

KIC 004736208

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})
004736208-01	OBS	6439.01	63.681105	167.555794	355438.9	7.500	9944.7	-1.0	1.05	5979	57.51	13.18
004736208-02	OBS	No	63.680605	145.964332	321154.8	12.500	9480.5	-1.0	1.05	5979	53.91	13.18
004736208-03	OBS	No	222.739426	180.183734	4169.8	15.000	62.8	-1.0	1.05	5979	6.78	2.48
004736208-04	OBS	No	348.276408	173.311246	2161.7	15.000	46.9	-1.0	1.05	5979	4.88	1.37
004736208-06	OBS	No	213.769072	333.619336	6786.0	4.500	53.7	-1.0	1.05	5979	8.66	2.62
004736208-07	OBS	No	525.809988	340.461173	3904.5	9.000	47.7	-1.0	1.05	5979	6.57	0.79
004736208-08	OBS	No	424.262006	147.970226	3427.7	9.000	43.1	-1.0	1.05	5979	6.15	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004736208-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
004736208-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
004736208-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—CENT_NOFITS
004736208-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
004736208-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

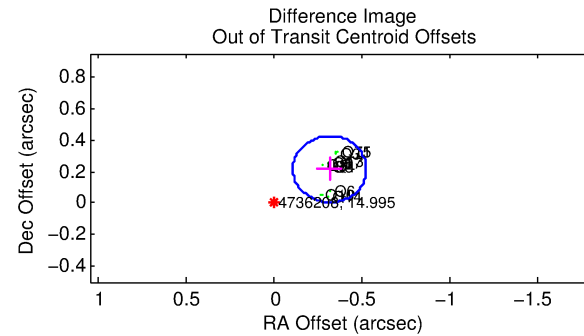
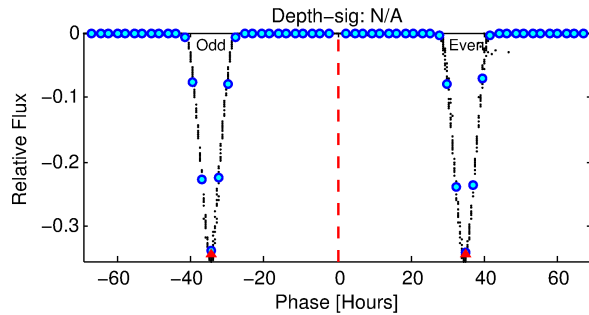
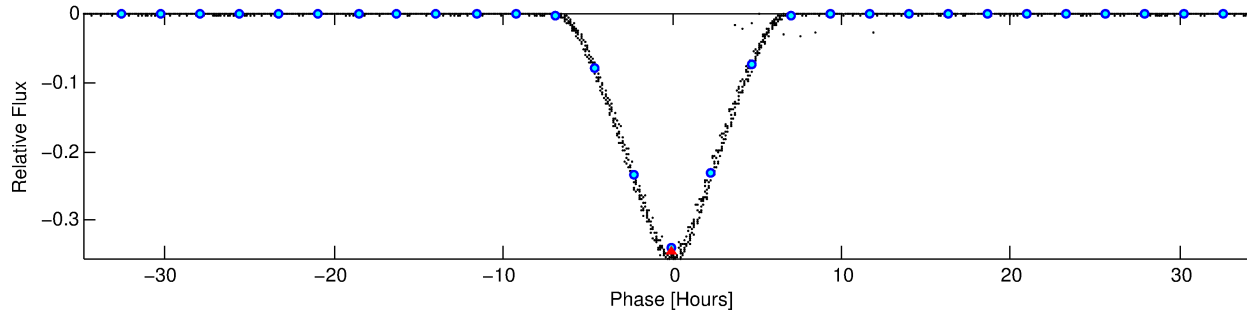
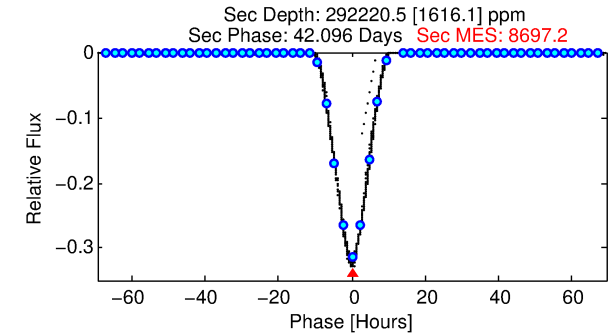
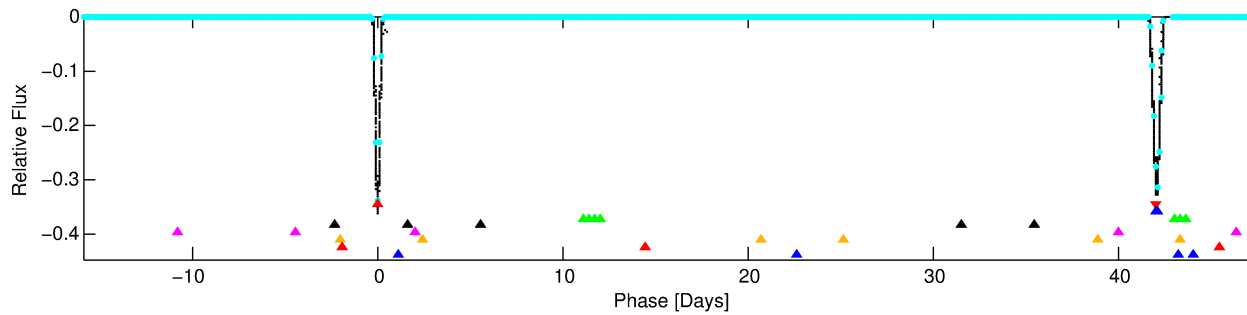
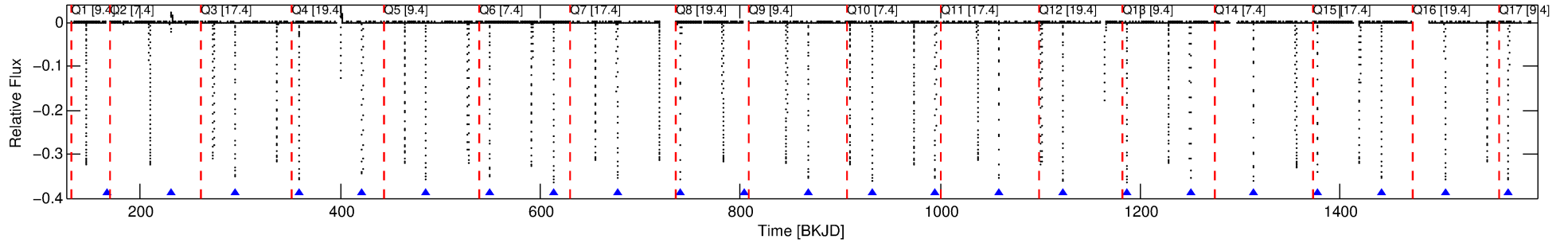
Ephemeris Match Information For 004736208-01

No Significant Match Found

DV One-Page Summary

KIC: 4736208 Candidate: 1 of 8 Period: 63.681 d
KOI: K06439.01 Corr: 0.772

Kp: 14.99 R*: 1.05 Rs Teff: 5979.0 K Logg: 4.39 Fe/H: -0.140



TPS TCE Results:

Period = 63.68110 d
Epoch = 167.5558 BKJD

DV fit results are unavailable

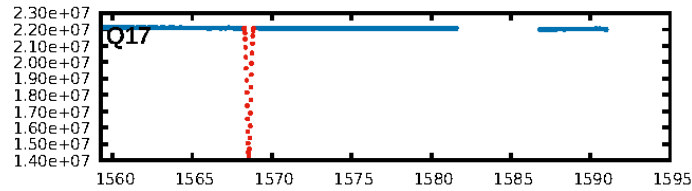
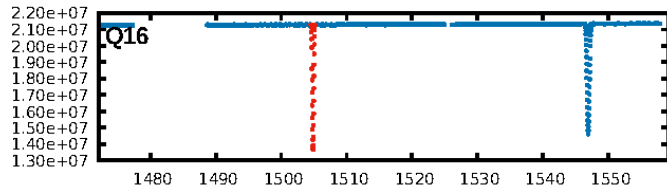
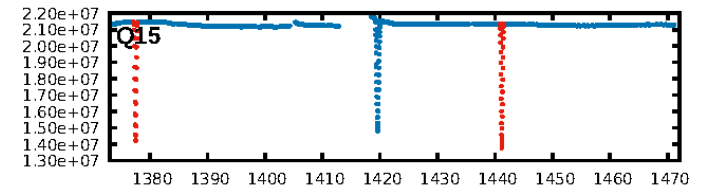
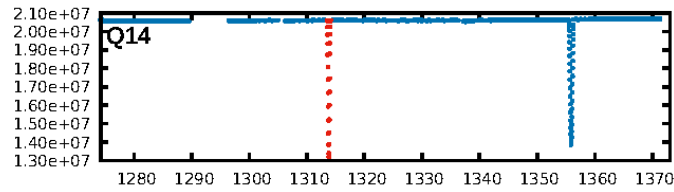
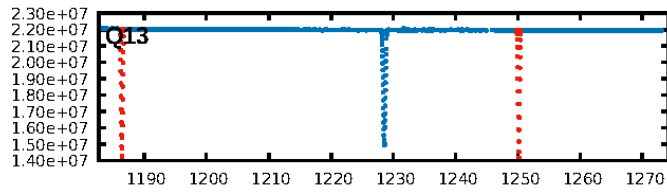
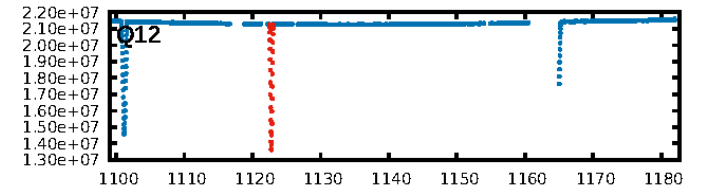
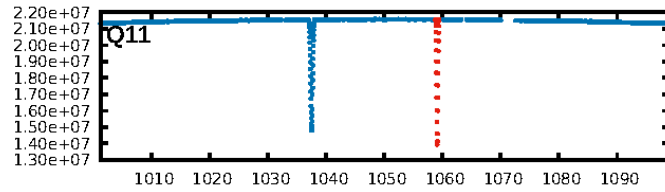
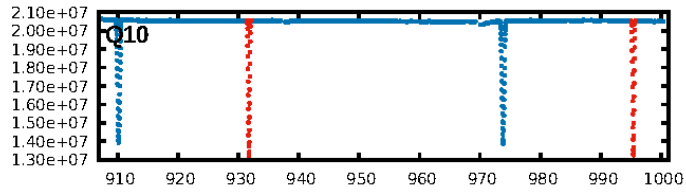
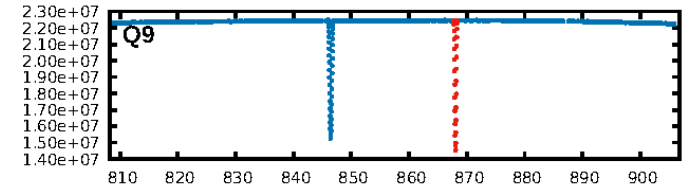
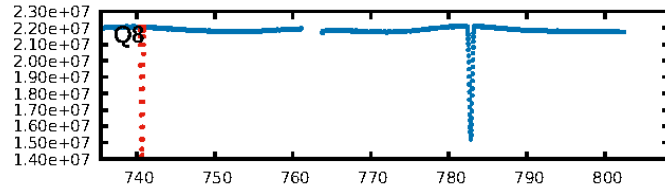
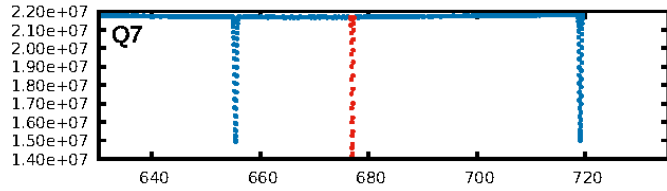
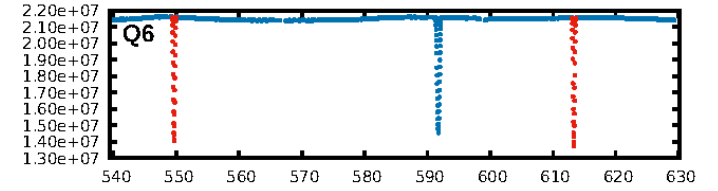
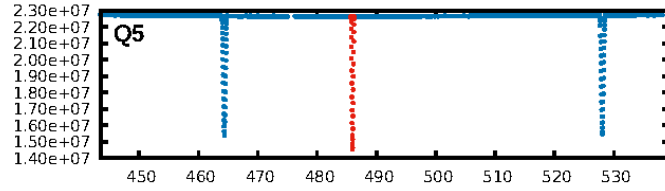
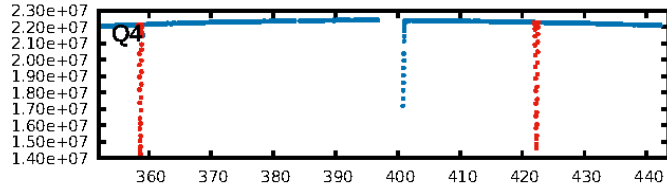
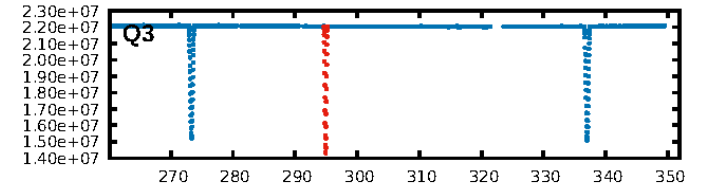
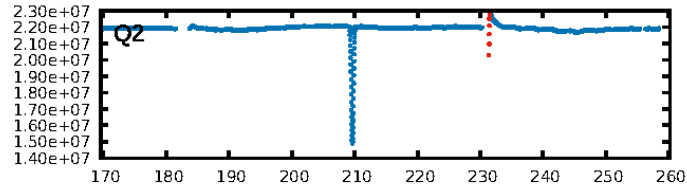
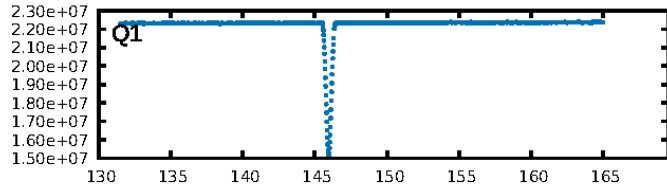
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00 σ]
LongPeriod-sig: 100.0% [411.84 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [20/20]
GhostDiagnostic-chr: 5.322
Centroid-sig: N/A
Centroid-so: 0.323 arcsec [335.24 σ]
OotOffset-rm: 0.383 arcsec [5.47 σ]
KicOffset-rm: 0.305 arcsec [4.22 σ]
OotOffset-st: 3/4/2/4 [13]
KicOffset-st: 3/4/2/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

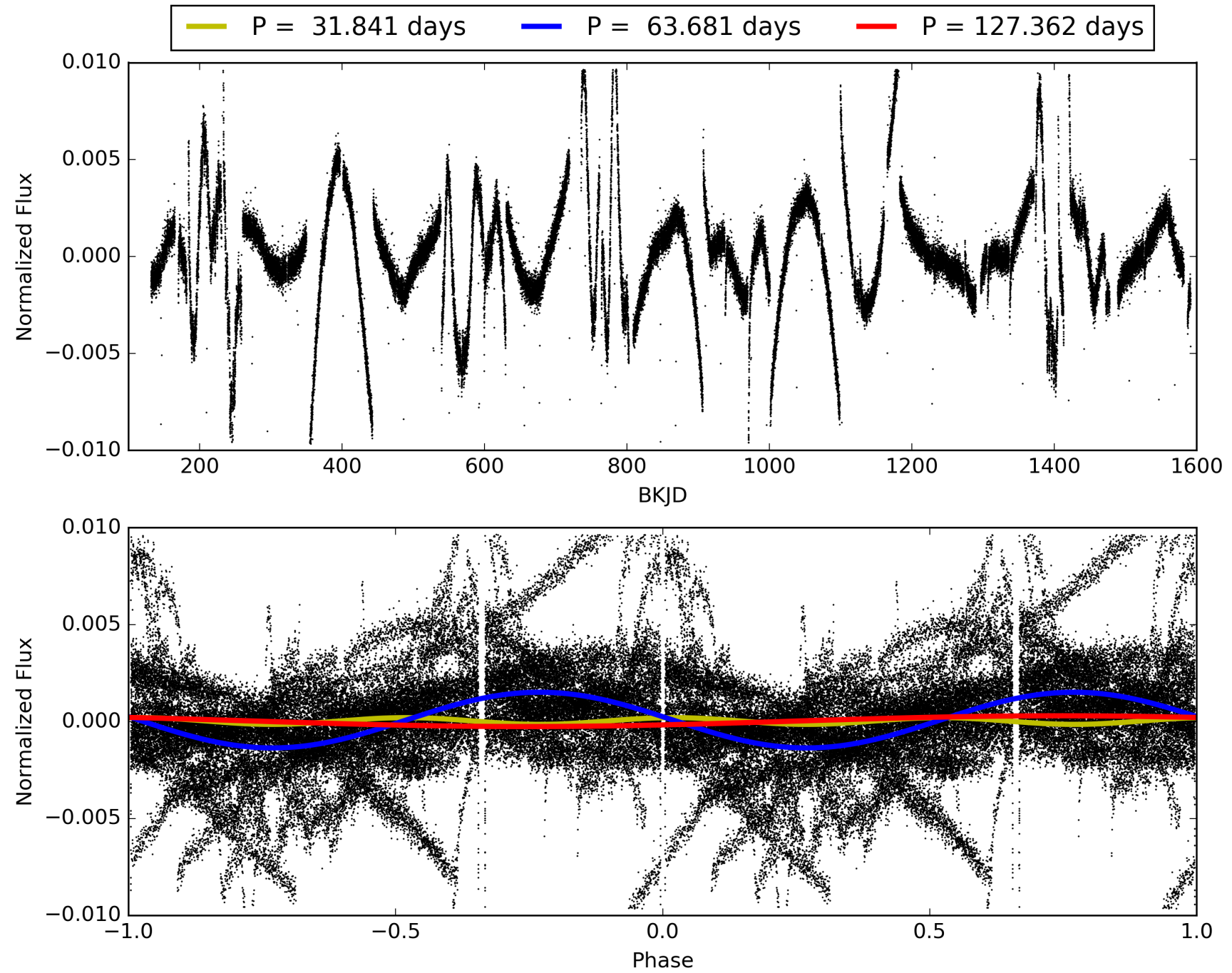
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:57:38 Z

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

TCE 004736208-01, PDC Light Curves

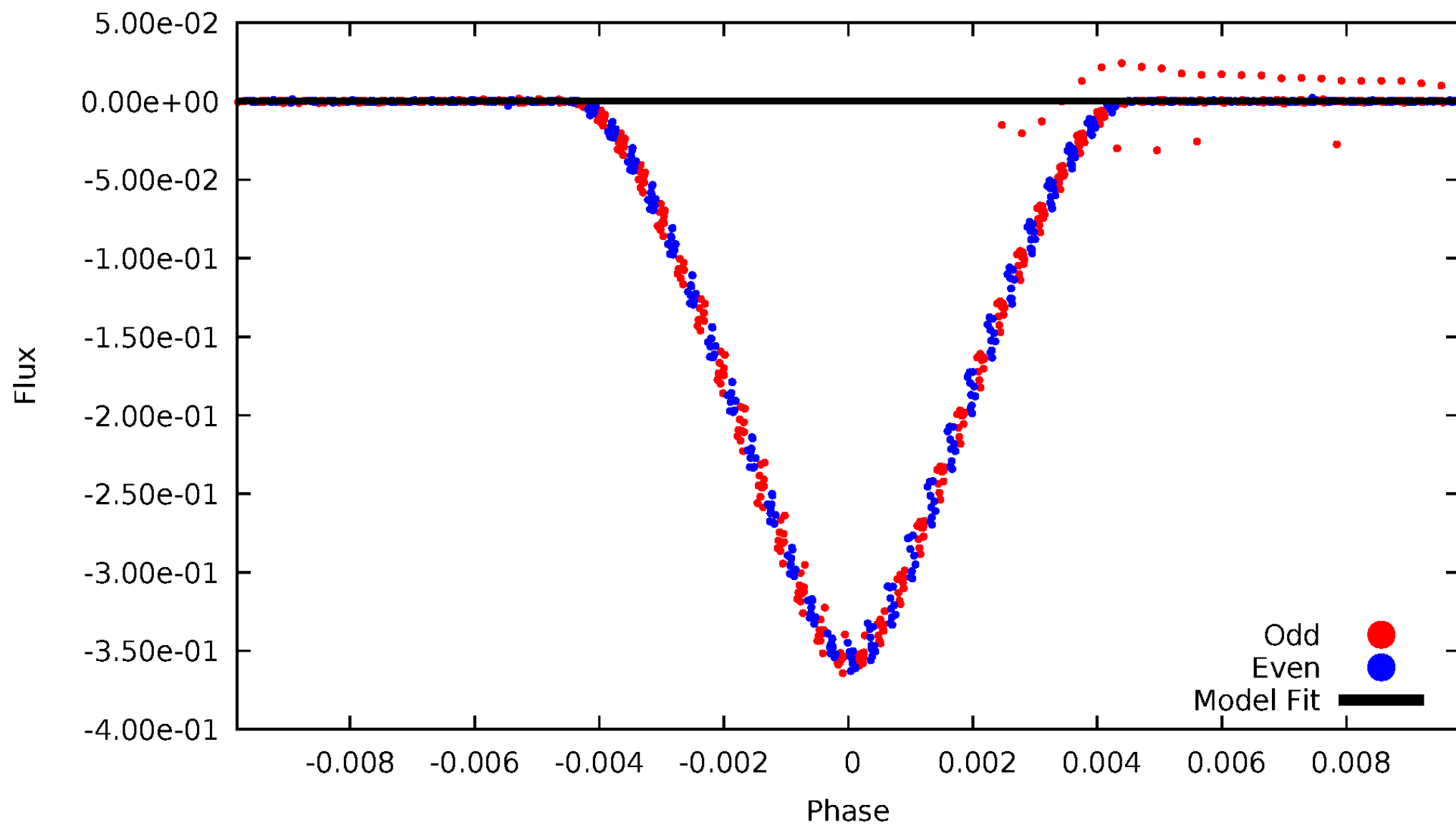


TCE 004736208-01



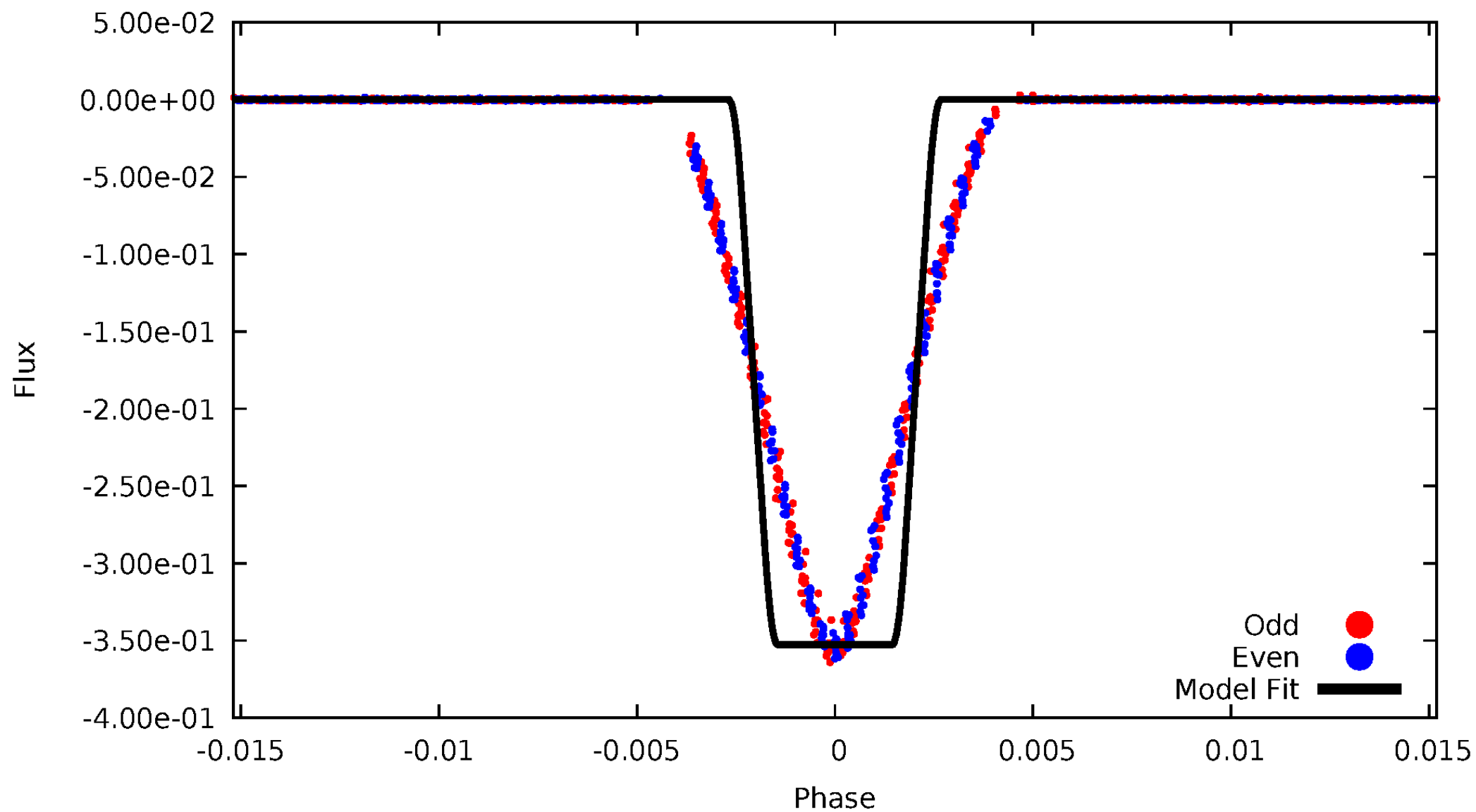
DV Odd/Even

TCE 004736208-01



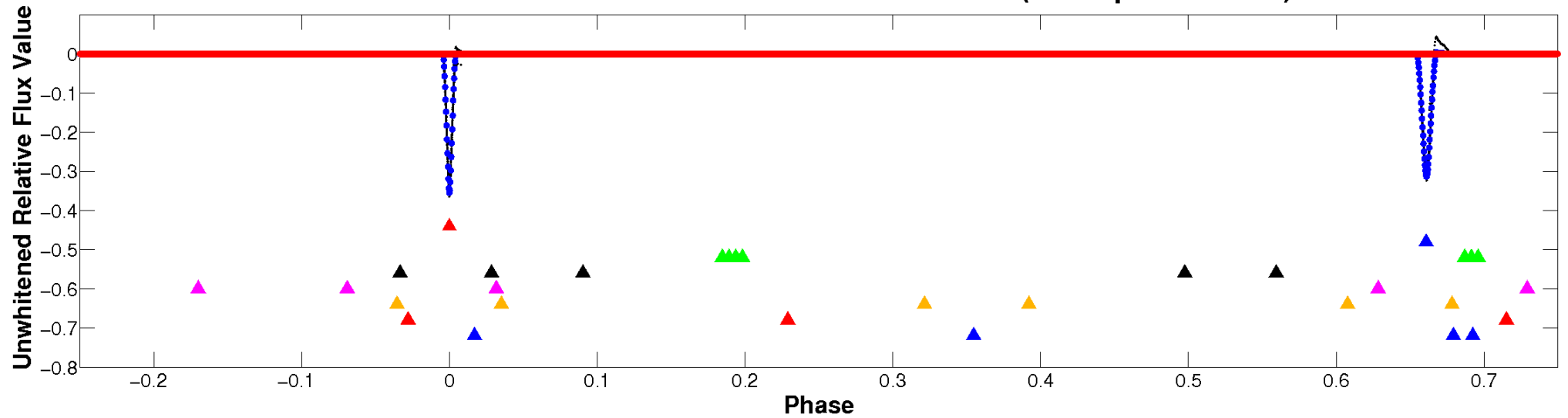
ALT Odd/Even

TCE 004736208-01



Non-Whitened Vs. Whitened Light Curve

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

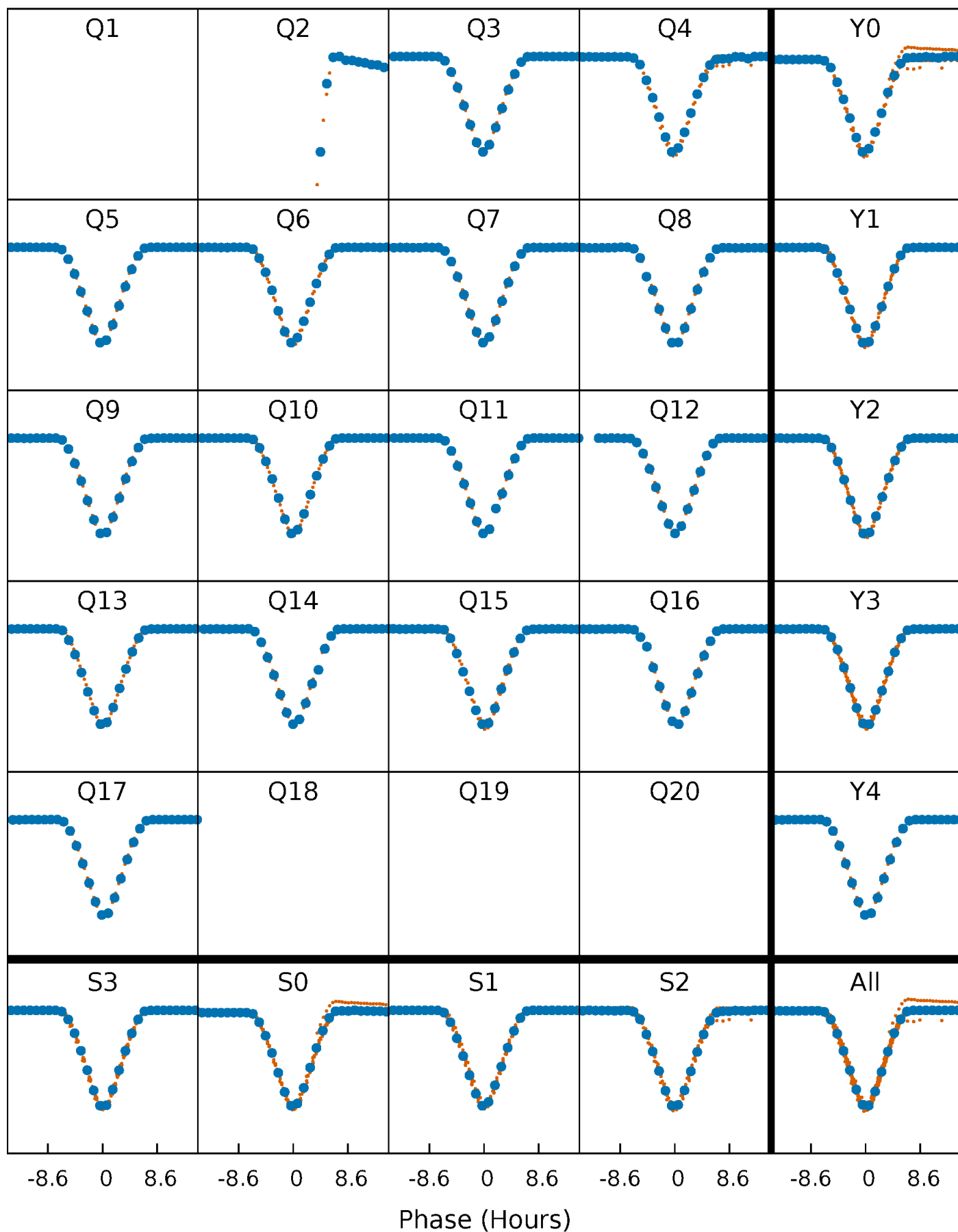


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



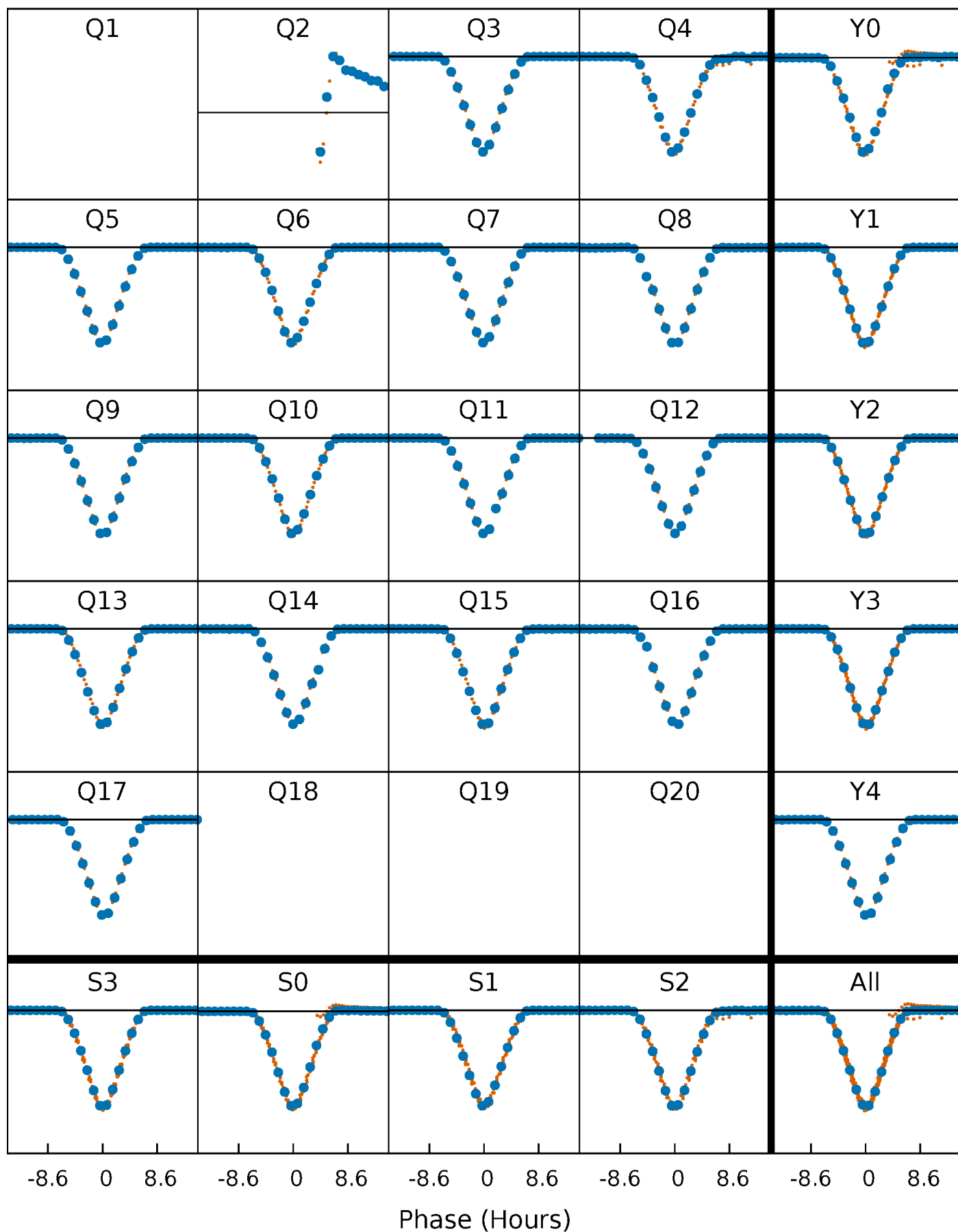
PDC Quarter-Phased Transit Curves

TCE 004736208-01 P= 63.681105 Days $T_0=167.555794$ (BKJD)



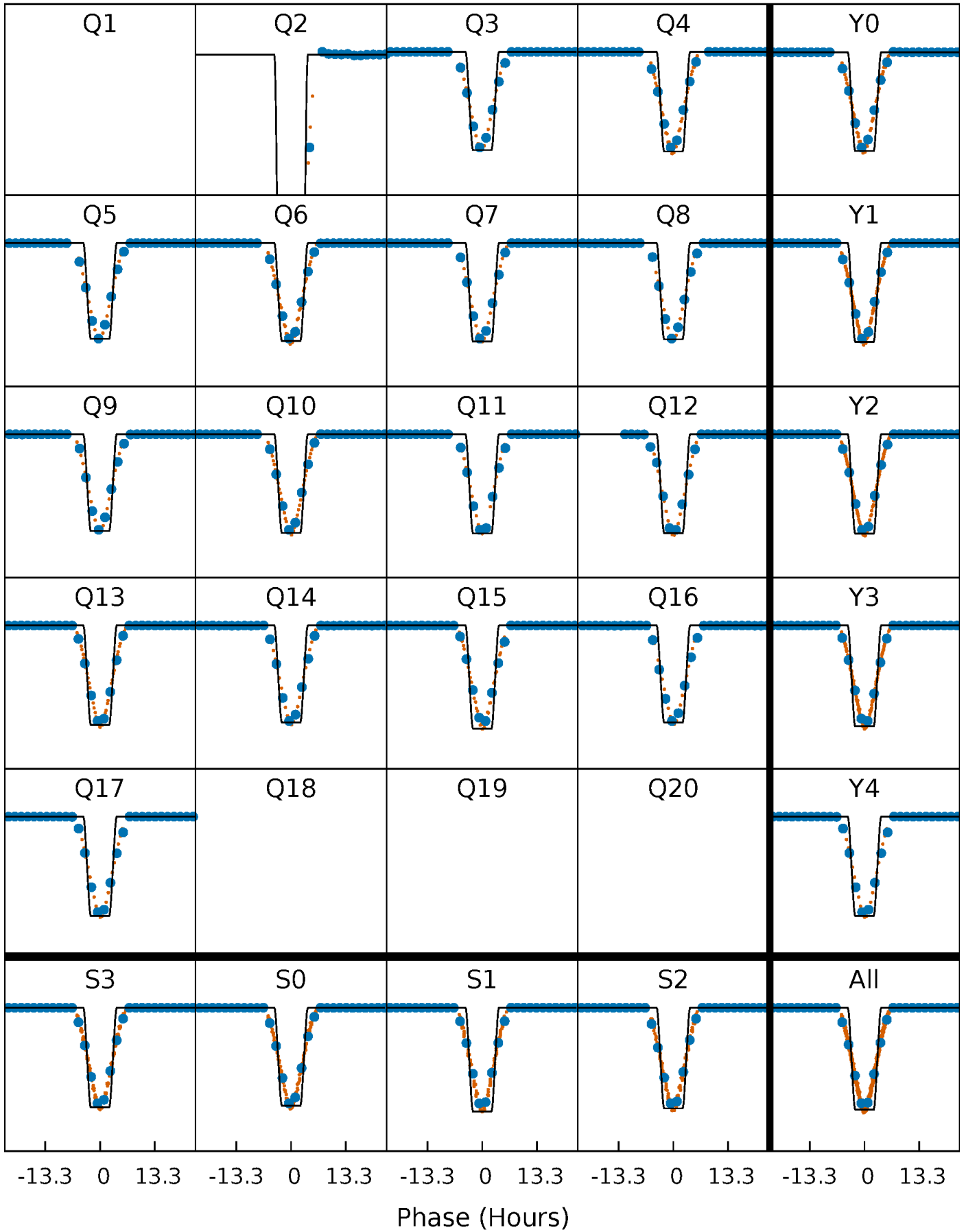
DV Quarter-Phased Transit Curves

TCE 004736208-01 P= 63.681105 Days $T_0=167.555794$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

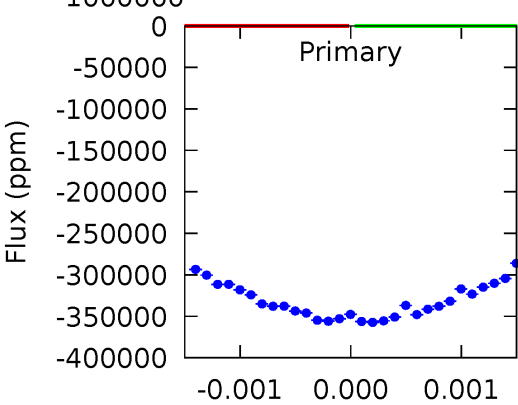
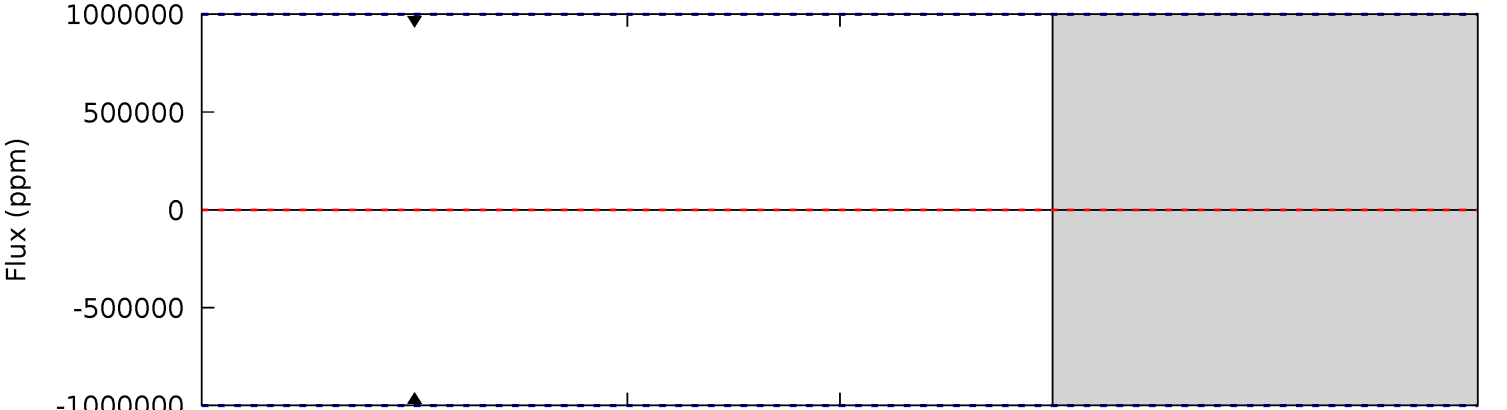
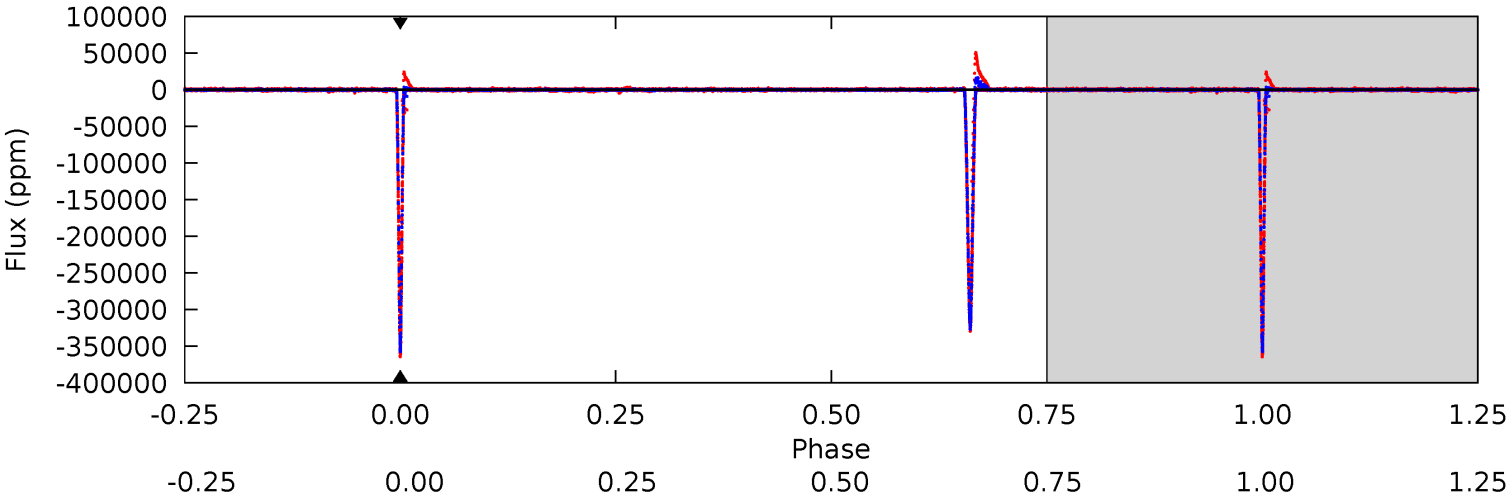
TCE 004736208-01 P= 63.681105 Days $T_0=167.558188$ (BKJD)



DV Model-Shift Uniqueness Test

004736208-01, P = 63.681105 Days, E = 103.874689 Days

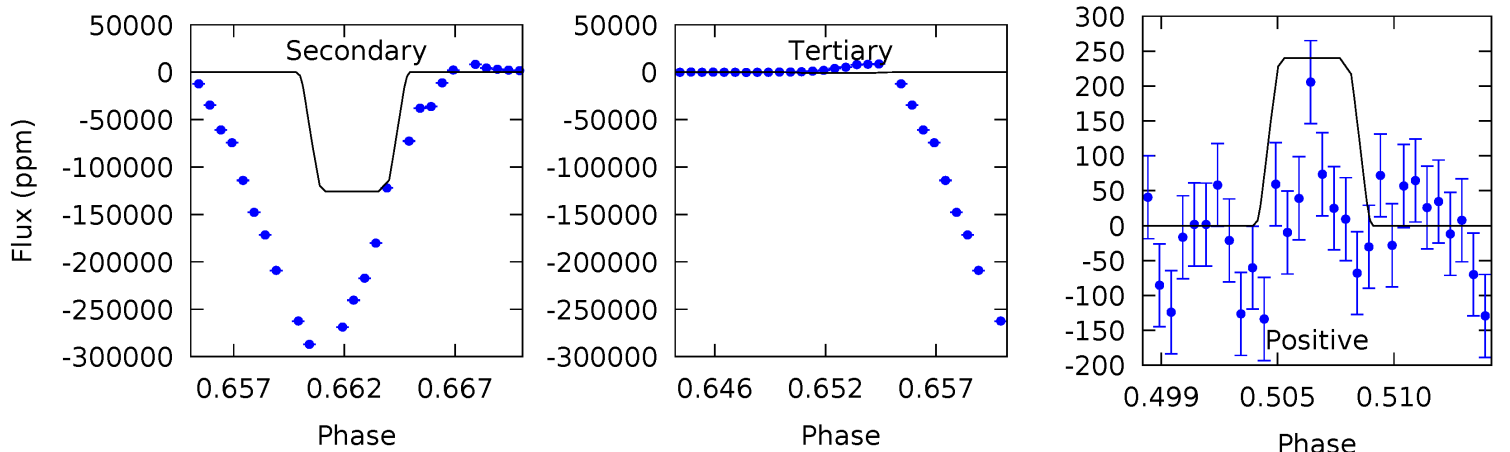
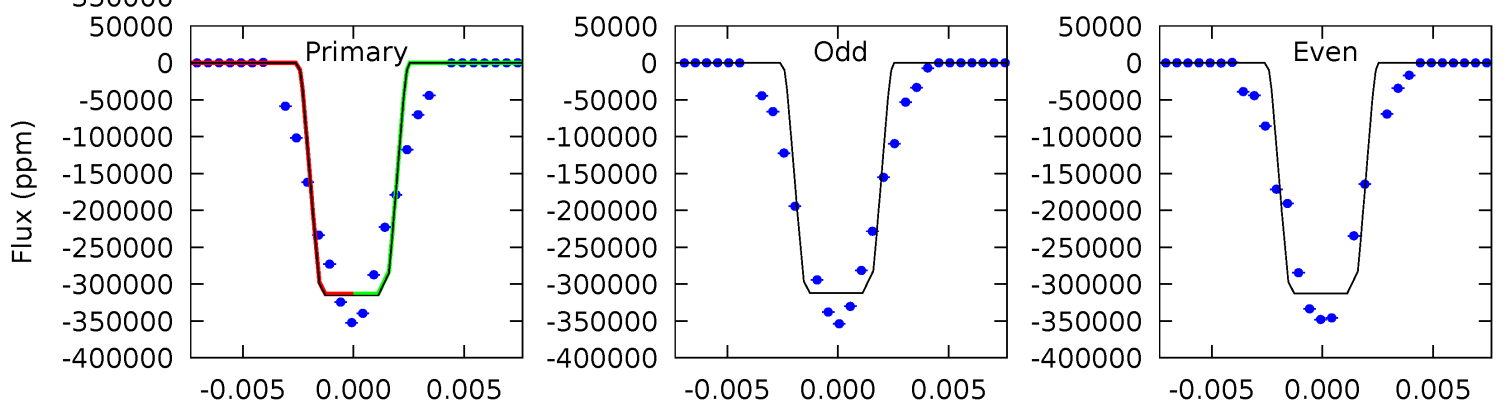
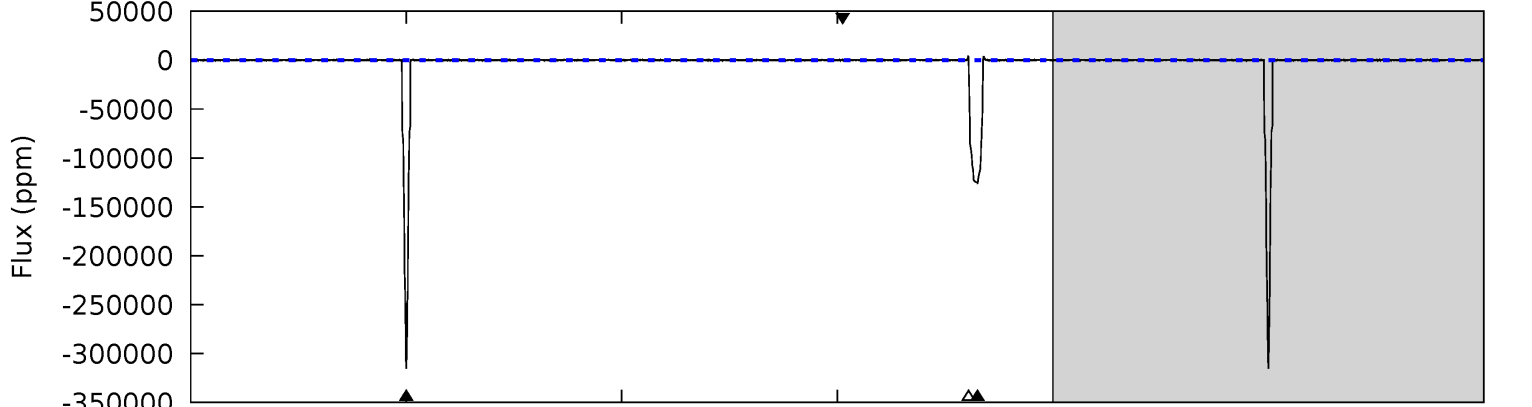
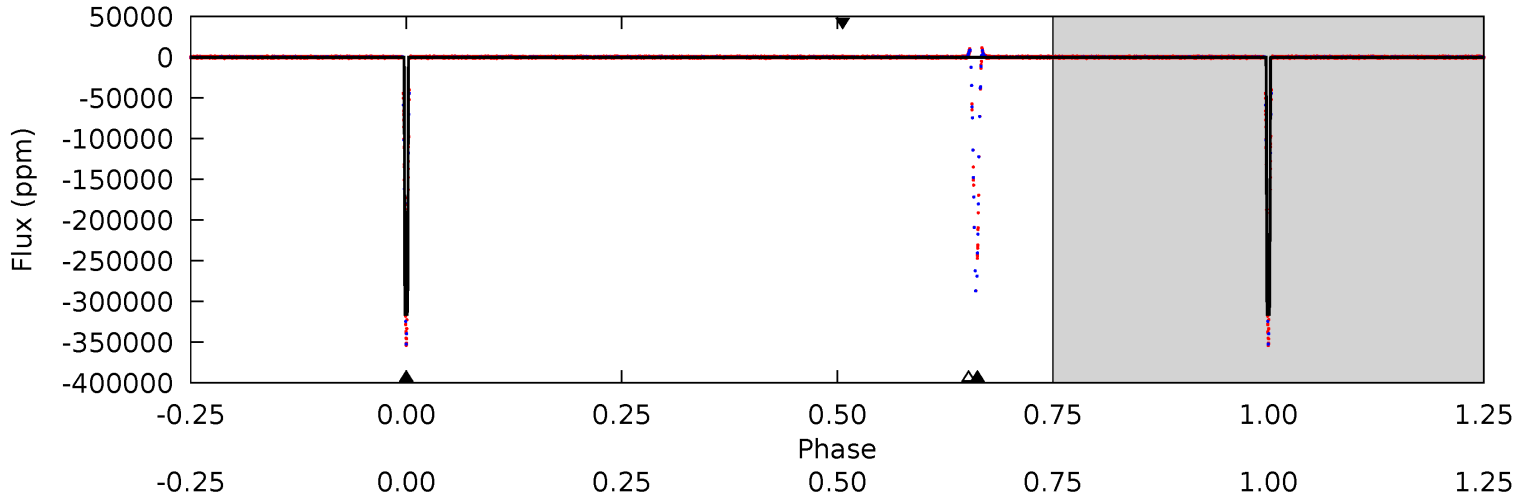
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004736208-01, P = 63.681105 Days, E = 103.877083 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3048	1215	7.74	2.32	5.15	2.79	13.3	3040	3045	1207	1212	2.78	1.00	0.01	0



