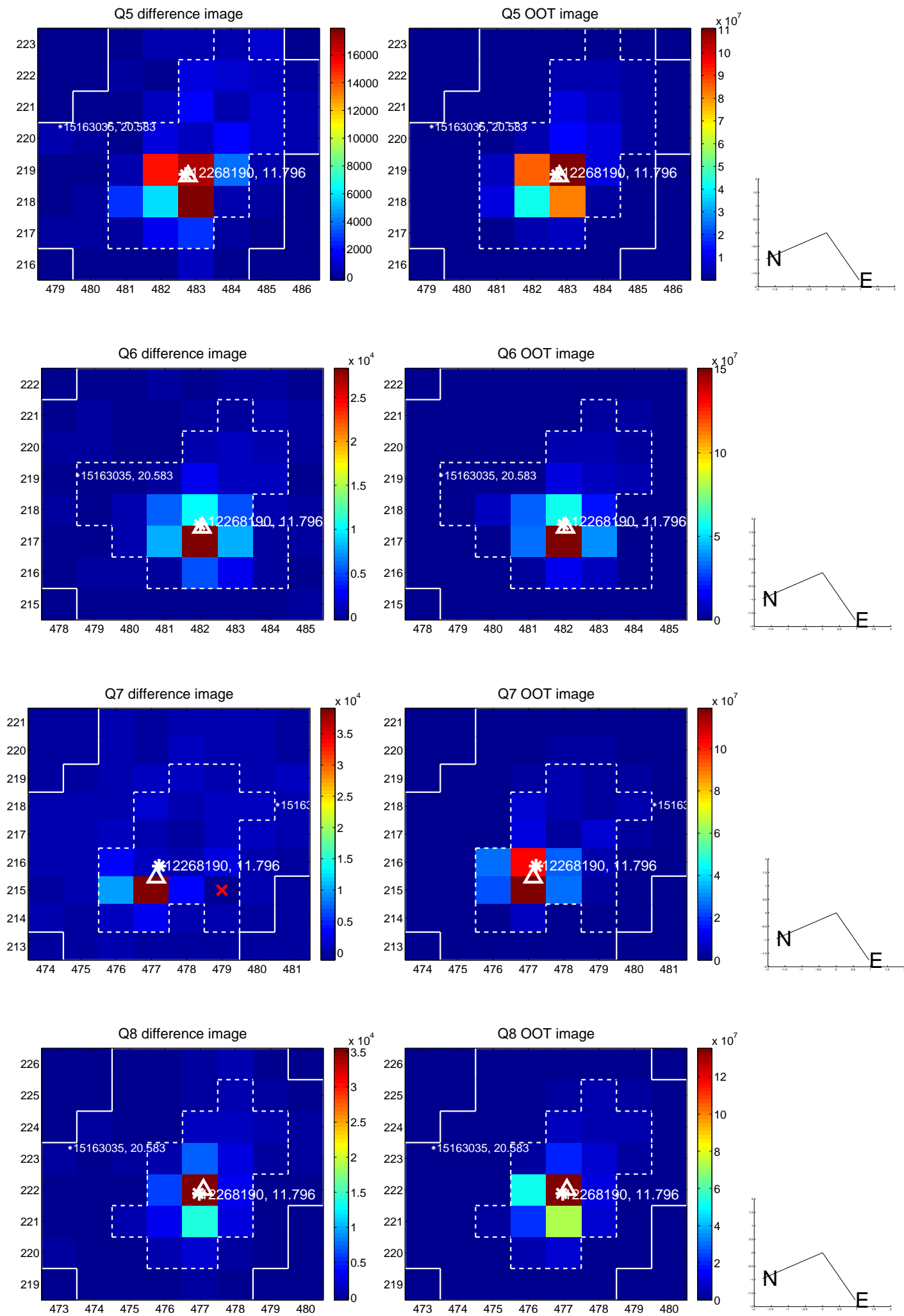


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

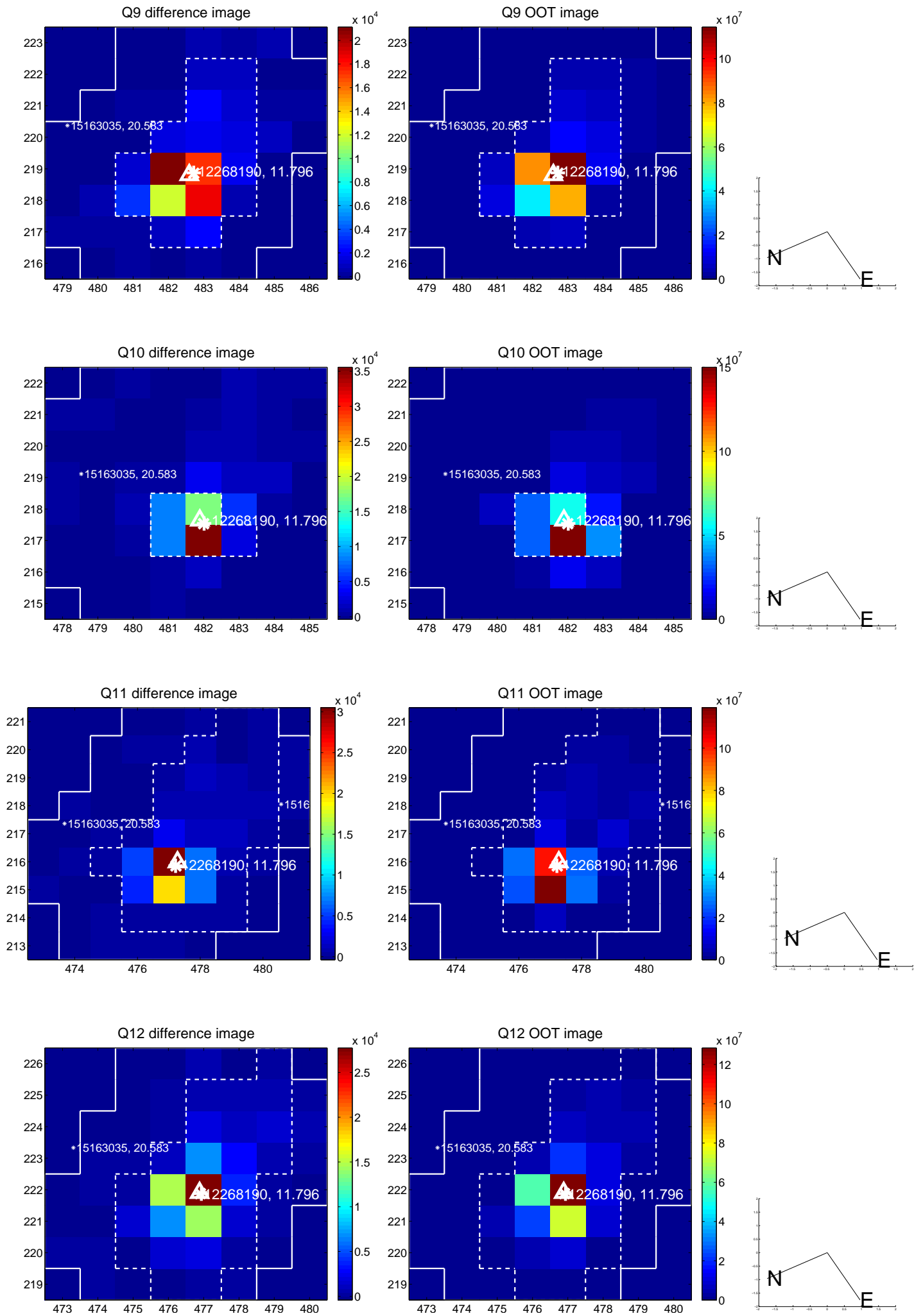
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



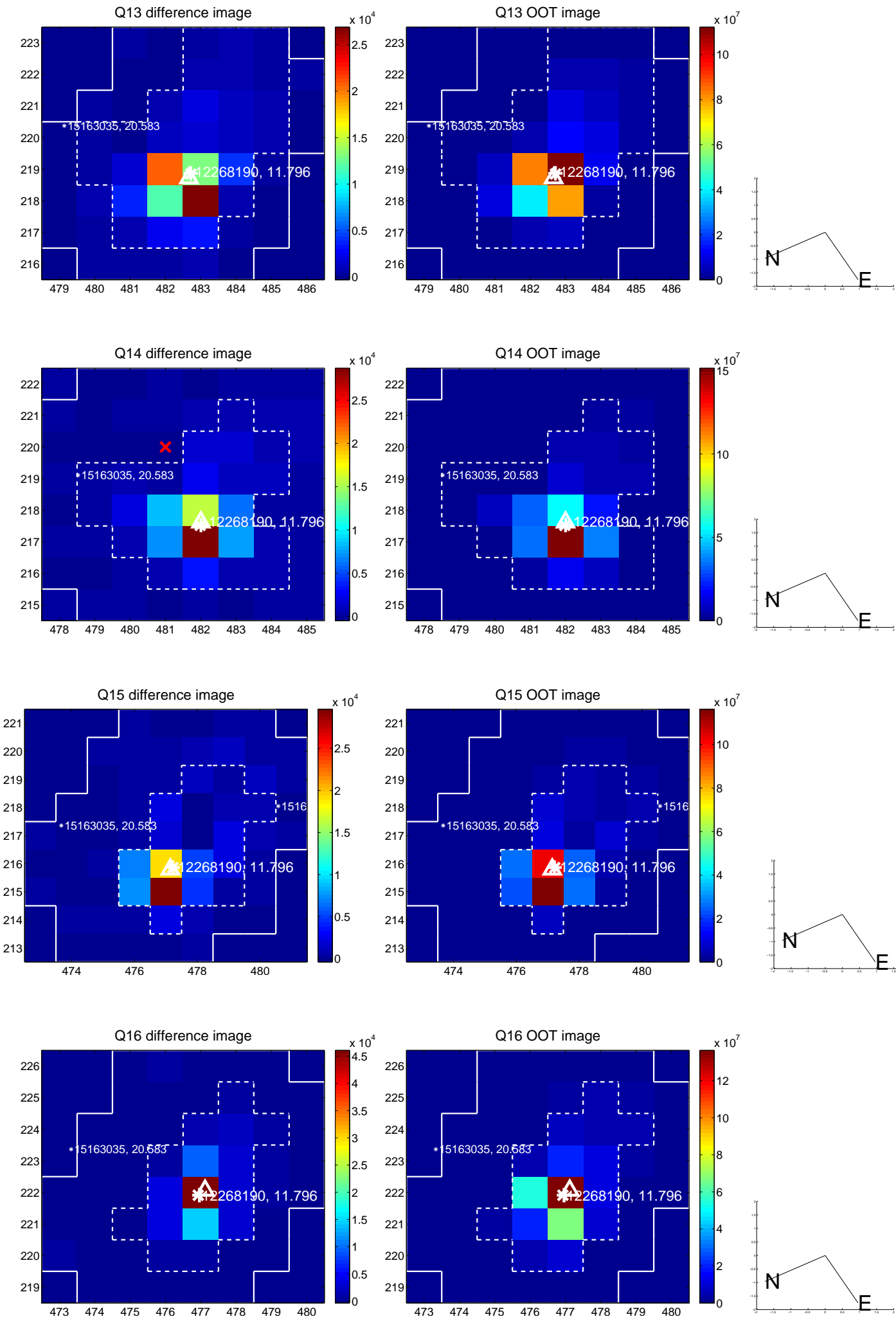
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



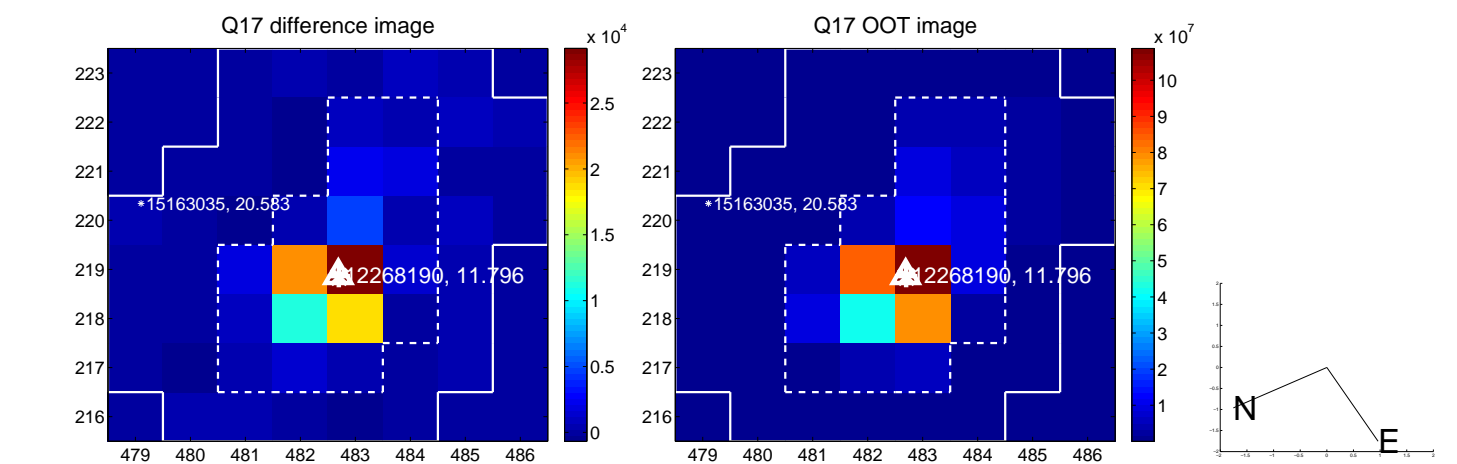
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



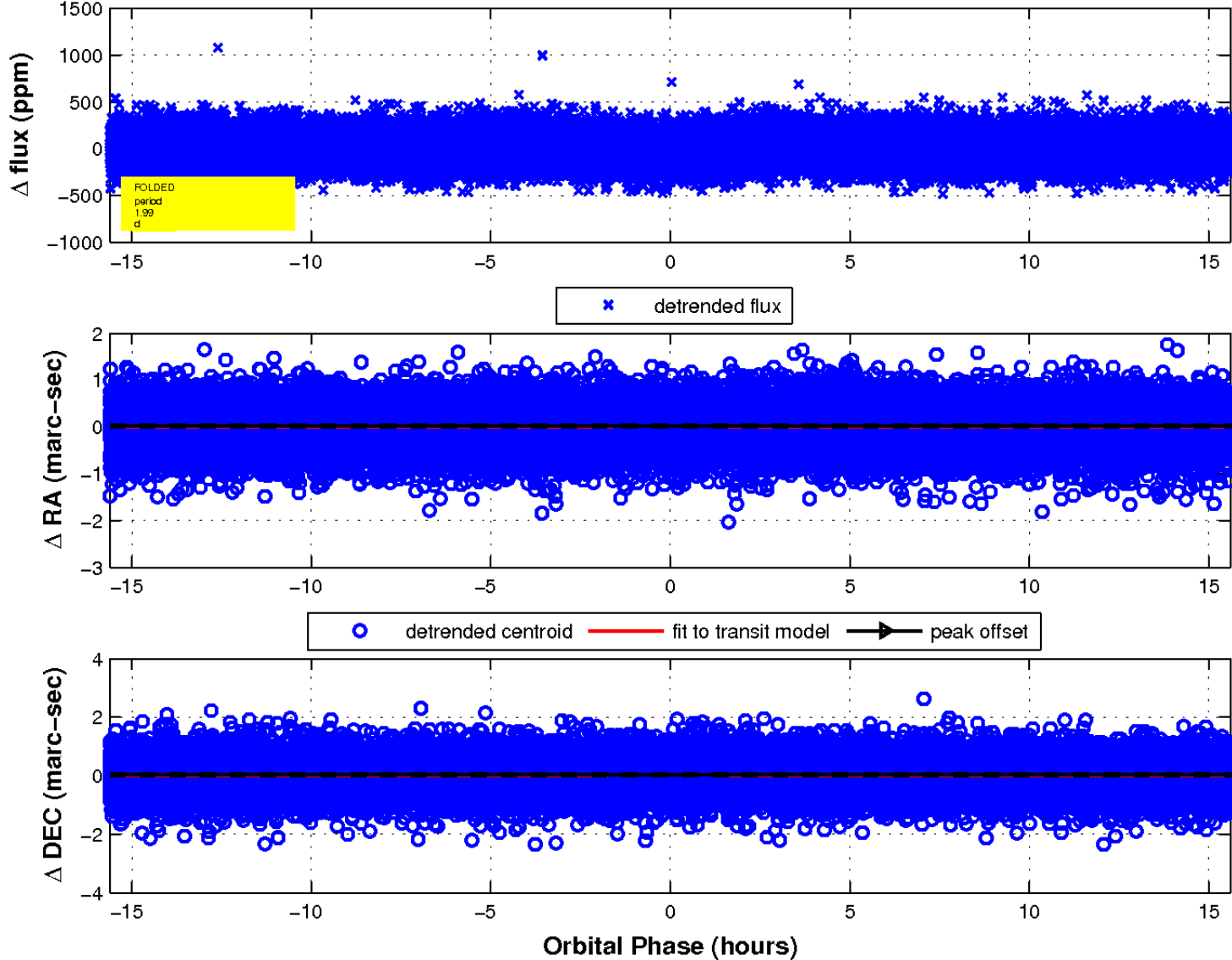
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

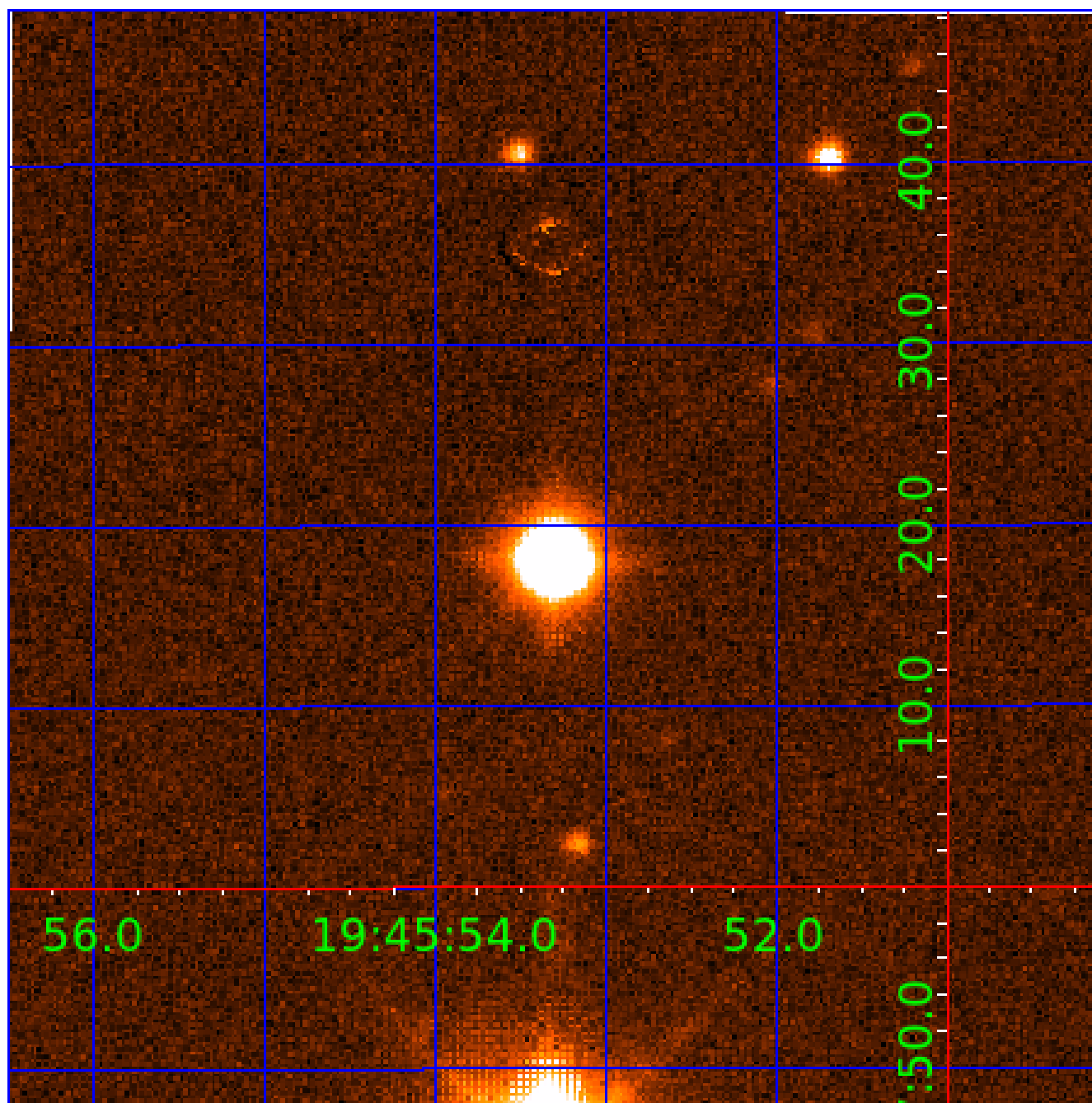


fluxWeightedCentroids, Planet 2 of 9



UKIRT Image

Declination



KIC 012268190

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})
012268190-01	OBS	No	0.995576	132.085974	23.2	3.178	11.6	11.3	3.46	6915	1.93	44370.77
012268190-02	OBS	No	1.991368	132.511186	35.5	5.204	12.4	12.5	3.46	6915	3.01	17606.00
012268190-03	OBS	No	59.429660	148.717804	131.5	11.511	8.7	8.9	3.46	6915	4.35	190.19
012268190-04	OBS	No	561.481101	330.332346	241.0	27.332	8.3	7.6	3.46	6915	6.57	9.52
012268190-05	OBS	No	94.817581	195.645350	39.6	21.417	8.2	2.6	3.46	6915	2.40	102.02
012268190-06	OBS	No	46.711873	171.151127	60.2	12.671	8.0	4.1	3.46	6915	3.08	262.20
012268190-07	OBS	No	366.486584	308.497921	55.3	11.921	7.8	2.4	3.46	6915	2.99	16.82
012268190-09	OBS	No	122.032579	217.908251	192.1	6.947	7.5	7.5	3.46	6915	5.32	72.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012268190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
012268190-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
012268190-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
012268190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
012268190-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012268190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

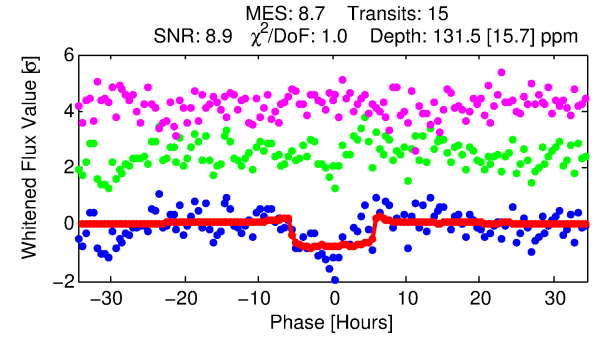
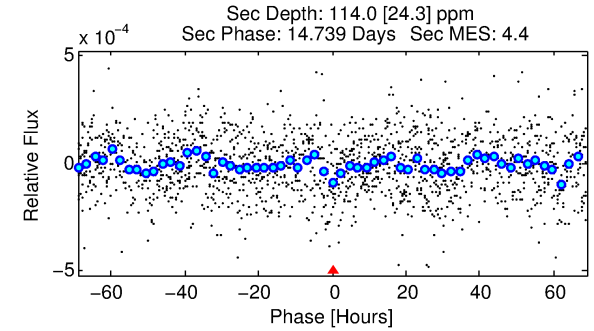
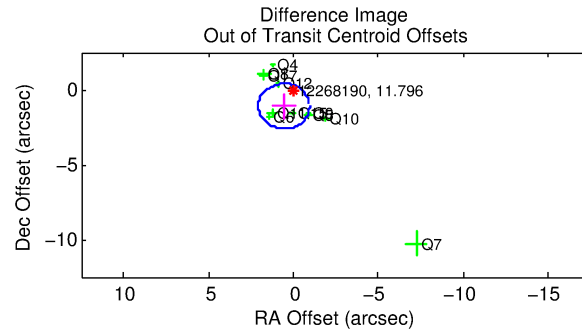
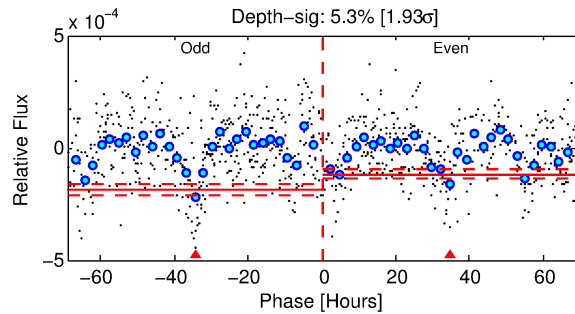
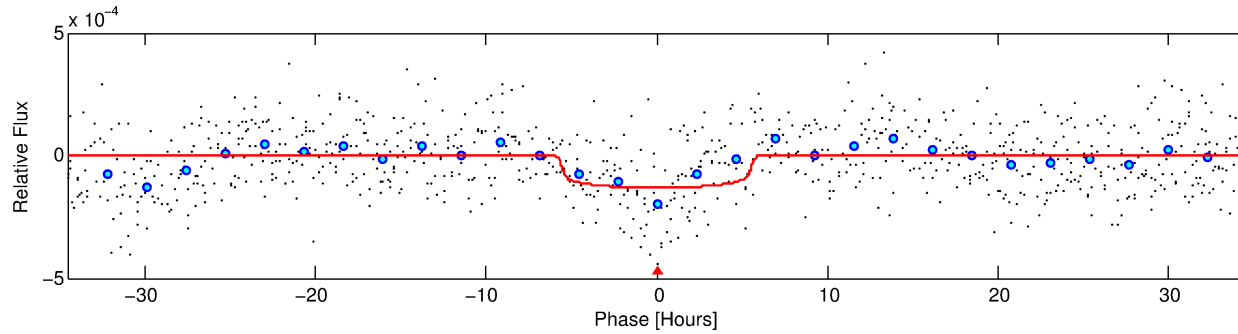
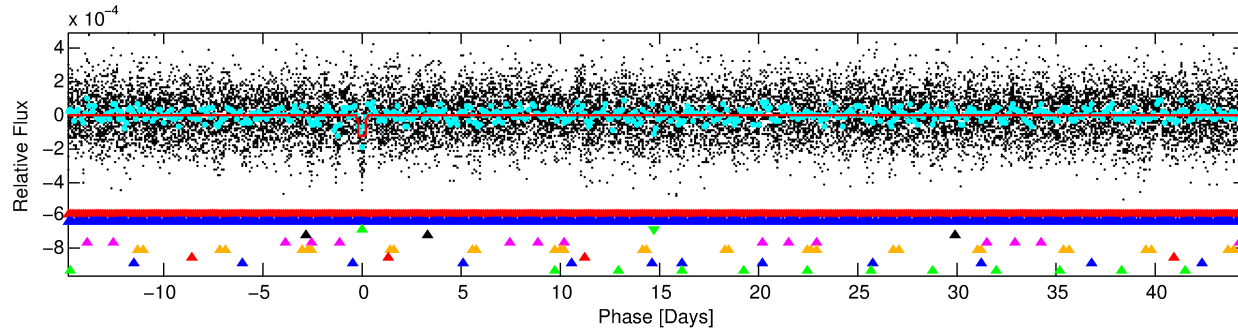
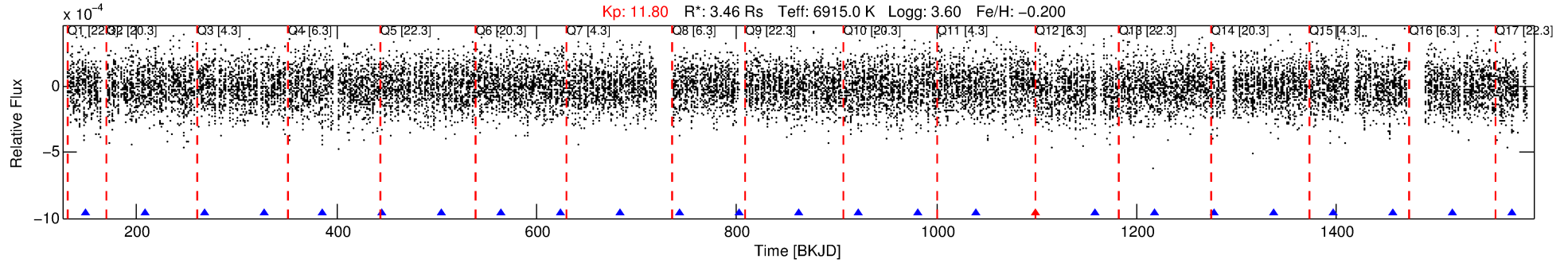
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012268190-03

No Significant Match Found

DV One-Page Summary

KIC: 12268190 Candidate: 3 of 9 Period: 59.430 d



DV Fit Results:

Period = 59.42966 [0.00102] d
Epoch = 148.7178 [0.0161] BKJD
Rp/R* = 0.0115 [0.0030]
a/R* = 25.12 [37.32]
b = 0.79 [0.73]
Seff = 190.19 [107.08]
Teq = 947 [133] K
Rp = 4.35 [1.92] Re
a = 0.3588 [0.1234] AU
Ag = 426.73 [334.96] [1.27 σ]
Teffp = 6654 [953] K [5.93 σ]

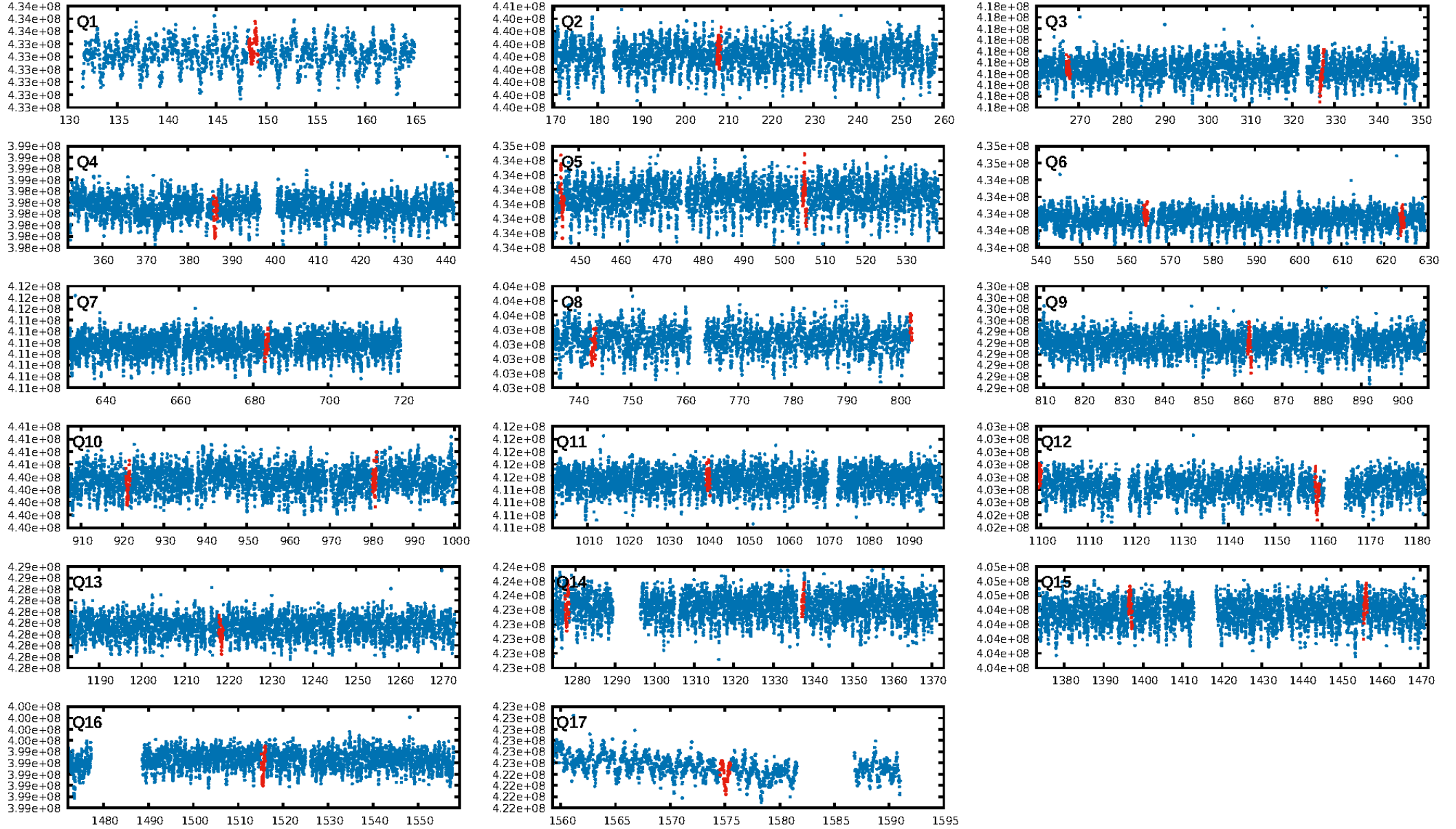
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [17.83 σ]
LongPeriod-sig: 100.0% [34.93 σ]
ModelChiSquare2-sig: 43.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.95e-10
RollingBand-fgt: 0.92 [12/13]
GhostDiagnostic-chr: 11.07
Centroid-sig: 0.9%
Centroid-so: 0.822 arcsec [1.65 σ]
OotOffset-rm: 1.233 arcsec [2.44 σ]
KicOffset-rm: 1.293 arcsec [2.67 σ]
OotOffset-st: 2/3/3/3 [11]
KicOffset-st: 2/3/3/3 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 0.00 [0/14]

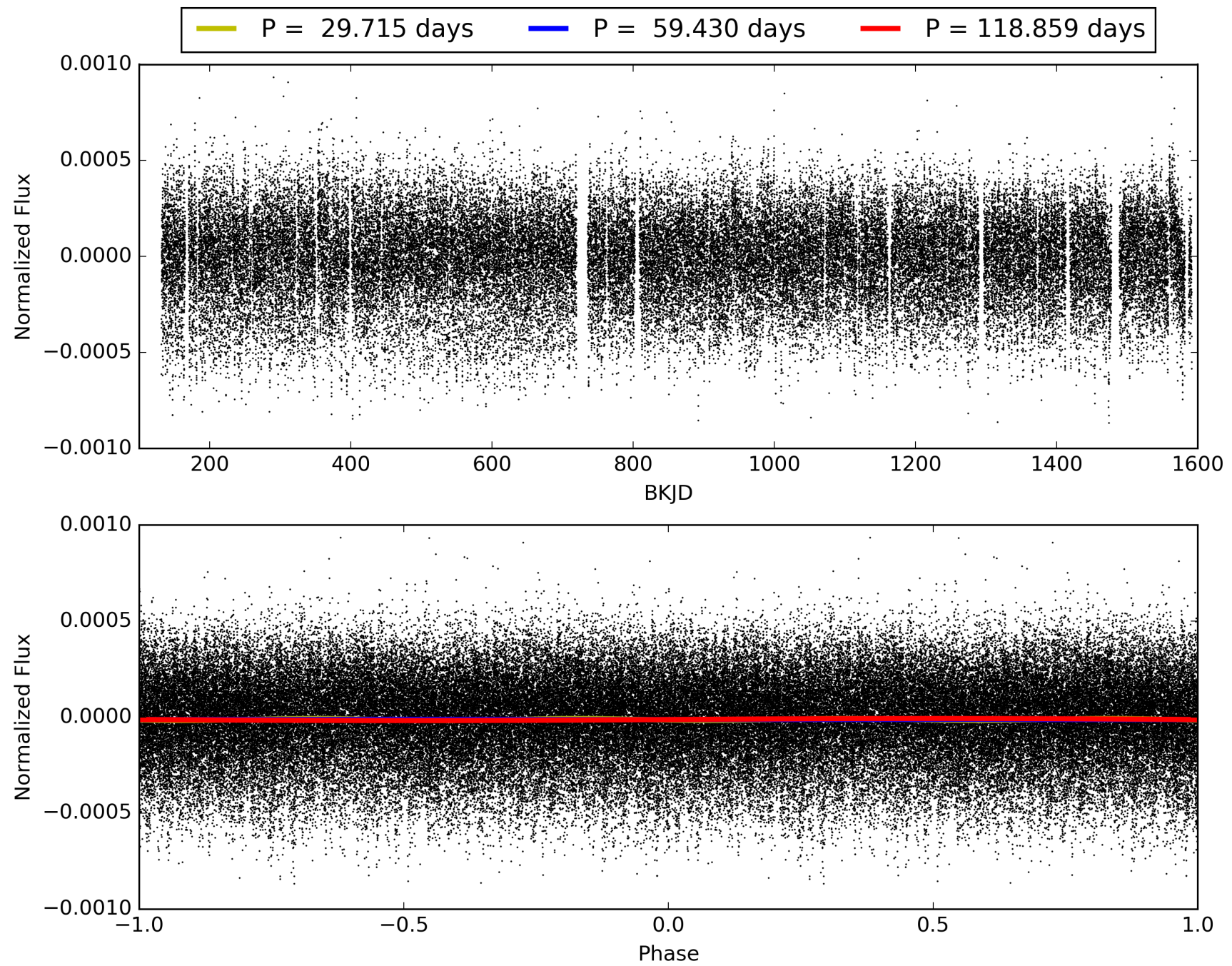
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:16:36 Z

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

TCE 012268190-03, PDC Light Curves

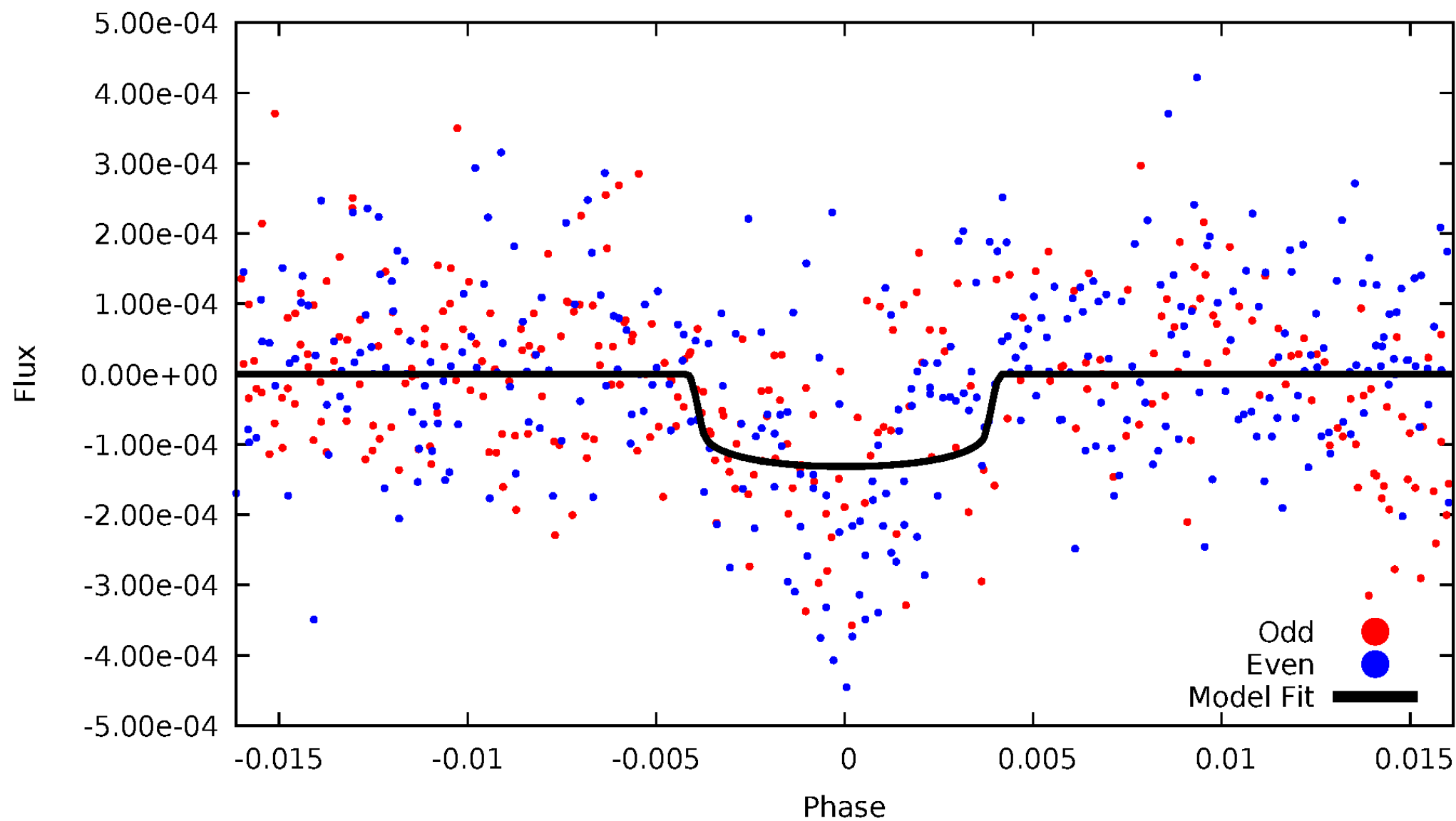


TCE 012268190-03



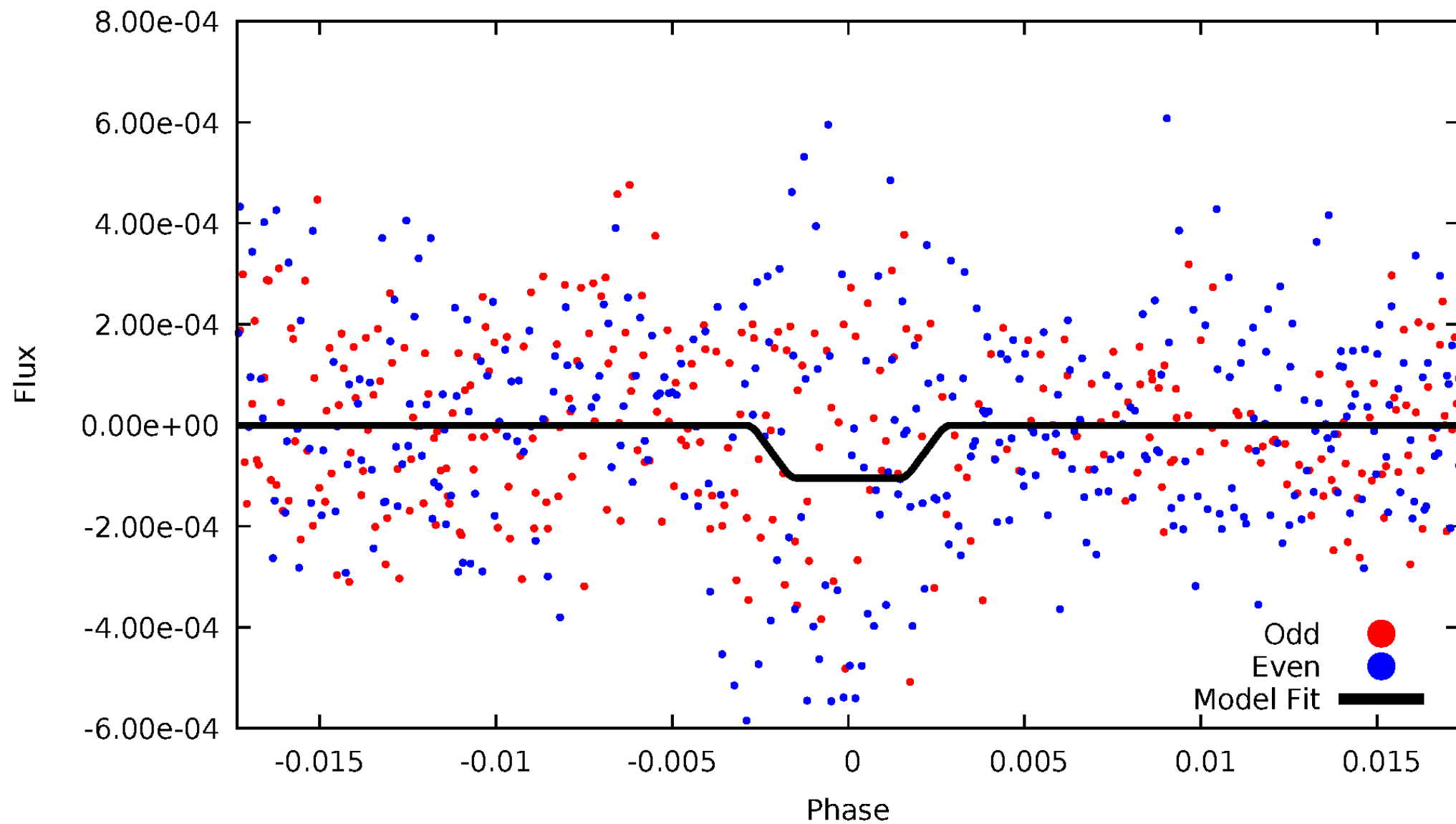
DV Odd/Even

TCE 012268190-03



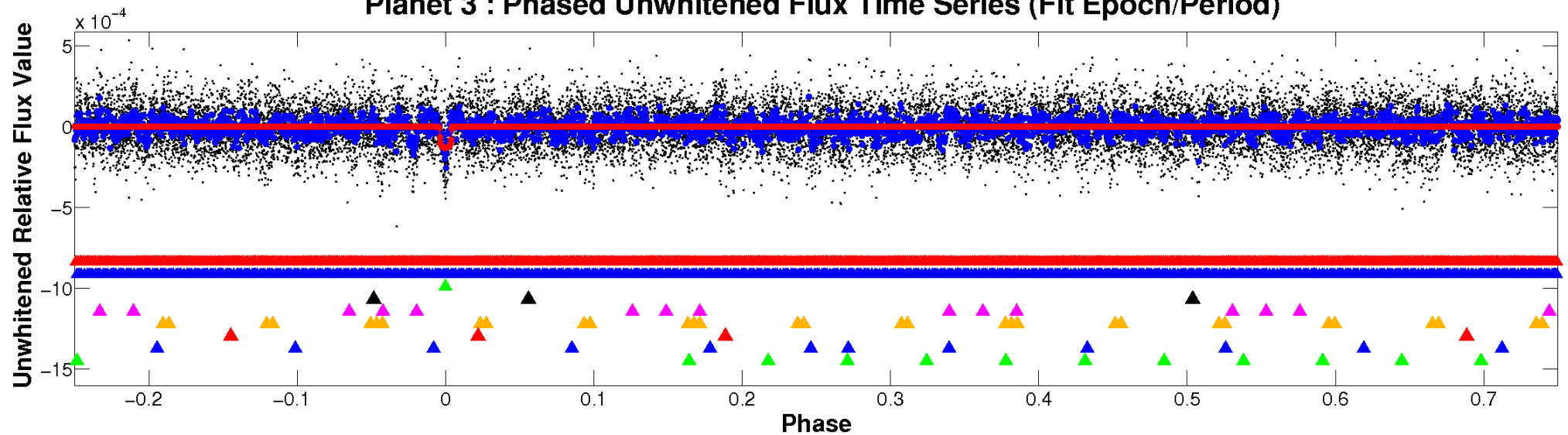
ALT Odd/Even

TCE 012268190-03

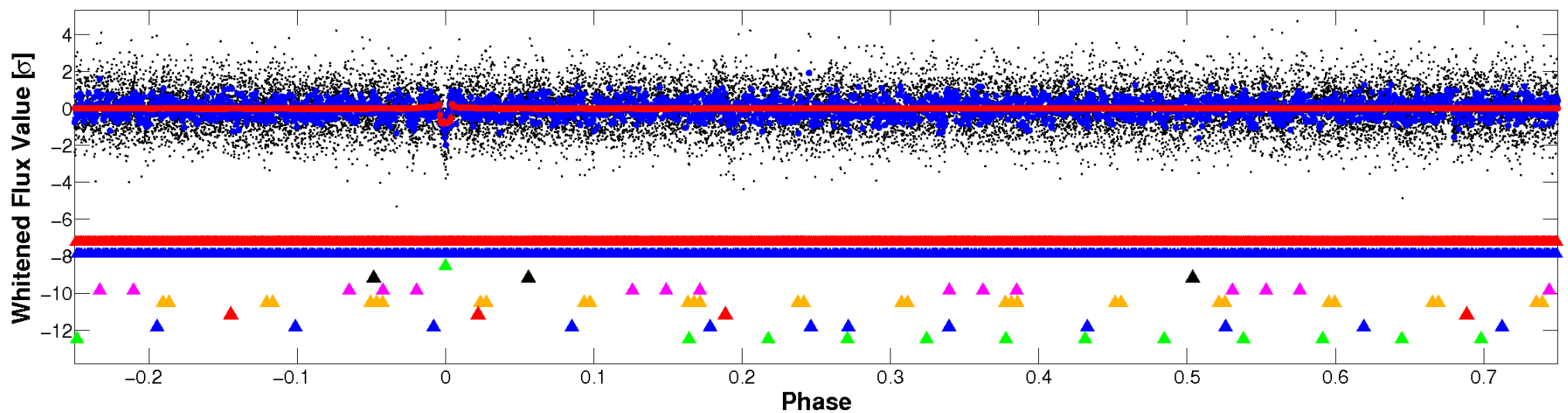


Non-Whitened Vs. Whitened Light Curve

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

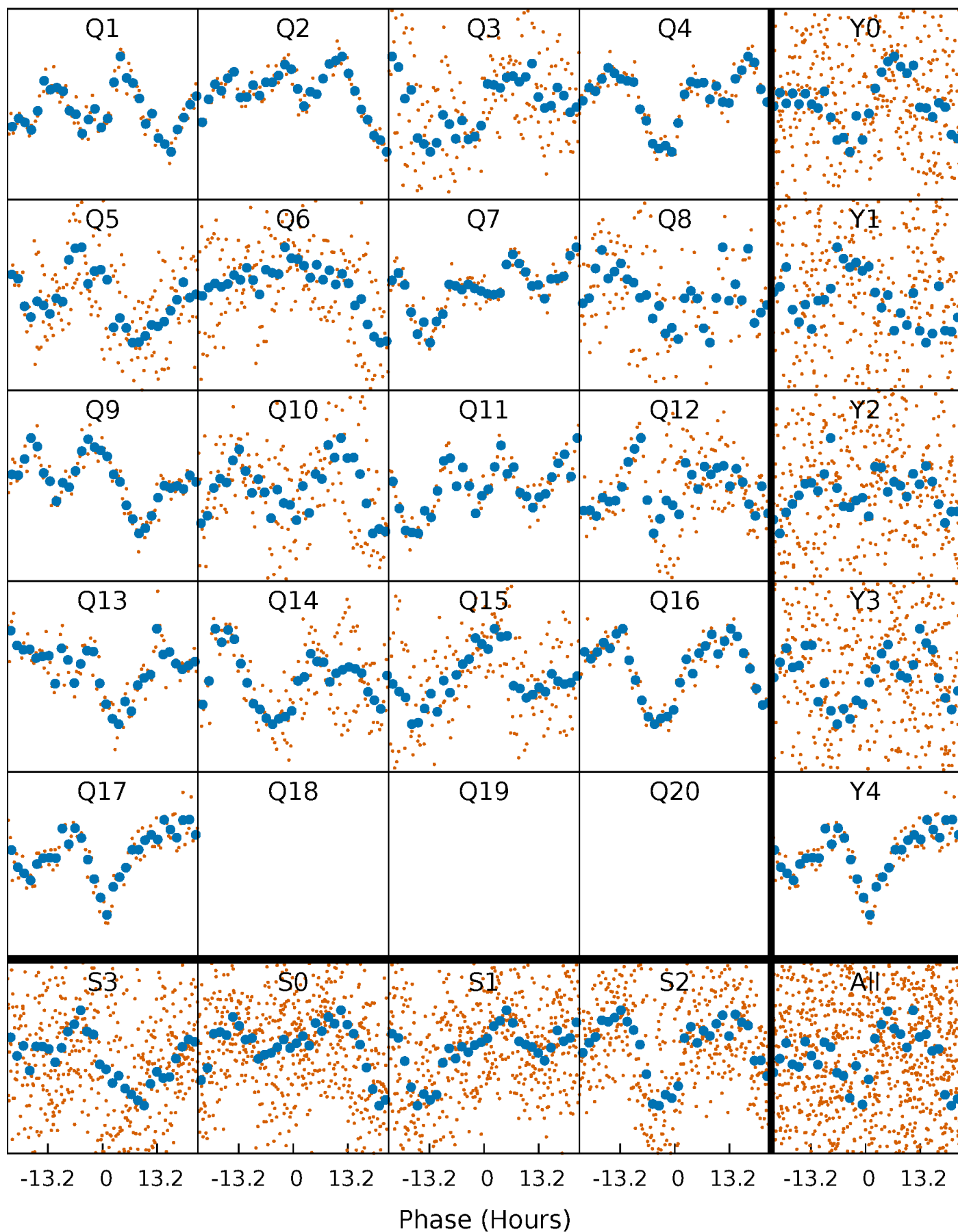


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



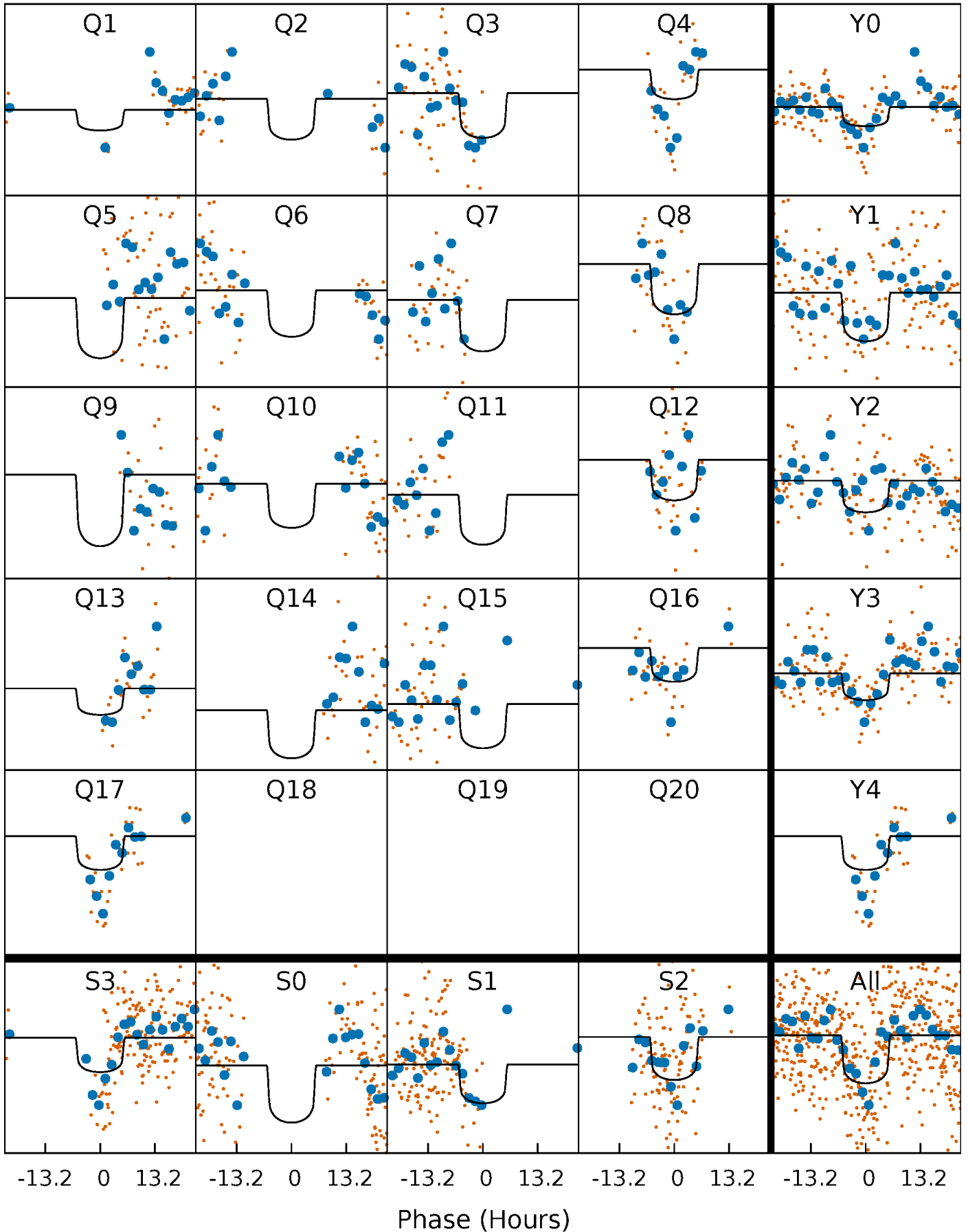
PDC Quarter-Phased Transit Curves

TCE 012268190-03 P= 59.429660 Days $T_0=148.717804$ (BKJD)



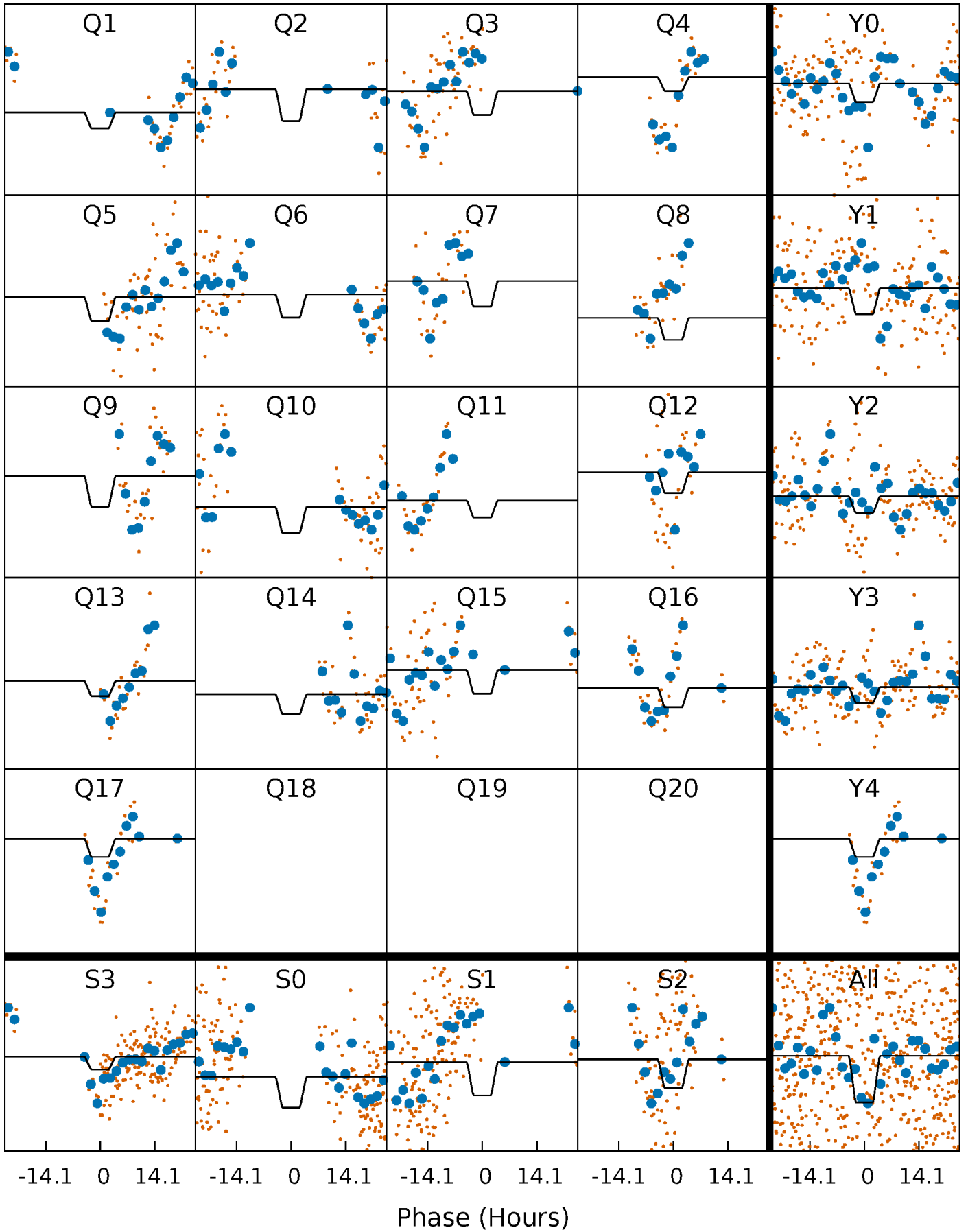
DV Quarter-Phased Transit Curves

TCE 012268190-03 P= 59.429660 Days $T_0=148.717804$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