Stellar Parameters For KIC 004736208

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5979^{+179}_{-197}	$4.386^{+0.108}_{-0.201}$	$-0.140^{+0.300}_{-0.300}$	$1.054^{+0.315}_{-0.170}$	$0.986^{+0.145}_{-0.119}$	$1.187^{+0.575}_{-0.584}$
	+3%/-3%	+2%/-5%	+214%/-214%	+30%/-16%	+15%/-12%	+48%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004736208-01 / KOI 6439.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$59.04^{+16.06}_{-13.40}$	688^{+52}_{-44}	2331^{+2704}_{-7120}	11^{+1806}_{-1379}
Alt.	-125744 ± 104	$70.57^{+17.99}_{-13.43}$	687^{+55}_{-40}	4858^{+464}_{-302}	1522^{+817}_{-512}

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 $A_{obs} \gg 1.0$

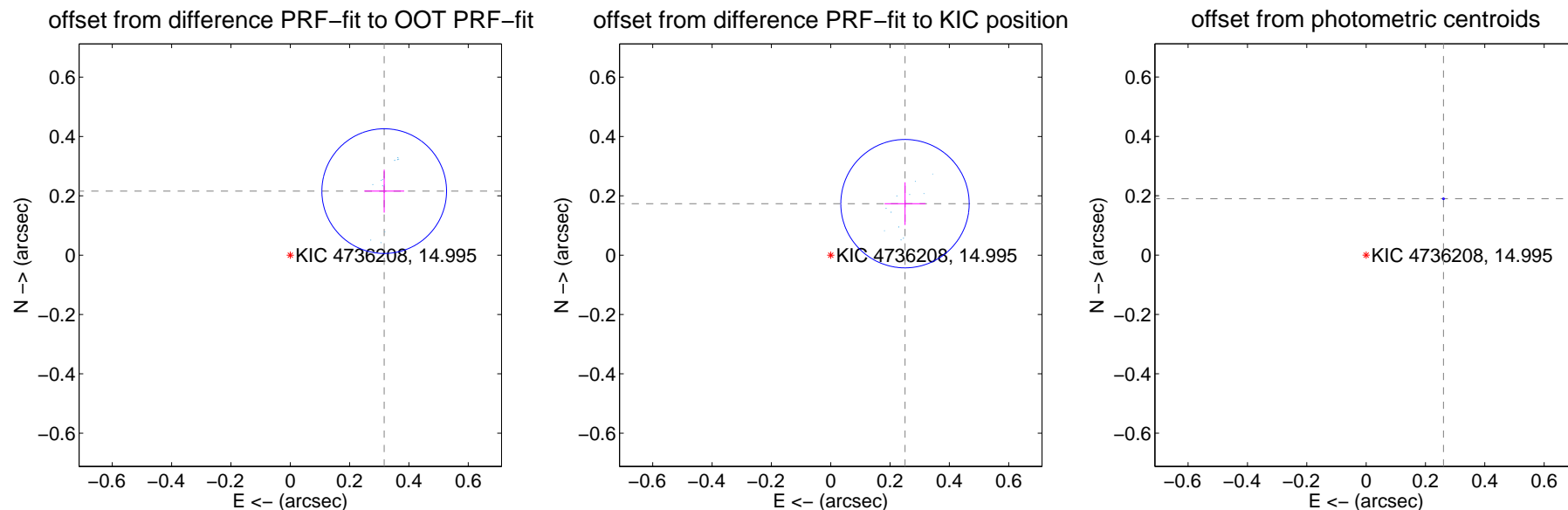
DV Centroid Data

Supplemental centroid analysis for 004736208-01. Kepler magnitude: 14.99. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

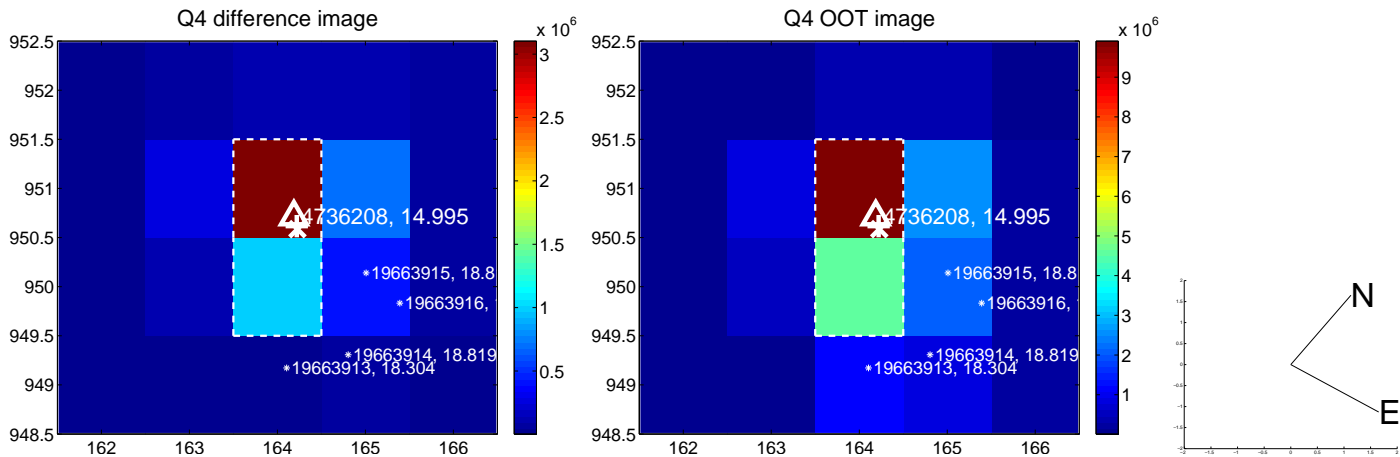
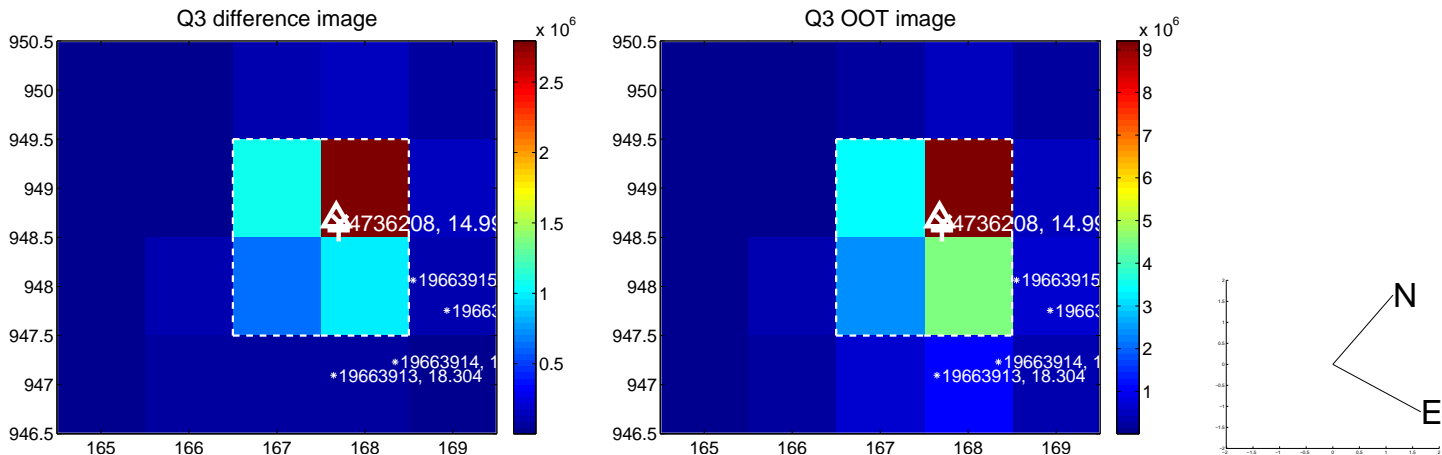
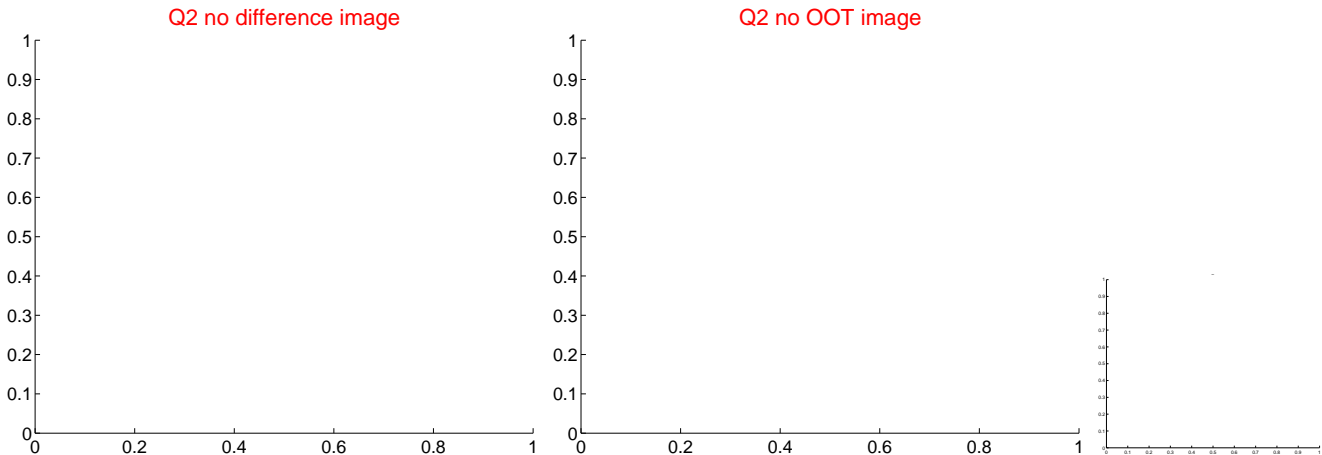
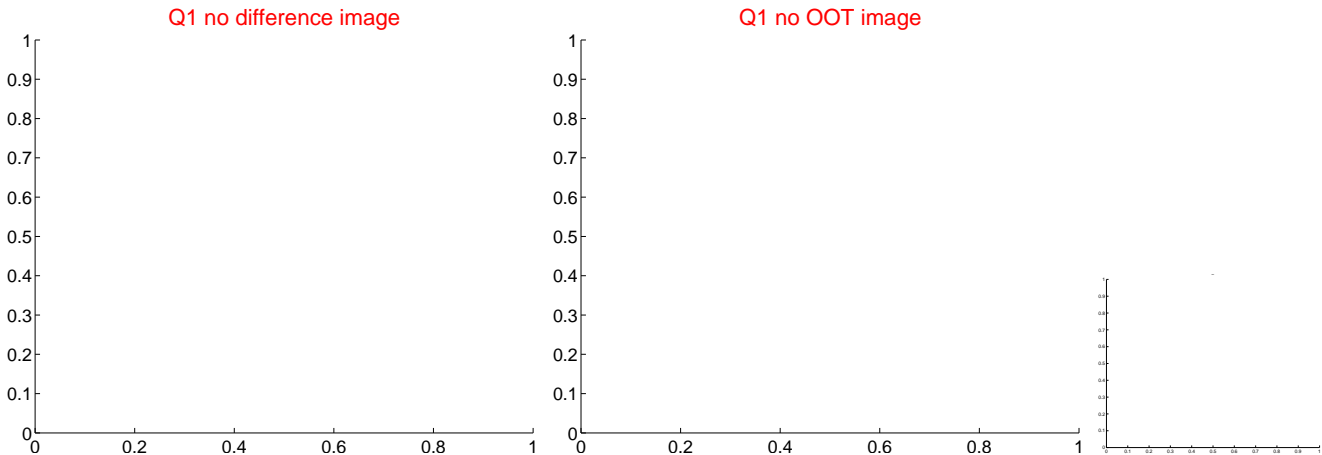
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.383 ± 0.070	5.47	-0.317 ± 0.067	0.216 ± 0.072
PRF-fit source offset from KIC position	0.305 ± 0.072	4.22	-0.250 ± 0.069	0.174 ± 0.072
photometric centroid source offset	0.32 ± 0.00	335.24	-0.26 ± 0.00	0.19 ± 0.00

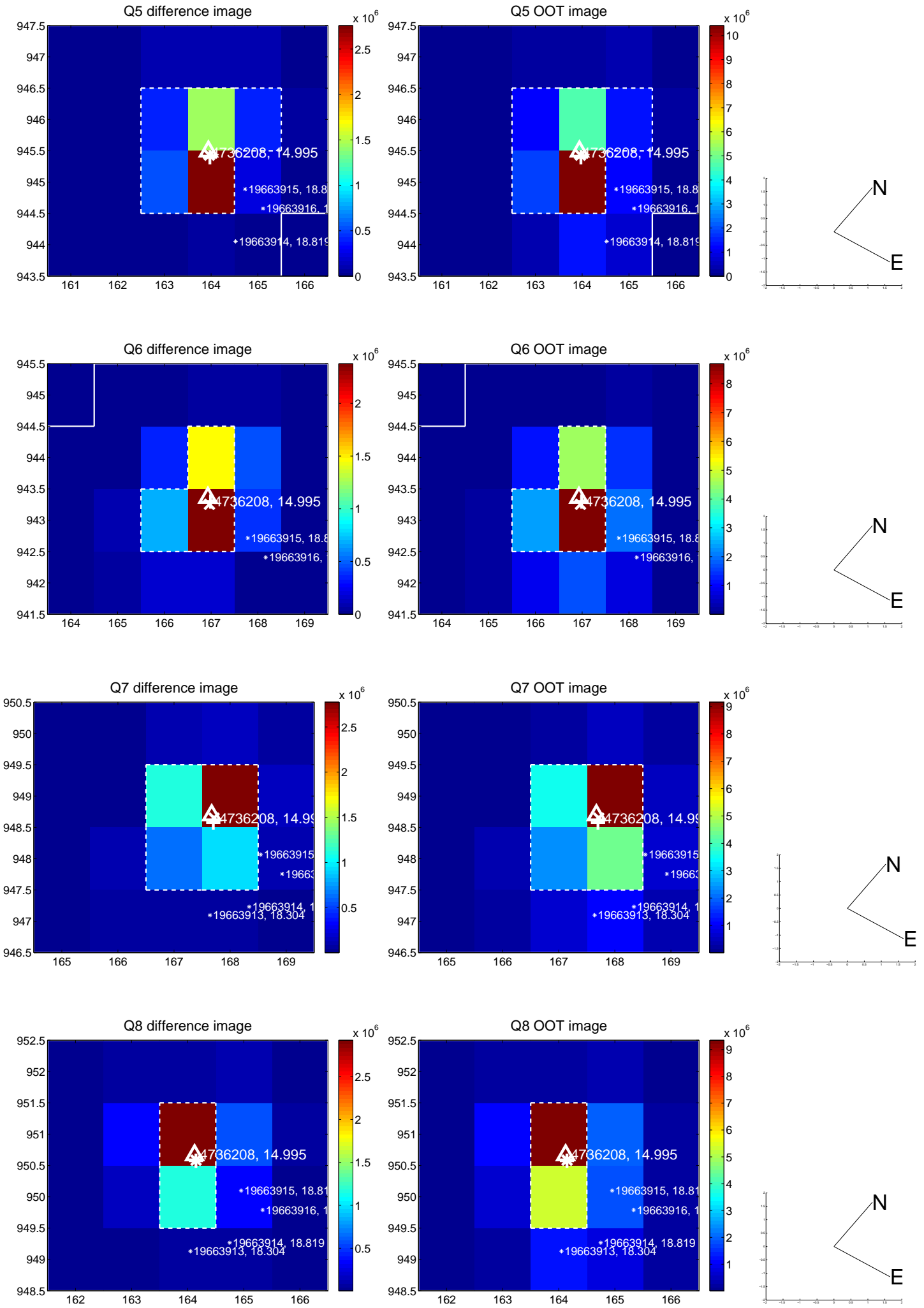


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

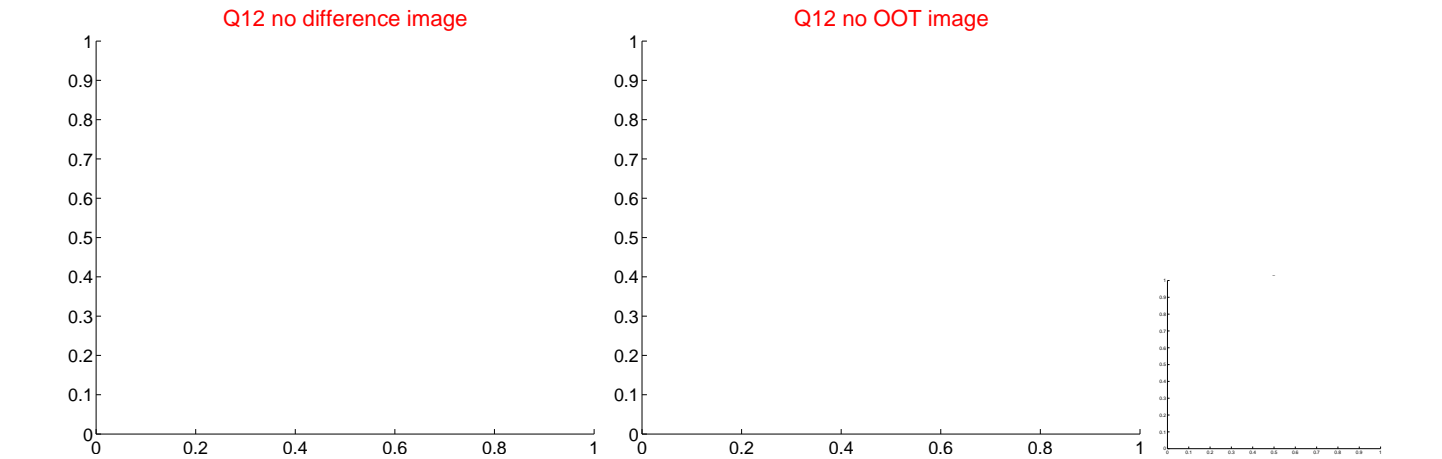
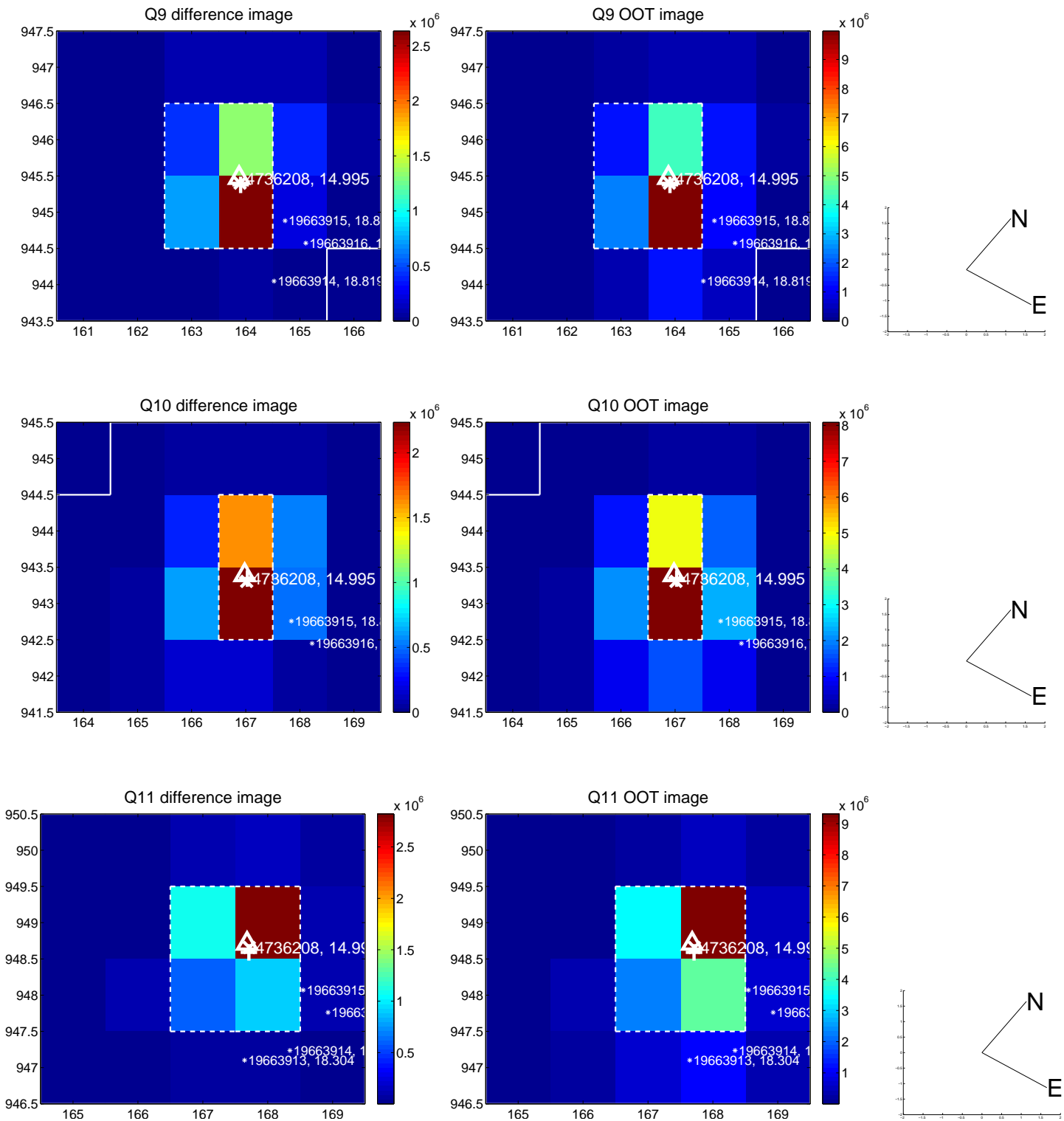
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



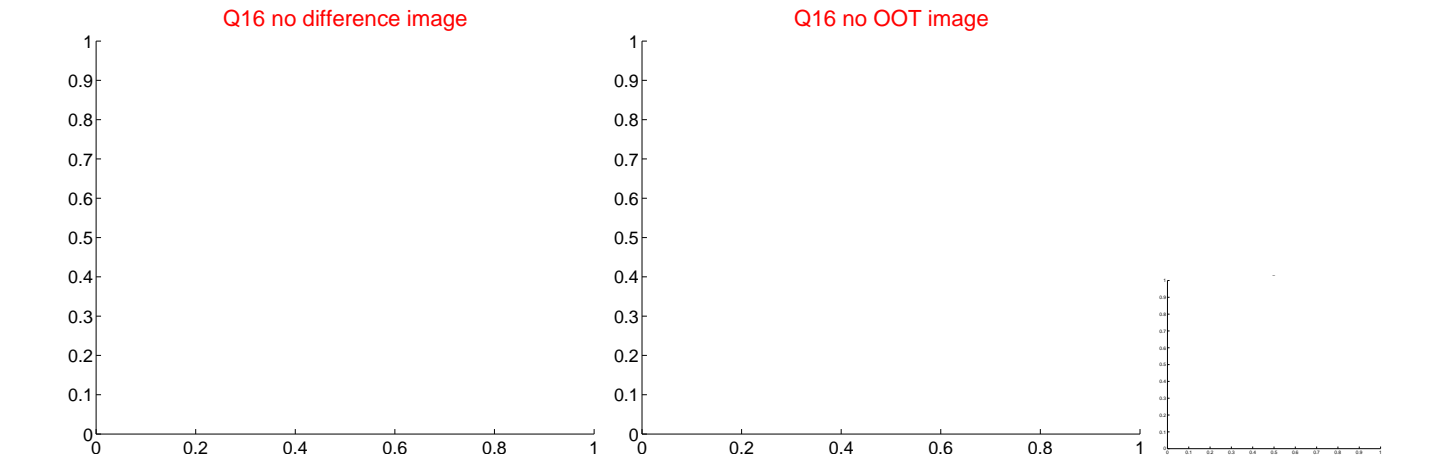
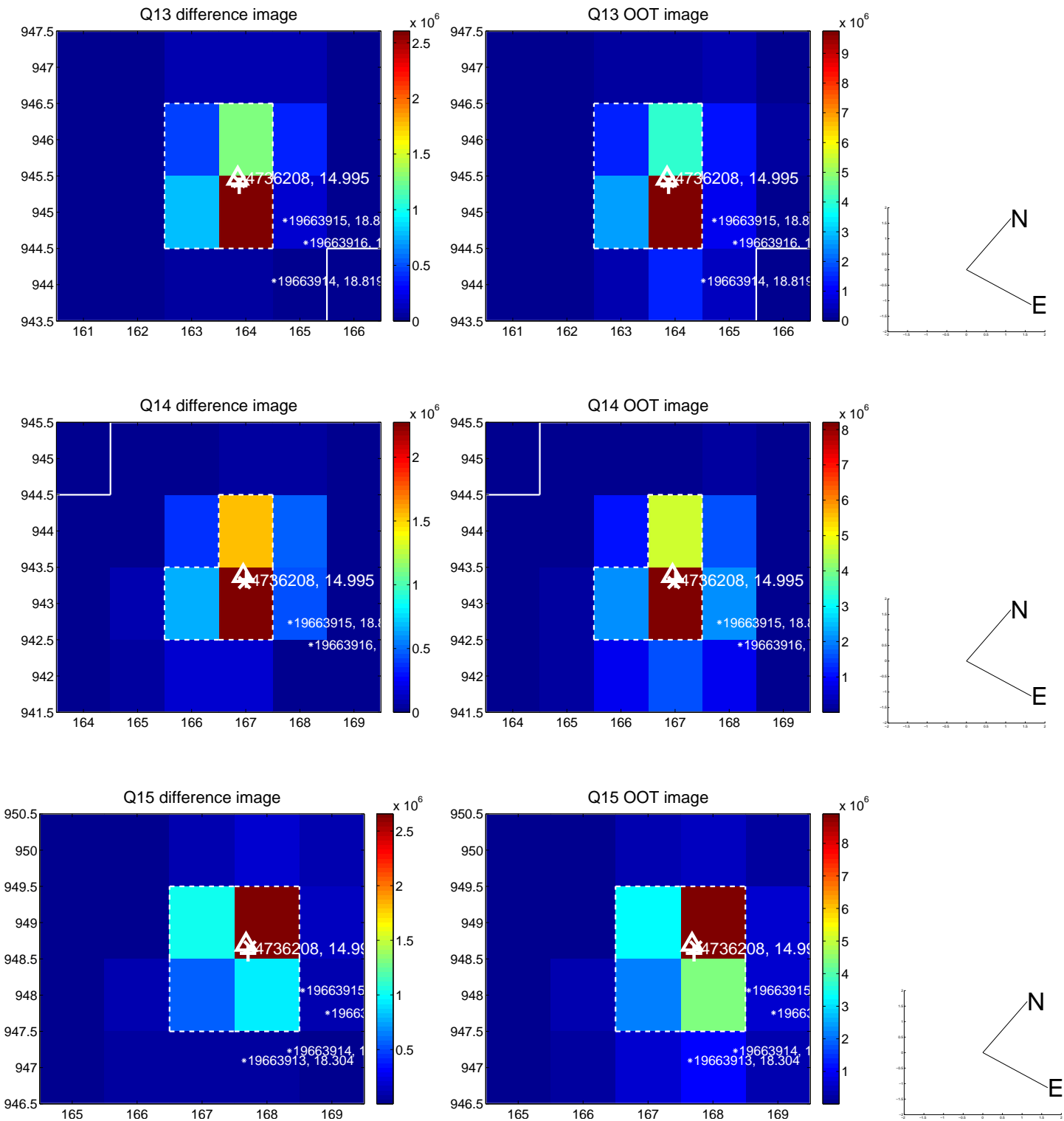
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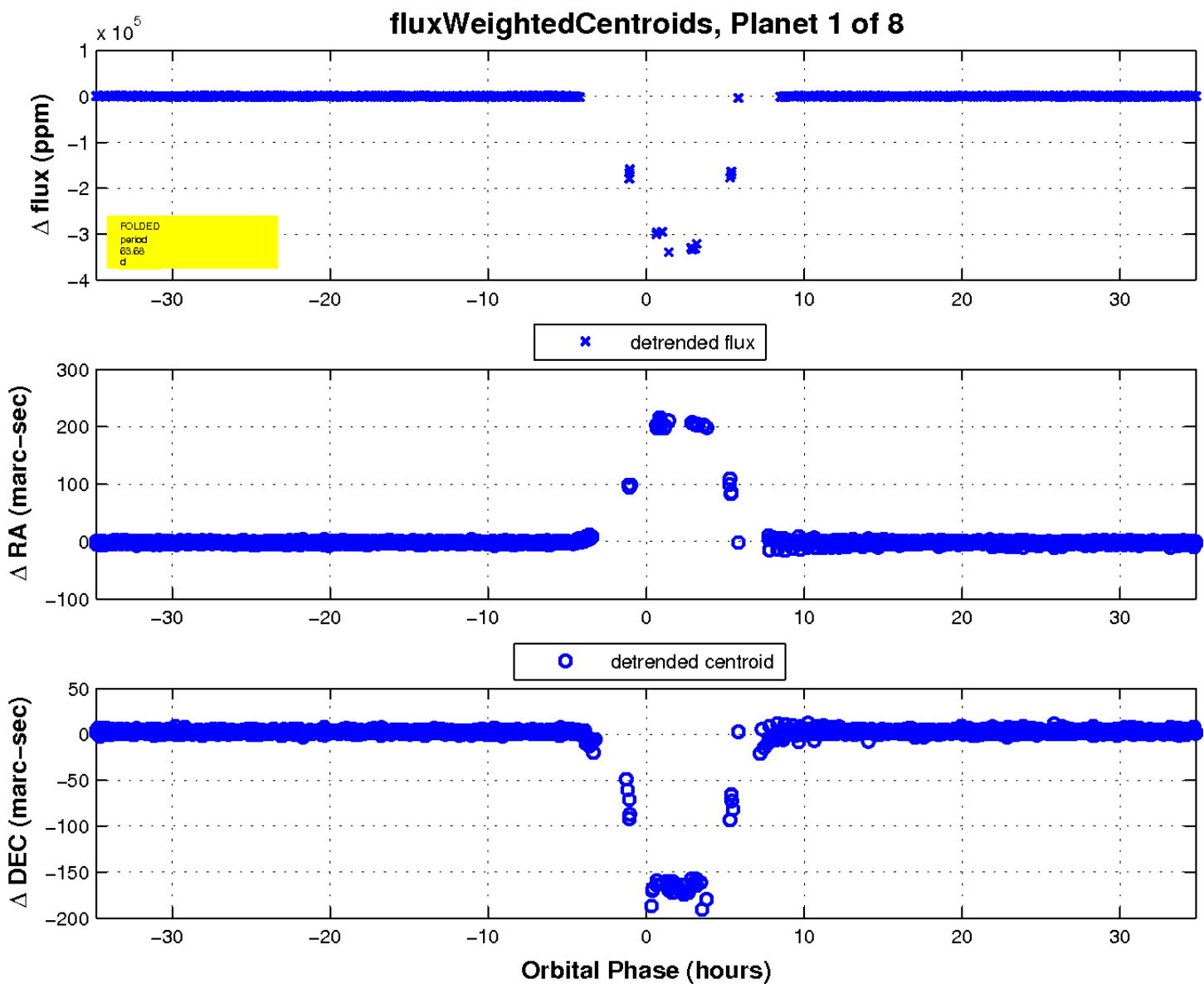
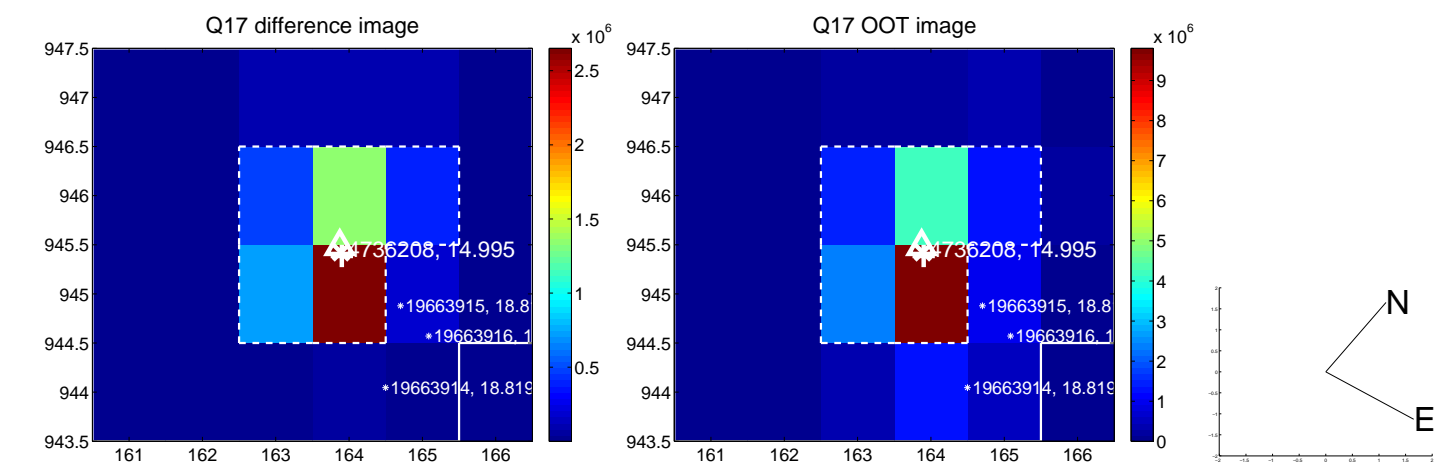
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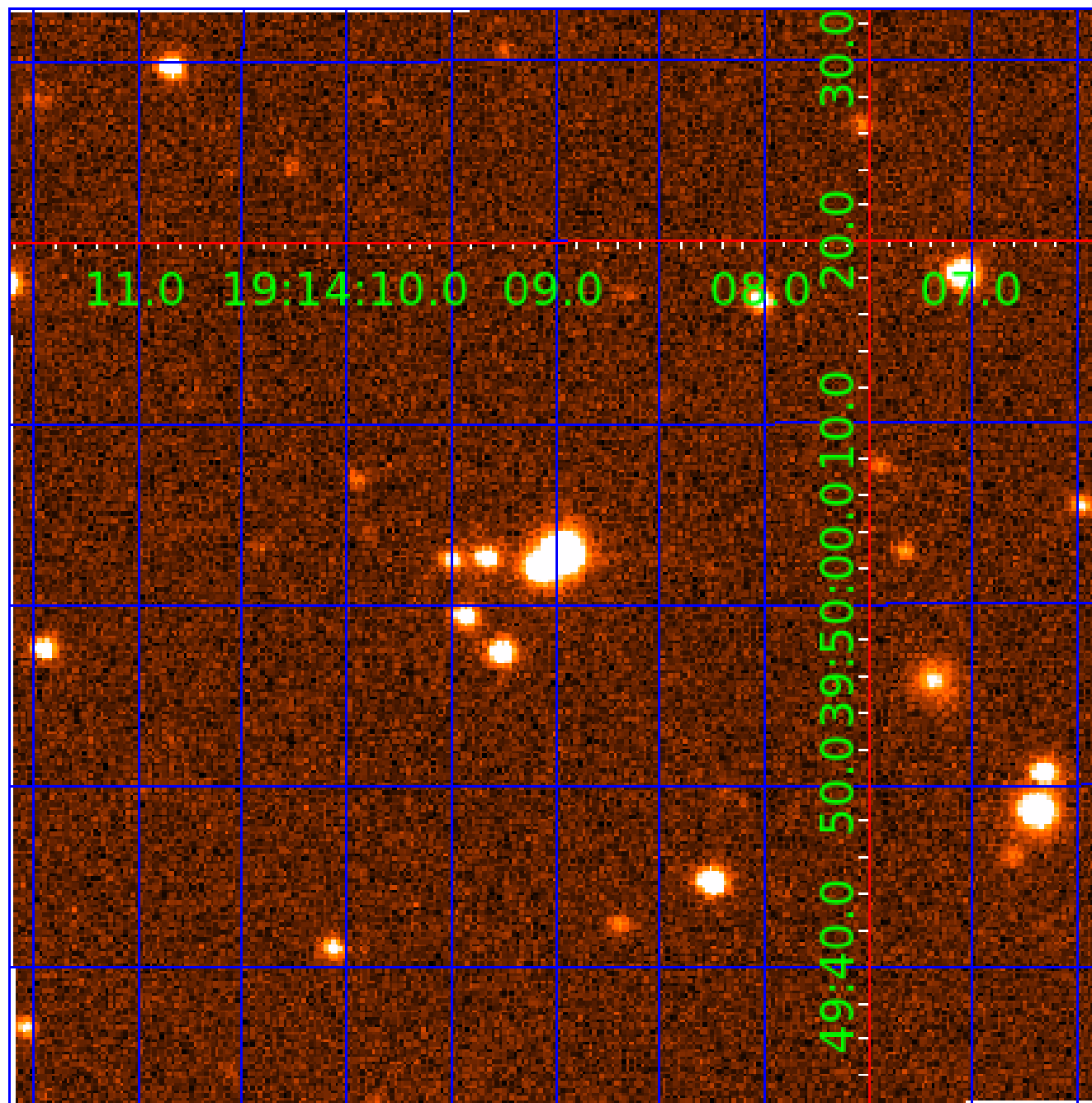


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UKIRT Image

Declination



KIC 004736208

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004736208-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

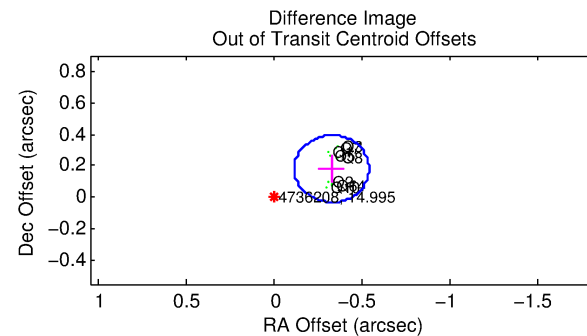
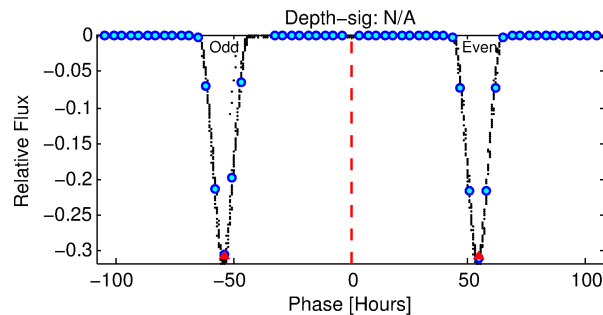
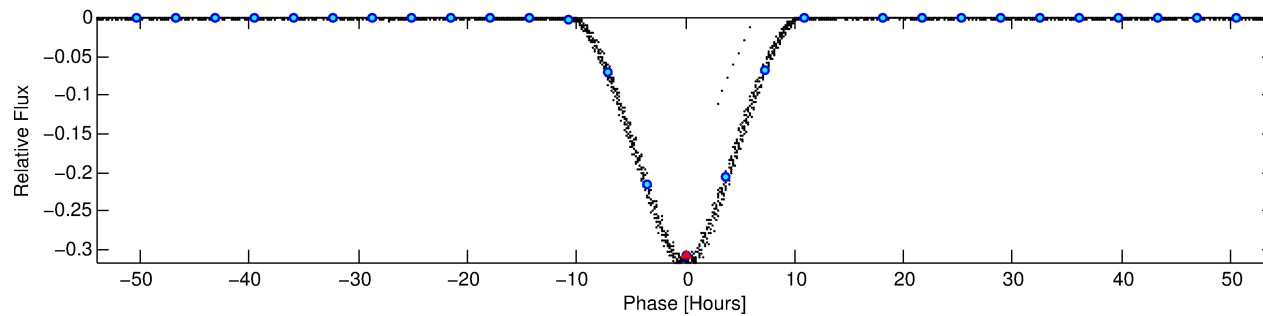
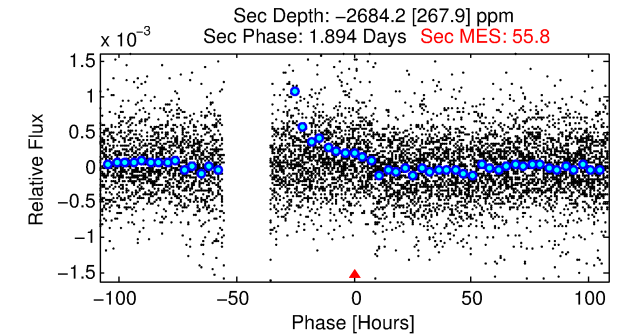
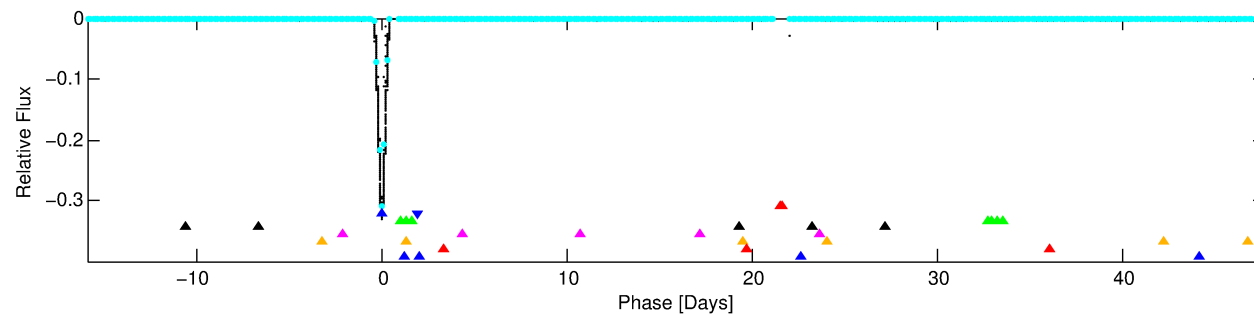
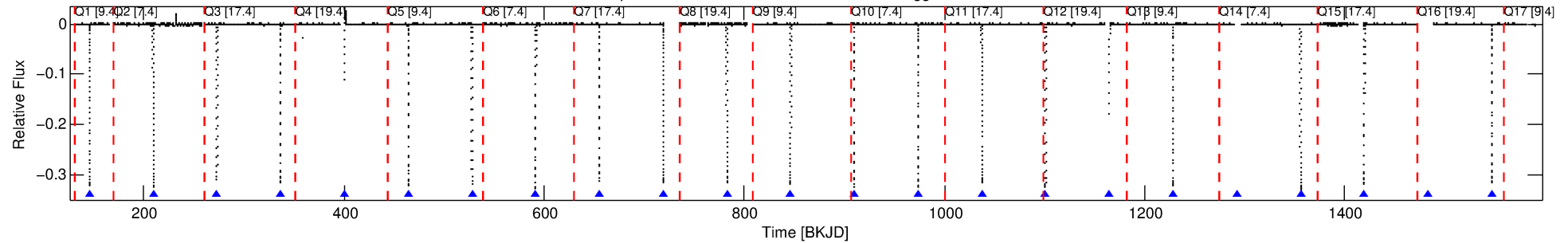
Ephemeris Match Information For 004736208-02

No Significant Match Found

DV One-Page Summary

KIC: 4736208 Candidate: 2 of 8 Period: 63.681 d
KOI: K06439 Corr: No Ephemeris Match

Kp: 14.99 R*: 1.05 Rs Teff: 5979.0 K Logg: 4.39 Fe/H: -0.140



TPS TCE Results:

Period = 63.68060 d
Epoch = 145.9643 BKJD

DV fit results are unavailable

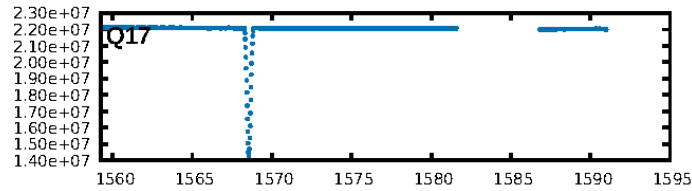
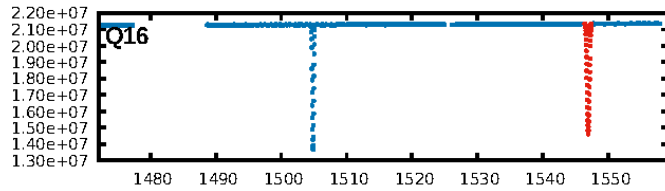
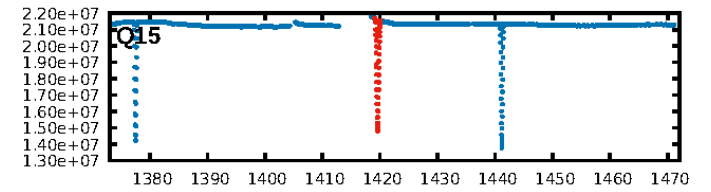
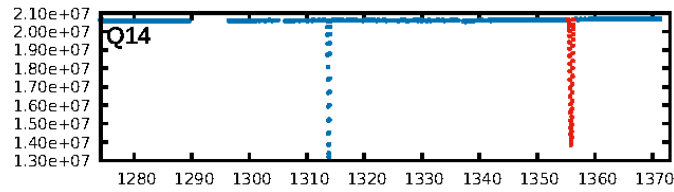
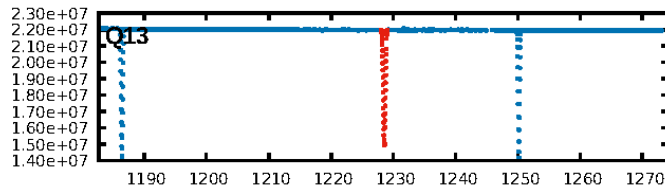
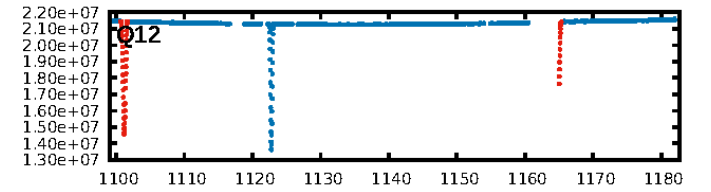
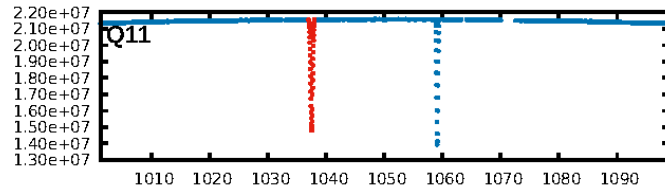
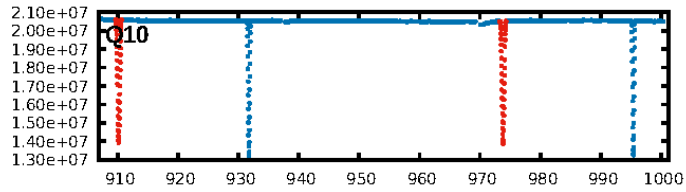
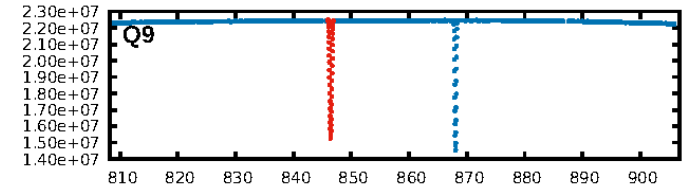
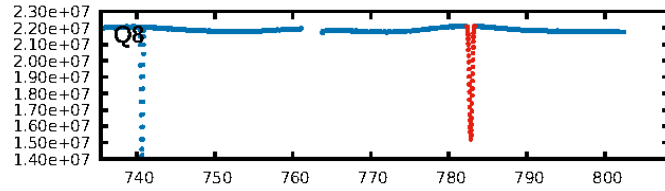
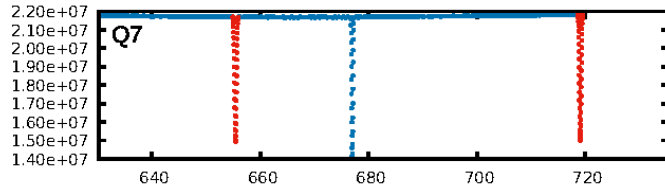
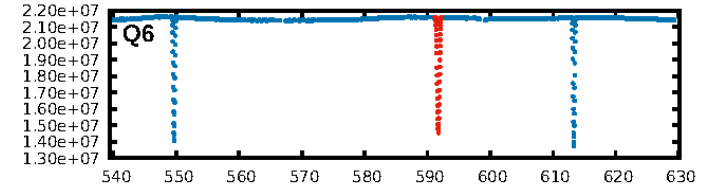
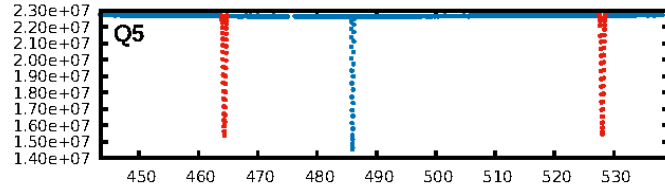
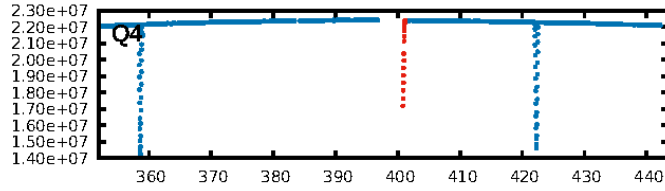
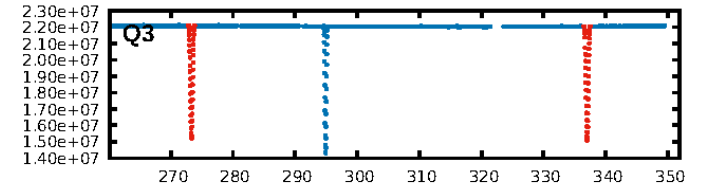
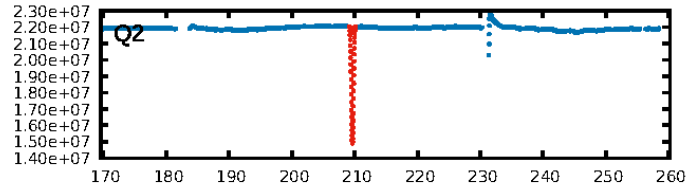
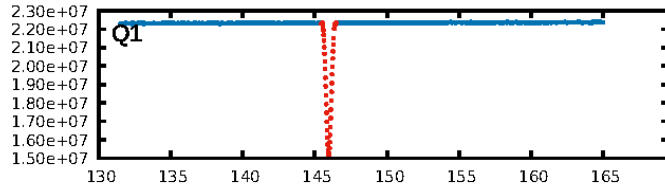
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [20/20]
GhostDiagnostic-chr: 3.566
Centroid-sig: N/A
Centroid-so: 0.304 arcsec [337.26σ]
OotOffset-rm: 0.374 arcsec [5.27σ]
KicOffset-rm: 0.329 arcsec [4.51σ]
OotOffset-st: 4/2/1/2 [9]
KicOffset-st: 4/2/1/2 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