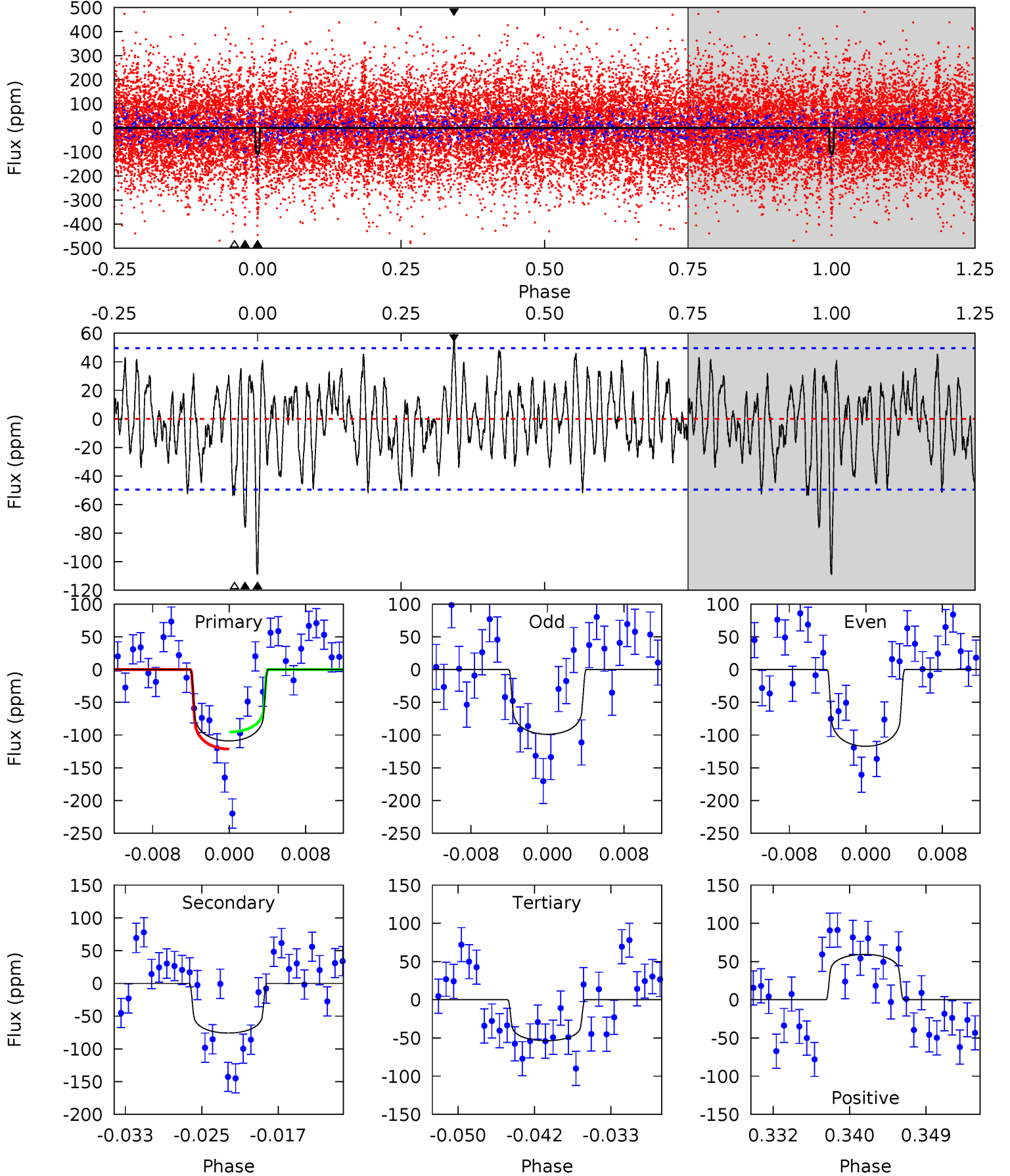
TCE 012268190-03 P= 59.431635 Days $T_0=148.700712$ (BKJD)



DV Model-Shift Uniqueness Test

012268190-03, P = 59.429660 Days, E = 89.288144 Days

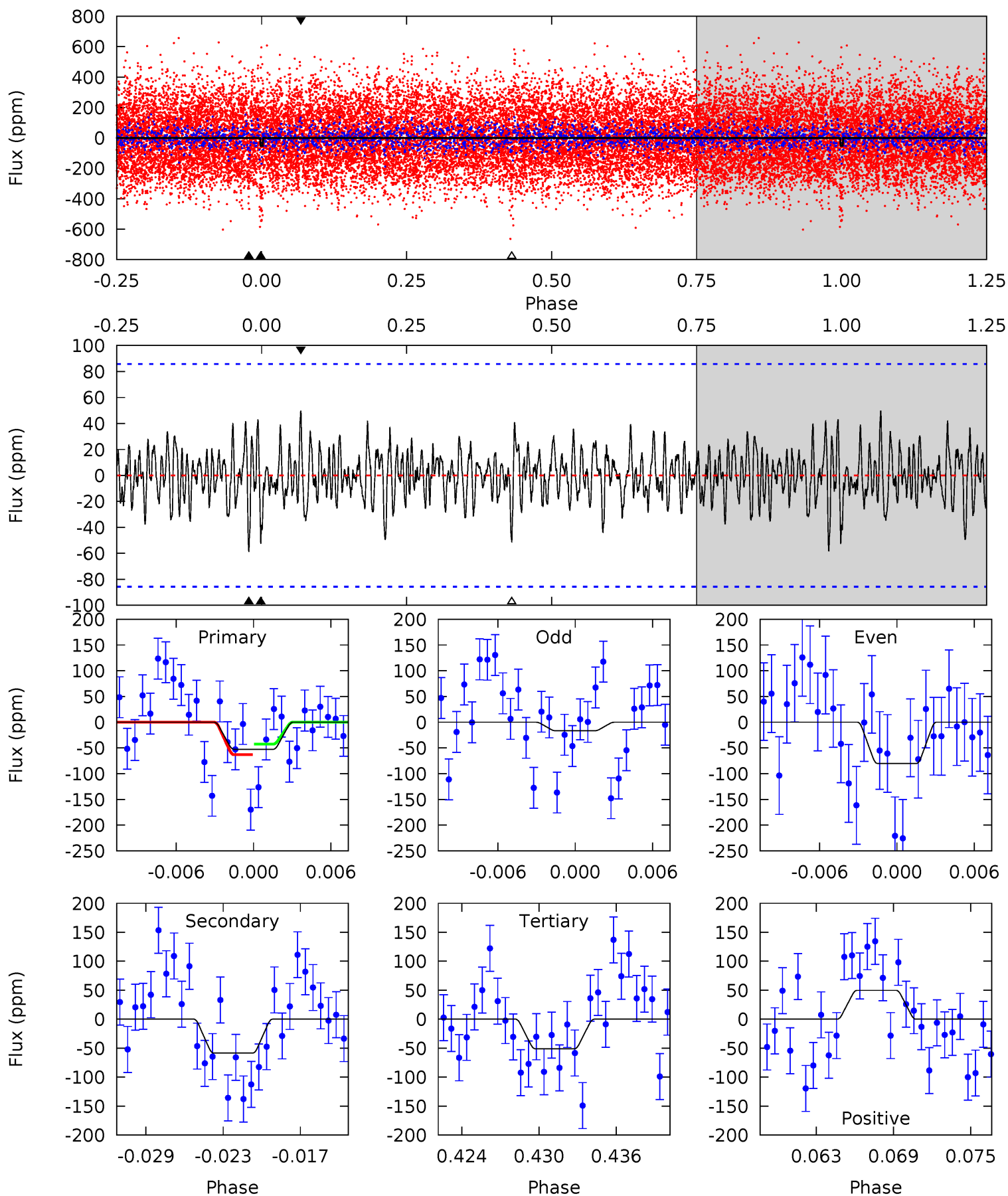
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	7.75	5.46	6.06	5.06	2.64	2.08	5.66	5.07	2.28	1.69	0.93	0.78	0.35	1.32



Alt Model-Shift Uniqueness Test

012268190-03, P = 59.431635 Days, E = 89.269077 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.16	3.50	3.06	2.98	5.13	2.76	0.94	0.10	0.18	0.44	0.52	1.90	-7.59	0.46	0.61



Stellar Parameters For KIC 012268190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6915^{+187}_{-207}	$3.602^{+0.323}_{-0.057}$	$-0.200^{+0.300}_{-0.250}$	$3.457^{+0.412}_{-1.236}$	$1.742^{+0.182}_{-0.339}$	$0.059^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+150%/-125%	+12%/-36%	+10%/-19%	+231%/-19%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 012268190-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-76 ± 10	$4.01^{+1.30}_{-1.19}$	1290^{+71}_{-124}	5953^{+1008}_{-629}	335^{+333}_{-146}
Alt.	-58 ± 17	$3.54^{+1.26}_{-1.11}$	1288^{+70}_{-118}	5943^{+1225}_{-810}	331^{+388}_{-166}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
 A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

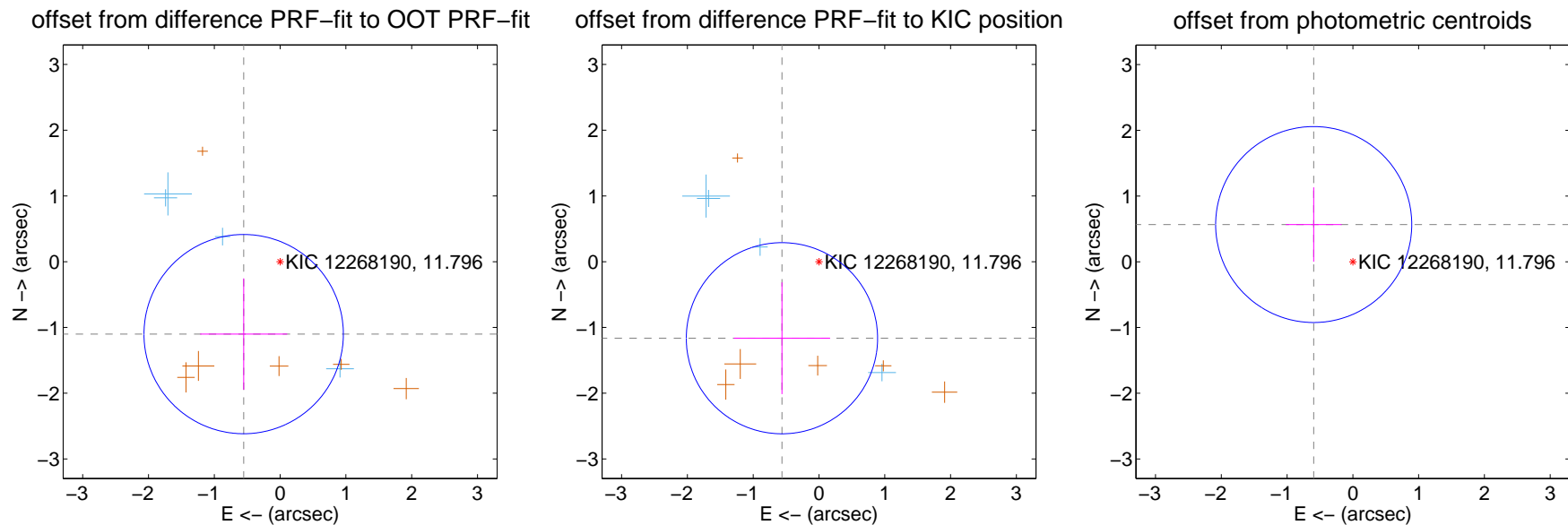
DV Centroid Data

Supplemental centroid analysis for 012268190-03. **Kepler magnitude: 11.80.** Transit SNR 8.86

There are 4 quarters with good PRF difference image offsets

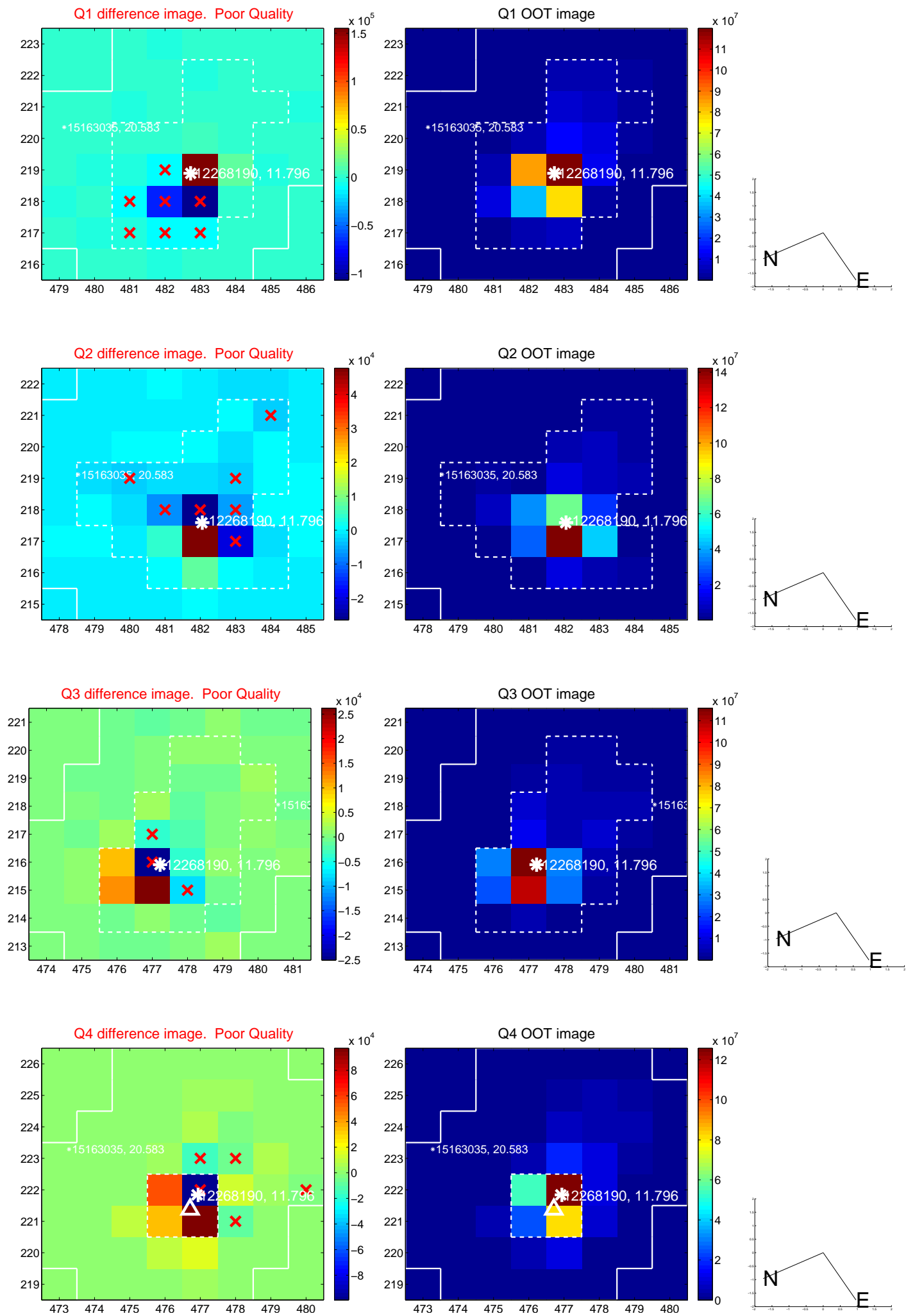
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.233 ± 0.505	2.44	0.554 ± 0.661	-1.101 ± 0.847
PRF-fit source offset from KIC position	1.293 ± 0.484	2.67	0.563 ± 0.731	-1.164 ± 0.849
photometric centroid source offset	0.82 ± 0.50	1.65	0.60 ± 0.42	0.57 ± 0.57

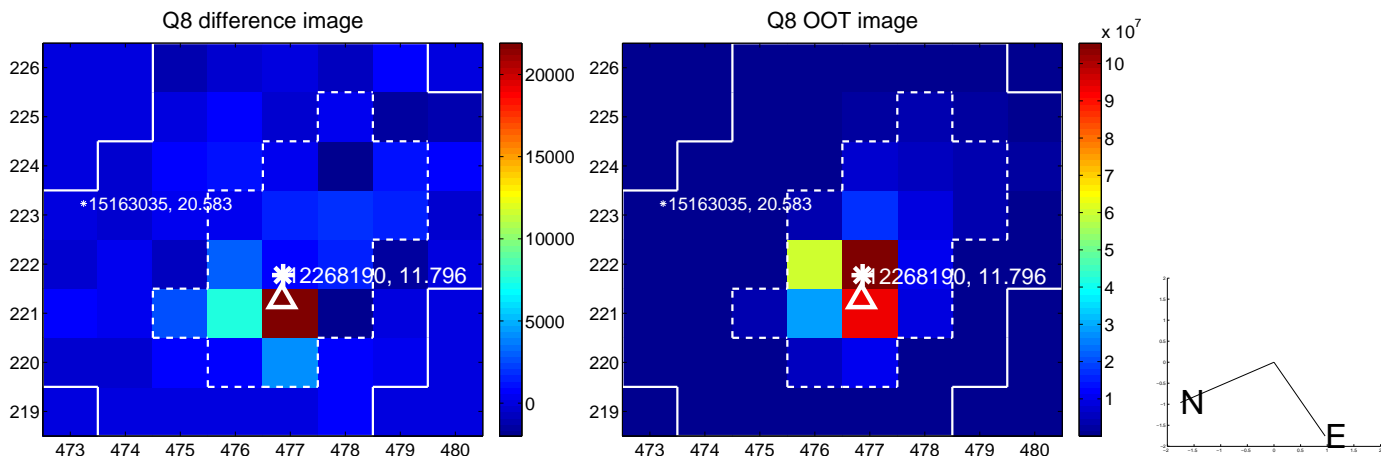
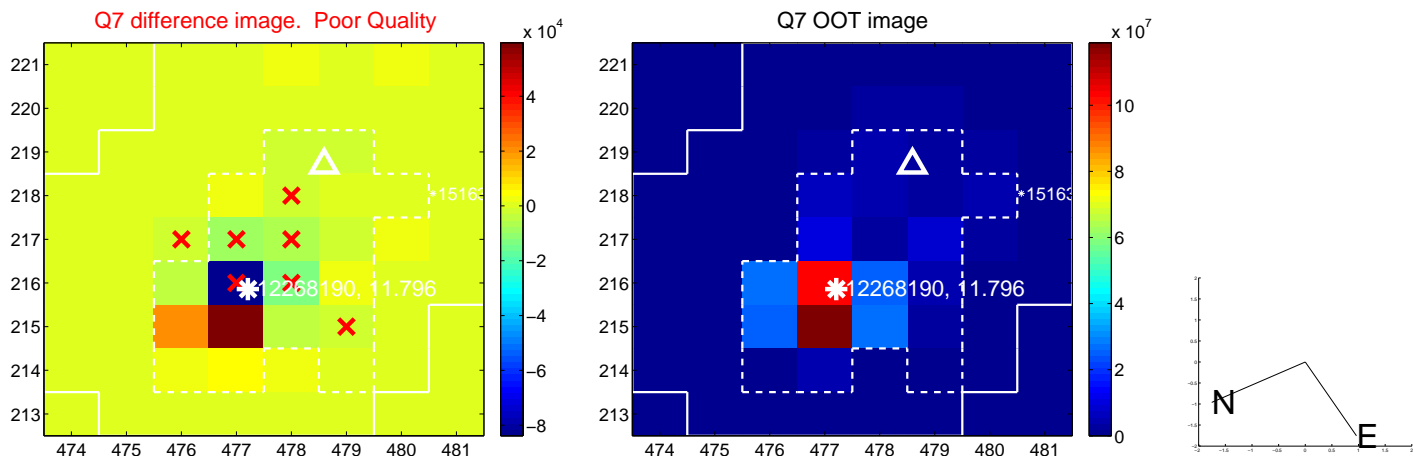
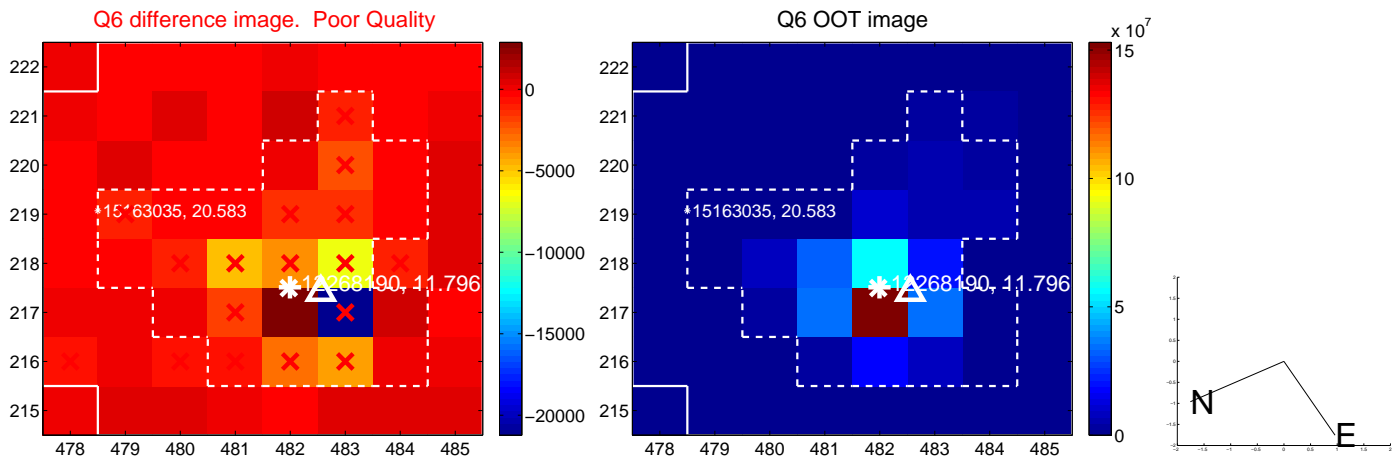
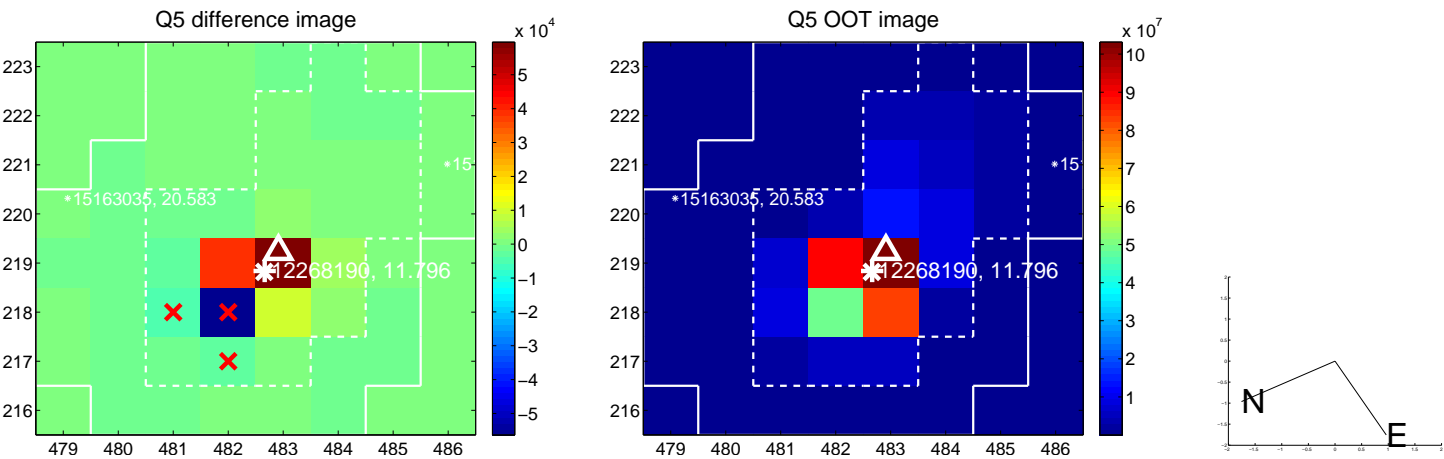


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

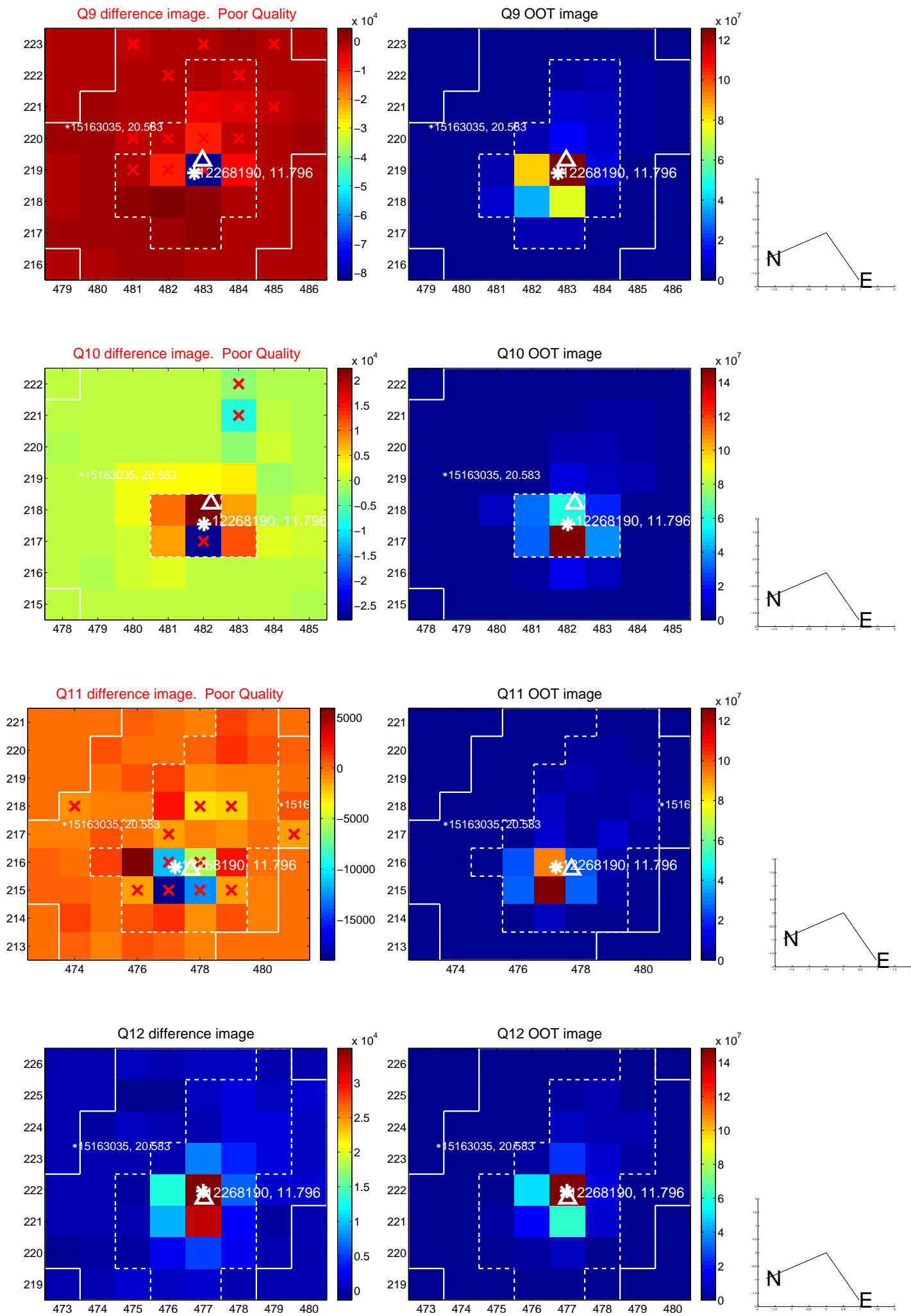
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



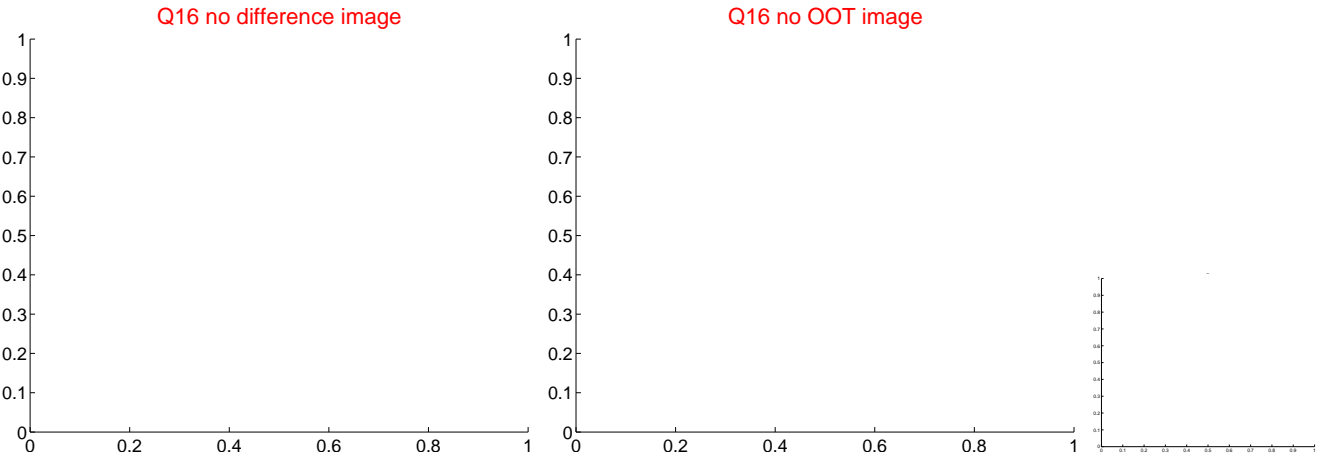
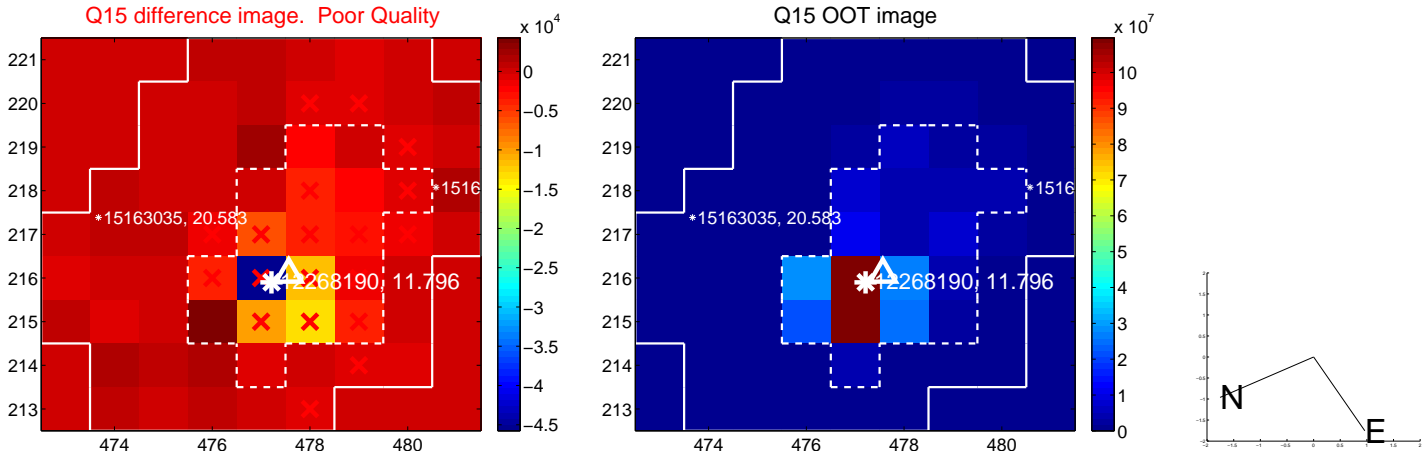
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



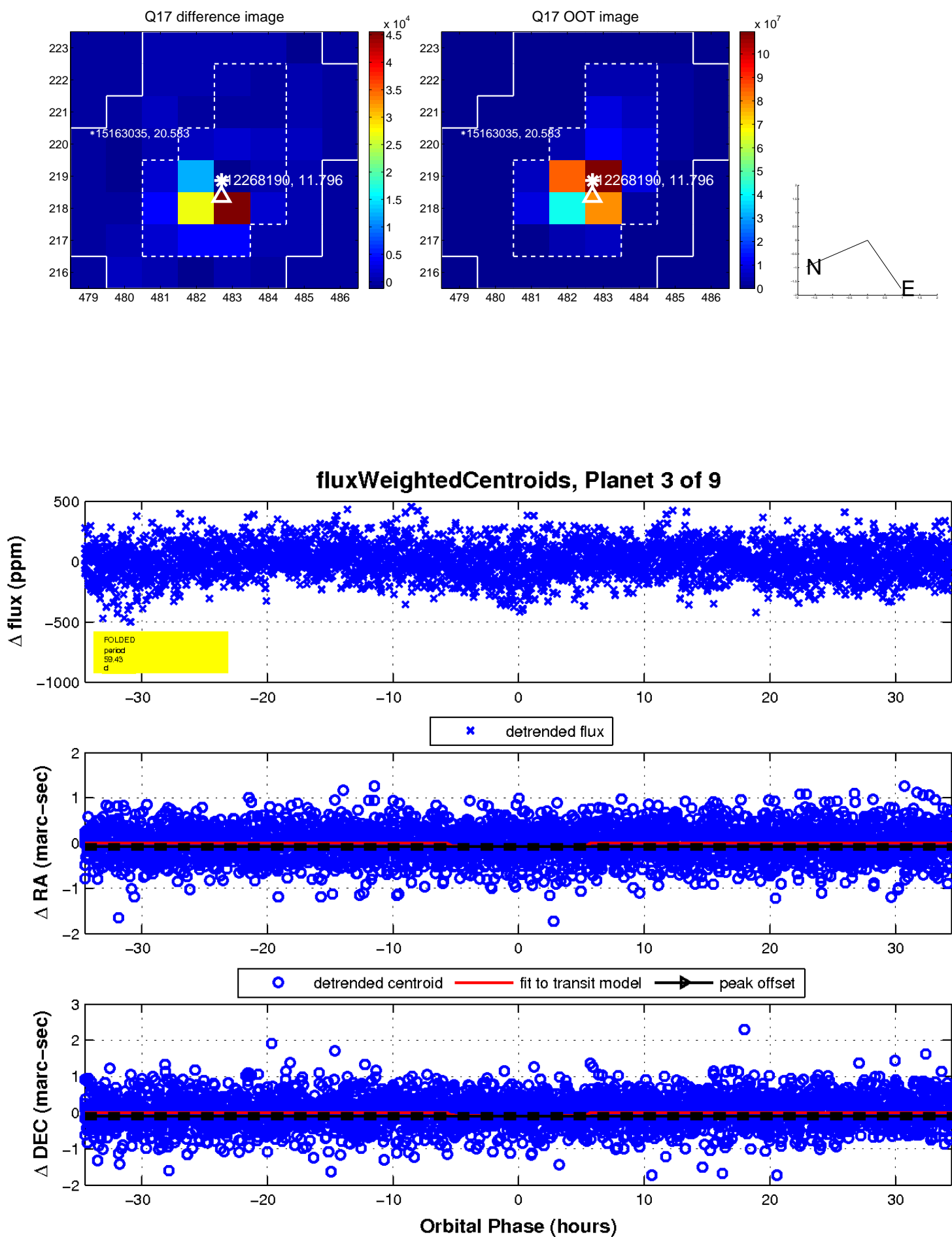
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

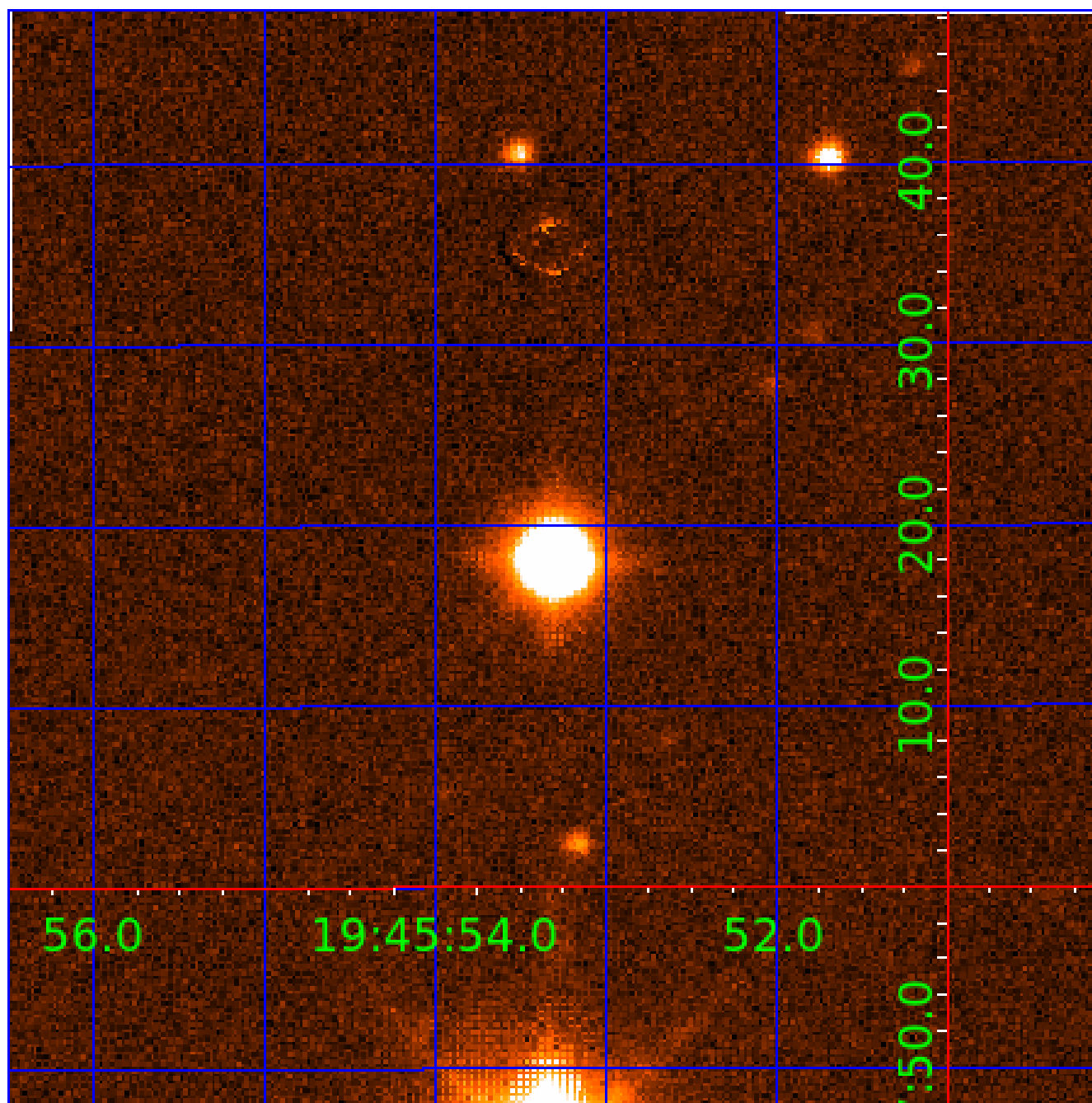


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012268190

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})
012268190-01	OBS	No	0.995576	132.085974	23.2	3.178	11.6	11.3	3.46	6915	1.93	44370.77
012268190-02	OBS	No	1.991368	132.511186	35.5	5.204	12.4	12.5	3.46	6915	3.01	17606.00
012268190-03	OBS	No	59.429660	148.717804	131.5	11.511	8.7	8.9	3.46	6915	4.35	190.19
012268190-04	OBS	No	561.481101	330.332346	241.0	27.332	8.3	7.6	3.46	6915	6.57	9.52
012268190-05	OBS	No	94.817581	195.645350	39.6	21.417	8.2	2.6	3.46	6915	2.40	102.02
012268190-06	OBS	No	46.711873	171.151127	60.2	12.671	8.0	4.1	3.46	6915	3.08	262.20
012268190-07	OBS	No	366.486584	308.497921	55.3	11.921	7.8	2.4	3.46	6915	2.99	16.82
012268190-09	OBS	No	122.032579	217.908251	192.1	6.947	7.5	7.5	3.46	6915	5.32	72.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012268190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
012268190-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
012268190-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
012268190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
012268190-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012268190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

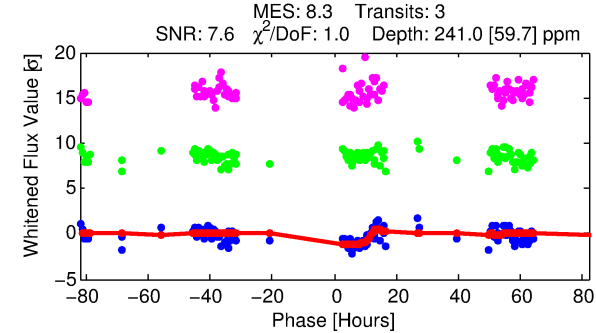
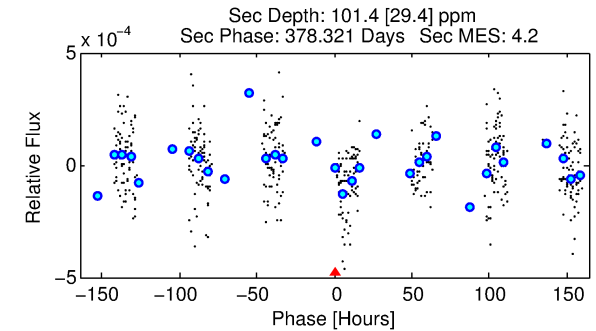
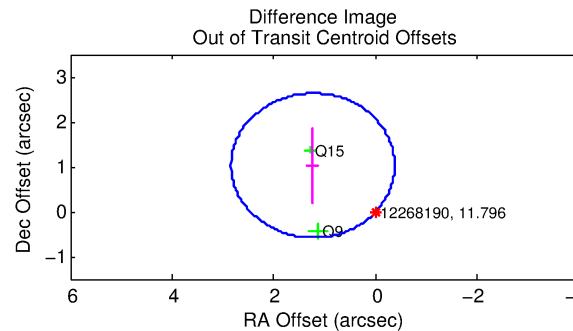
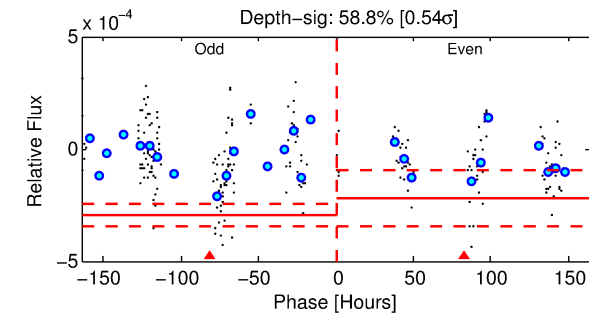
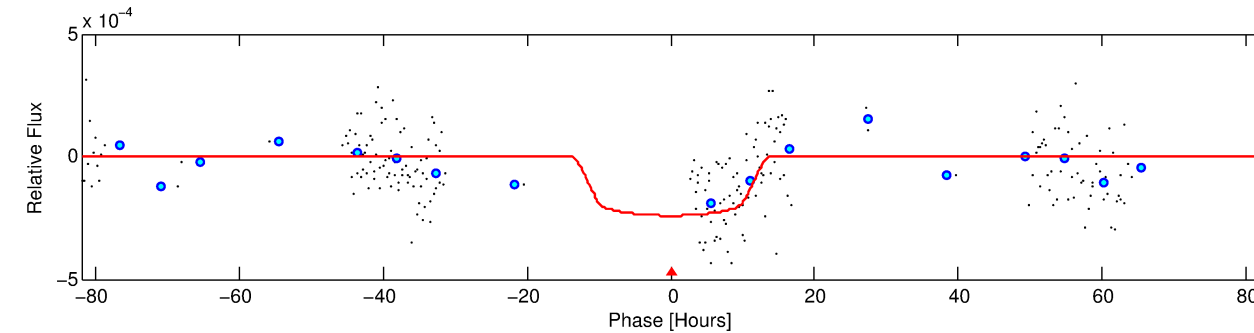
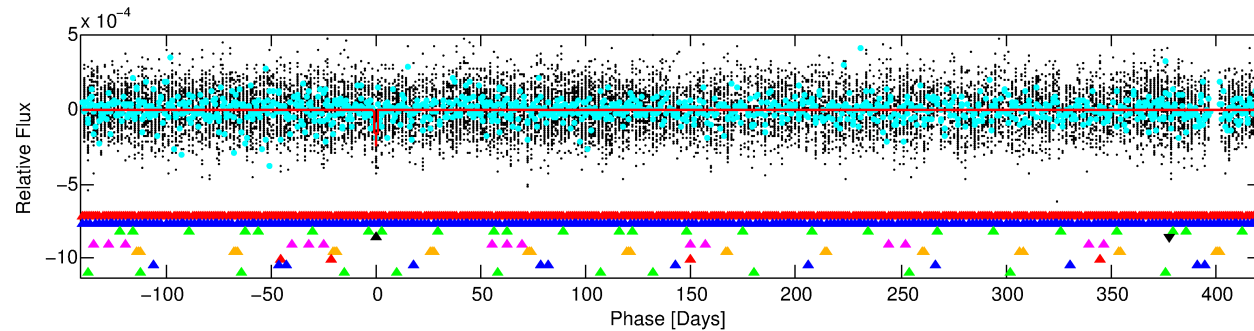
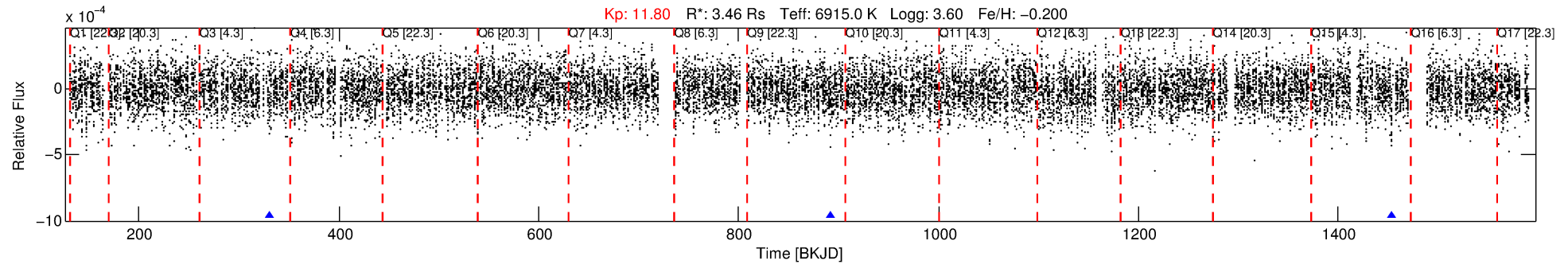
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012268190-04

No Significant Match Found

DV One-Page Summary

KIC: 12268190 Candidate: 4 of 9 Period: 561.481 d



DV Fit Results:

Period = 561.48110 [0.03115] d
Epoch = 330.3323 [0.2754] BKJD
 R_p/R^* = 0.0174 [0.0021]
 a/R^* = 57.63 [29.06]
 b = 0.95 [0.03]
 Seff = 9.52 [5.36]
 T_{eq} = 448 [63] K
 R_p = 6.56 [2.48] R_e
 a = 1.6034 [0.5514] AU
 A_g = 3327.90 [2221.44] [1.50 σ]
 T_{eff} = 5260 [521] K [9.16 σ]

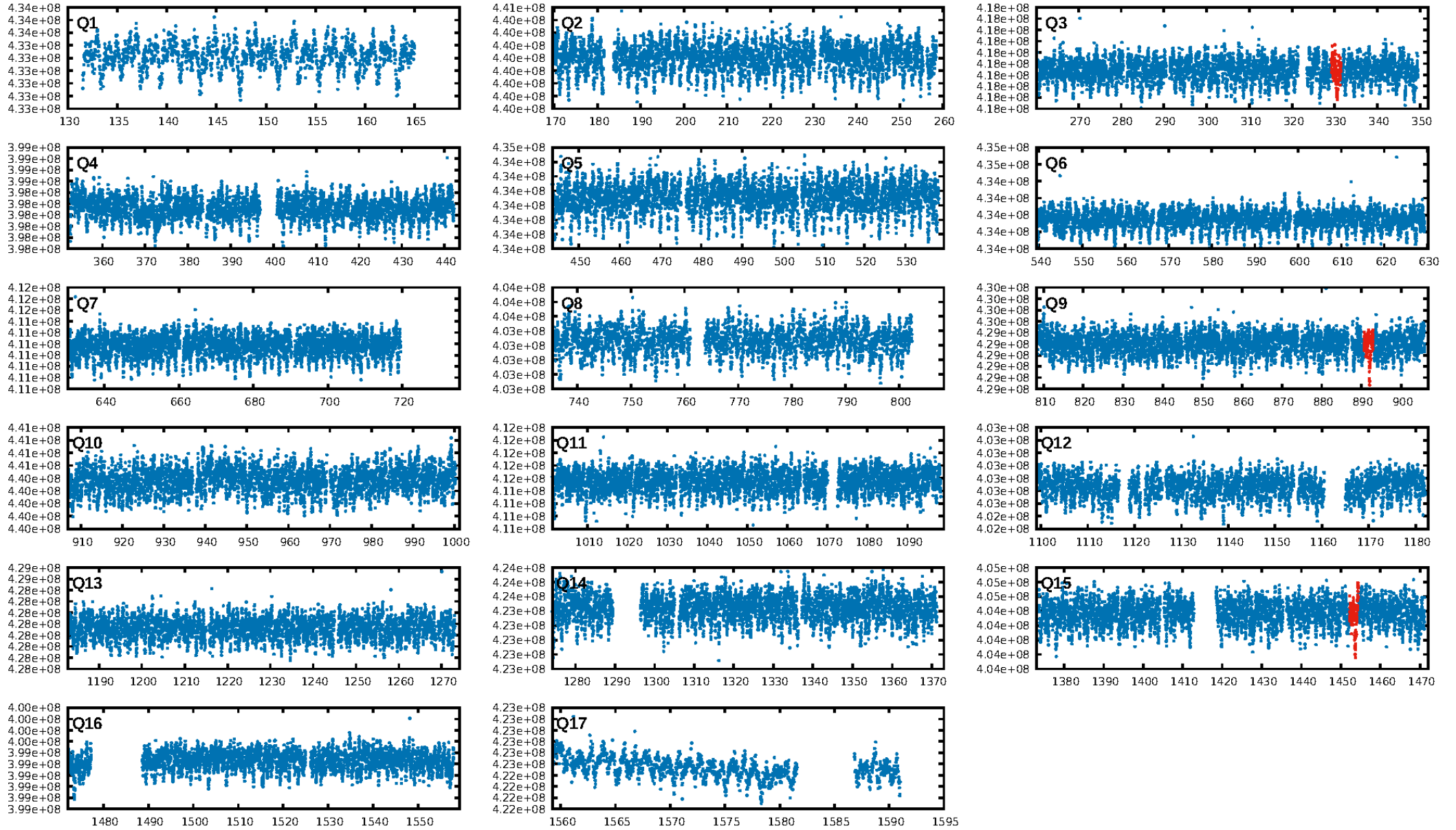
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [156.95 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.19e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.2921
Centroid-sig: 17.3%
Centroid-so: 0.590 arcsec [0.85 σ]
OotOffset-rm: 1.604 arcsec [2.99 σ]
KicOffset-rm: 1.597 arcsec [2.92 σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/3]

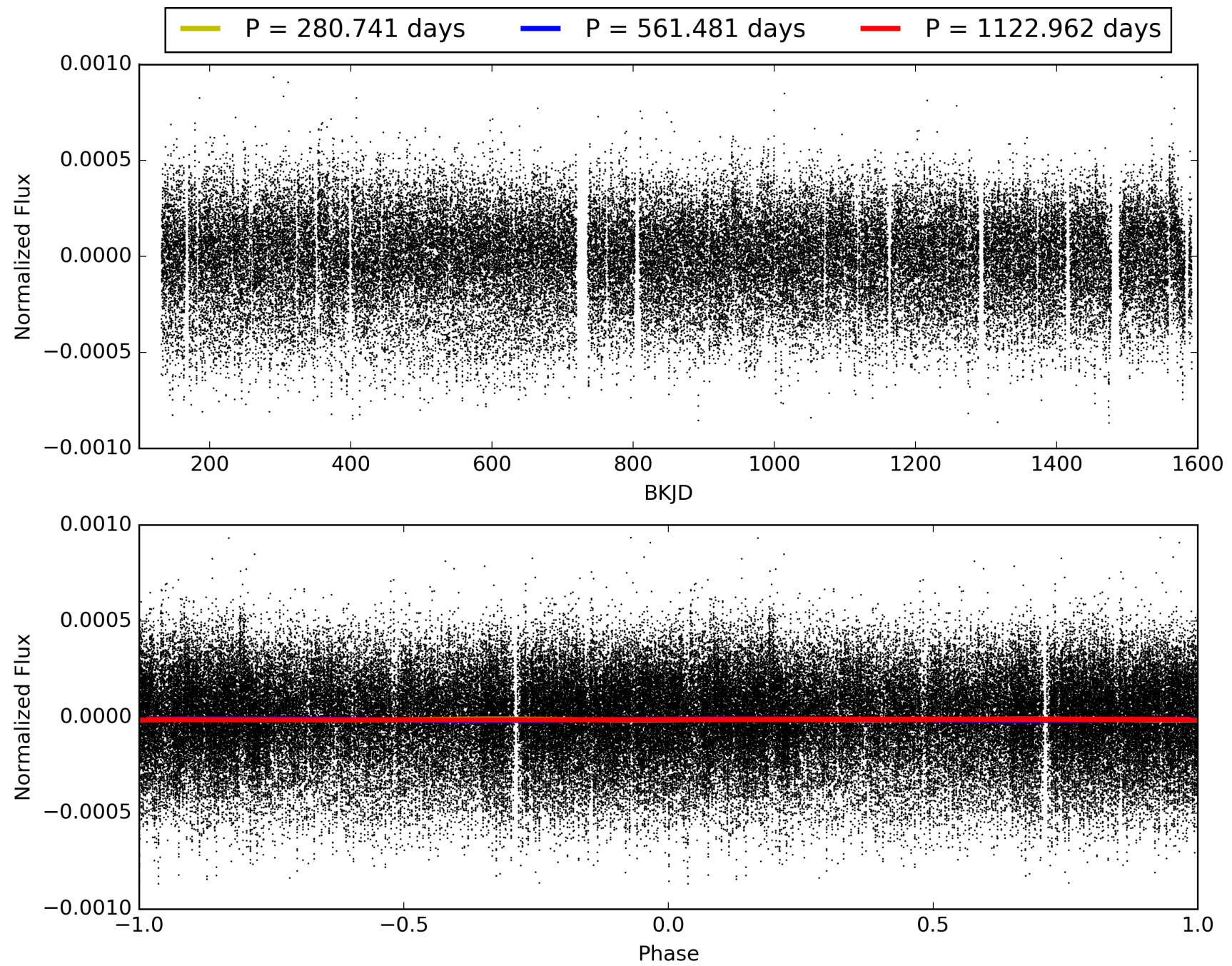
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:16:42 Z