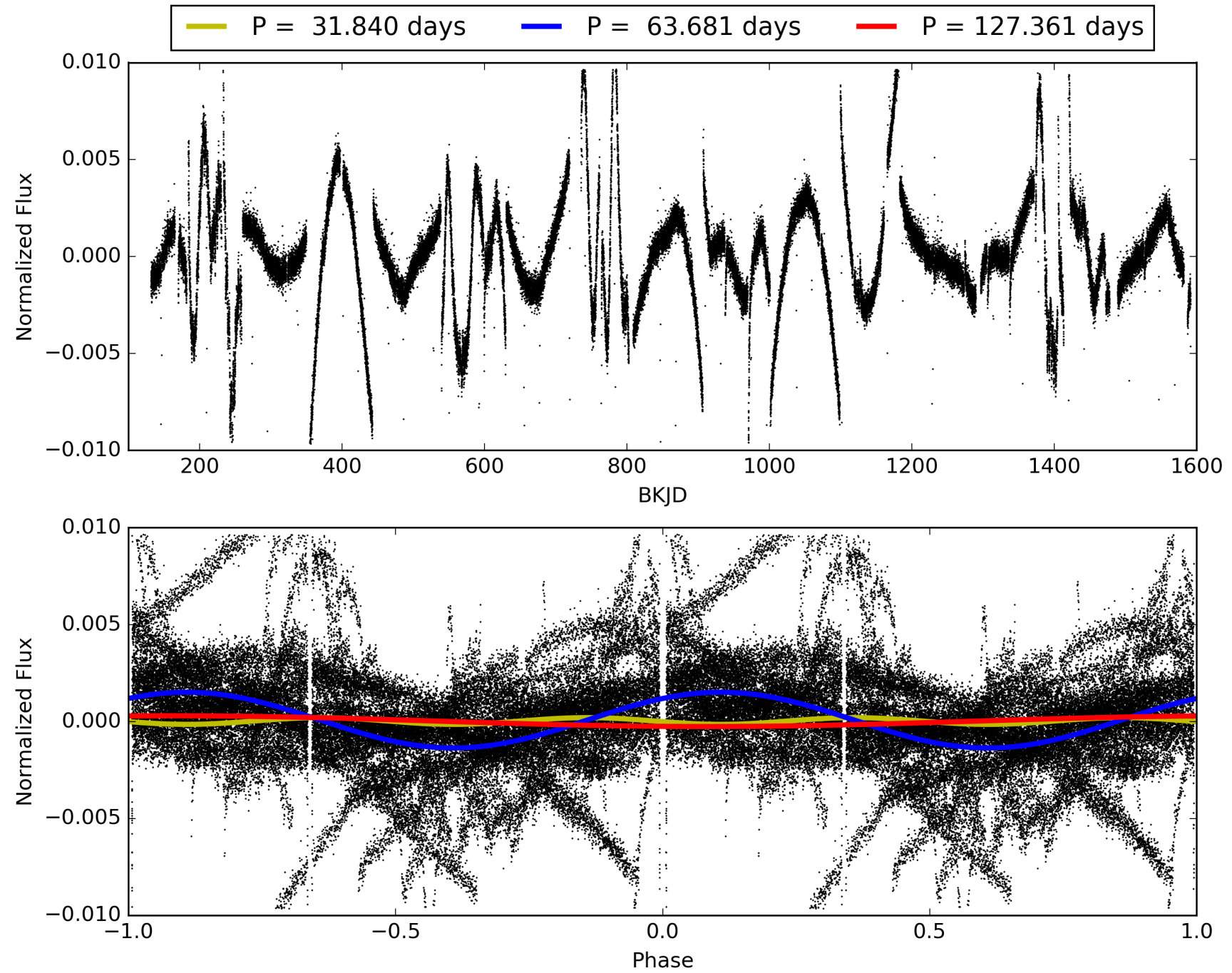
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:57:42 Z

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

TCE 004736208-02, PDC Light Curves

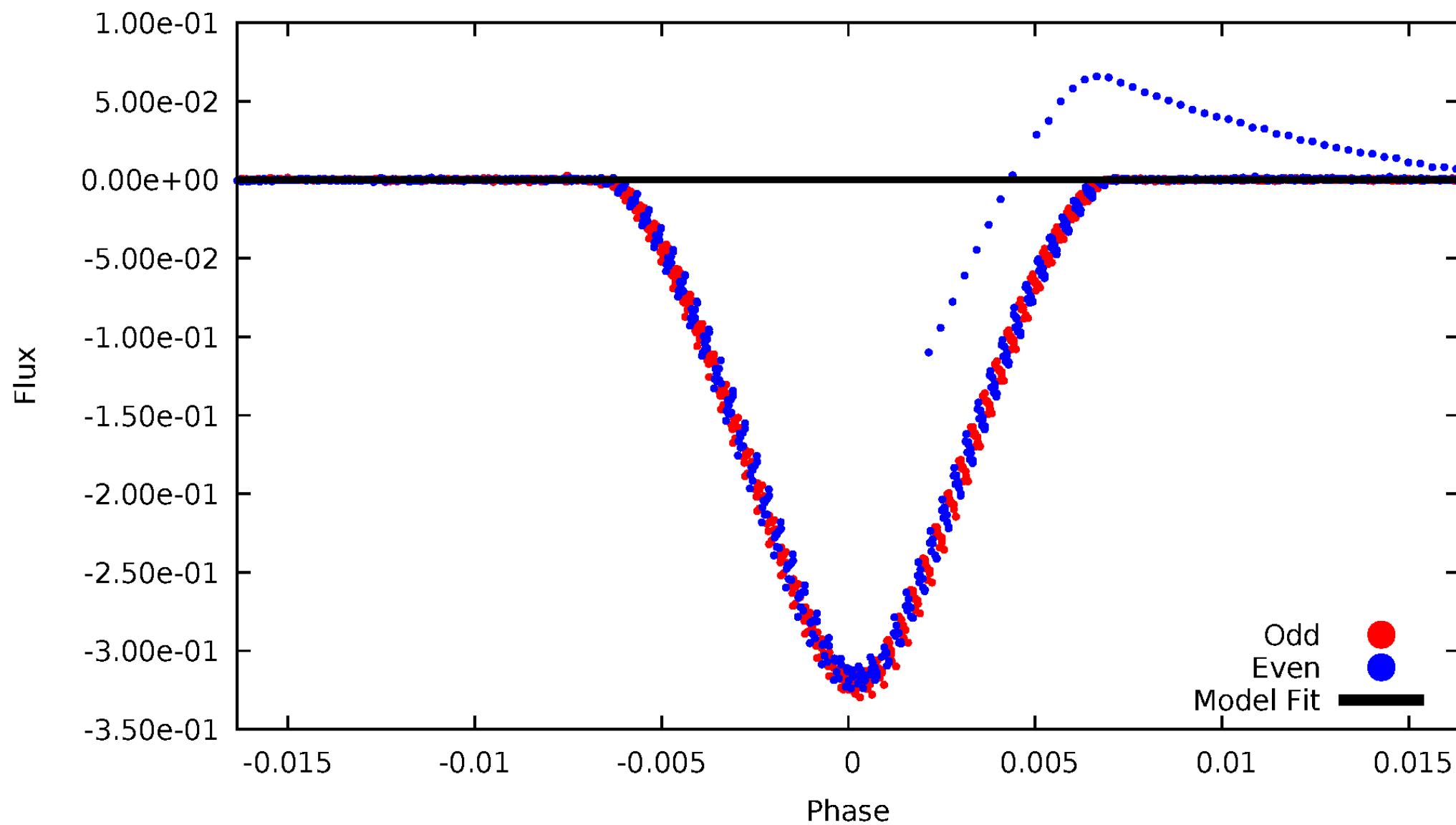


TCE 004736208-02



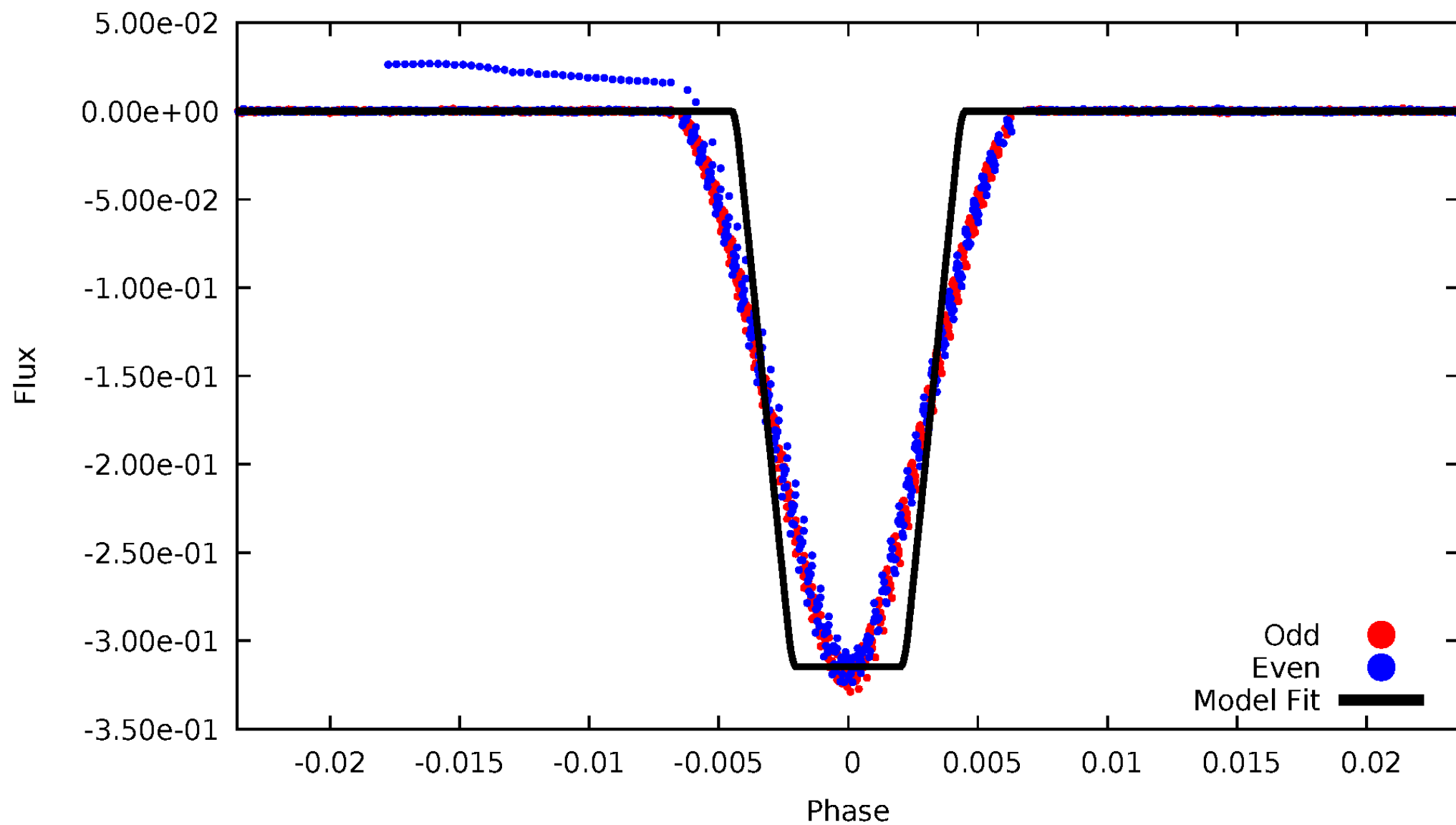
DV Odd/Even

TCE 004736208-02



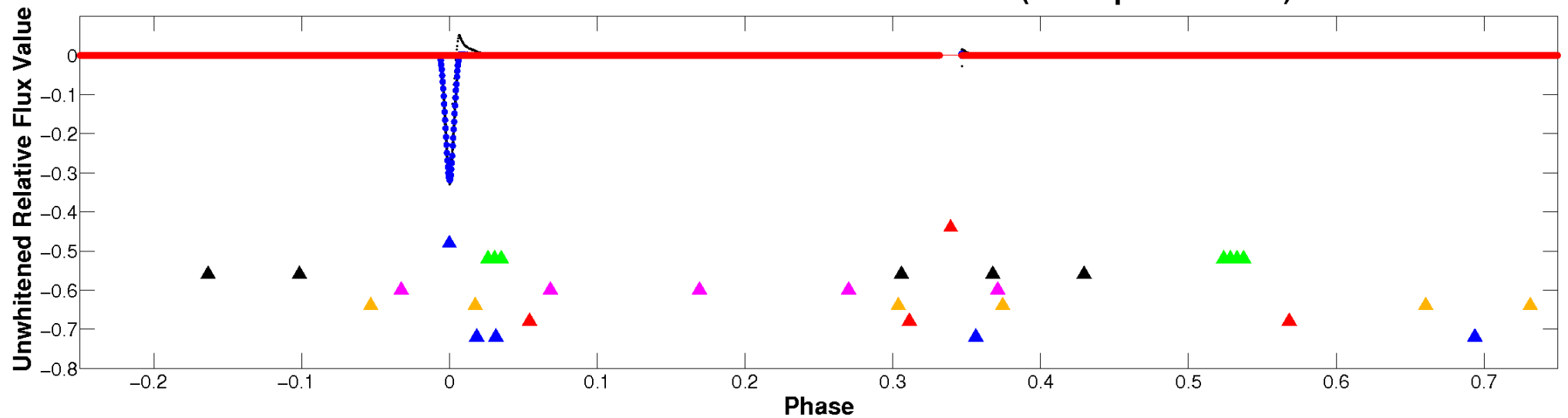
ALT Odd/Even

TCE 004736208-02

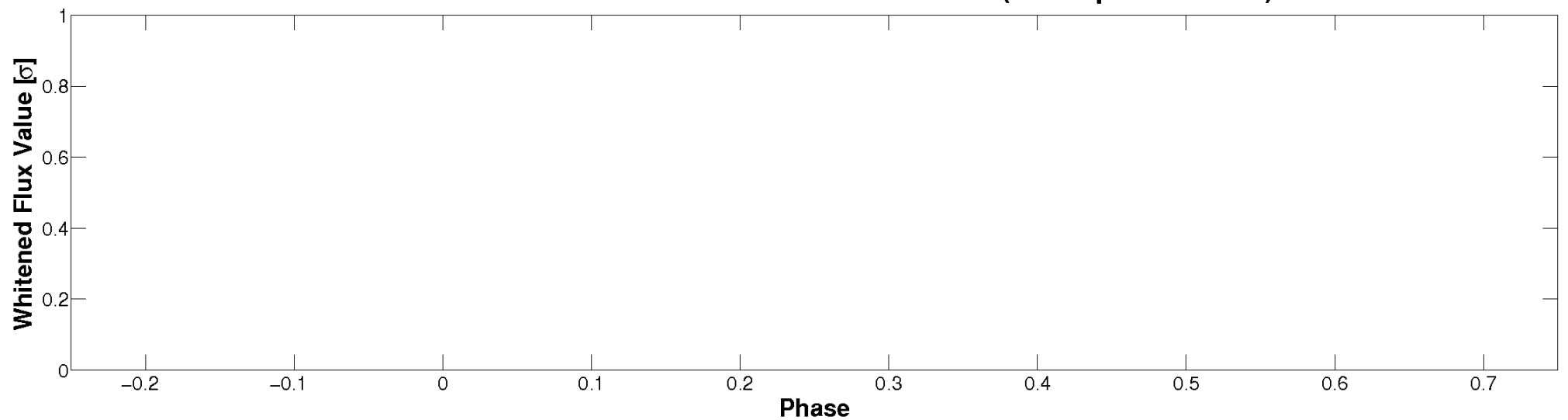


Non-Whitened Vs. Whitened Light Curve

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

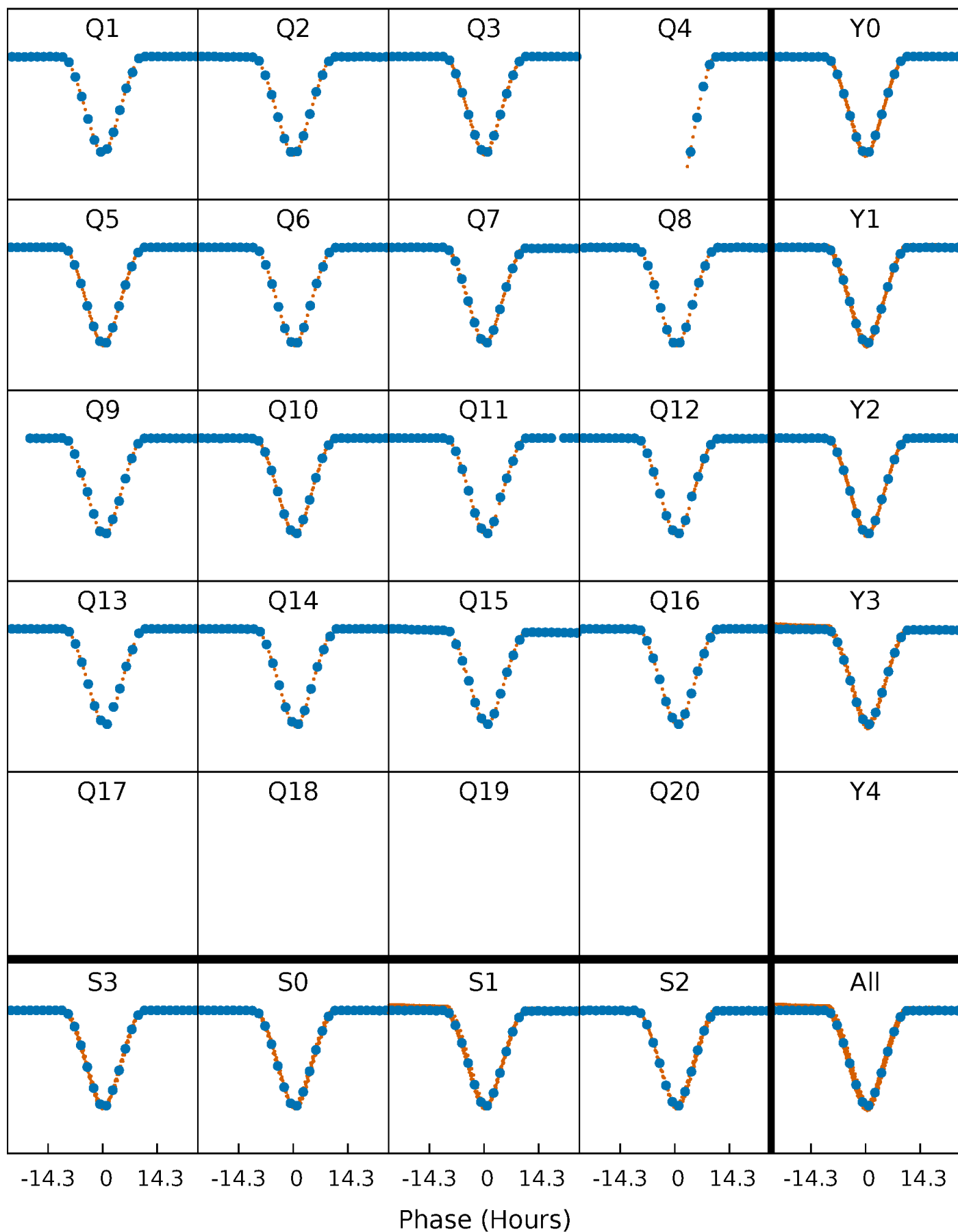


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



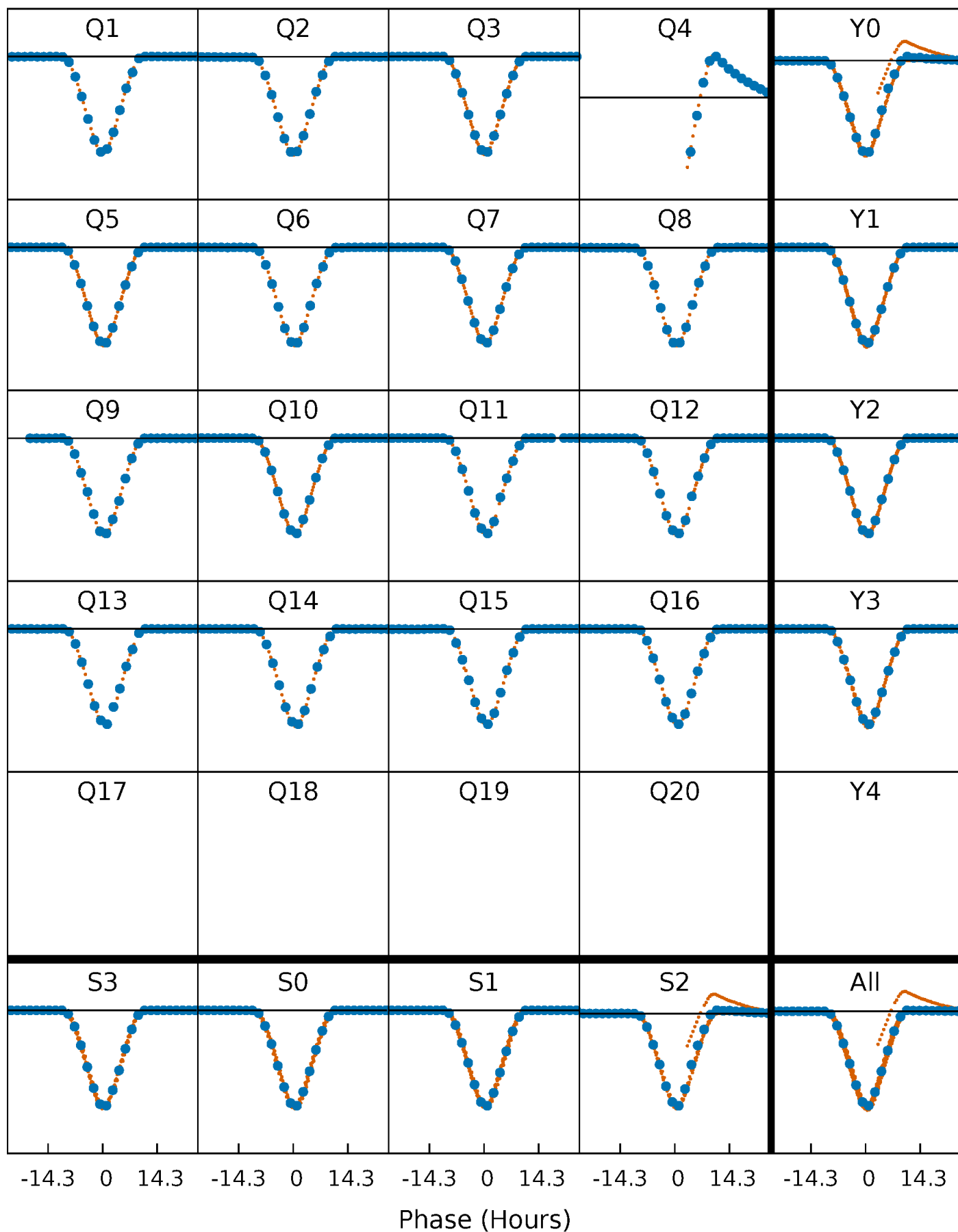
PDC Quarter-Phased Transit Curves

TCE 004736208-02 P= 63.680605 Days $T_0=145.964332$ (BKJD)



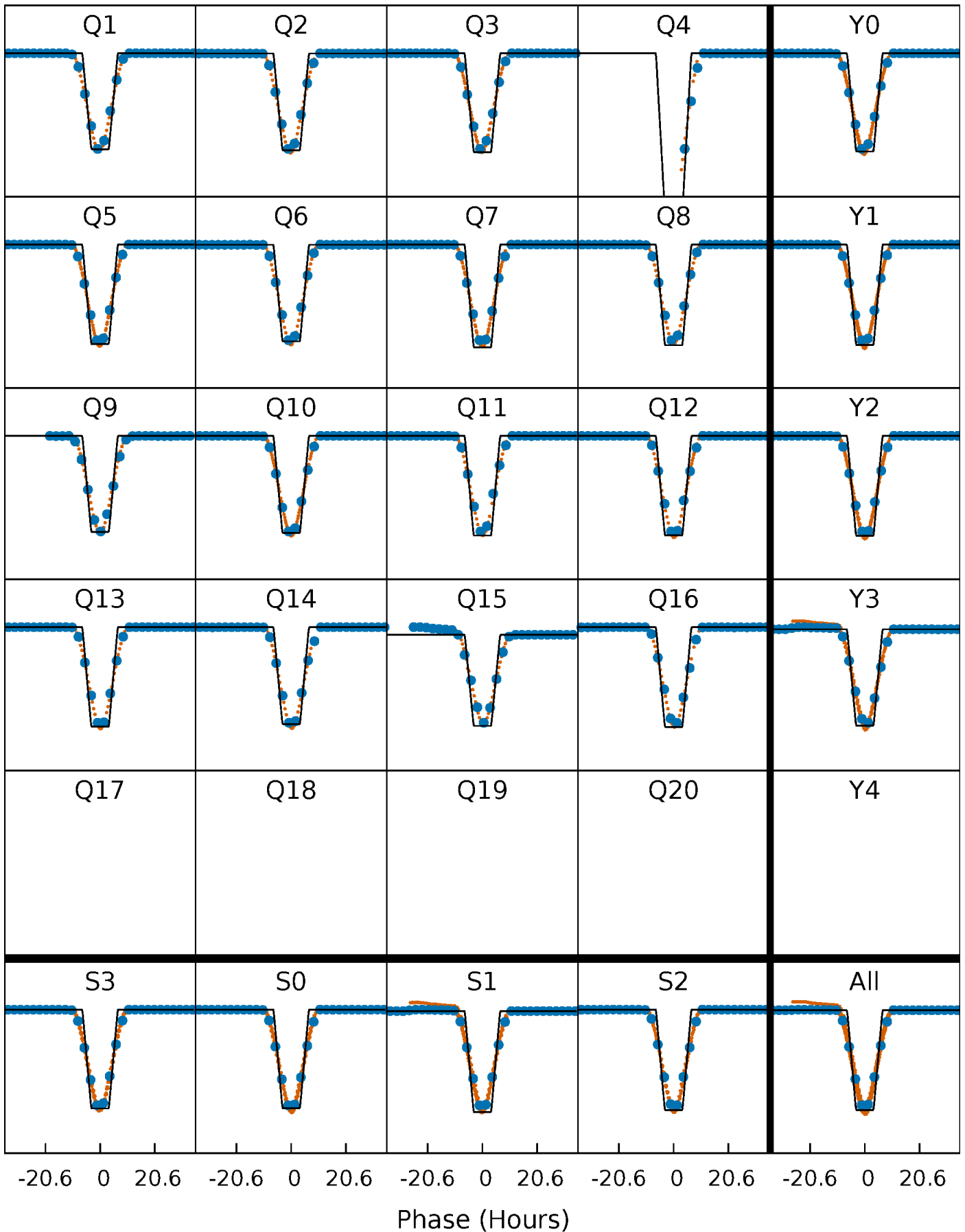
DV Quarter-Phased Transit Curves

TCE 004736208-02 P= 63.680605 Days $T_0=145.964332$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

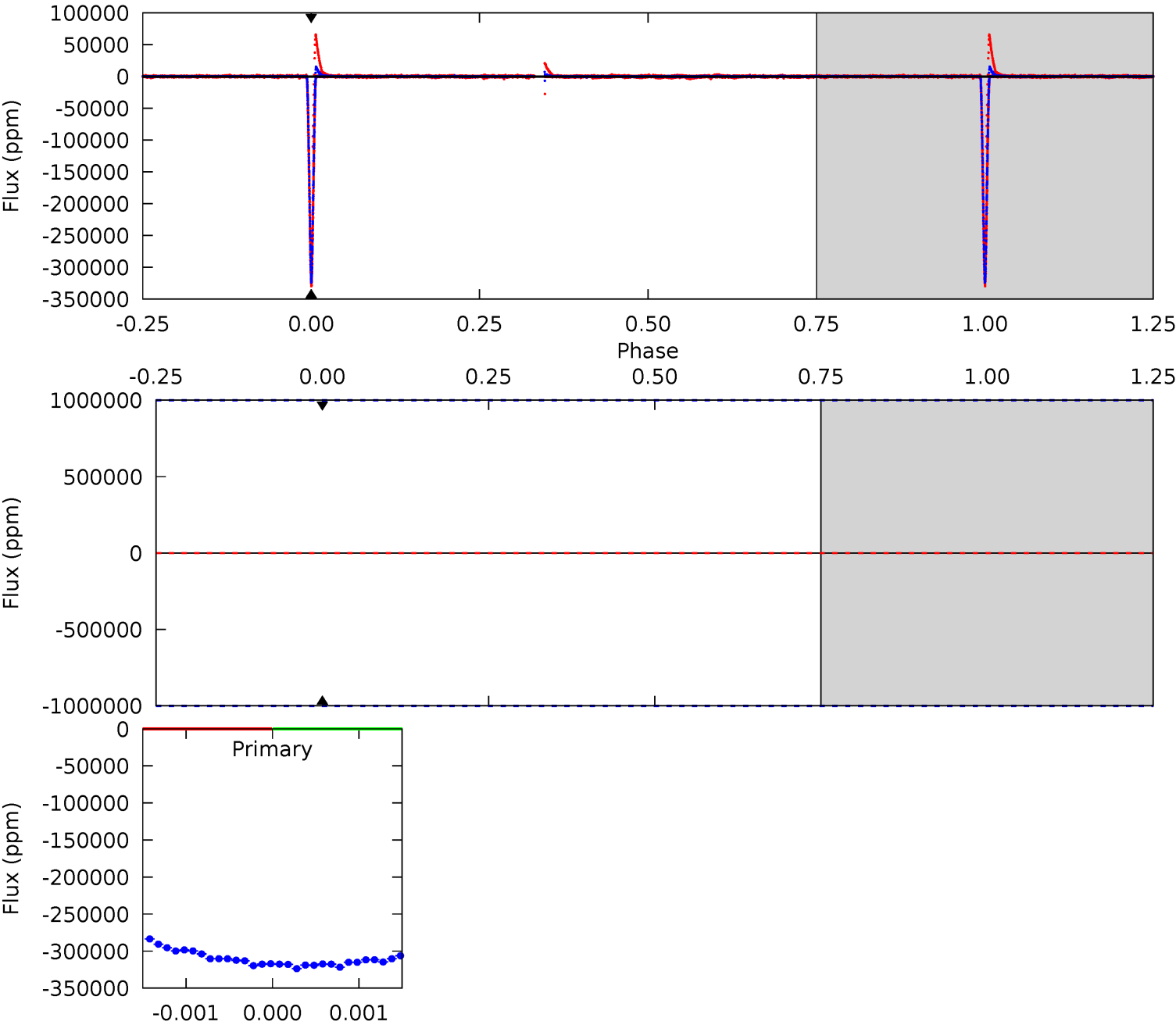
TCE 004736208-02 P= 63.680605 Days $T_0=145.979215$ (BKJD)



DV Model-Shift Uniqueness Test

004736208-02, P = 63.680605 Days, E = 82.283727 Days

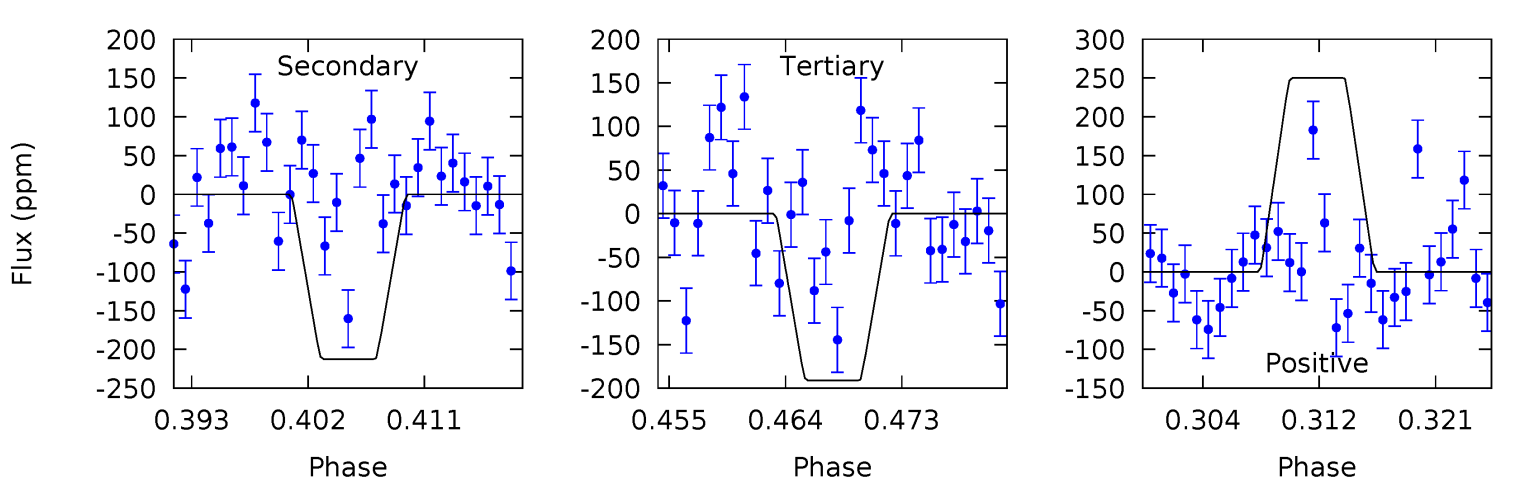
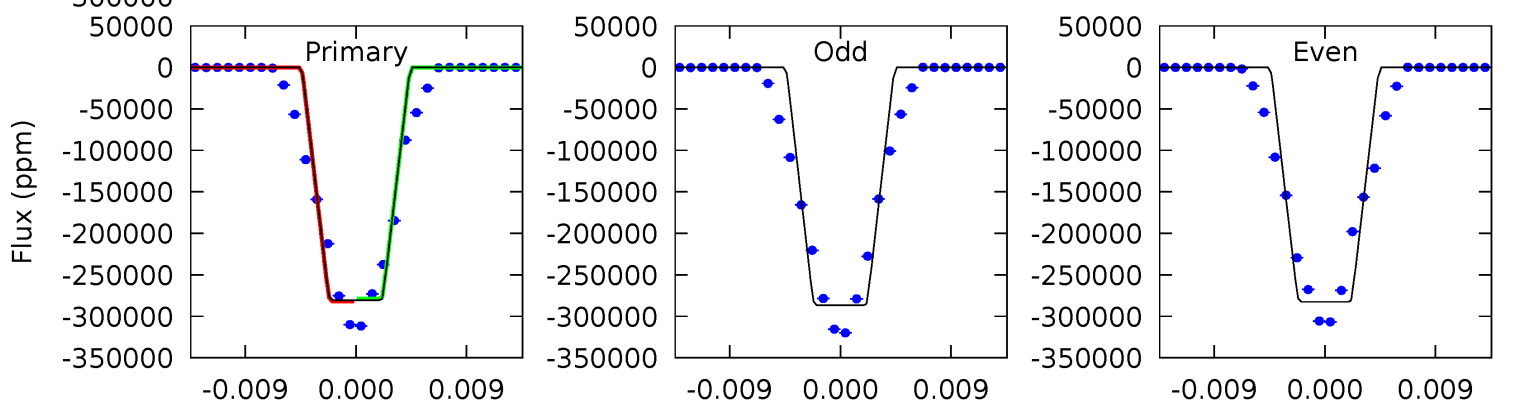
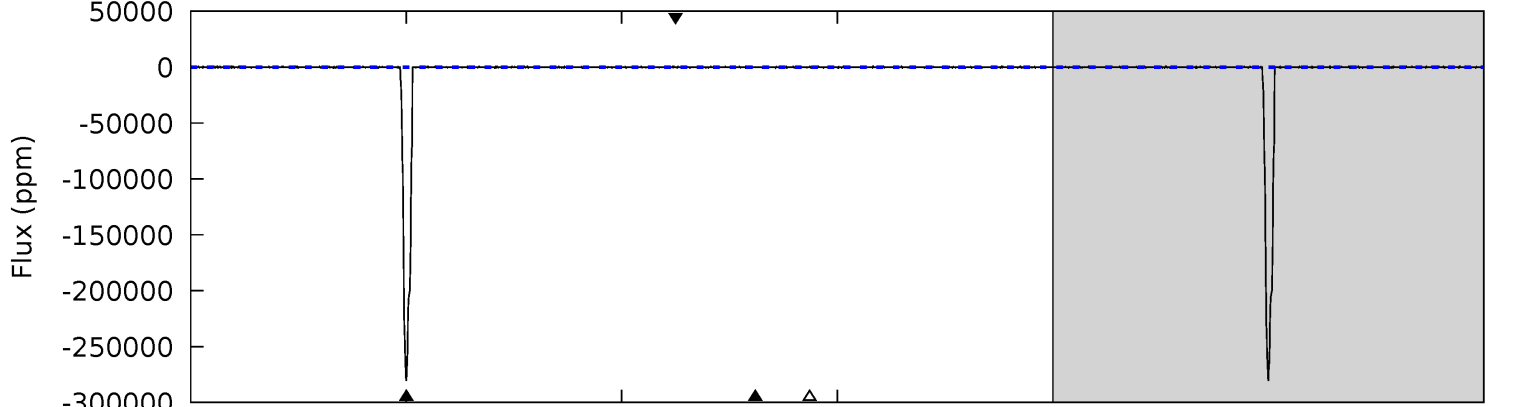
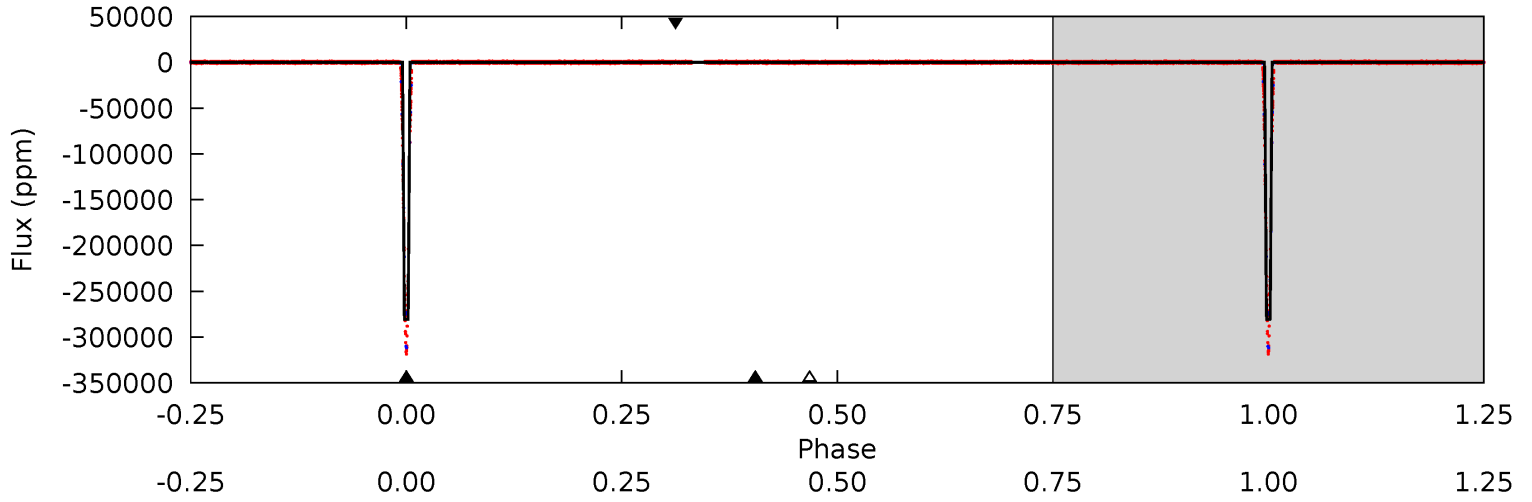
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004736208-02, P = 63.680605 Days, E = 82.298610 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6266	4.75	4.27	5.59	5.05	2.61	1.42	6262	6261	0.48	-0.85	56.2	1.00	0.00	0



Stellar Parameters For KIC 004736208

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5979^{+179}_{-197}	$4.386^{+0.108}_{-0.201}$	$-0.140^{+0.300}_{-0.300}$	$1.054^{+0.315}_{-0.170}$	$0.986^{+0.145}_{-0.119}$	$1.187^{+0.575}_{-0.584}$
	+3%/-3%	+2%/-5%	+214%/-214%	+30%/-16%	+15%/-12%	+48%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004736208-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$55.02^{+15.67}_{-13.89}$	689^{+48}_{-44}	-3017^{+8077}_{-2011}	$-89.657^{+1828.921}_{-1700.514}$
Alt.	-212 ± 45	$65.07^{+15.20}_{-12.84}$	686^{+52}_{-38}	1959^{+97}_{-97}	$2.613^{+1.621}_{-0.969}$

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

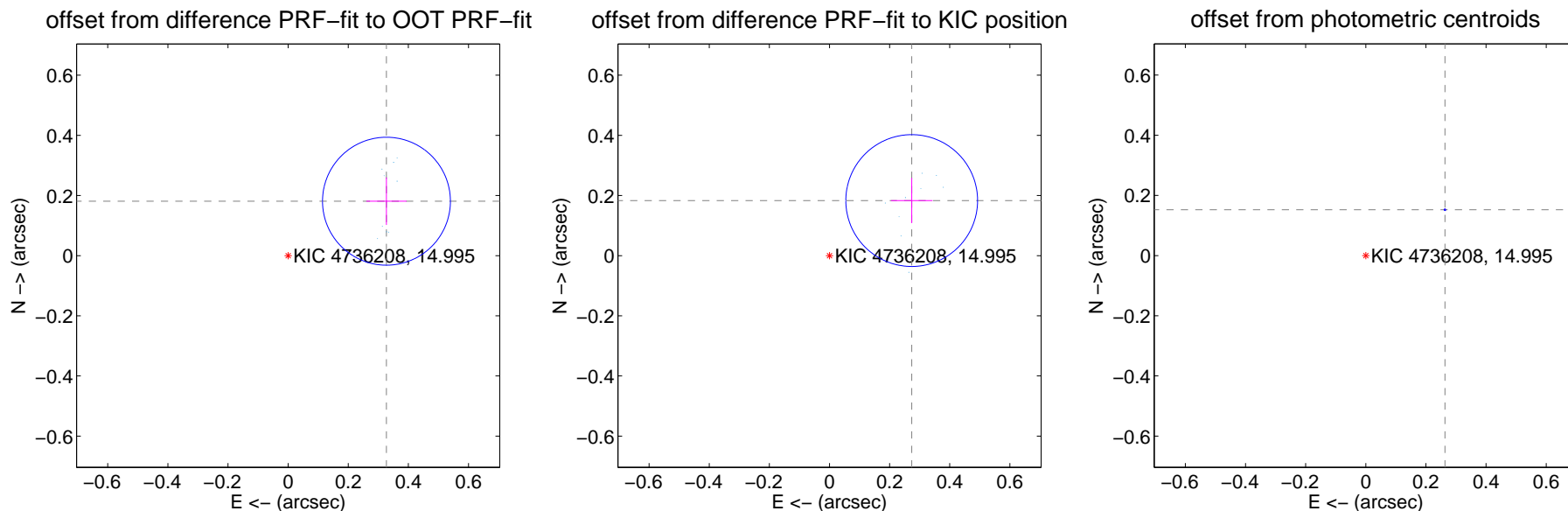
DV Centroid Data

Supplemental centroid analysis for 004736208-02. Kepler magnitude: 14.99. Transit SNR -1.00

There are 9 quarters with good PRF difference image offsets

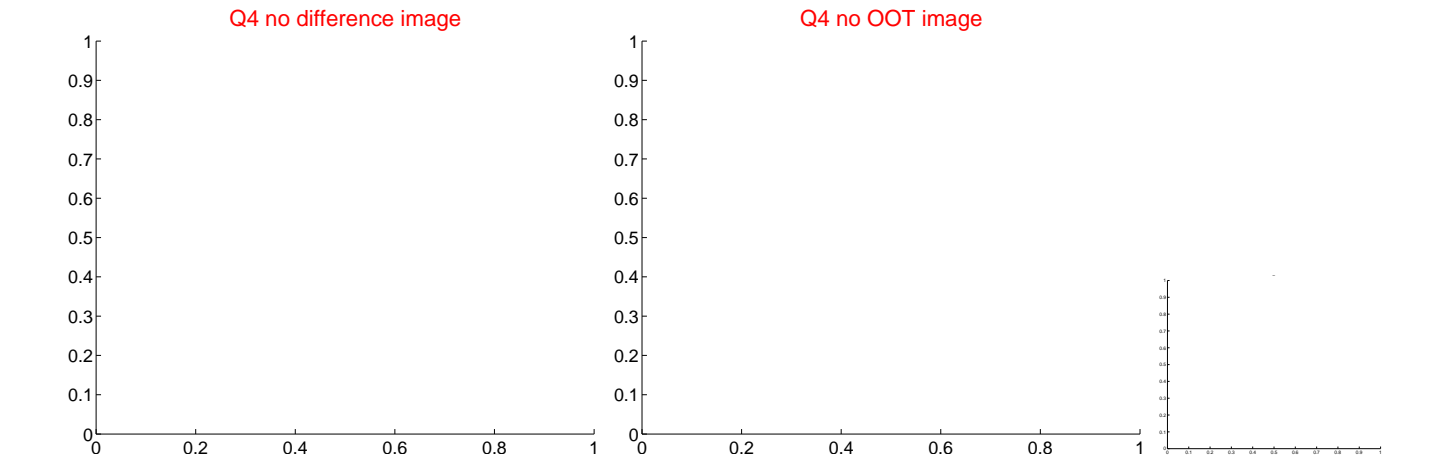
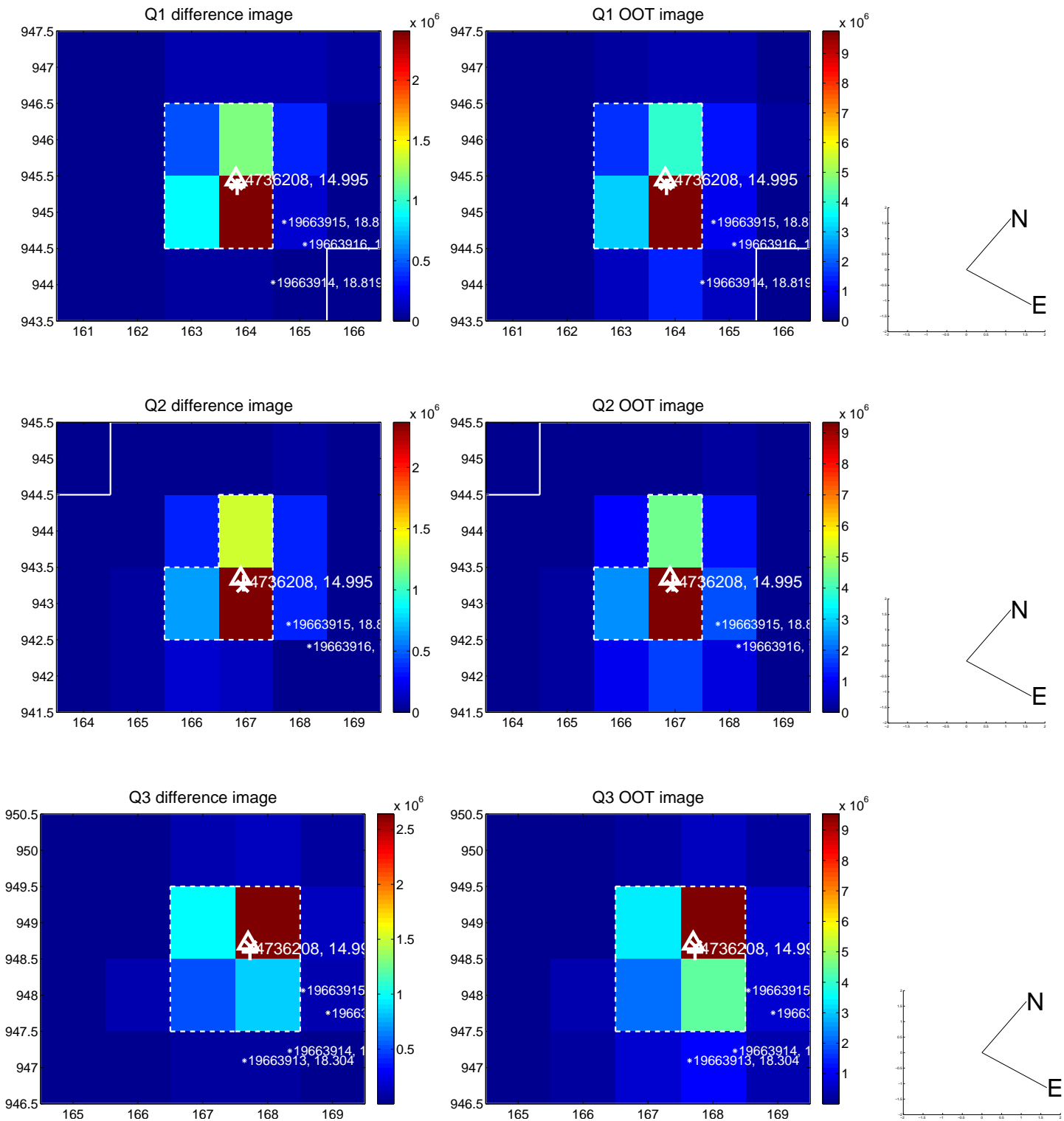
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.374 ± 0.071	5.27	-0.327 ± 0.067	0.181 ± 0.079
PRF-fit source offset from KIC position	0.329 ± 0.073	4.51	-0.274 ± 0.069	0.183 ± 0.075
photometric centroid source offset	0.30 ± 0.00	337.26	-0.26 ± 0.00	0.15 ± 0.00

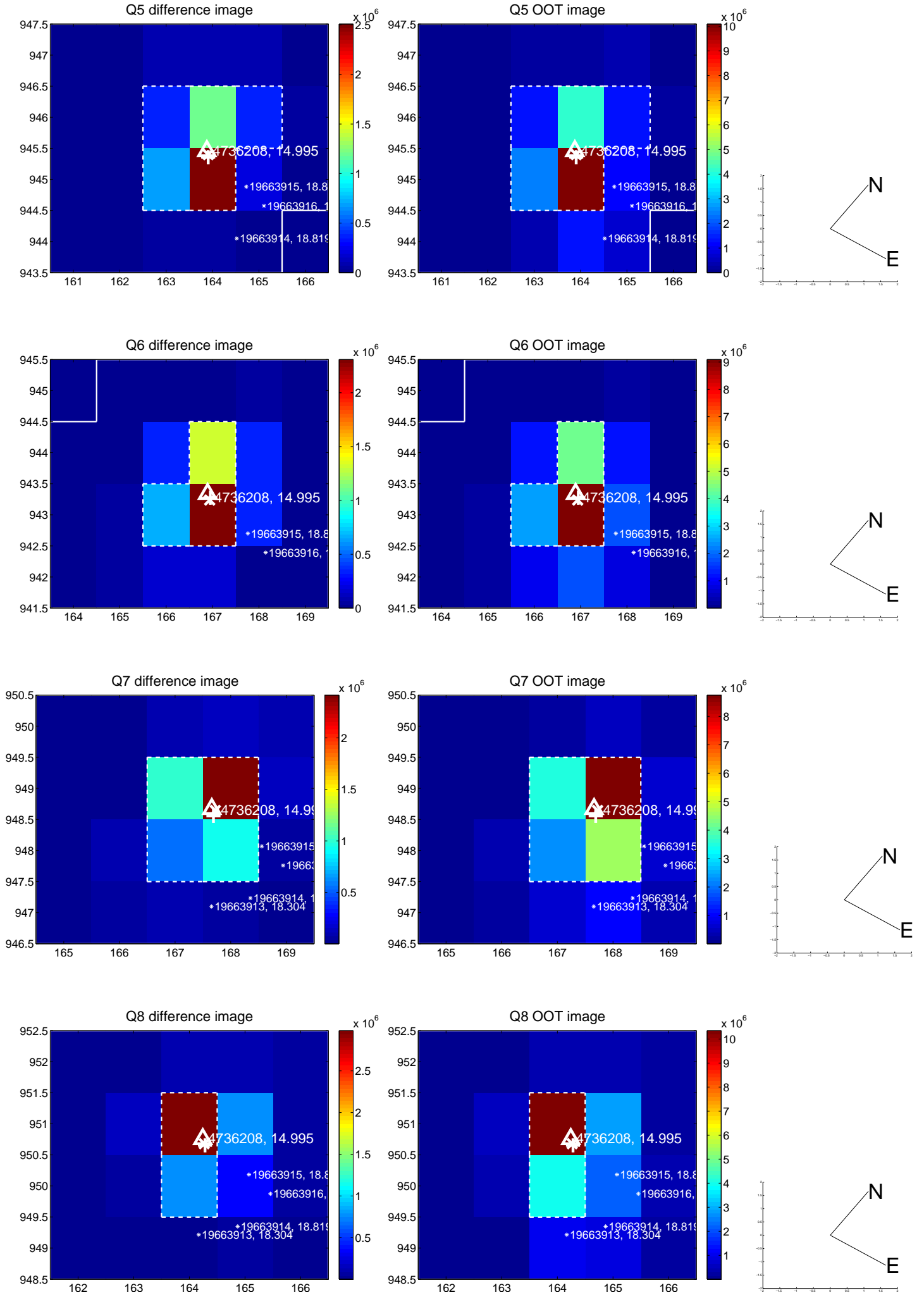


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

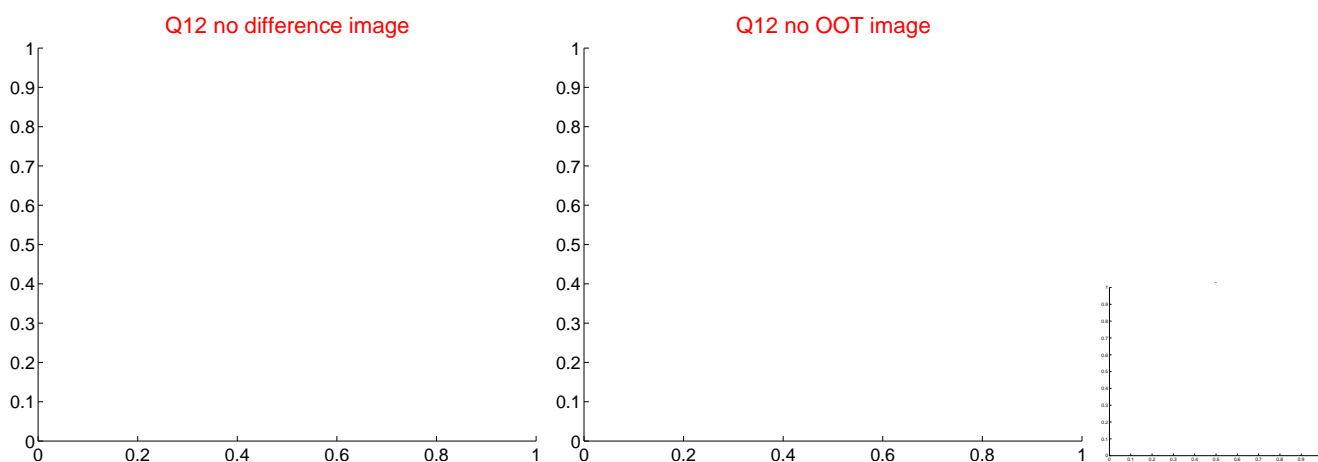
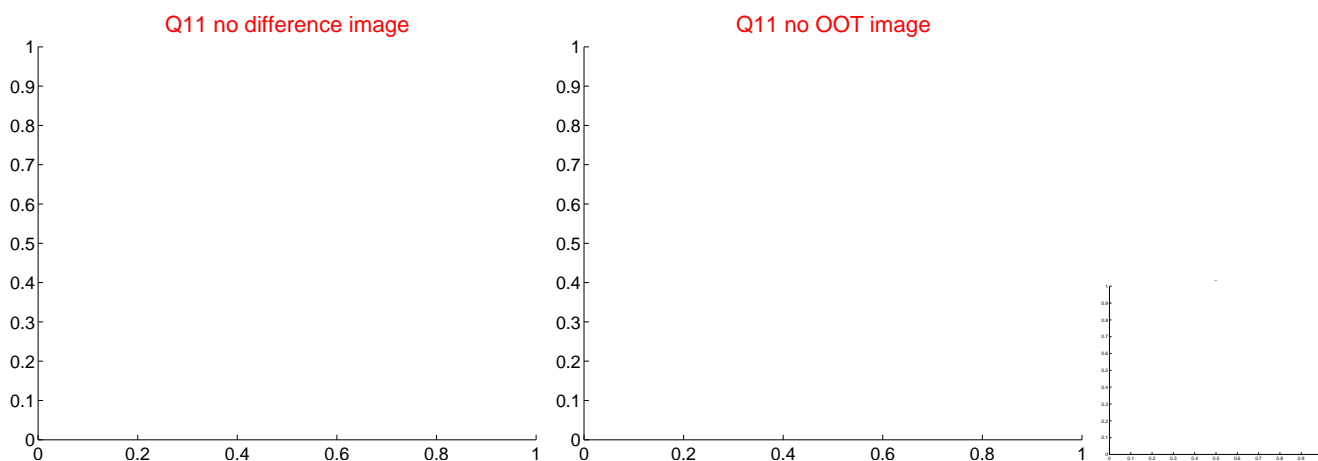
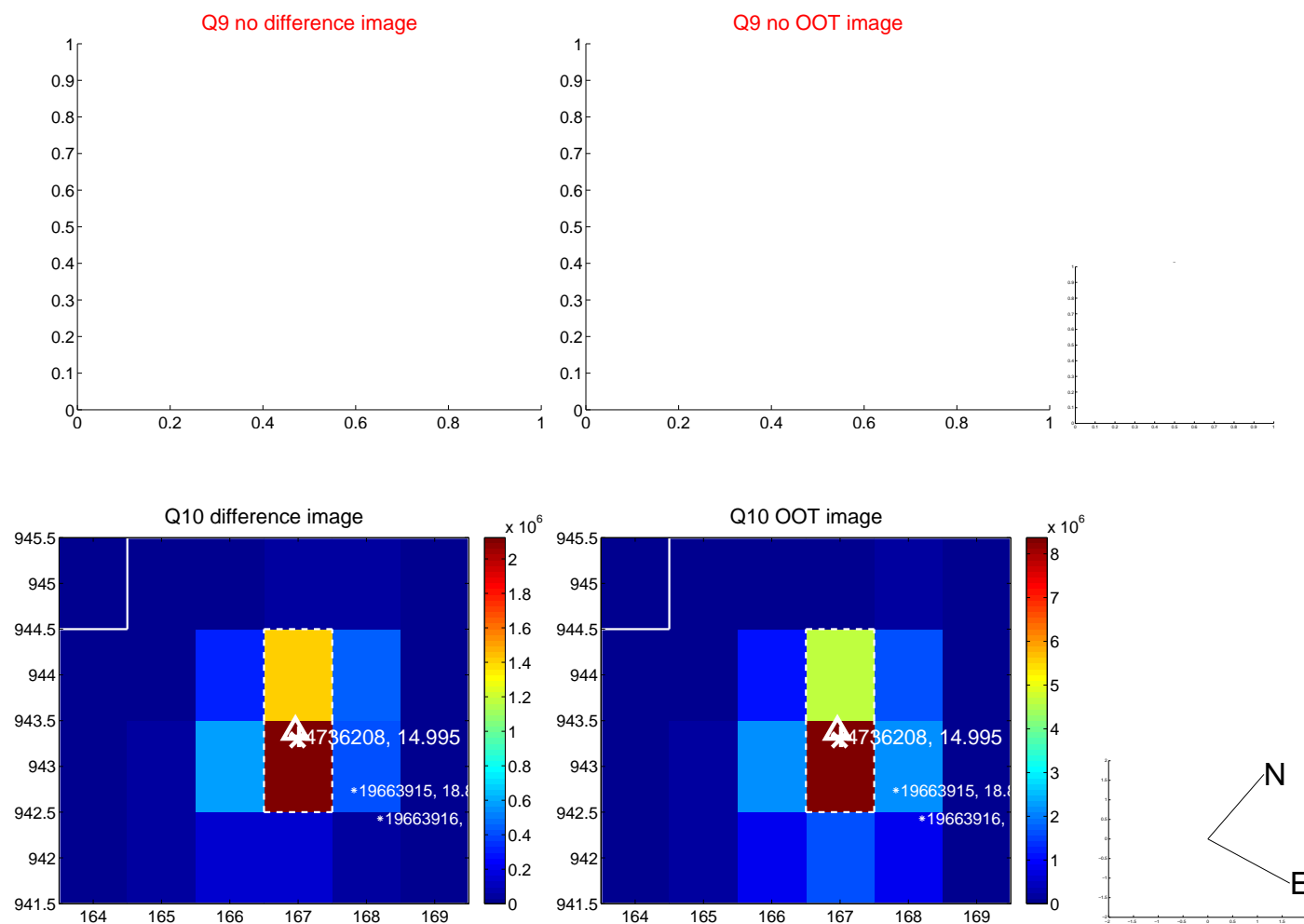
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



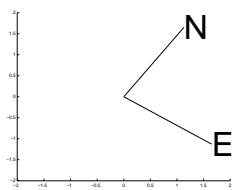
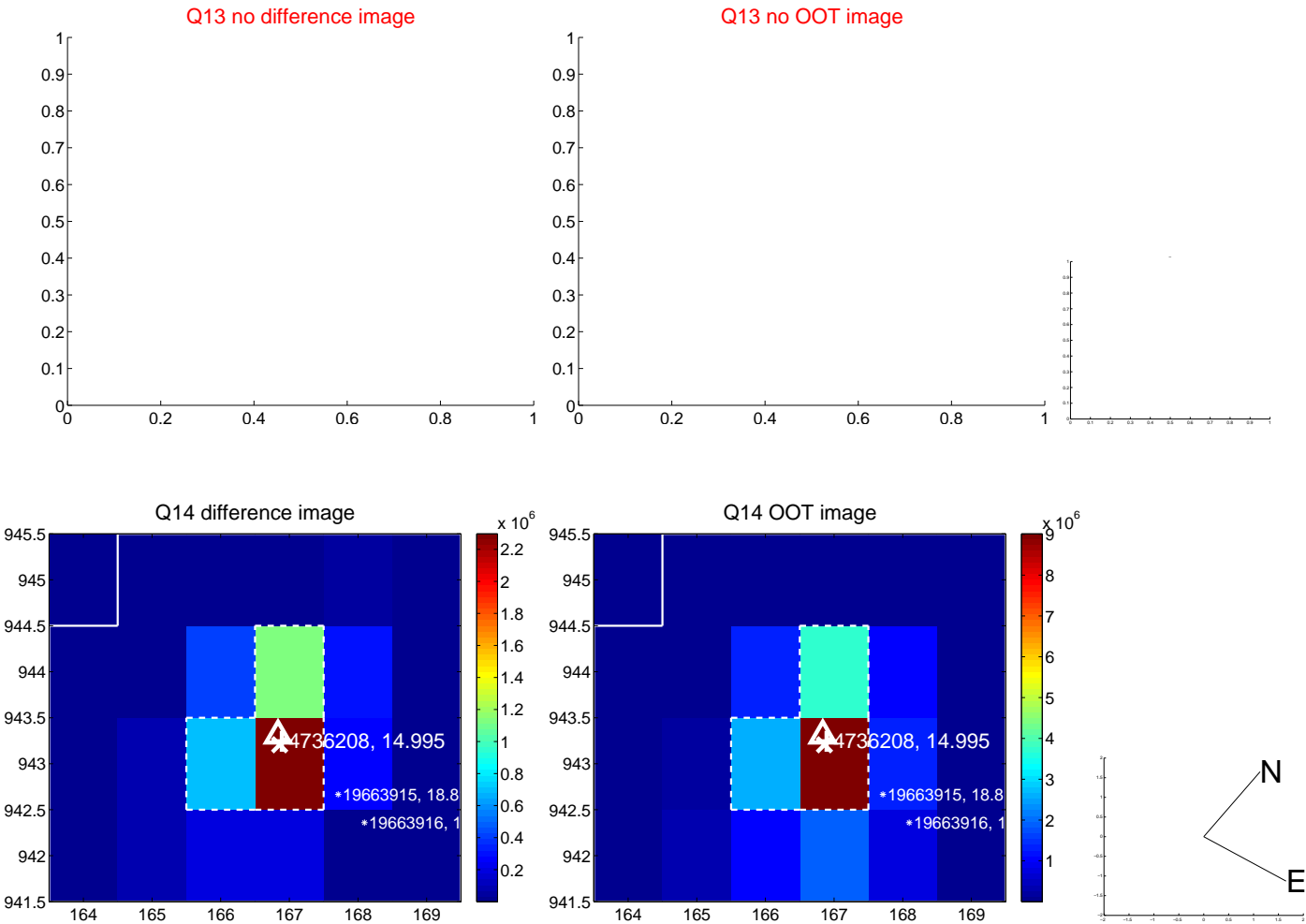
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



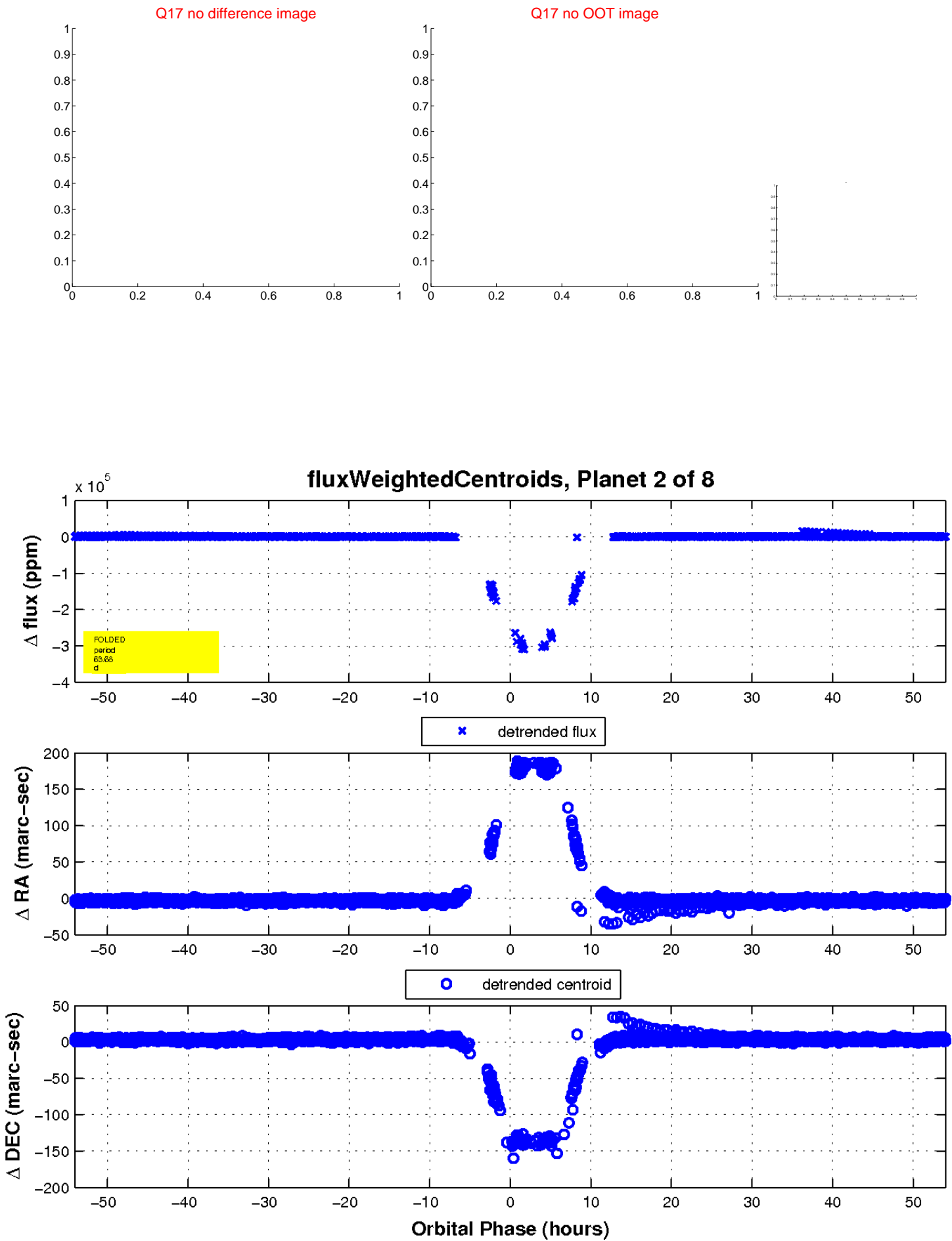
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

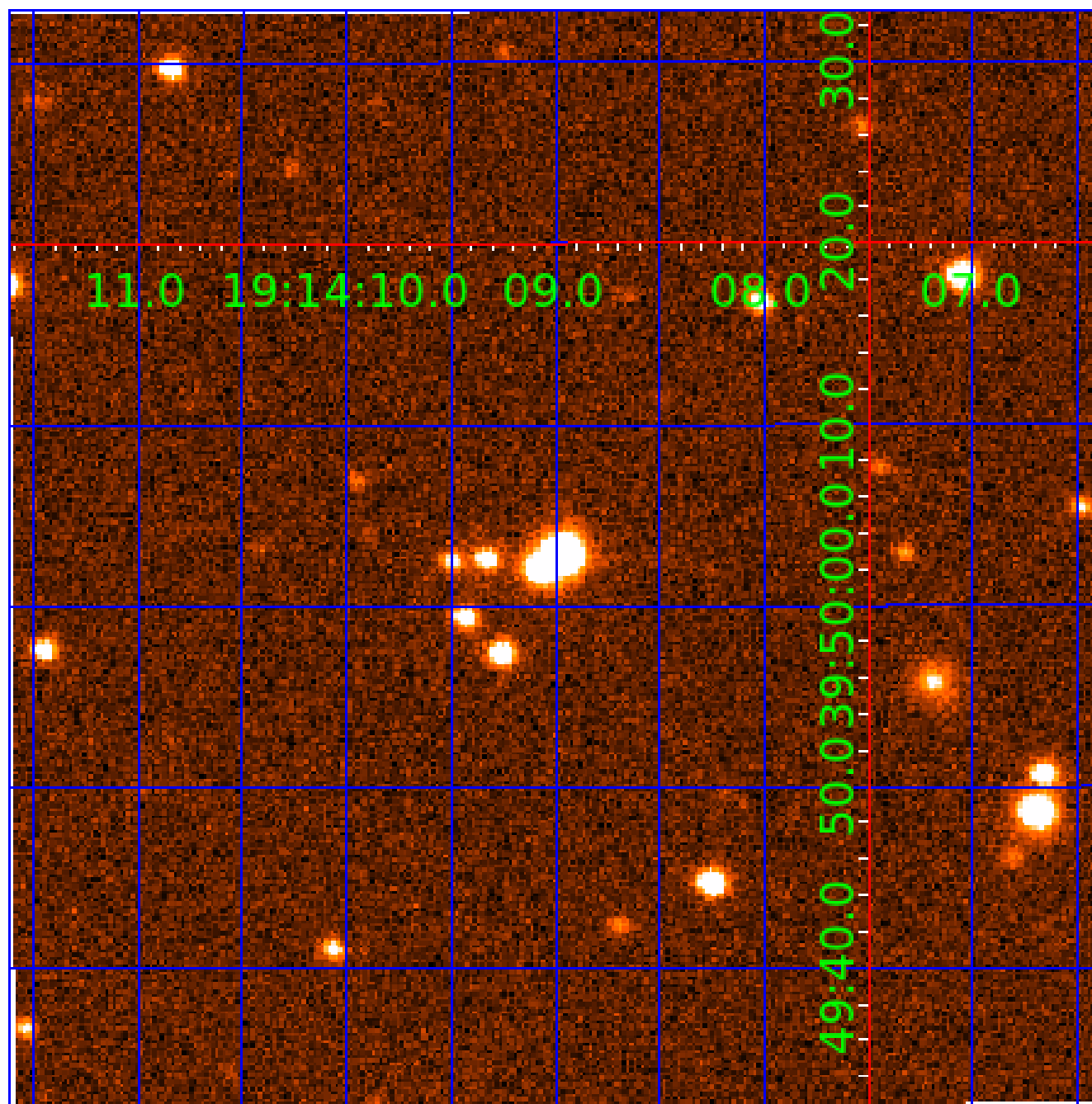


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004736208

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})
004736208-01	OBS	6439.01	63.681105	167.555794	355438.9	7.500	9944.7	-1.0	1.05	5979	57.51	13.18
004736208-02	OBS	No	63.680605	145.964332	321154.8	12.500	9480.5	-1.0	1.05	5979	53.91	13.18
004736208-03	OBS	No	222.739426	180.183734	4169.8	15.000	62.8	-1.0	1.05	5979	6.78	2.48
004736208-04	OBS	No	348.276408	173.311246	2161.7	15.000	46.9	-1.0	1.05	5979	4.88	1.37
004736208-06	OBS	No	213.769072	333.619336	6786.0	4.500	53.7	-1.0	1.05	5979	8.66	2.62
004736208-07	OBS	No	525.809988	340.461173	3904.5	9.000	47.7	-1.0	1.05	5979	6.57	0.79
004736208-08	OBS	No	424.262006	147.970226	3427.7	9.000	43.1	-1.0	1.05	5979	6.15	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004736208-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
004736208-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
004736208-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—CENT_NOFITS
004736208-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
004736208-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

Ephemeris Match Information For 004736208-03

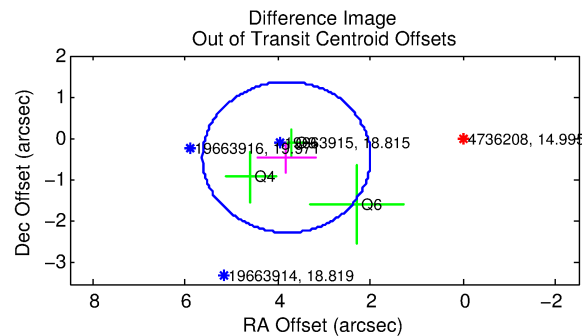
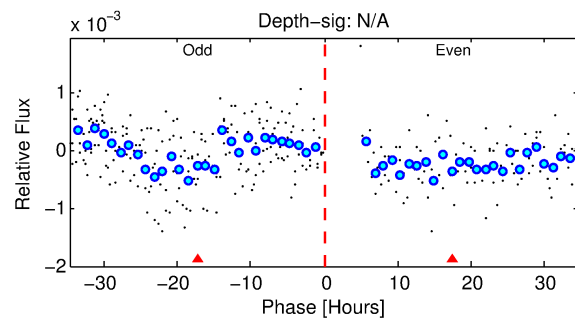
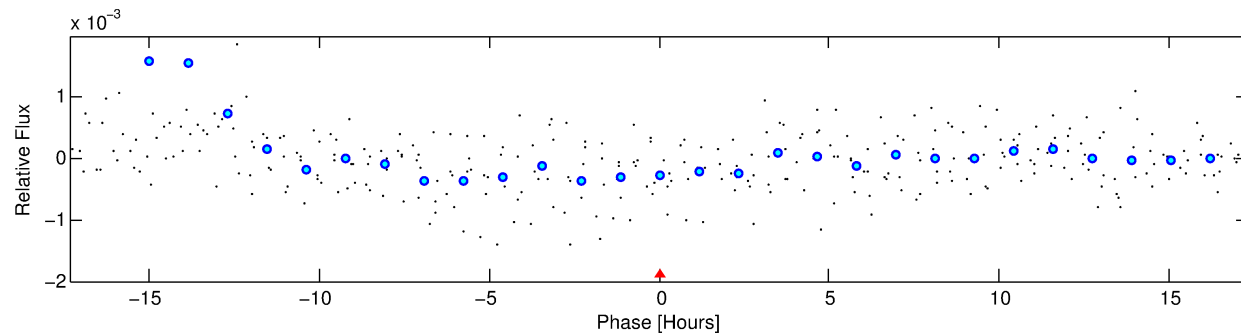
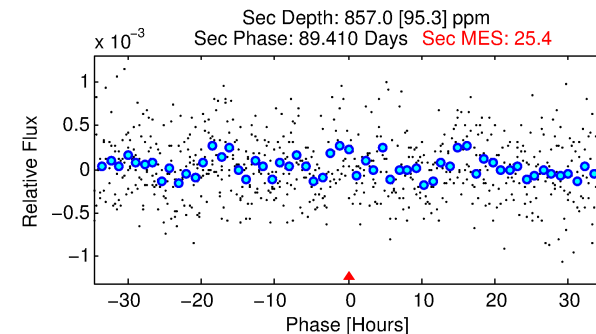
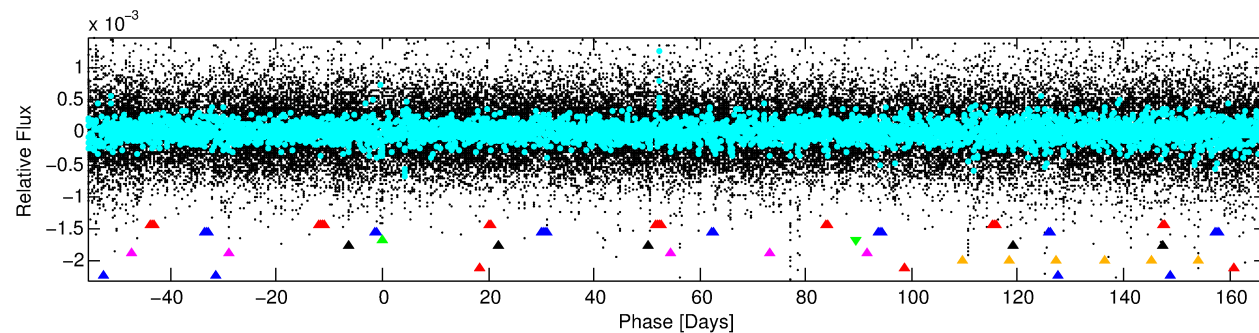
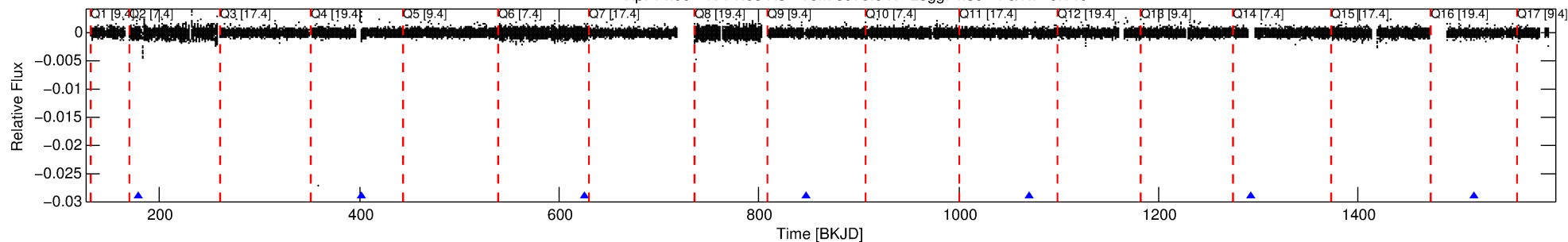
No Significant Match Found

DV One-Page Summary

KIC: 4736208 Candidate: 3 of 8 Period: 222.739 d

KOI: K06439 Corr: No Ephemeris Match

Kp: 14.99 R*: 1.05 Rs Teff: 5979.0 K Logg: 4.39 Fe/H: -0.140



TPS TCE Results:

Period = 222.73943 d

Epoch = 180.1837 BKJD

DV fit results are unavailable

DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.75 σ]

LongPeriod-sig: 100.0% [64.28 σ]

ModelChiSquare2-sig: N/A

ModelChiSquareGof-sig: N/A

Bootstrap-pfa: N/A

RollingBand-fgt: 1.00 [5/5]

GhostDiagnostic-chr: -0.6513

Centroid-sig: N/A

Centroid-so: 8.354 arcsec [0.49 σ]

OotOffset-rm: 3.840 arcsec [6.35 σ]

KicOffset-rm: 3.876 arcsec [8.39 σ]

OotOffset-st: 1/0/1/1 [3]

KicOffset-st: 1/0/1/1 [3]

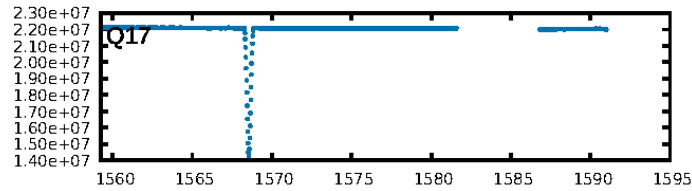
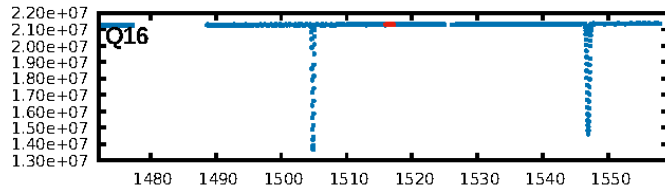
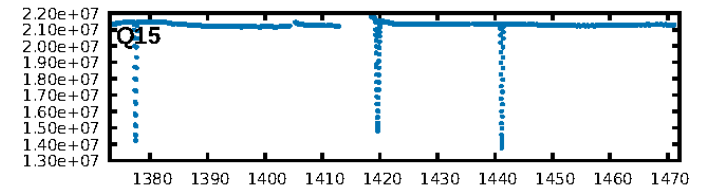
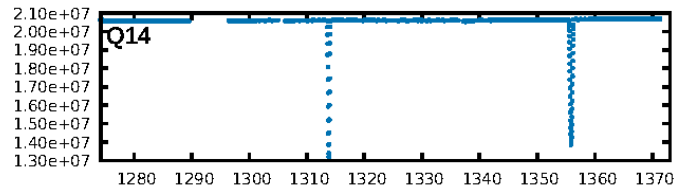
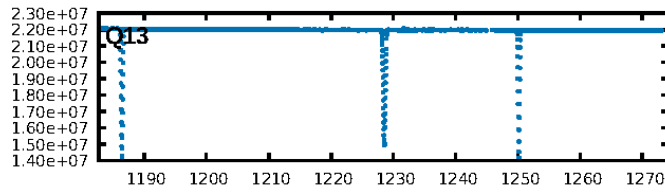
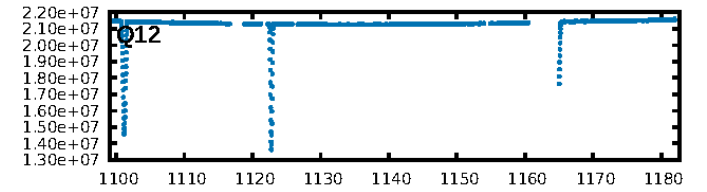
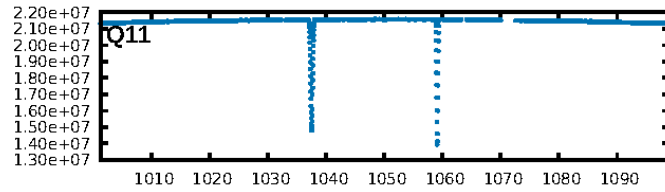
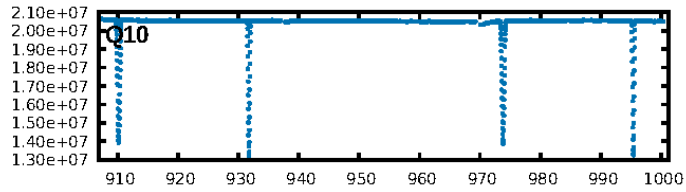
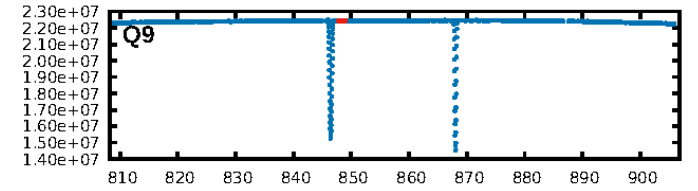
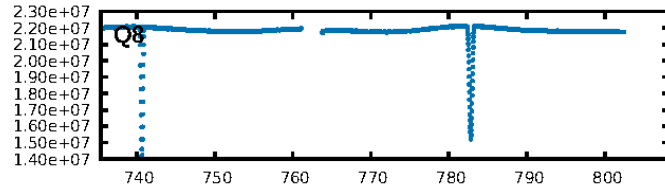
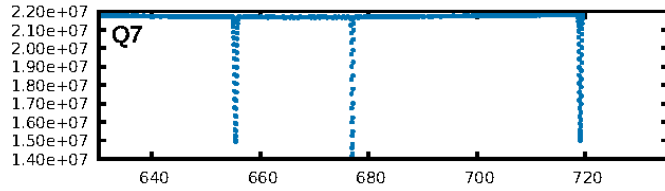
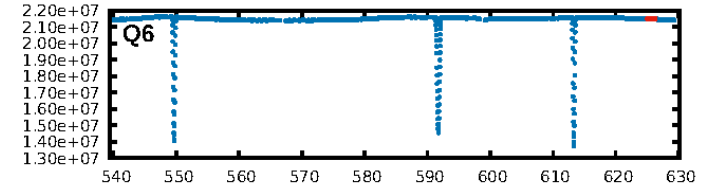
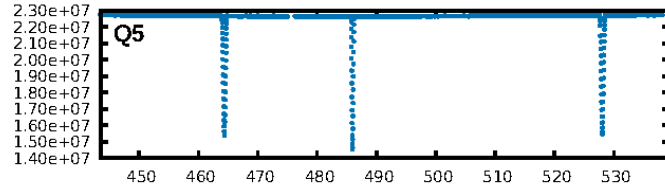
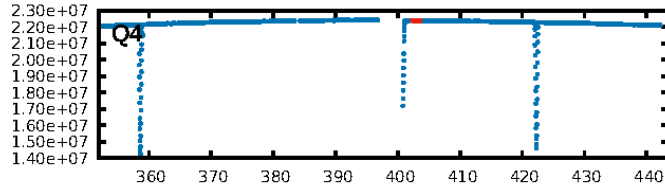
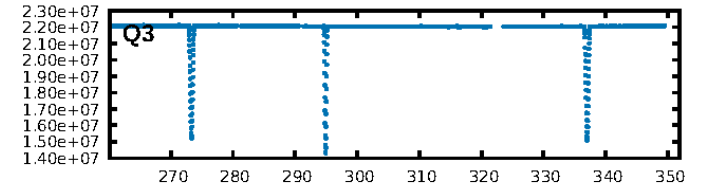
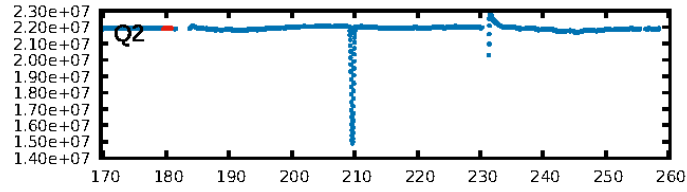
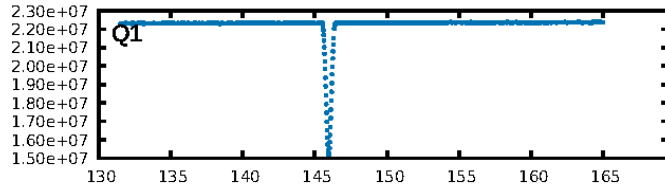
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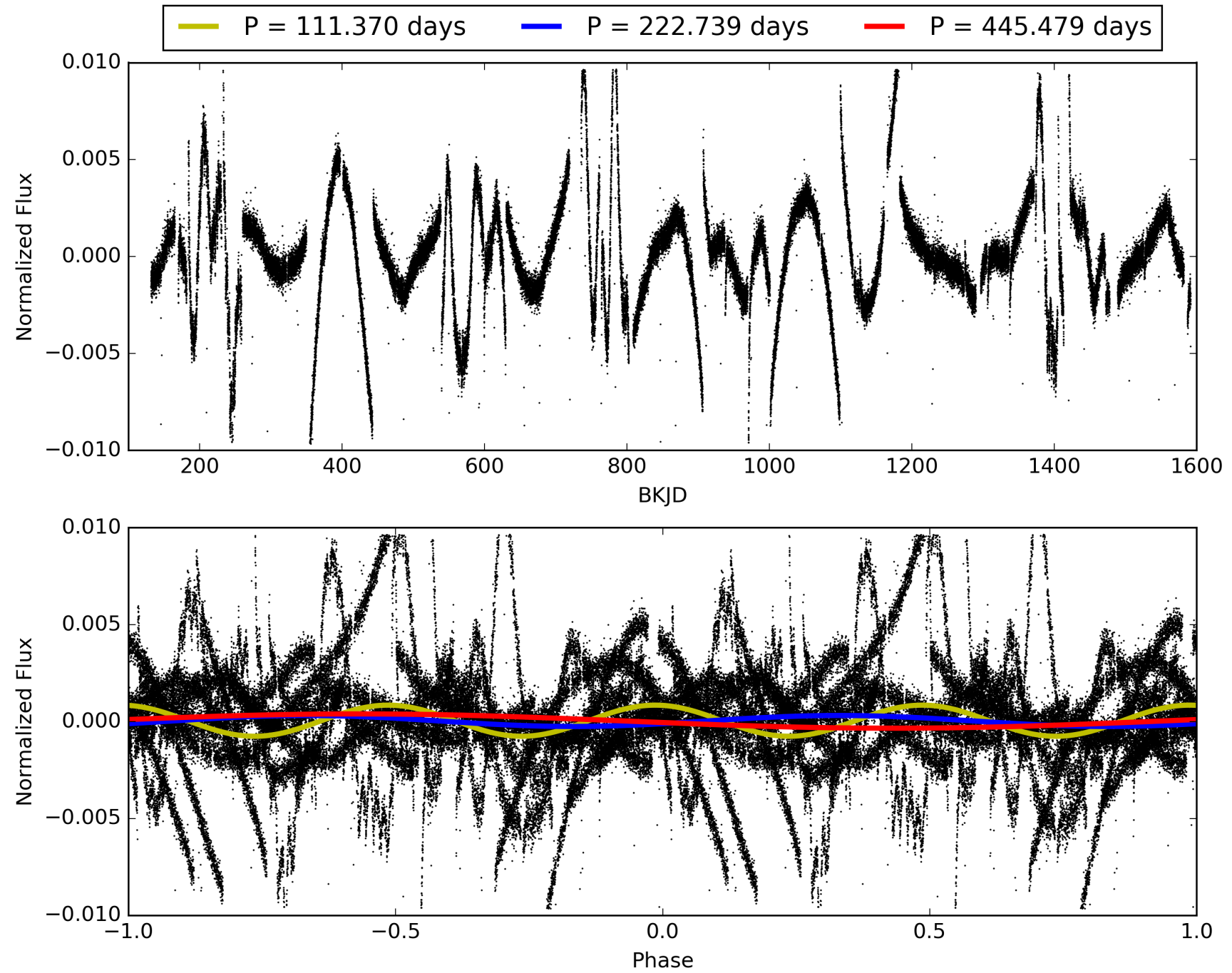
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:57:48 Z