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

TCE 012268190-04, PDC Light Curves

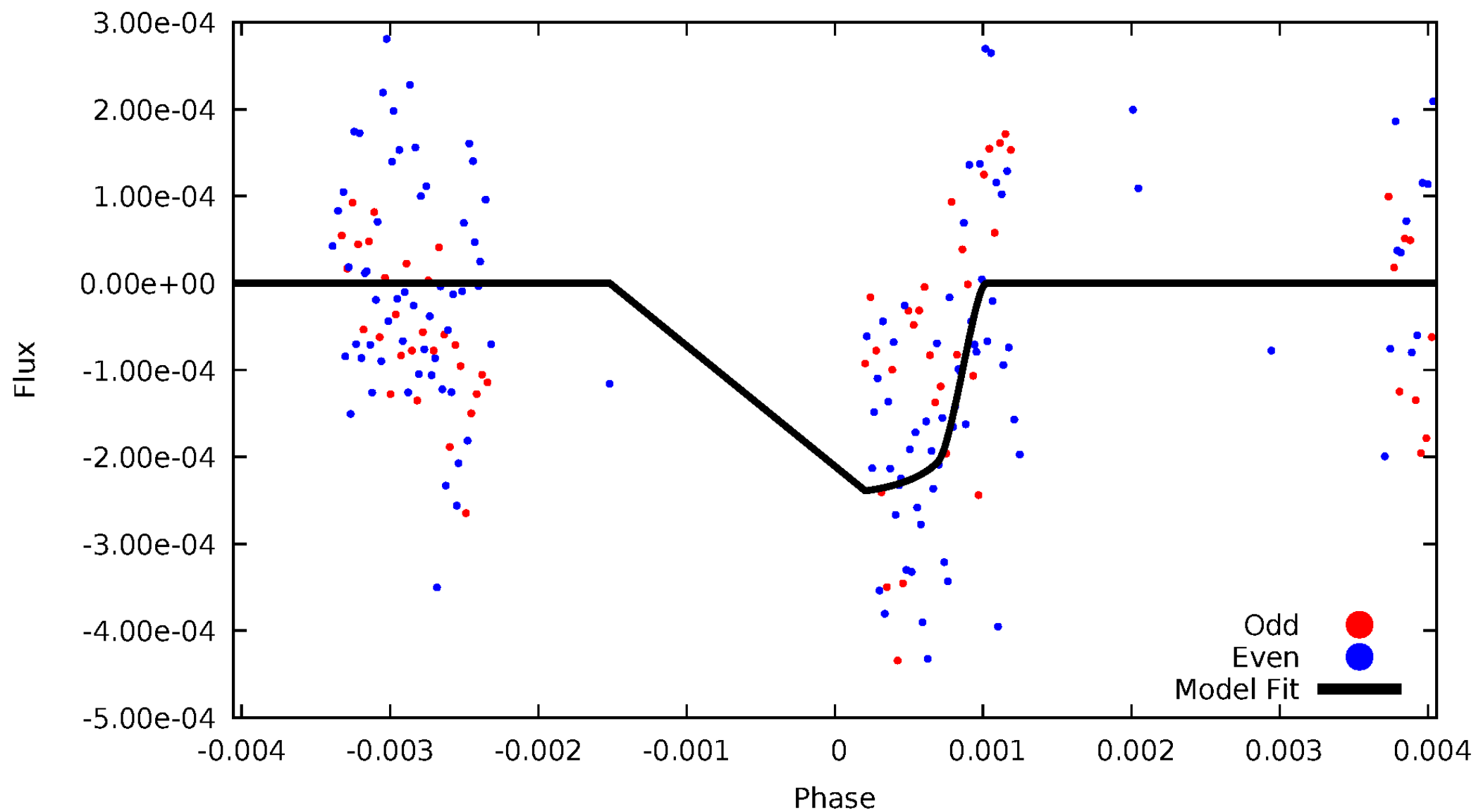


TCE 012268190-04



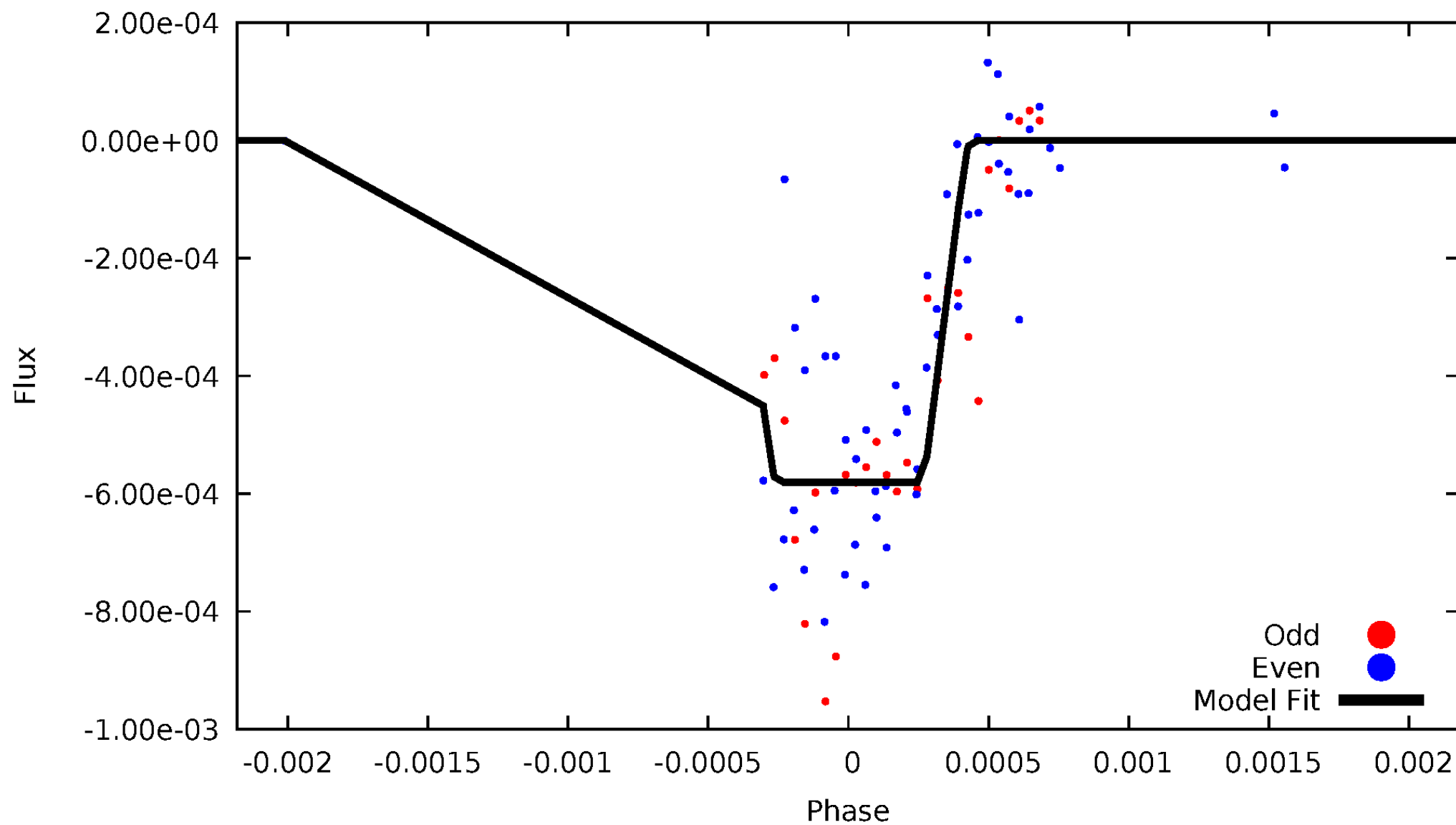
DV Odd/Even

TCE 012268190-04



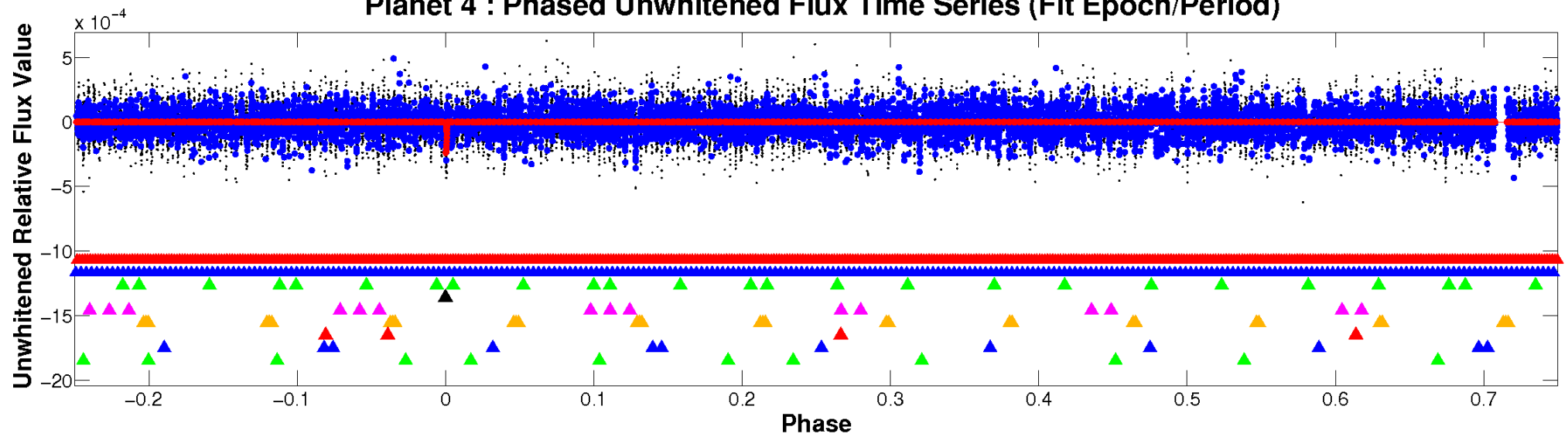
ALT Odd/Even

TCE 012268190-04

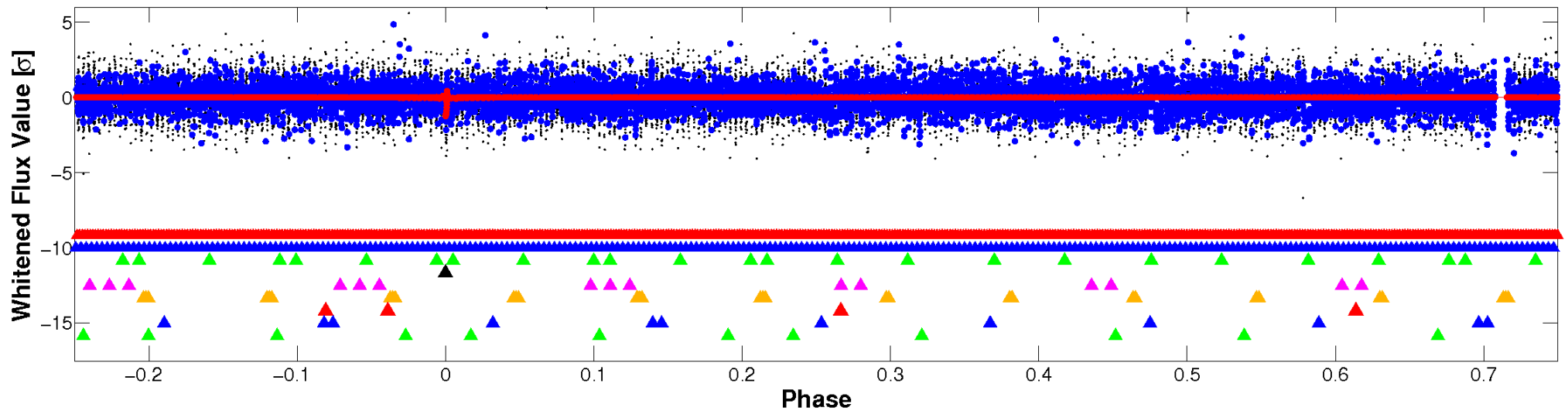


Non-Whitened Vs. Whitened Light Curve

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



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



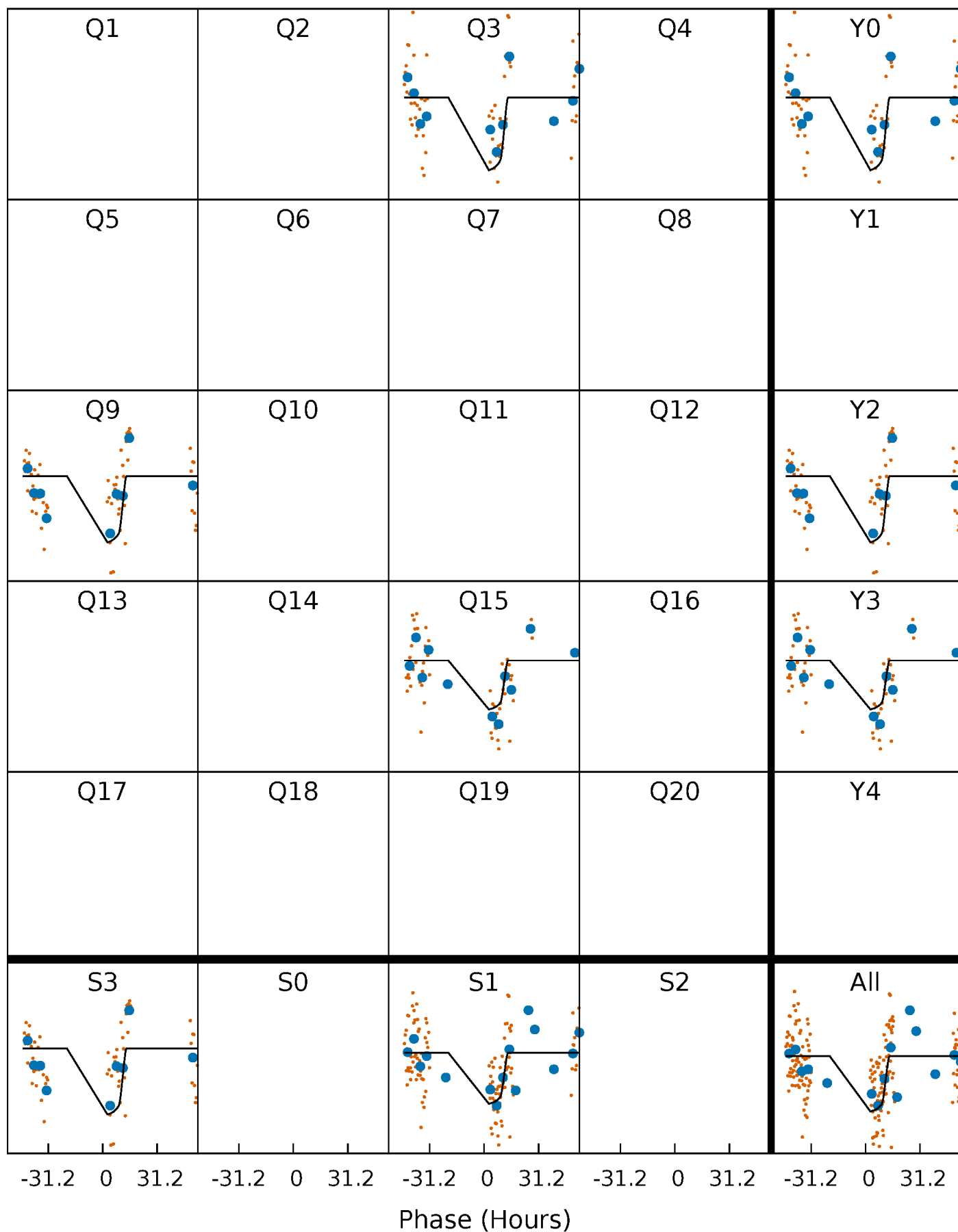
PDC Quarter-Phased Transit Curves

TCE 012268190-04 P=561.481101 Days $T_0=330.332346$ (BKJD)



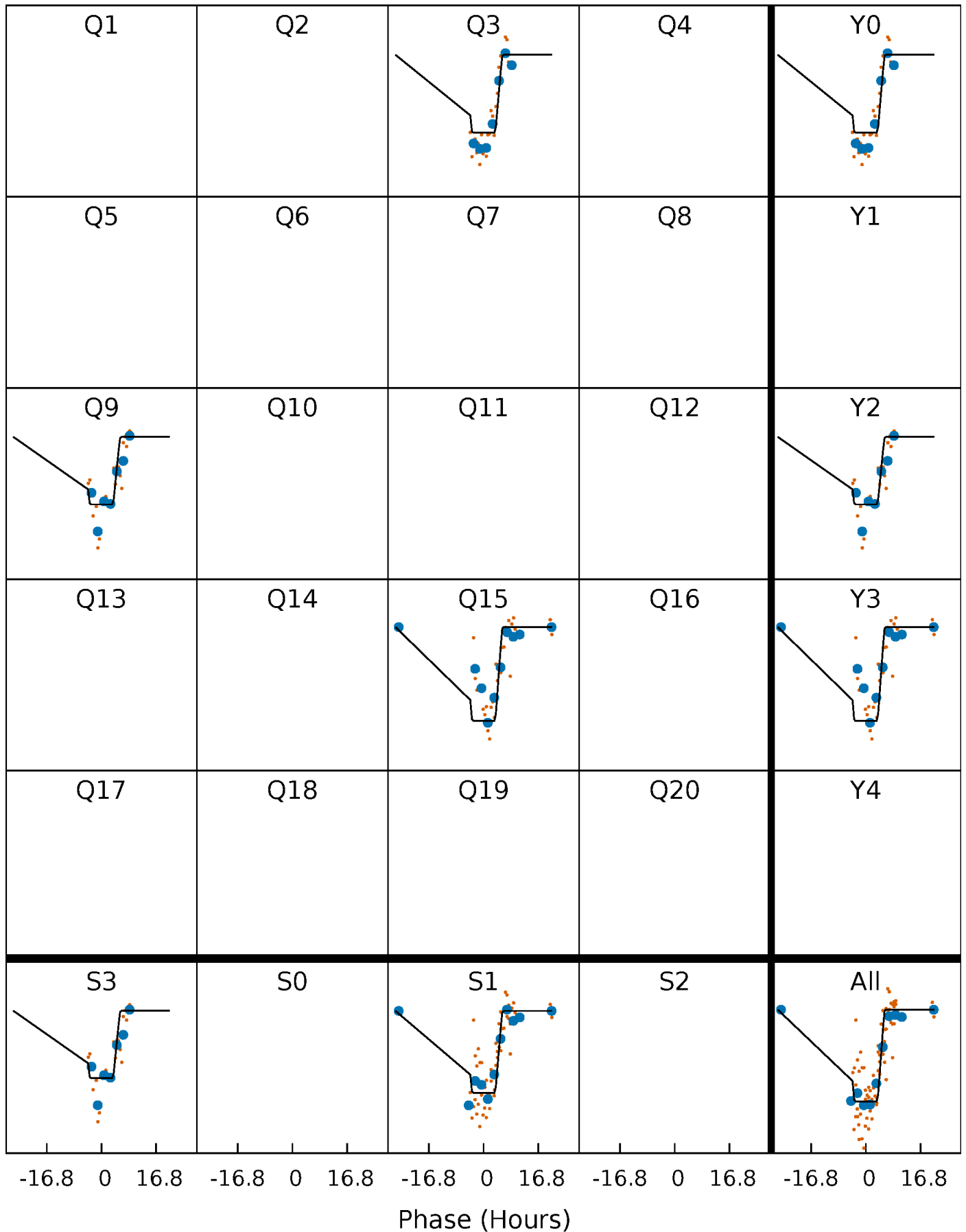
DV Quarter-Phased Transit Curves

TCE 012268190-04 P=561.481101 Days $T_0=330.332346$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

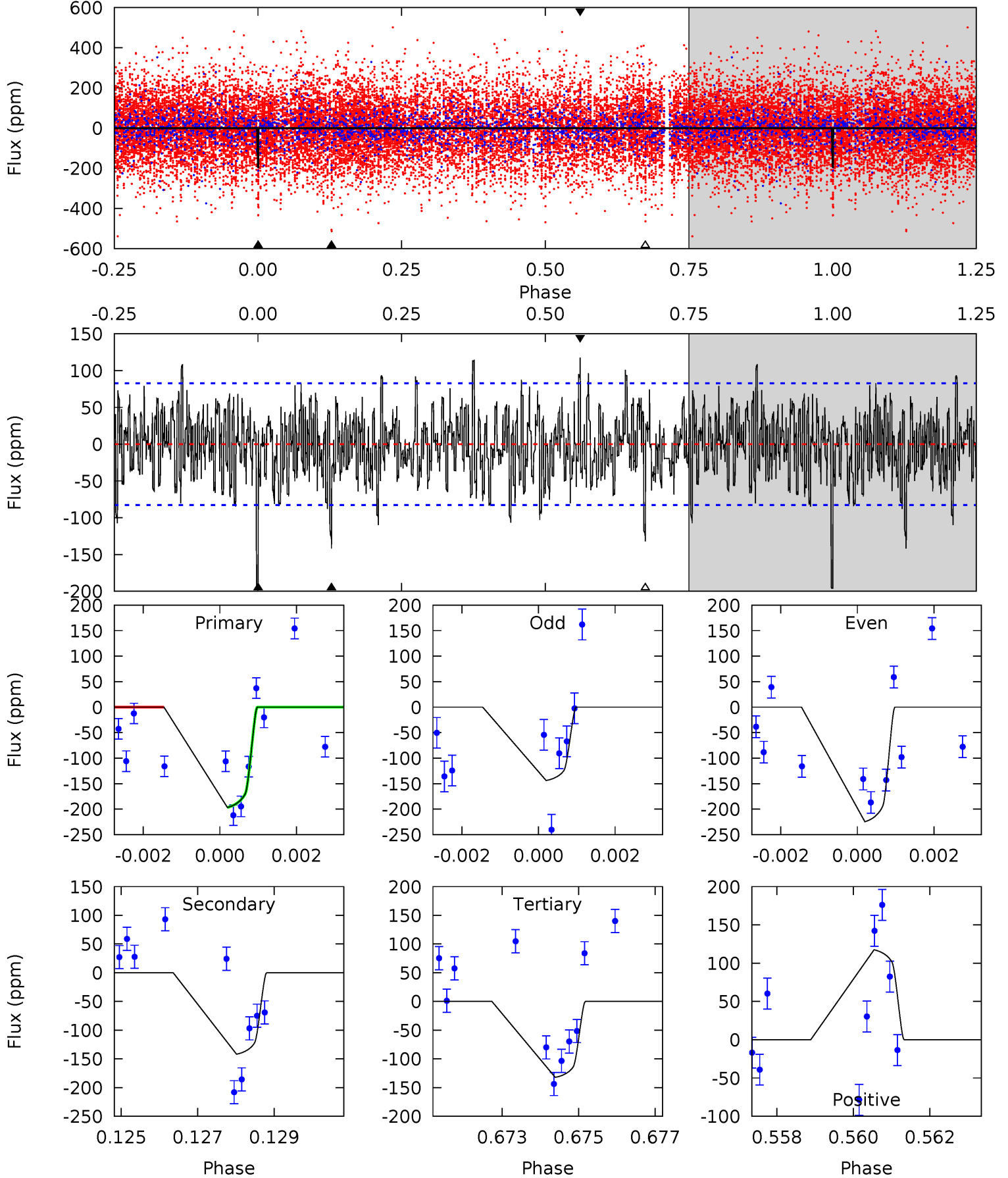
TCE 012268190-04 P=561.473362 Days $T_0=330.623206$ (BKJD)



DV Model-Shift Uniqueness Test

012268190-04, P = 561.481101 Days, E = 330.332346 Days

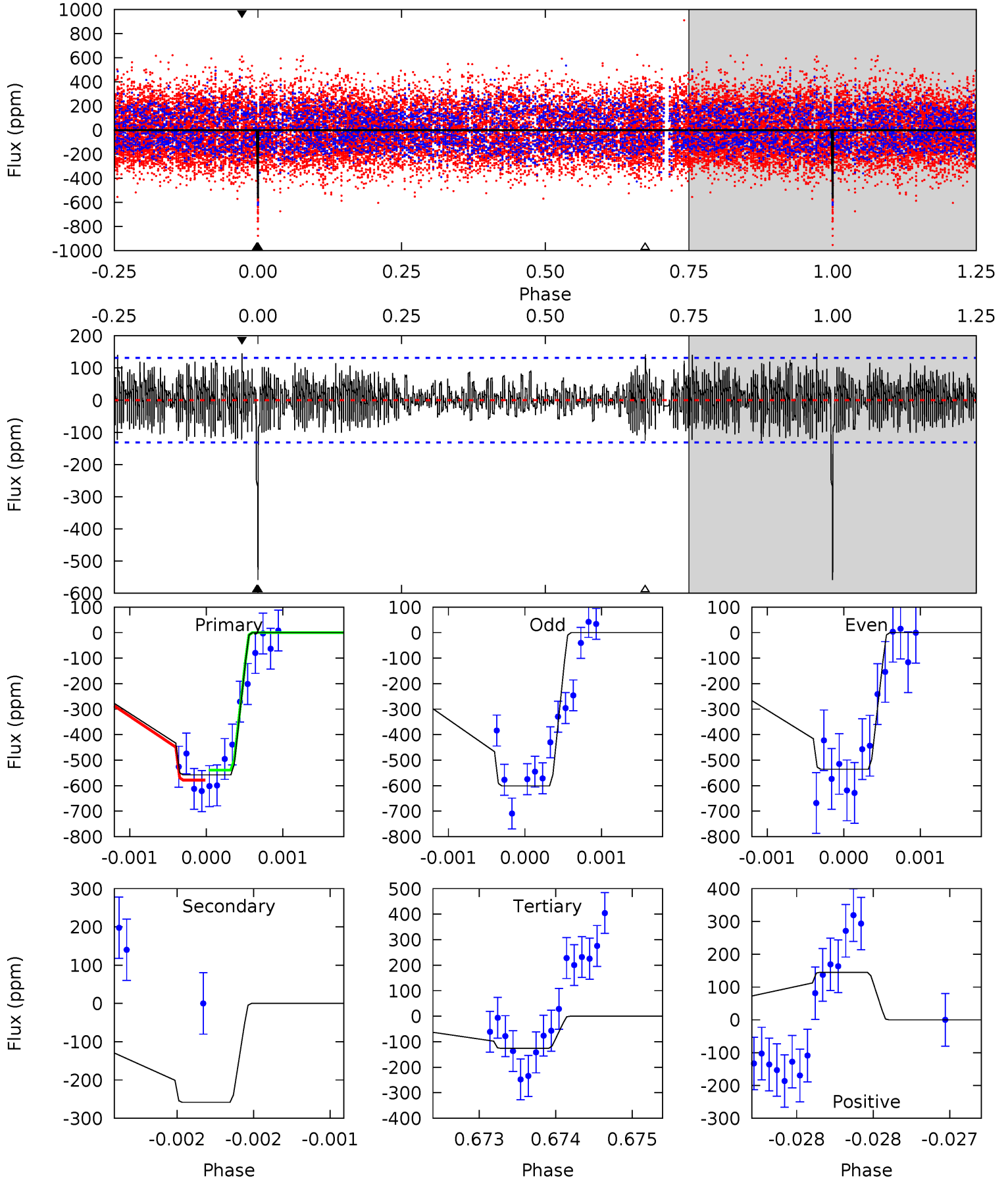
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	9.11	8.49	7.54	5.32	3.08	2.25	4.14	5.08	0.62	1.56	2.46	1.27	0.37	0



Alt Model-Shift Uniqueness Test

012268190-04, P = 561.473362 Days, E = 330.623206 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.4	10.8	5.27	6.07	5.50	3.37	1.96	18.1	17.3	5.54	4.75	1.34	0.92	0.21	0.80



Stellar Parameters For KIC 012268190

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6915^{+187}_{-207}	$3.602^{+0.323}_{-0.057}$	$-0.200^{+0.300}_{-0.250}$	$3.457^{+0.412}_{-1.236}$	$1.742^{+0.182}_{-0.339}$	$0.059^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+150%/-125%	+12%/-36%	+10%/-19%	+231%/-19%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 012268190-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-142 ± 16	$6.09^{+1.14}_{-1.17}$	612^{+32}_{-58}	5712^{+430}_{-368}	5390^{+2800}_{-1567}
Alt.	-258 ± 24	$8.59^{+1.35}_{-1.67}$	609^{+35}_{-50}	5626^{+332}_{-275}	5004^{+2439}_{-1262}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

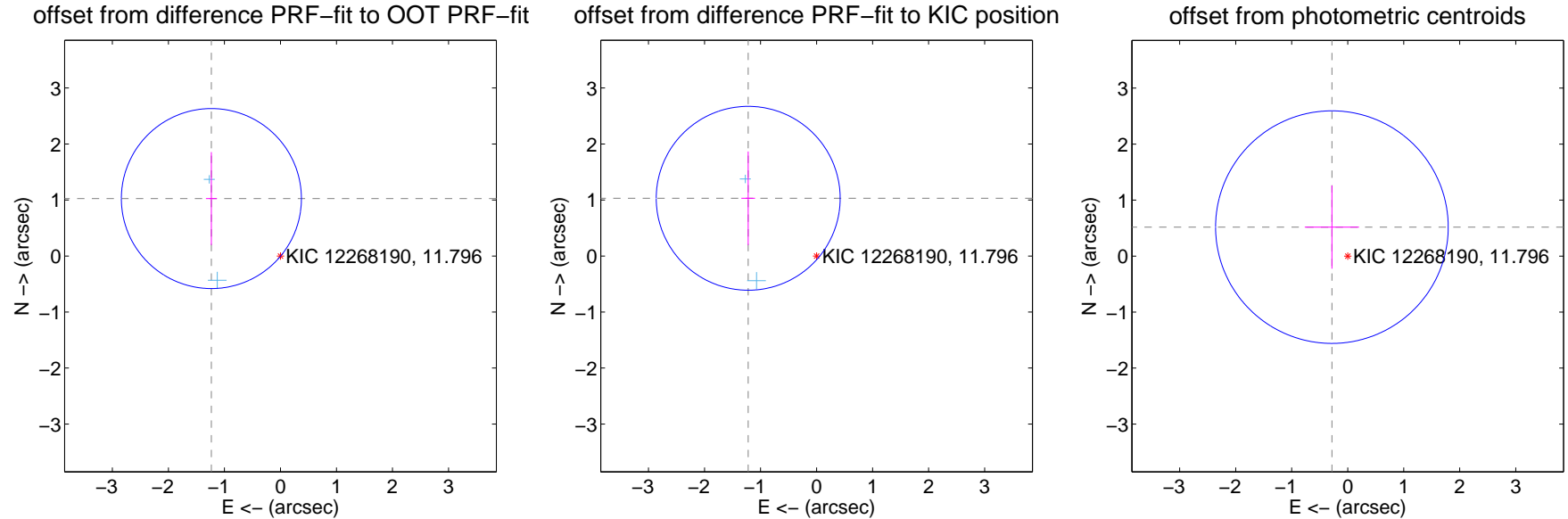
DV Centroid Data

Supplemental centroid analysis for 012268190-04. **Kepler magnitude: 11.80.** Transit SNR 7.55

There are 2 quarters with good PRF difference image offsets

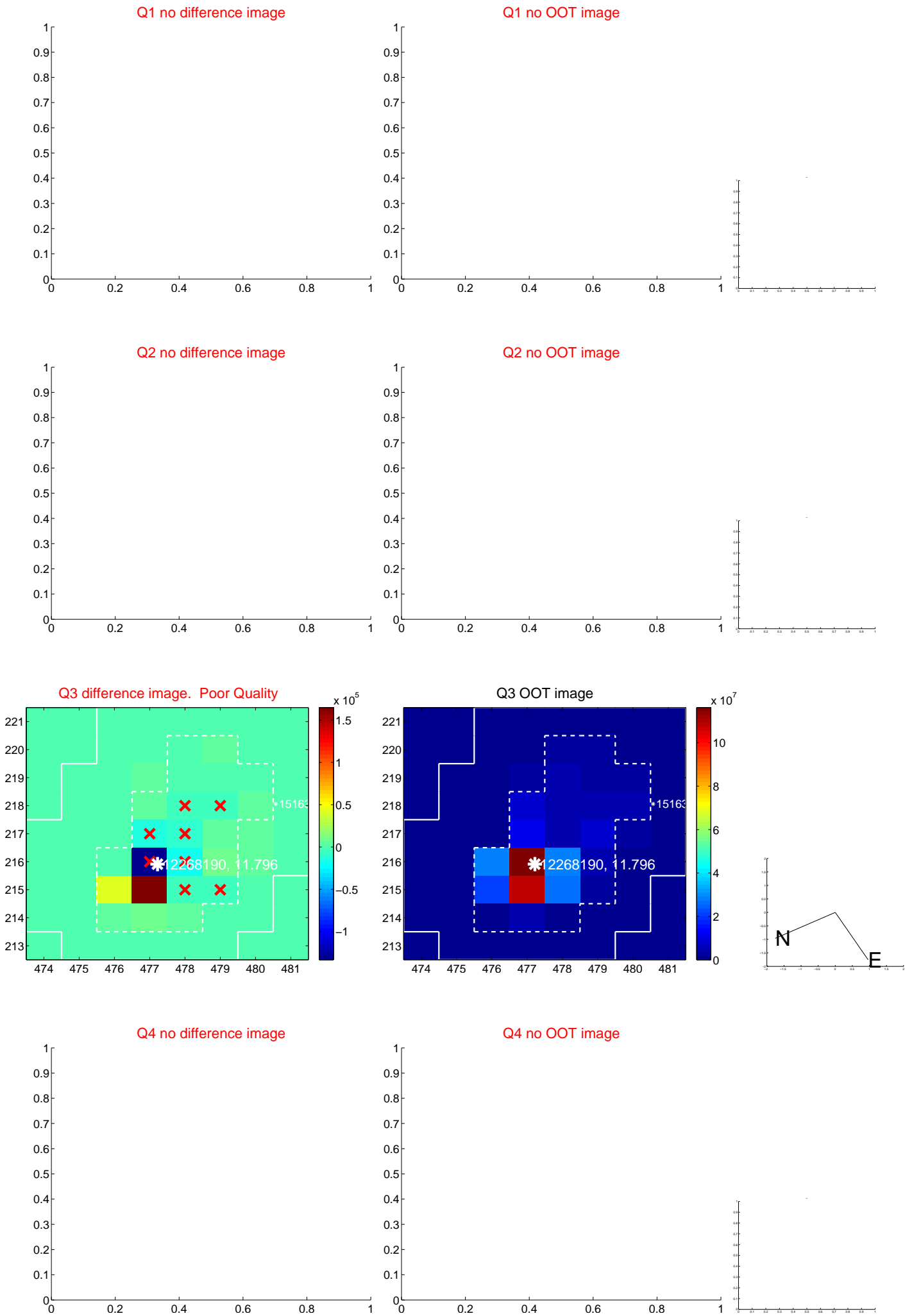
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.604 ± 0.536	2.99	1.233 ± 0.098	1.026 ± 0.829
PRF-fit source offset from KIC position	1.597 ± 0.547	2.92	1.220 ± 0.123	1.031 ± 0.835
photometric centroid source offset	0.59 ± 0.69	0.85	0.28 ± 0.48	0.52 ± 0.74



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.

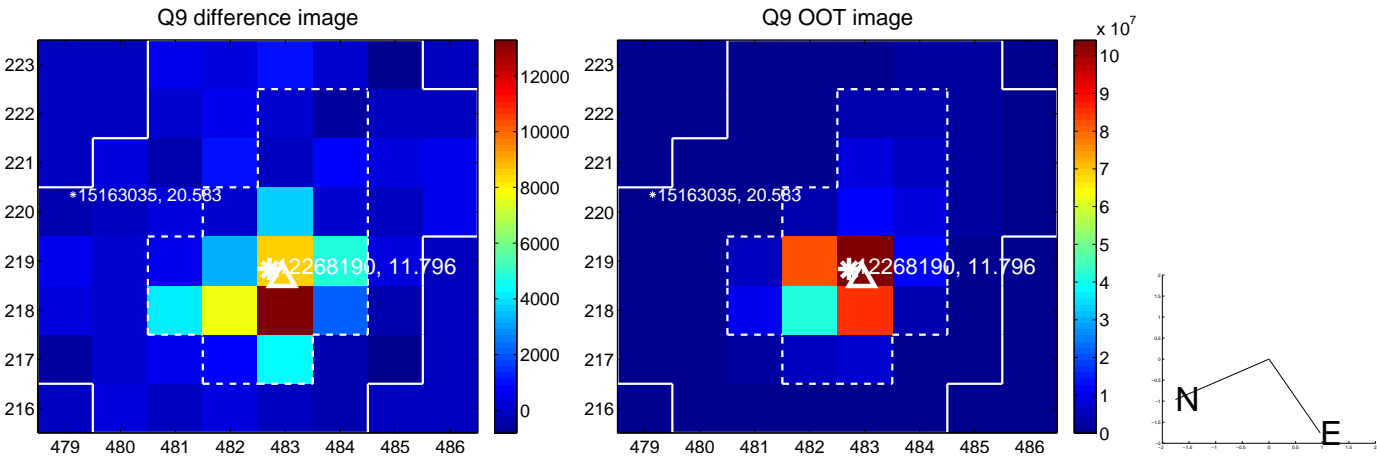
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

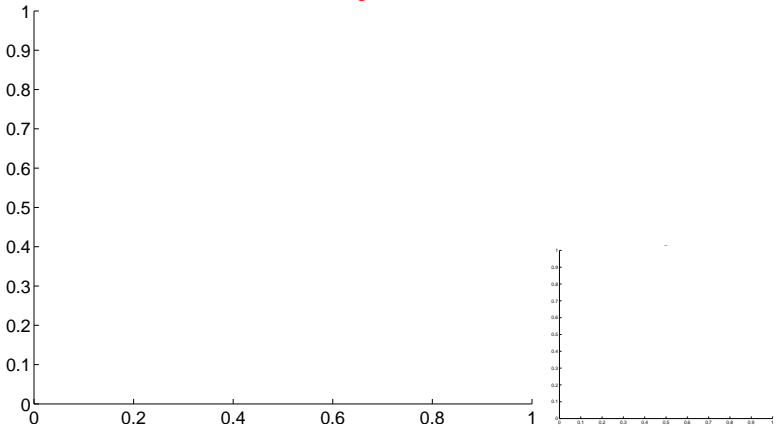


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q13 no difference image



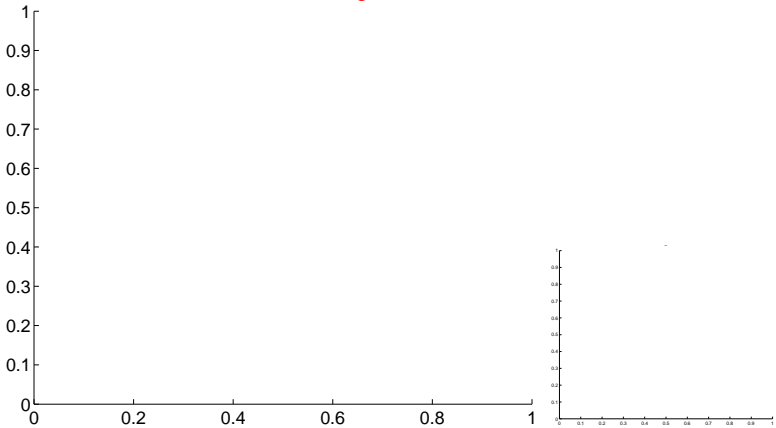
Q13 no OOT image



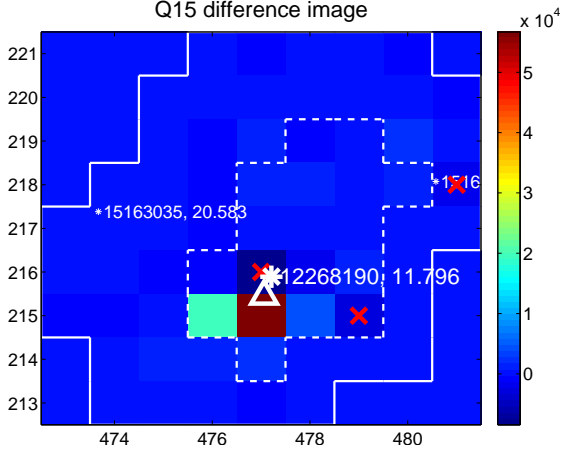
Q14 no difference image



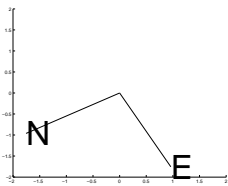
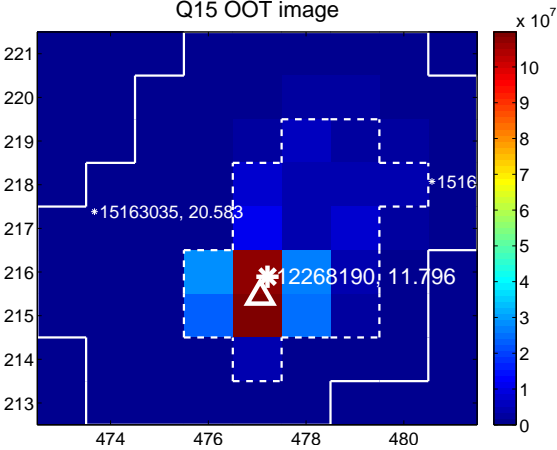
Q14 no OOT image



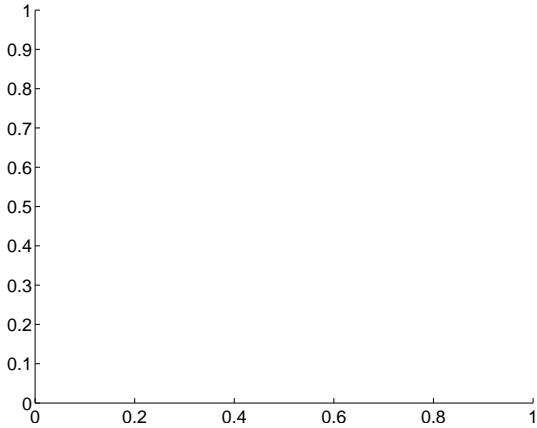
Q15 difference image



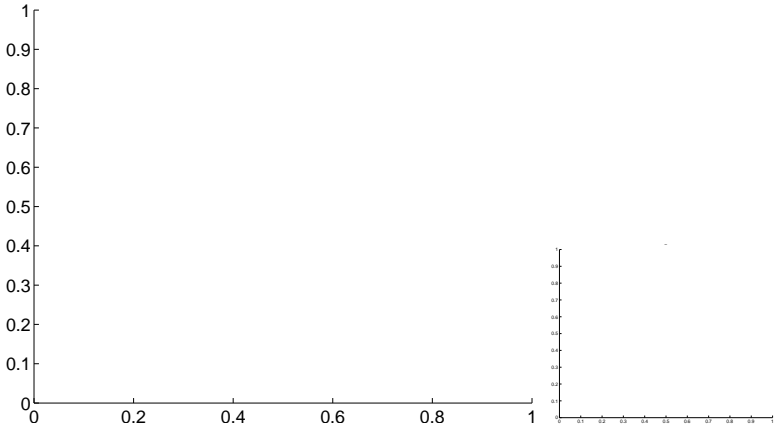
Q15 OOT image



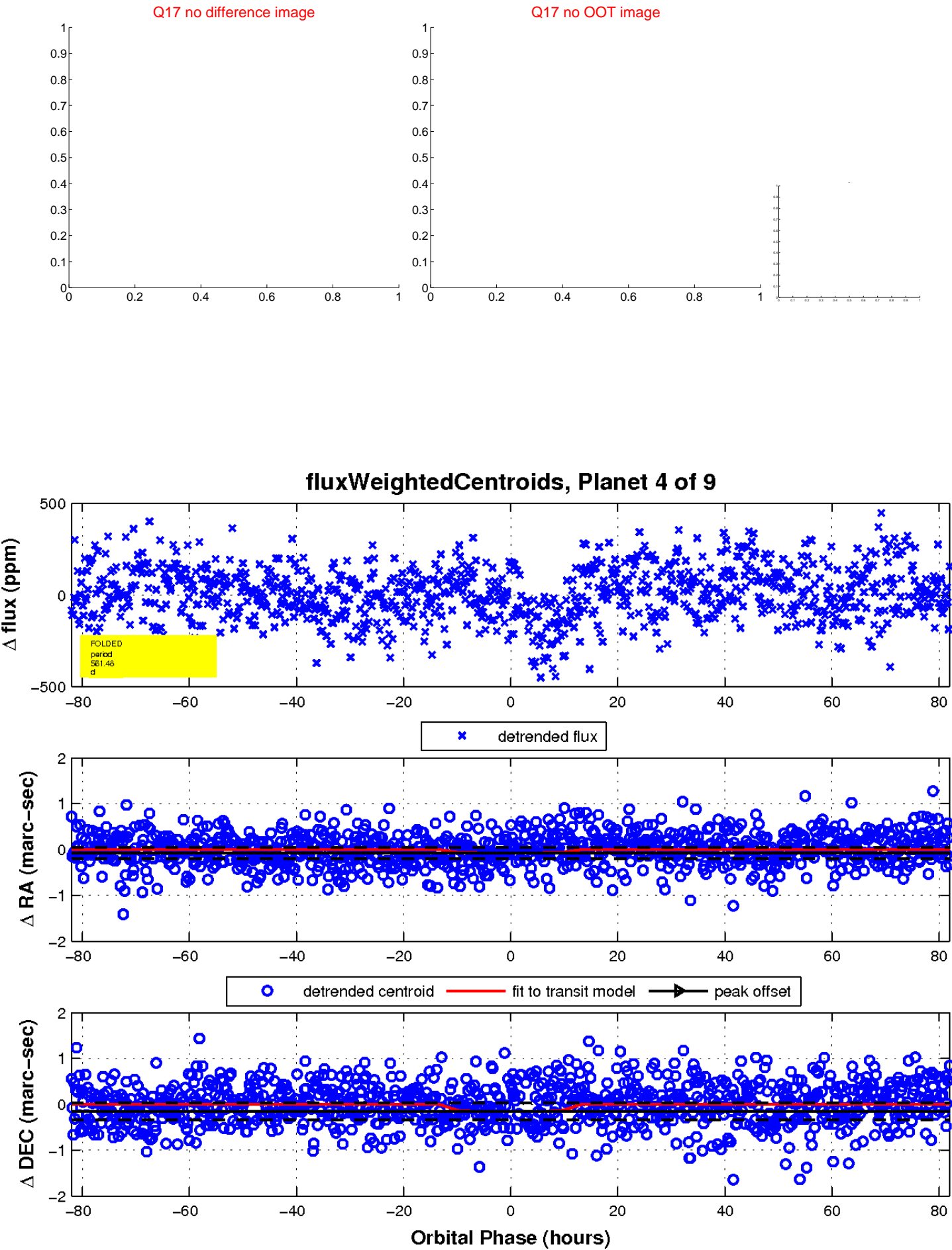
Q16 no difference image



Q16 no OOT image

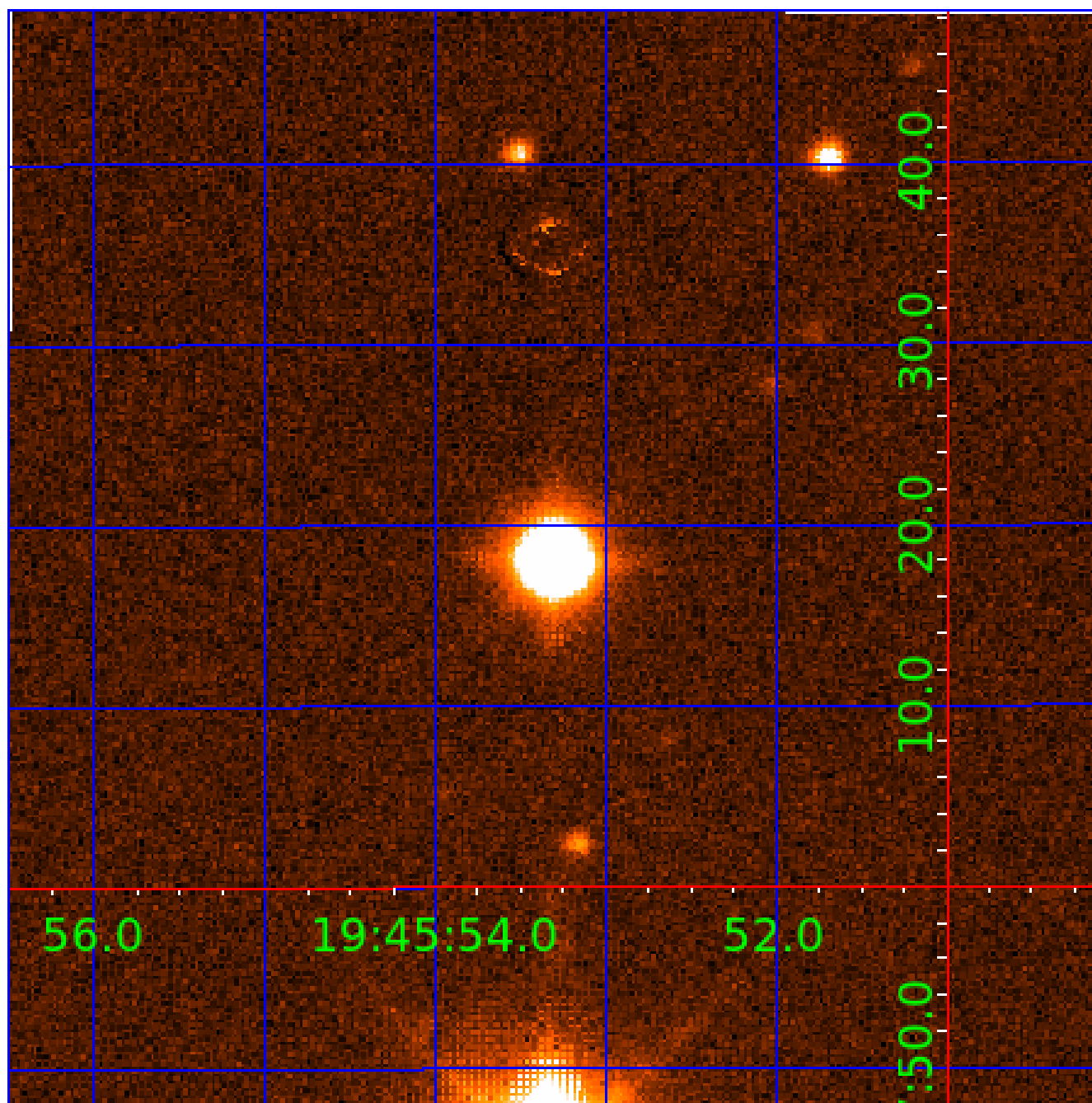


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012268190

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})
012268190-01	OBS	No	0.995576	132.085974	23.2	3.178	11.6	11.3	3.46	6915	1.93	44370.77
012268190-02	OBS	No	1.991368	132.511186	35.5	5.204	12.4	12.5	3.46	6915	3.01	17606.00
012268190-03	OBS	No	59.429660	148.717804	131.5	11.511	8.7	8.9	3.46	6915	4.35	190.19
012268190-04	OBS	No	561.481101	330.332346	241.0	27.332	8.3	7.6	3.46	6915	6.57	9.52
012268190-05	OBS	No	94.817581	195.645350	39.6	21.417	8.2	2.6	3.46	6915	2.40	102.02
012268190-06	OBS	No	46.711873	171.151127	60.2	12.671	8.0	4.1	3.46	6915	3.08	262.20
012268190-07	OBS	No	366.486584	308.497921	55.3	11.921	7.8	2.4	3.46	6915	2.99	16.82
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012268190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
012268190-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
012268190-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
012268190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
012268190-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012268190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

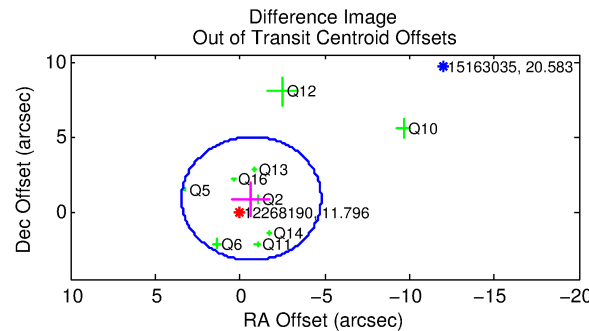
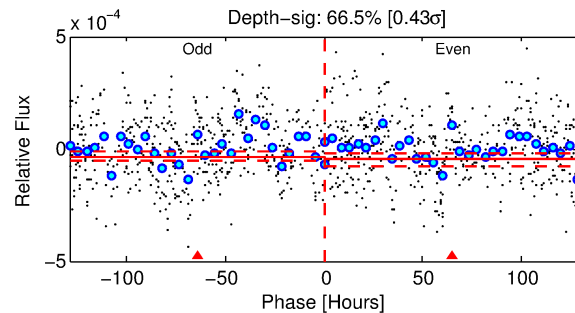
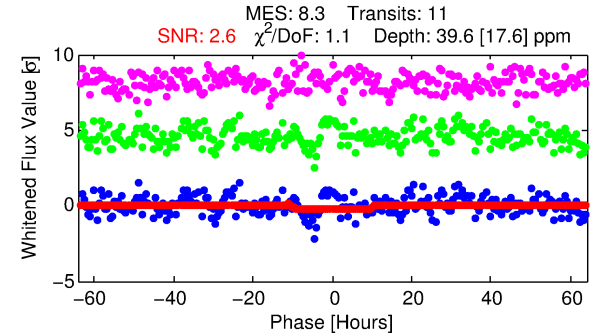
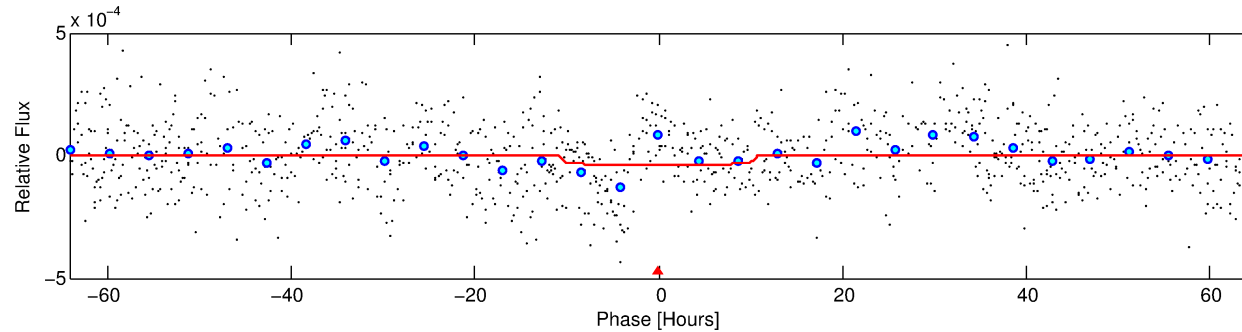
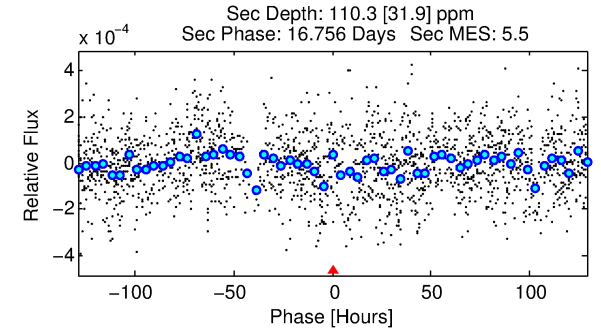
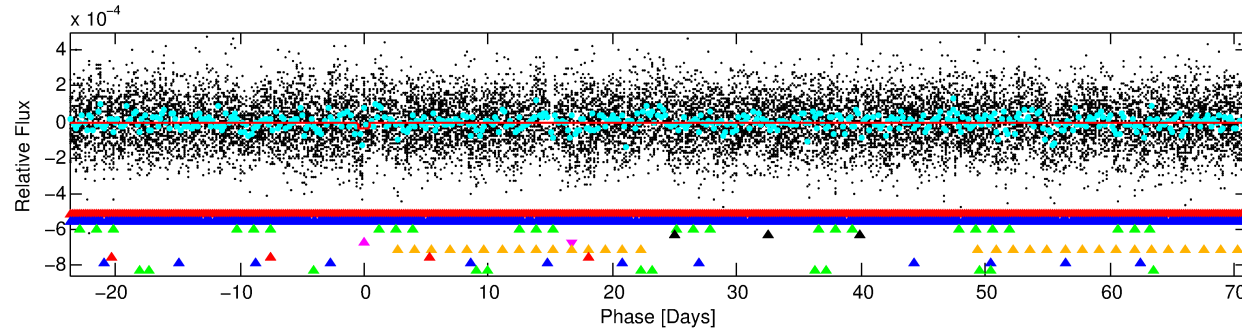
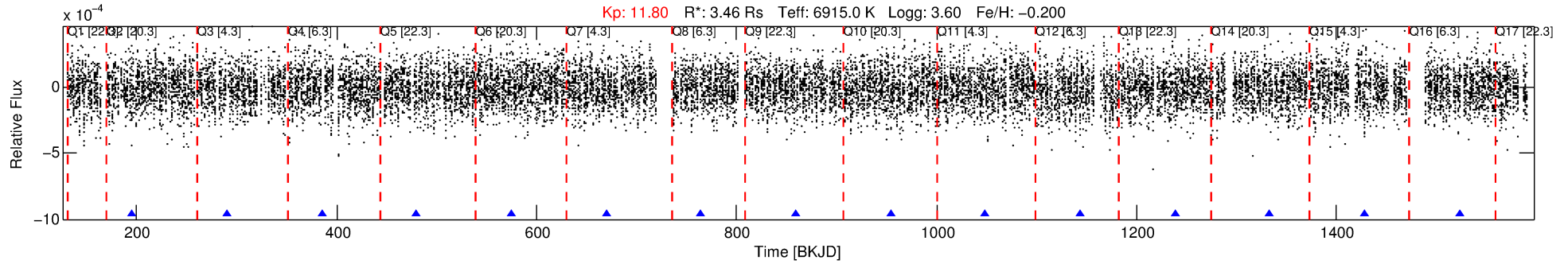
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012268190-05

No Significant Match Found

DV One-Page Summary

KIC: 12268190 Candidate: 5 of 9 Period: 94.818 d



DV Fit Results:

Period = 94.81758 [0.00829] d
Epoch = 195.6453 [0.0775] BKJD
Rp/R* = 0.0064 [0.0034]
a/R* = 20.52 [58.76]
b = 0.80 [1.28]
Seff = 102.02 [57.44]
Teq = 810 [114] K
Rp = 2.40 [1.56] Re
a = 0.4899 [0.1685] AU
Ag = 2523.89 [3147.77] [0.80σ]
Teffp = 8881 [2499] K [3.23σ]

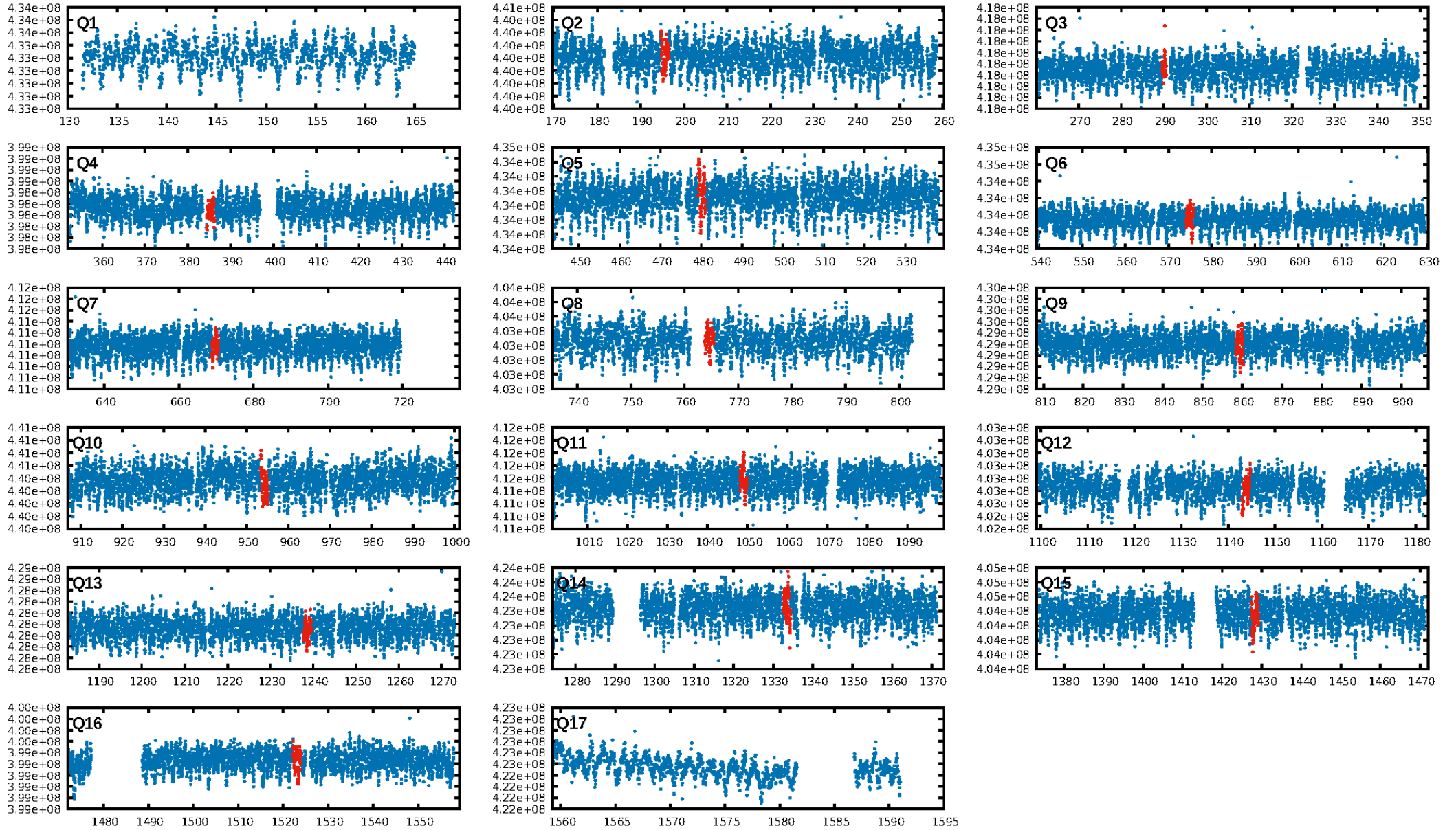
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [34.93σ]
LongPeriod-sig: 100.0% [29.01σ]
ModelChiSquare2-sig: 27.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.66e-09
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 0.3636
Centroid-sig: 12.0%
Centroid-so: 2.453 arcsec [1.23σ]
OotOffset-rm: 1.105 arcsec [0.80σ]
KicOffset-rm: 1.054 arcsec [0.75σ]
OotOffset-st: 4/1/2/2 [9]
KicOffset-st: 4/1/2/2 [9]
DiffImageQuality-fgm: 0.11 [1/9]
DiffImageOverlap-fno: 0.00 [0/12]