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

TCE 004736208-03, PDC Light Curves

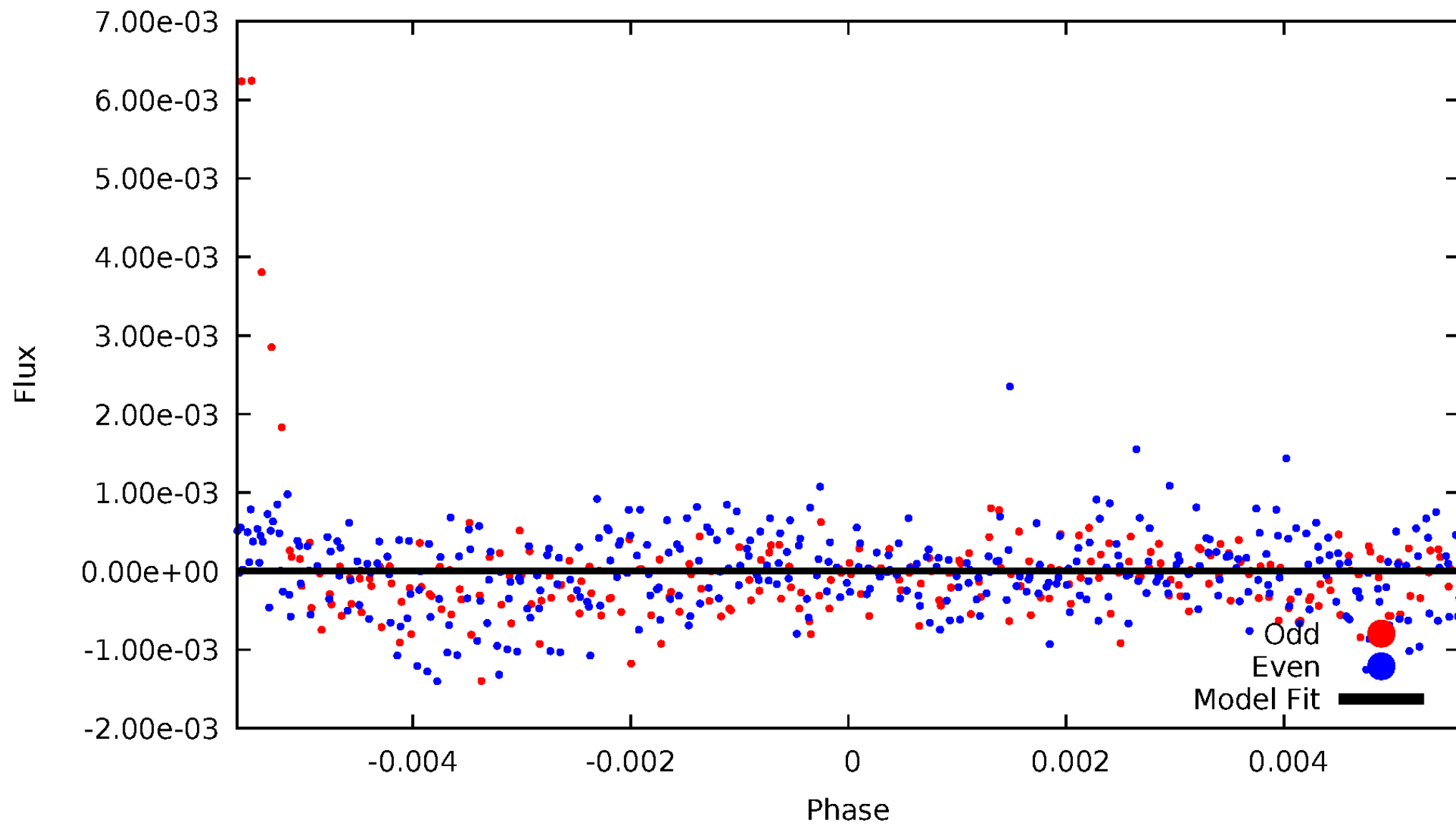


TCE 004736208-03



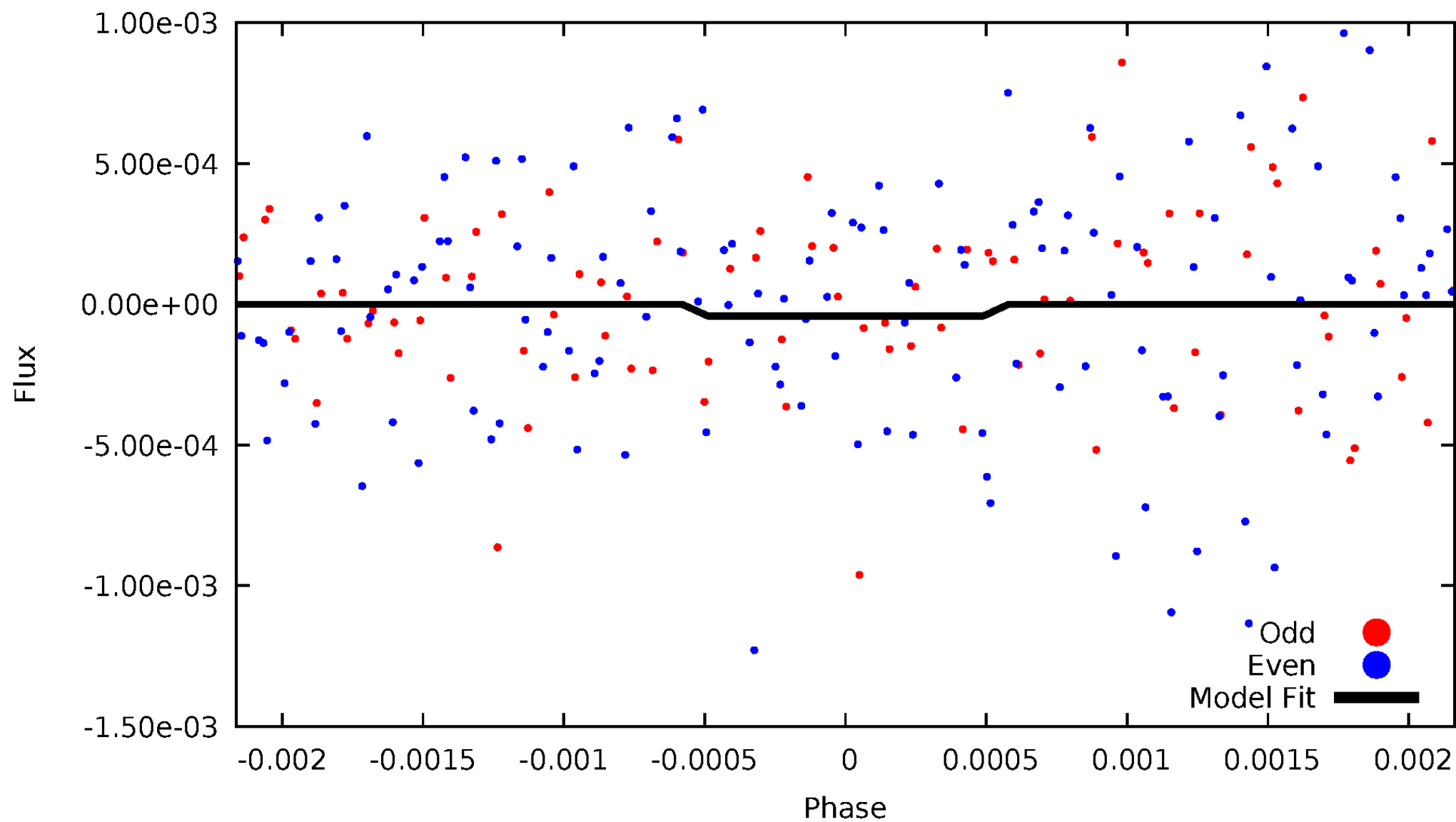
DV Odd/Even

TCE 004736208-03



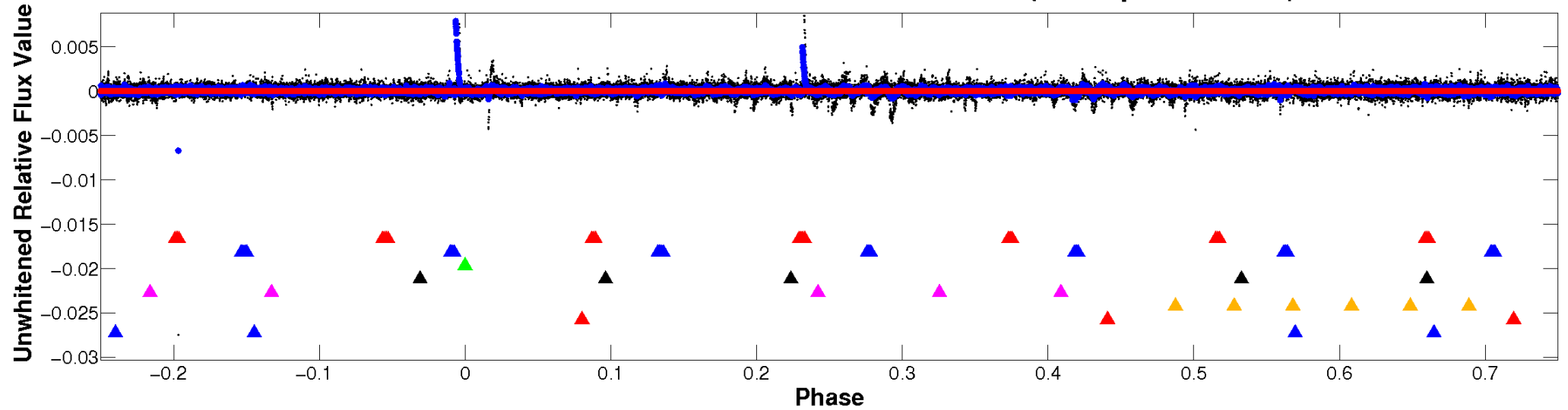
ALT Odd/Even

TCE 004736208-03



Non-Whitened Vs. Whitened Light Curve

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

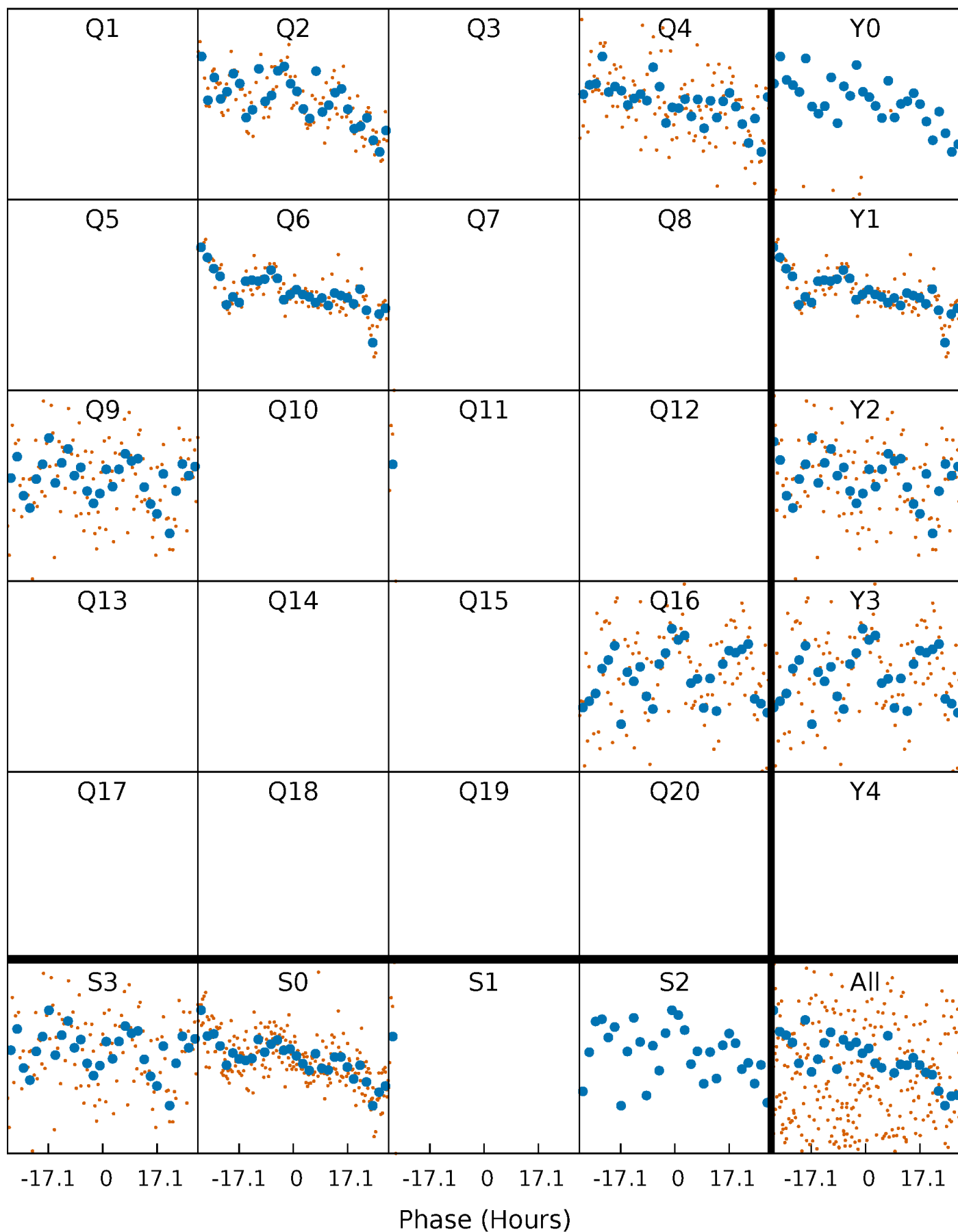


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



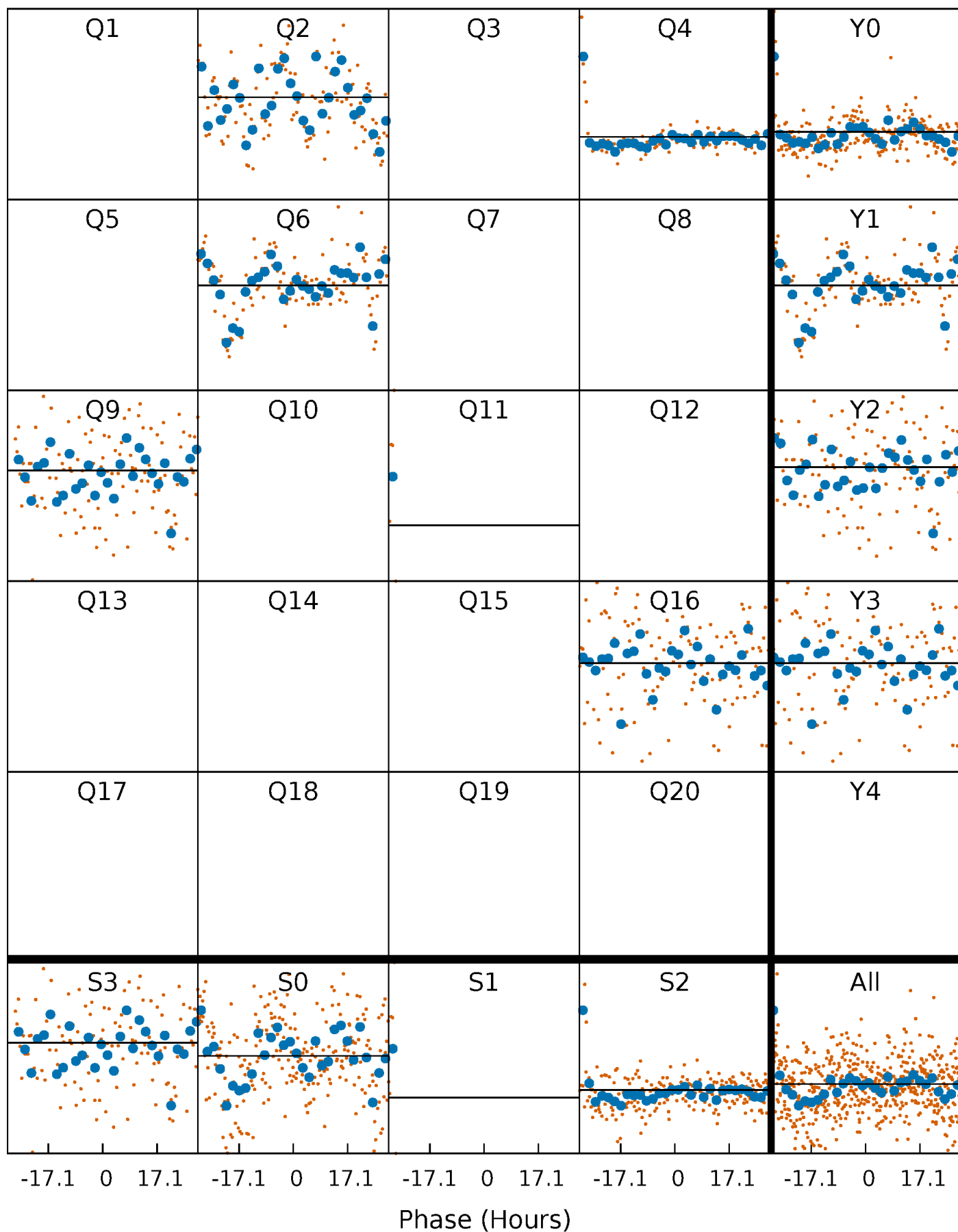
PDC Quarter-Phased Transit Curves

TCE 004736208-03 $P=222.739426$ Days $T_0=180.183734$ (BKJD)



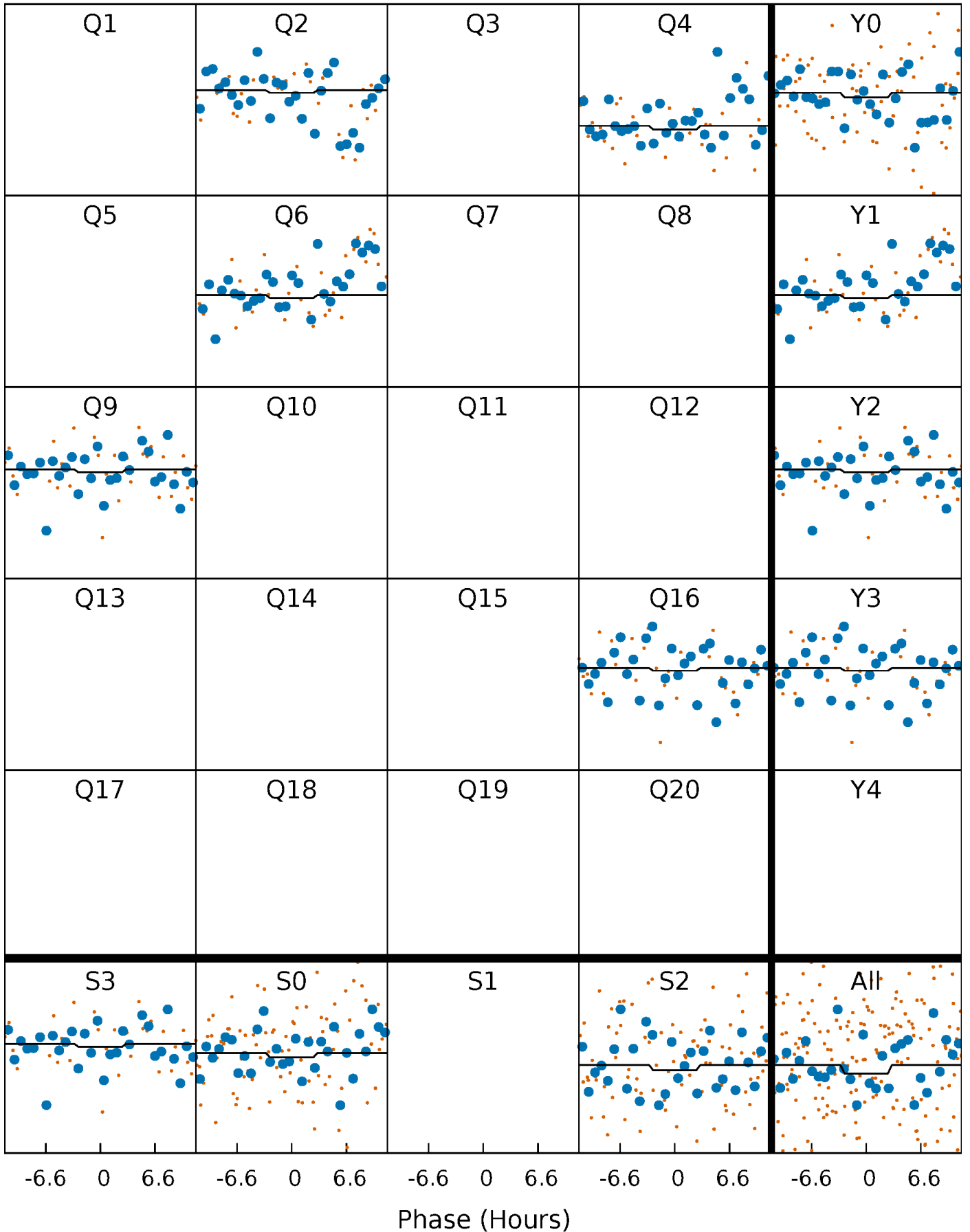
DV Quarter-Phased Transit Curves

TCE 004736208-03 $P=222.739426$ Days $T_0=180.183734$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

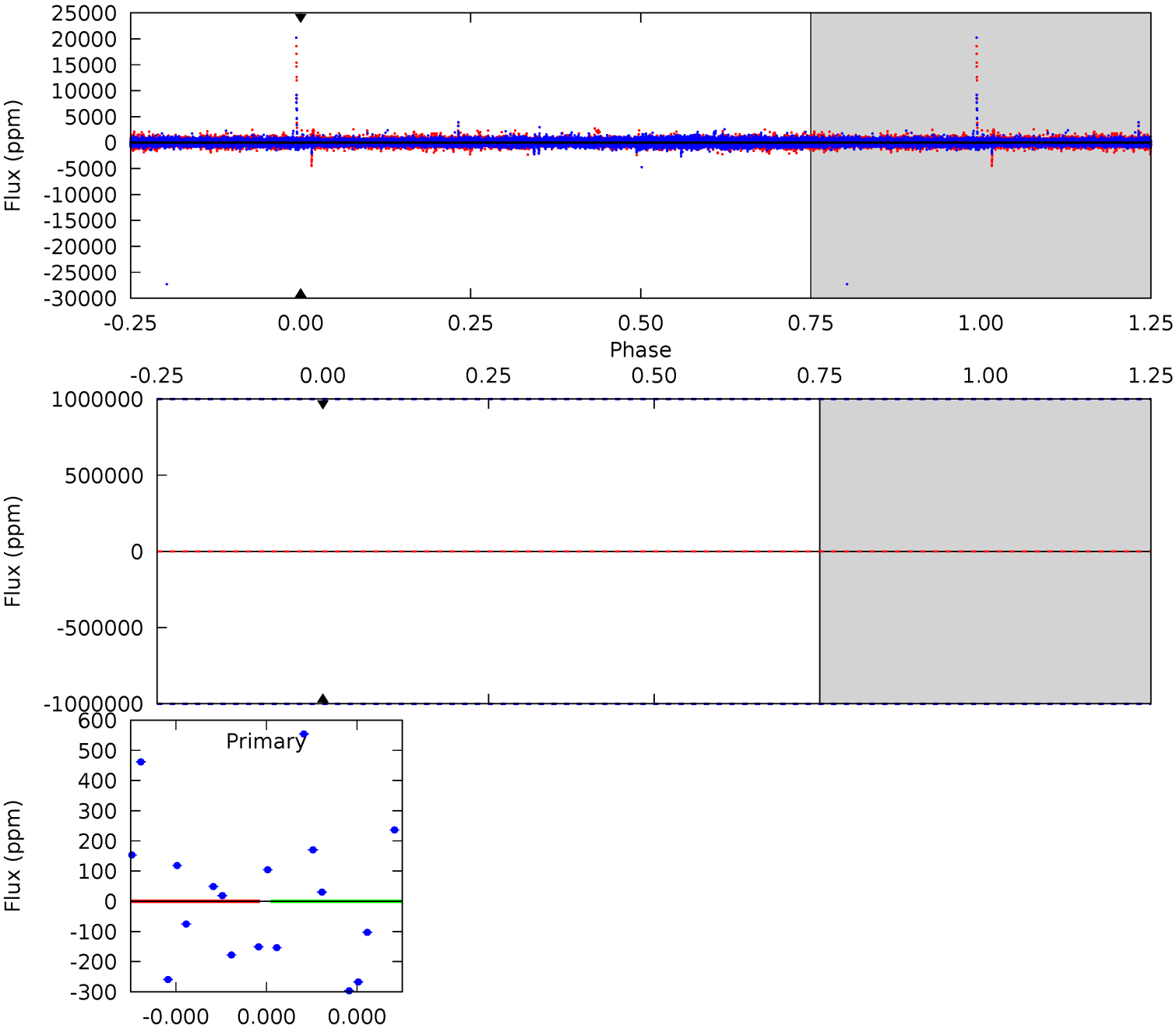
TCE 004736208-03 P=222.739426 Days $T_0=179.541201$ (BKJD)



DV Model-Shift Uniqueness Test

004736208-03, P = 222.739426 Days, E = 180.183734 Days

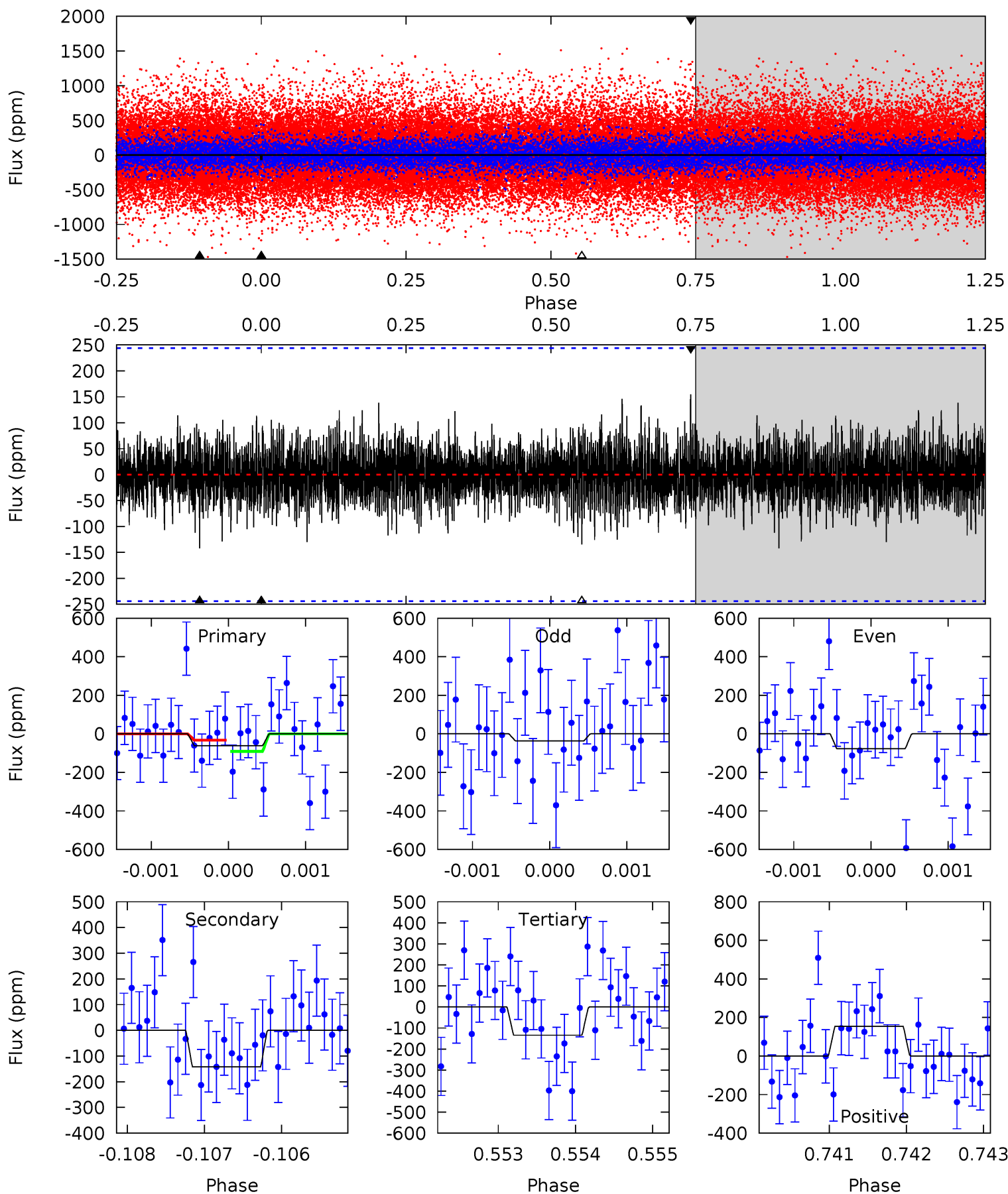
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004736208-03, P = 222.739426 Days, E = 179.541201 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.36	3.16	3.00	3.44	5.43	3.26	0.83	-1.63	-2.07	0.16	-0.28	0.33	0.92	0.52	0.64



Stellar Parameters For KIC 004736208

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5979^{+179}_{-197}	$4.386^{+0.108}_{-0.201}$	$-0.140^{+0.300}_{-0.300}$	$1.054^{+0.315}_{-0.170}$	$0.986^{+0.145}_{-0.119}$	$1.187^{+0.575}_{-0.584}$
	+3%/-3%	+2%/-5%	+214%/-214%	+30%/-16%	+15%/-12%	+48%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004736208-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$11.57^{+10.48}_{-8.11}$	452^{+35}_{-25}	4362^{+12660}_{-19385}	$3947^{+405484}_{-315583}$
Alt.	-142 ± 45	$8.03^{+9.45}_{-5.69}$	452^{+34}_{-27}	3074^{+1553}_{-571}	591^{+5833}_{-478}

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 $A_{obs} \gg 1.0$

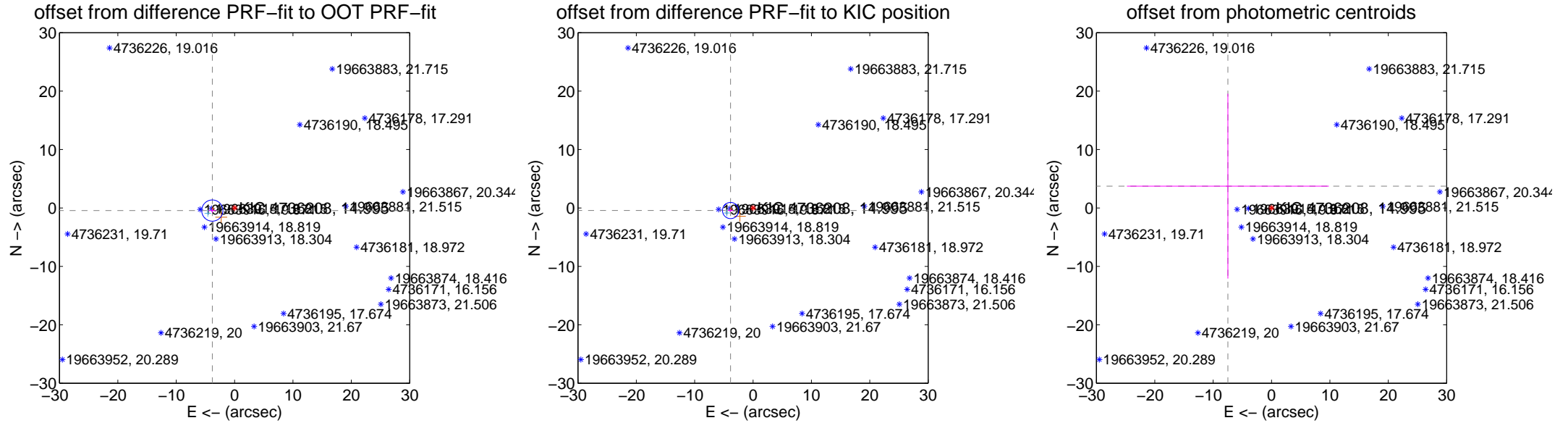
DV Centroid Data

Supplemental centroid analysis for 004736208-03. Kepler magnitude: 14.99. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

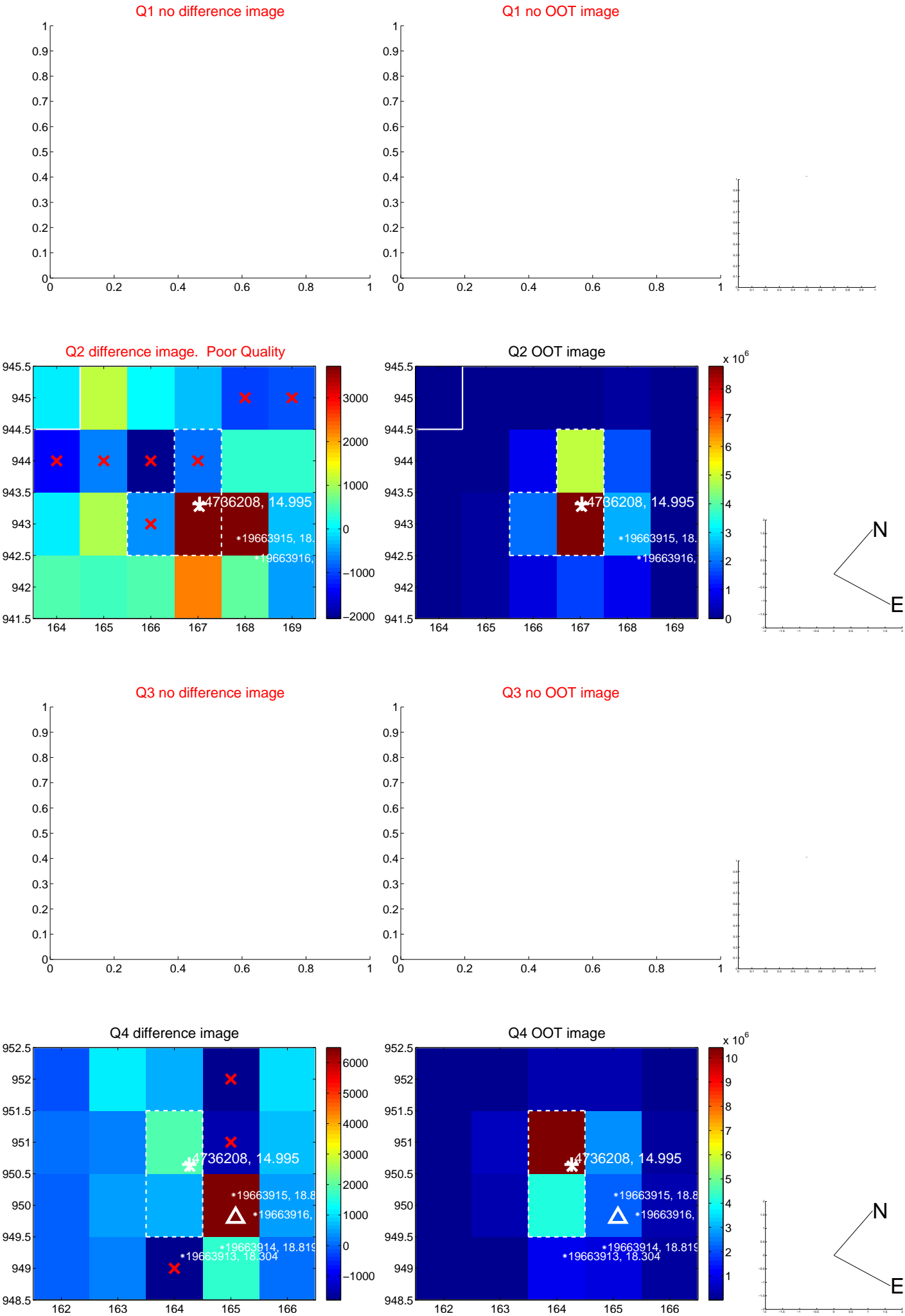
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.840 ± 0.605	6.35	3.814 ± 0.627	-0.447 ± 0.355
PRF-fit source offset from KIC position	3.876 ± 0.462	8.39	3.851 ± 0.459	-0.440 ± 0.248
photometric centroid source offset	8.35 ± 17.01	0.49	7.48 ± 17.30	3.73 ± 15.81

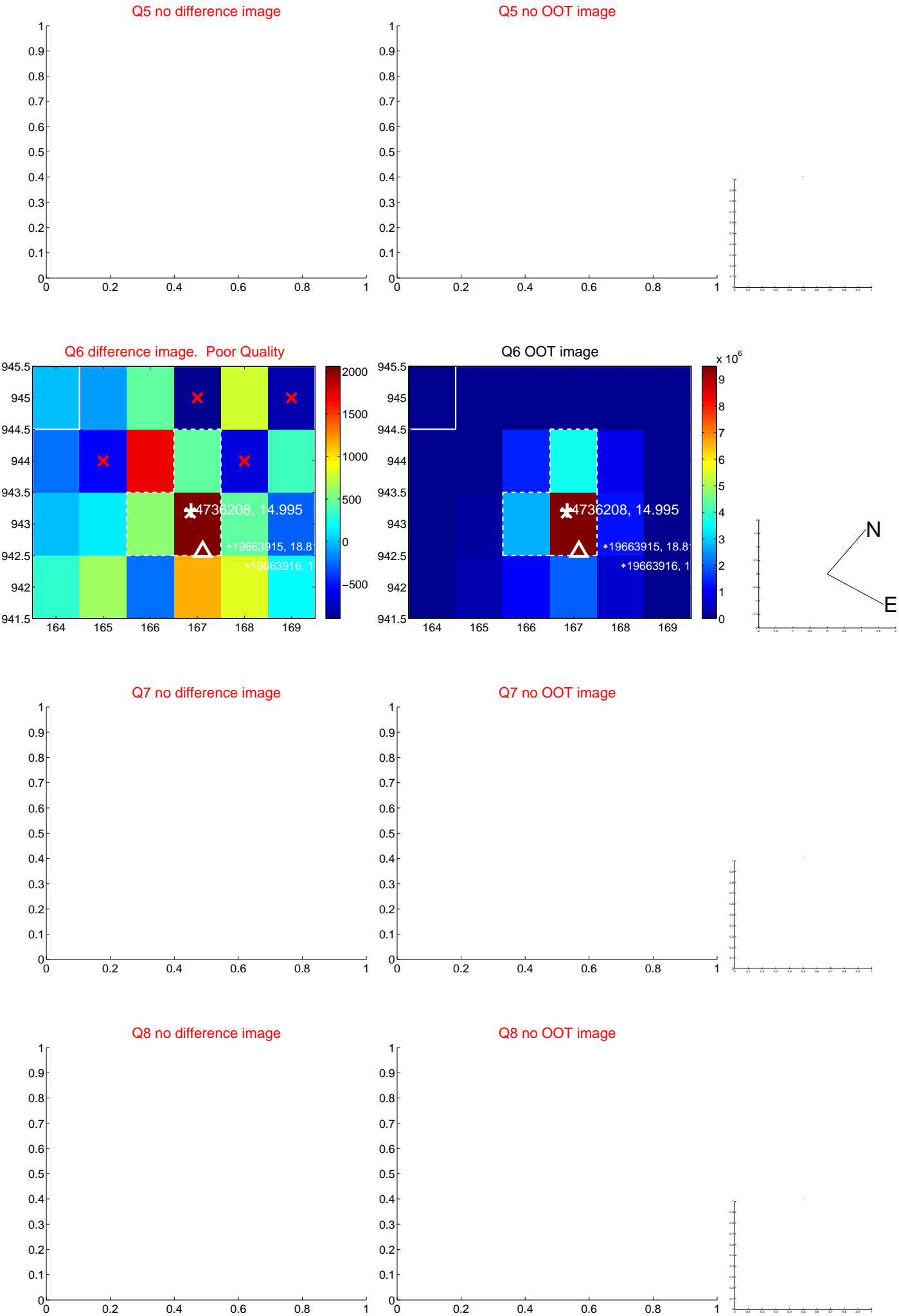


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

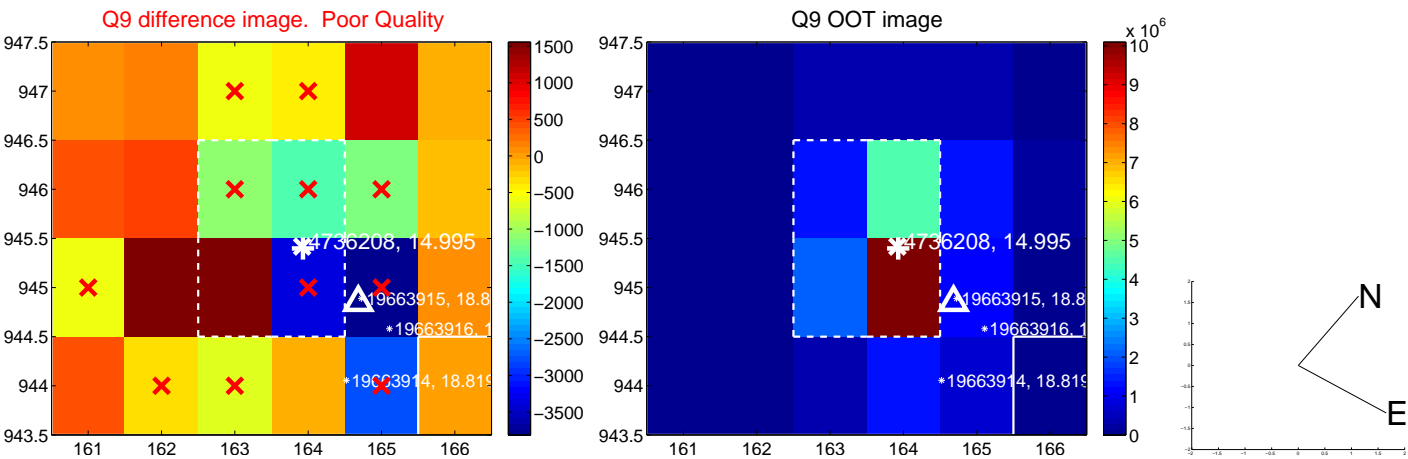
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



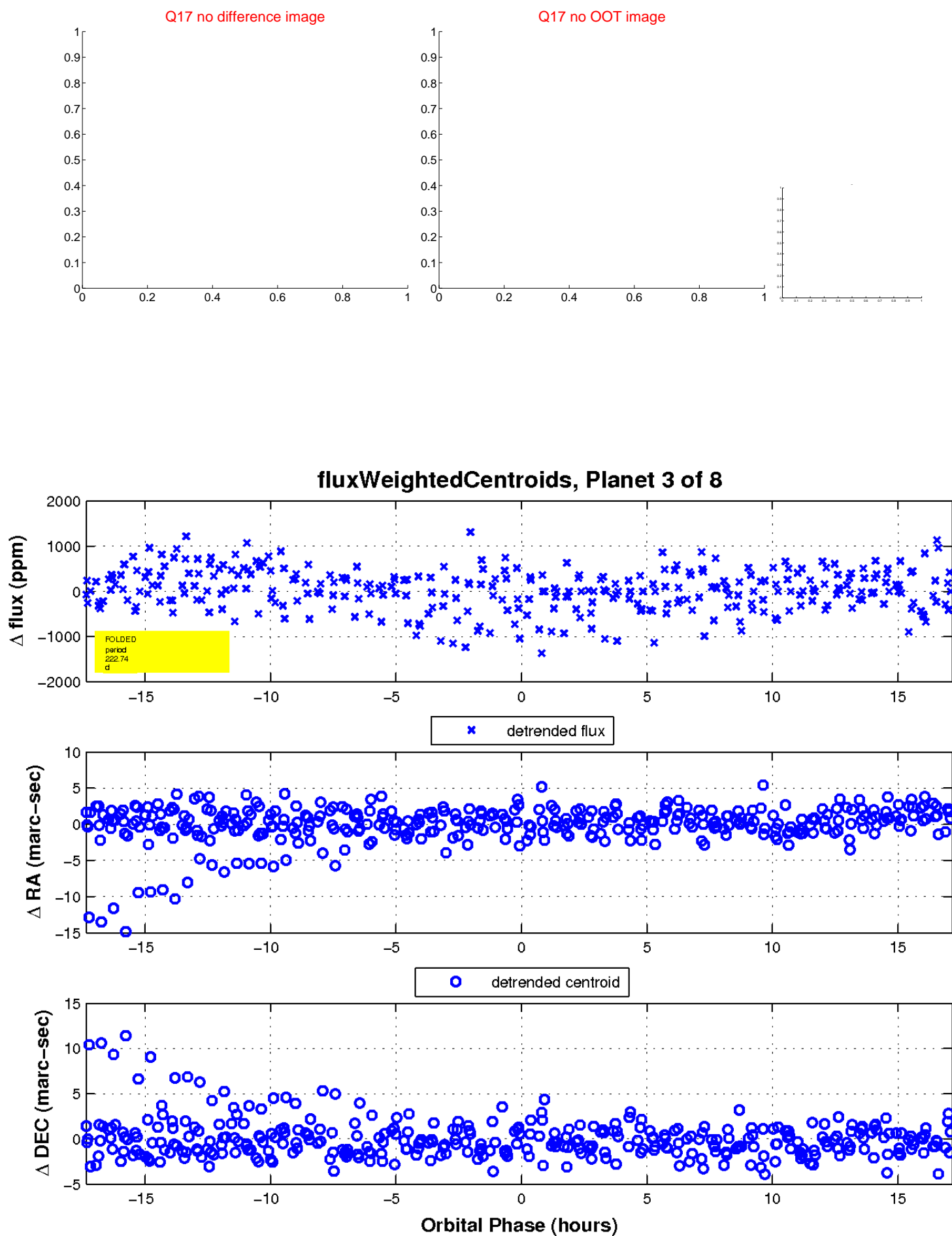
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

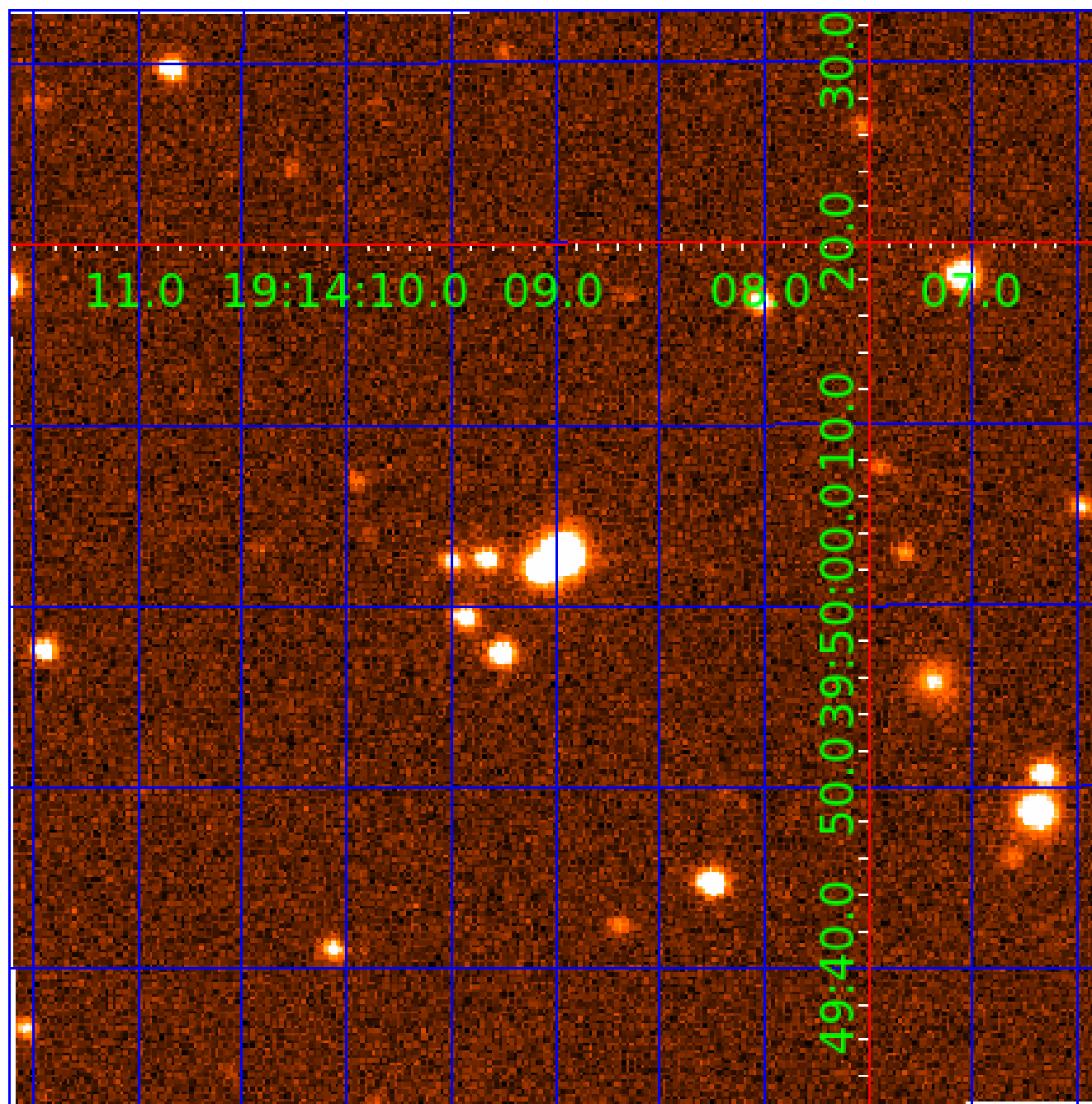


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004736208

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})
004736208-01	OBS	6439.01	63.681105	167.555794	355438.9	7.500	9944.7	-1.0	1.05	5979	57.51	13.18
004736208-02	OBS	No	63.680605	145.964332	321154.8	12.500	9480.5	-1.0	1.05	5979	53.91	13.18
004736208-03	OBS	No	222.739426	180.183734	4169.8	15.000	62.8	-1.0	1.05	5979	6.78	2.48
004736208-04	OBS	No	348.276408	173.311246	2161.7	15.000	46.9	-1.0	1.05	5979	4.88	1.37
004736208-06	OBS	No	213.769072	333.619336	6786.0	4.500	53.7	-1.0	1.05	5979	8.66	2.62
004736208-07	OBS	No	525.809988	340.461173	3904.5	9.000	47.7	-1.0	1.05	5979	6.57	0.79
004736208-08	OBS	No	424.262006	147.970226	3427.7	9.000	43.1	-1.0	1.05	5979	6.15	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004736208-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
004736208-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
004736208-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—CENT_NOFITS
004736208-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
004736208-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

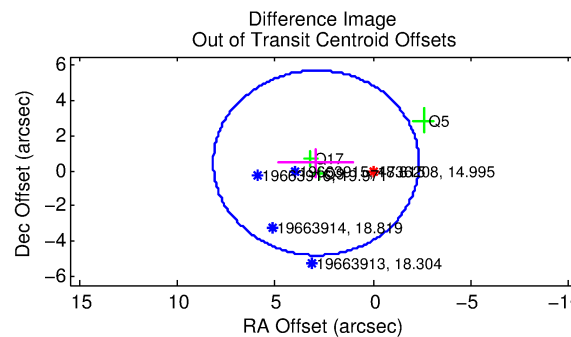
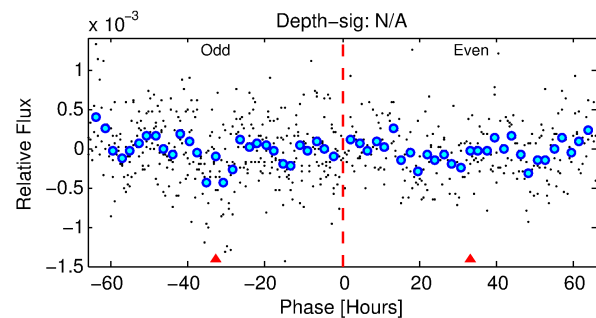
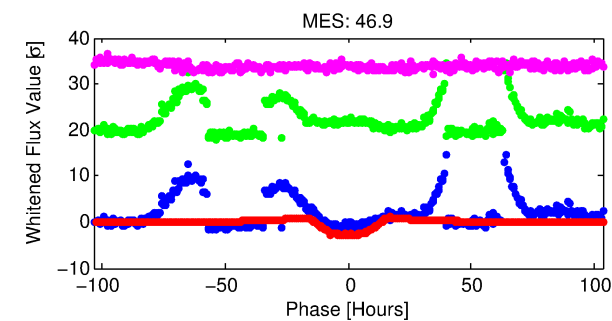
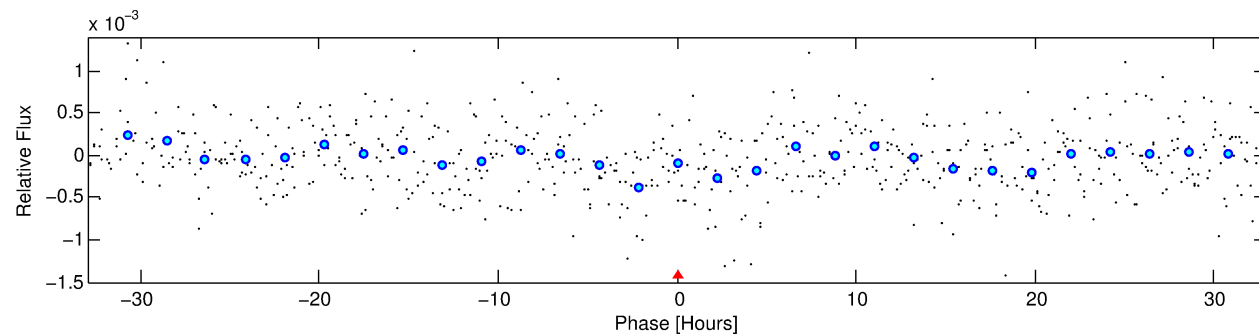
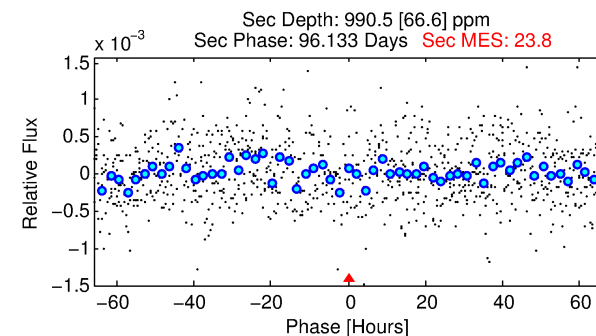
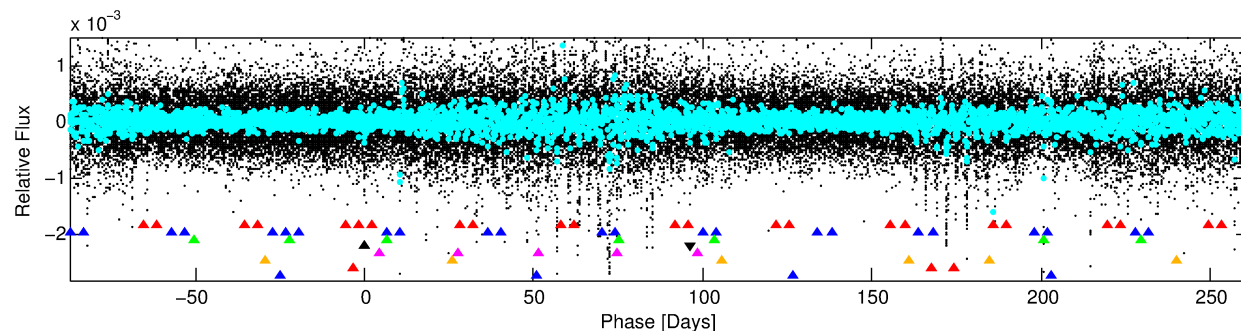
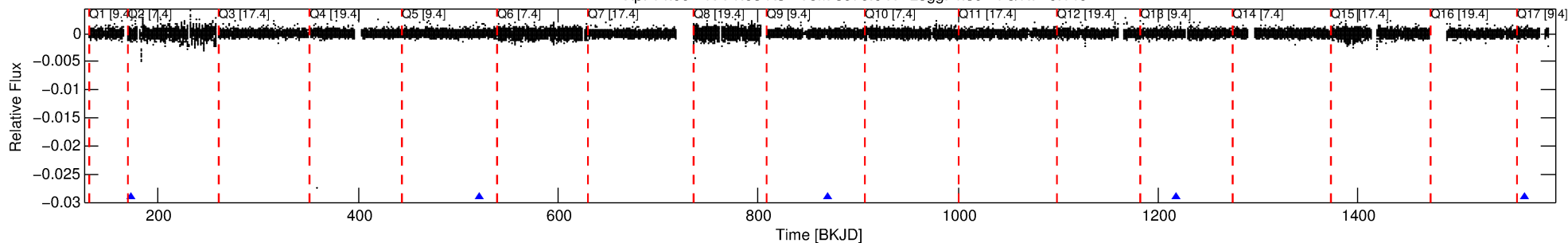
Ephemeris Match Information For 004736208-04

No Significant Match Found

DV One-Page Summary

KIC: 4736208 Candidate: 4 of 8 Period: 348.276 d
KOI: K06439 Corr: No Ephemeris Match

Kp: 14.99 R*: 1.05 Rs Teff: 5979.0 K Logg: 4.39 Fe/H: -0.140



TPS TCE Results:

Period = 348.27641 d
Epoch = 173.3112 BKJD

DV fit results are unavailable

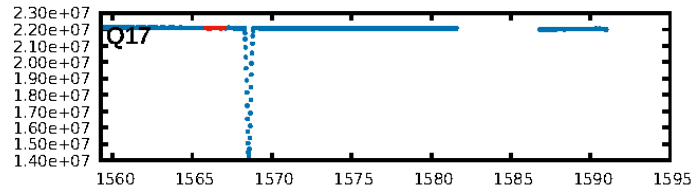
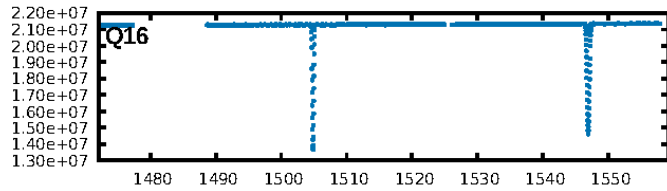
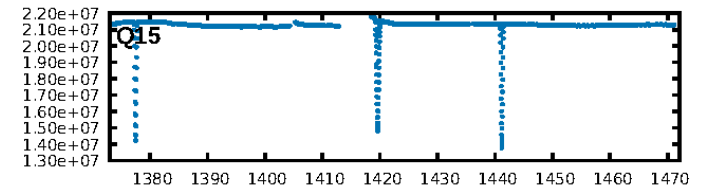
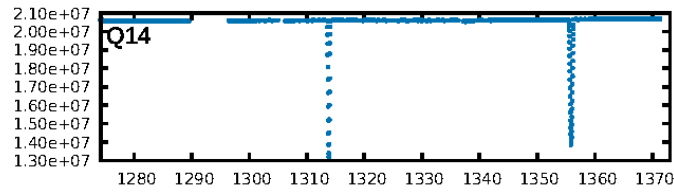
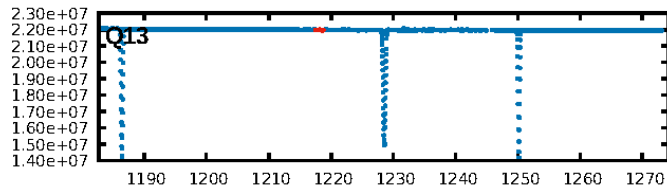
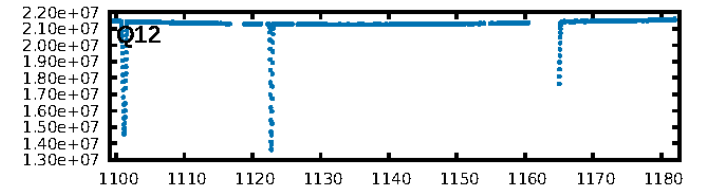
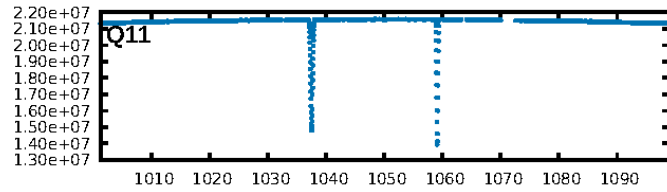
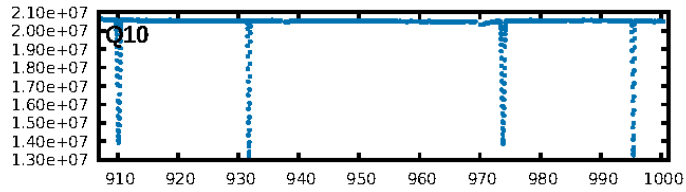
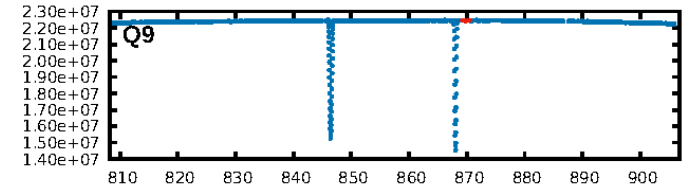
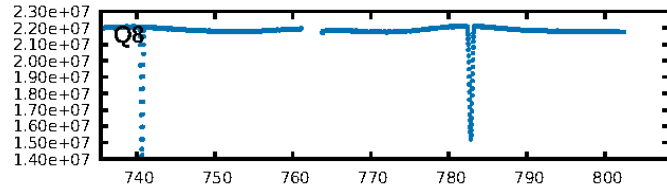
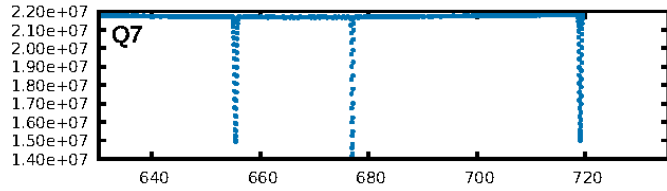
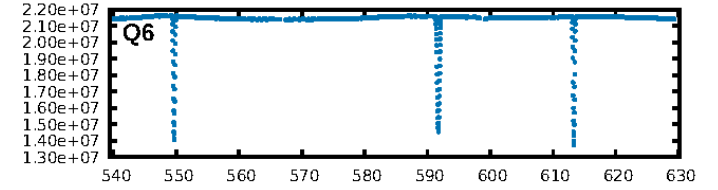
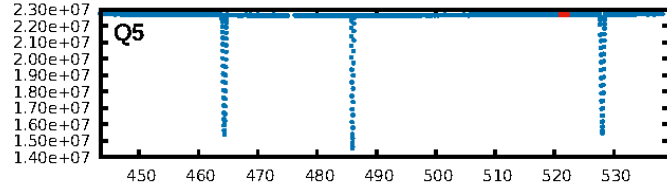
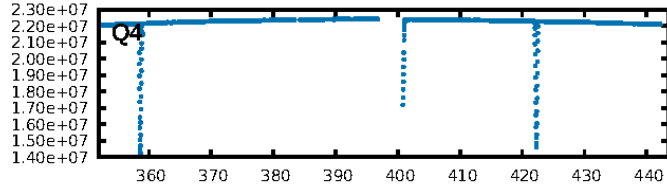
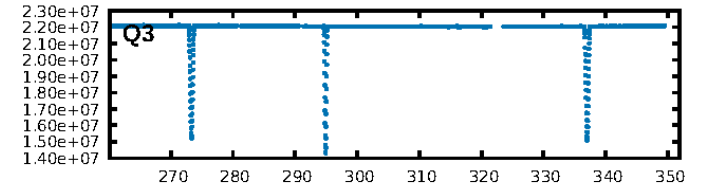
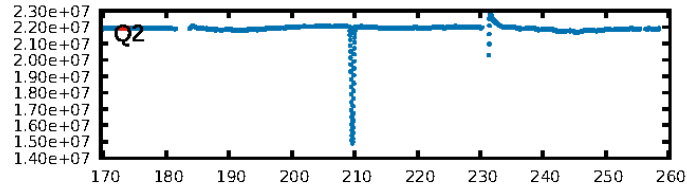
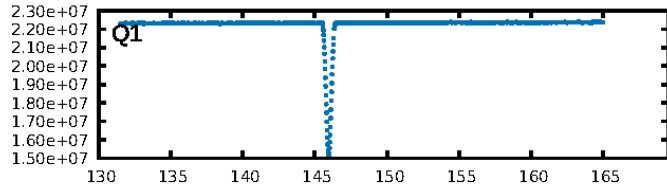
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [14.77 σ]
LongPeriod-sig: 100.0% [104.25 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.06
Centroid-sig: N/A
Centroid-so: 1.819 arcsec [1.43 σ]
OotOffset-rm: 2.942 arcsec [1.68 σ]
KicOffset-rm: 3.032 arcsec [2.46 σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
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DiffImageOverlap-fno: 1.00 [4/4]

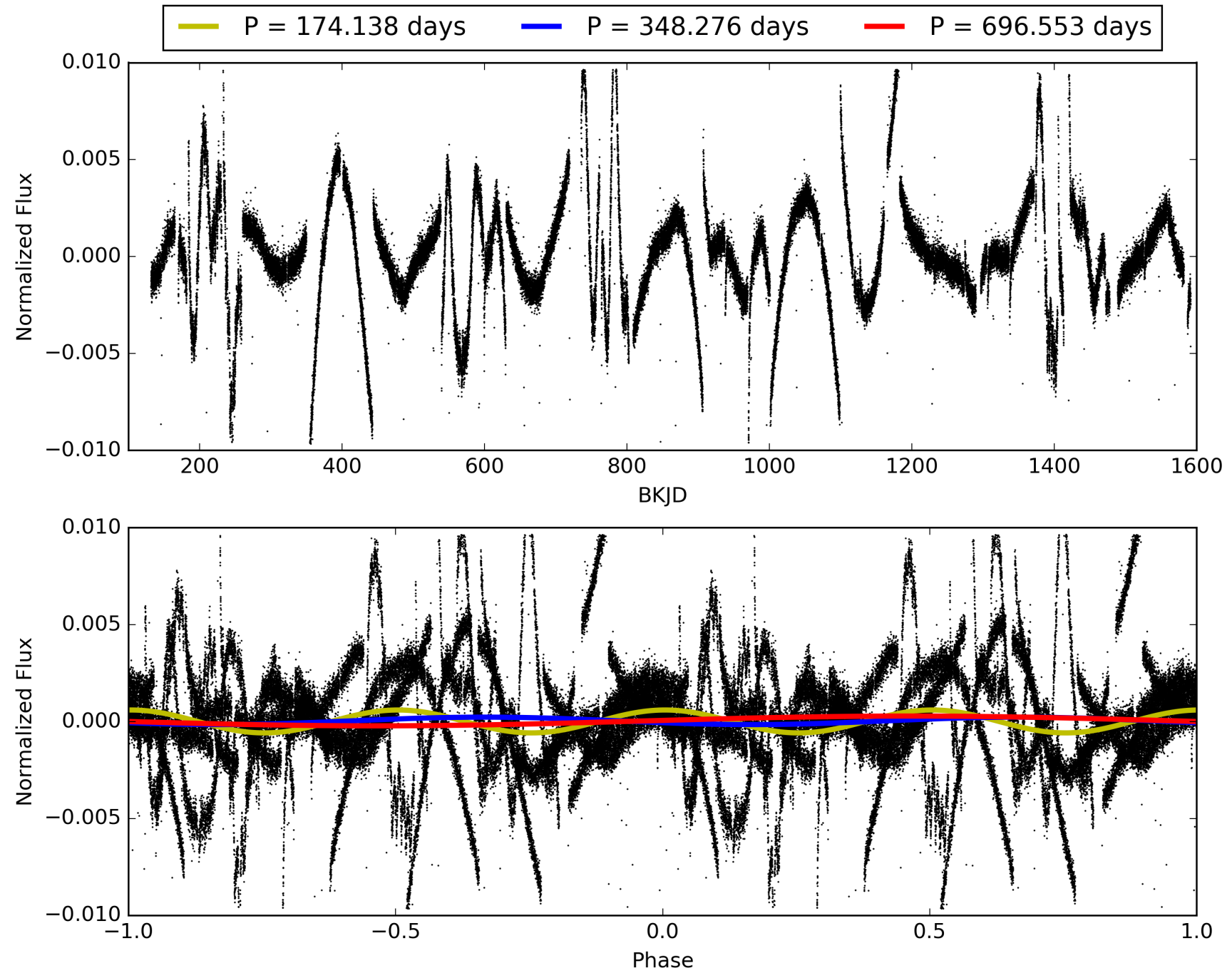
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:57:57 Z

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

TCE 004736208-04, PDC Light Curves

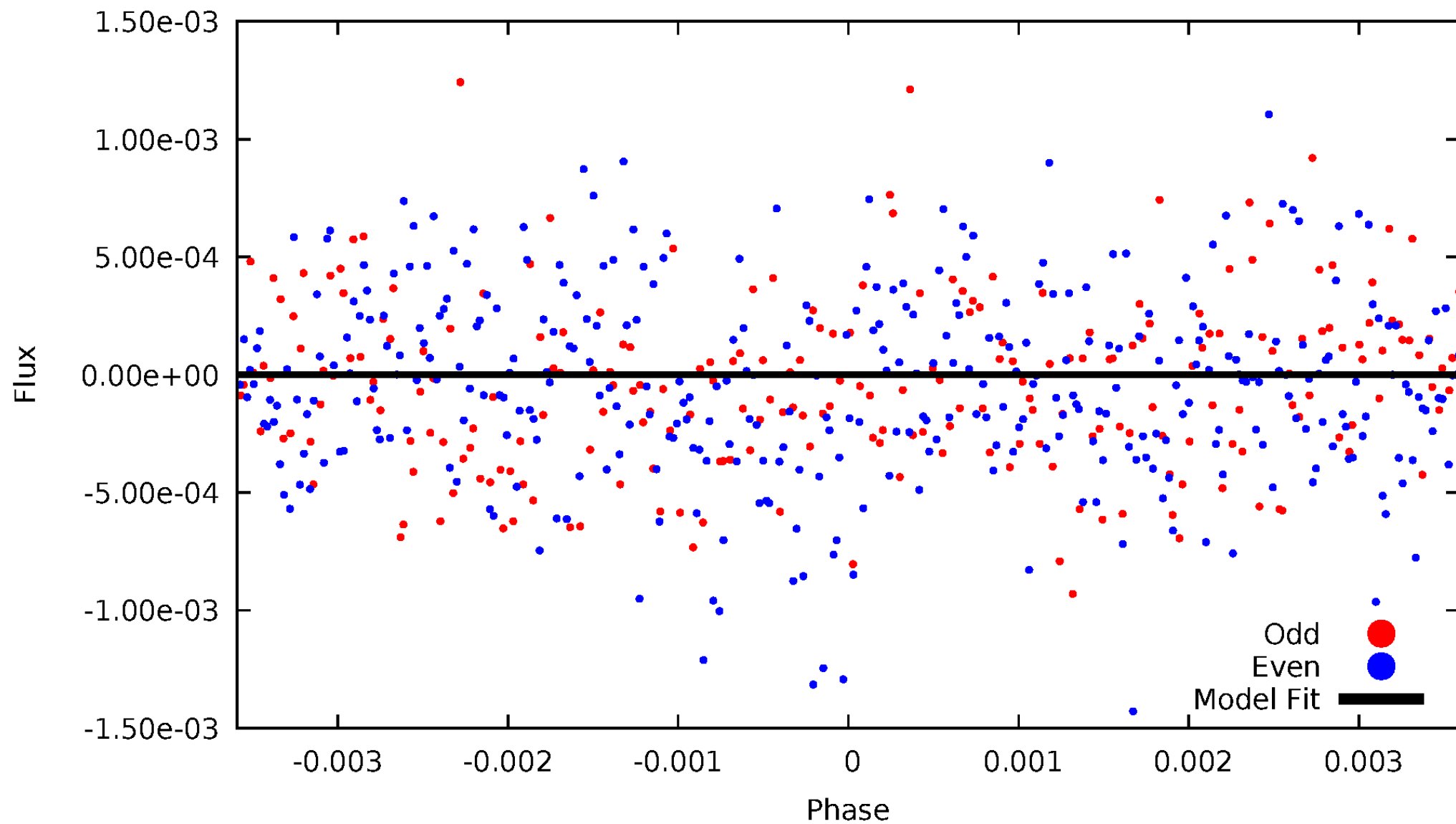


TCE 004736208-04



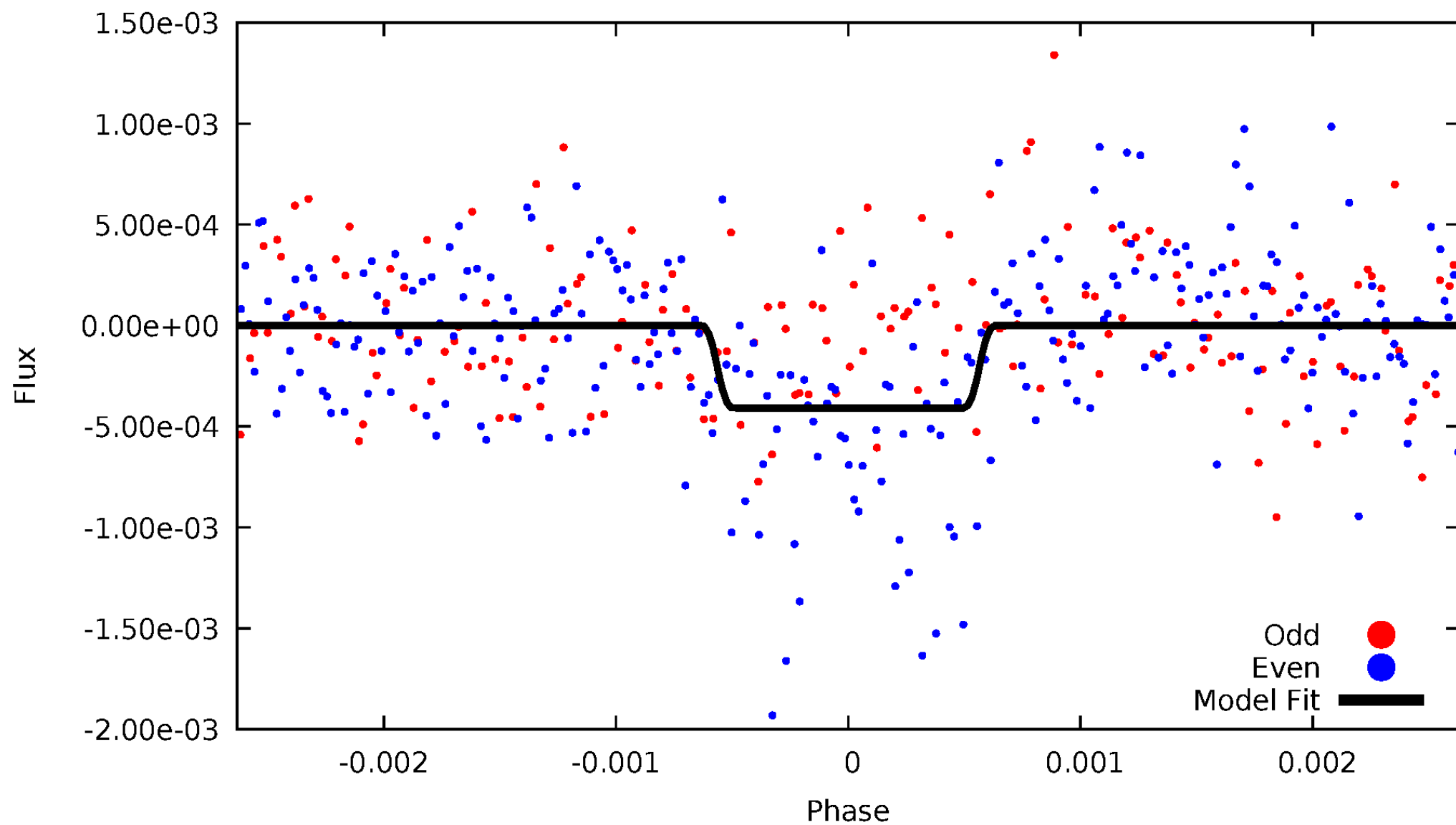
DV Odd/Even

TCE 004736208-04



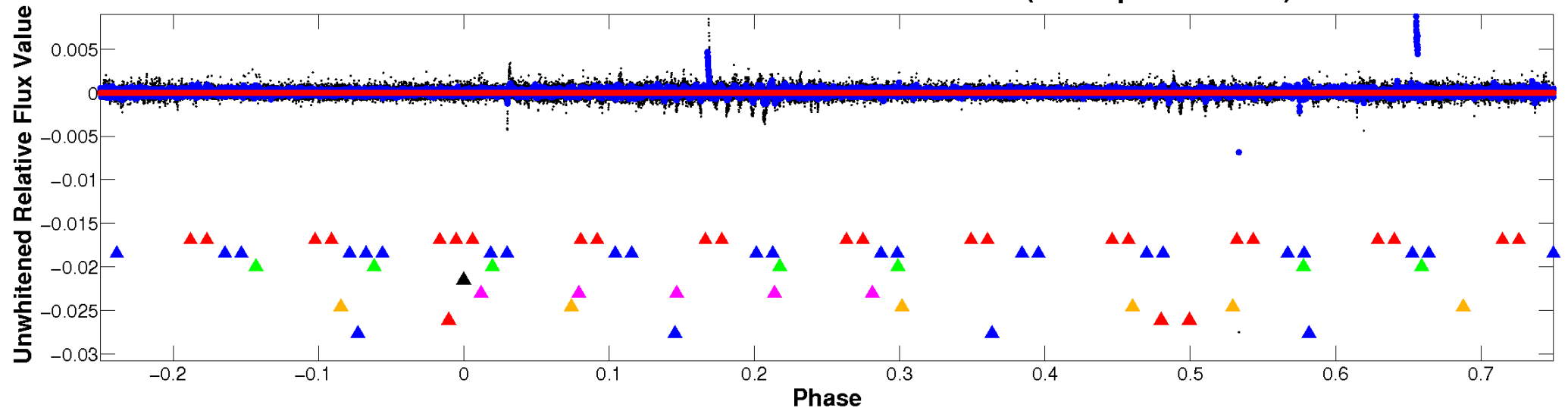
ALT Odd/Even

TCE 004736208-04

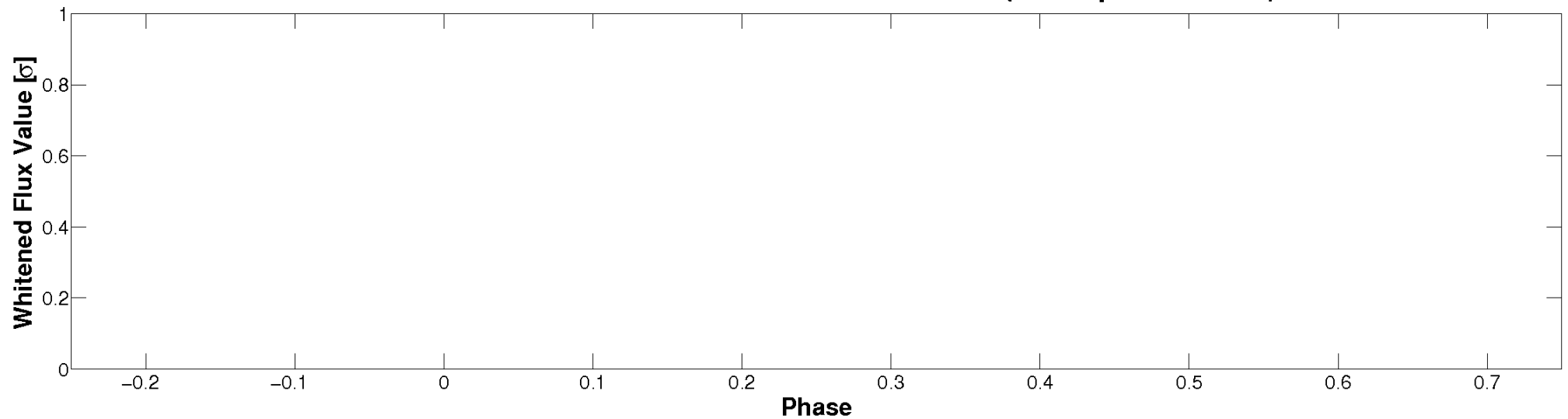


Non-Whitened Vs. Whitened Light Curve

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

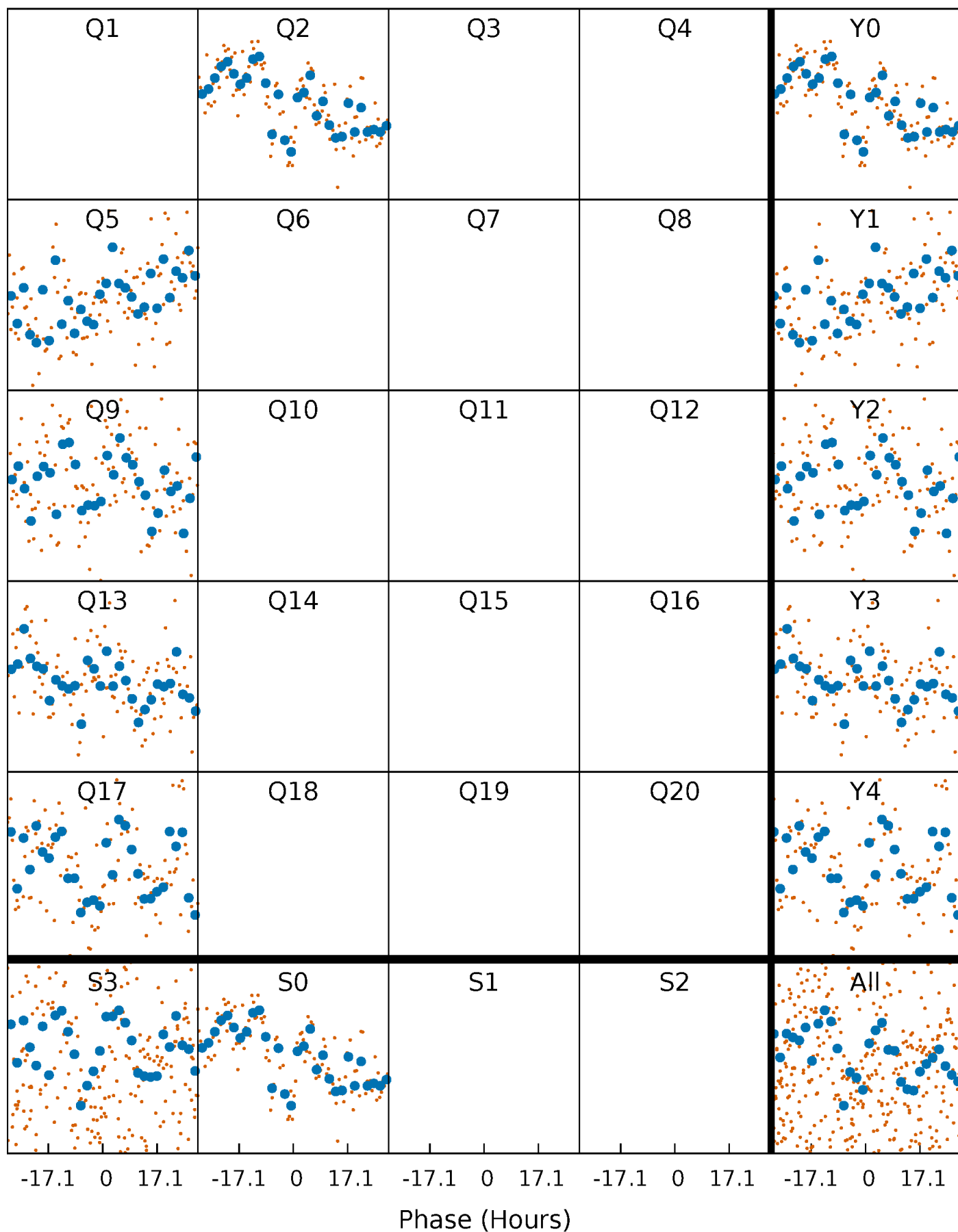


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 004736208-04 $P=348.276408$ Days $T_0=173.311246$ (BKJD)



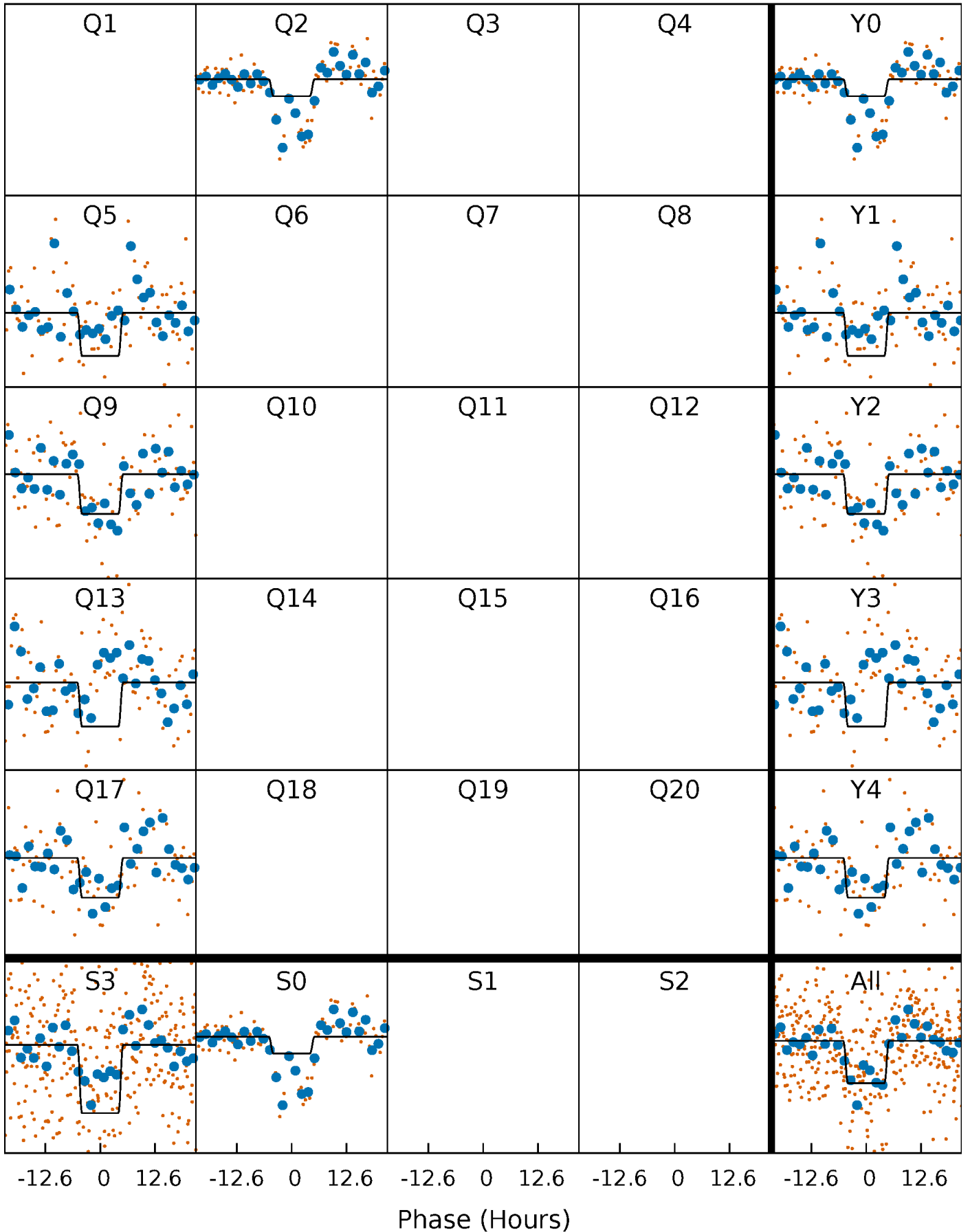
DV Quarter-Phased Transit Curves

TCE 004736208-04 $P=348.276408$ Days $T_0=173.311246$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

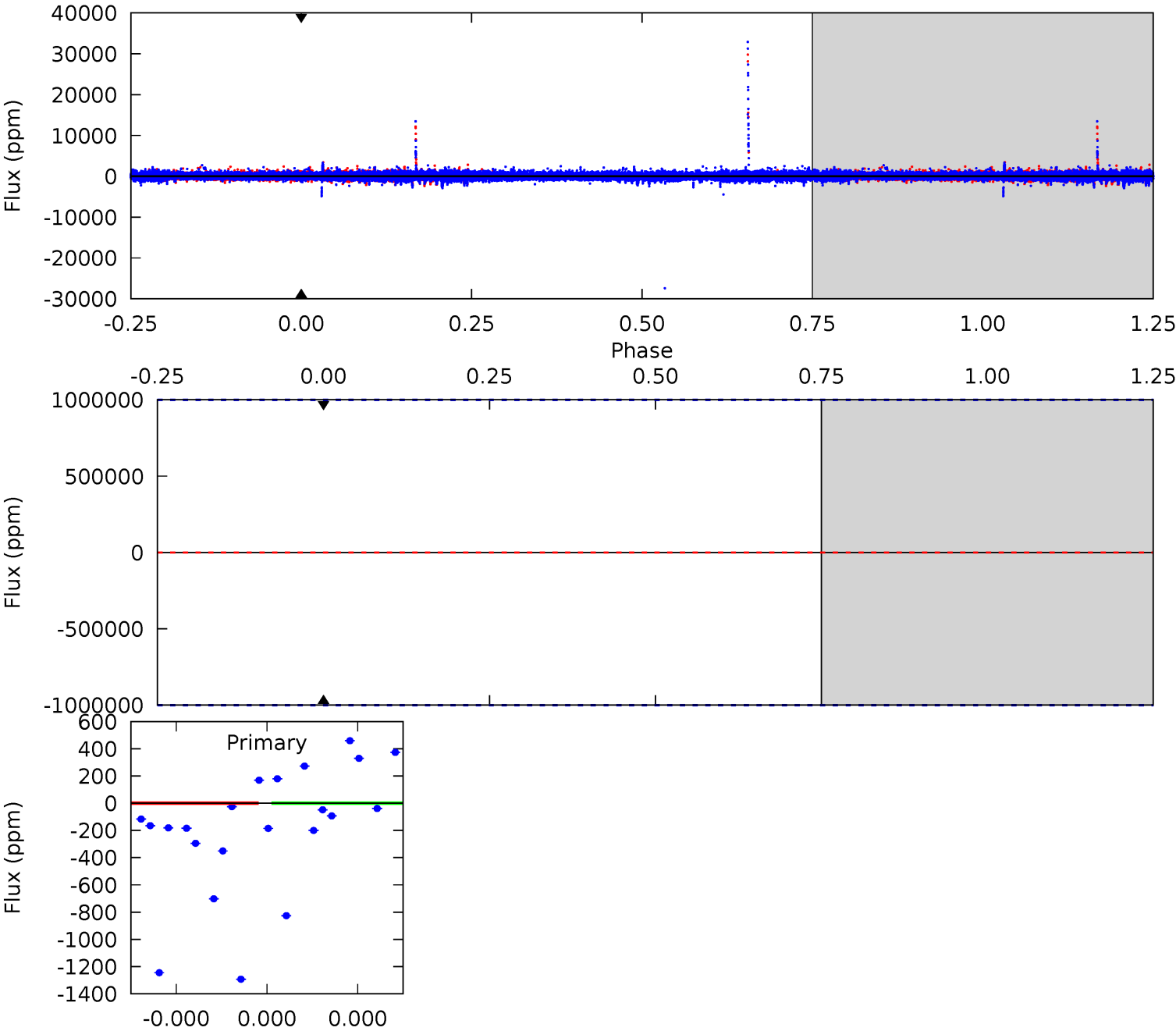
TCE 004736208-04 $P=348.276408$ Days $T_0=173.128517$ (BKJD)



DV Model-Shift Uniqueness Test

004736208-04, P = 348.276408 Days, E = 173.311246 Days

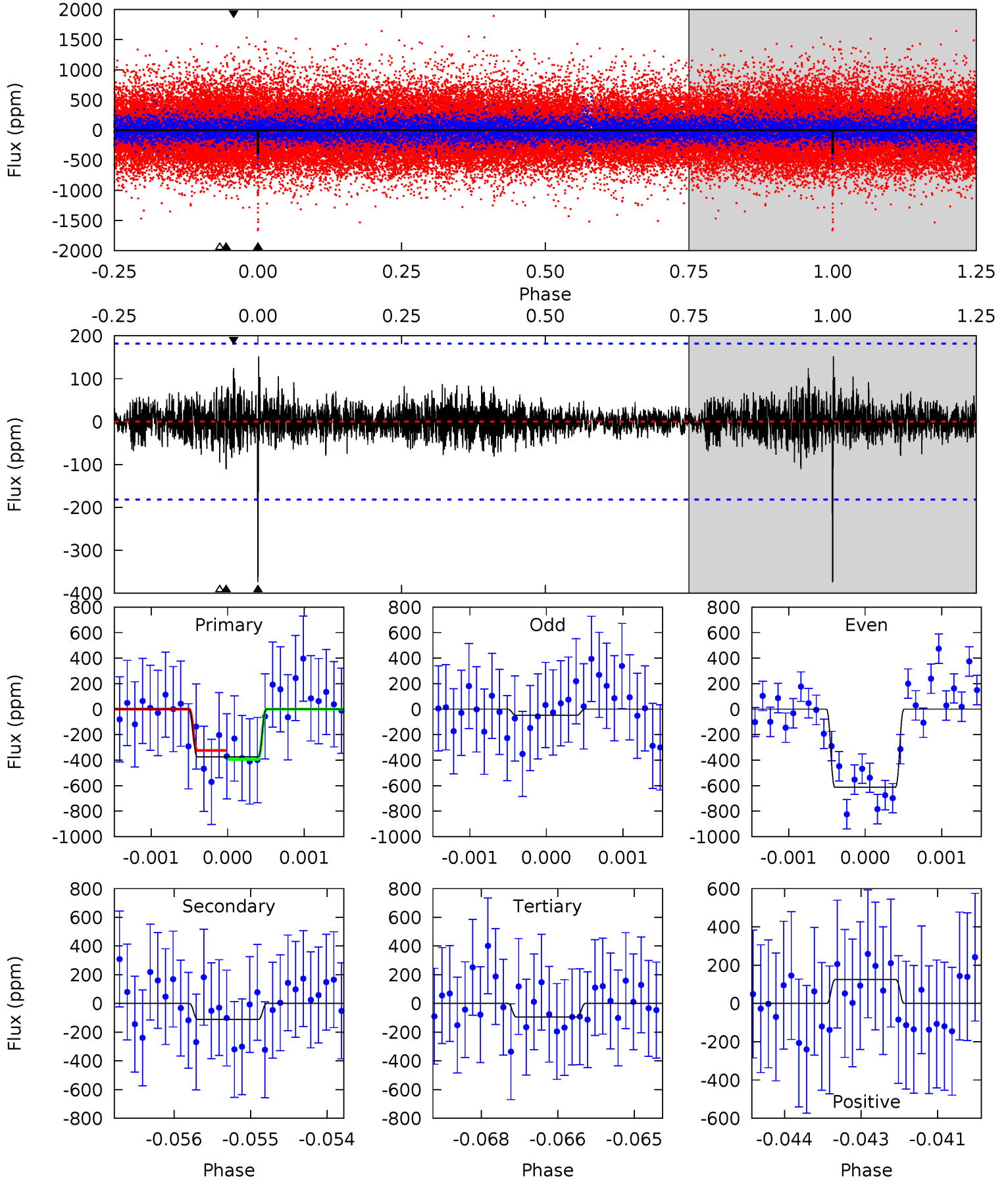
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004736208-04, P = 348.276408 Days, E = 173.128517 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	3.31	2.83	3.72	5.41	3.23	0.76	8.33	7.44	0.48	-0.40	7.09	1.14	0.29	1.03



Stellar Parameters For KIC 004736208

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5979^{+179}_{-197}	$4.386^{+0.108}_{-0.201}$	$-0.140^{+0.300}_{-0.300}$	$1.054^{+0.315}_{-0.170}$	$0.986^{+0.145}_{-0.119}$	$1.187^{+0.575}_{-0.584}$
	+3%/-3%	+2%/-5%	+214%/-214%	+30%/-16%	+15%/-12%	+48%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004736208-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$9.55^{+10.43}_{-6.82}$	390^{+31}_{-23}	3839^{+20855}_{-22462}	$2822^{+1167773}_{-867867}$
Alt.	-111 ± 34	$9.08^{+9.54}_{-6.43}$	390^{+30}_{-23}	2912^{+1341}_{-495}	667^{+7177}_{-514}

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

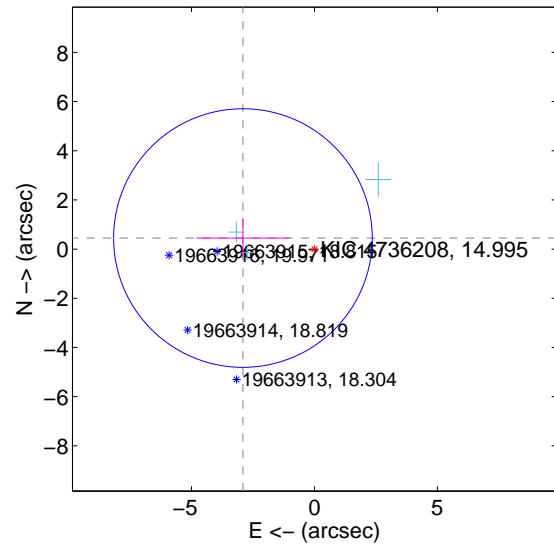
Supplemental centroid analysis for 004736208-04. Kepler magnitude: 14.99. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

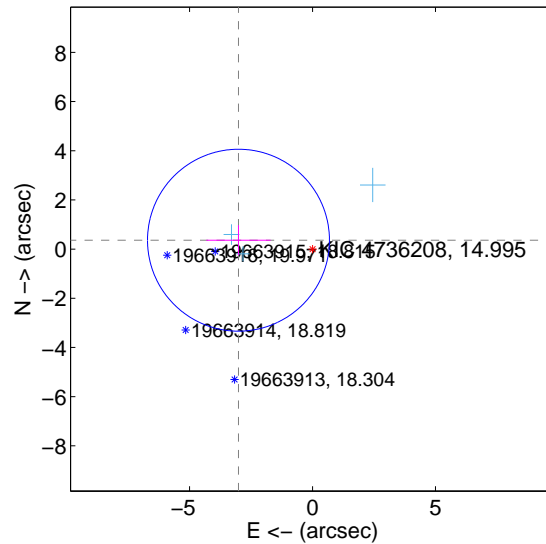
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.942 ± 1.752	1.68	2.908 ± 1.891	0.449 ± 0.815
PRF-fit source offset from KIC position	3.032 ± 1.233	2.46	3.010 ± 1.307	0.362 ± 0.609
photometric centroid source offset	1.82 ± 1.27	1.43	-0.31 ± 1.35	-1.79 ± 1.27

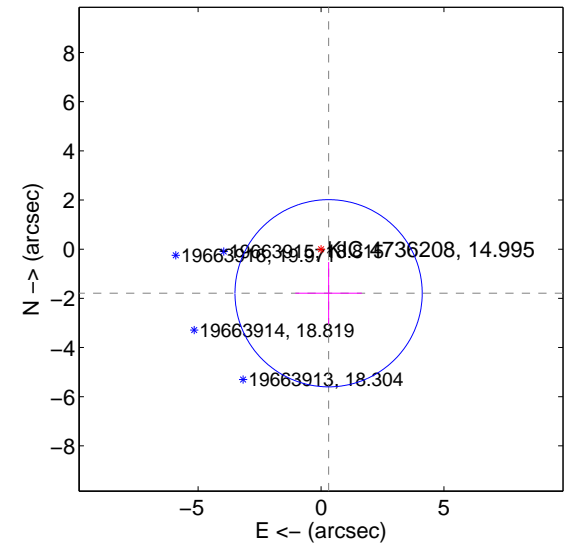
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

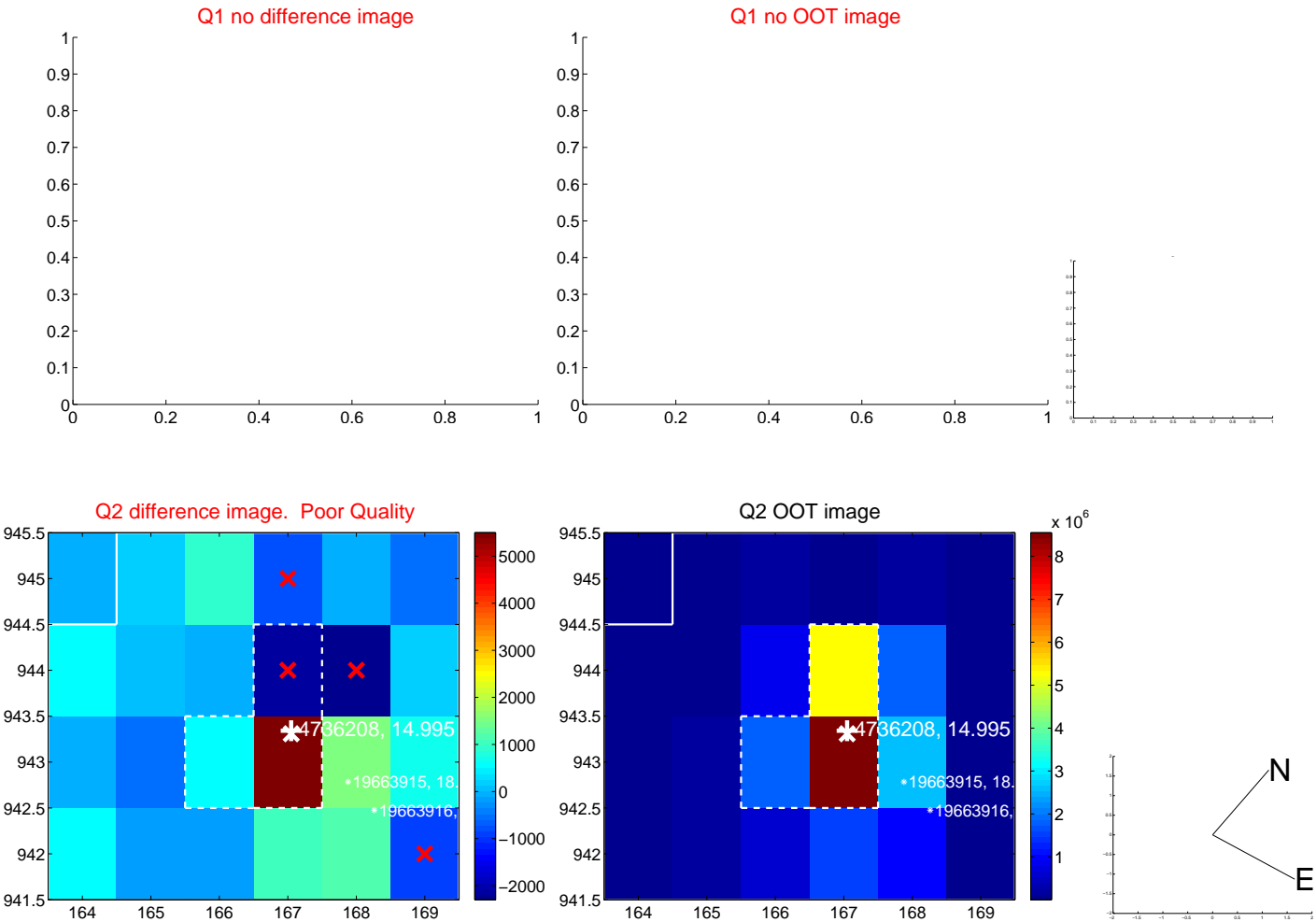


offset from photometric centroids

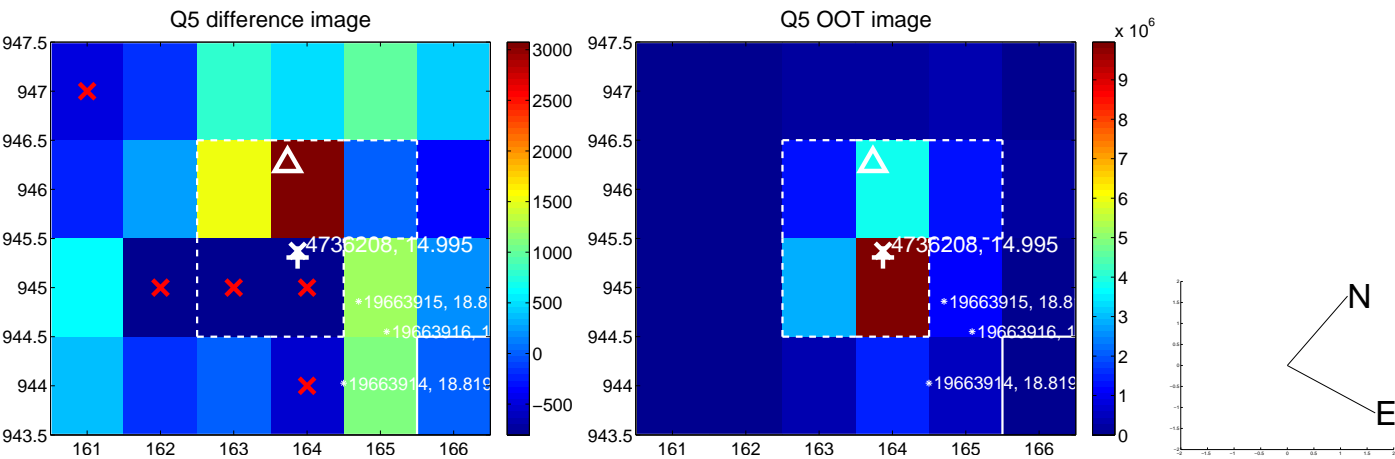


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

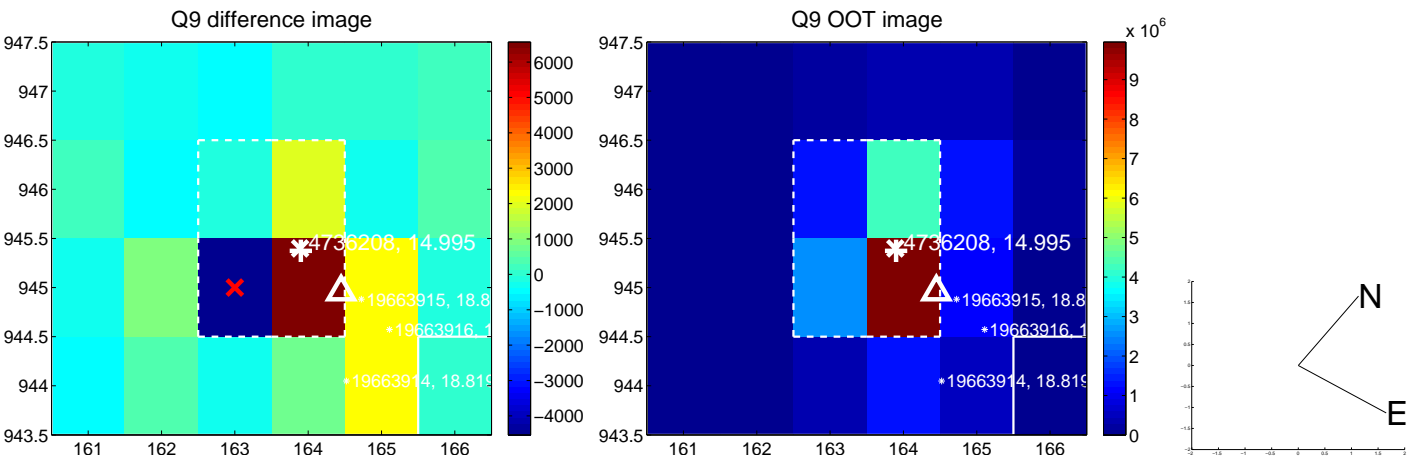
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



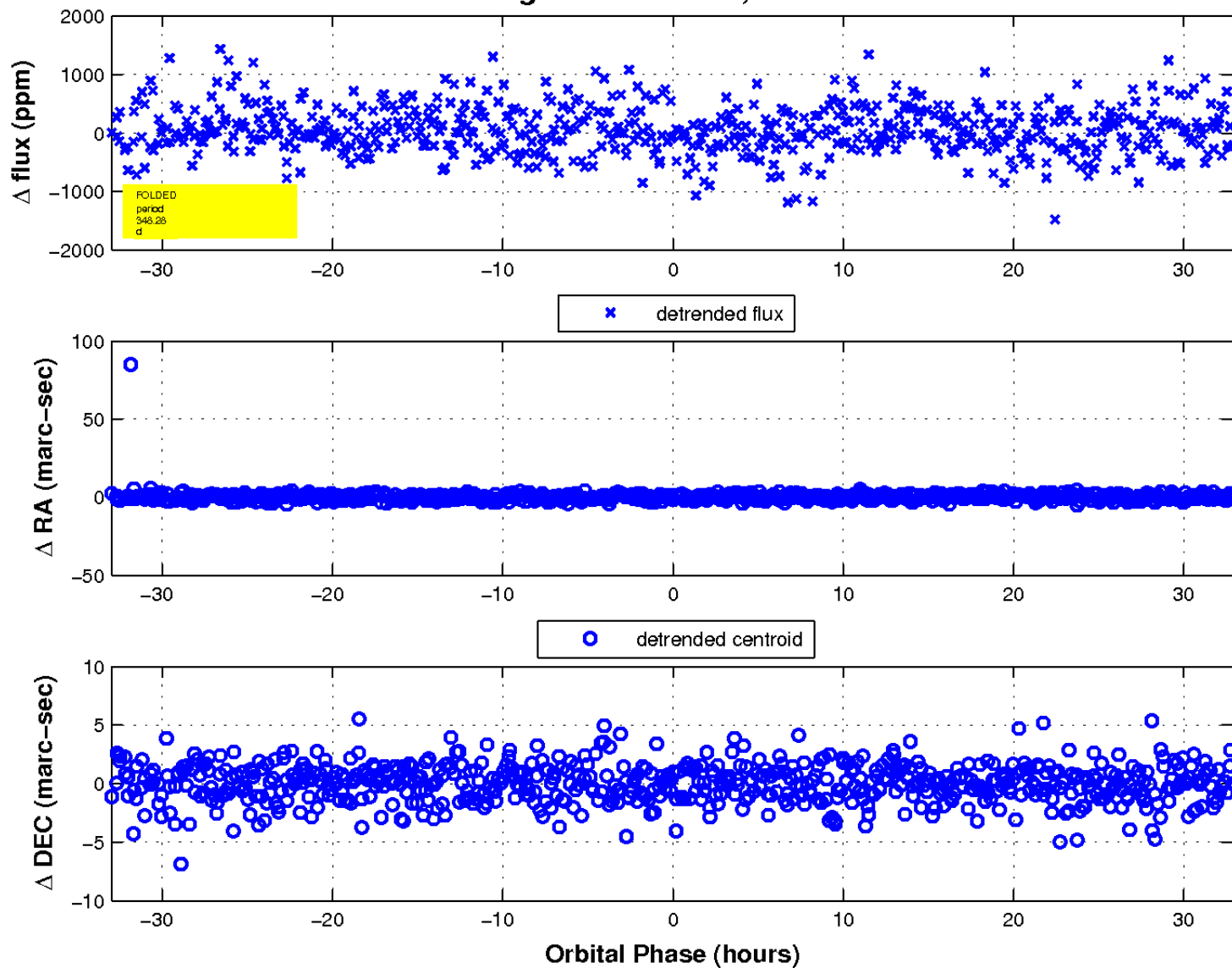
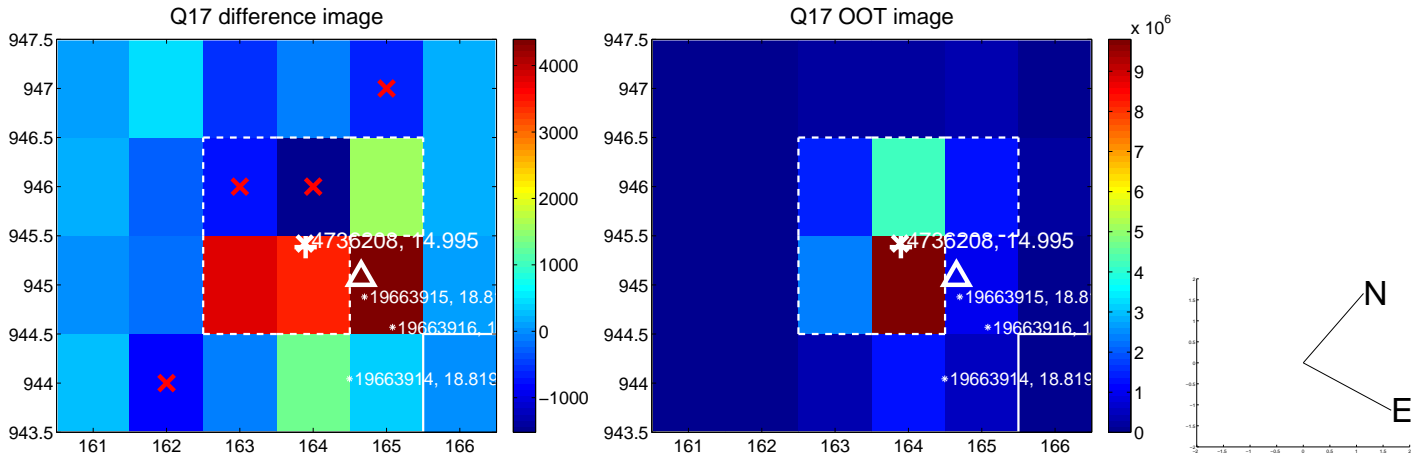
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

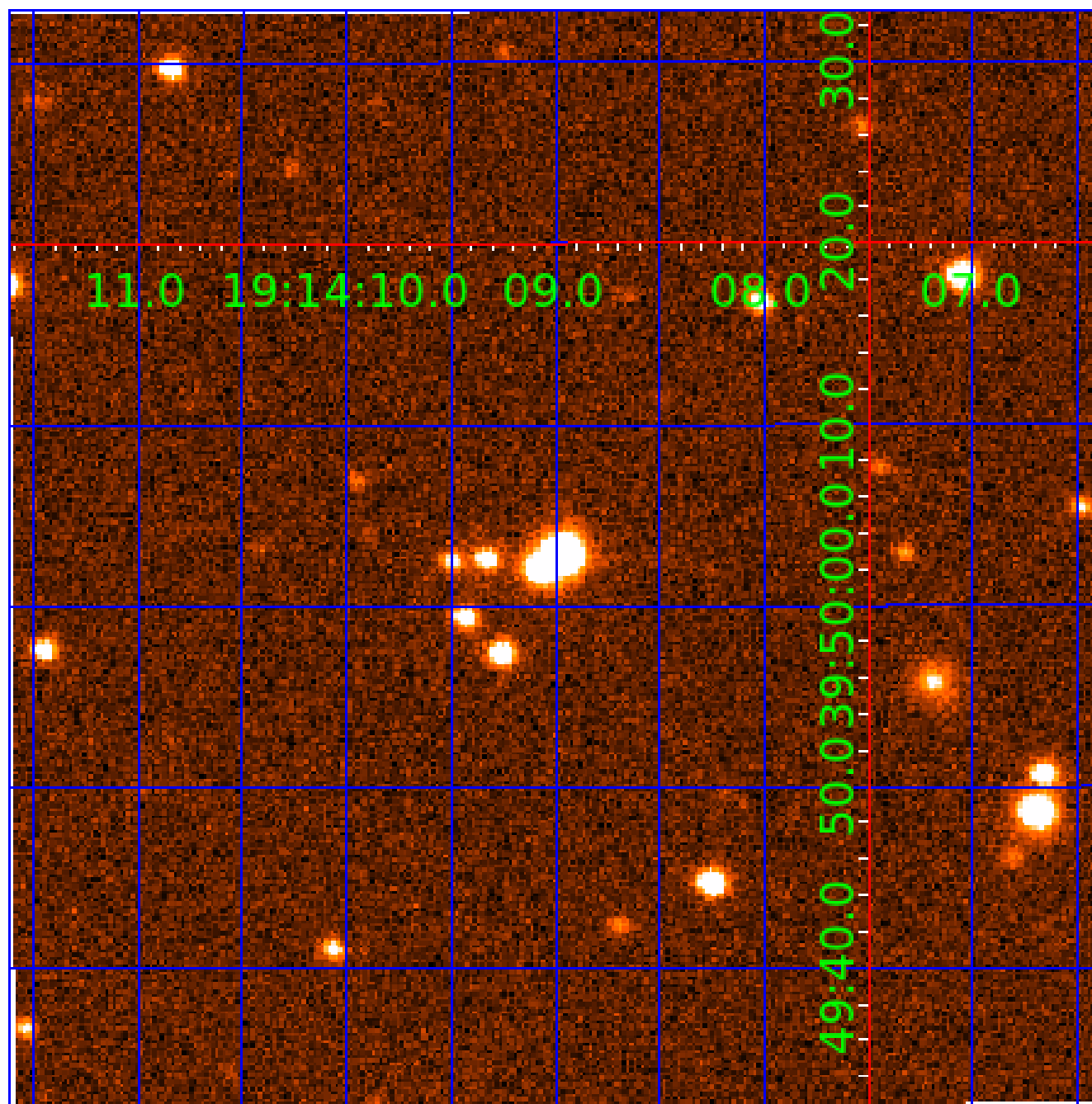


white \times : KIC target position; \oplus : OO1 centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004736208

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})
004736208-01	OBS	6439.01	63.681105	167.555794	355438.9	7.500	9944.7	-1.0	1.05	5979	57.51	13.18
004736208-02	OBS	No	63.680605	145.964332	321154.8	12.500	9480.5	-1.0	1.05	5979	53.91	13.18
004736208-03	OBS	No	222.739426	180.183734	4169.8	15.000	62.8	-1.0	1.05	5979	6.78	2.48
004736208-04	OBS	No	348.276408	173.311246	2161.7	15.000	46.9	-1.0	1.05	5979	4.88	1.37
004736208-06	OBS	No	213.769072	333.619336	6786.0	4.500	53.7	-1.0	1.05	5979	8.66	2.62
004736208-07	OBS	No	525.809988	340.461173	3904.5	9.000	47.7	-1.0	1.05	5979	6.57	0.79
004736208-08	OBS	No	424.262006	147.970226	3427.7	9.000	43.1	-1.0	1.05	5979	6.15	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004736208-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
004736208-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
004736208-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—CENT_NOFITS
004736208-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
004736208-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

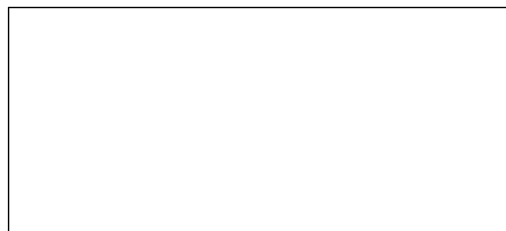
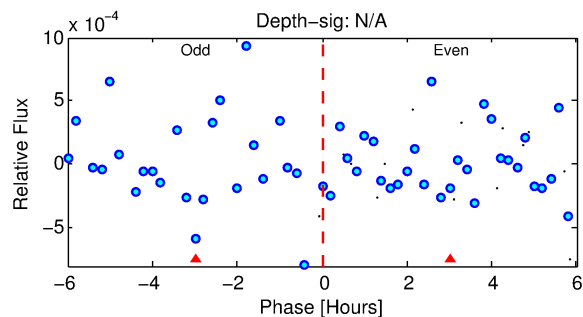
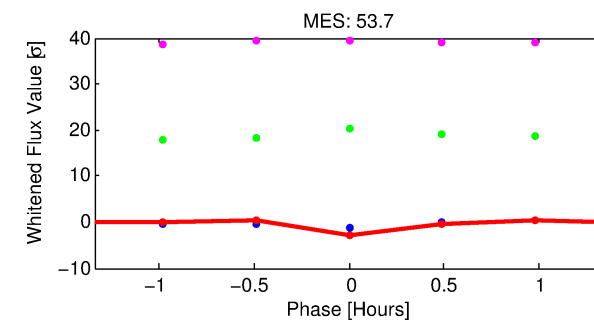
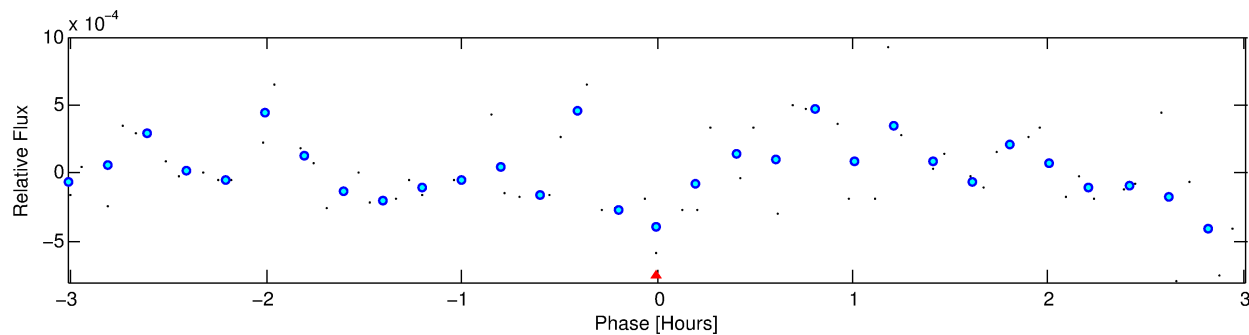
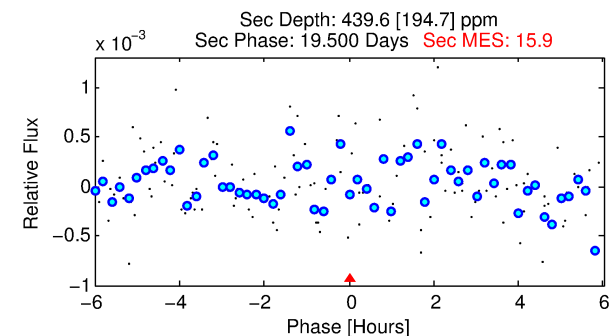
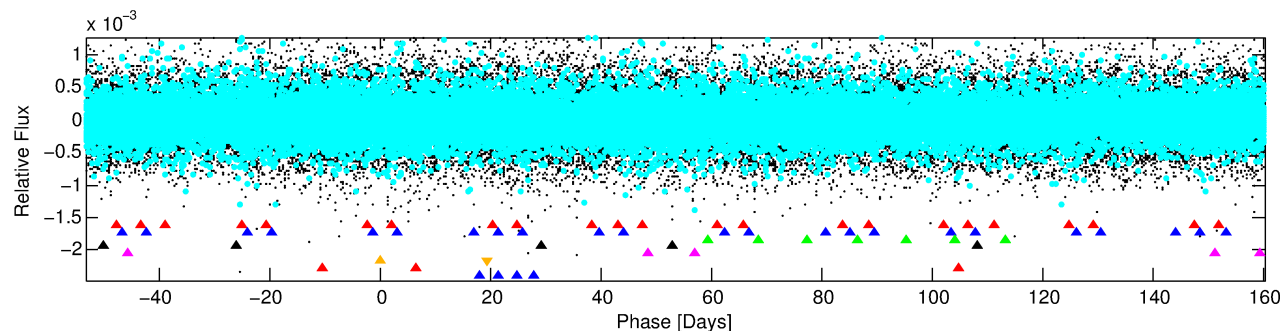
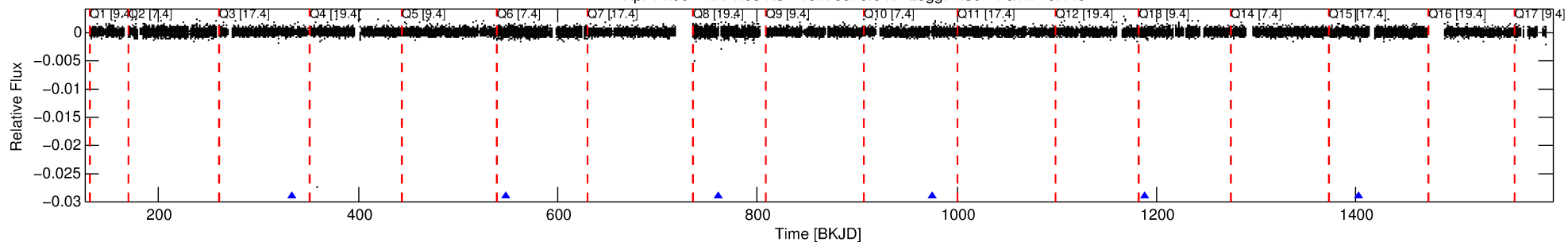
Ephemeris Match Information For 004736208-06

No Significant Match Found

DV One-Page Summary

KIC: 4736208 Candidate: 6 of 8 Period: 213.769 d
KOI: K06439 Corr: No Ephemeris Match

Kp: 14.99 R*: 1.05 Rs Teff: 5979.0 K Logg: 4.39 Fe/H: -0.140



TPS TCE Results:

Period = 213.76907 d
Epoch = 333.6193 BKJD

DV fit results are unavailable

DV Diagnostic Results:

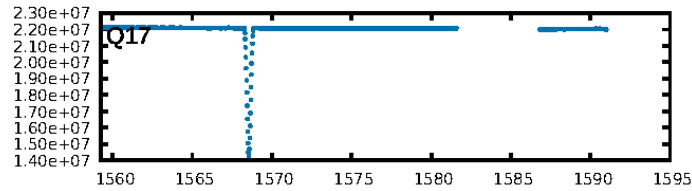
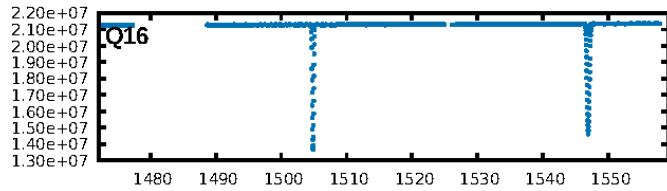
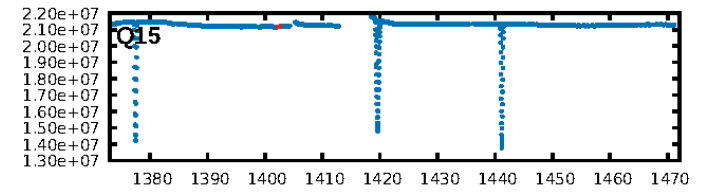
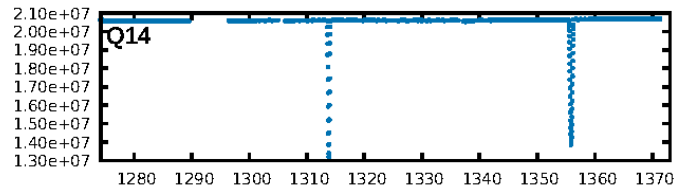
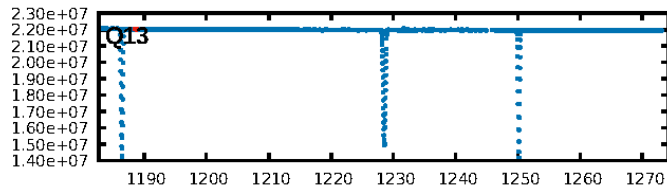
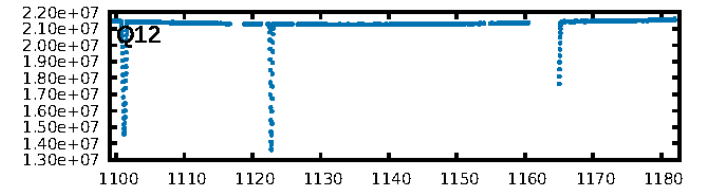
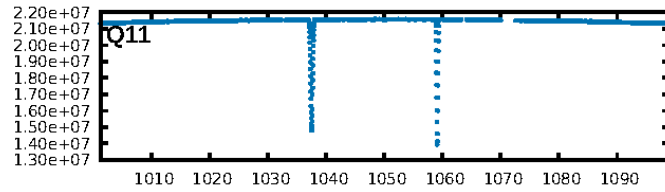
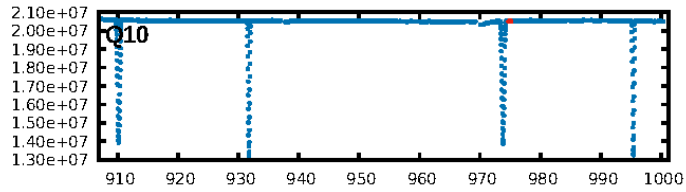
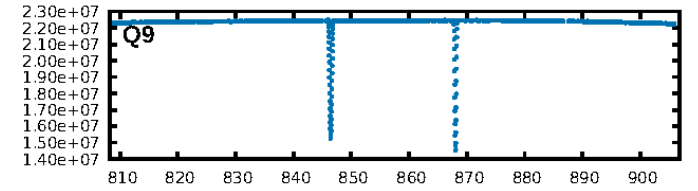
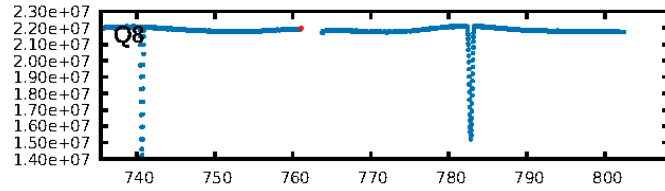
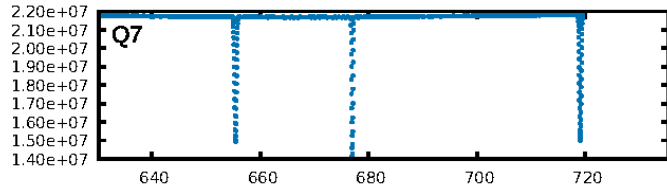
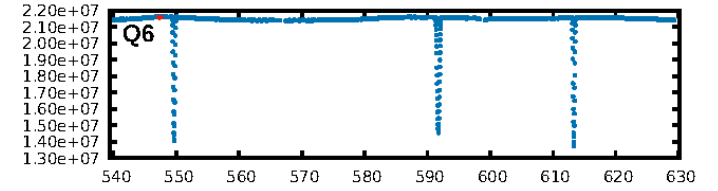
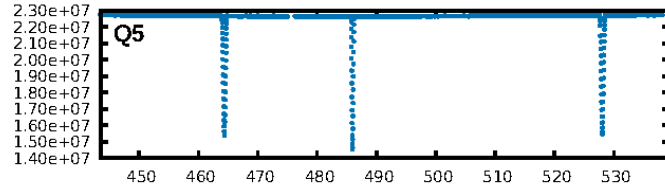
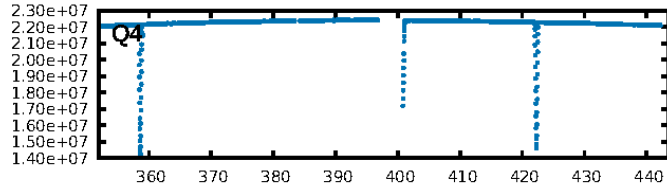
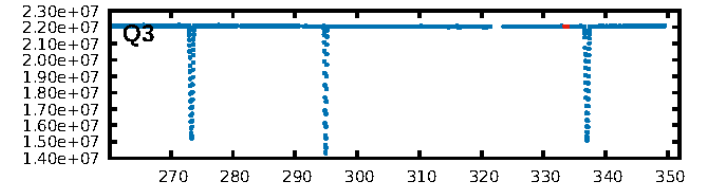
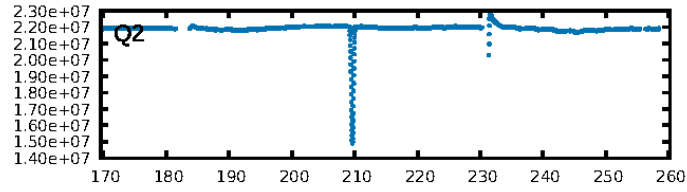
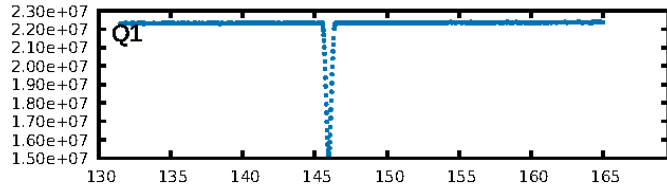
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Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.3812

Centroid-sig: N/A
Centroid-so: 6.158 arcsec [1.13σ]
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KicOffset-rm: N/A
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KicOffset-st: 0/0/0 [0]
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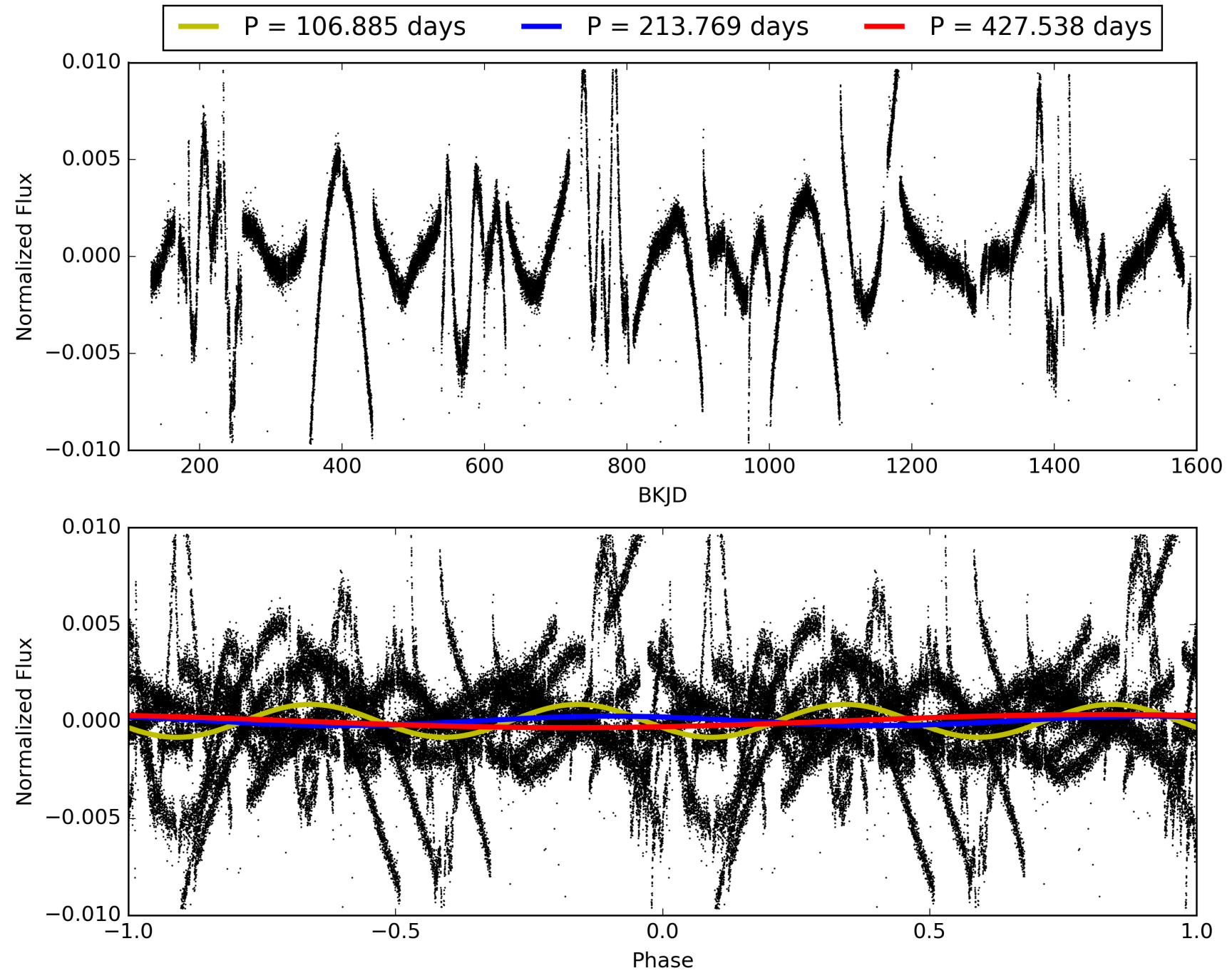
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:58:30 Z

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

TCE 004736208-06, PDC Light Curves

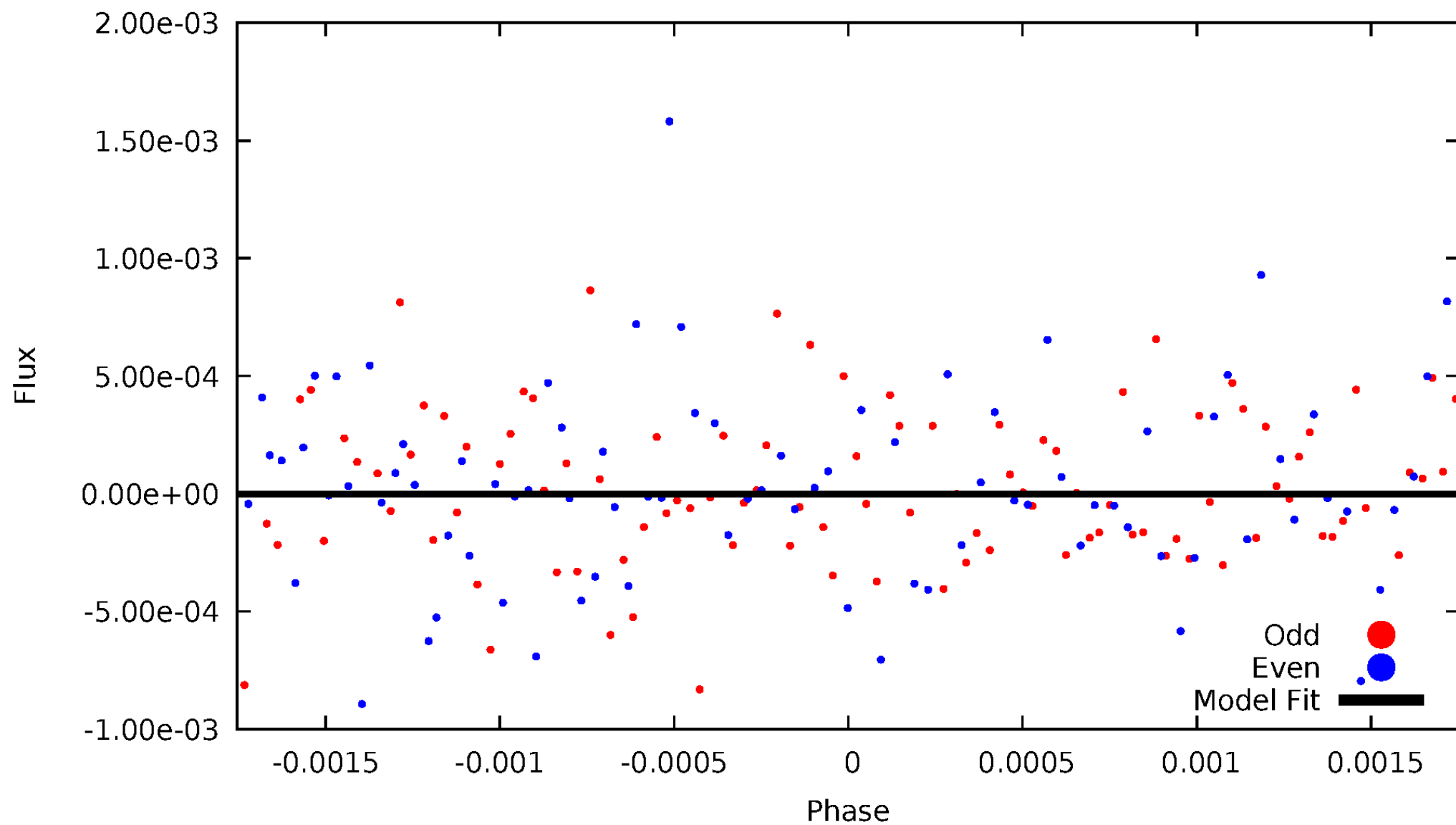


TCE 004736208-06



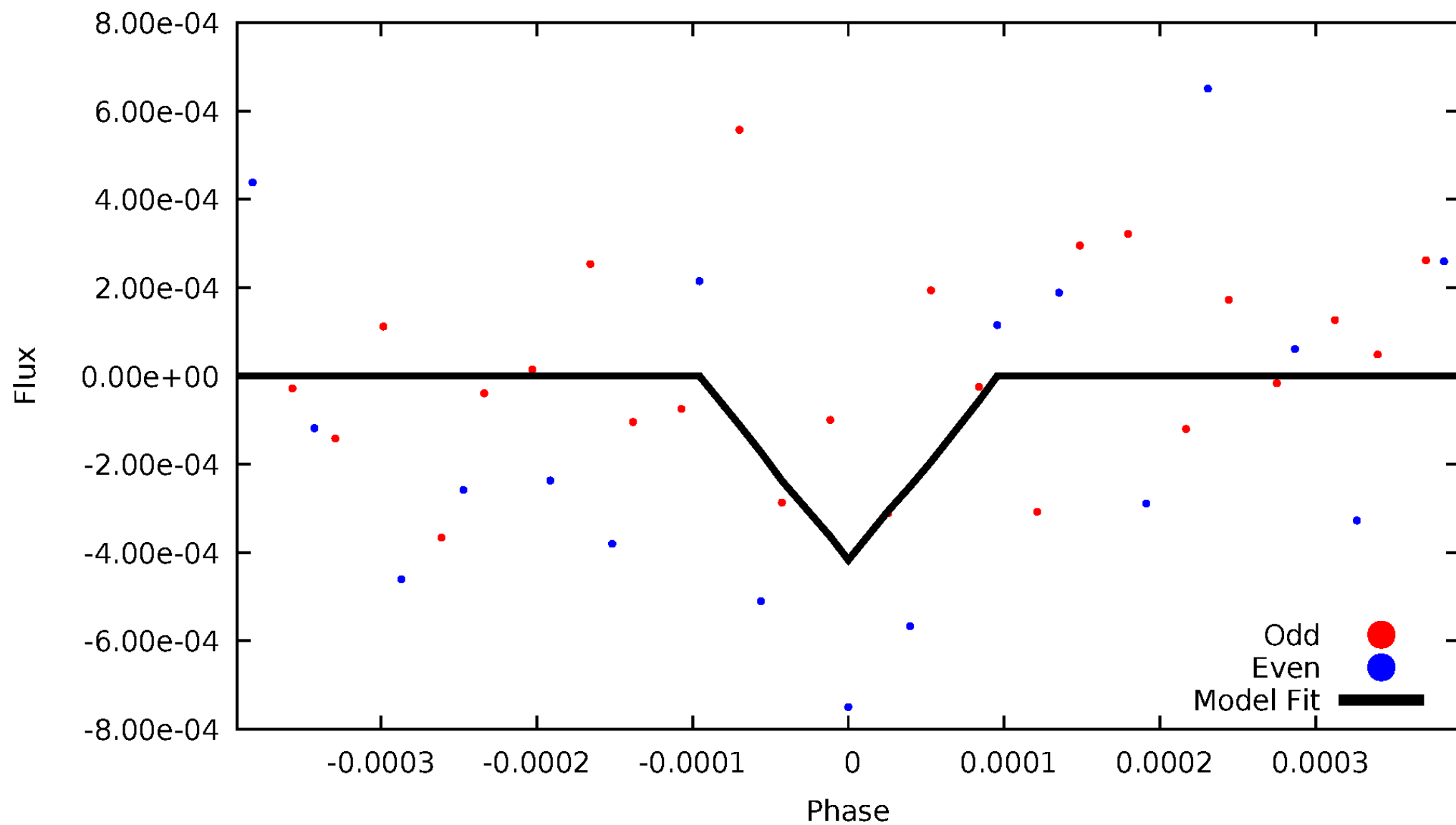
DV Odd/Even

TCE 004736208-06



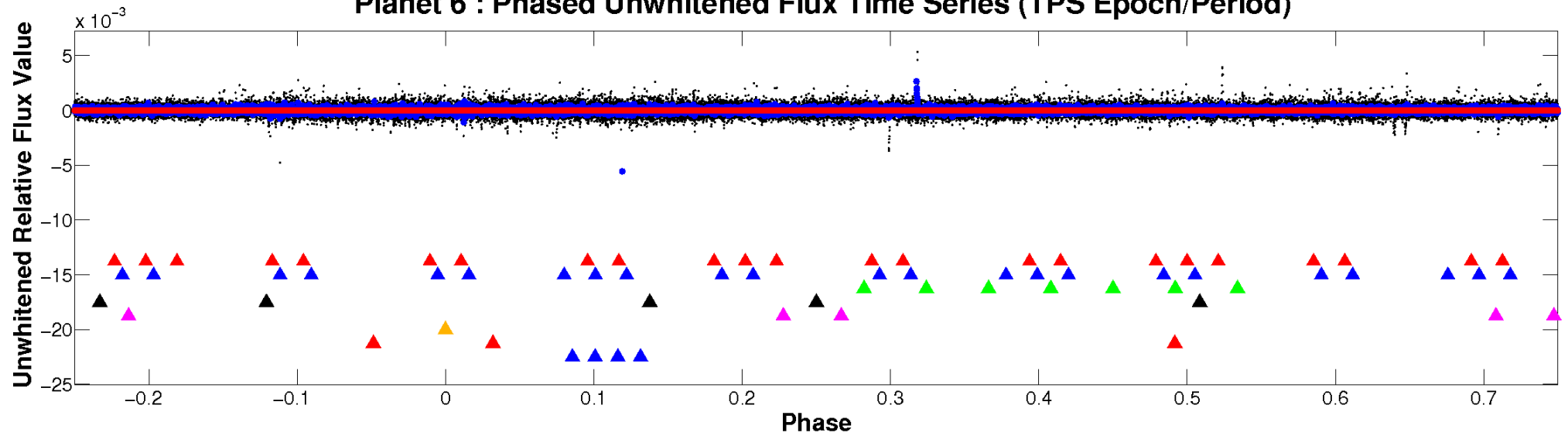
ALT Odd/Even

TCE 004736208-06



Non-Whitened Vs. Whitened Light Curve

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

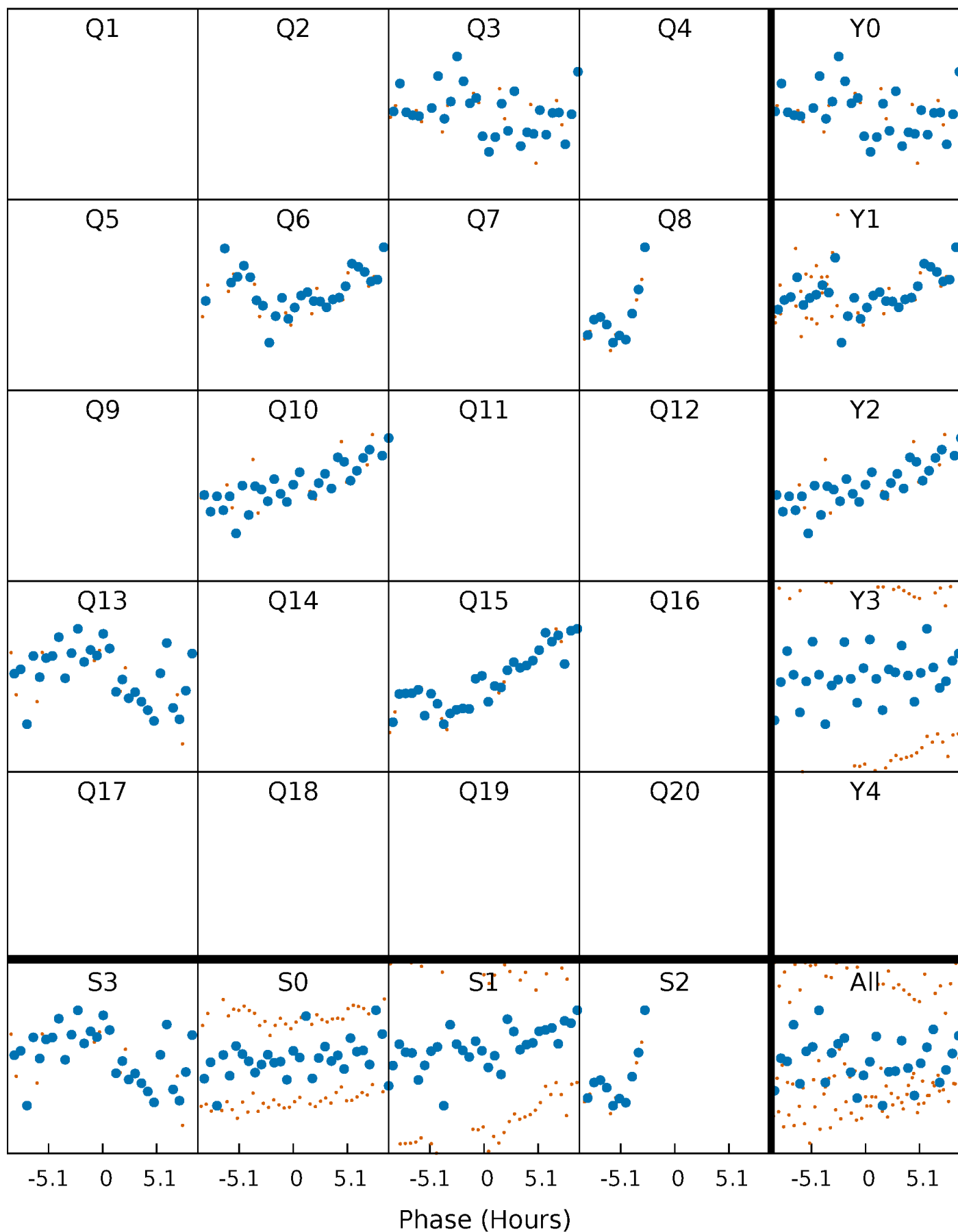


Planet 6 : Phased Whitened Flux Time Series (TPS Epoch/Period)



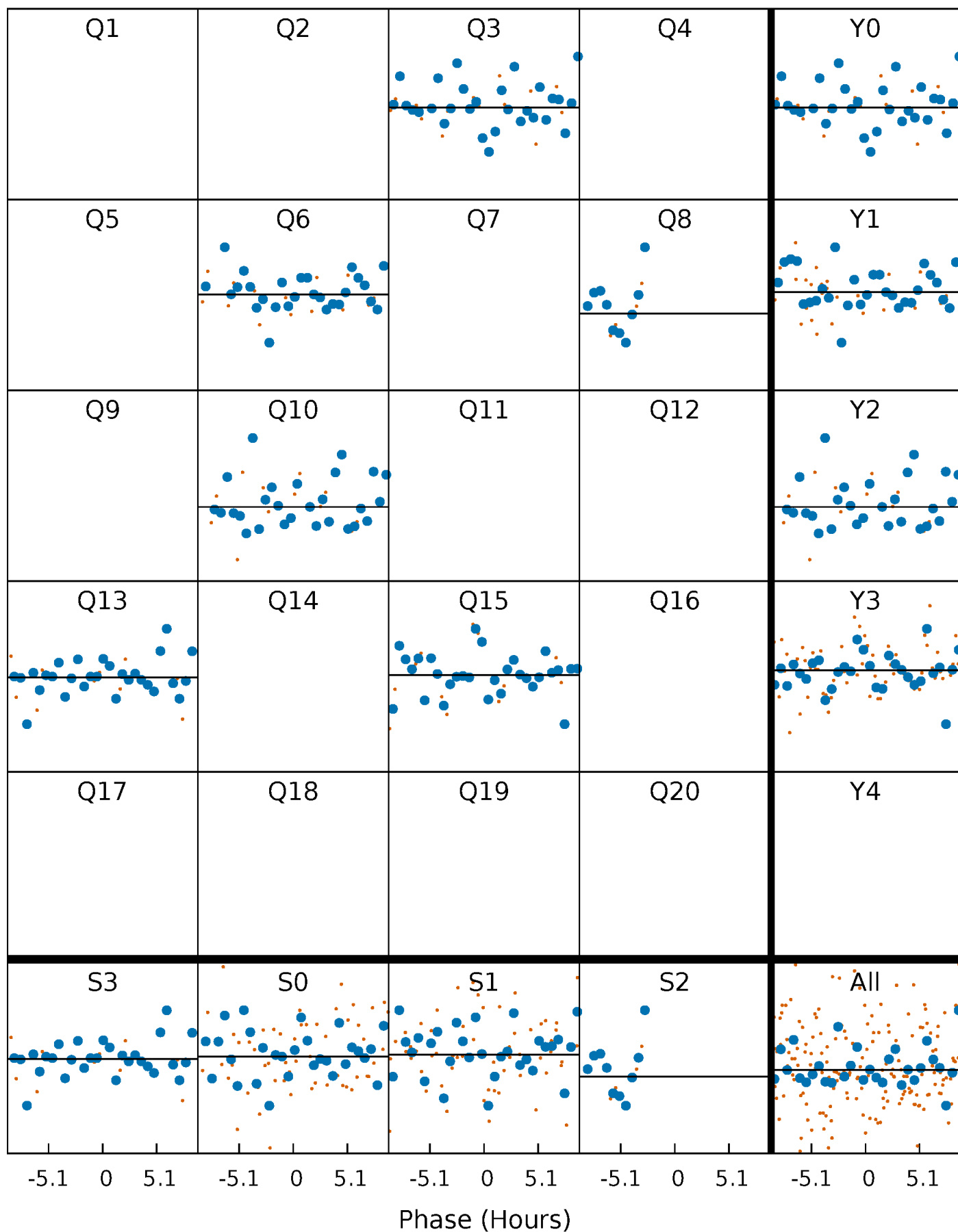
PDC Quarter-Phased Transit Curves

TCE 004736208-06 P=213.769072 Days $T_0=333.619336$ (BKJD)



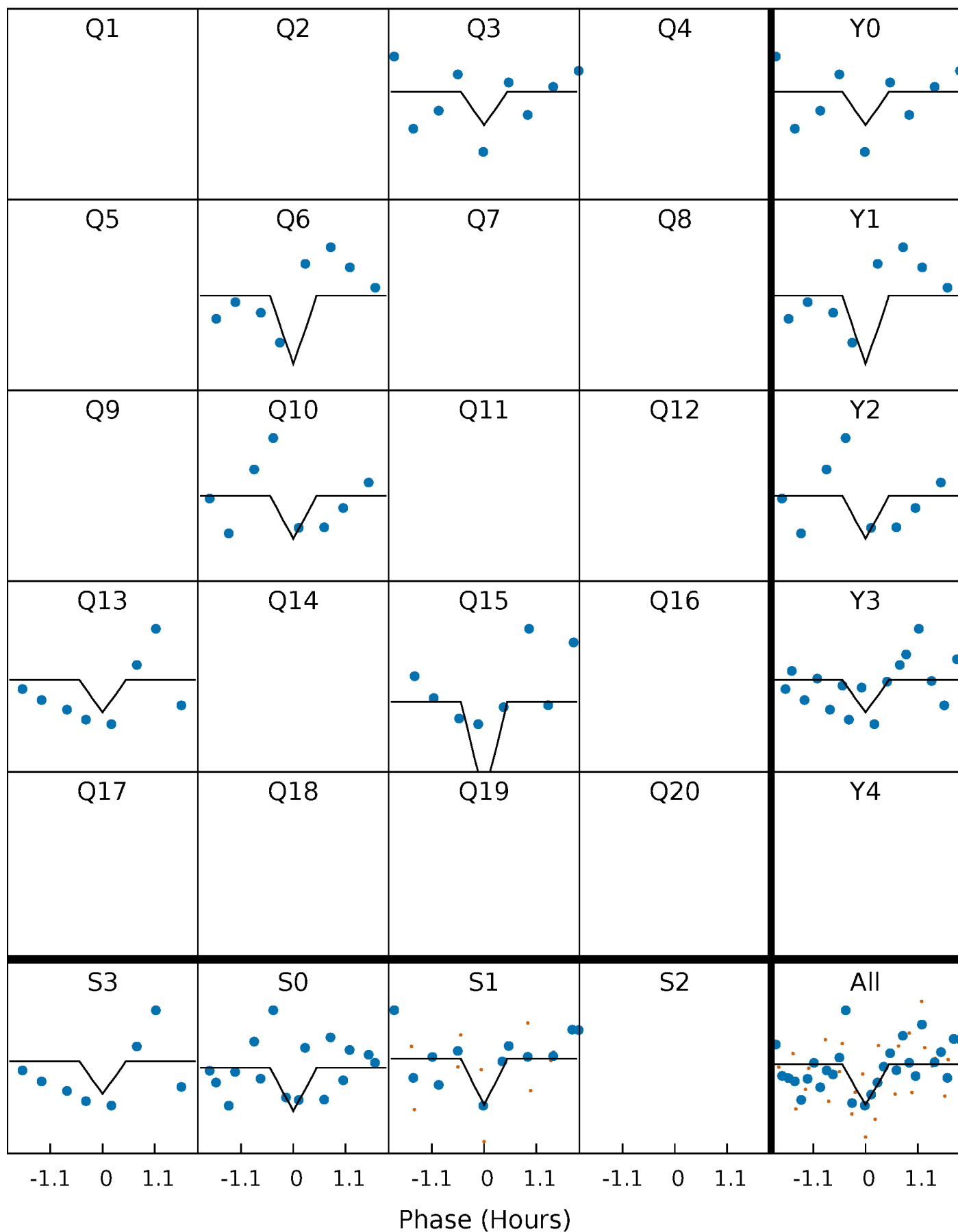
DV Quarter-Phased Transit Curves

TCE 004736208-06 P=213.769072 Days $T_0=333.619336$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

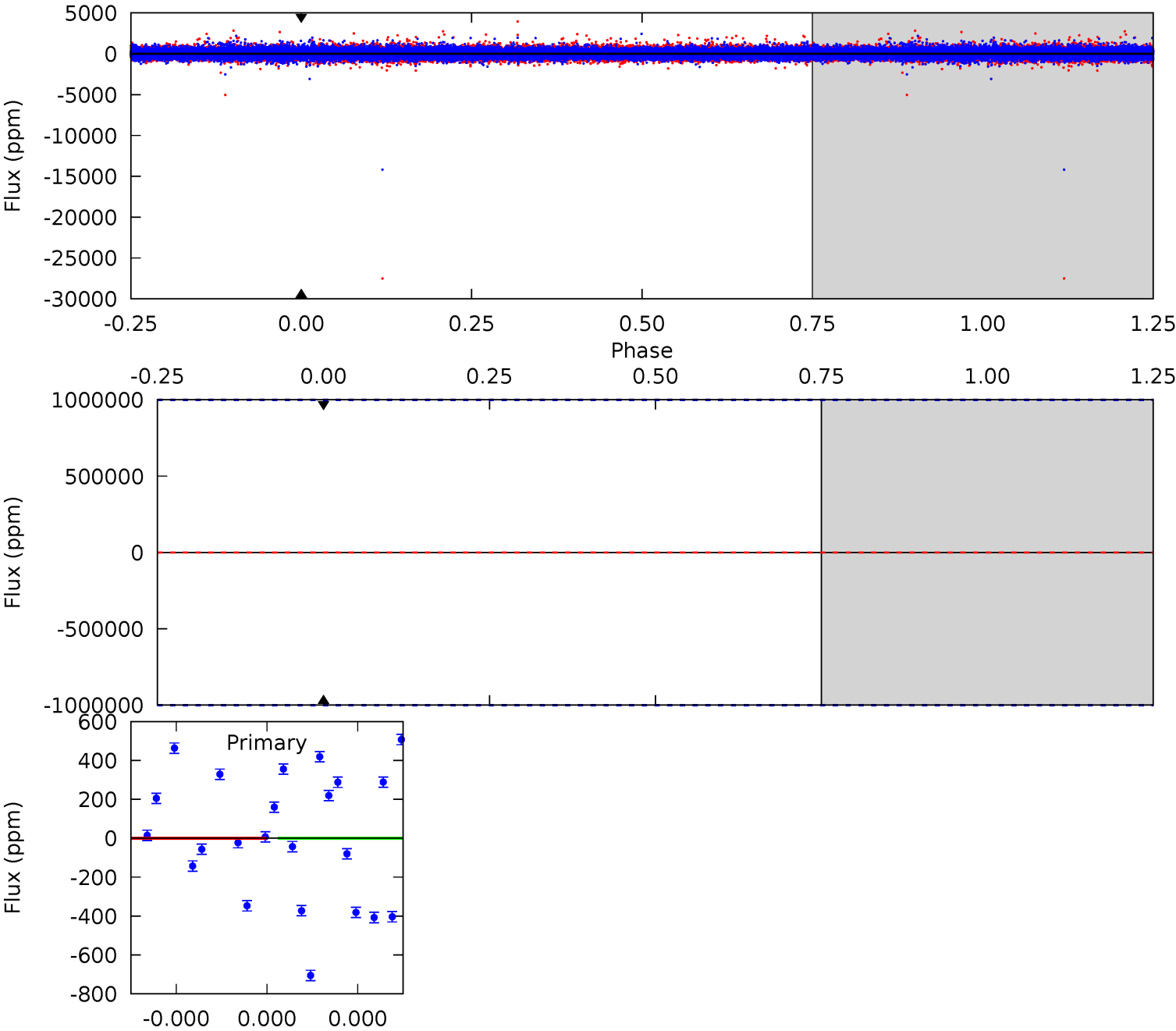
TCE 004736208-06 P=213.769072 Days $T_0=333.823269$ (BKJD)