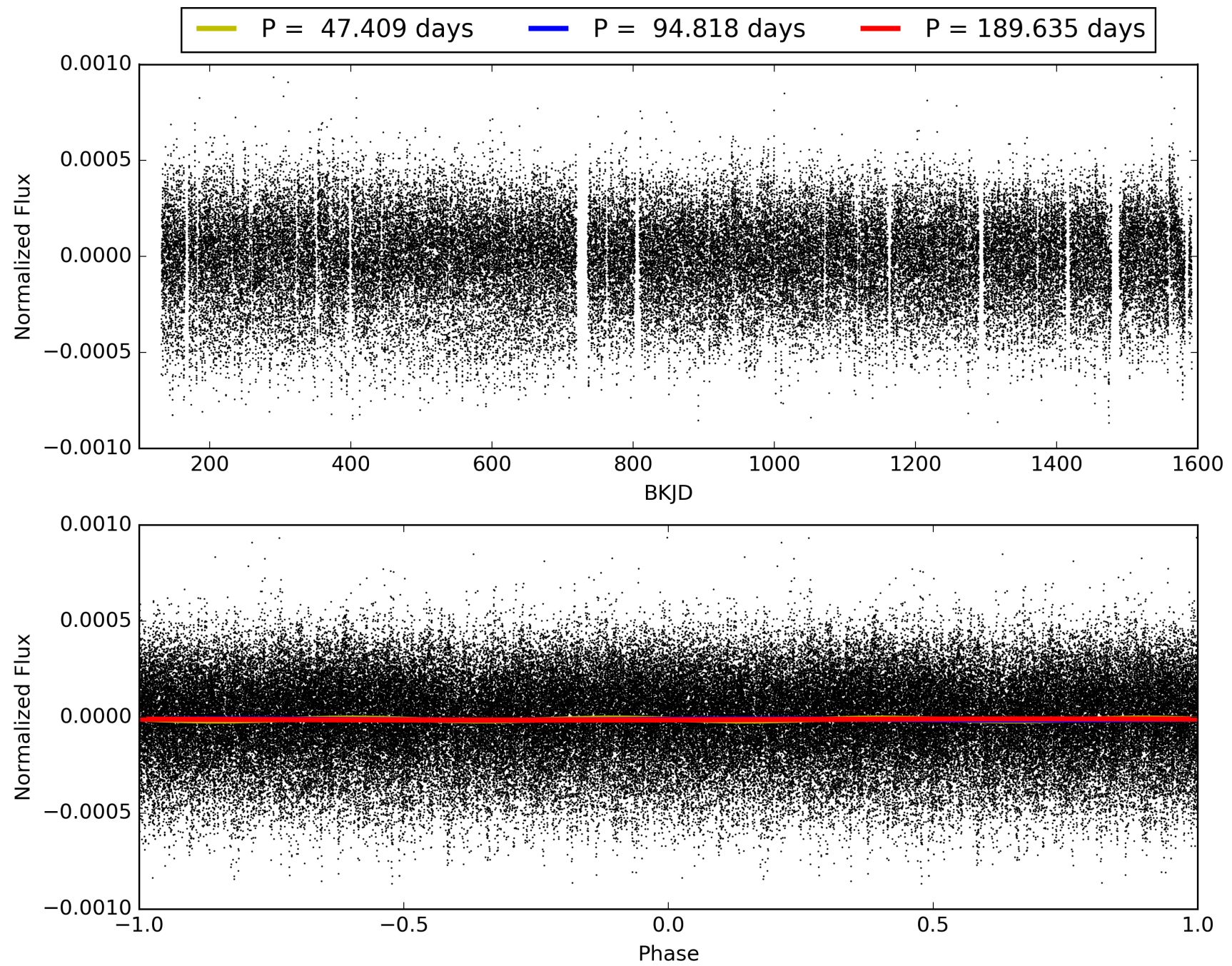
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:16:46 Z

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

TCE 012268190-05, PDC Light Curves

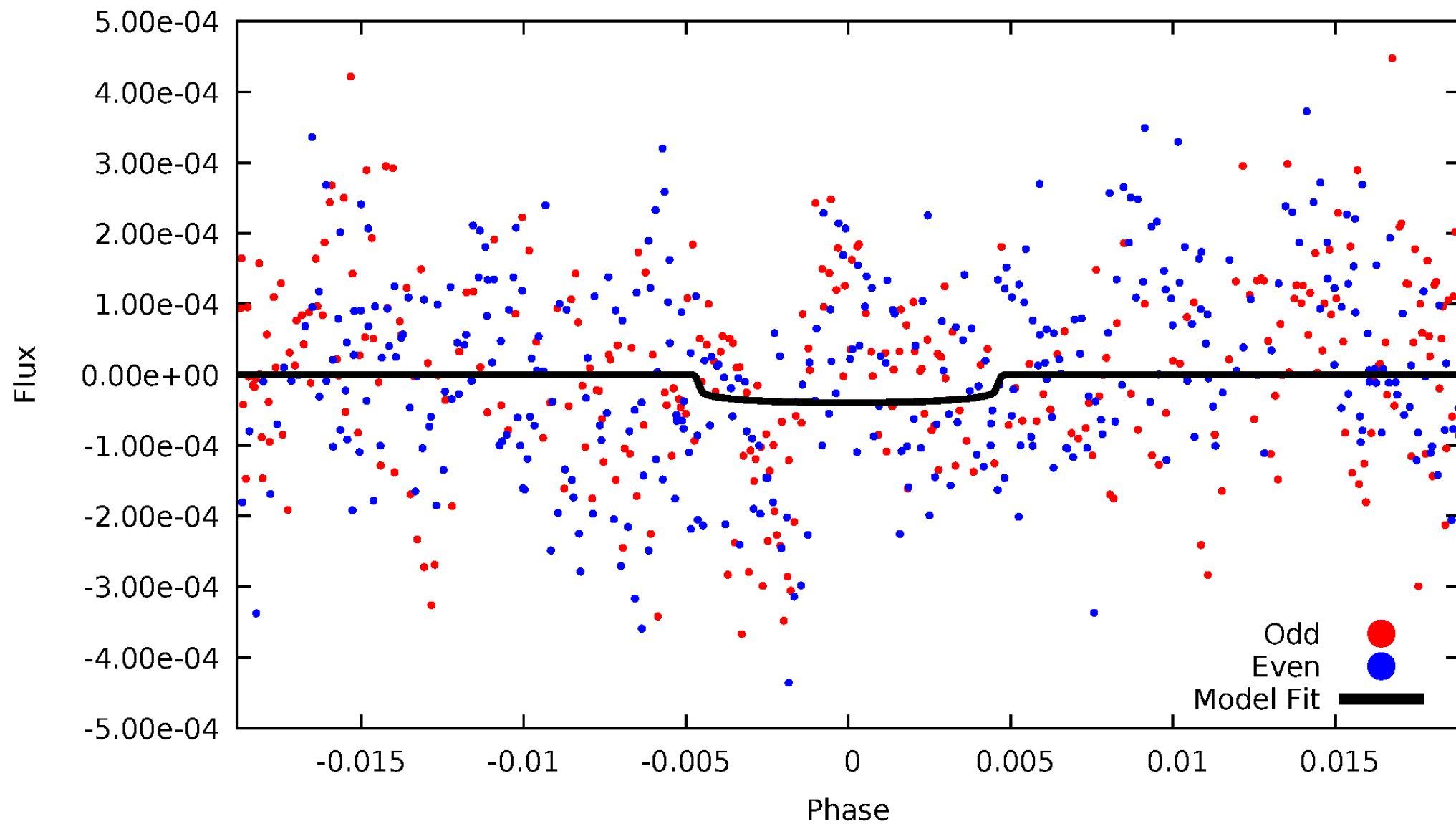


TCE 012268190-05



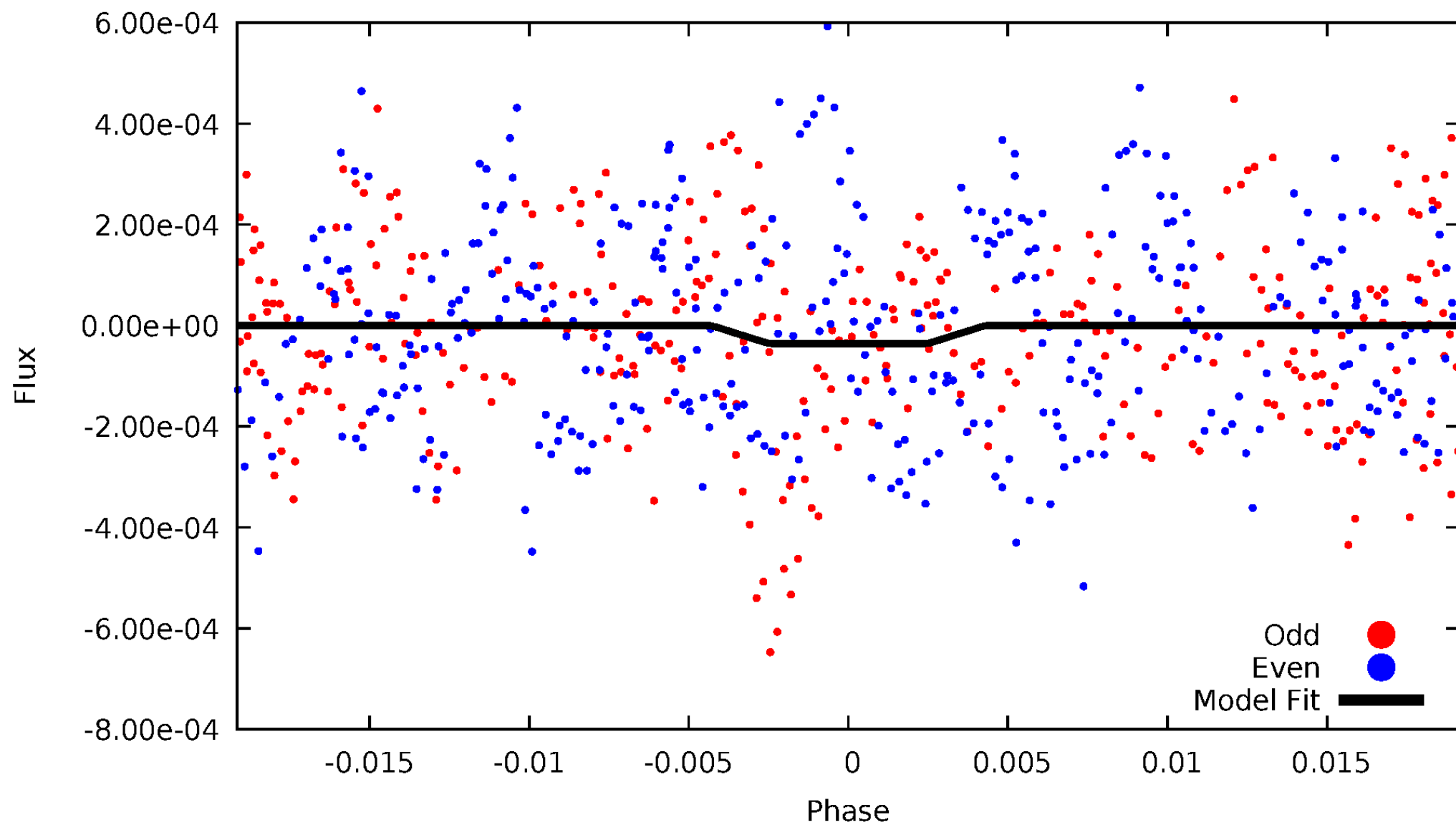
DV Odd/Even

TCE 012268190-05

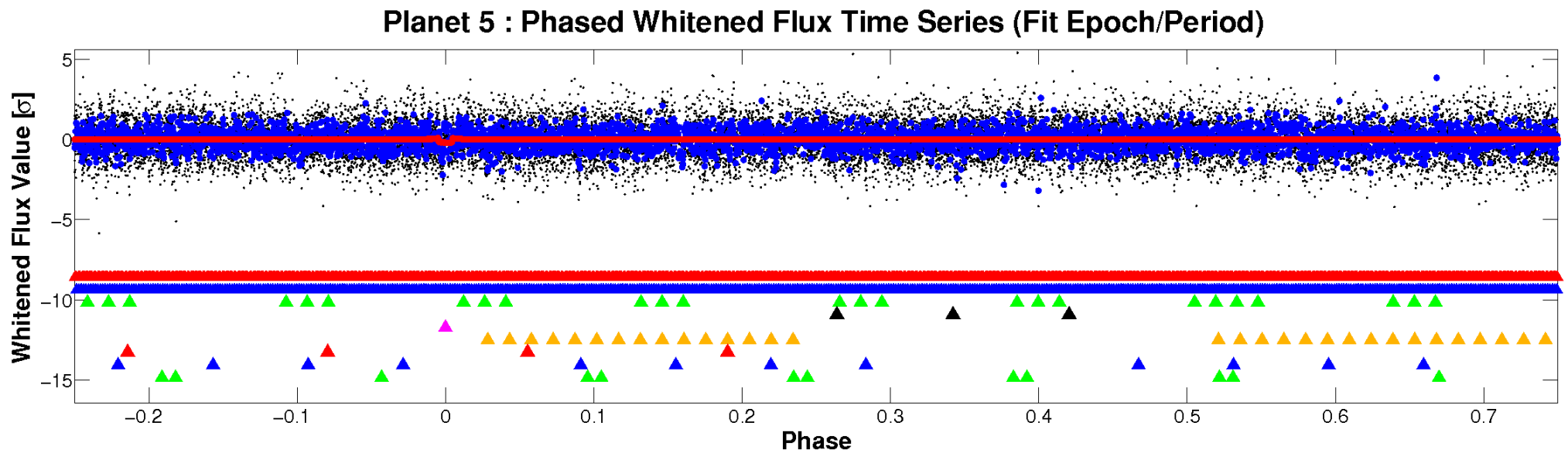
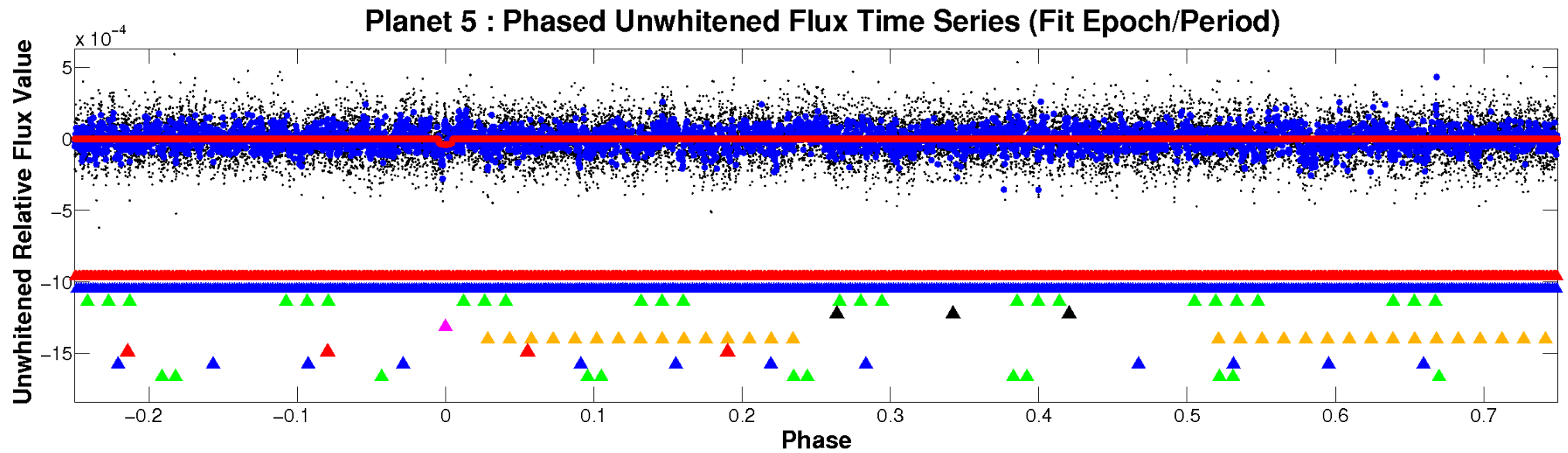


ALT Odd/Even

TCE 012268190-05

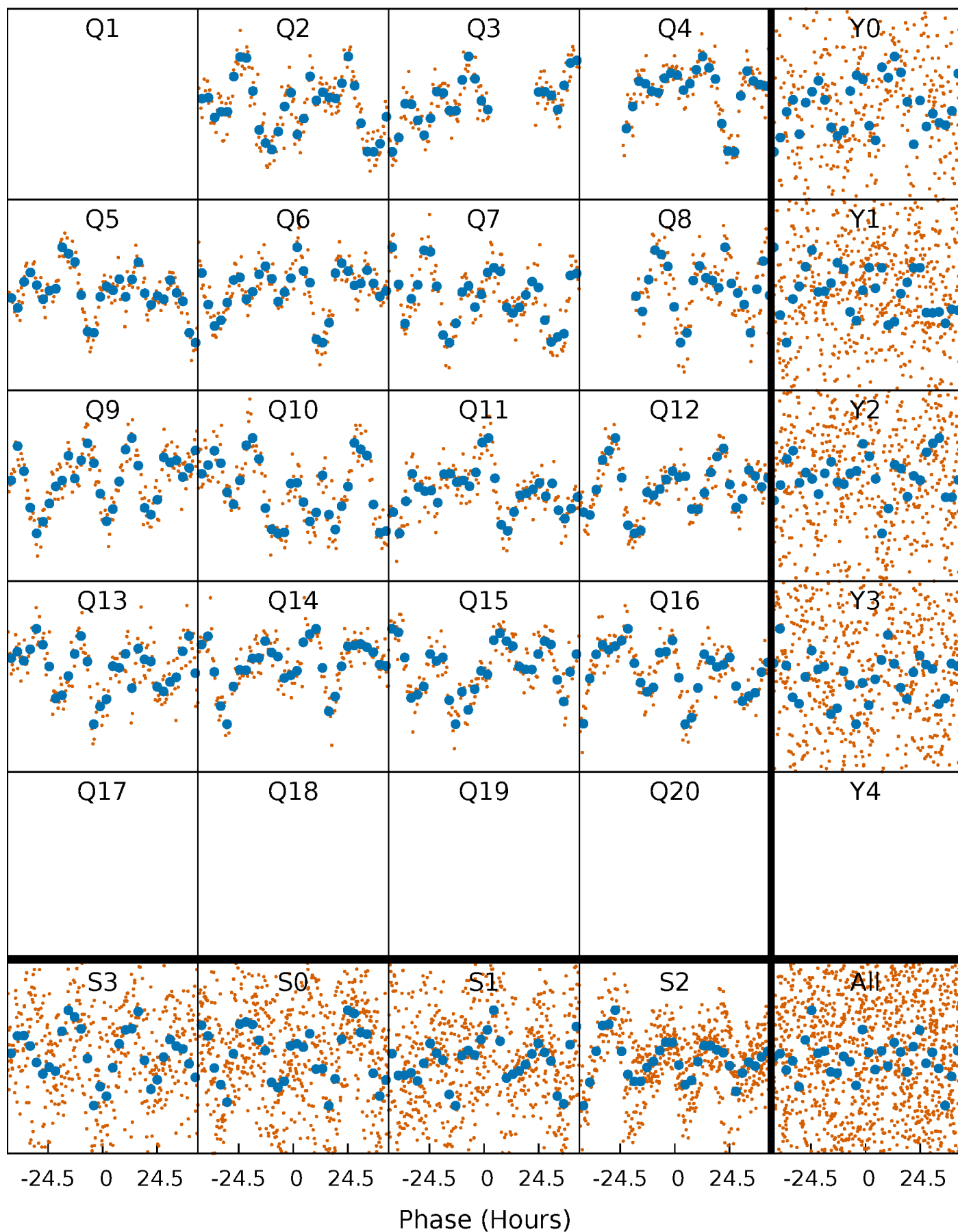


Non-Whitened Vs. Whitened Light Curve



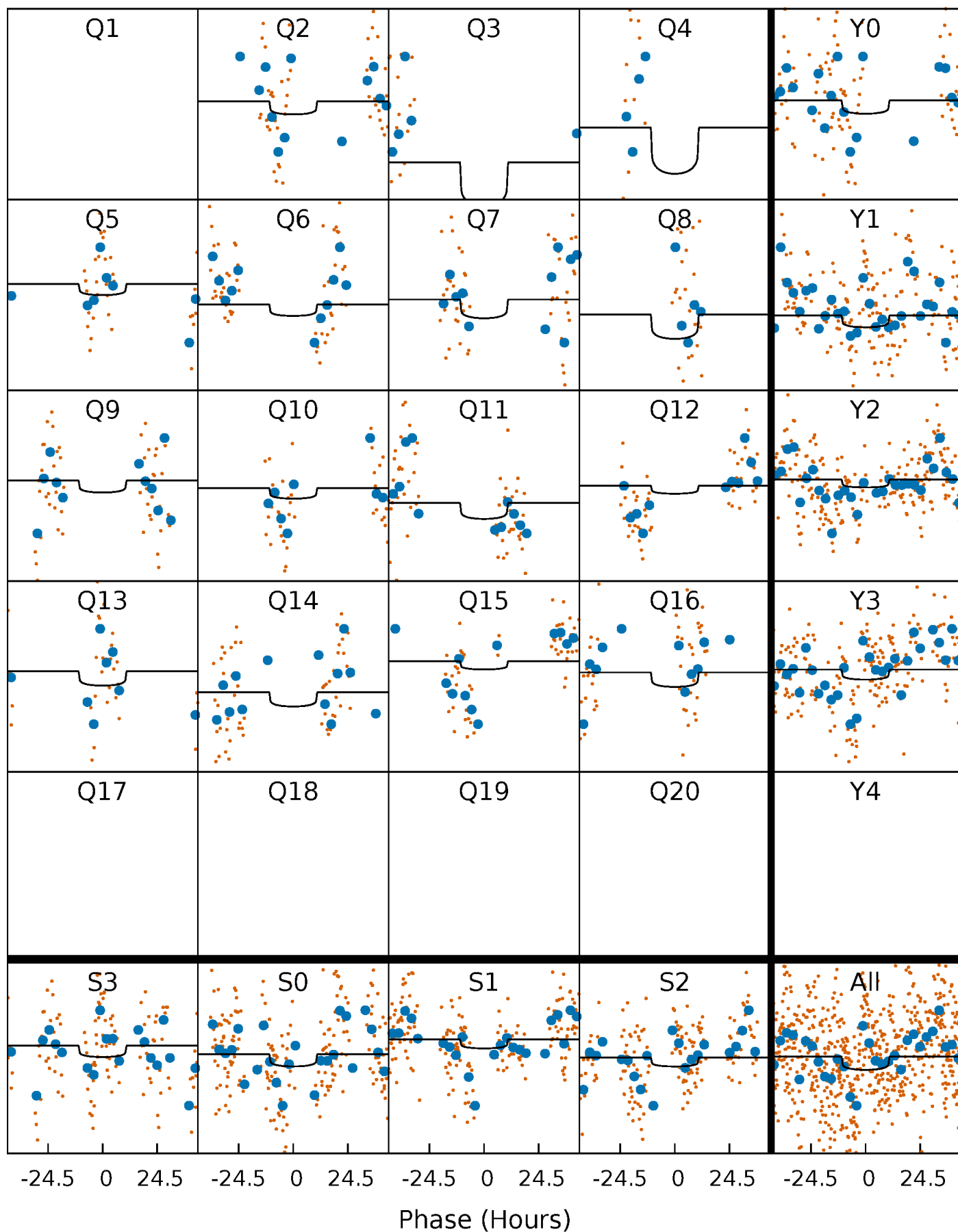
PDC Quarter-Phased Transit Curves

TCE 012268190-05 $P = 94.817581$ Days $T_0 = 195.645350$ (BKJD)



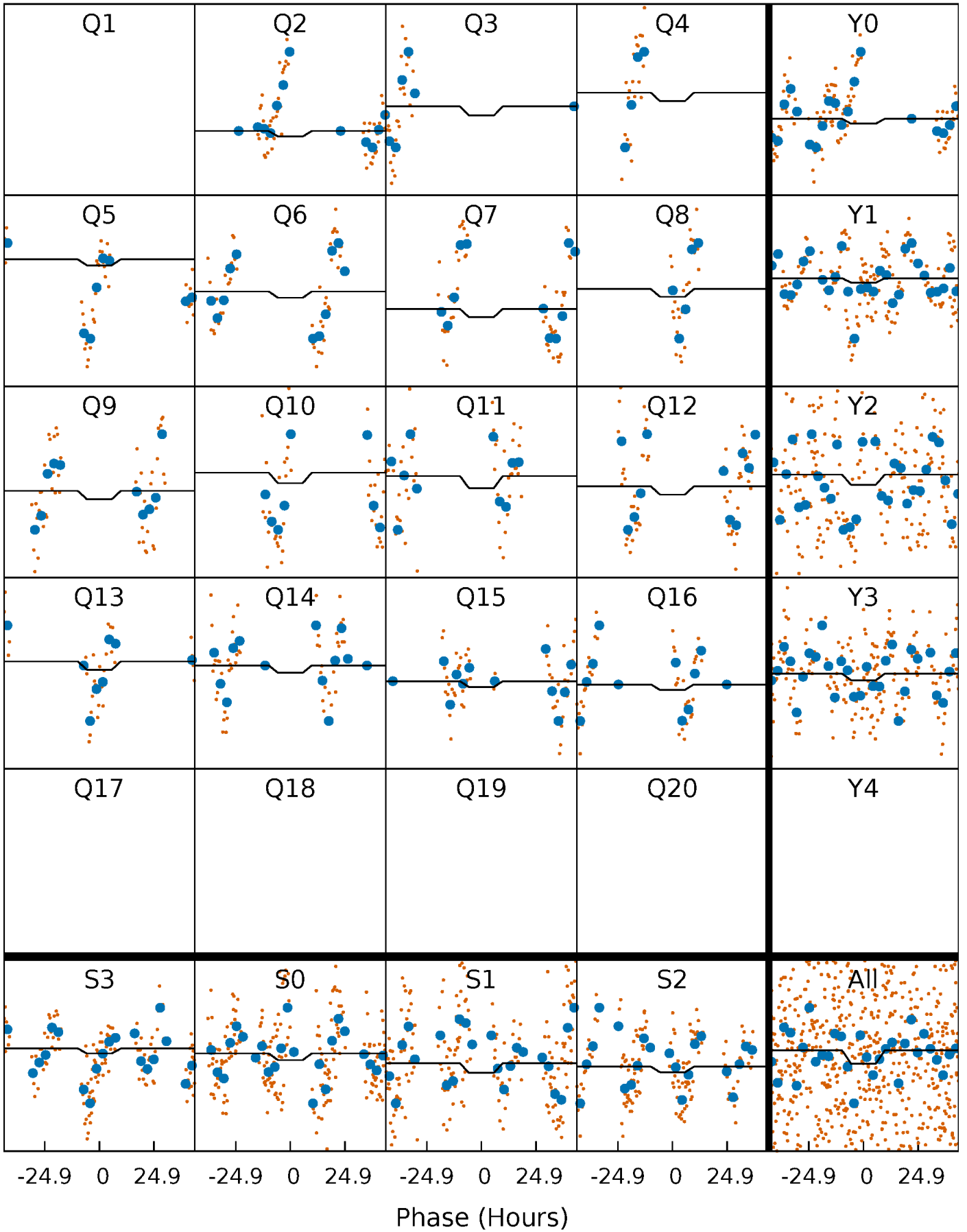
DV Quarter-Phased Transit Curves

TCE 012268190-05 $P = 94.817581$ Days $T_0 = 195.645350$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

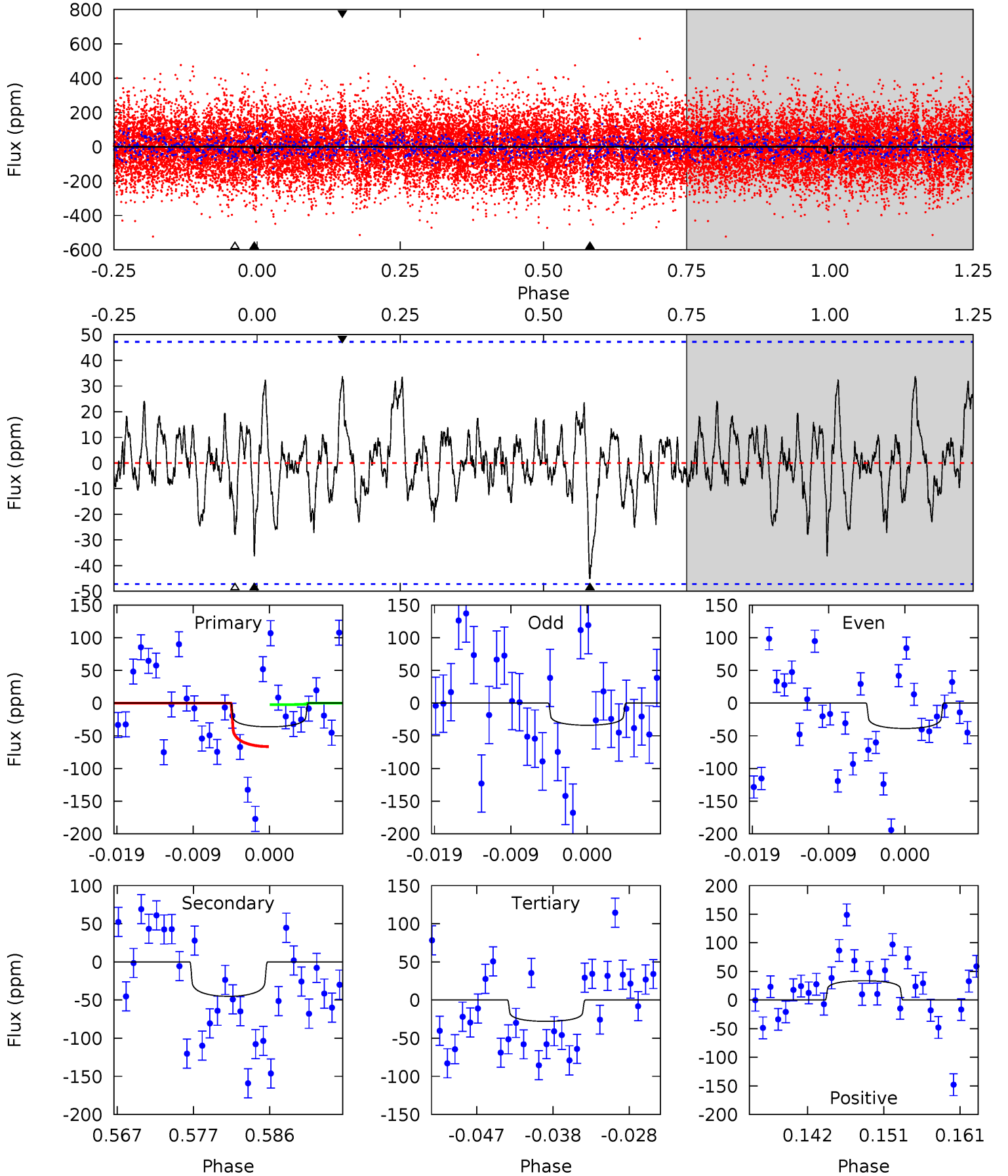
TCE 012268190-05 $P = 94.820034$ Days $T_0 = 195.634625$ (BKJD)



DV Model-Shift Uniqueness Test

012268190-05, P = 94.817581 Days, E = 100.827769 Days

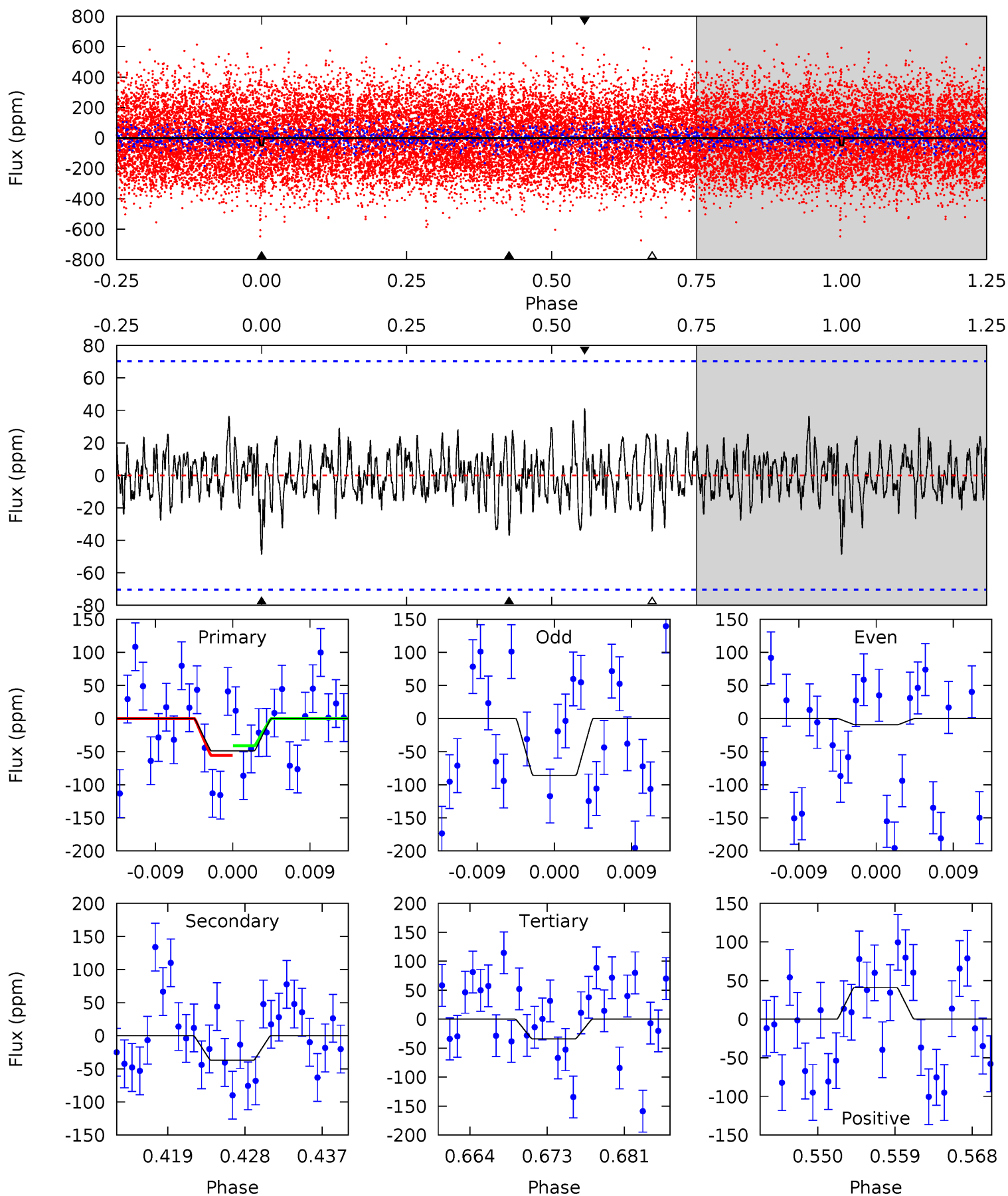
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.87	4.82	2.98	3.60	5.04	2.60	1.13	0.89	0.27	1.83	1.22	0.27	1.73	0.43	3.42



Alt Model-Shift Uniqueness Test

012268190-05, P = 94.820034 Days, E = 100.814591 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.50	2.65	2.45	2.93	5.05	2.62	0.88	1.05	0.57	0.21	-0.28	2.75	-0.61	0.46	0.52



Stellar Parameters For KIC 012268190

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6915^{+187}_{-207}	$3.602^{+0.323}_{-0.057}$	$-0.200^{+0.300}_{-0.250}$	$3.457^{+0.412}_{-1.236}$	$1.742^{+0.182}_{-0.339}$	$0.059^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+150%/-125%	+12%/-36%	+10%/-19%	+231%/-19%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 012268190-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-45 ± 9	$2.24^{+1.29}_{-1.03}$	1103^{+59}_{-94}	7039^{+3447}_{-1396}	1191^{+2832}_{-720}
Alt.	-37 ± 14	$2.16^{+1.28}_{-1.11}$	1104^{+60}_{-95}	6817^{+3783}_{-1462}	1045^{+3444}_{-678}

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

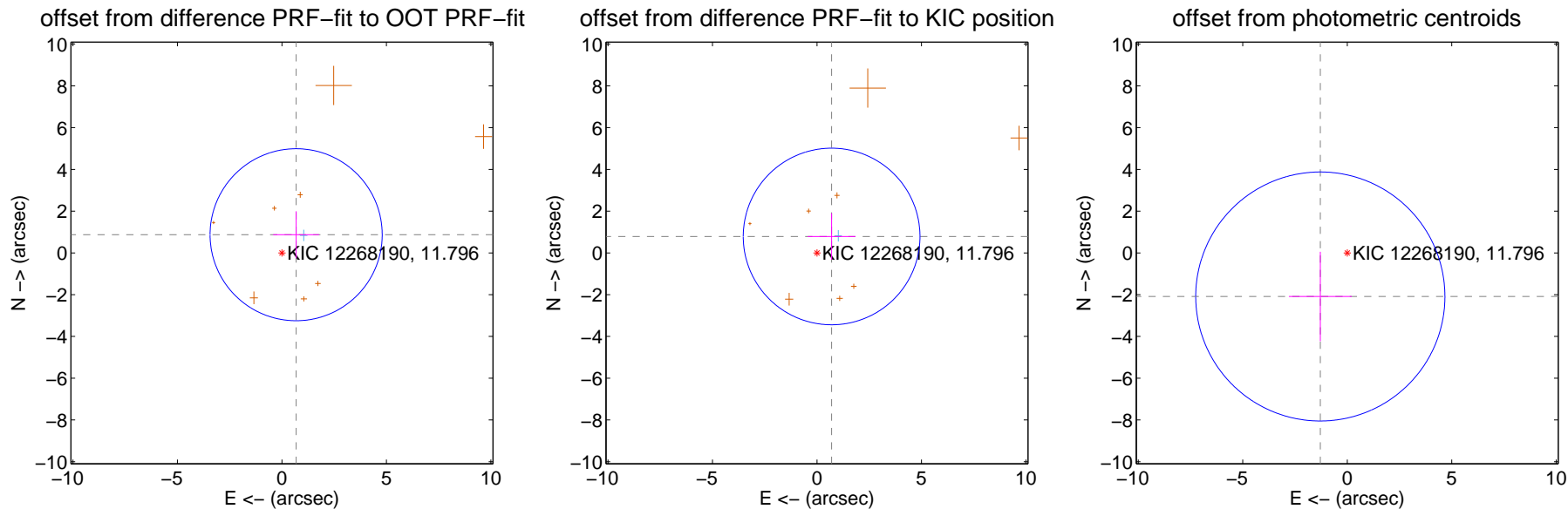
DV Centroid Data

Supplemental centroid analysis for 012268190-05. **Kepler magnitude: 11.80.** Transit SNR 2.56

There are 1 quarters with good PRF difference image offsets

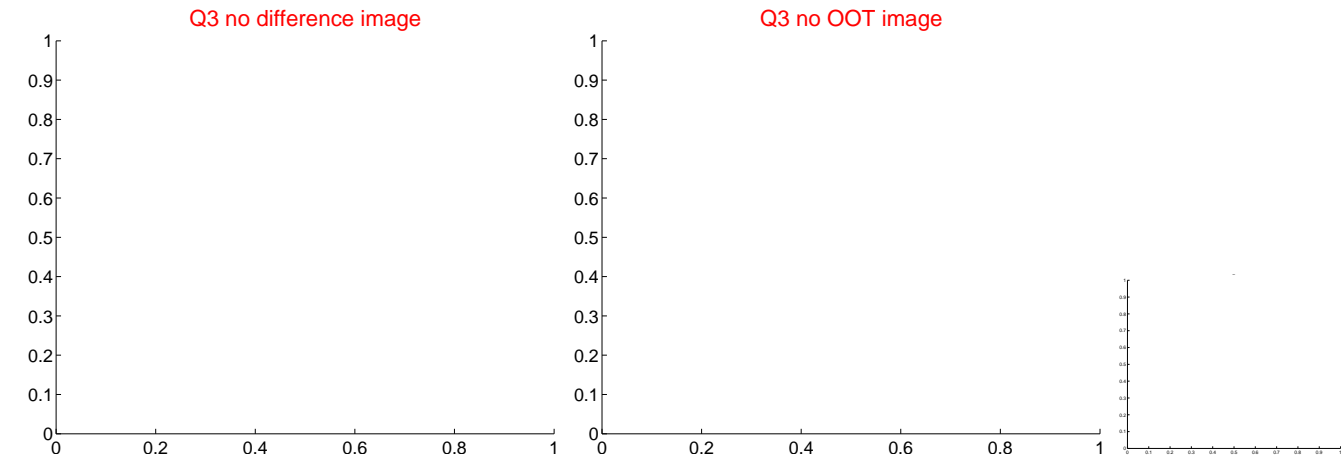
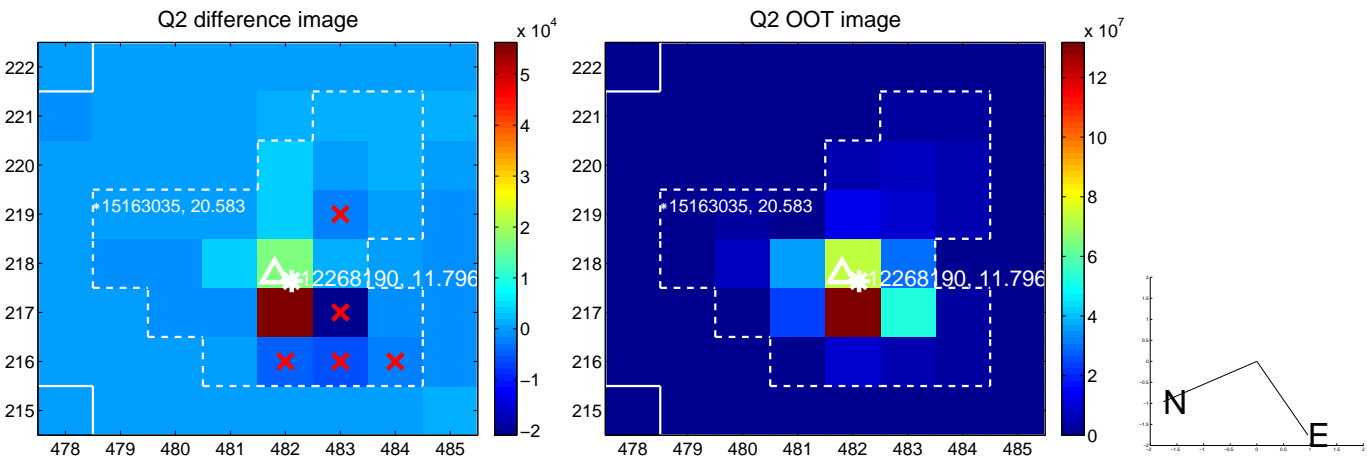
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.105 ± 1.373	0.80	-0.680 ± 1.101	0.871 ± 1.126
PRF-fit source offset from KIC position	1.054 ± 1.410	0.75	-0.701 ± 1.144	0.787 ± 1.115
photometric centroid source offset	2.45 ± 1.99	1.23	1.29 ± 1.50	-2.09 ± 2.14

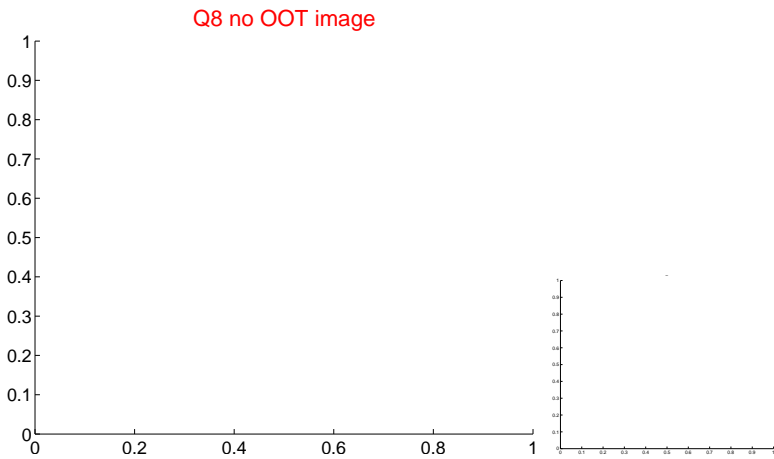
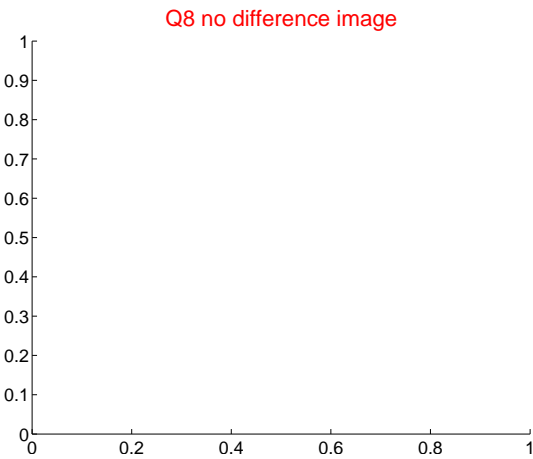
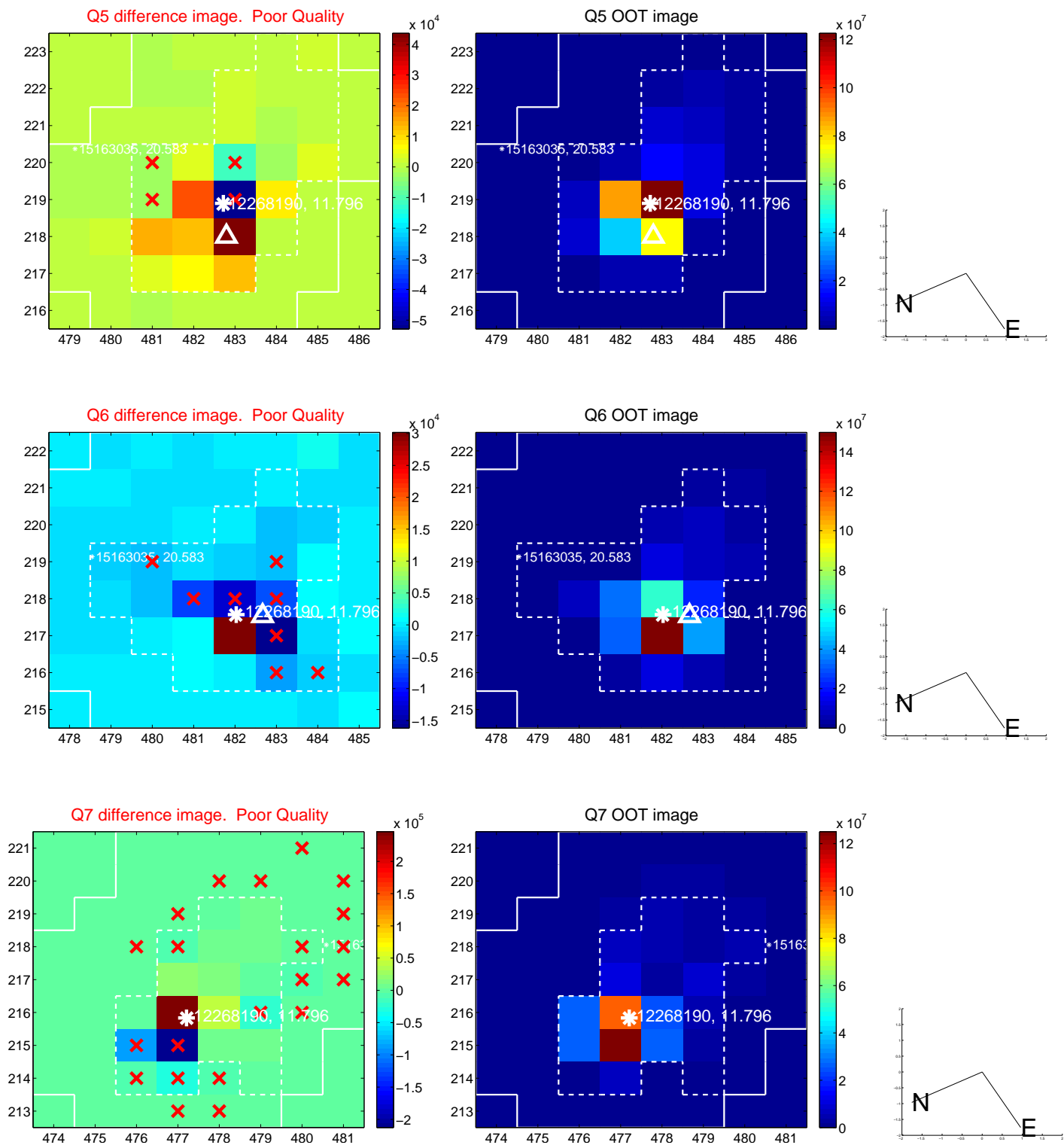


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

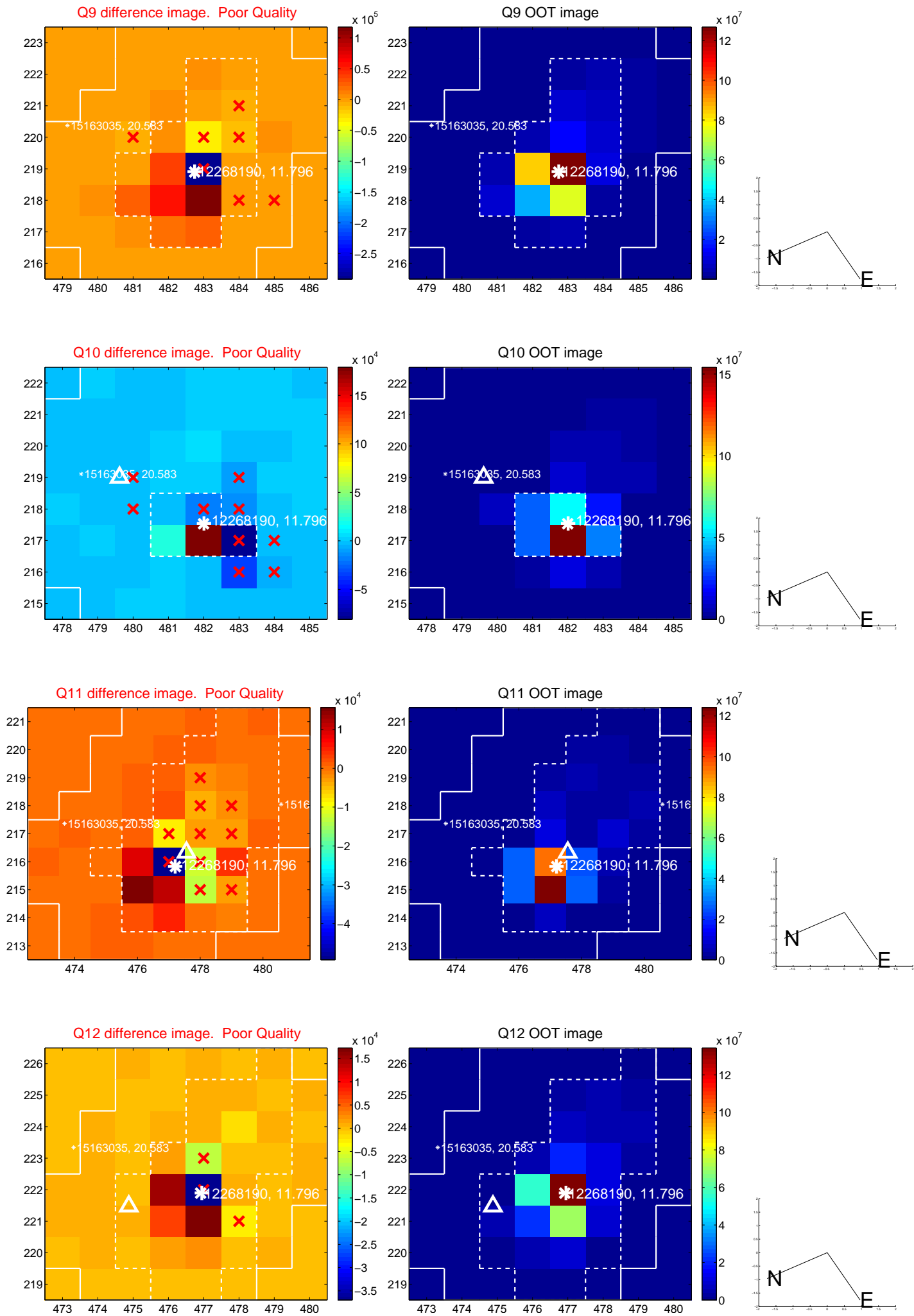
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



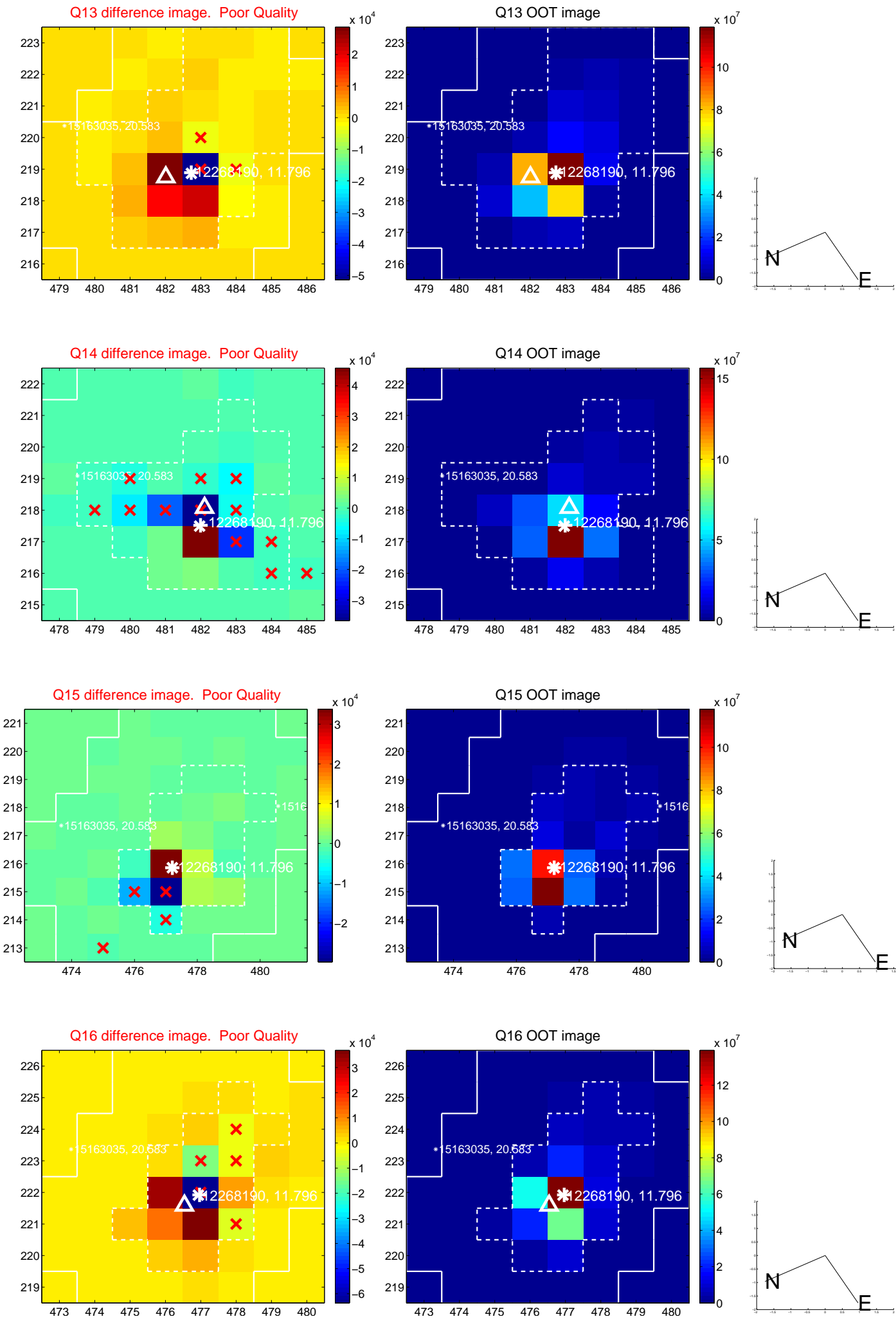
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



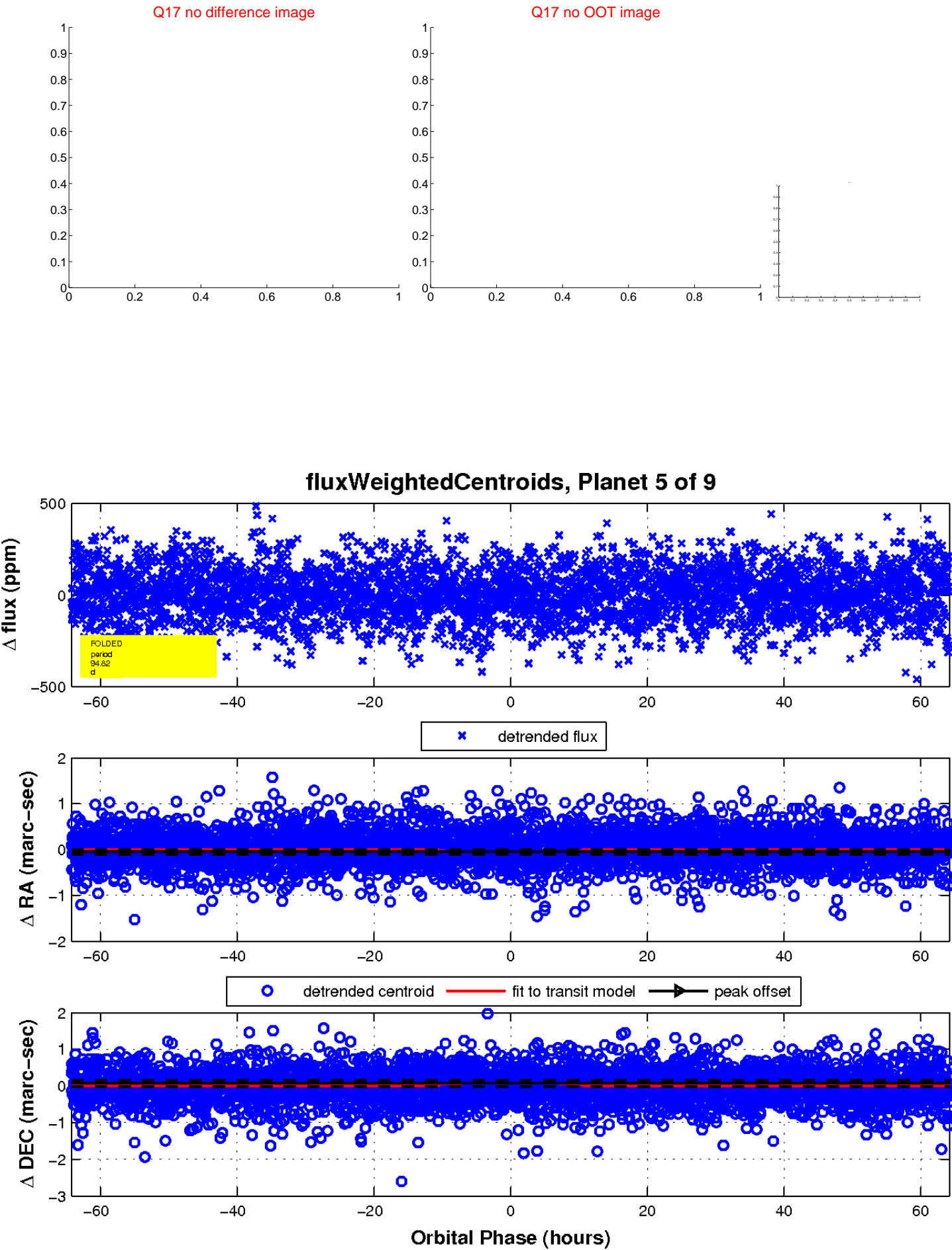
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

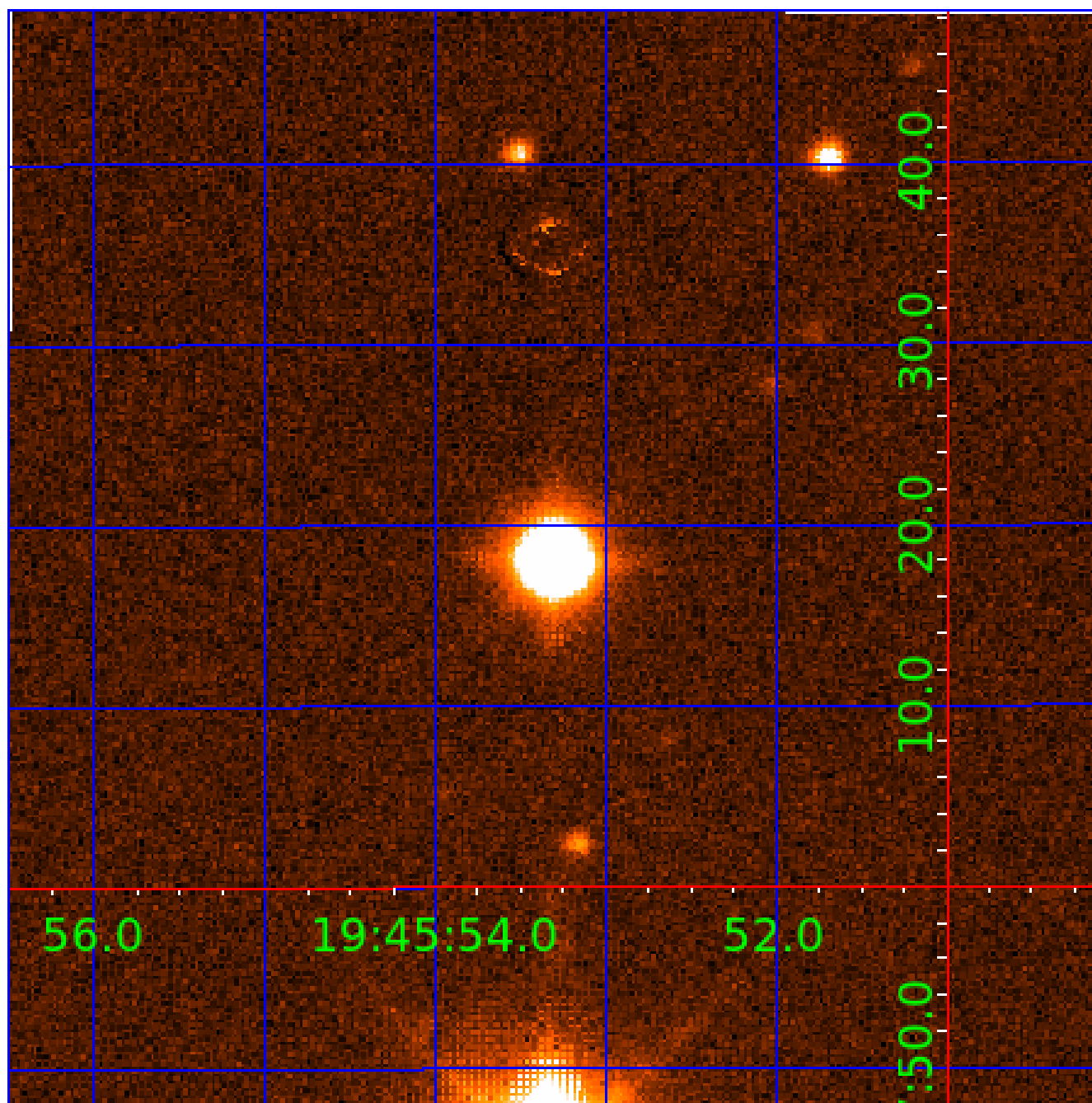


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012268190

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})
012268190-01	OBS	No	0.995576	132.085974	23.2	3.178	11.6	11.3	3.46	6915	1.93	44370.77
012268190-02	OBS	No	1.991368	132.511186	35.5	5.204	12.4	12.5	3.46	6915	3.01	17606.00
012268190-03	OBS	No	59.429660	148.717804	131.5	11.511	8.7	8.9	3.46	6915	4.35	190.19
012268190-04	OBS	No	561.481101	330.332346	241.0	27.332	8.3	7.6	3.46	6915	6.57	9.52
012268190-05	OBS	No	94.817581	195.645350	39.6	21.417	8.2	2.6	3.46	6915	2.40	102.02
012268190-06	OBS	No	46.711873	171.151127	60.2	12.671	8.0	4.1	3.46	6915	3.08	262.20
012268190-07	OBS	No	366.486584	308.497921	55.3	11.921	7.8	2.4	3.46	6915	2.99	16.82
012268190-09	OBS	No	122.032579	217.908251	192.1	6.947	7.5	7.5	3.46	6915	5.32	72.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012268190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
012268190-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
012268190-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
012268190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
012268190-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012268190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

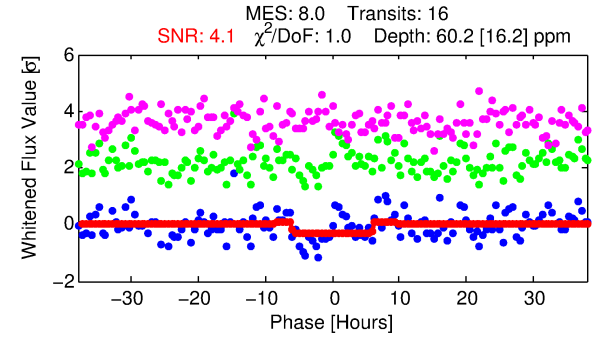
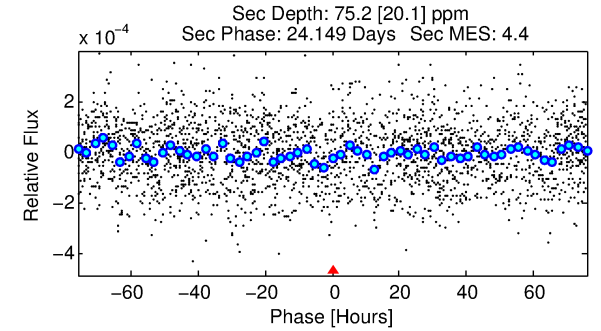
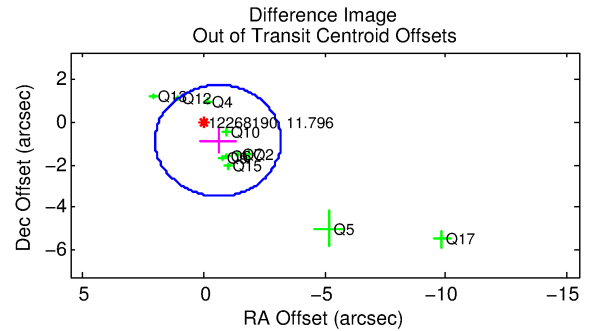
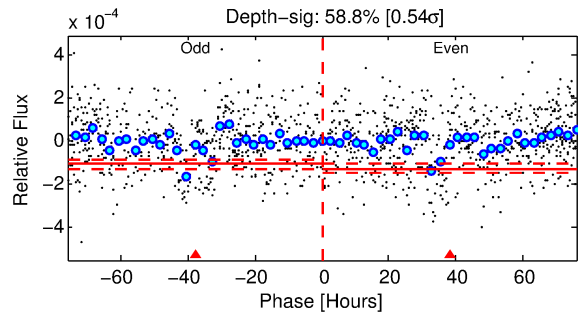
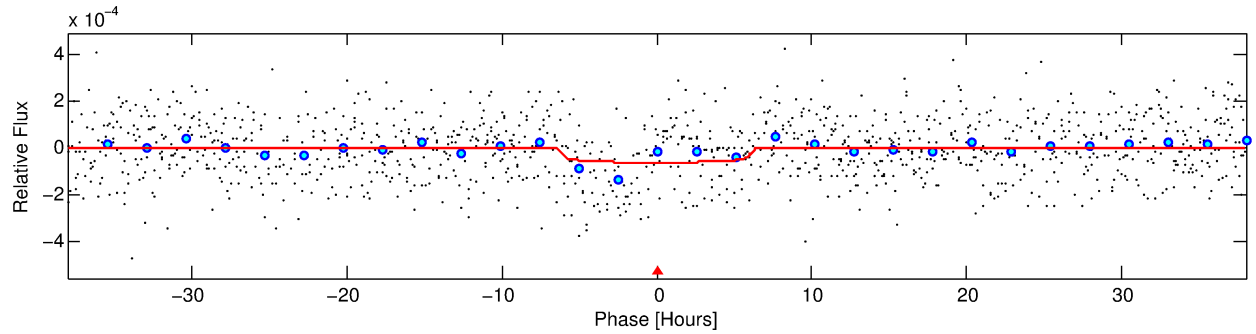
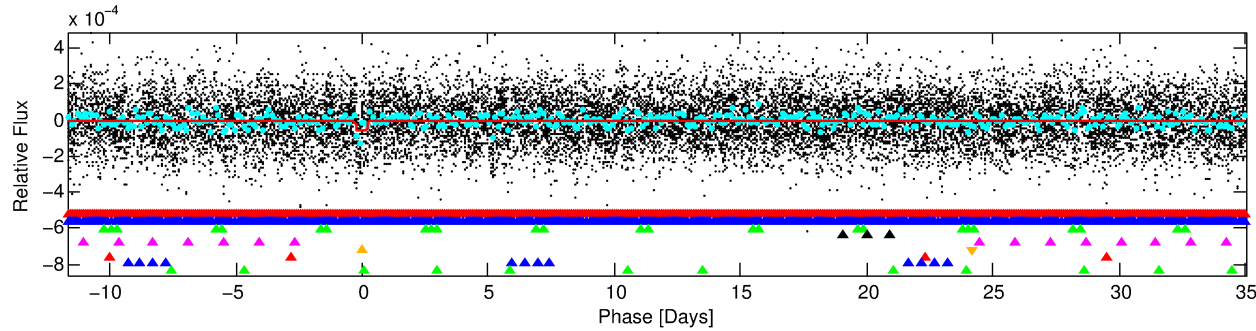
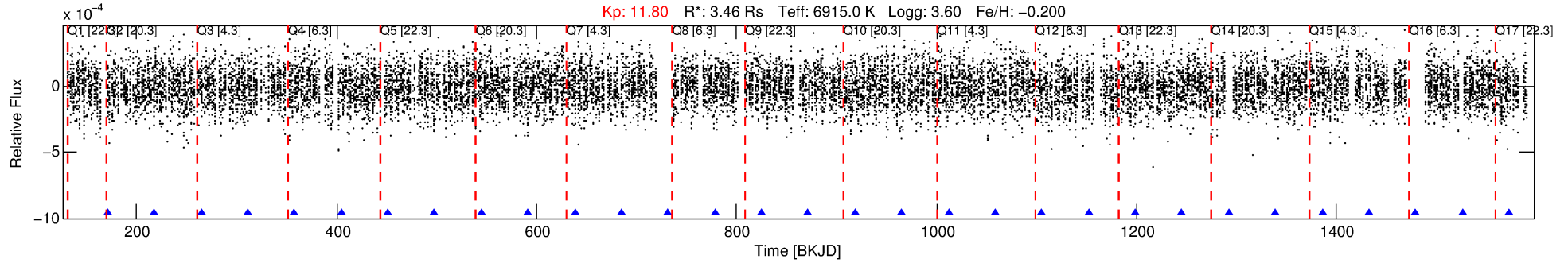
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012268190-06

No Significant Match Found

DV One-Page Summary

KIC: 12268190 Candidate: 6 of 9 Period: 46.712 d



DV Fit Results:

Period = 46.71187 [0.00214] d
Epoch = 171.1511 [0.0322] BKJD
 R_p/R^* = 0.0082 [0.0028]
 a/R^* = 13.61 [25.15]
 b = 0.89 [0.45]
 S_{eff} = 262.20 [147.62]
 T_{eq} = 1026 [144] K
 R_p = 3.08 [1.52] R_e
 a = 0.3056 [0.1051] AU
 A_g = 406.09 [371.98] [1.09 σ]
 T_{eff} = 7122 [1321] K [4.59 σ]

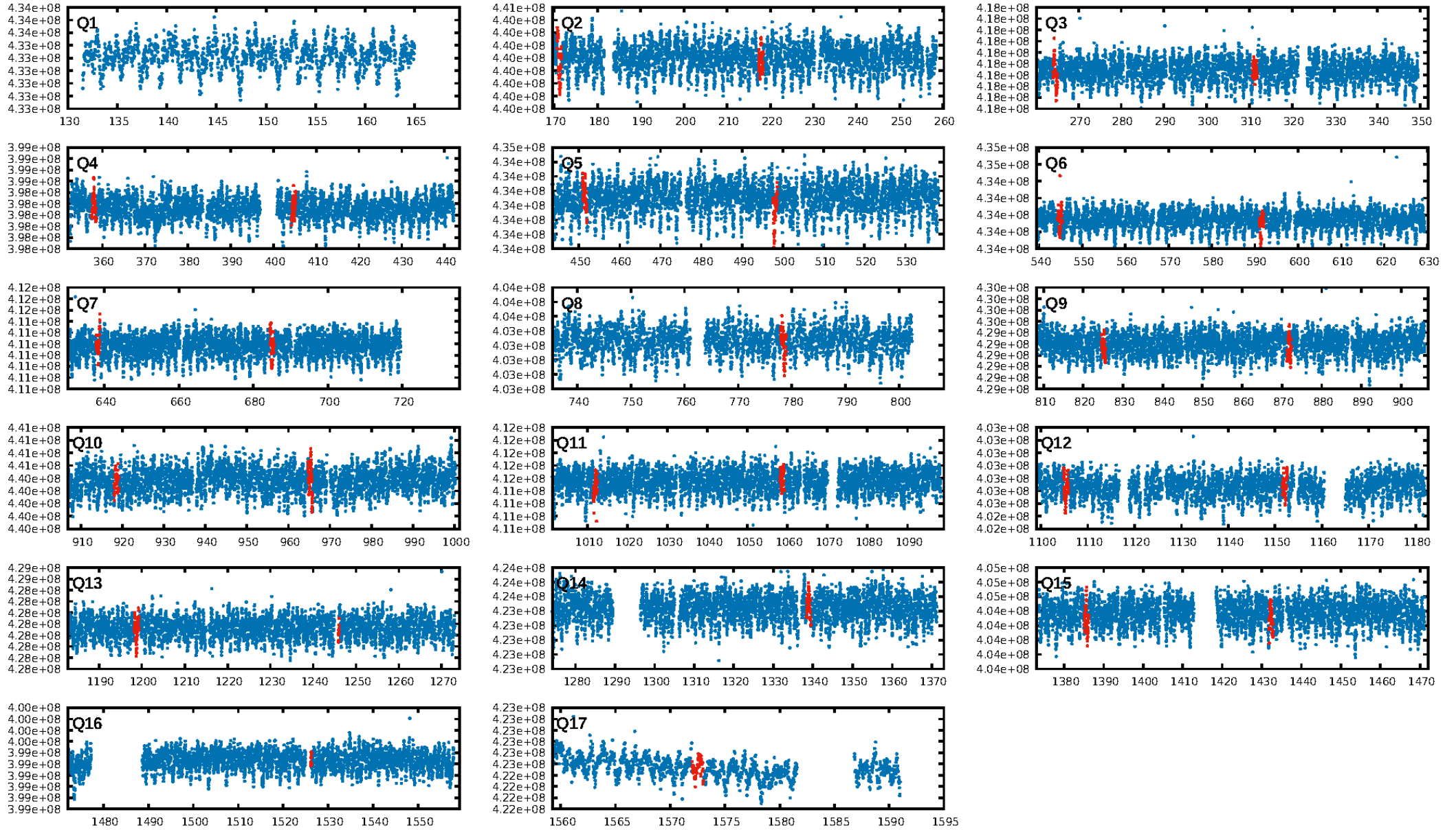
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [78.35 σ]
LongPeriod-sig: 100.0% [17.83 σ]
ModelChiSquare2-sig: 12.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.95e-09
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: -0.1174
Centroid-sig: 3.6%
Centroid-so: 1.360 arcsec [1.20 σ]
OotOffset-rm: 1.067 arcsec [1.23 σ]
KicOffset-rm: 1.097 arcsec [1.03 σ]
OotOffset-st: 3/2/2/4 [11]
KicOffset-st: 3/2/2/4 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 0.00 [0/14]

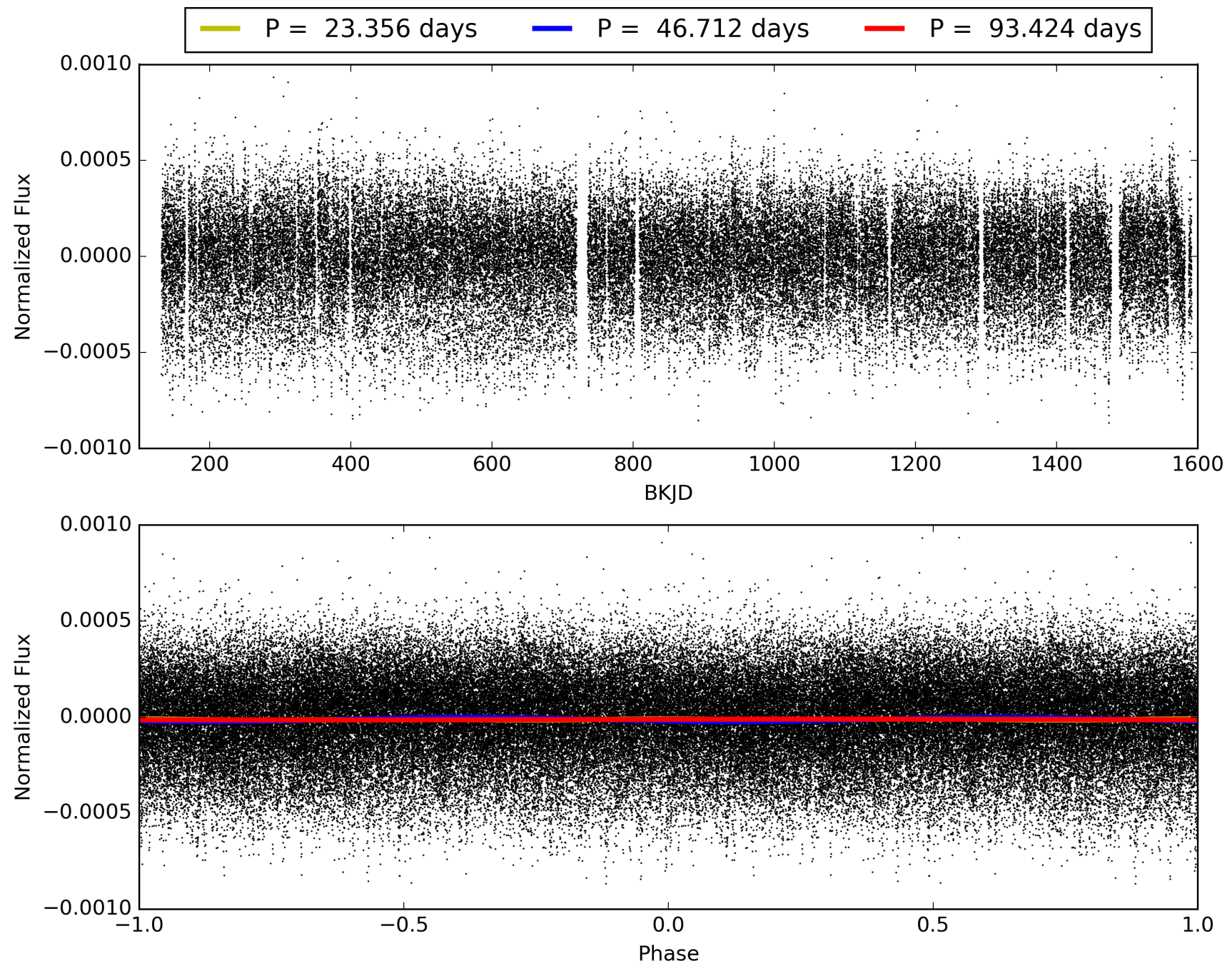
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:16:51 Z

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

TCE 012268190-06, PDC Light Curves

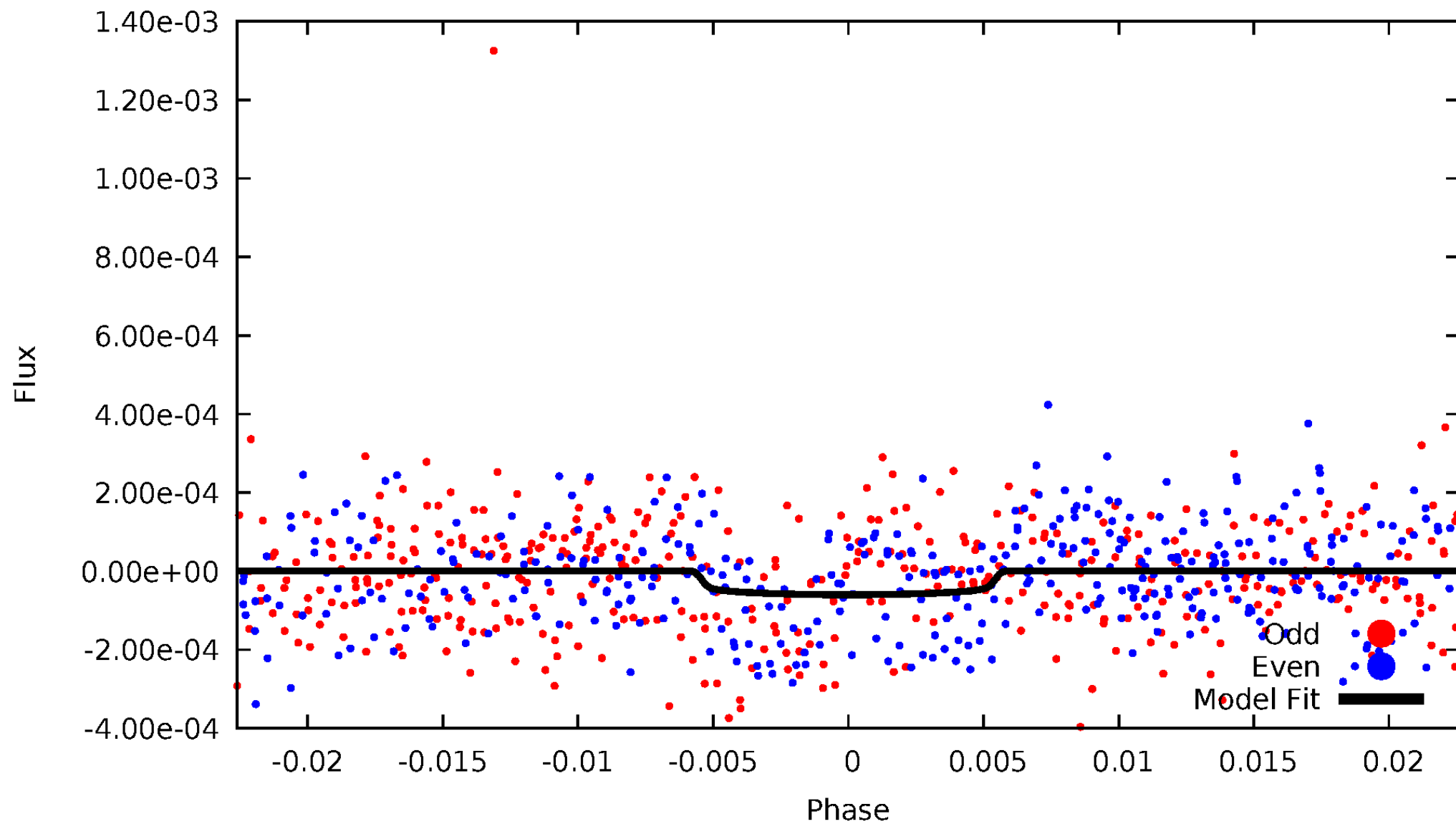


TCE 012268190-06



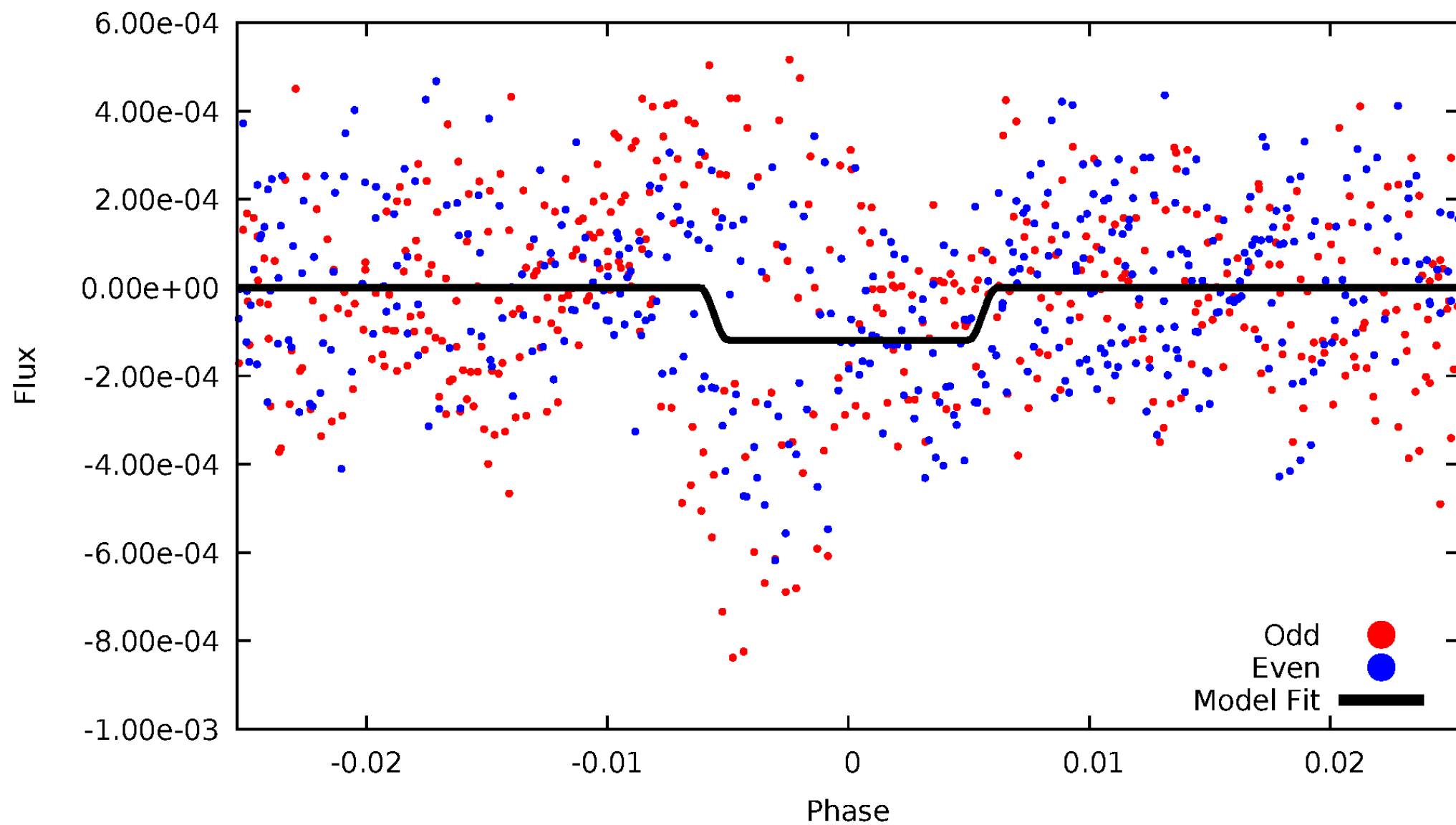
DV Odd/Even

TCE 012268190-06



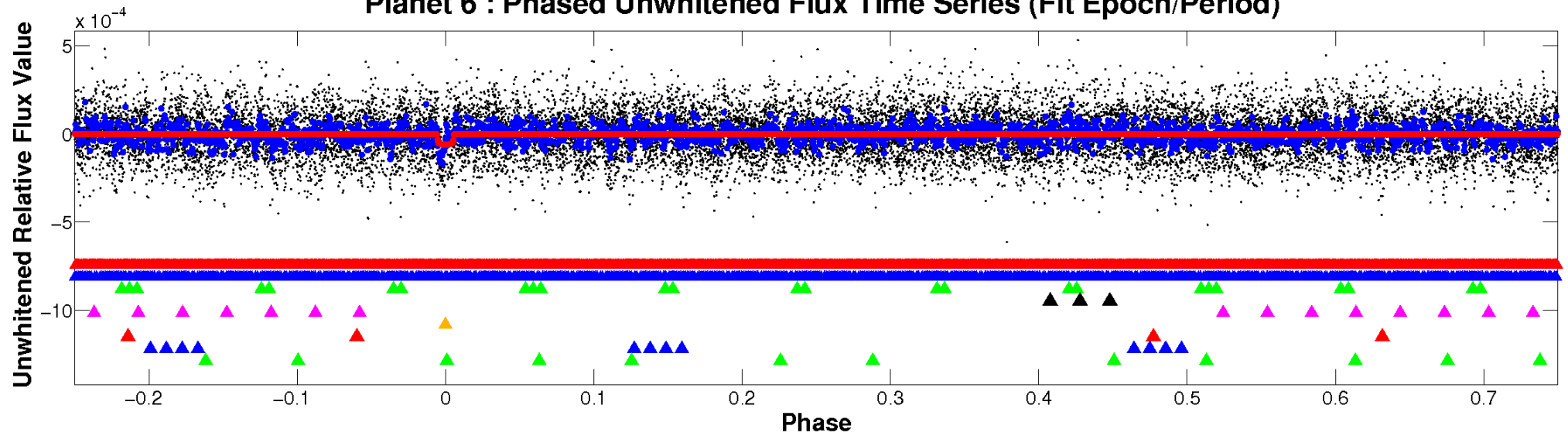
ALT Odd/Even

TCE 012268190-06

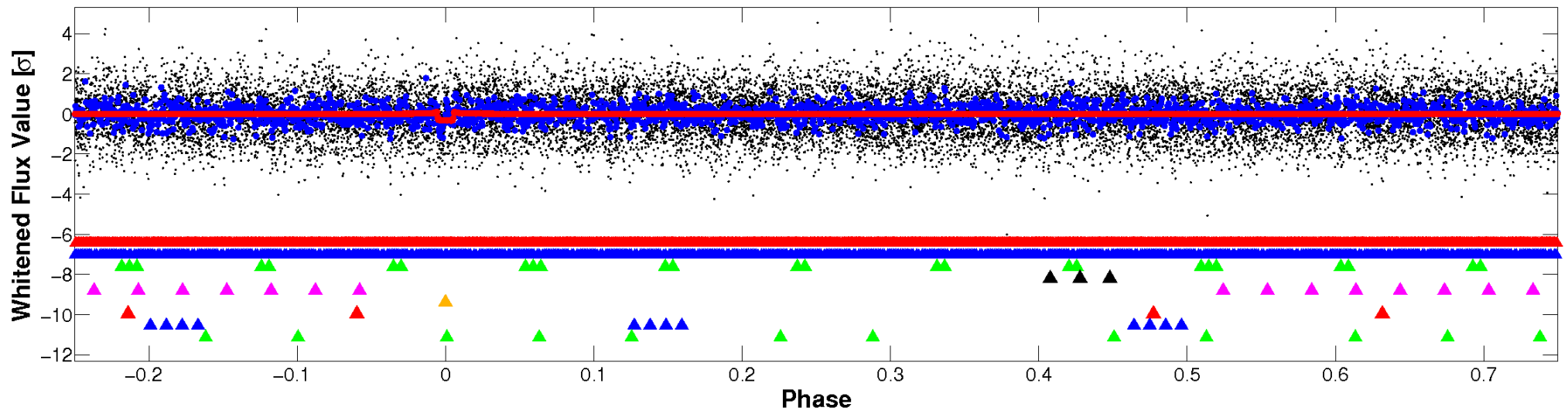


Non-Whitened Vs. Whitened Light Curve

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

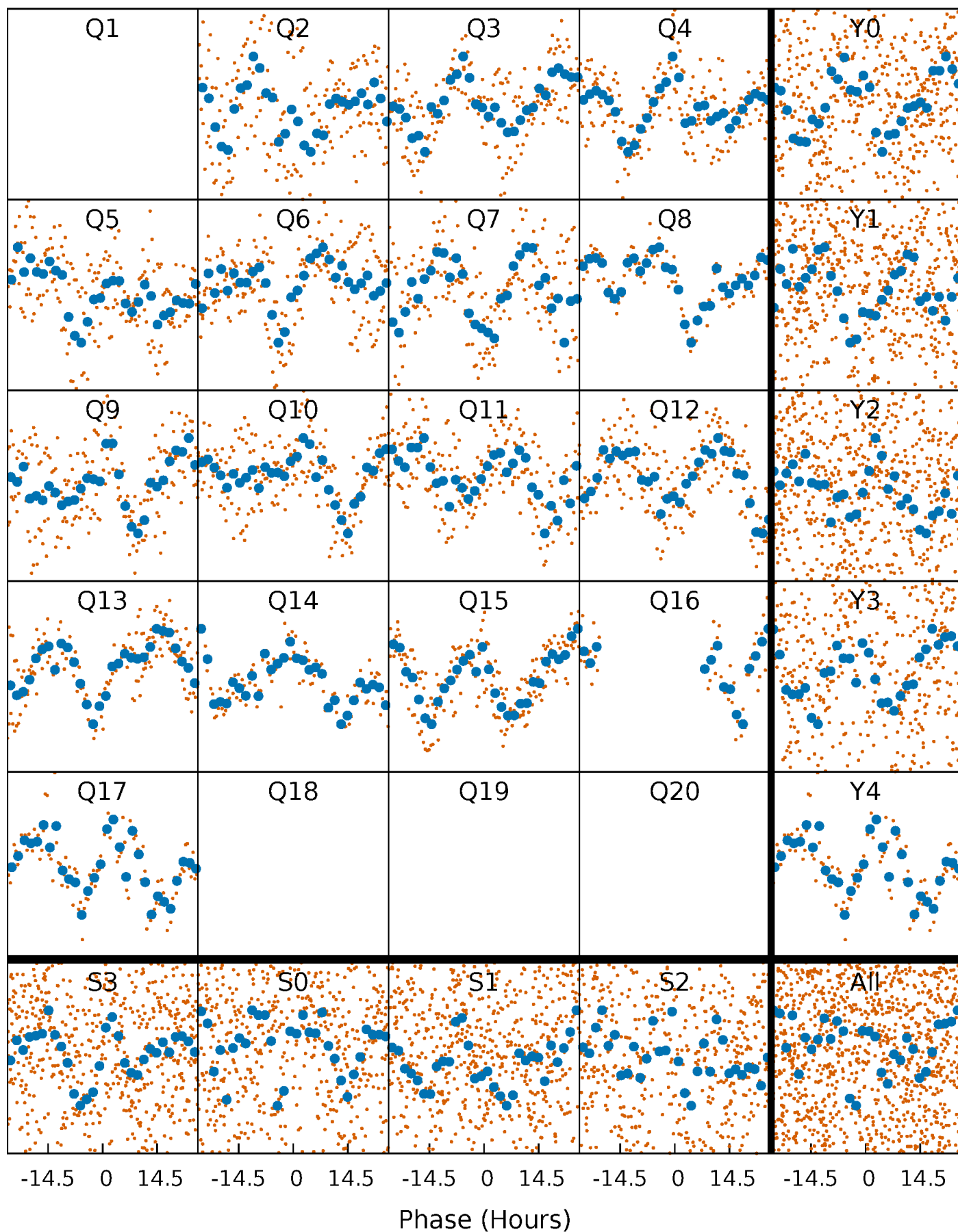


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



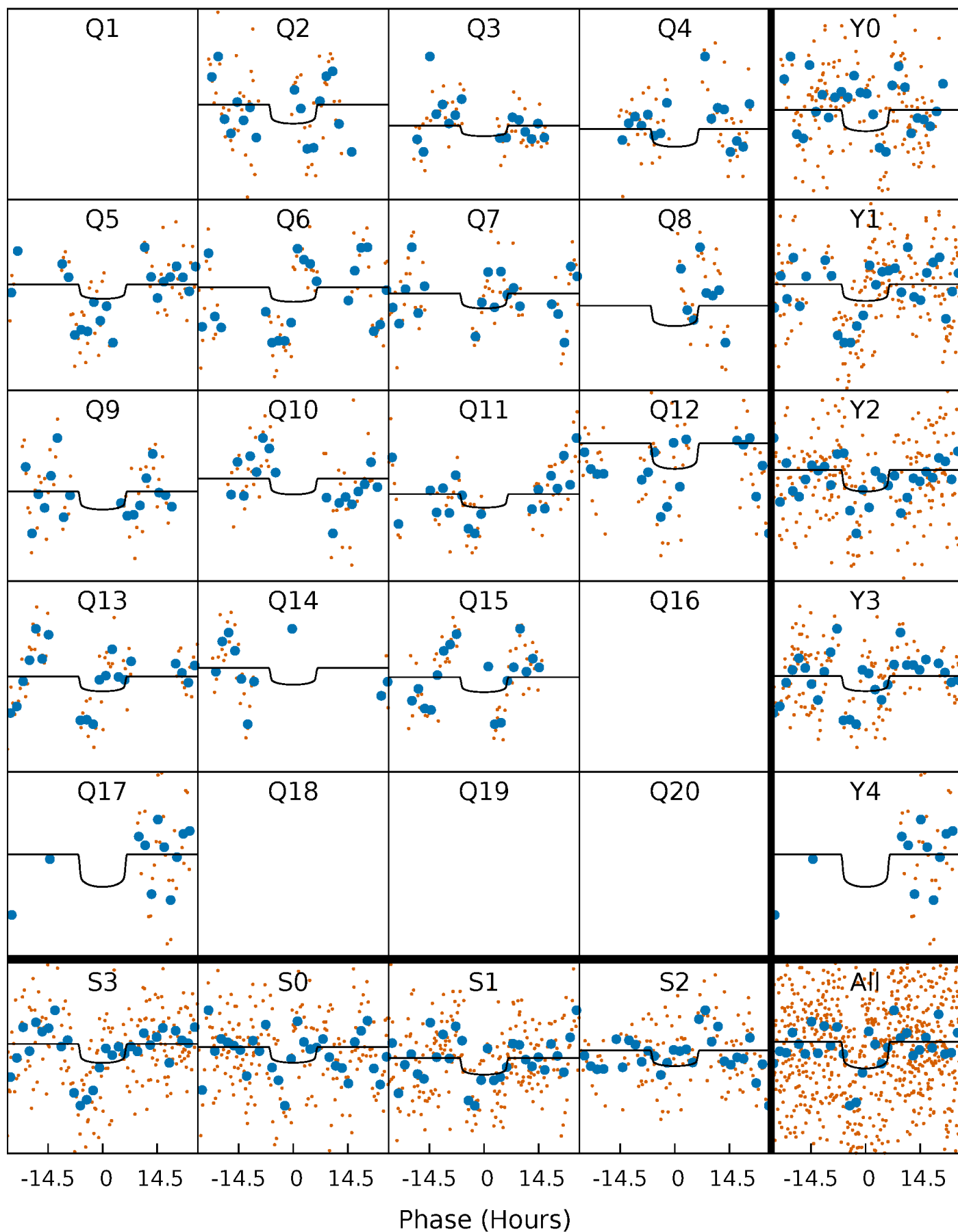
PDC Quarter-Phased Transit Curves

TCE 012268190-06 P= 46.711873 Days $T_0=171.151127$ (BKJD)



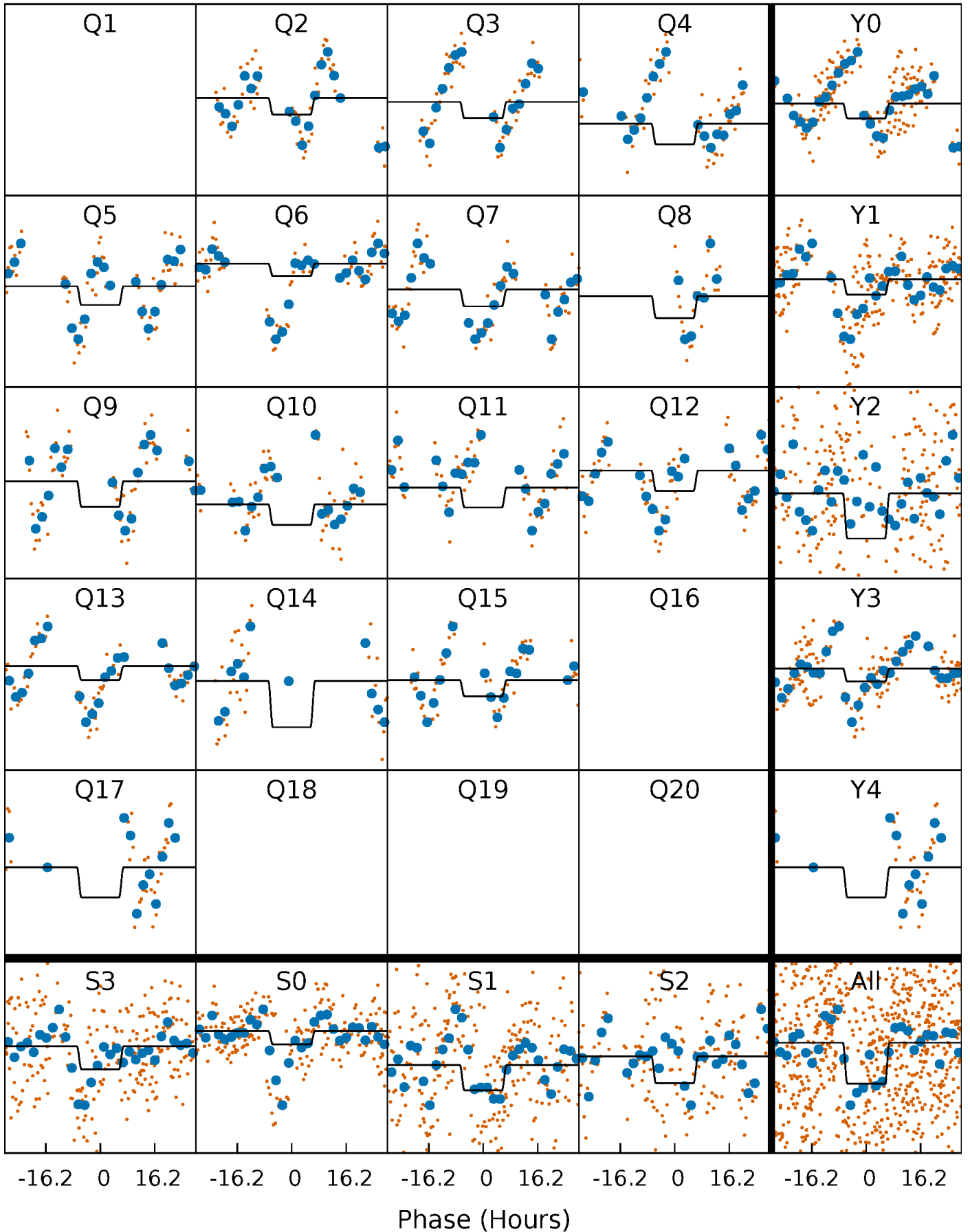
DV Quarter-Phased Transit Curves

TCE 012268190-06 P= 46.711873 Days $T_0=171.151127$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

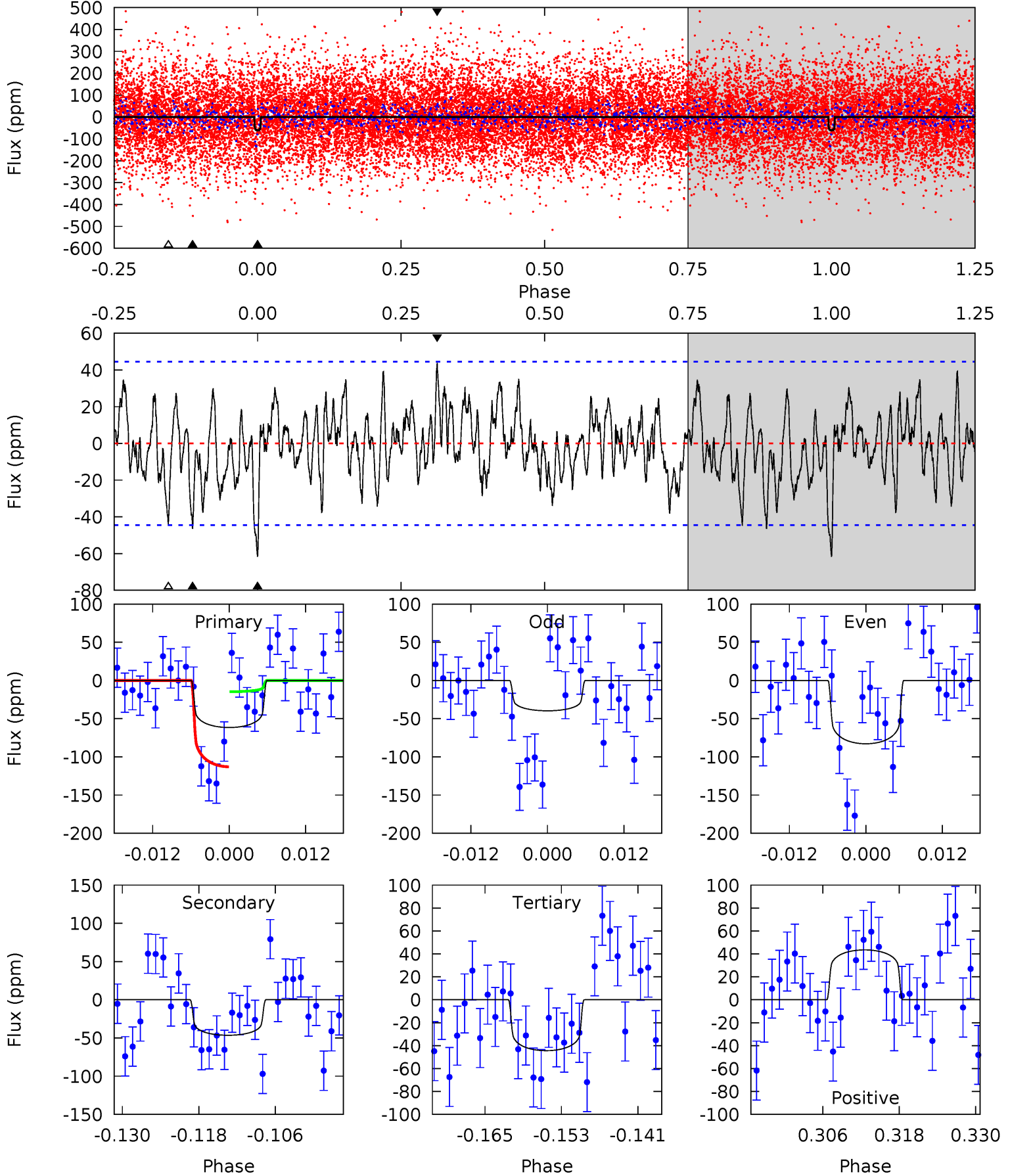
TCE 012268190-06 P= 46.714069 Days $T_0=171.148505$ (BKJD)



DV Model-Shift Uniqueness Test

012268190-06, $P = 46.711873$ Days, $E = 124.439254$ Days

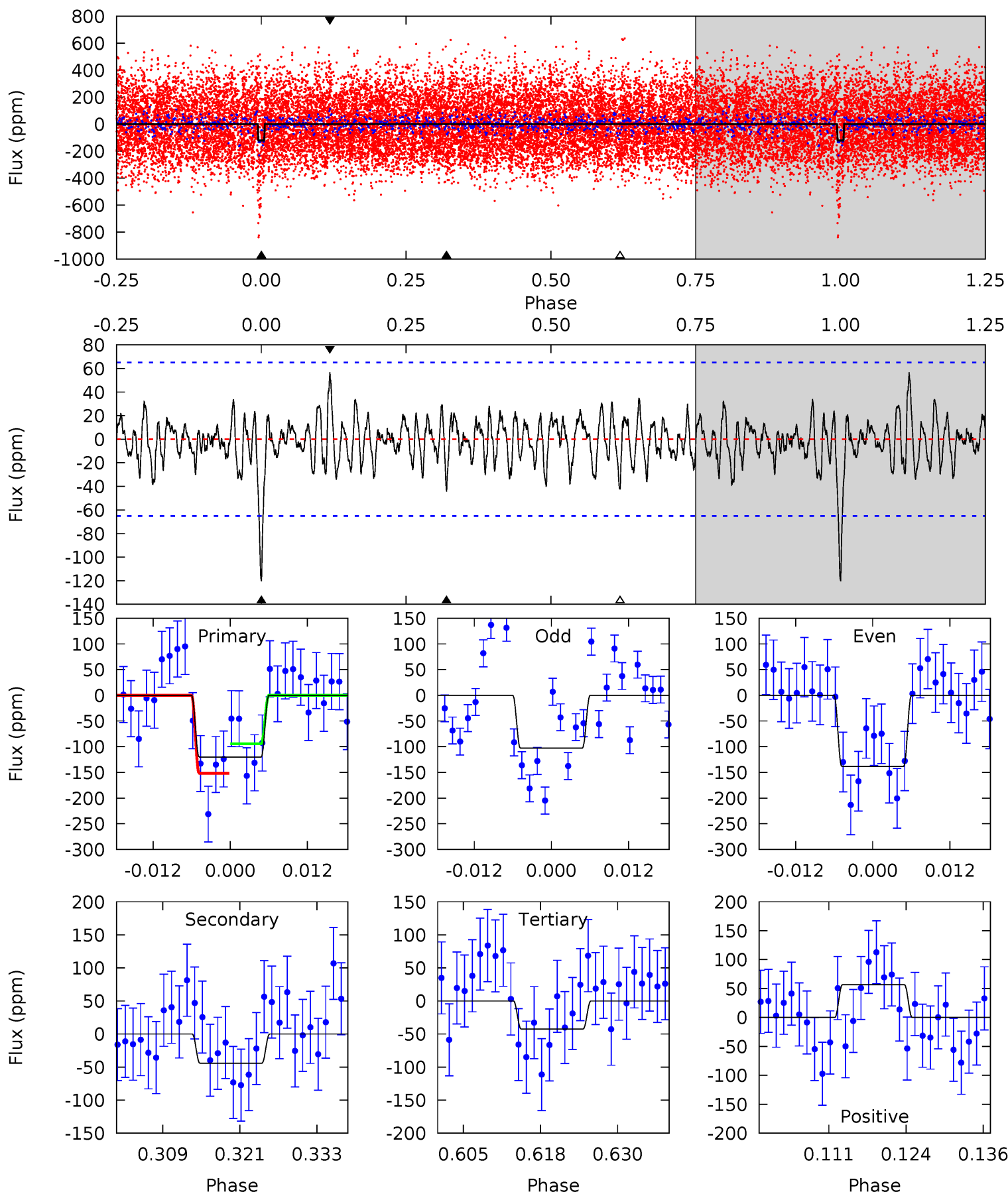
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.90	5.21	4.98	4.88	4.99	2.52	1.73	1.93	2.03	0.23	0.34	2.42	0.74	0.41	5.50



Alt Model-Shift Uniqueness Test

012268190-06, P = 46.714069 Days, E = 124.434436 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.22	3.39	3.25	4.34	4.99	2.50	1.20	5.96	4.87	0.14	-0.95	1.36	0.31	0.32	2.19



Stellar Parameters For KIC 012268190

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6915^{+187}_{-207}	$3.602^{+0.323}_{-0.057}$	$-0.200^{+0.300}_{-0.250}$	$3.457^{+0.412}_{-1.236}$	$1.742^{+0.182}_{-0.339}$	$0.059^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+150%/-125%	+12%/-36%	+10%/-19%	+231%/-19%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 012268190-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-46 ± 9	$2.83^{+1.10}_{-1.03}$	1397^{+78}_{-130}	6254^{+1730}_{-865}	295^{+440}_{-144}
Alt.	-44 ± 13	$3.83^{+1.17}_{-1.16}$	1396^{+79}_{-119}	5444^{+859}_{-688}	161^{+161}_{-80}

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

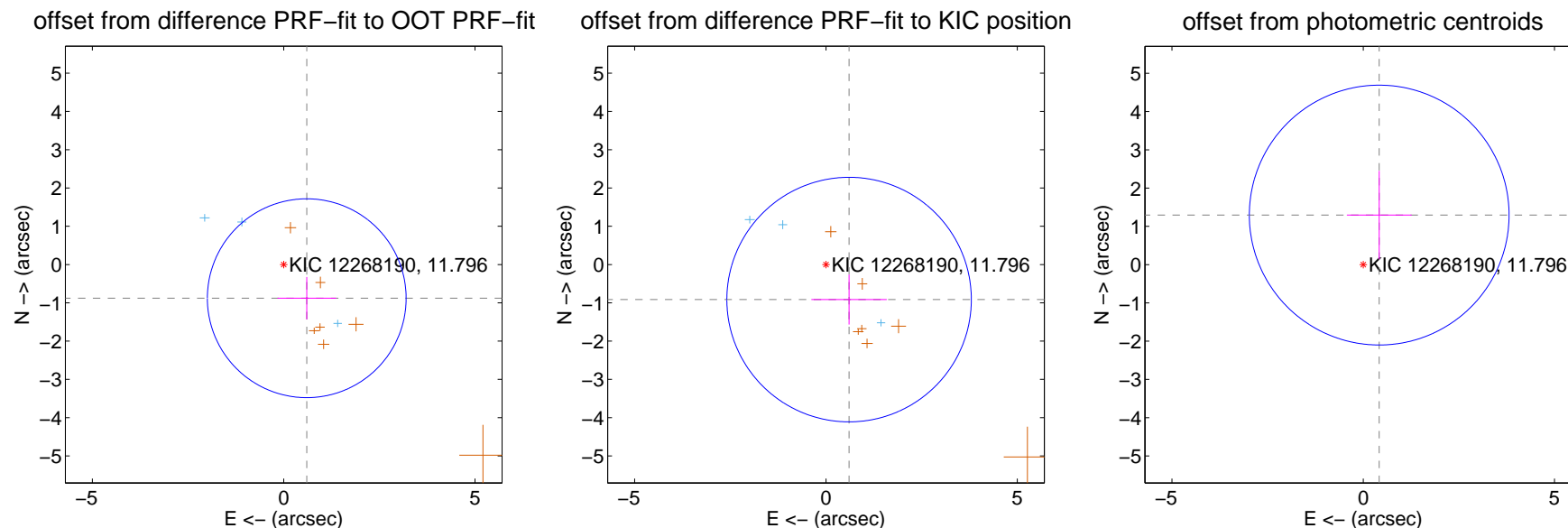
DV Centroid Data

Supplemental centroid analysis for 012268190-06. **Kepler magnitude: 11.80.** Transit SNR 4.13

There are 3 quarters with good PRF difference image offsets

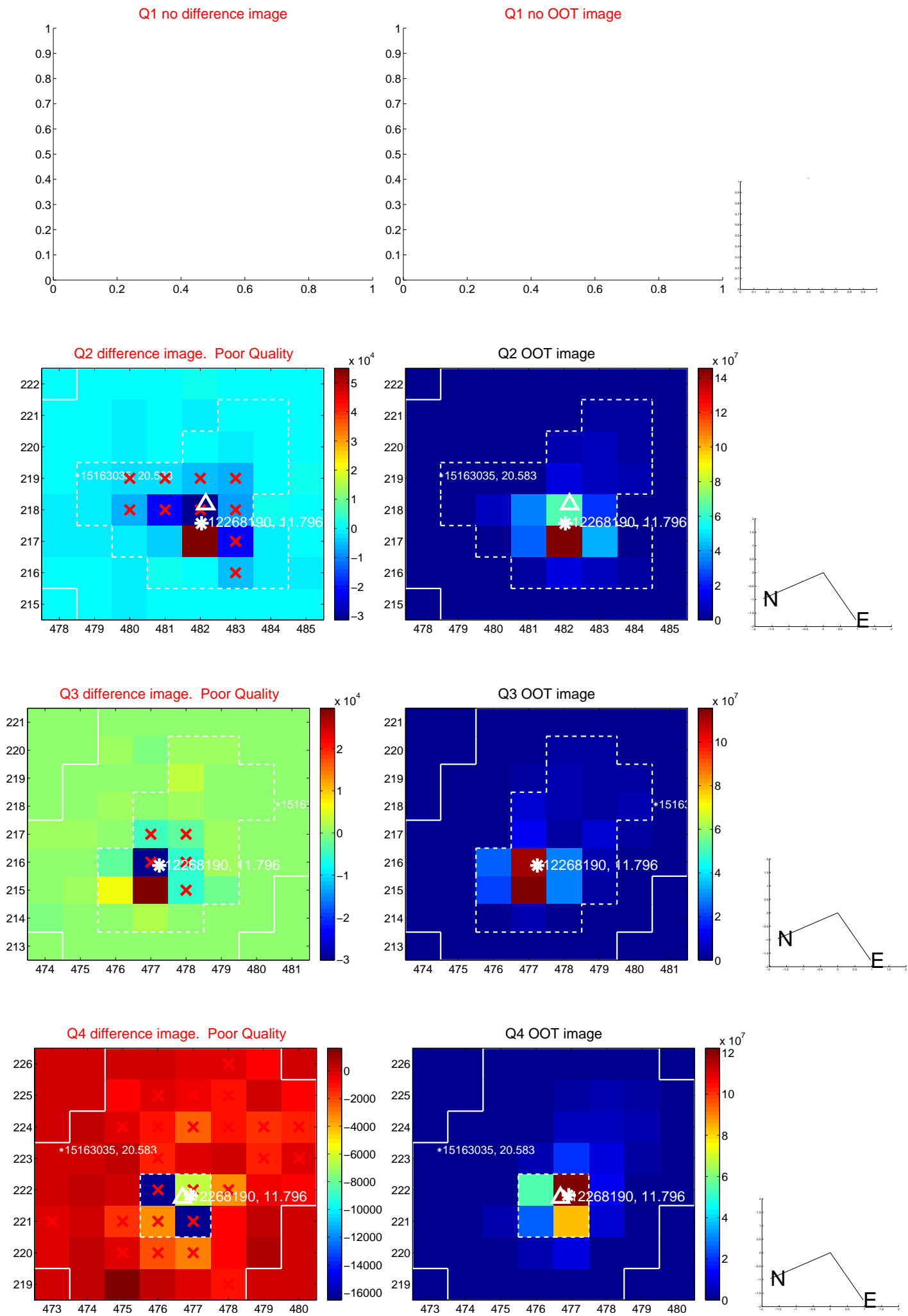
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.067 ± 0.866	1.23	-0.603 ± 0.767	-0.880 ± 0.555
PRF-fit source offset from KIC position	1.097 ± 1.065	1.03	-0.604 ± 0.986	-0.916 ± 0.653
photometric centroid source offset	1.36 ± 1.13	1.20	-0.42 ± 0.85	1.29 ± 1.16

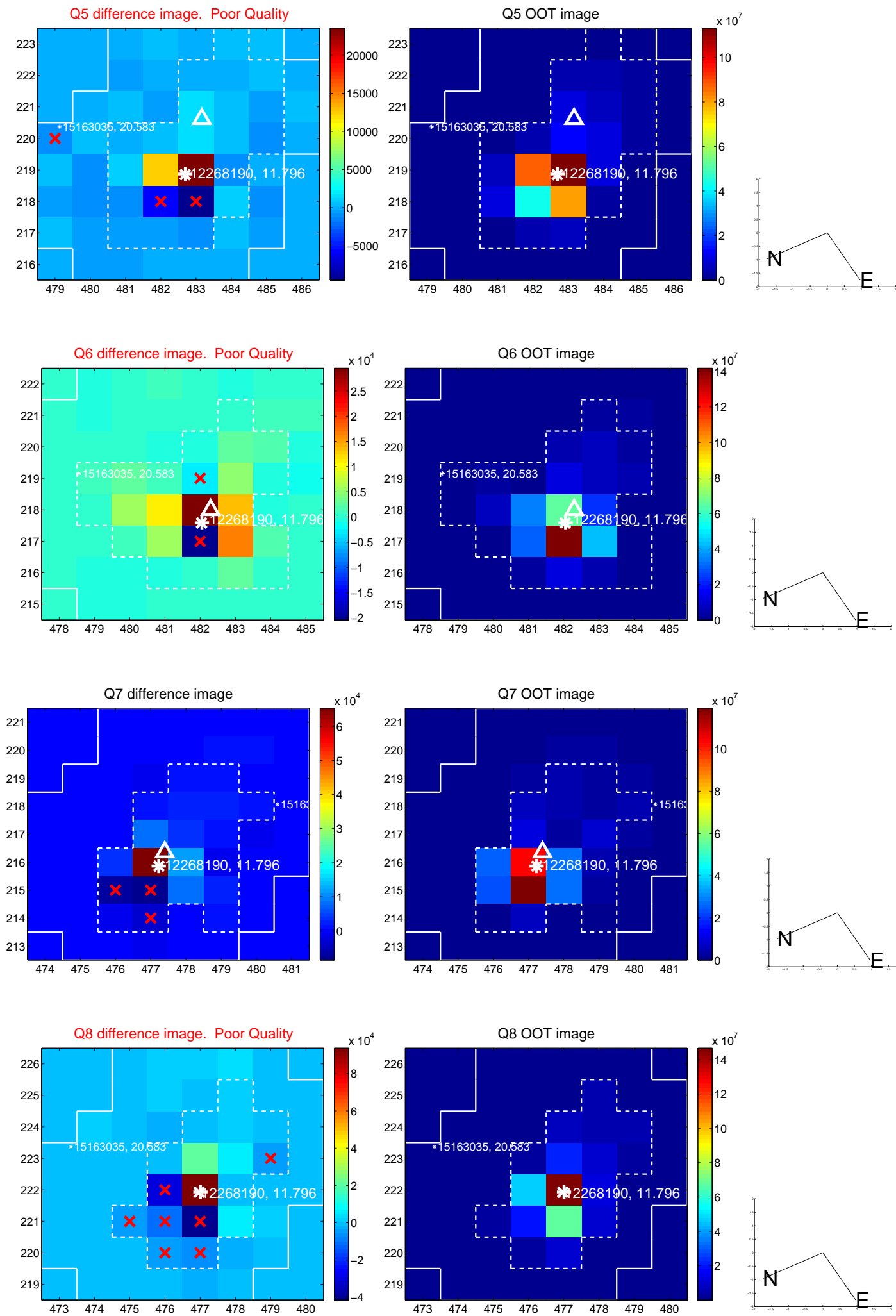


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

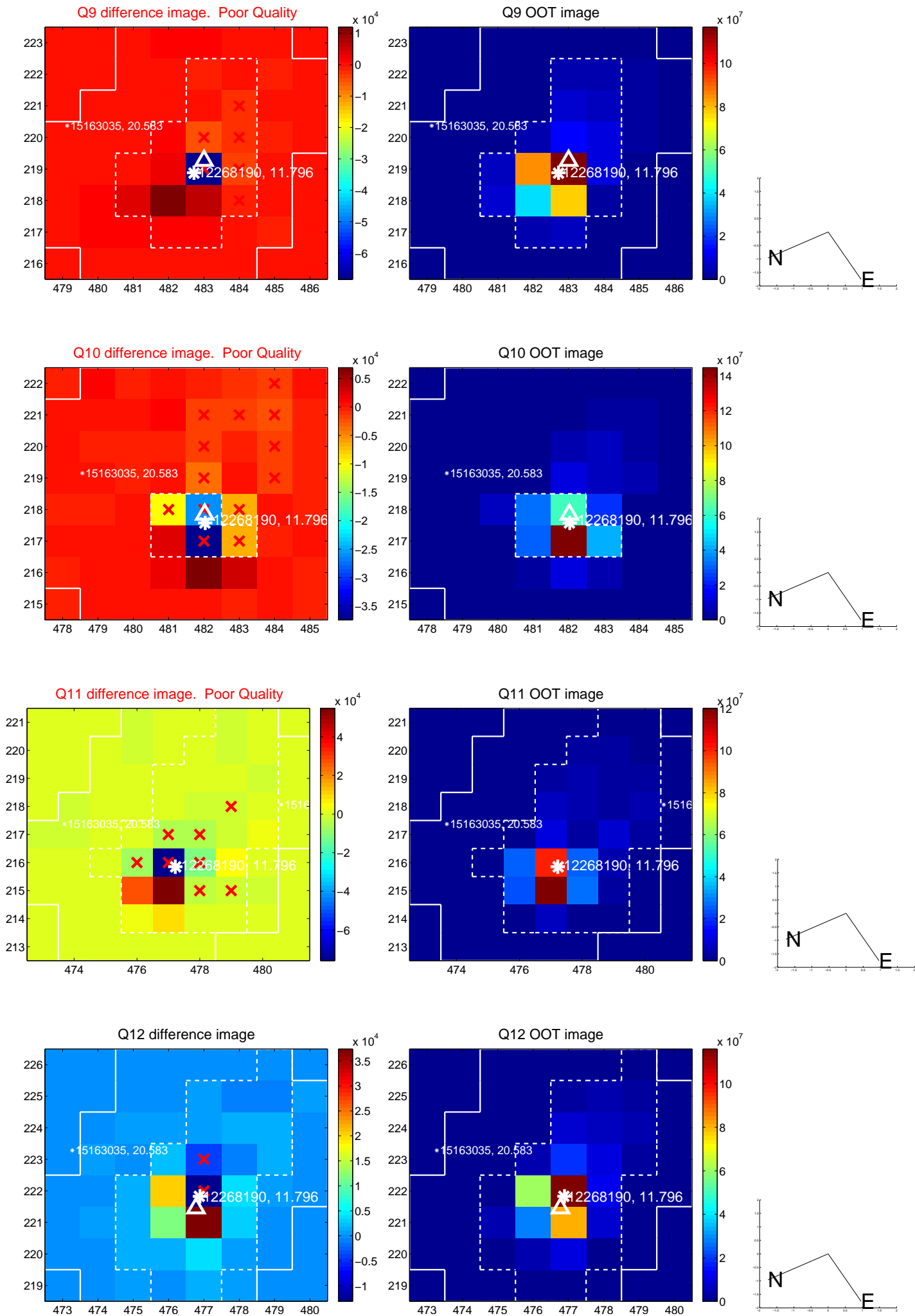
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



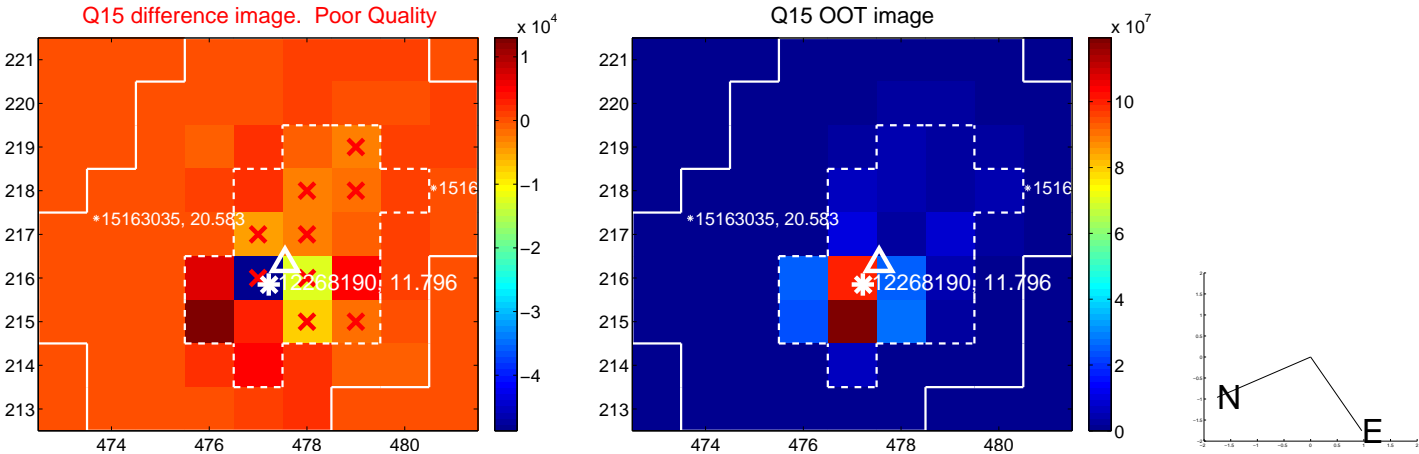
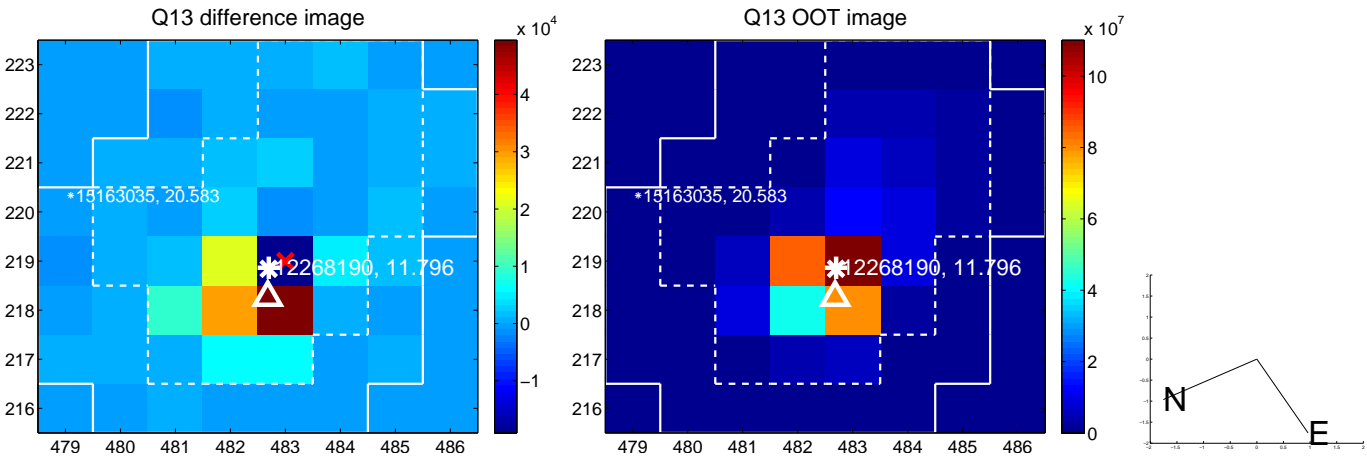
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



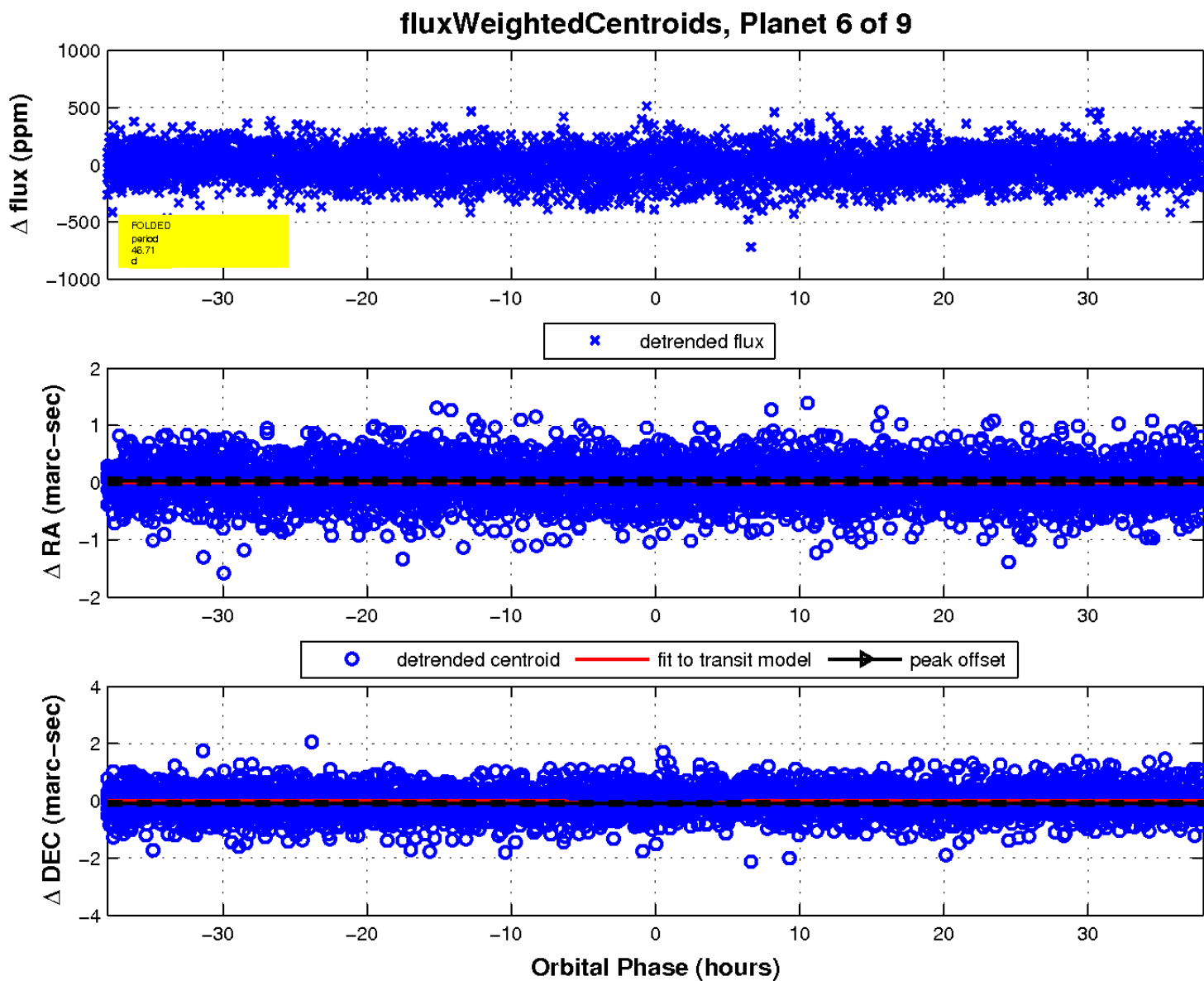
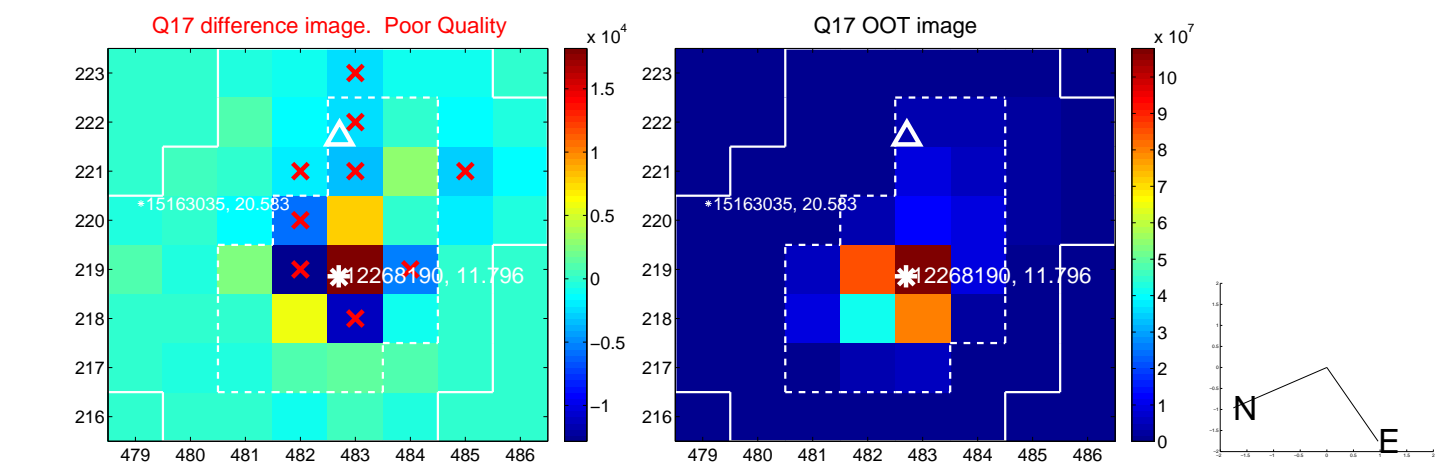
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

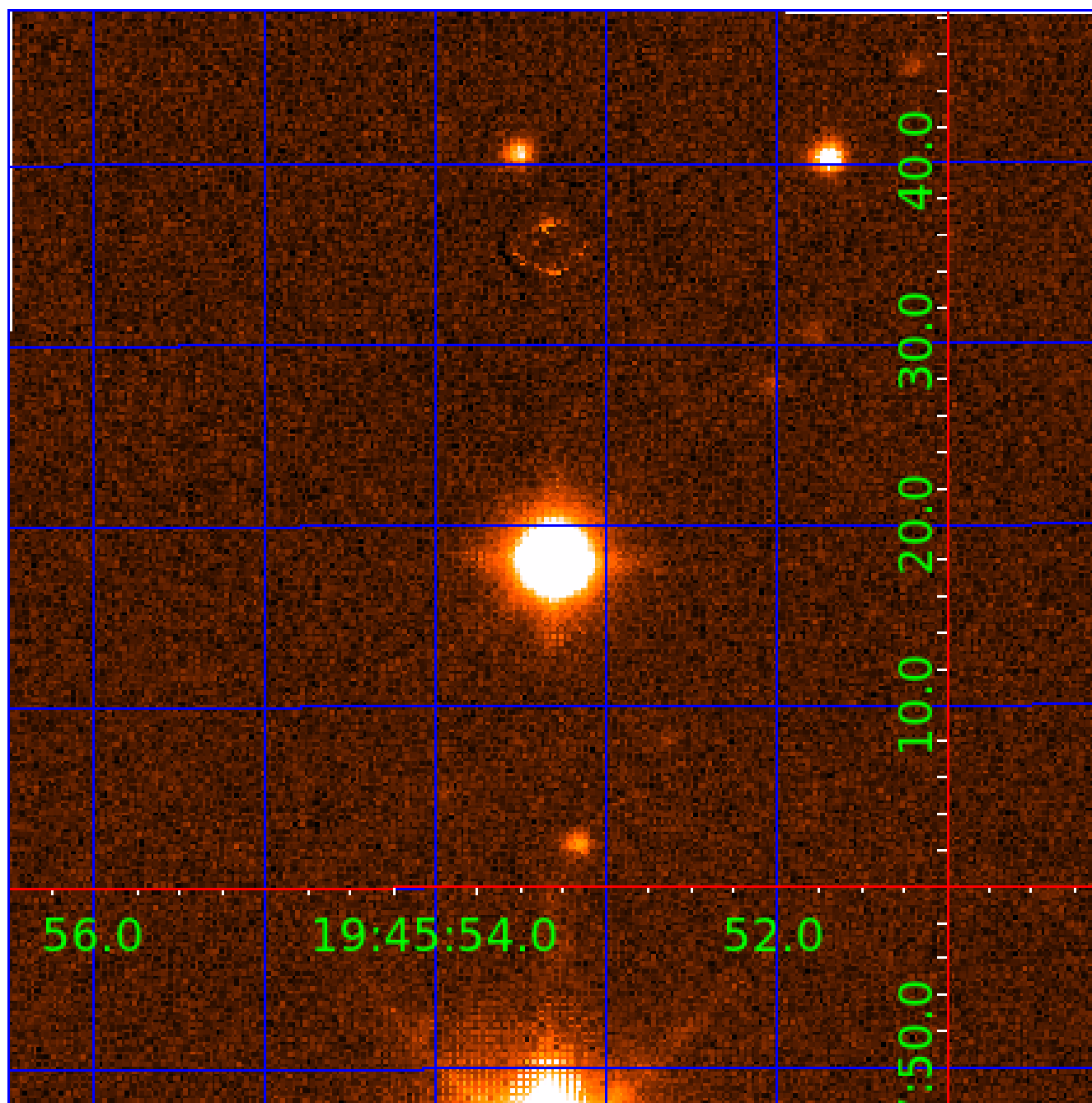


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012268190

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})
012268190-01	OBS	No	0.995576	132.085974	23.2	3.178	11.6	11.3	3.46	6915	1.93	44370.77
012268190-02	OBS	No	1.991368	132.511186	35.5	5.204	12.4	12.5	3.46	6915	3.01	17606.00
012268190-03	OBS	No	59.429660	148.717804	131.5	11.511	8.7	8.9	3.46	6915	4.35	190.19
012268190-04	OBS	No	561.481101	330.332346	241.0	27.332	8.3	7.6	3.46	6915	6.57	9.52
012268190-05	OBS	No	94.817581	195.645350	39.6	21.417	8.2	2.6	3.46	6915	2.40	102.02
012268190-06	OBS	No	46.711873	171.151127	60.2	12.671	8.0	4.1	3.46	6915	3.08	262.20
012268190-07	OBS	No	366.486584	308.497921	55.3	11.921	7.8	2.4	3.46	6915	2.99	16.82
012268190-09	OBS	No	122.032579	217.908251	192.1	6.947	7.5	7.5	3.46	6915	5.32	72.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012268190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
012268190-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
012268190-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
012268190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
012268190-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012268190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

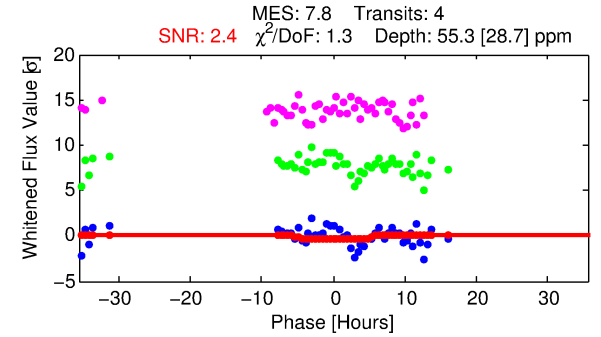
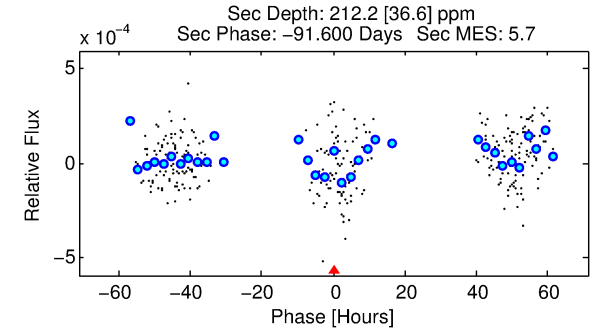
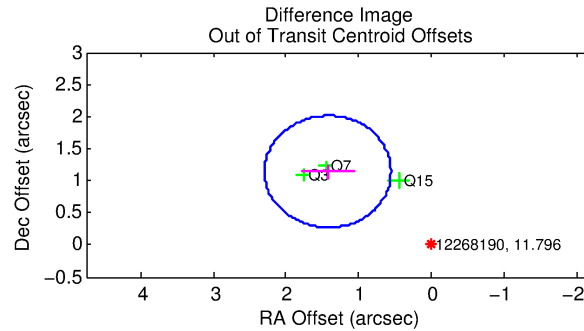
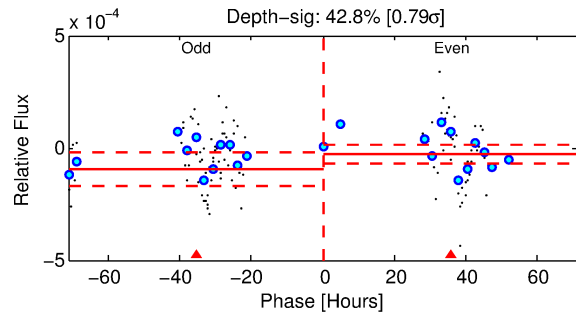
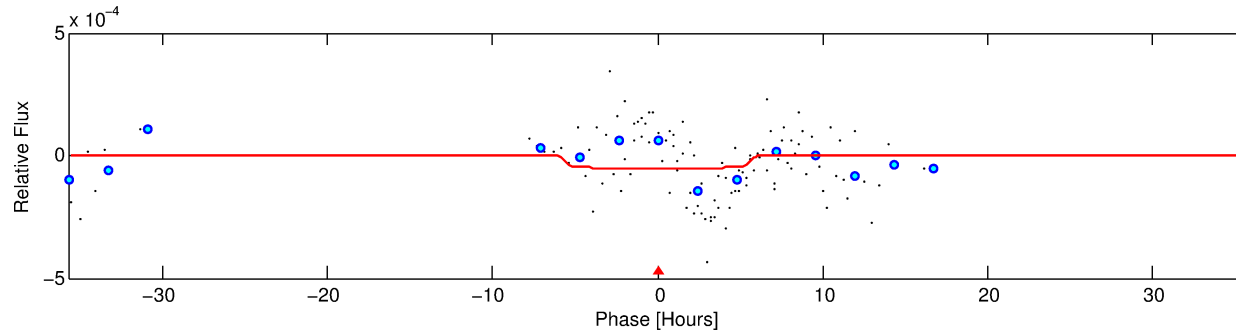
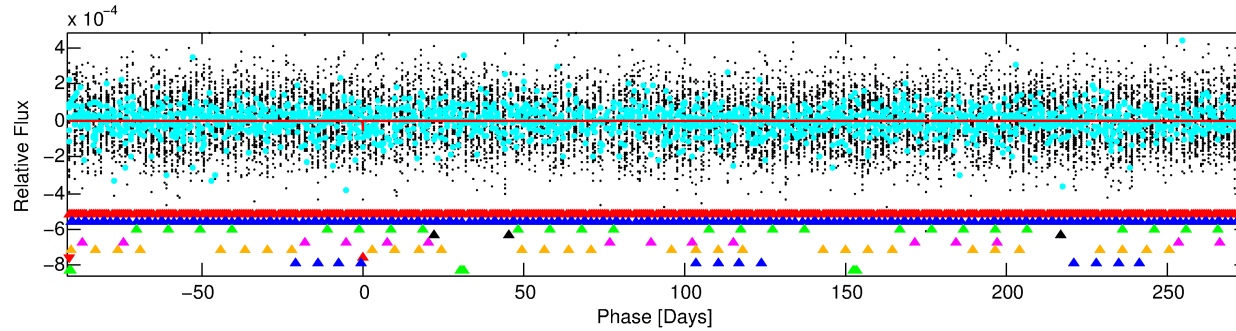
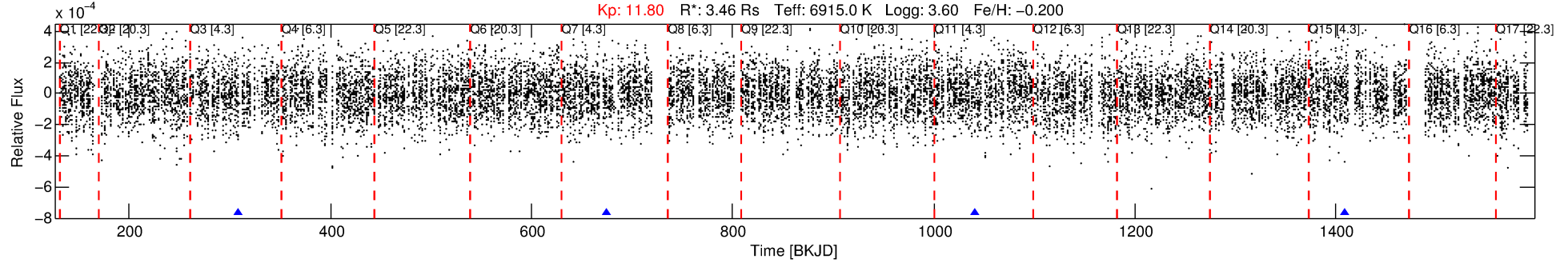
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012268190-07

No Significant Match Found

DV One-Page Summary

KIC: 12268190 Candidate: 7 of 9 Period: 366.487 d



DV Fit Results:

Period = 366.48658 [0.03842] d
Epoch = 308.4979 [0.1025] BKJD
Rp/R* = 0.0079 [0.0054]
a/R* = 106.38 [403.03]
b = 0.90 [0.79]
Seff = 16.82 [9.47]
Teq = 516 [73] K
Rp = 2.99 [2.32] Re
a = 1.2065 [0.4149] AU
Ag = 19024.11 [28356.32] [0.67 σ]
Teffp = 9376 [3260] K [2.72 σ]

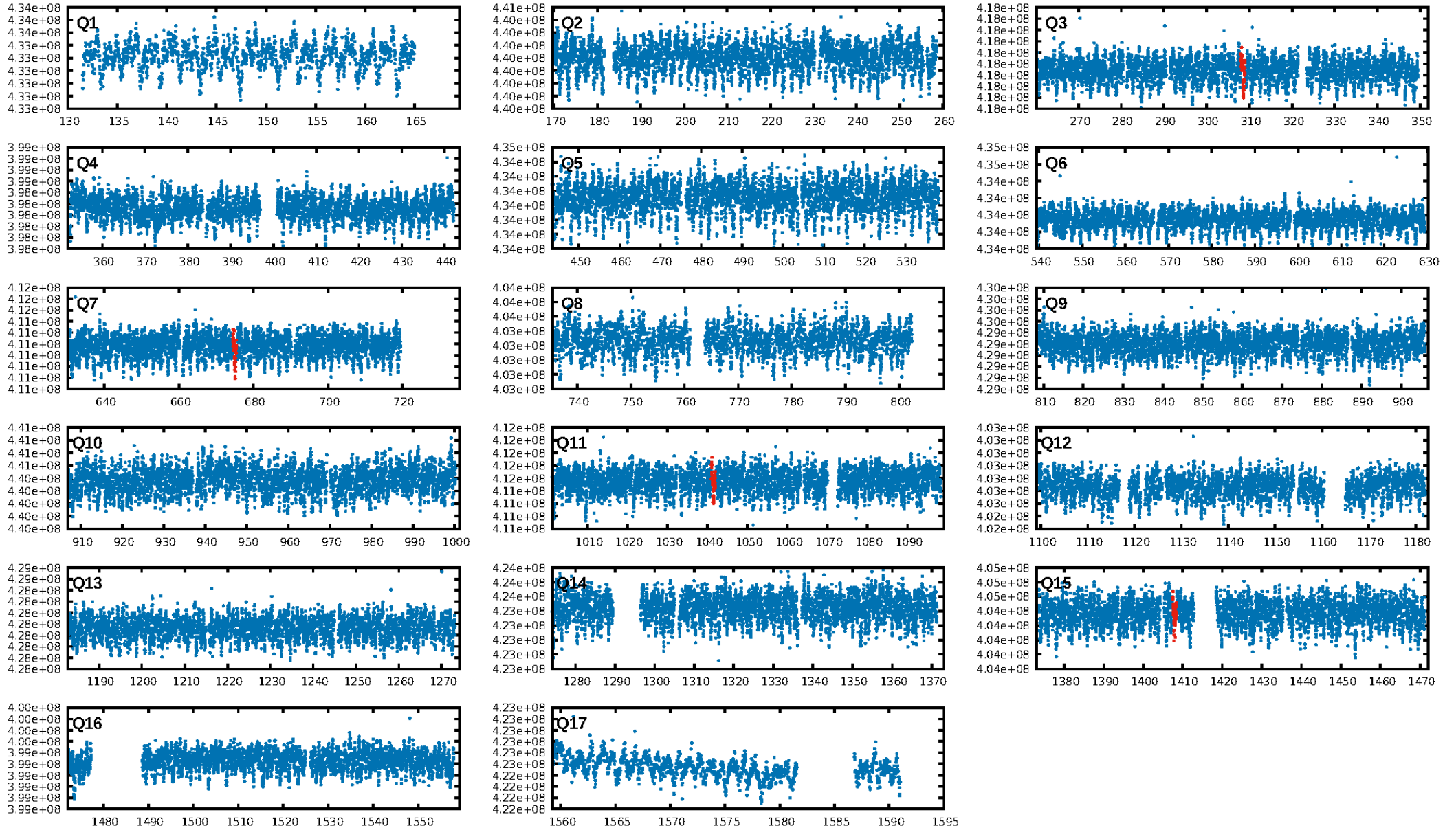
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [357.10 σ]
LongPeriod-sig: 100.0% [156.95 σ]
ModelChiSquare2-sig: 29.3%
ModelChiSquareGof-sig: 98.2%
Bootstrap-pfa: 2.93e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 2.191
Centroid-sig: 1.4%
Centroid-so: 5.072 arcsec [1.39 σ]
OotOffset-rm: 1.825 arcsec [6.29 σ]
KicOffset-rm: 1.814 arcsec [6.11 σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.00 [0/3]

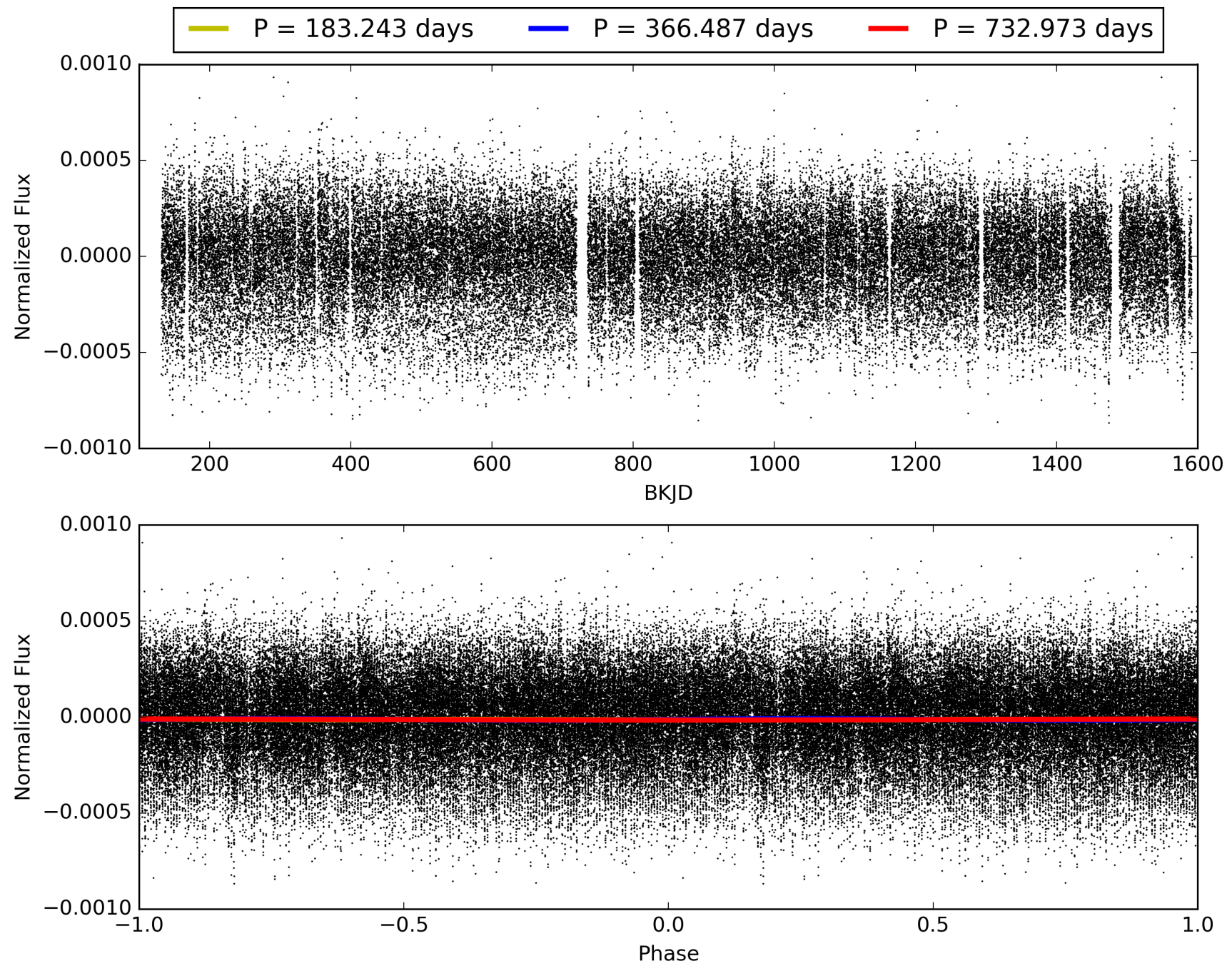
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:16:56 Z

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

TCE 012268190-07, PDC Light Curves

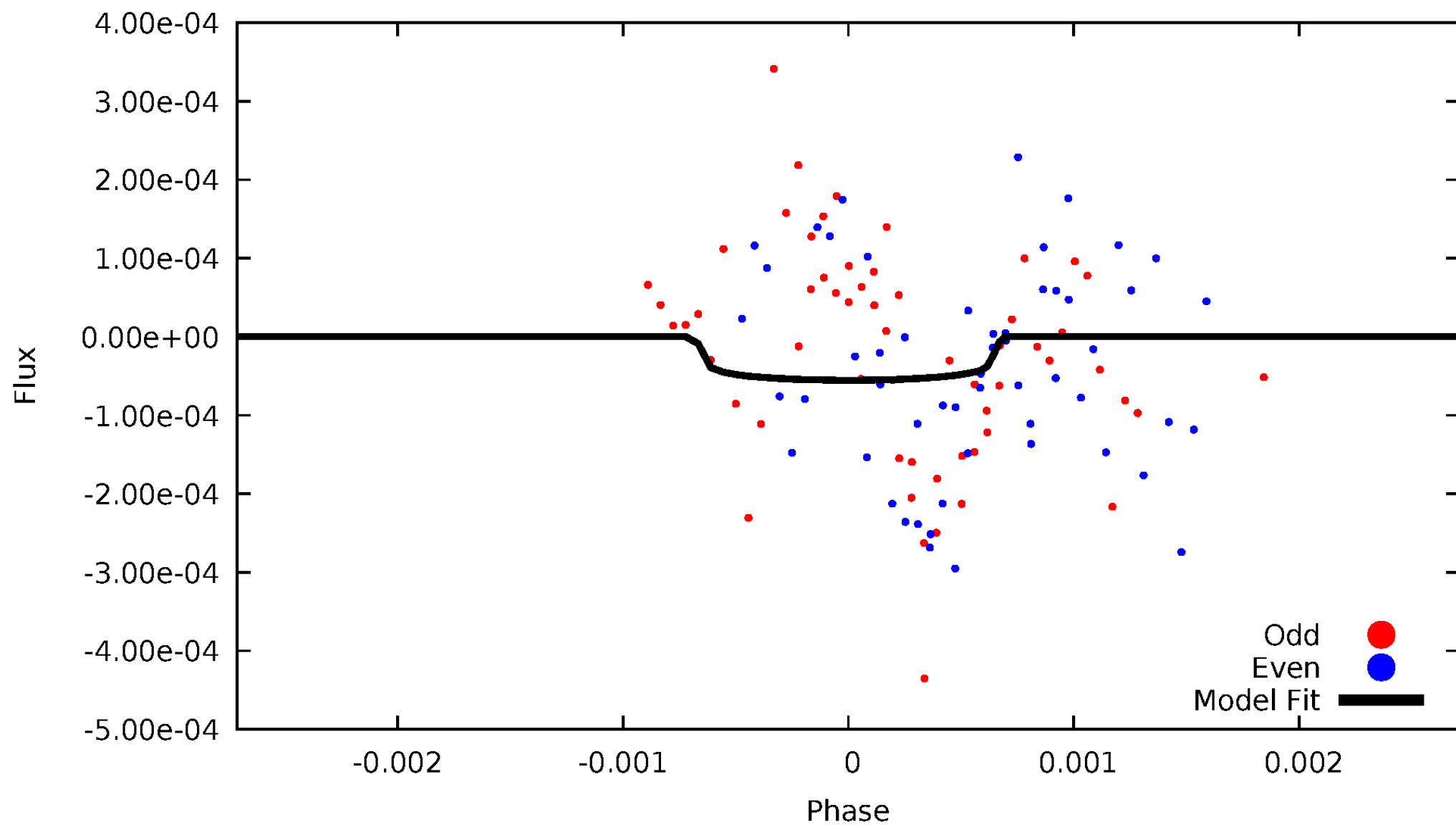


TCE 012268190-07



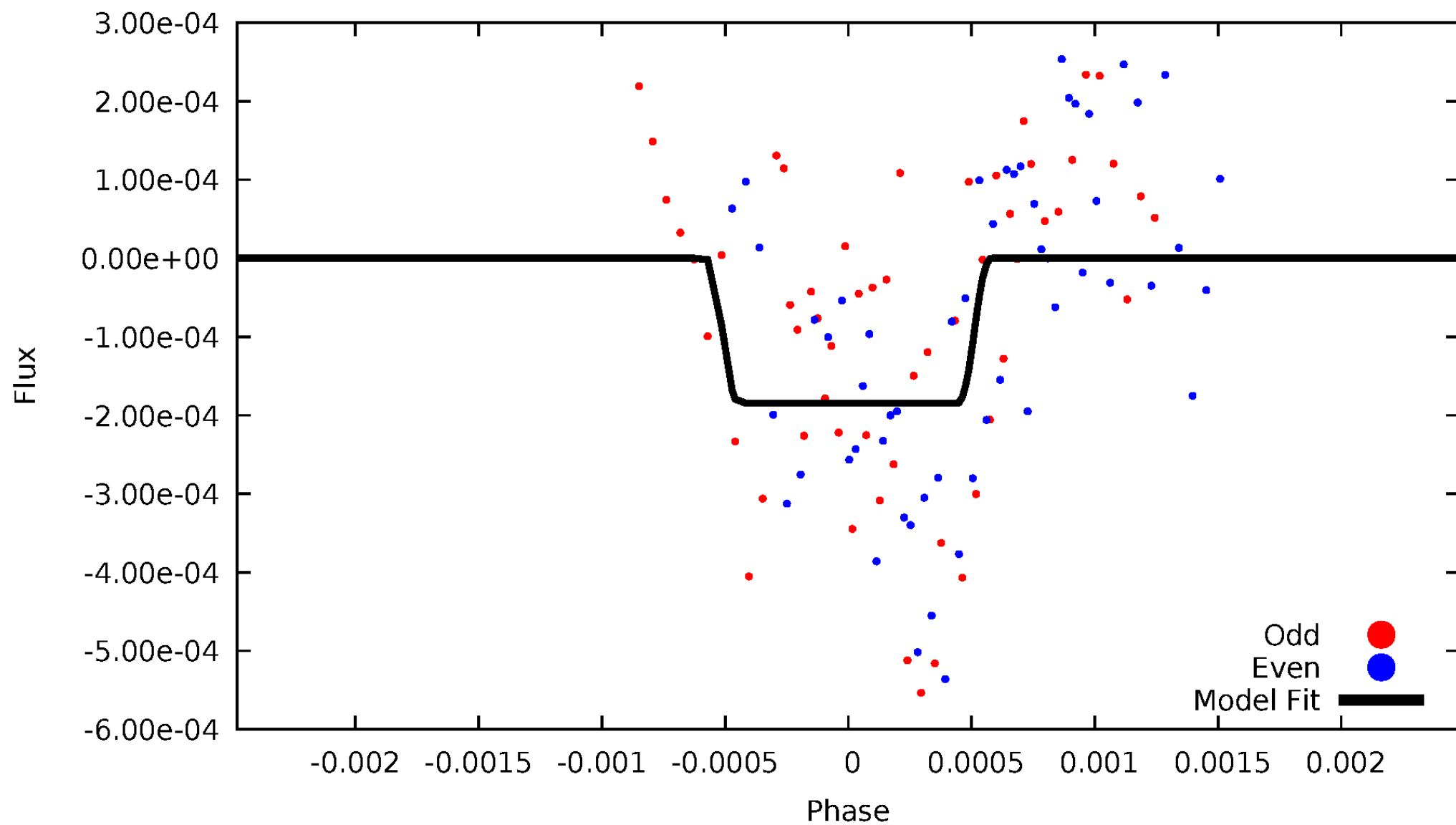
DV Odd/Even

TCE 012268190-07



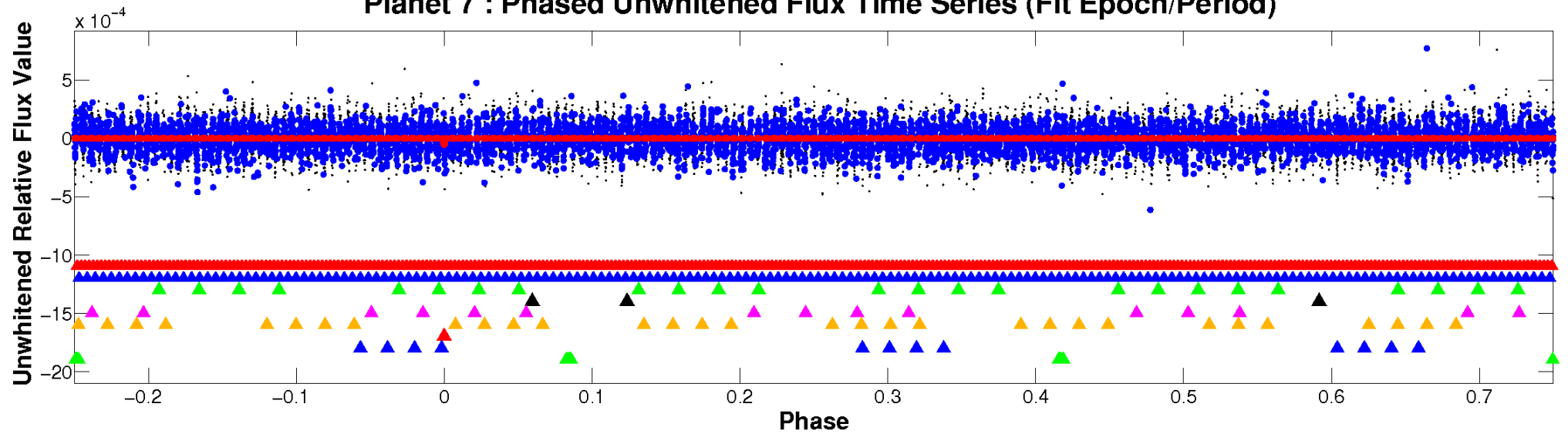
ALT Odd/Even

TCE 012268190-07

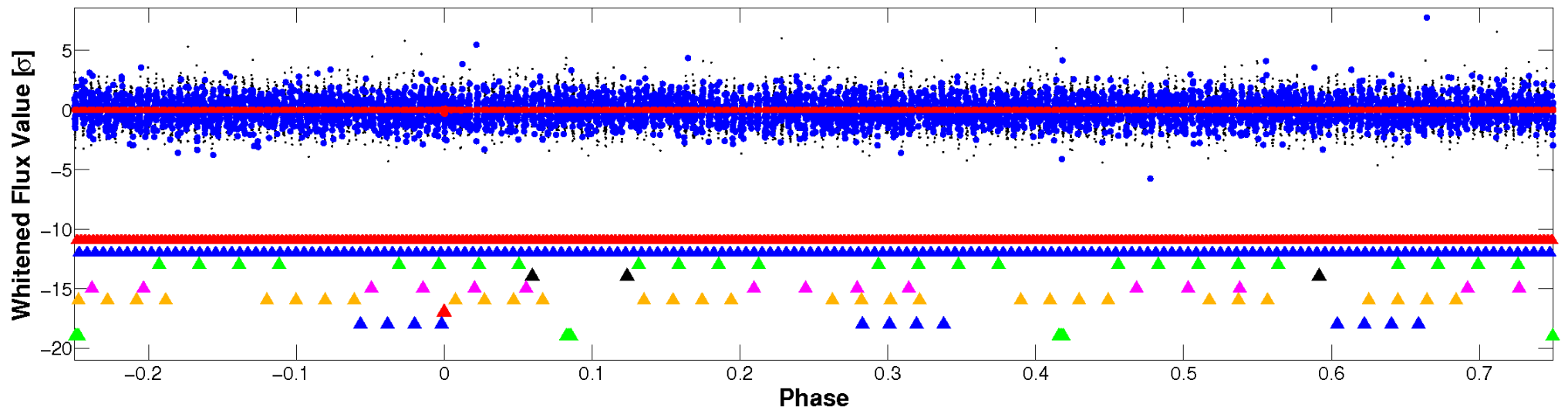


Non-Whitened Vs. Whitened Light Curve

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

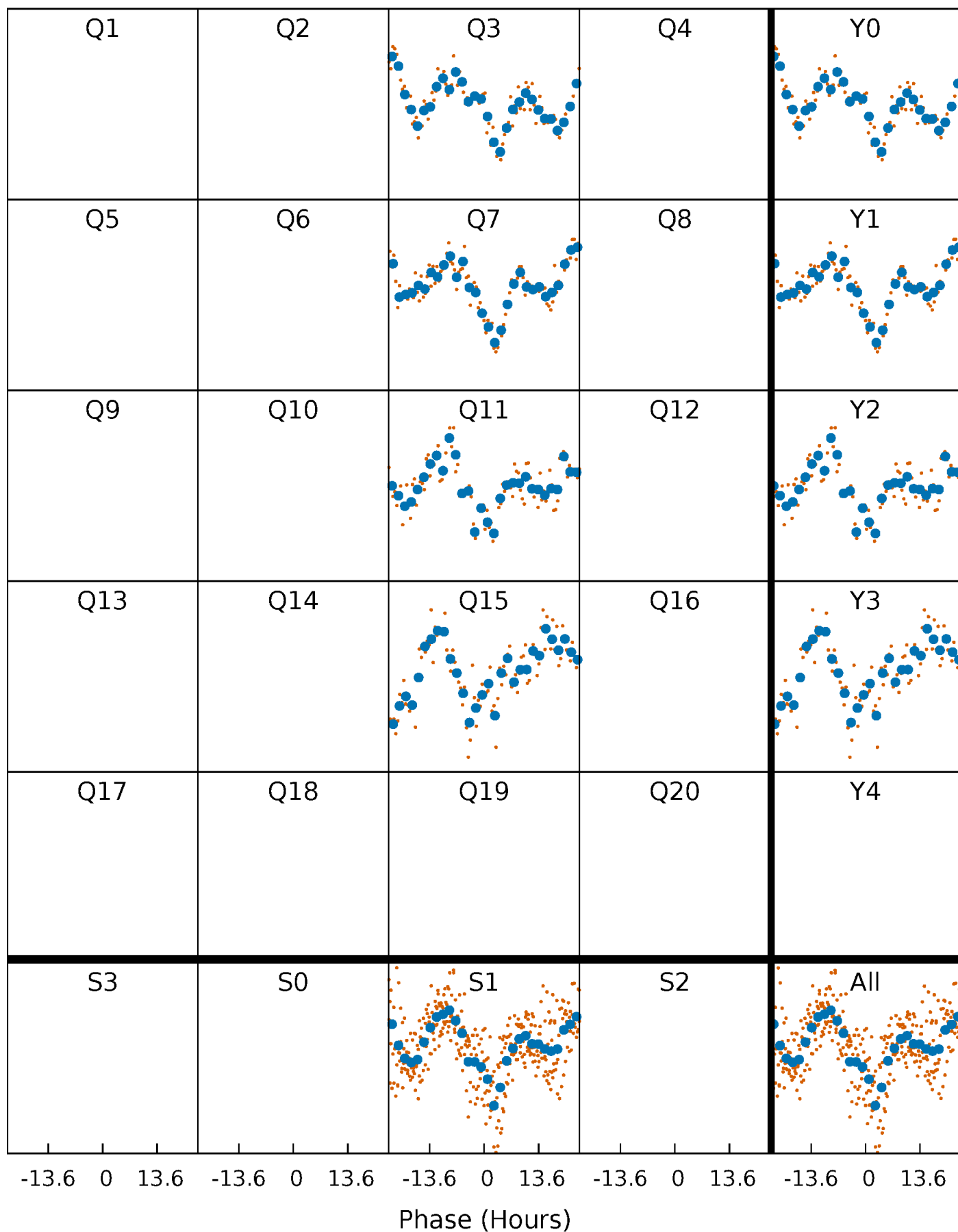


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



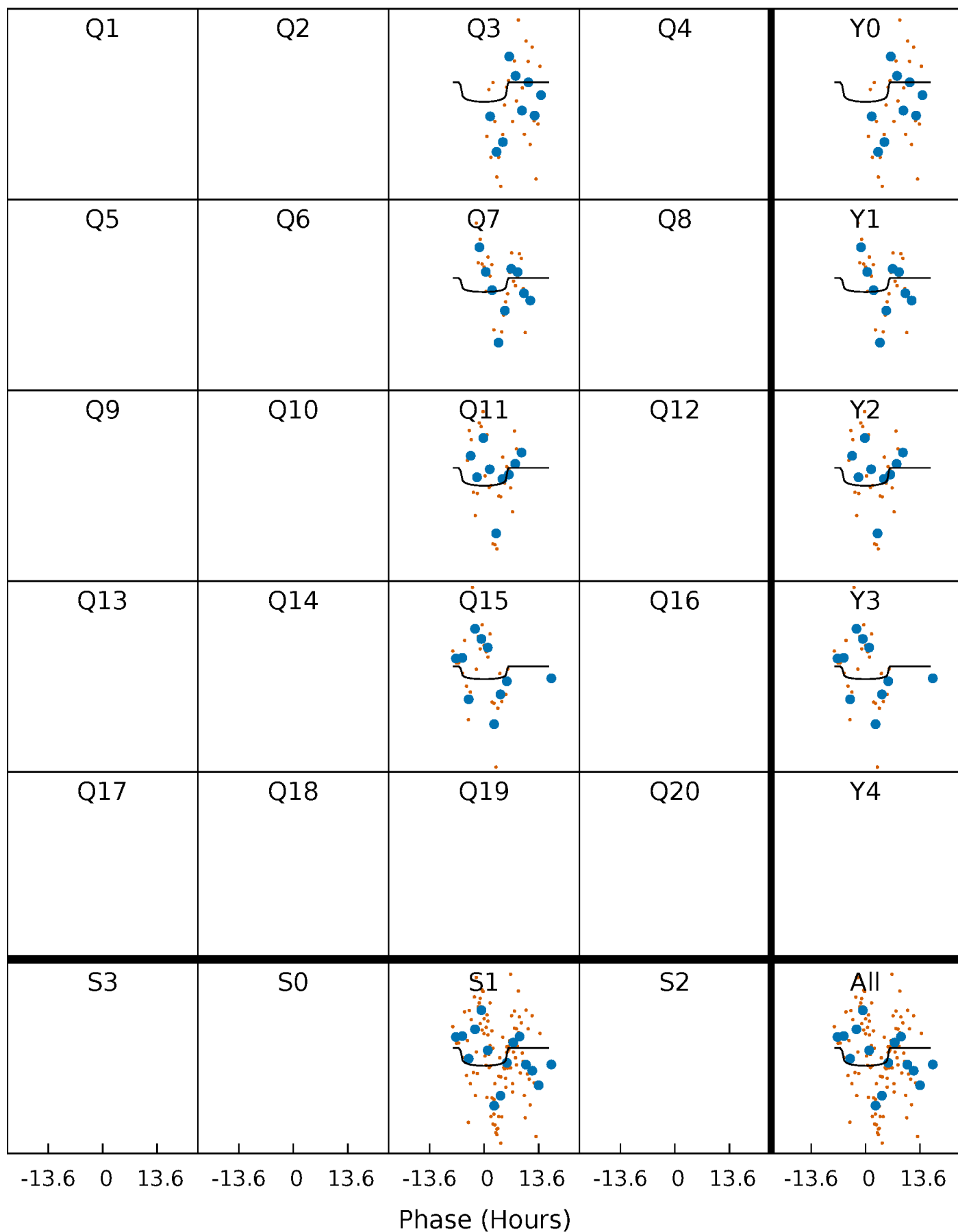
PDC Quarter-Phased Transit Curves

TCE 012268190-07 $P=366.486584$ Days $T_0=308.497921$ (BKJD)



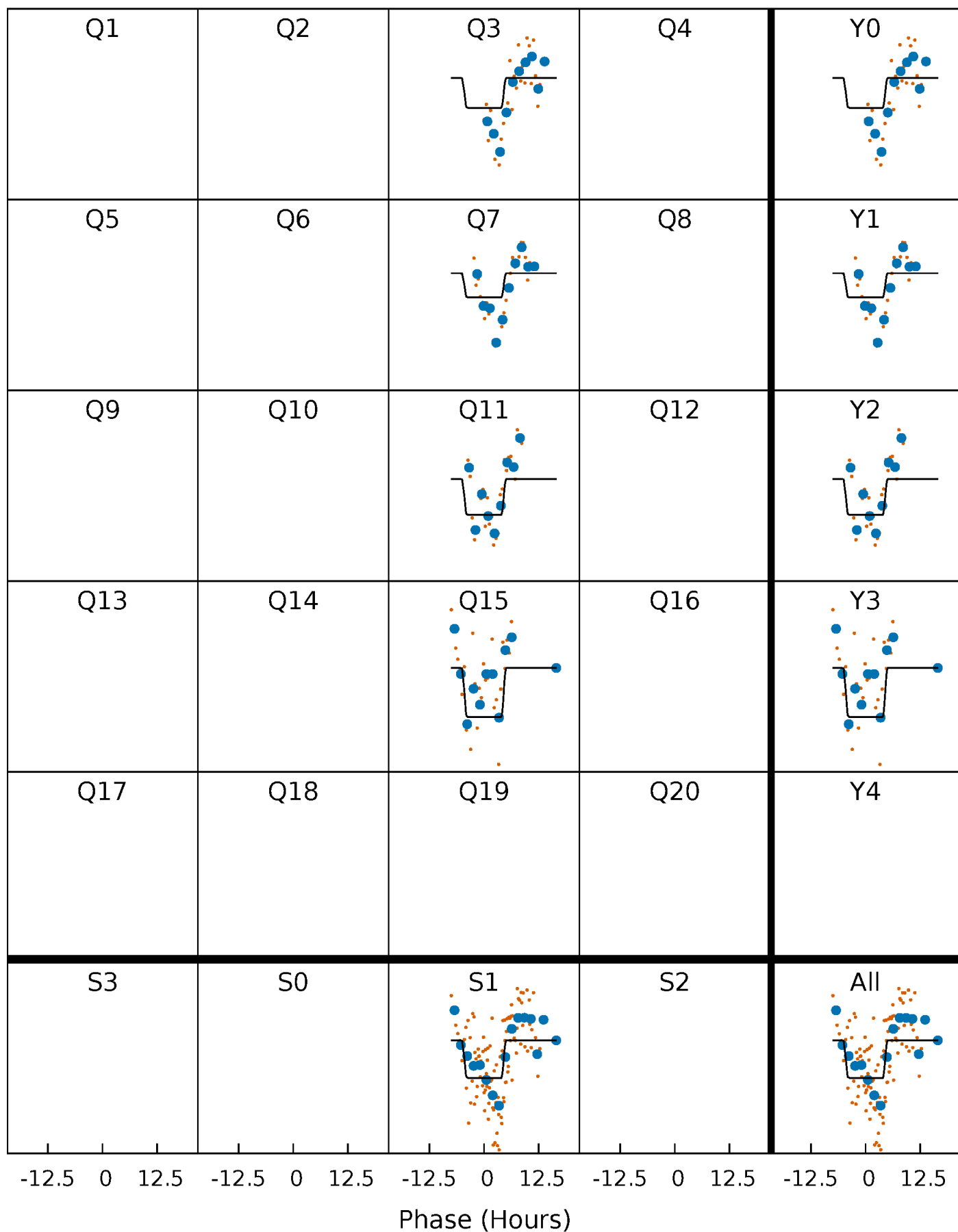
DV Quarter-Phased Transit Curves

TCE 012268190-07 $P=366.486584$ Days $T_0=308.497921$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

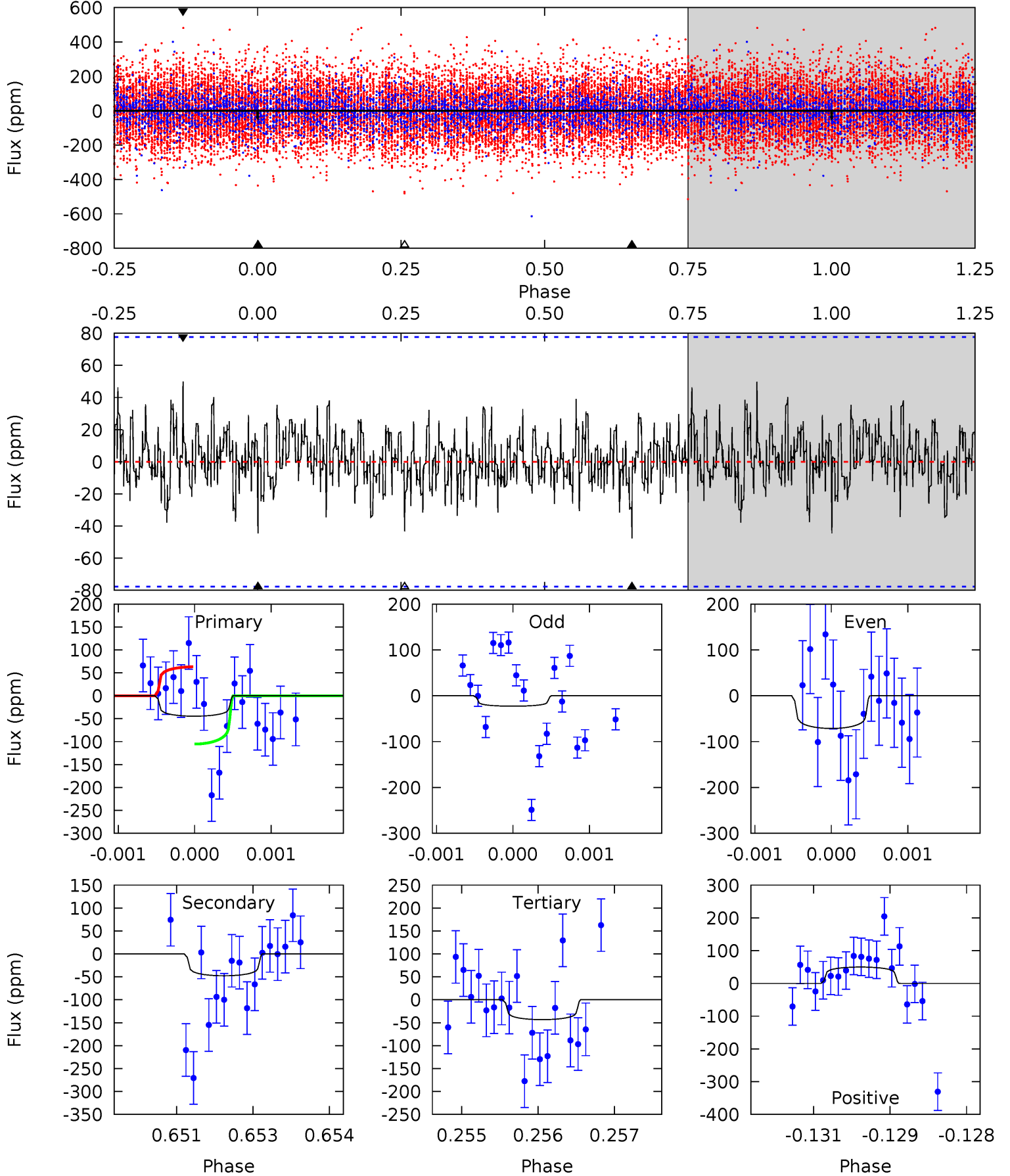
TCE 012268190-07 P=366.471937 Days $T_0=308.527325$ (BKJD)



DV Model-Shift Uniqueness Test

012268190-07, P = 366.486584 Days, E = 308.497921 Days

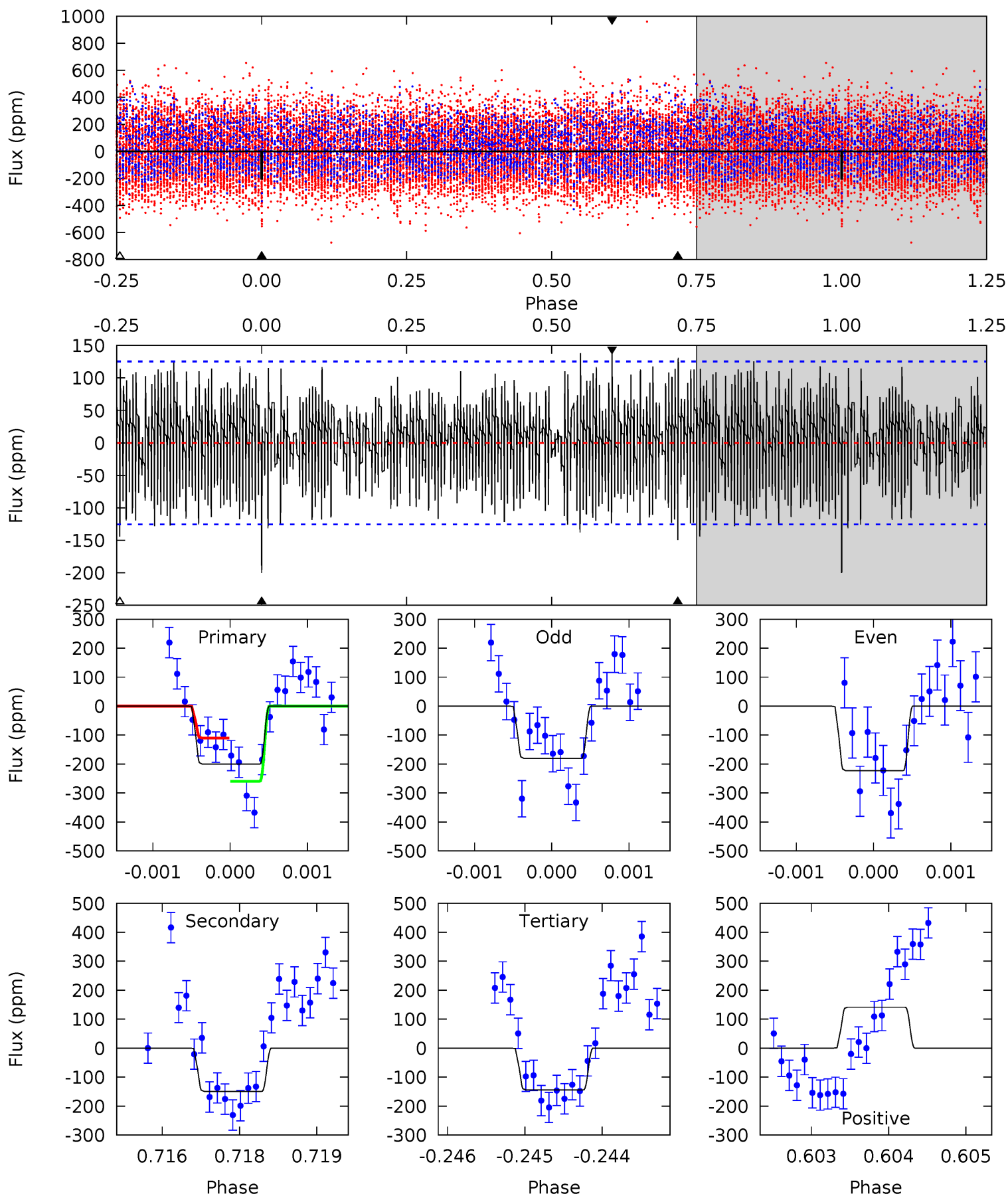
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.09	3.31	3.01	3.46	5.39	3.20	0.95	0.08	-0.37	0.30	-0.15	1.68	1.87	0.51	1.37



Alt Model-Shift Uniqueness Test

012268190-07, P = 366.471937 Days, E = 308.527325 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.66	6.45	6.23	6.12	5.43	3.25	2.52	2.43	2.54	0.22	0.33	0.92	1.05	0.41	3.10



Stellar Parameters For KIC 012268190

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6915^{+187}_{-207}	$3.602^{+0.323}_{-0.057}$	$-0.200^{+0.300}_{-0.250}$	$3.457^{+0.412}_{-1.236}$	$1.742^{+0.182}_{-0.339}$	$0.059^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+150%/-125%	+12%/-36%	+10%/-19%	+231%/-19%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 012268190-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-48 ± 14	$2.87^{+1.75}_{-1.65}$	704^{+36}_{-69}	6255^{+4542}_{-1268}	4601^{+21966}_{-2893}
Alt.	-149 ± 23	$4.65^{+2.12}_{-1.83}$	703^{+38}_{-65}	6536^{+2143}_{-1076}	5453^{+9367}_{-2777}

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

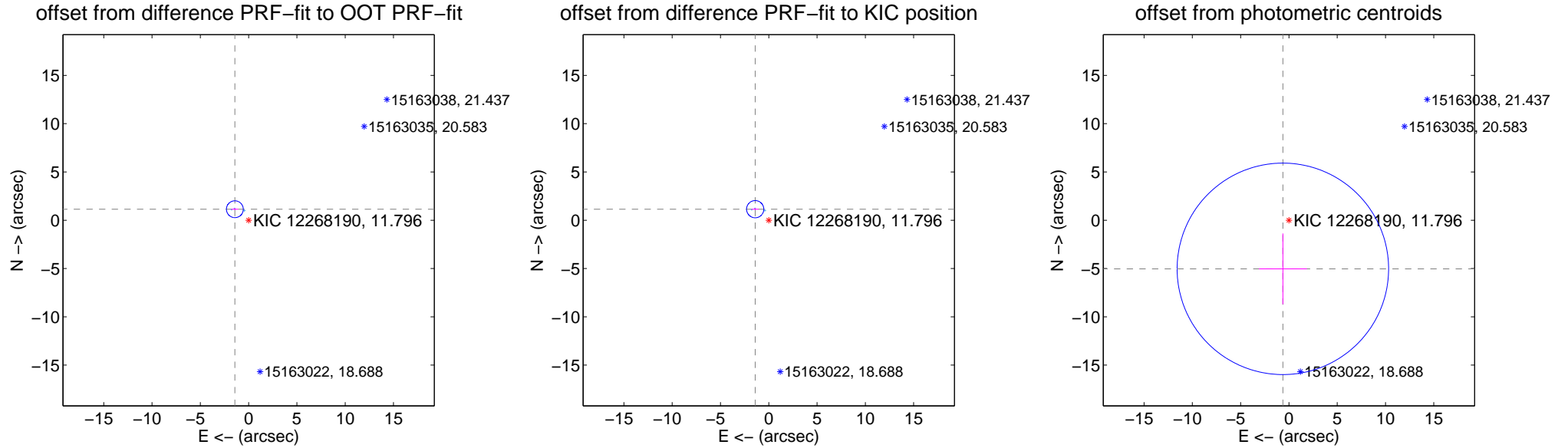
DV Centroid Data

Supplemental centroid analysis for 012268190-07. **Kepler magnitude: 11.80.** Transit SNR 2.36

There are 3 quarters with good PRF difference image offsets

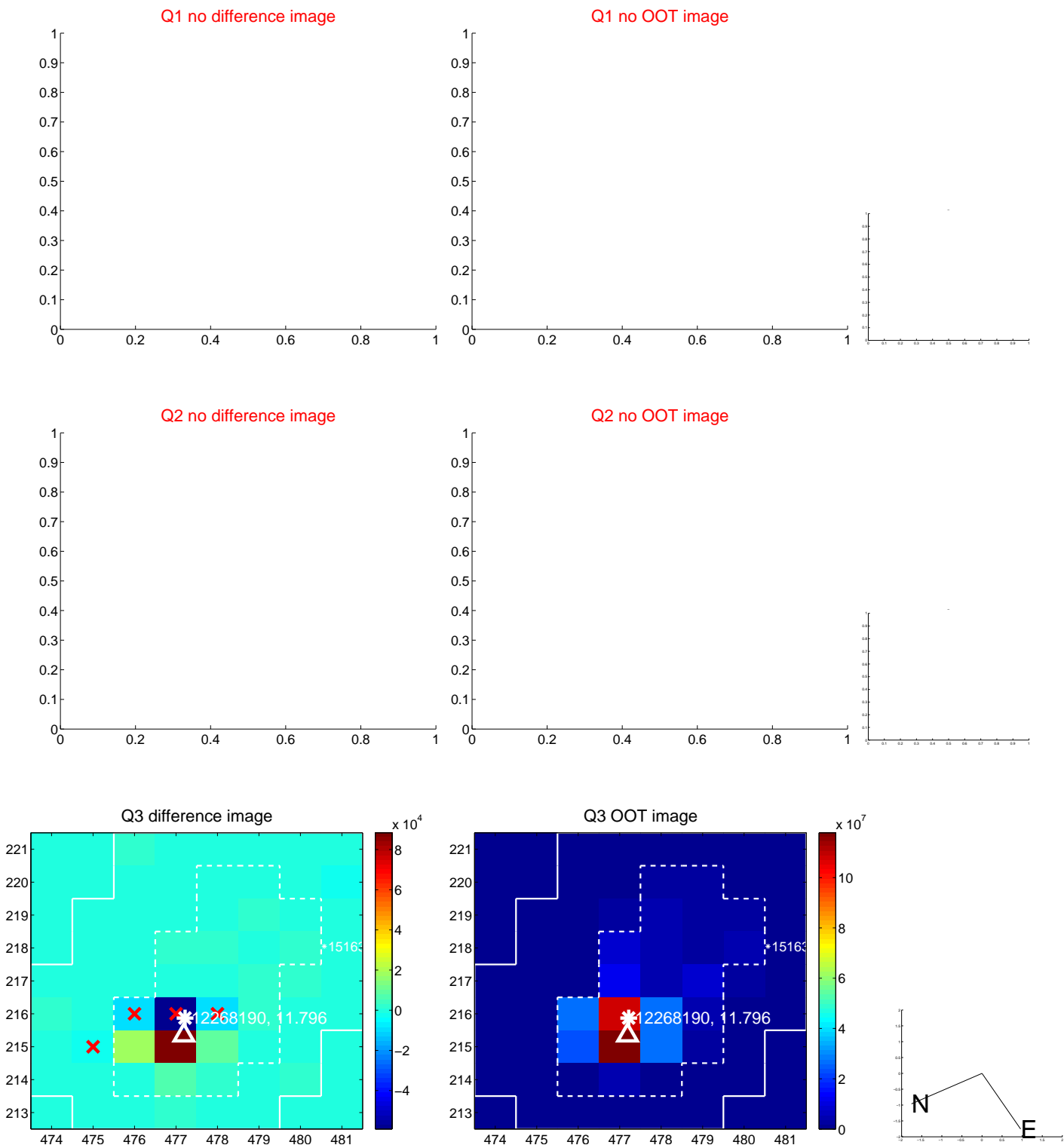
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.825 ± 0.290	6.29	1.425 ± 0.364	1.141 ± 0.095
PRF-fit source offset from KIC position	1.814 ± 0.297	6.11	1.407 ± 0.375	1.145 ± 0.096
photometric centroid source offset	5.07 ± 3.65	1.39	0.63 ± 2.48	-5.03 ± 3.66



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

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



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

Q5 no difference image



Q5 no OOT image



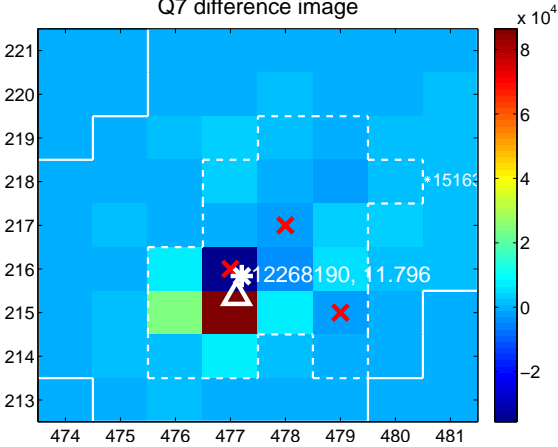
Q6 no difference image



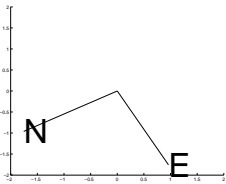
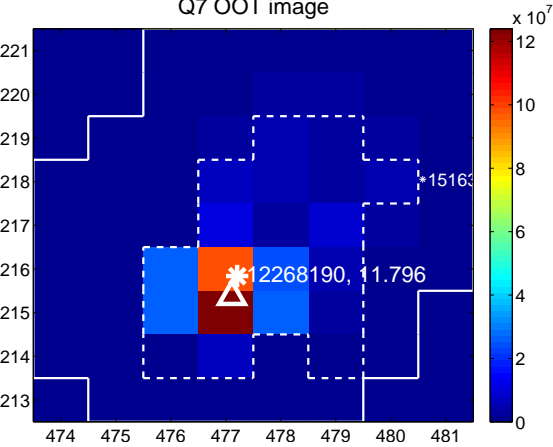
Q6 no OOT image



Q7 difference image



Q7 OOT image



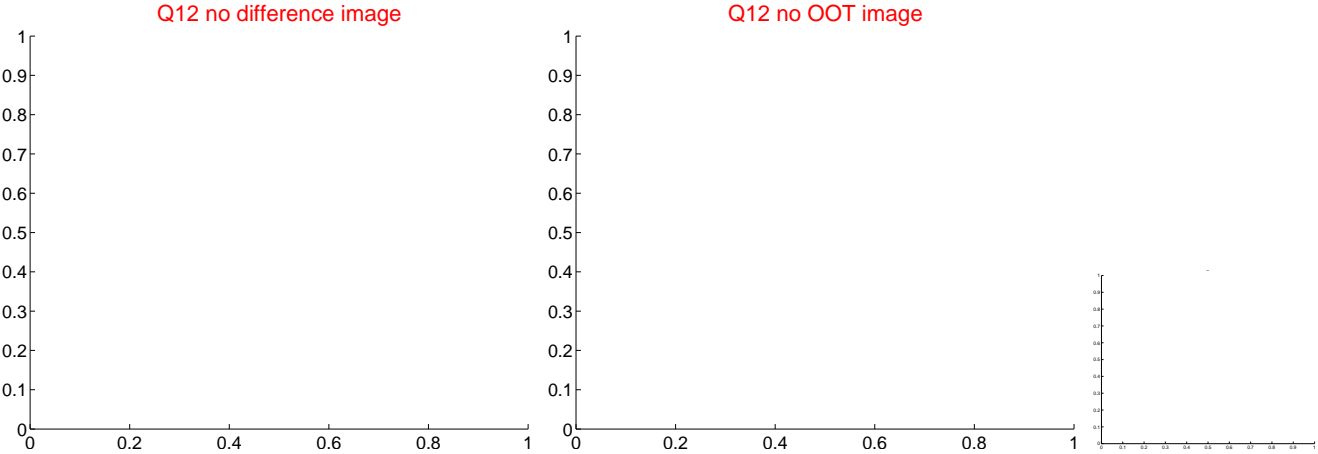
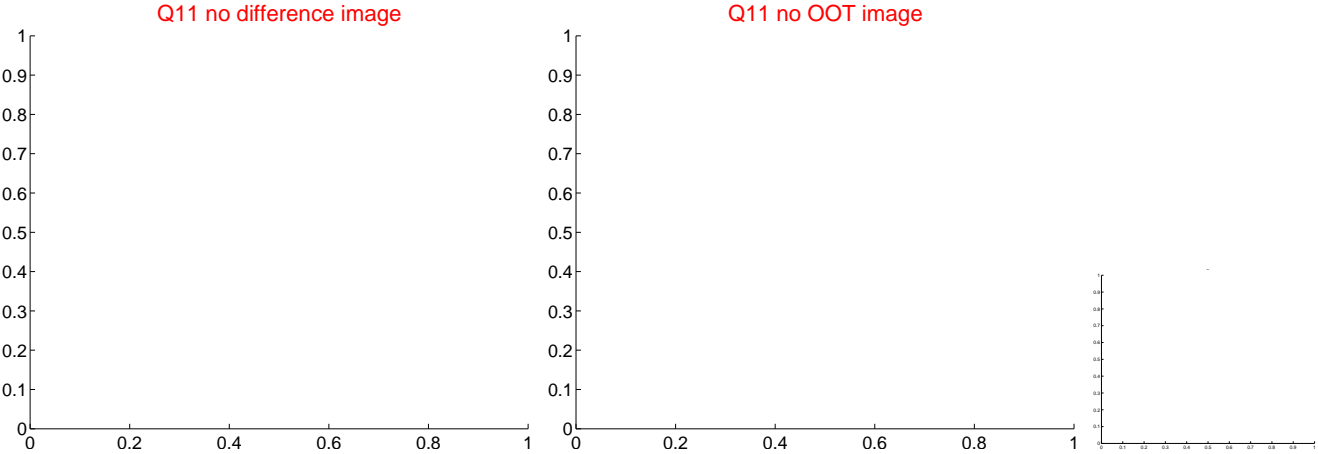
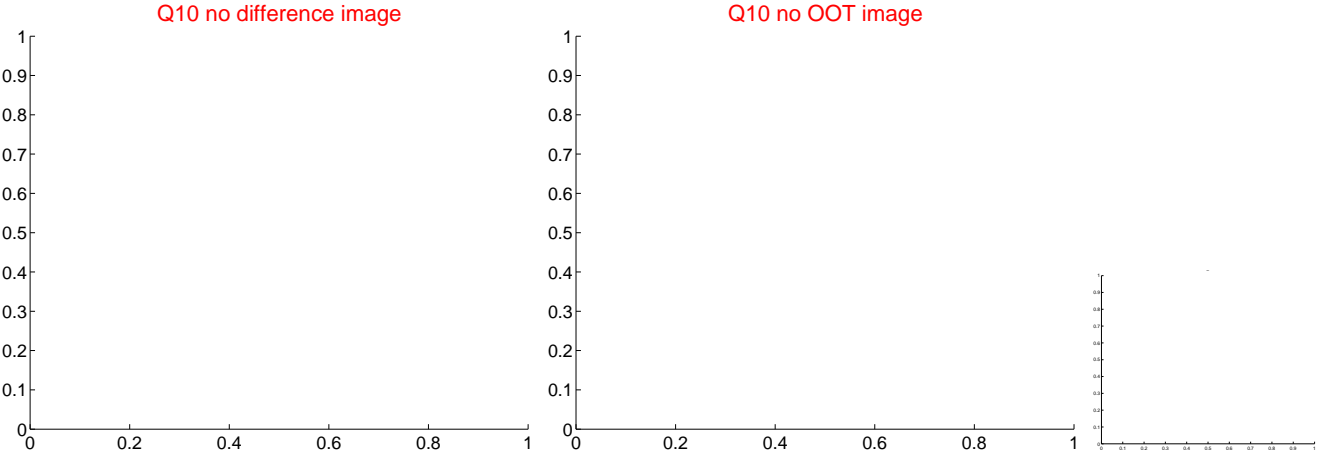
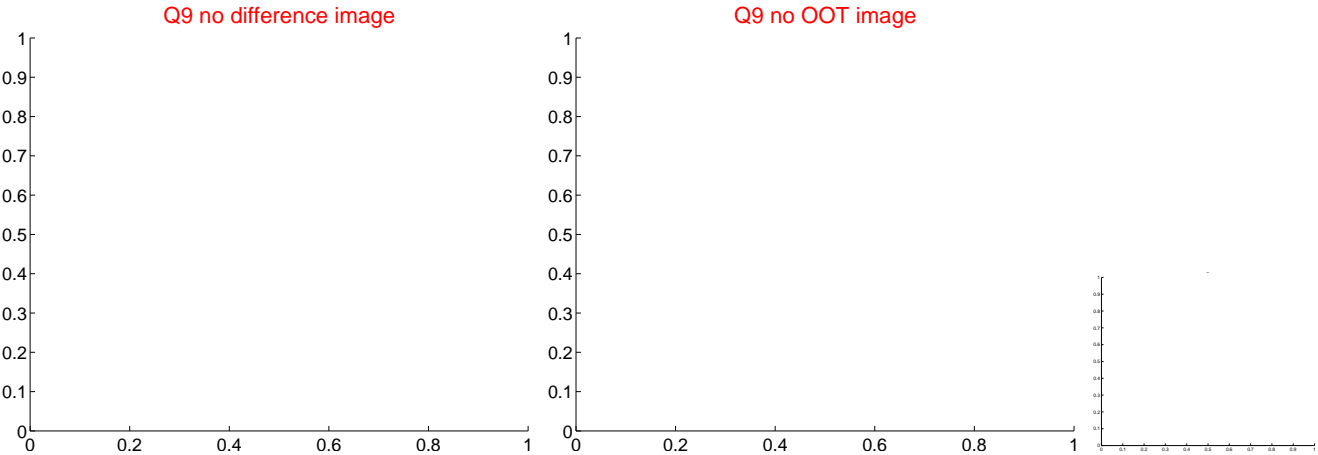
Q8 no difference image



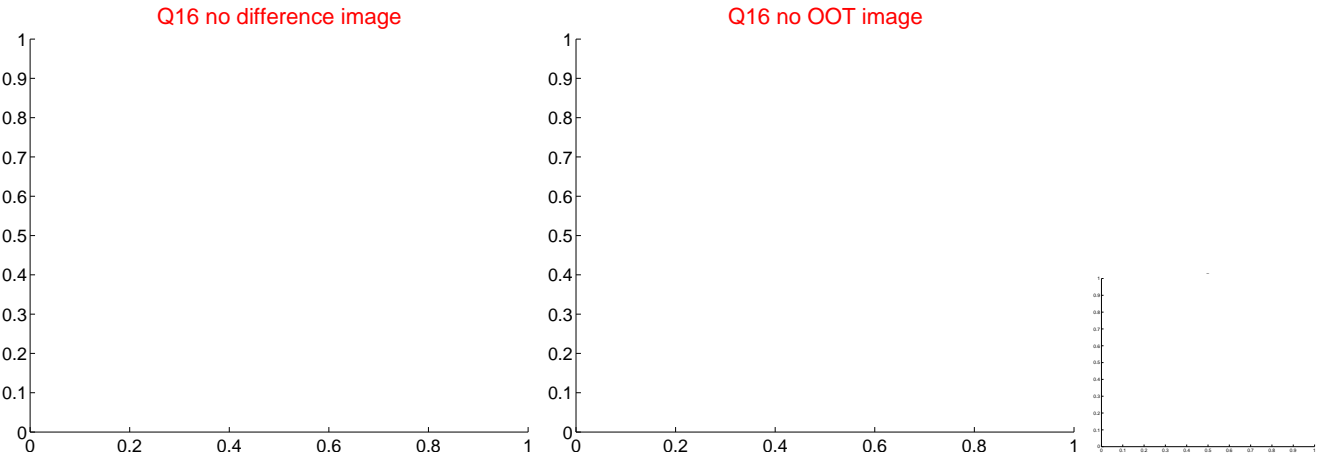
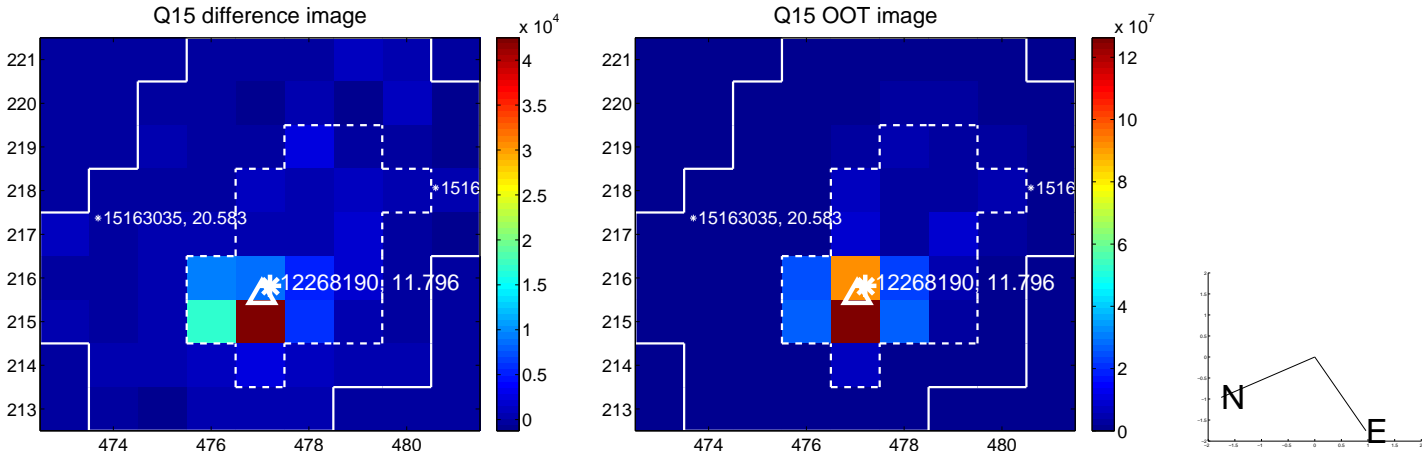
Q8 no OOT image



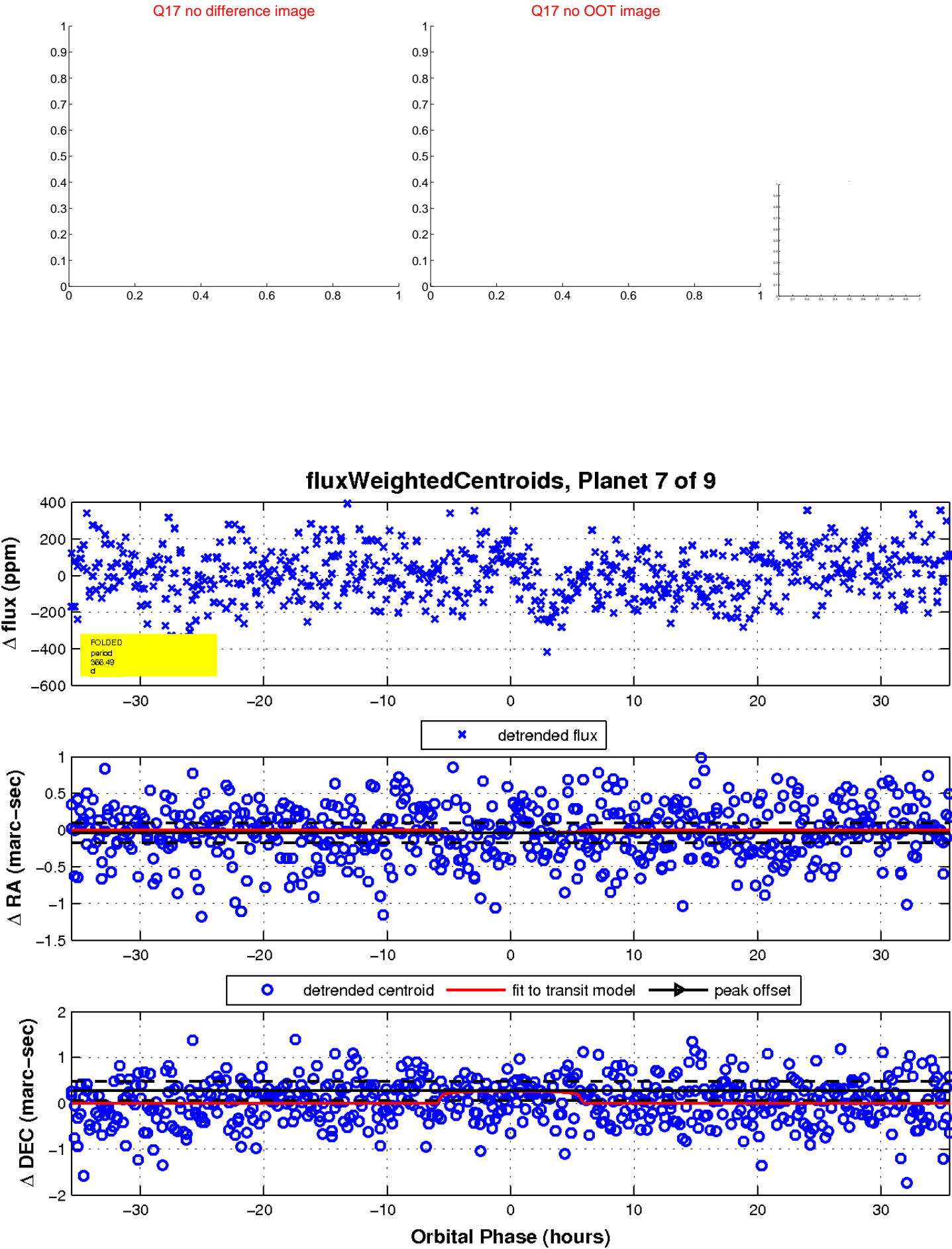
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

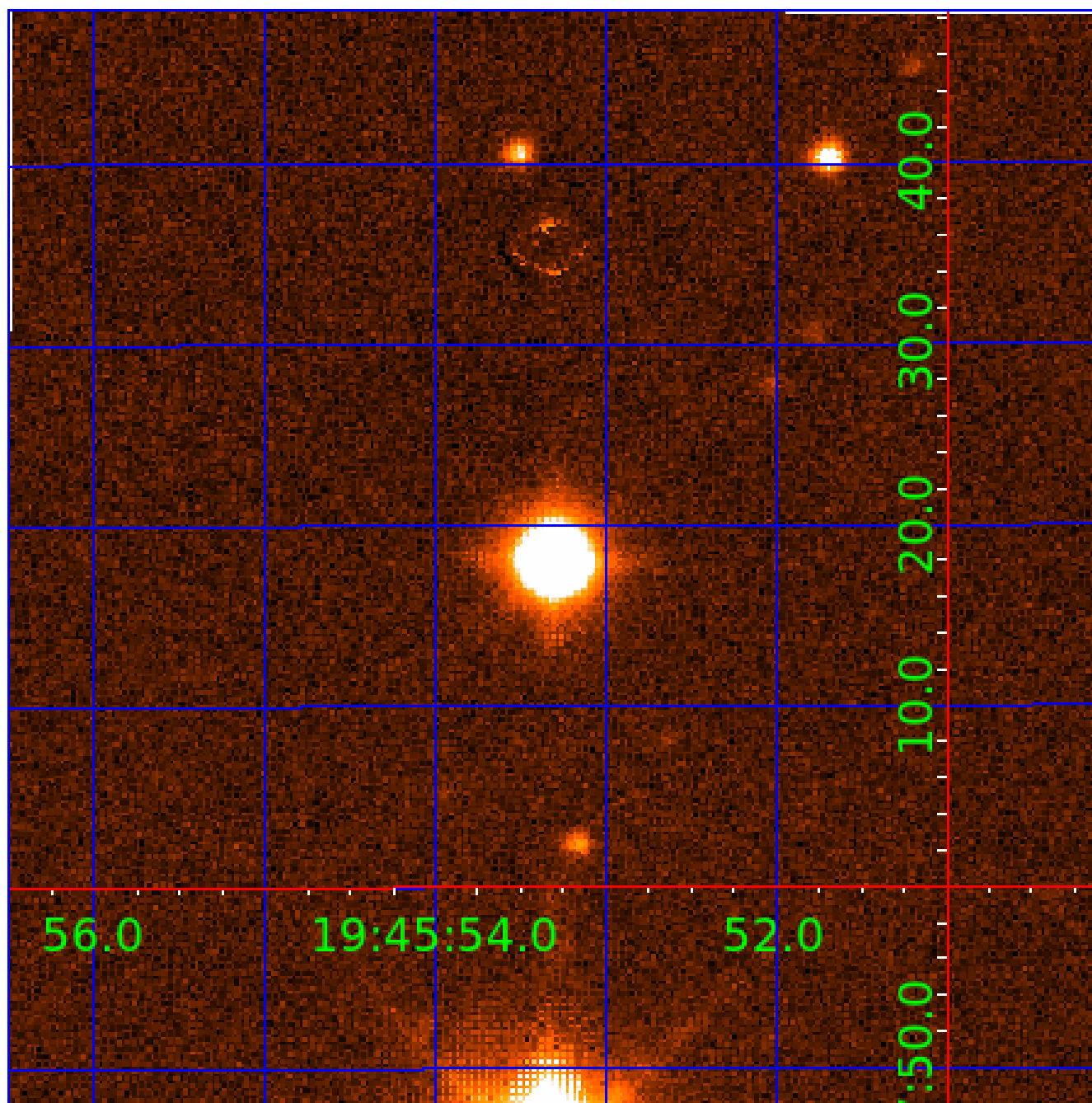


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 012268190

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})
012268190-01	OBS	No	0.995576	132.085974	23.2	3.178	11.6	11.3	3.46	6915	1.93	44370.77
012268190-02	OBS	No	1.991368	132.511186	35.5	5.204	12.4	12.5	3.46	6915	3.01	17606.00
012268190-03	OBS	No	59.429660	148.717804	131.5	11.511	8.7	8.9	3.46	6915	4.35	190.19
012268190-04	OBS	No	561.481101	330.332346	241.0	27.332	8.3	7.6	3.46	6915	6.57	9.52
012268190-05	OBS	No	94.817581	195.645350	39.6	21.417	8.2	2.6	3.46	6915	2.40	102.02
012268190-06	OBS	No	46.711873	171.151127	60.2	12.671	8.0	4.1	3.46	6915	3.08	262.20
012268190-07	OBS	No	366.486584	308.497921	55.3	11.921	7.8	2.4	3.46	6915	2.99	16.82
012268190-09	OBS	No	122.032579	217.908251	192.1	6.947	7.5	7.5	3.46	6915	5.32	72.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012268190-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
012268190-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
012268190-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET
012268190-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
012268190-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
012268190-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
012268190-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

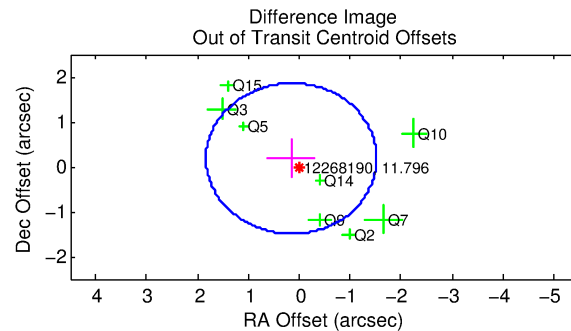
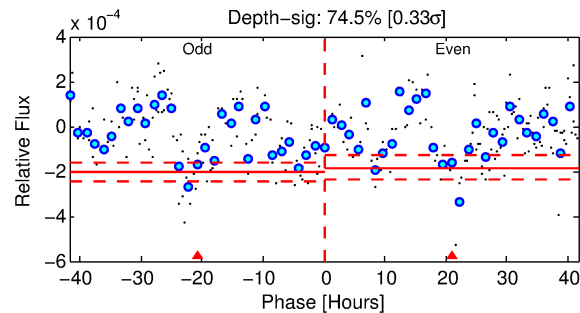
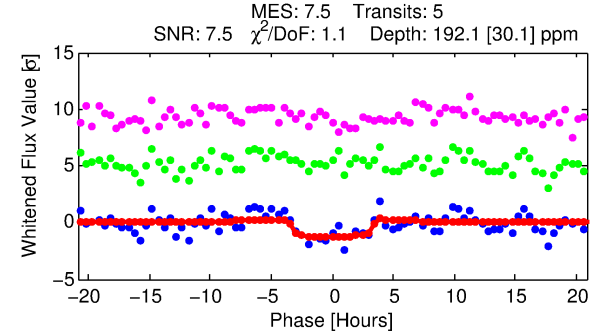
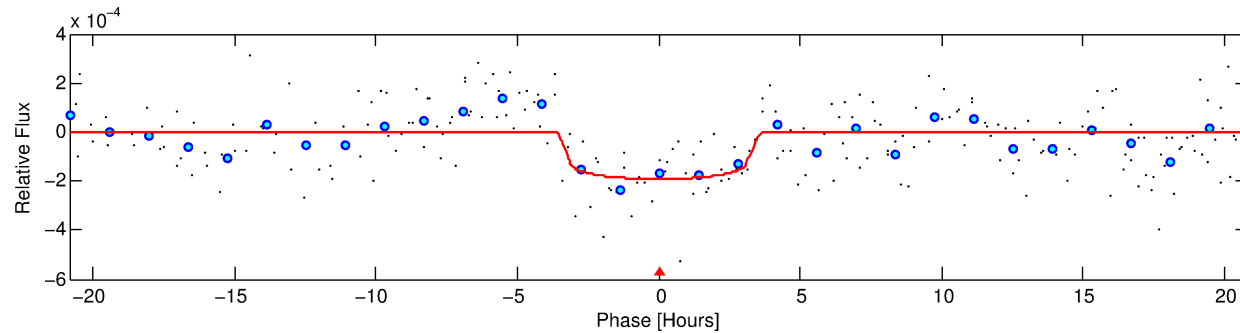
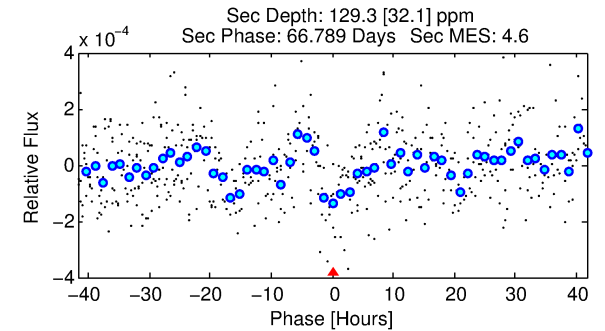
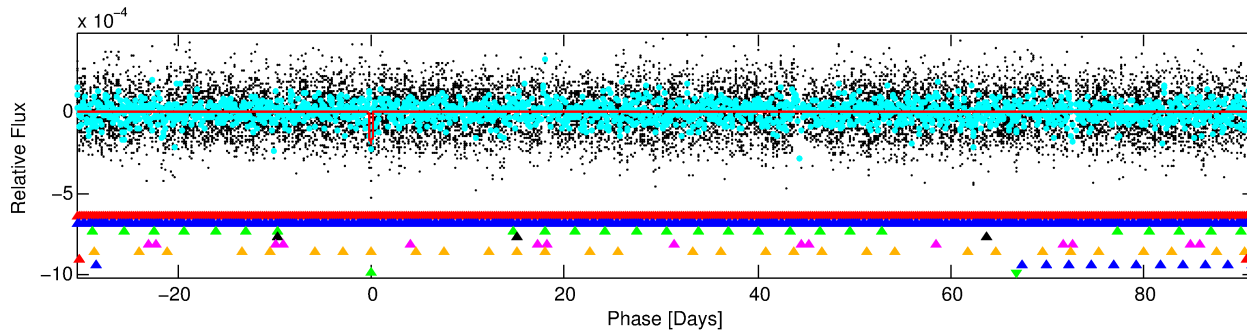
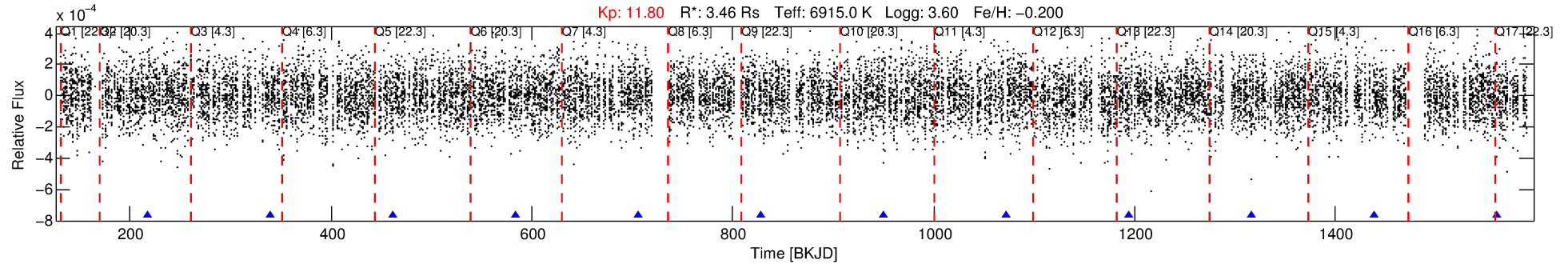
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012268190-09

No Significant Match Found

DV One-Page Summary

KIC: 12268190 Candidate: 9 of 9 Period: 122.033 d



DV Fit Results:

Period = 122.03258 [0.00248] d
Epoch = 217.9083 [0.0170] BKJD
 $R_p/R^* = 0.0141$ [0.0111]
 $a/R^* = 80.51$ [378.72]
 $b = 0.82$ [1.91]
 $S_{\text{eff}} = 72.87$ [41.03]
 $T_{\text{eq}} = 745$ [105] K
 $R_p = 5.32$ [4.60] R_e
 $a = 0.5796$ [0.1993] AU
 $A_g = 844.15$ [1422.86] [0.59σ]
 $T_{\text{eff}} = 6209$ [2480] K [2.20σ]

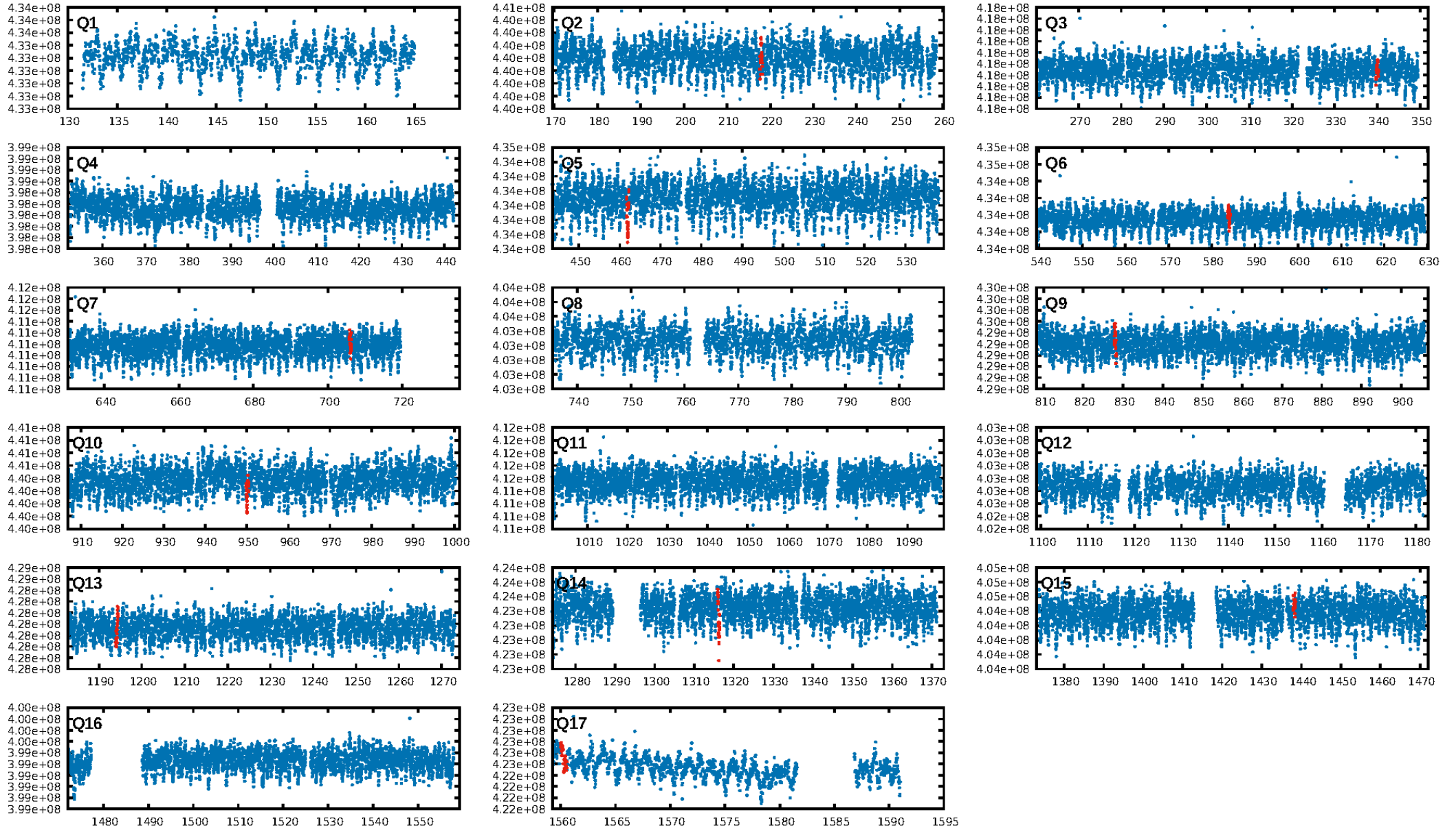
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [29.01σ]
LongPeriod-sig: 100.0% [4.34σ]
ModelChiSquare2-sig: 60.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.06e-08
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -1.061
Centroid-sig: 3.3%
Centroid-so: 1.037 arcsec [1.52σ]
OotOffset-rm: 0.238 arcsec [0.43σ]
OotOffset-st: 3/3/0/2 [8]
KicOffset-rm: 0.186 arcsec [0.32σ]
KicOffset-st: 3/3/0/2 [8]
DiffImageQuality-fgm: 0.50 [4/8]
DiffImageOverlap-fno: 0.00 [0/9]

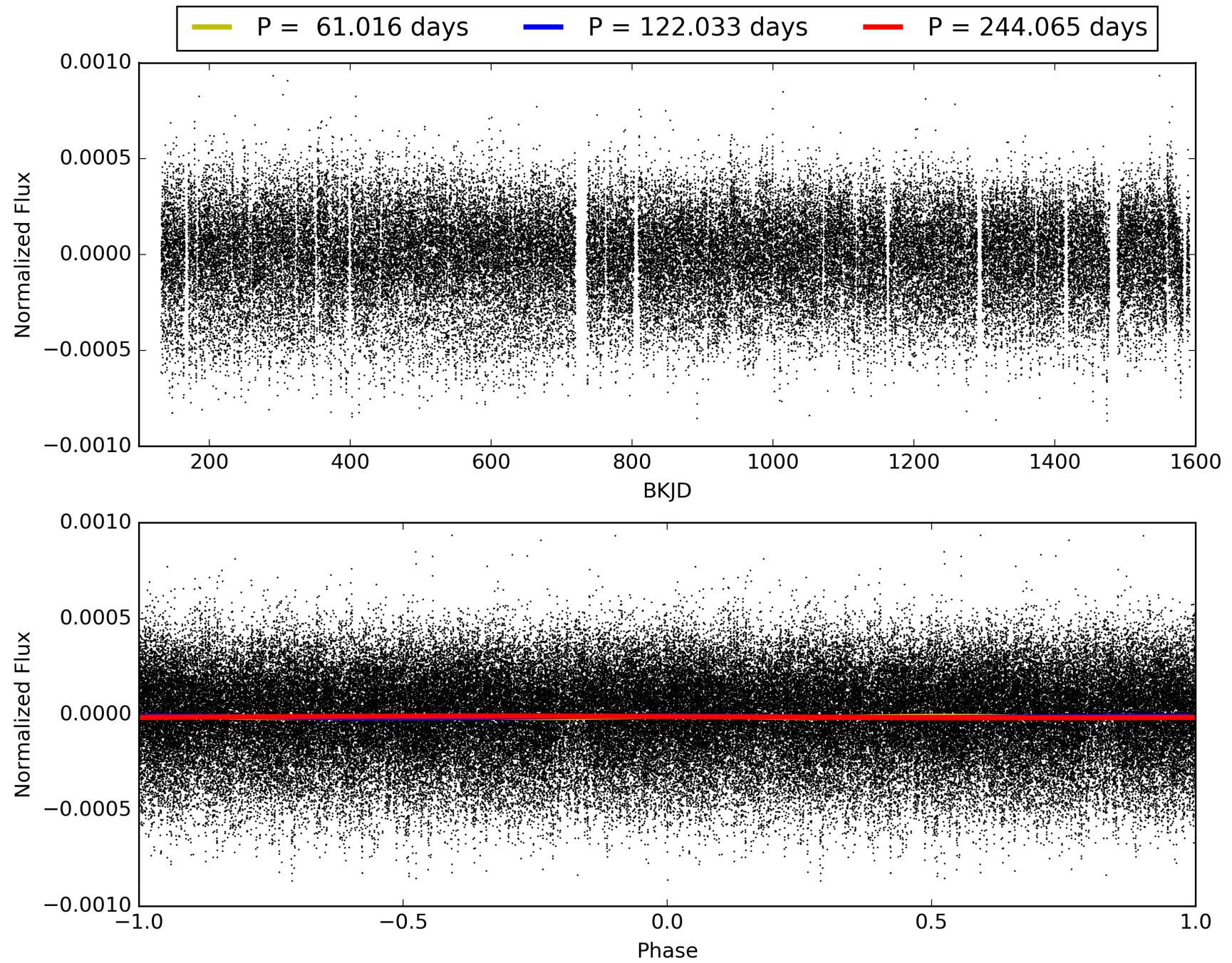
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:17:04 Z

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

TCE 012268190-09, PDC Light Curves

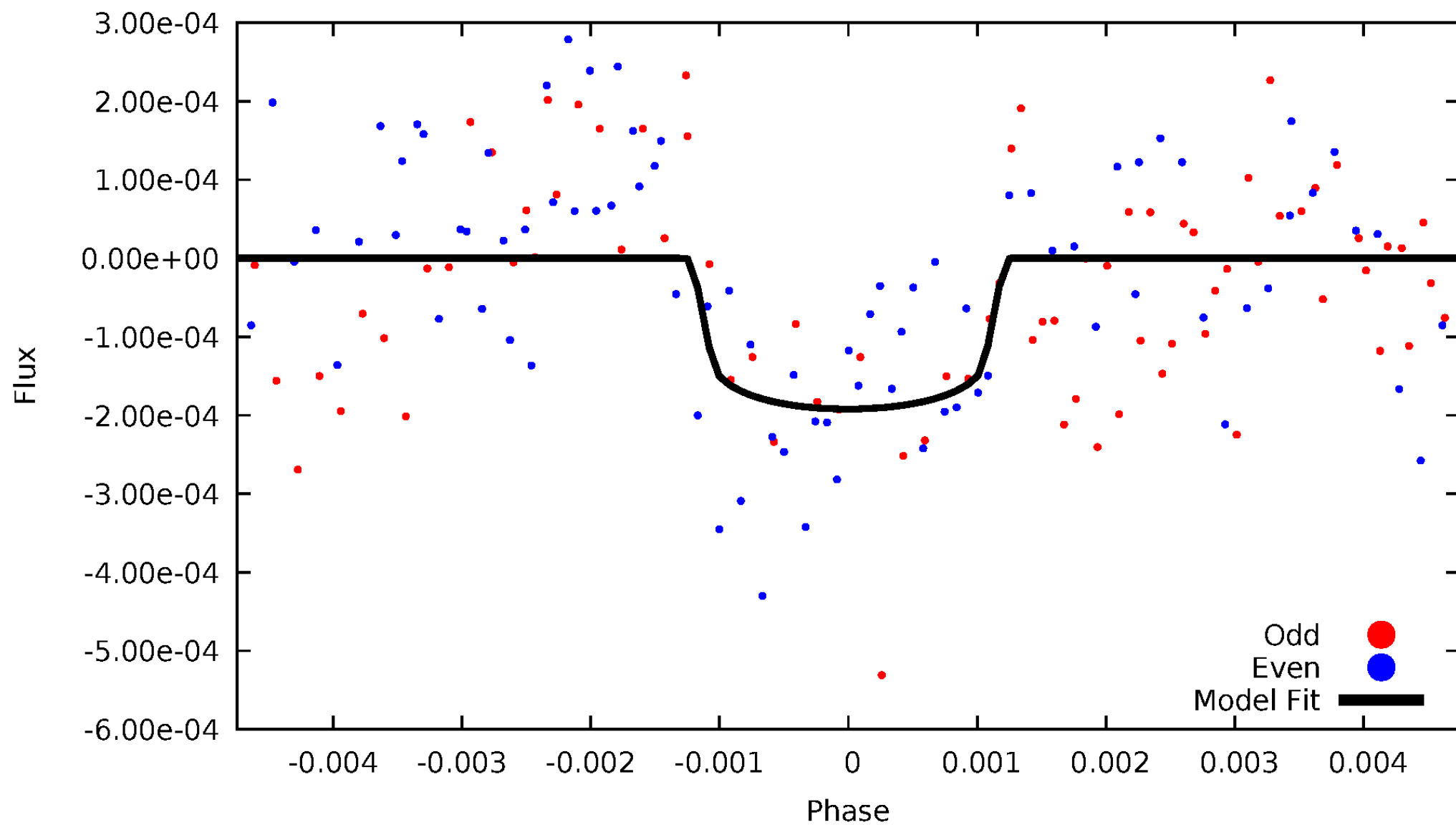


TCE 012268190-09



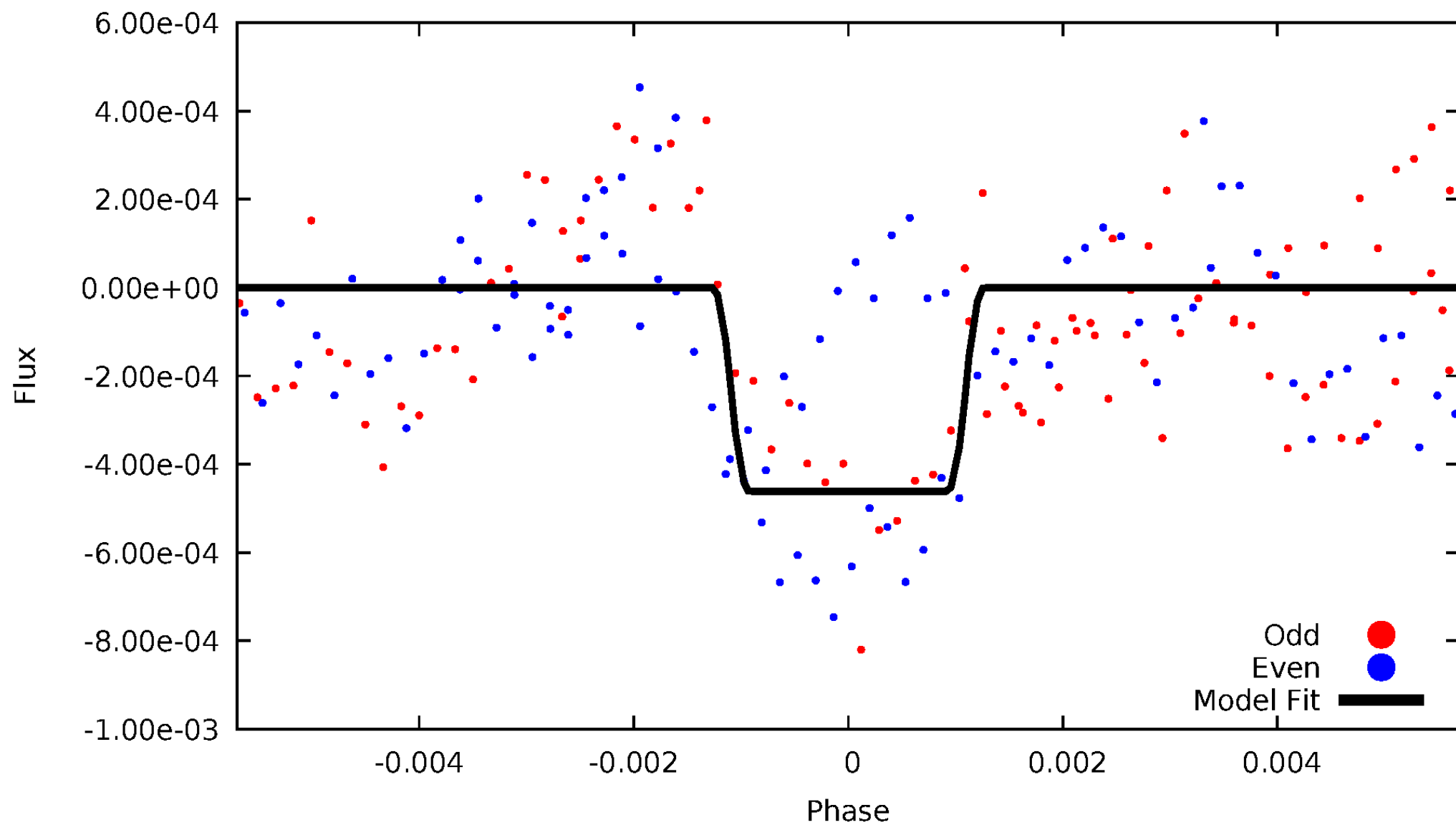
DV Odd/Even

TCE 012268190-09

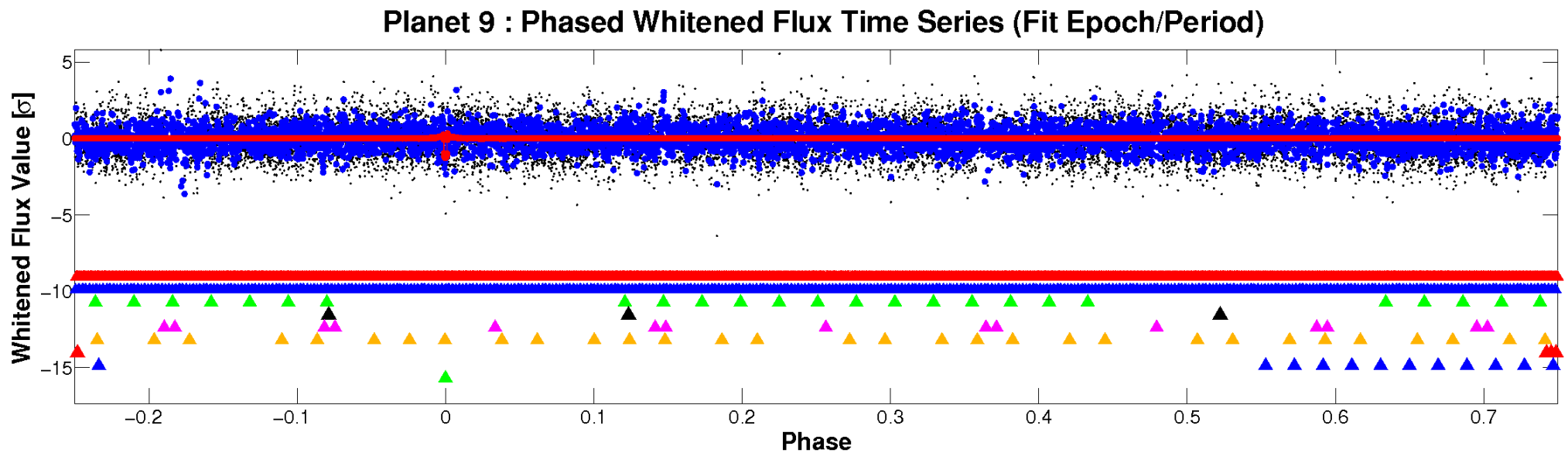
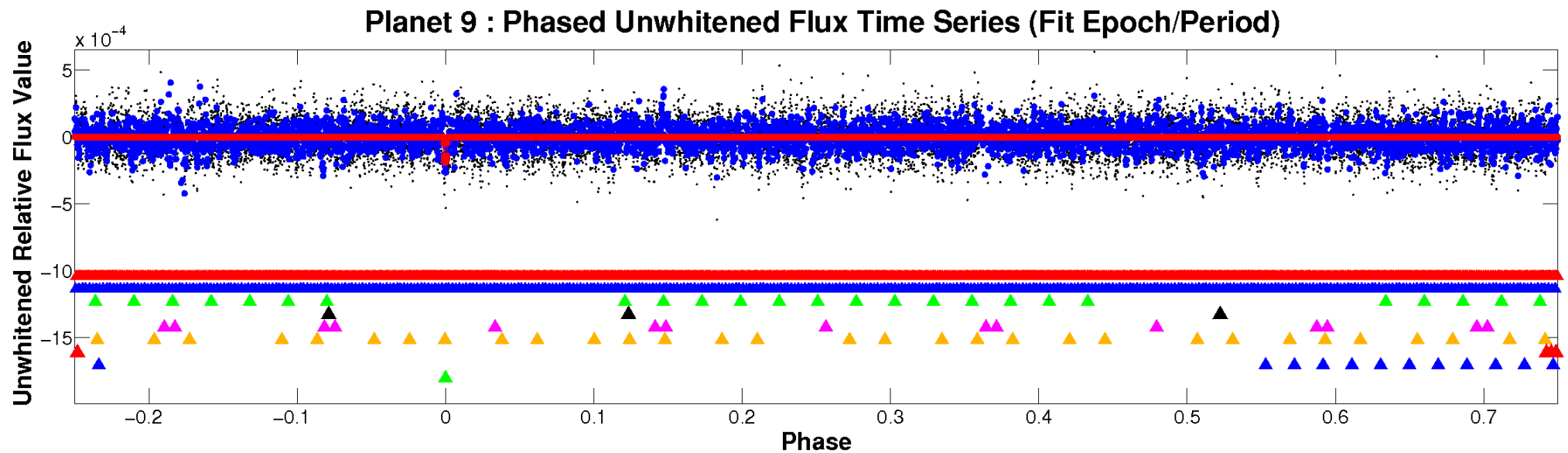


ALT Odd/Even

TCE 012268190-09

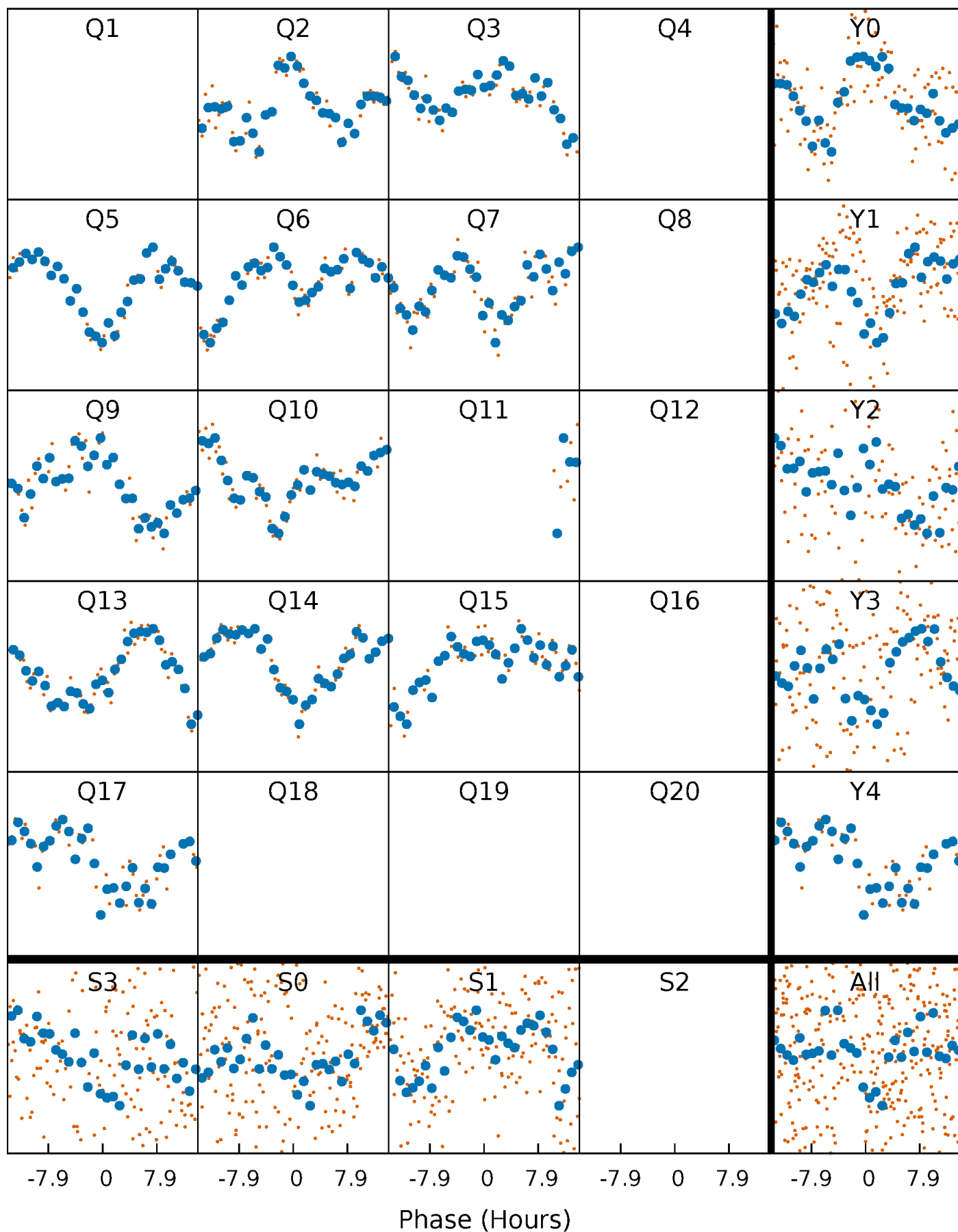


Non-Whitened Vs. Whitened Light Curve



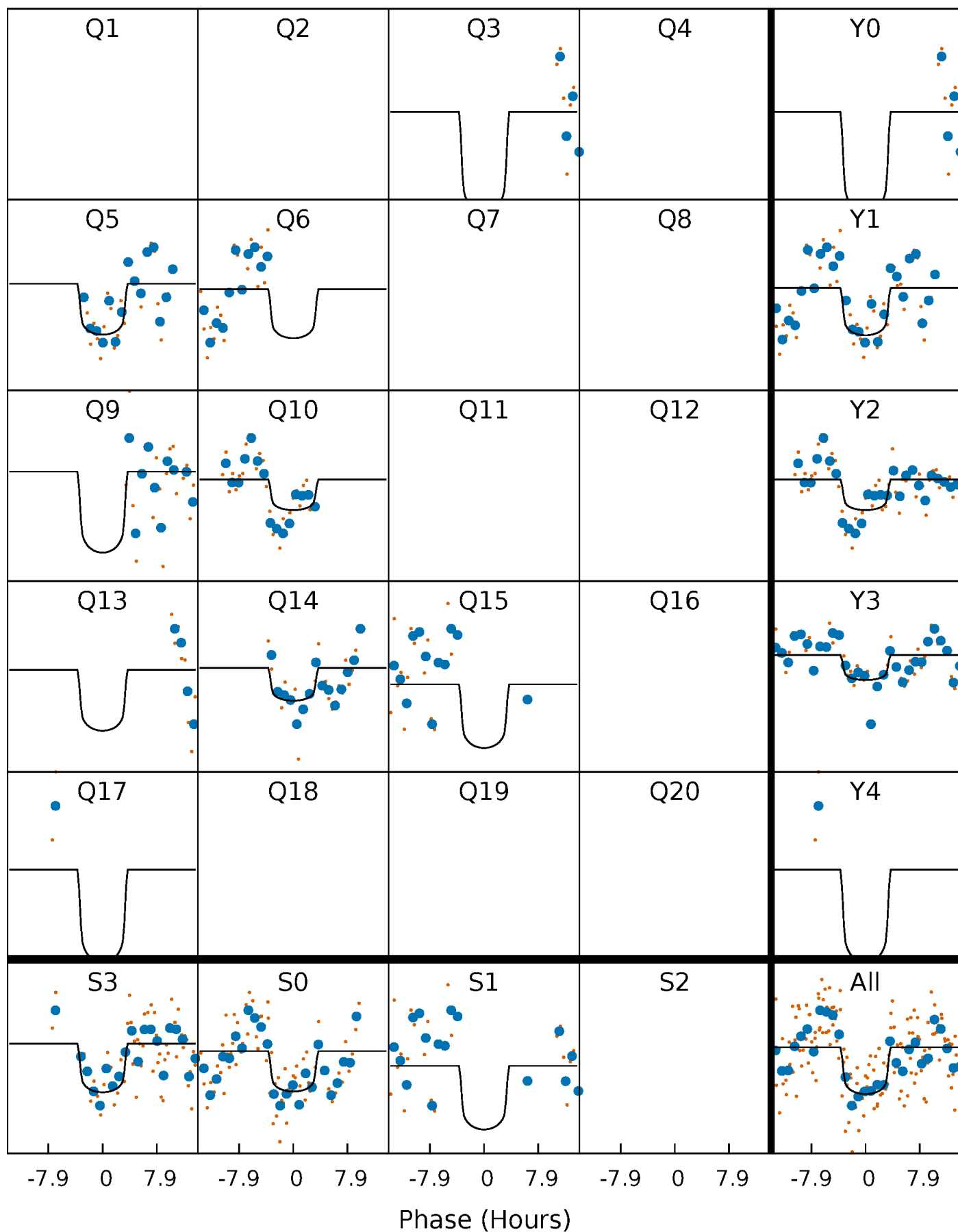
PDC Quarter-Phased Transit Curves

TCE 012268190-09 $P=122.032579$ Days $T_0=217.908251$ (BKJD)



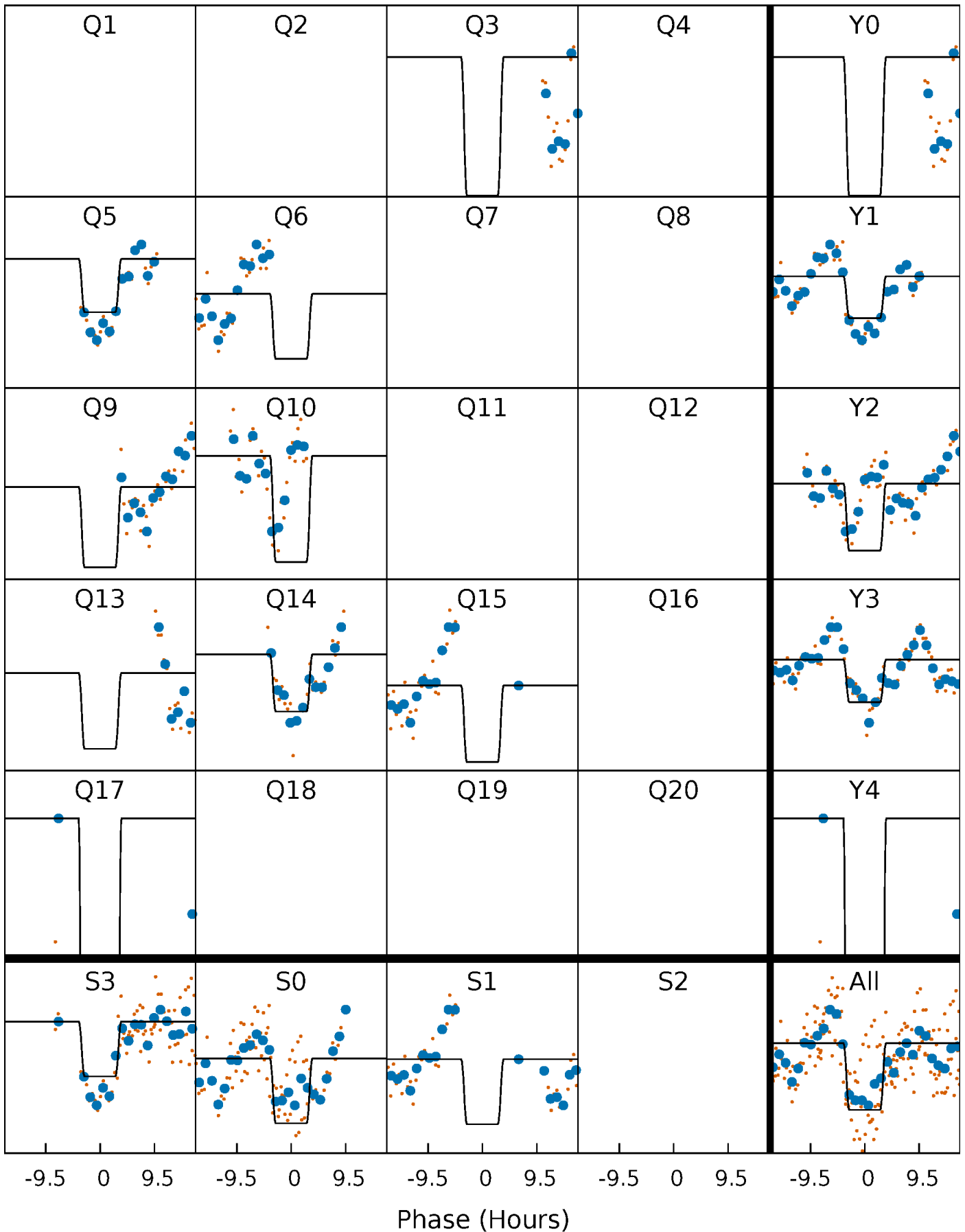
DV Quarter-Phased Transit Curves

TCE 012268190-09 P=122.032579 Days $T_0=217.908251$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

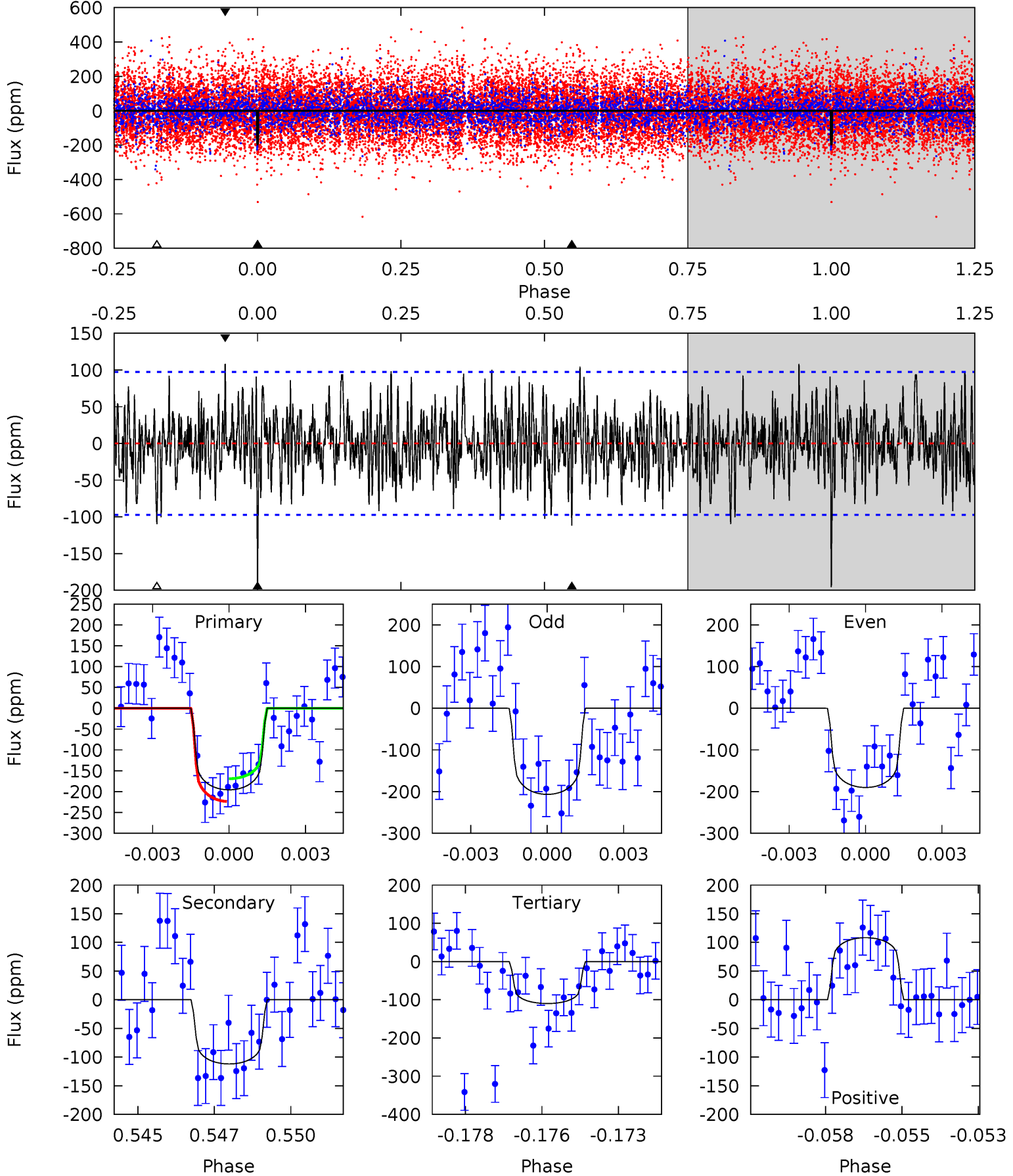
TCE 012268190-09 P=122.034186 Days $T_0=217.910896$ (BKJD)



DV Model-Shift Uniqueness Test

012268190-09, P = 122.032579 Days, E = 95.875672 Days

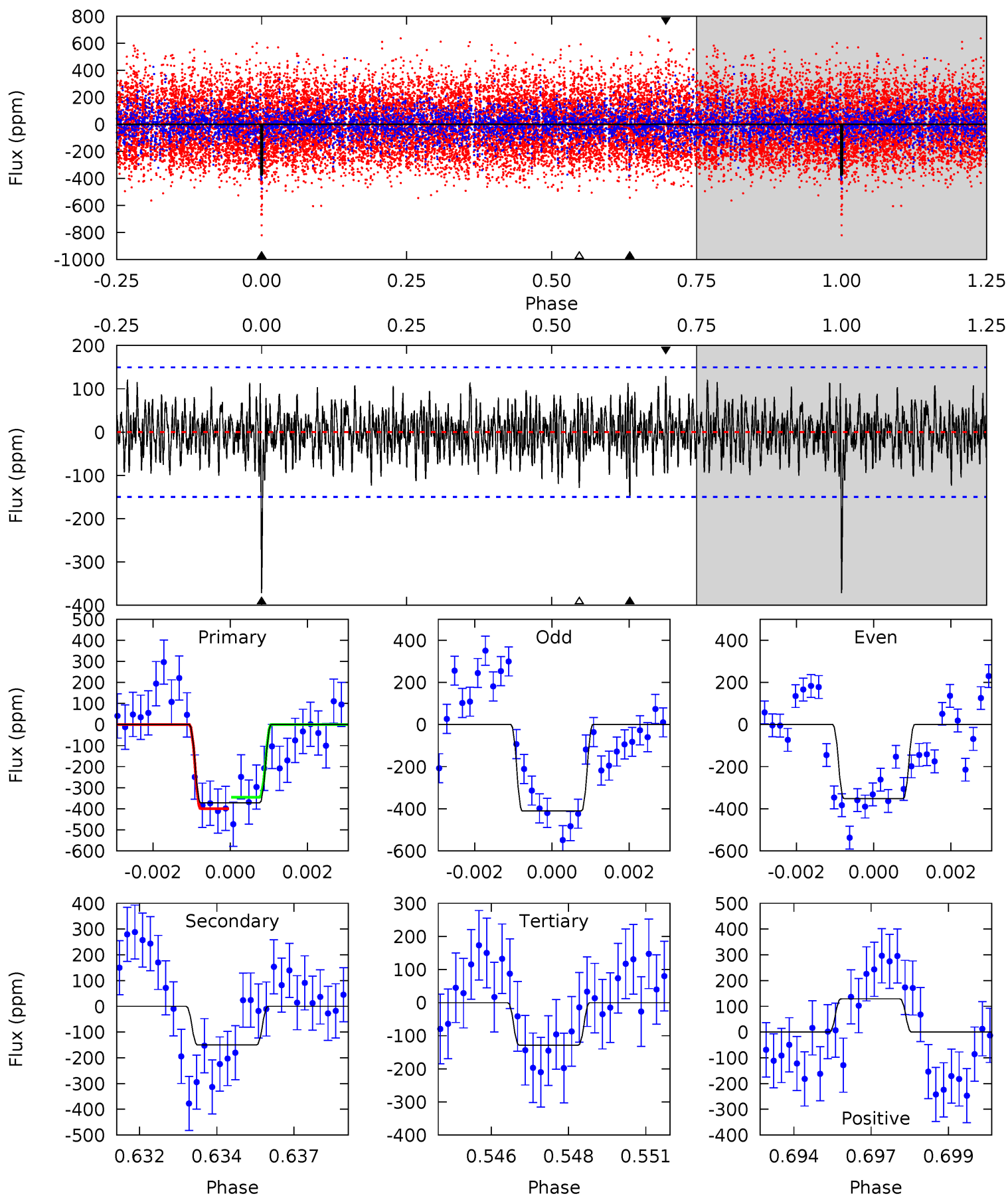
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	6.09	5.97	5.89	5.29	3.02	1.90	4.66	4.75	0.11	0.20	0.43	0.95	0.36	1.49



Alt Model-Shift Uniqueness Test

012268190-09, $P = 122.034186$ Days, $E = 95.876710$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	5.30	4.54	4.56	5.29	3.04	1.45	8.60	8.58	0.76	0.74	1.00	0.99	0.26	0.96



Stellar Parameters For KIC 012268190

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6915^{+187}_{-207}	$3.602^{+0.323}_{-0.057}$	$-0.200^{+0.300}_{-0.250}$	$3.457^{+0.412}_{-1.236}$	$1.742^{+0.182}_{-0.339}$	$0.059^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+150%/-125%	+12%/-36%	+10%/-19%	+231%/-19%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 012268190-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-112 ± 18	$5.32^{+4.11}_{-2.94}$	1008^{+60}_{-88}	5619^{+3306}_{-1119}	717^{+3024}_{-483}
Alt.	-150 ± 28	$7.80^{+4.32}_{-4.05}$	1014^{+52}_{-89}	5128^{+2058}_{-789}	441^{+1429}_{-256}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

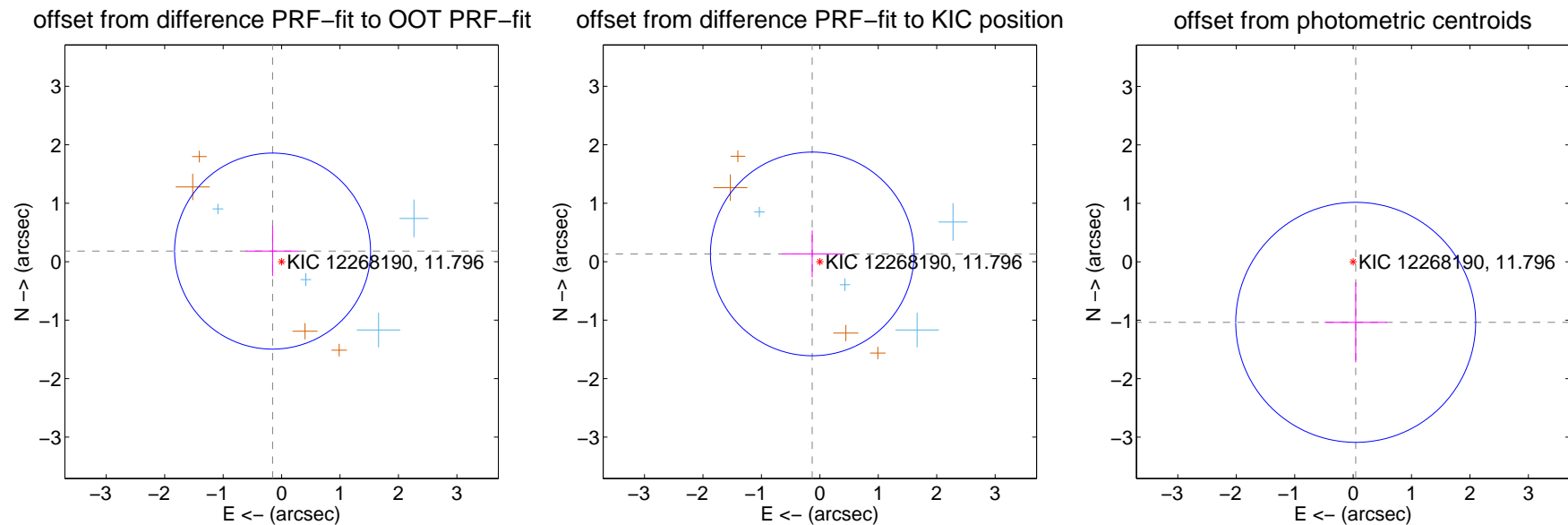
DV Centroid Data

Supplemental centroid analysis for 012268190-09. **Kepler magnitude: 11.80.** Transit SNR 7.45

There are 4 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.238 ± 0.559	0.43	0.154 ± 0.455	0.181 ± 0.427
PRF-fit source offset from KIC position	0.186 ± 0.580	0.32	0.130 ± 0.518	0.133 ± 0.401
photometric centroid source offset	1.04 ± 0.68	1.52	-0.04 ± 0.53	-1.04 ± 0.68



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.

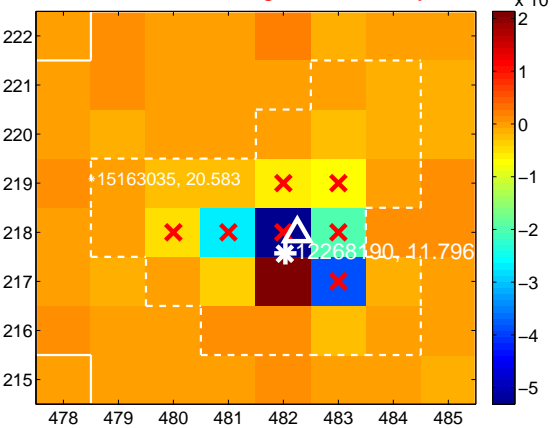
Q1 no difference image



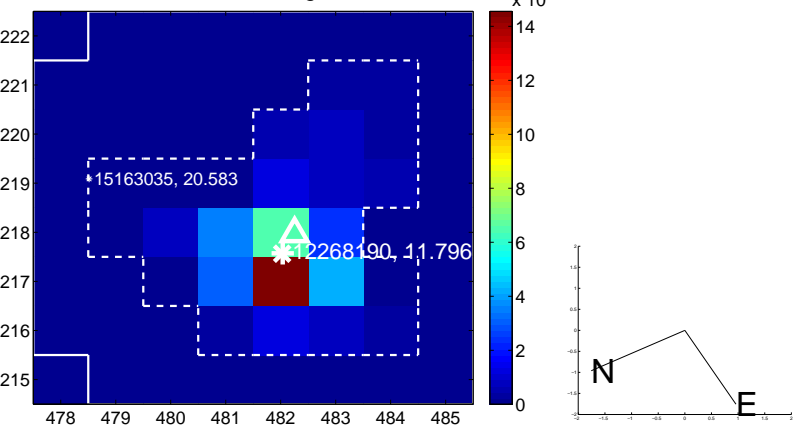
Q1 no OOT image



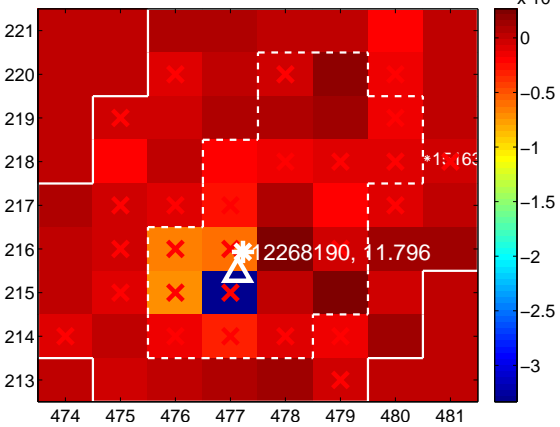
Q2 difference image. Poor Quality



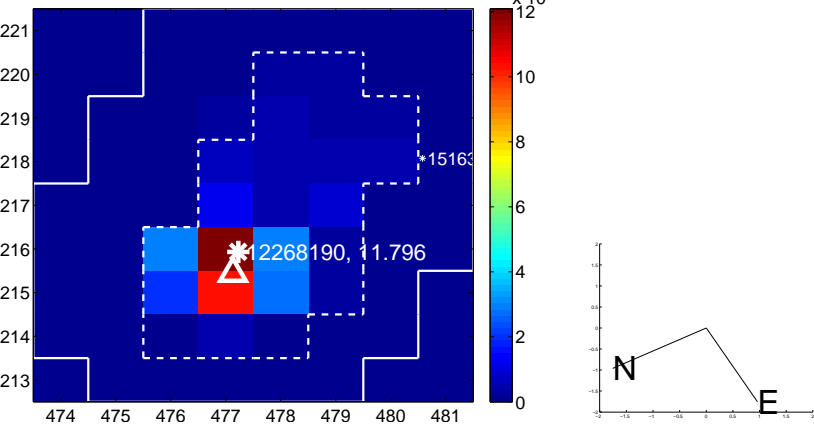
Q2 OOT image



Q3 difference image. Poor Quality



Q3 OOT image



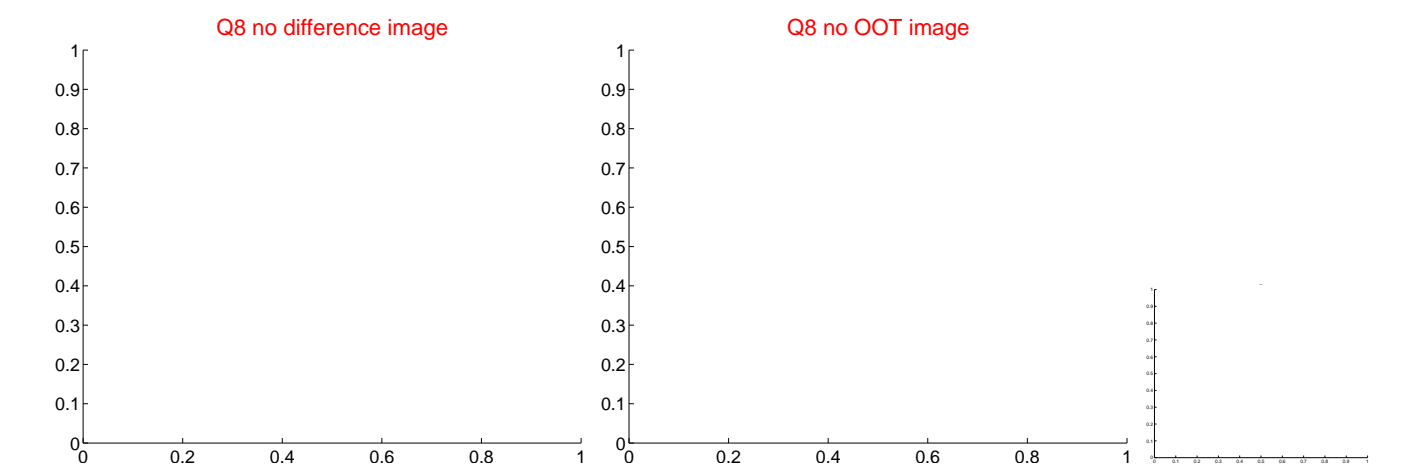
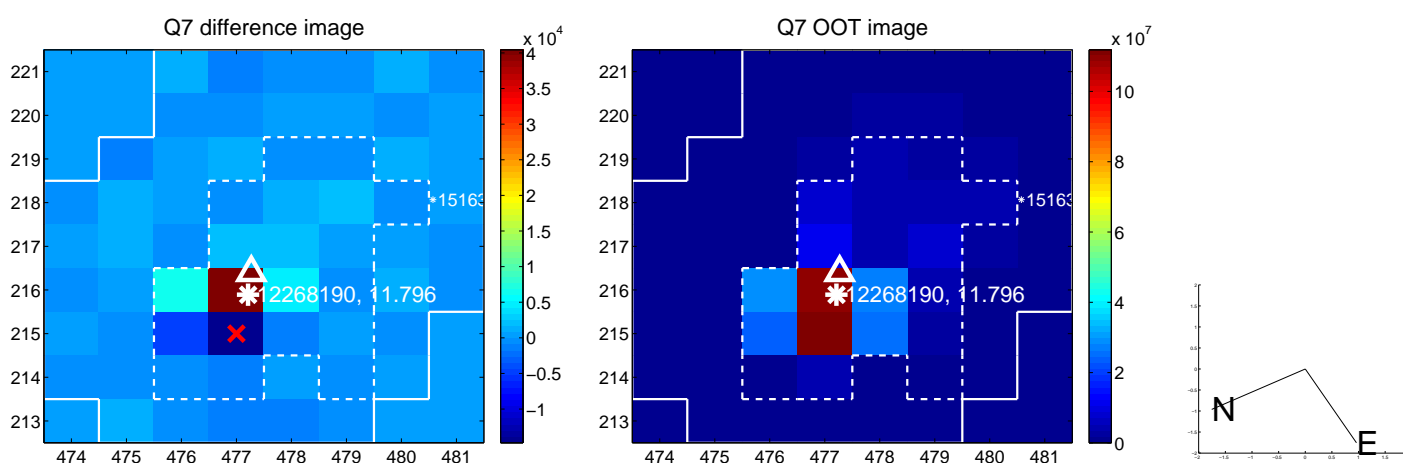
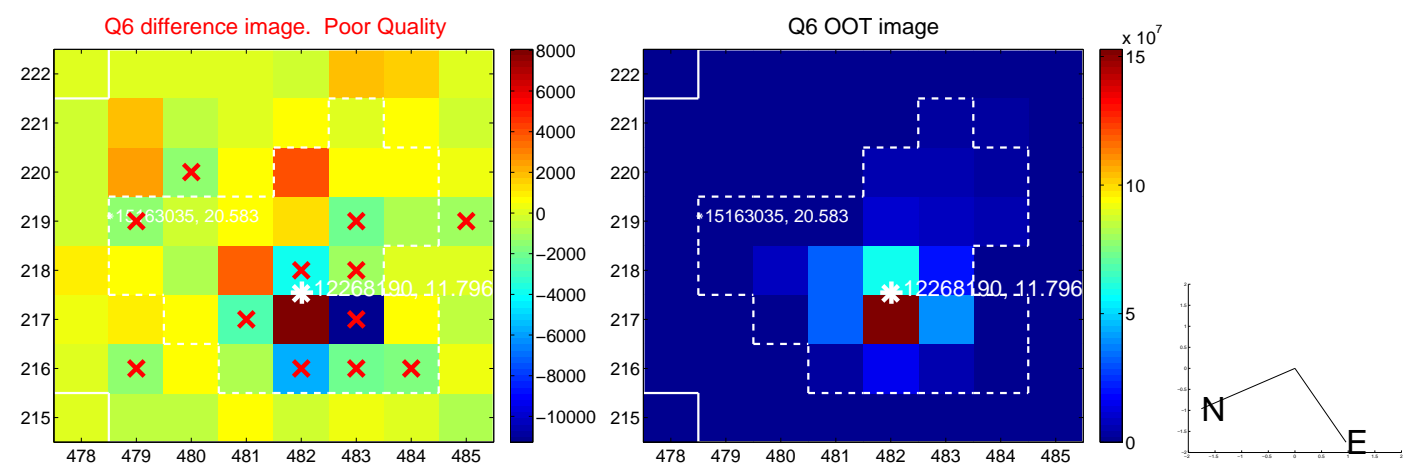
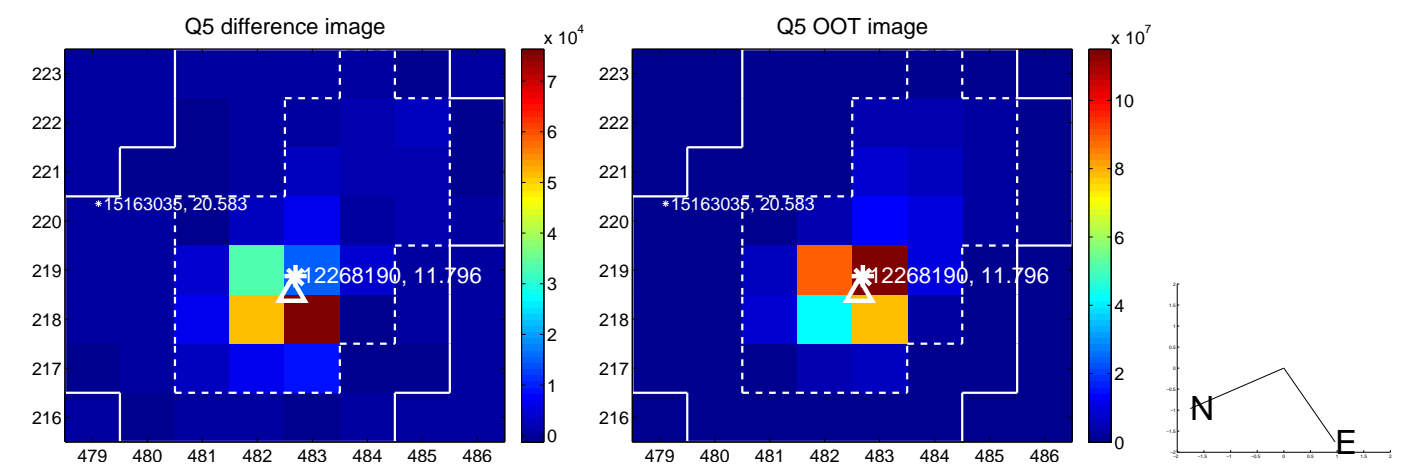
Q4 no difference image



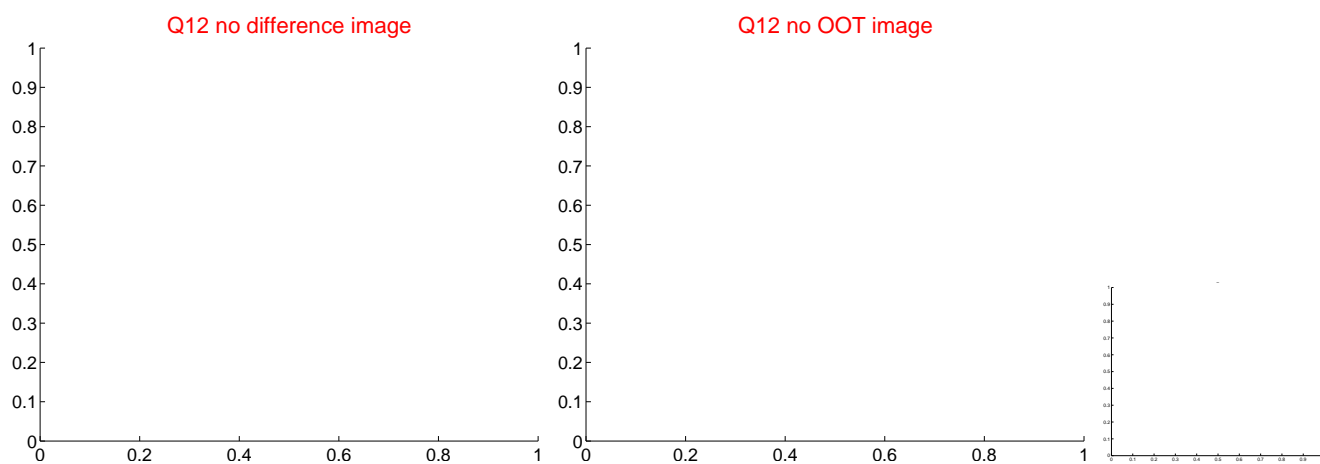
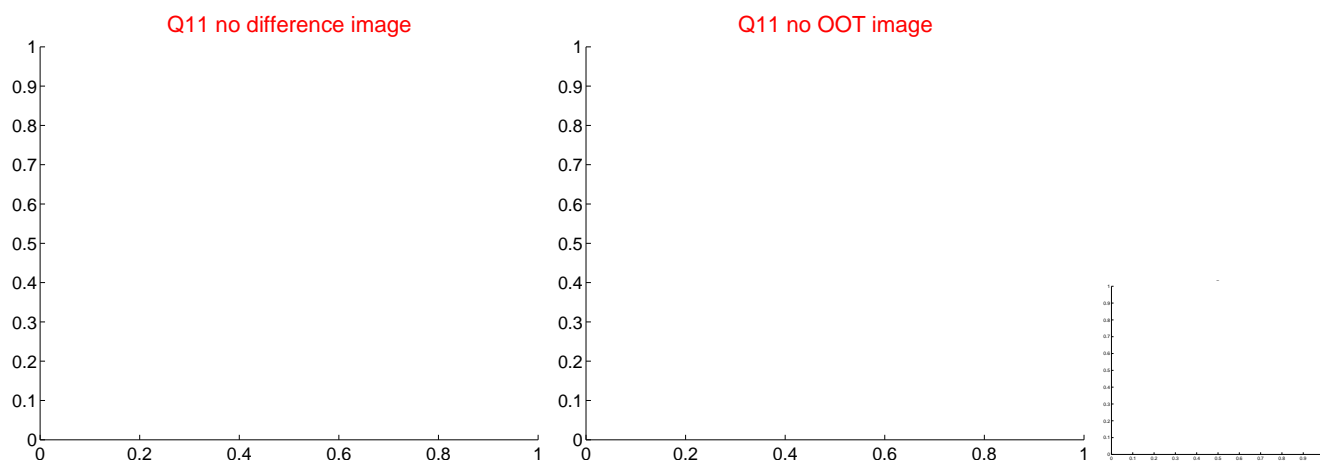
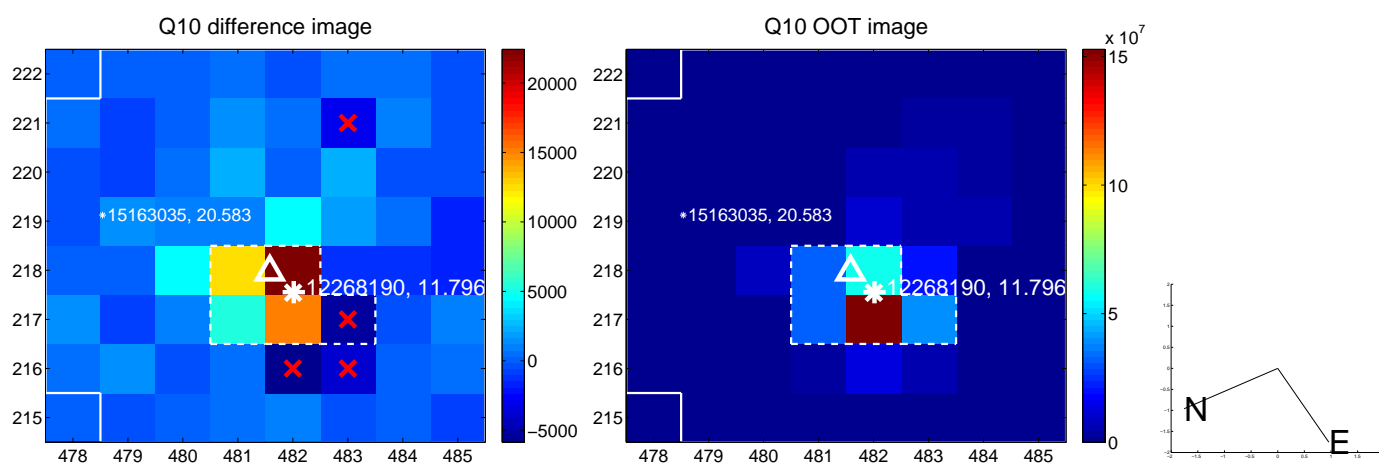
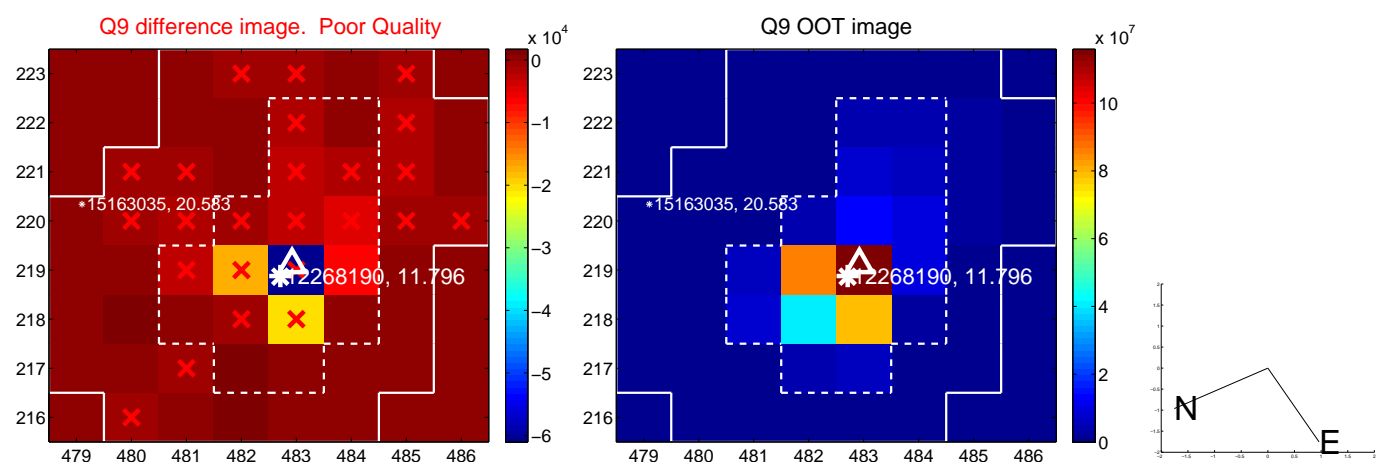
Q4 no OOT image



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

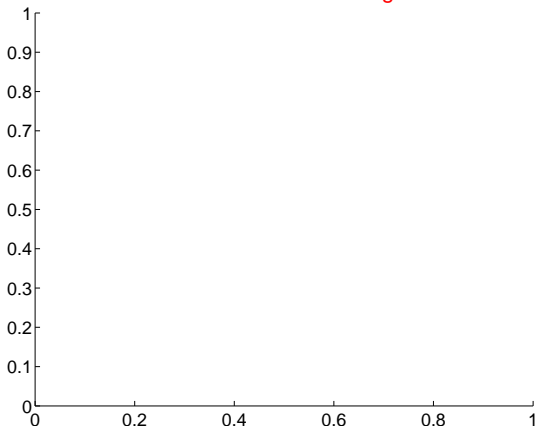


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value

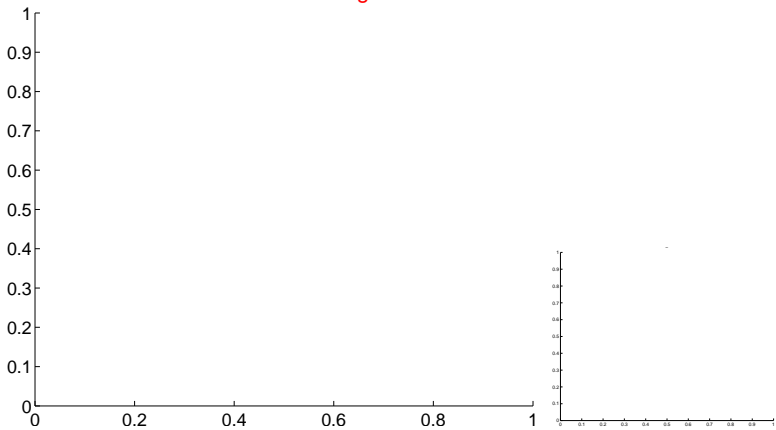


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

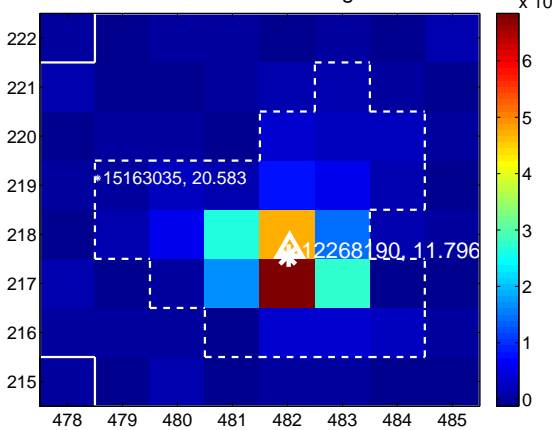
Q13 no difference image



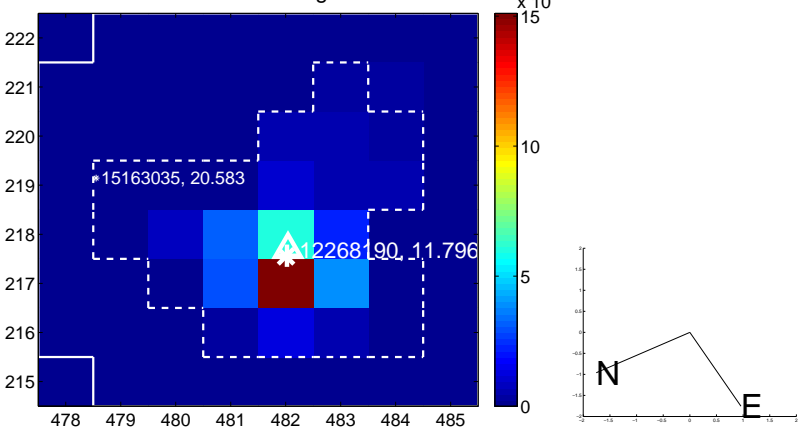
Q13 no OOT image



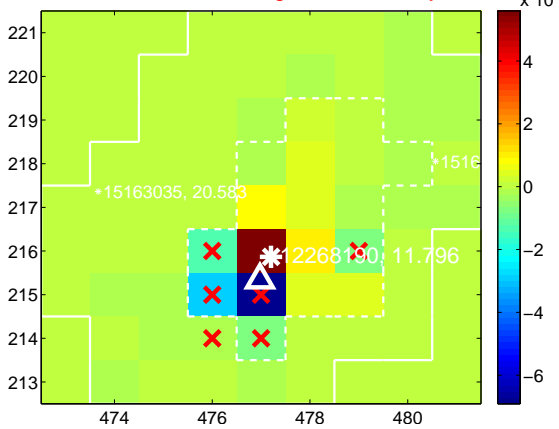
Q14 difference image



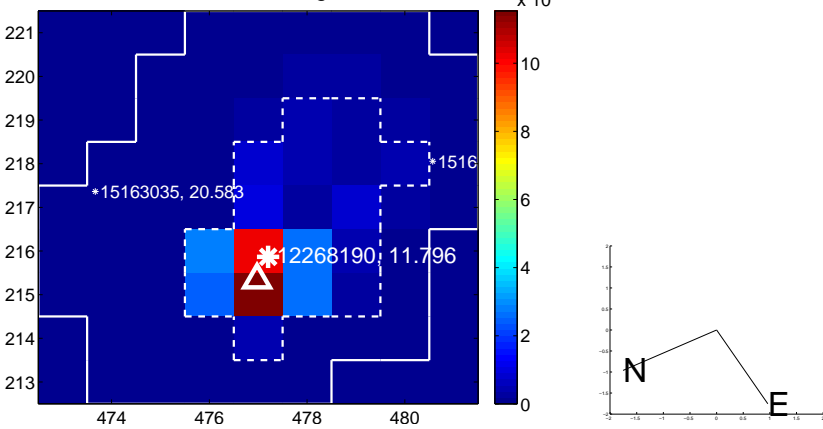
Q14 OOT image



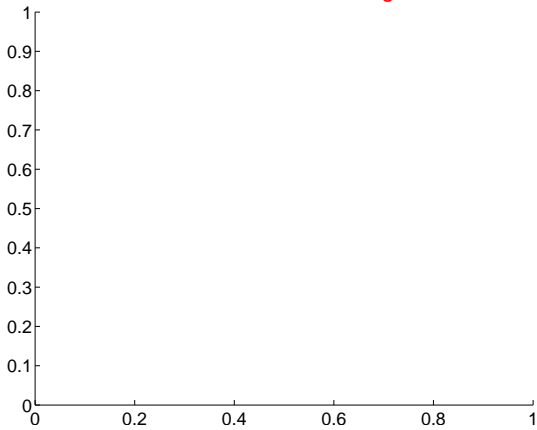
Q15 difference image. Poor Quality



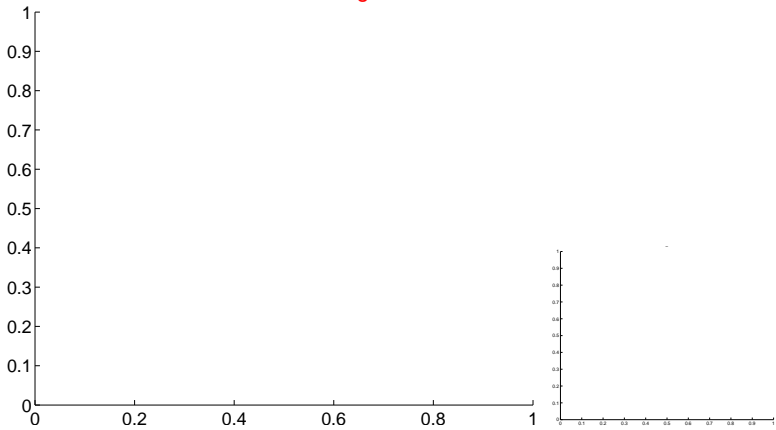
Q15 OOT image



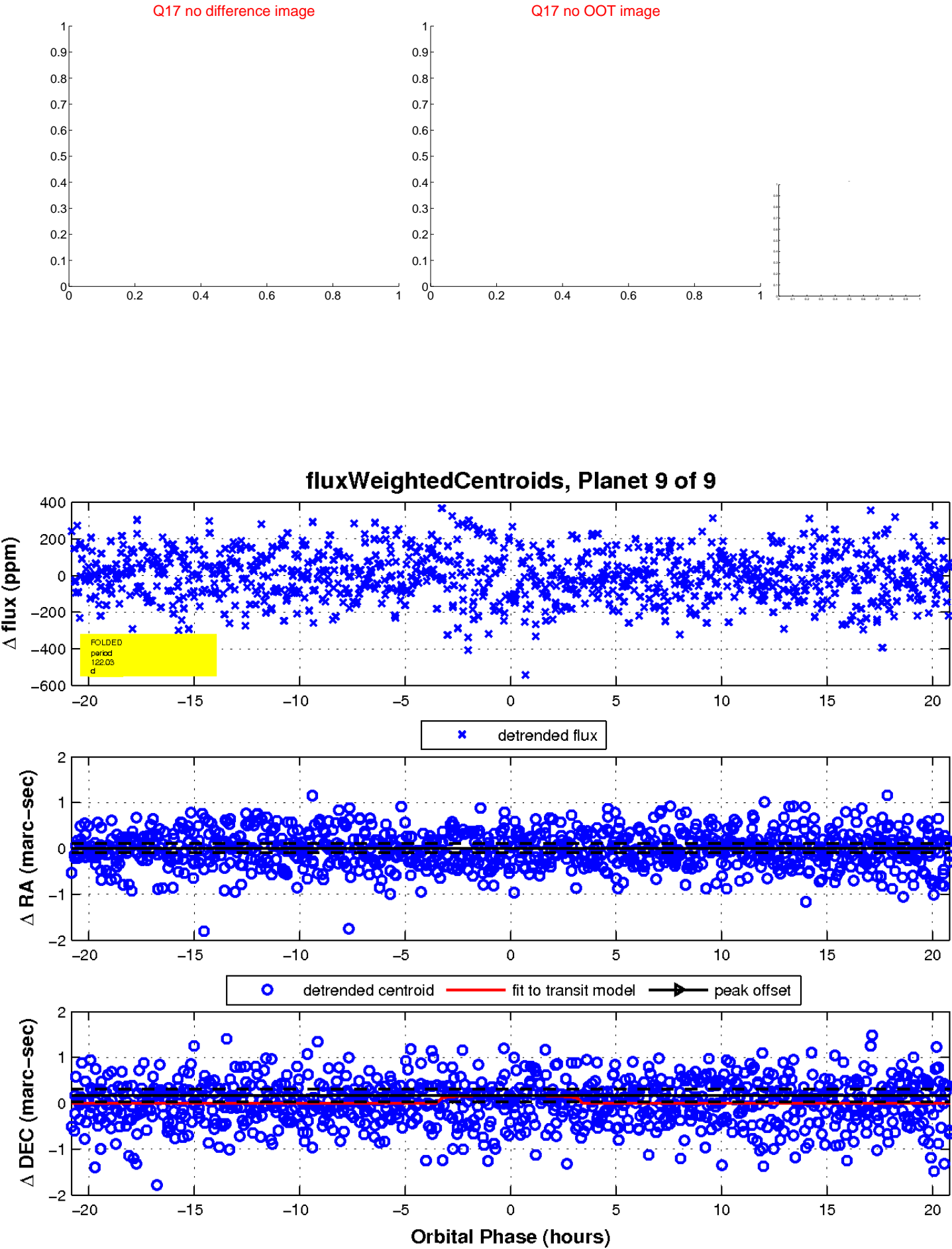
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