DV Model-Shift Uniqueness Test

004736208-06, P = 213.769072 Days, E = 119.850264 Days

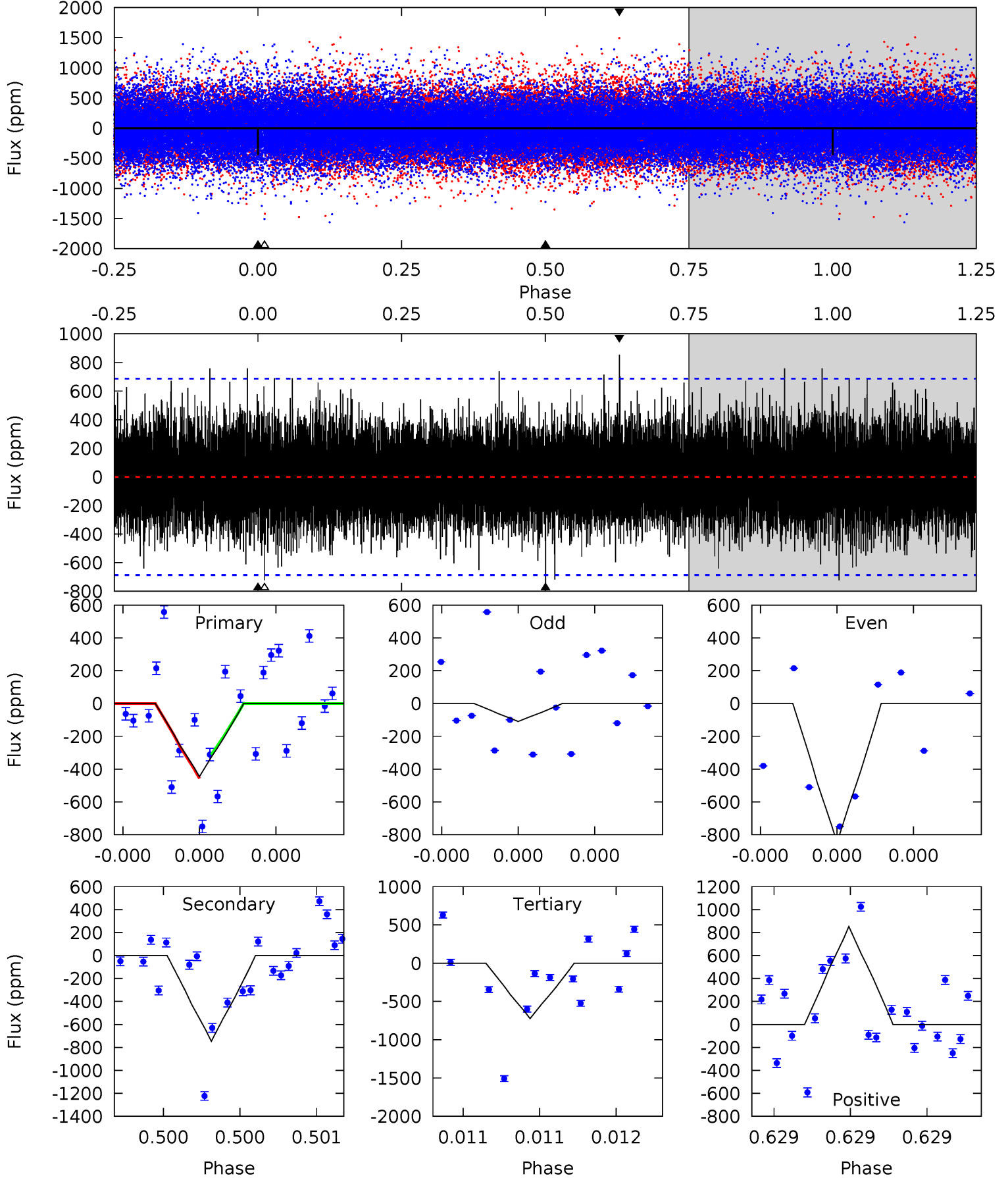
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004736208-06, P = 213.769072 Days, E = 120.054197 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.74	6.27	6.08	7.16	5.76	3.77	1.45	-2.33	-3.42	0.20	-0.89	3.01	2.68	0.53	0.61



Stellar Parameters For KIC 004736208

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5979^{+179}_{-197}	$4.386^{+0.108}_{-0.201}$	$-0.140^{+0.300}_{-0.300}$	$1.054^{+0.315}_{-0.170}$	$0.986^{+0.145}_{-0.119}$	$1.187^{+0.575}_{-0.584}$
	+3%/-3%	+2%/-5%	+214%/-214%	+30%/-16%	+15%/-12%	+48%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004736208-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$12.23^{+9.95}_{-8.09}$	459^{+33}_{-27}	-5114^{+18979}_{-10513}	$-8532.787^{+245356.141}_{-316856.834}$
Alt.	-747 ± 119	$8.57^{+9.45}_{-5.92}$	458^{+33}_{-26}	3961^{+2549}_{-793}	2717^{+26854}_{-2086}

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 $A_{obs} \gg 1.0$

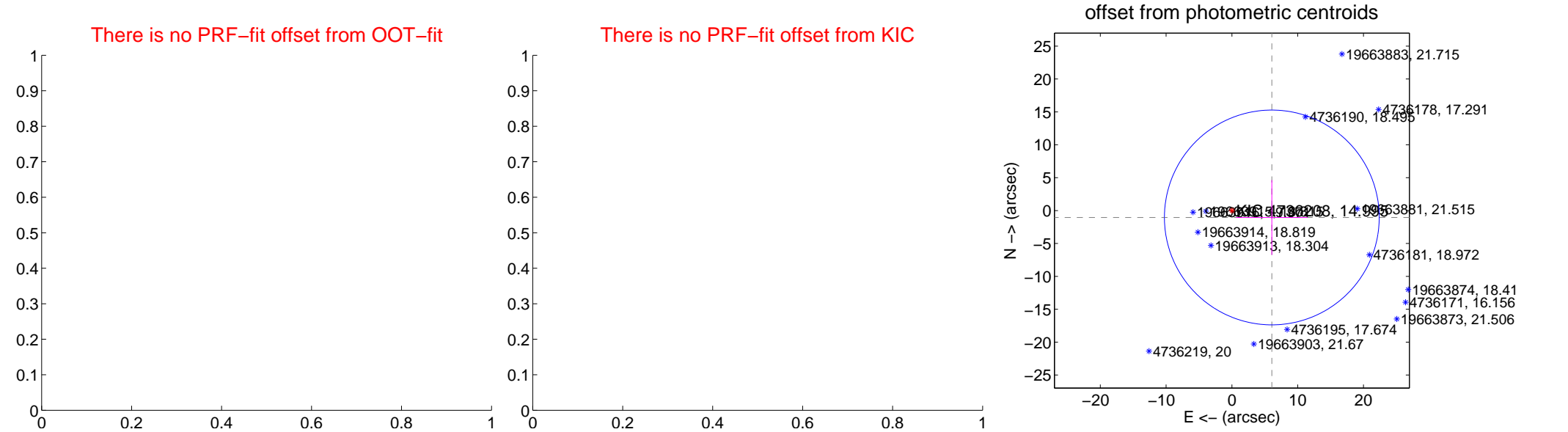
DV Centroid Data

Supplemental centroid analysis for 004736208-06. Kepler magnitude: 14.99. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	6.16 ± 5.44	1.13	-6.07 ± 5.43	-1.05 ± 5.68



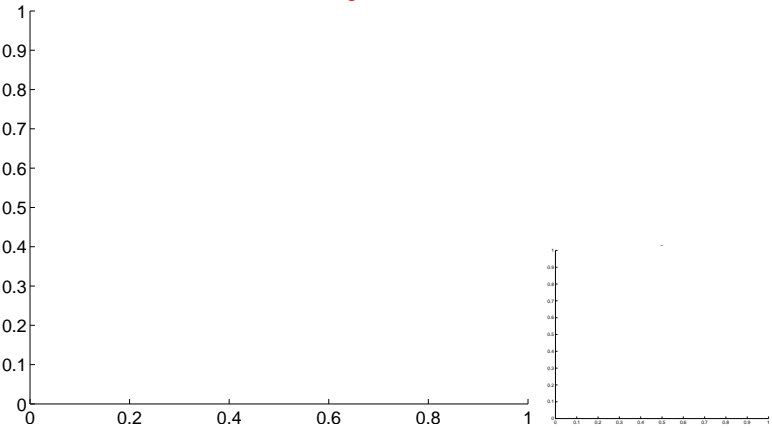
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

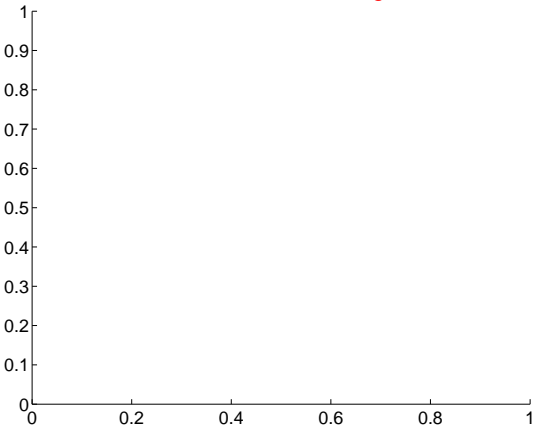
Q1 no difference image



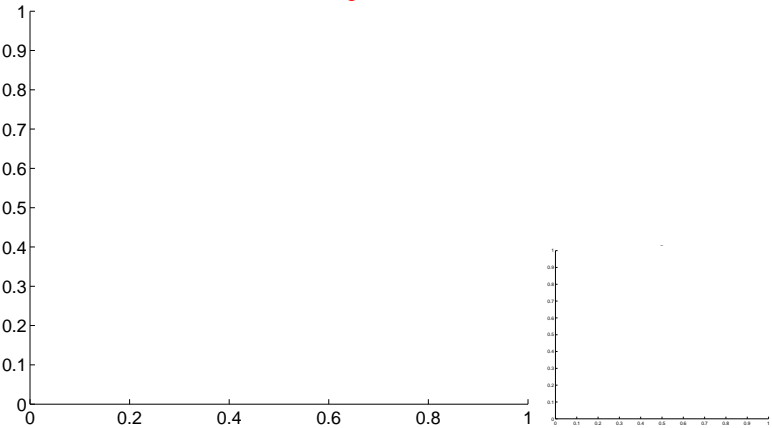
Q1 no OOT image



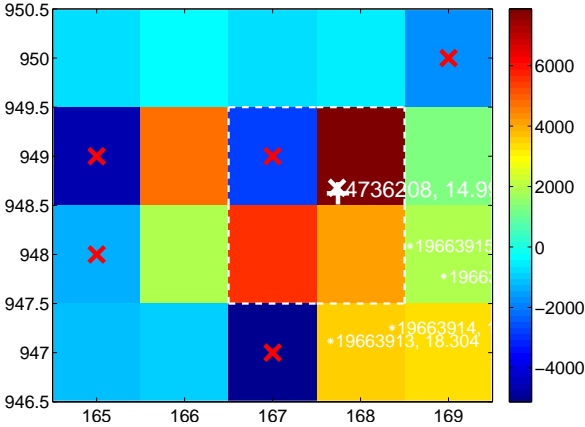
Q2 no difference image



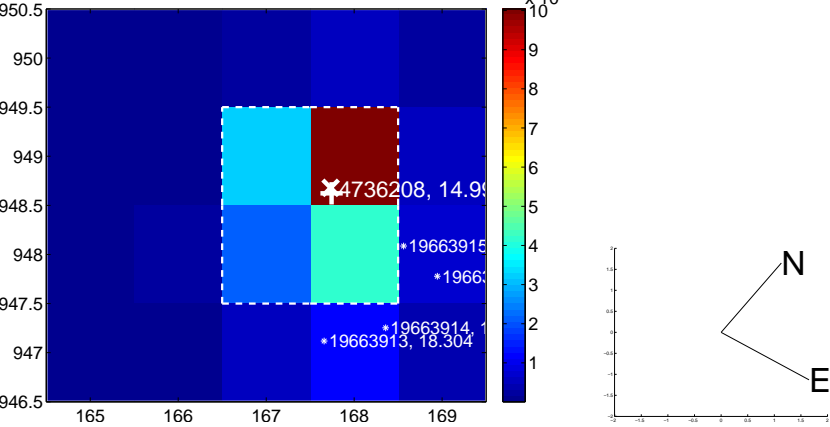
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



Q4 no OOT image



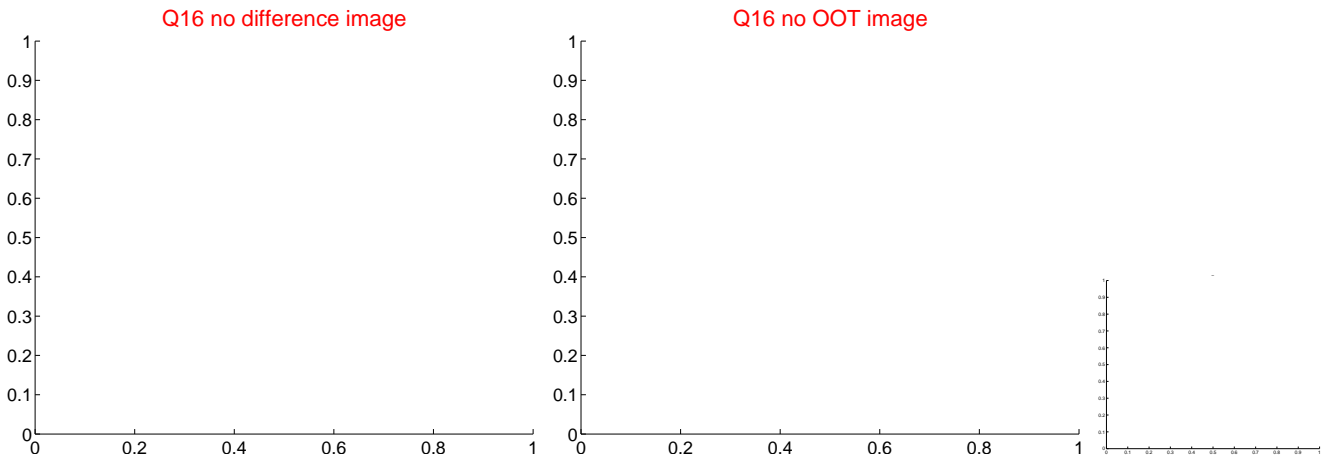
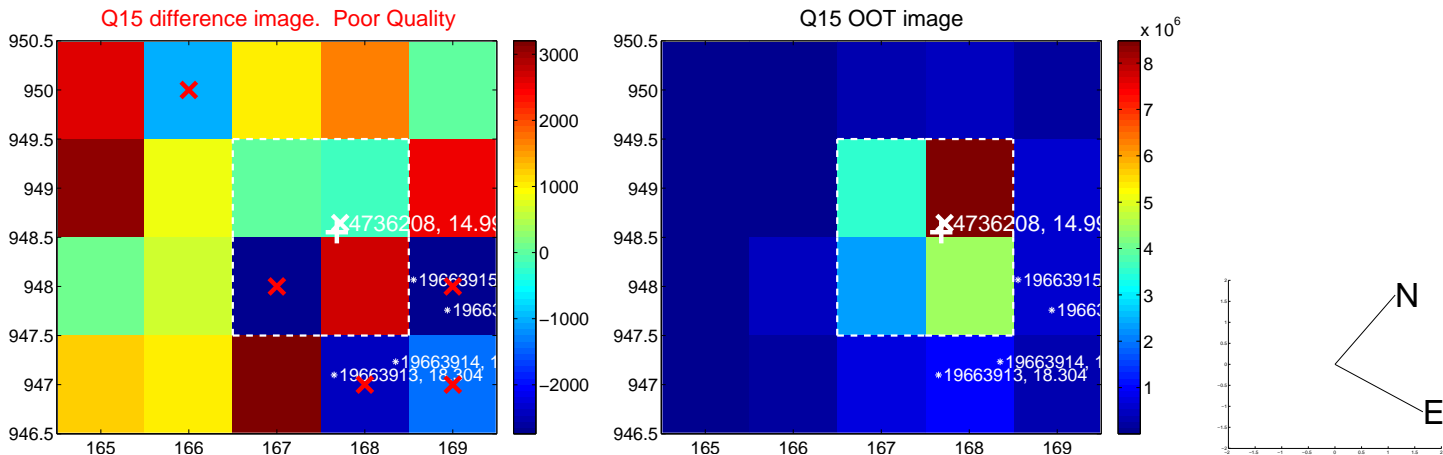
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



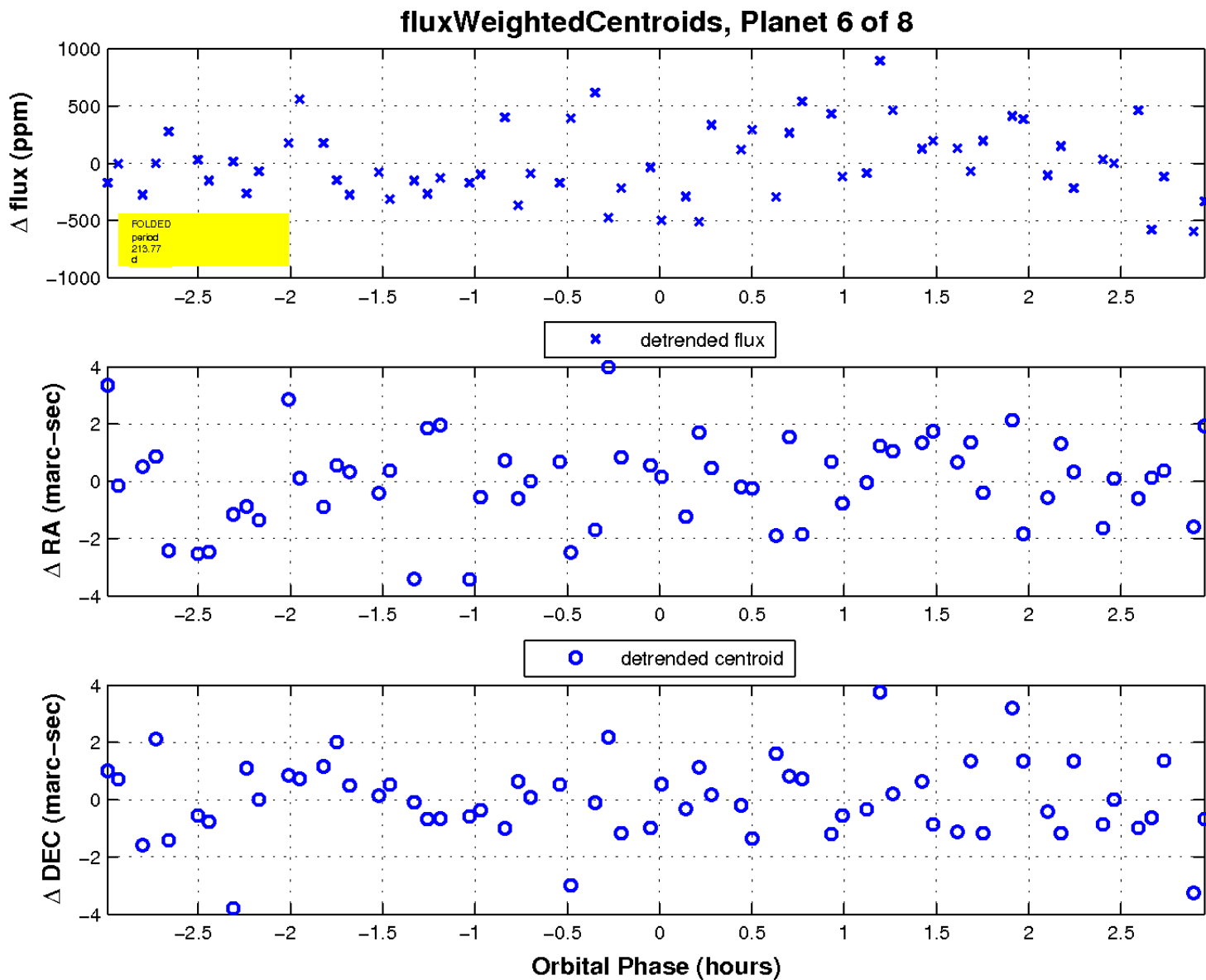
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

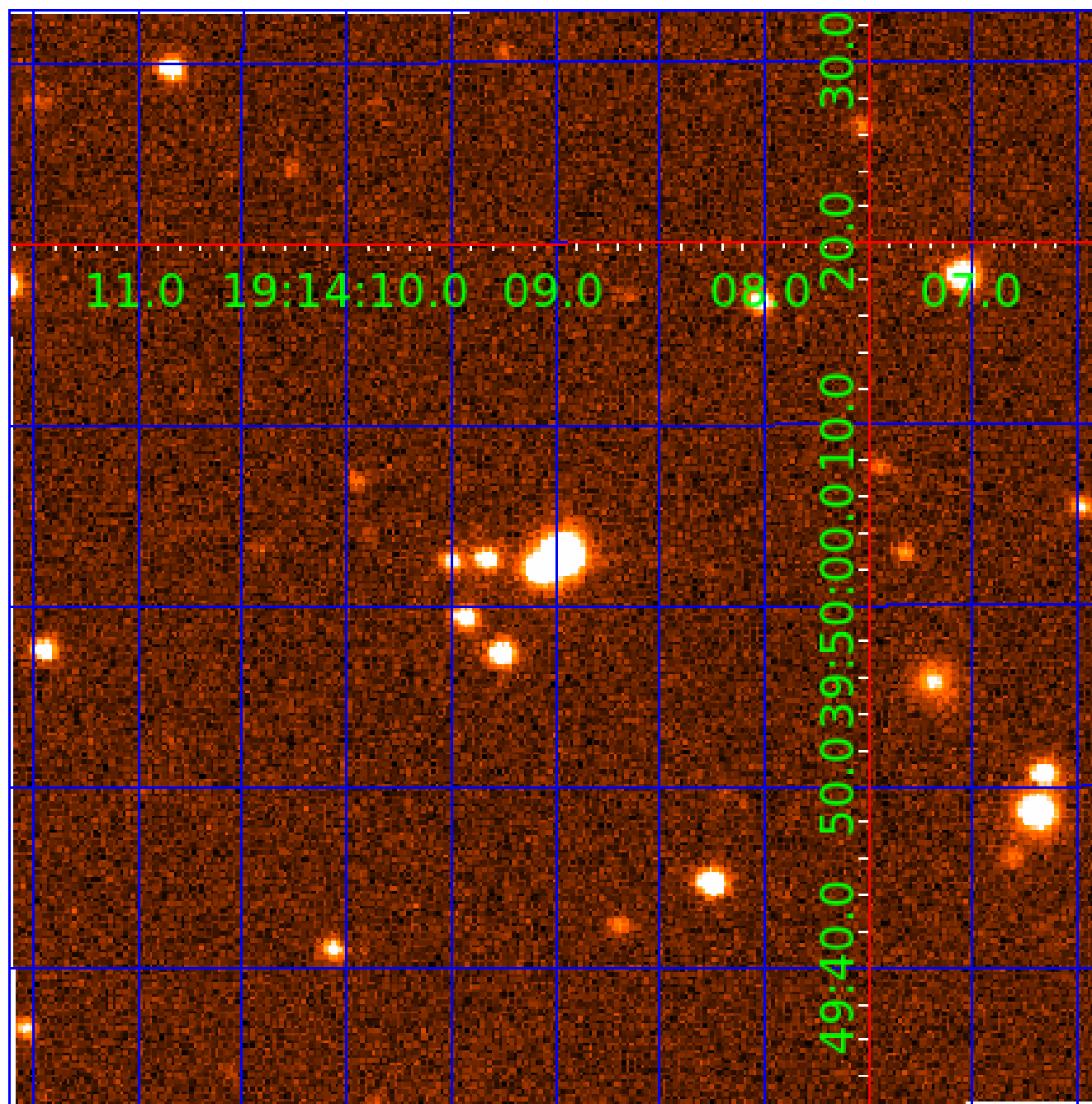


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004736208

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})
004736208-01	OBS	6439.01	63.681105	167.555794	355438.9	7.500	9944.7	-1.0	1.05	5979	57.51	13.18
004736208-02	OBS	No	63.680605	145.964332	321154.8	12.500	9480.5	-1.0	1.05	5979	53.91	13.18
004736208-03	OBS	No	222.739426	180.183734	4169.8	15.000	62.8	-1.0	1.05	5979	6.78	2.48
004736208-04	OBS	No	348.276408	173.311246	2161.7	15.000	46.9	-1.0	1.05	5979	4.88	1.37
004736208-06	OBS	No	213.769072	333.619336	6786.0	4.500	53.7	-1.0	1.05	5979	8.66	2.62
004736208-07	OBS	No	525.809988	340.461173	3904.5	9.000	47.7	-1.0	1.05	5979	6.57	0.79
004736208-08	OBS	No	424.262006	147.970226	3427.7	9.000	43.1	-1.0	1.05	5979	6.15	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004736208-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
004736208-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
004736208-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—CENT_NOFITS
004736208-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
004736208-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

Ephemeris Match Information For 004736208-07

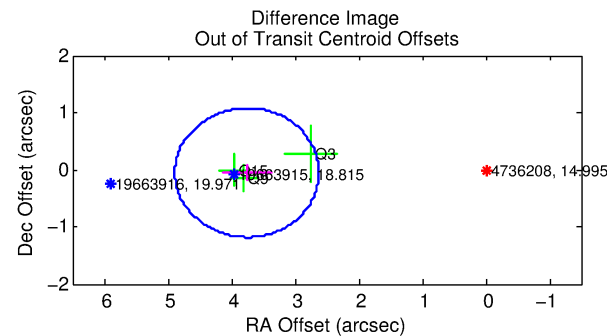
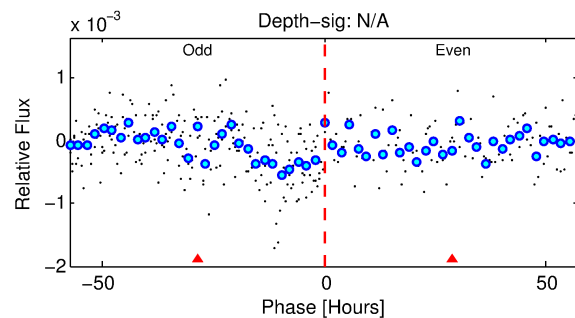
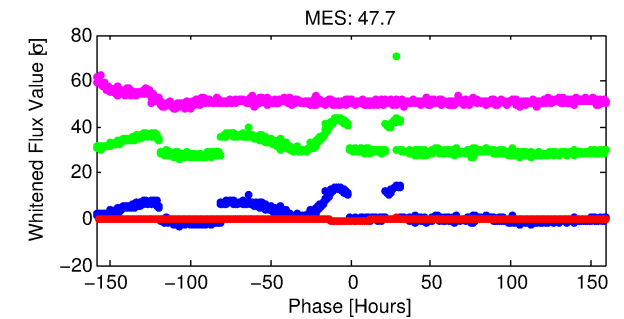
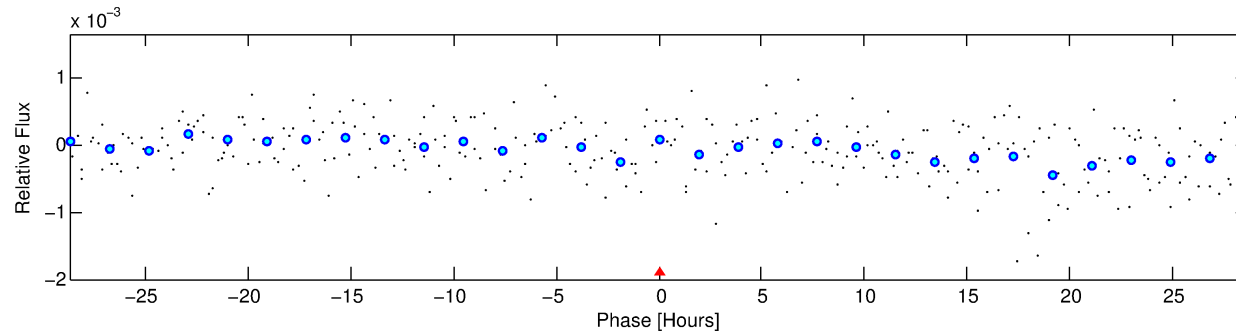
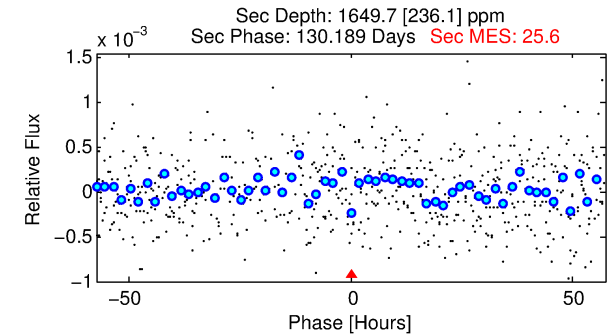
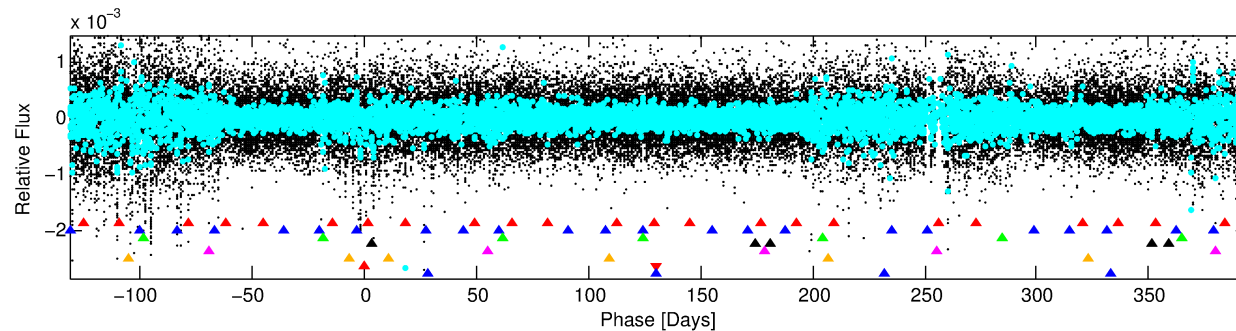
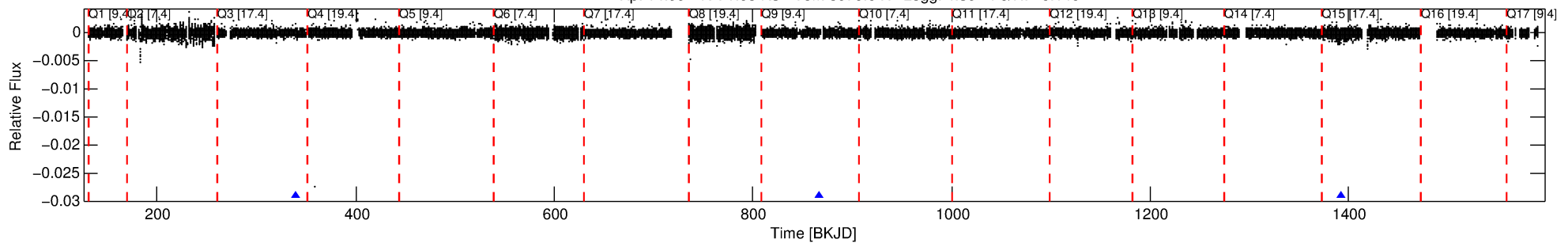
No Significant Match Found

DV One-Page Summary

KIC: 4736208 Candidate: 7 of 8 Period: 525.810 d

KOI: K06439 Corr: No Ephemeris Match

Kp: 14.99 R*: 1.05 Rs Teff: 5979.0 K Logg: 4.39 Fe/H: -0.140



TPS TCE Results:

Period = 525.80999 d
Epoch = 340.4612 BKJD

DV fit results are unavailable

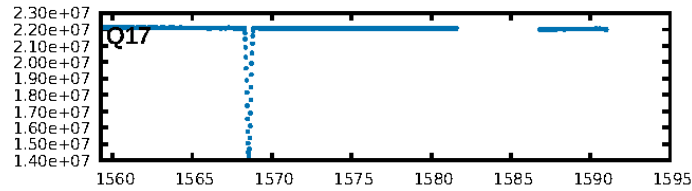
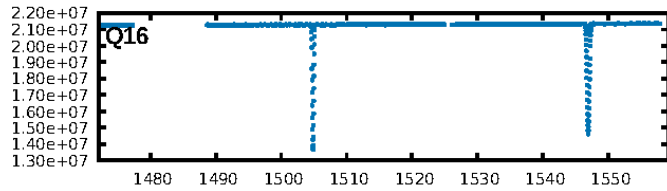
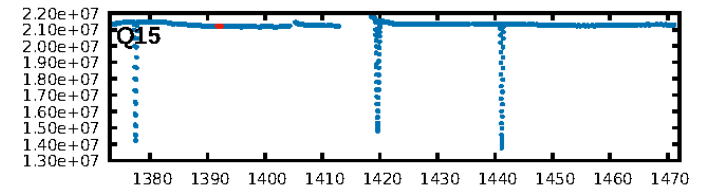
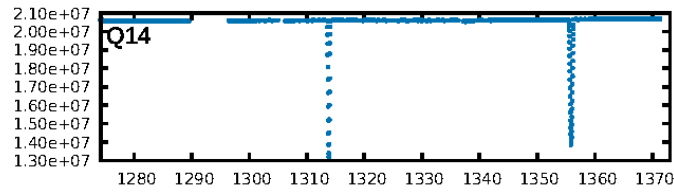
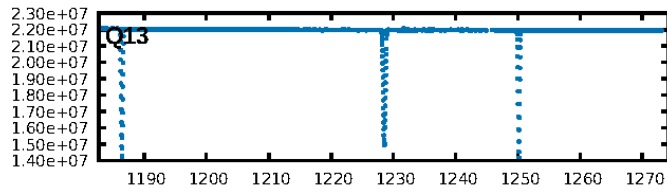
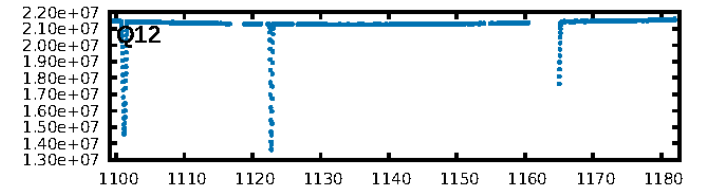
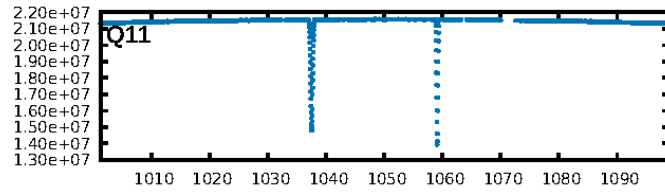
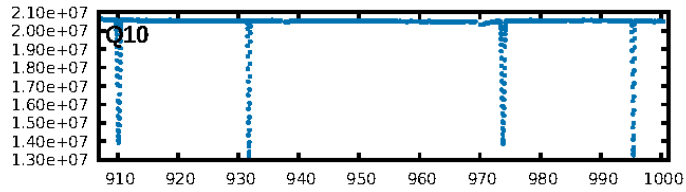
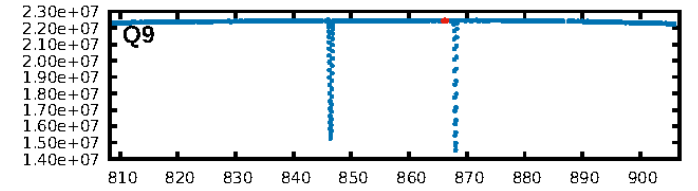
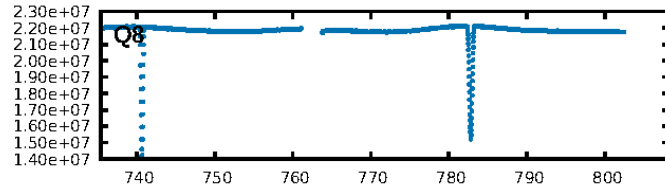
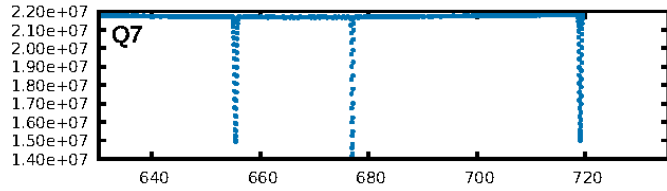
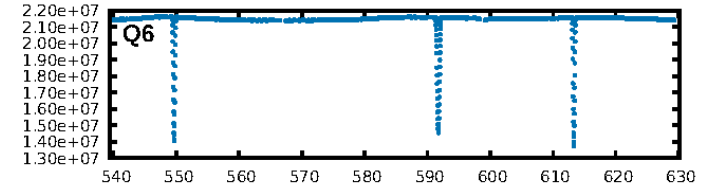
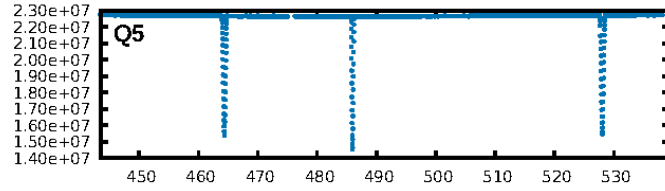
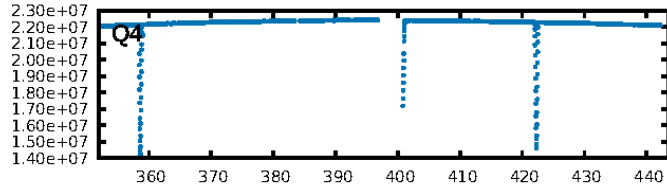
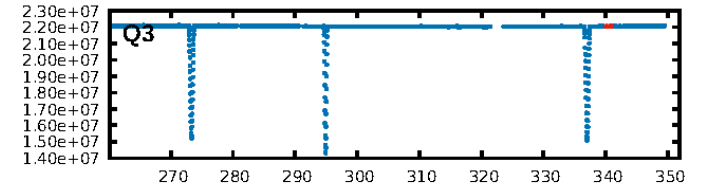
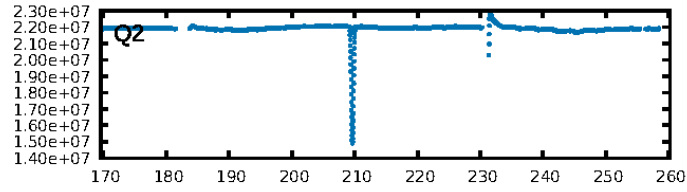
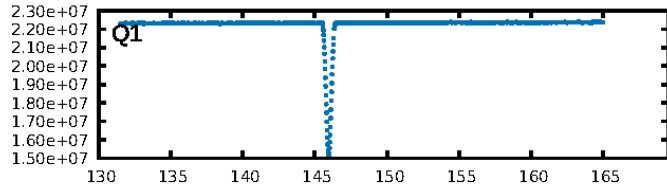
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [191.48σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.5247
Centroid-sig: N/A
Centroid-so: 1.532 arcsec [0.95σ]
OotOffset-rm: 3.758 arcsec [9.97σ]
KicOffset-rm: 3.855 arcsec [12.27σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

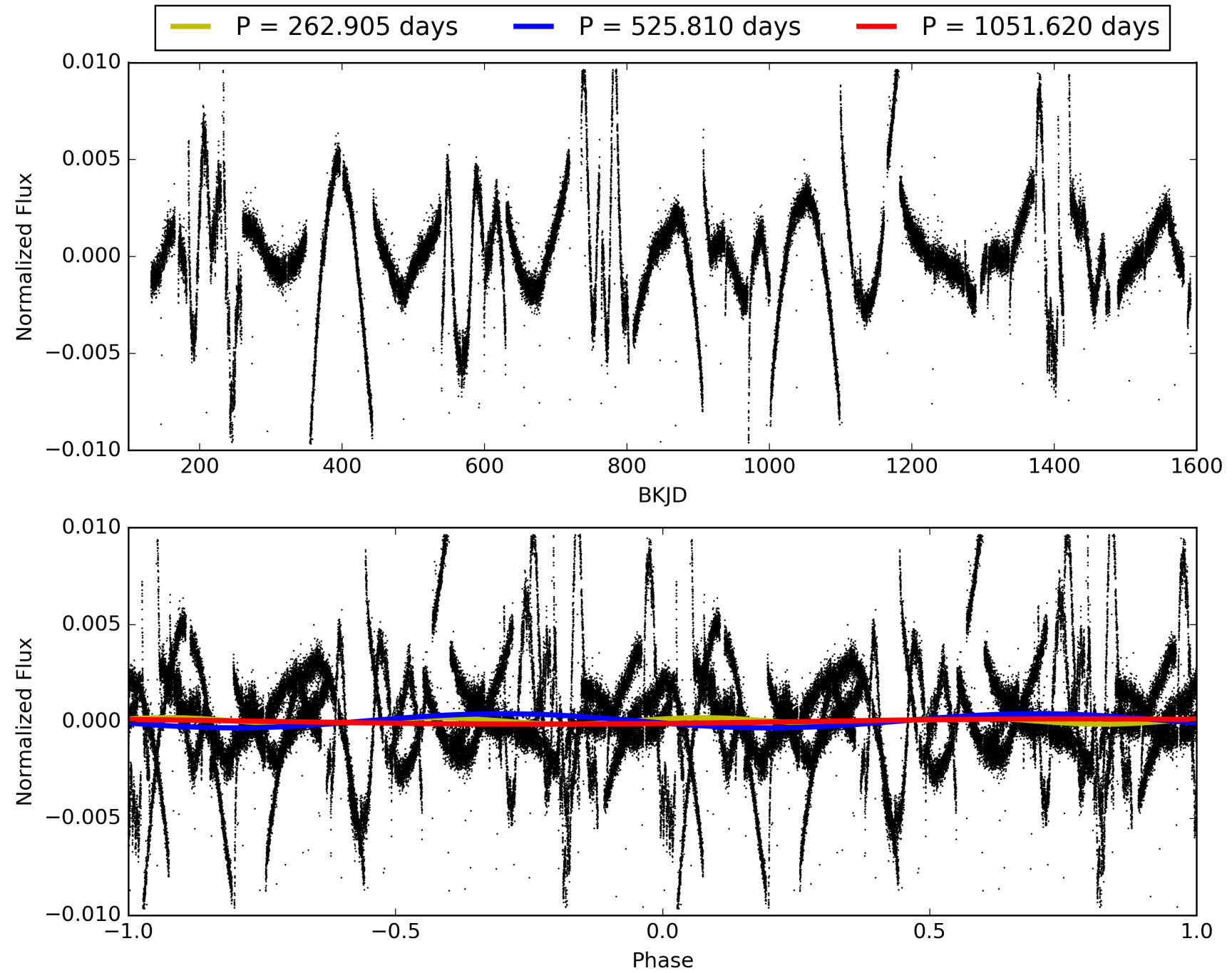
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:58:41 Z

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

TCE 004736208-07, PDC Light Curves

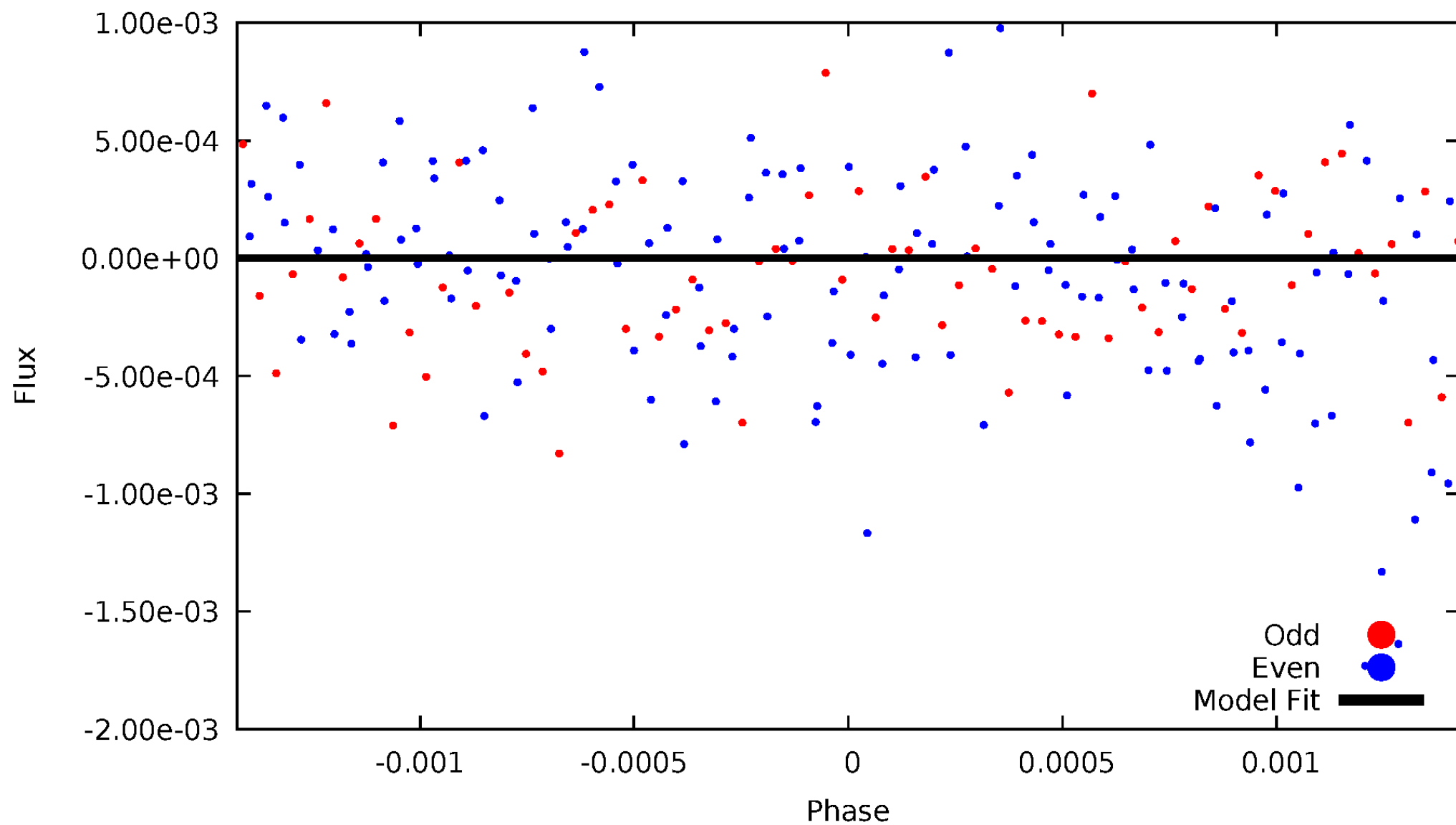


TCE 004736208-07



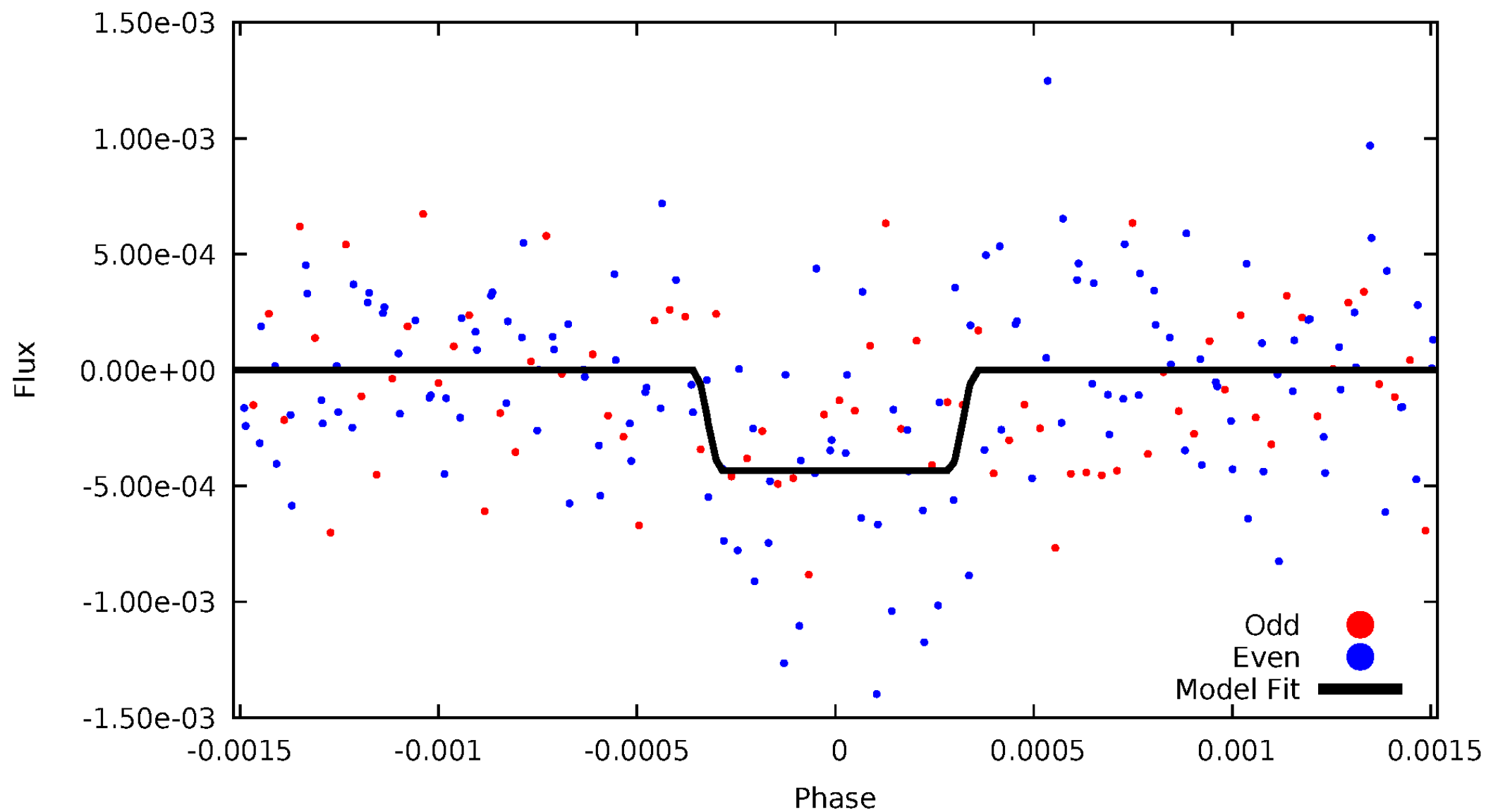
DV Odd/Even

TCE 004736208-07



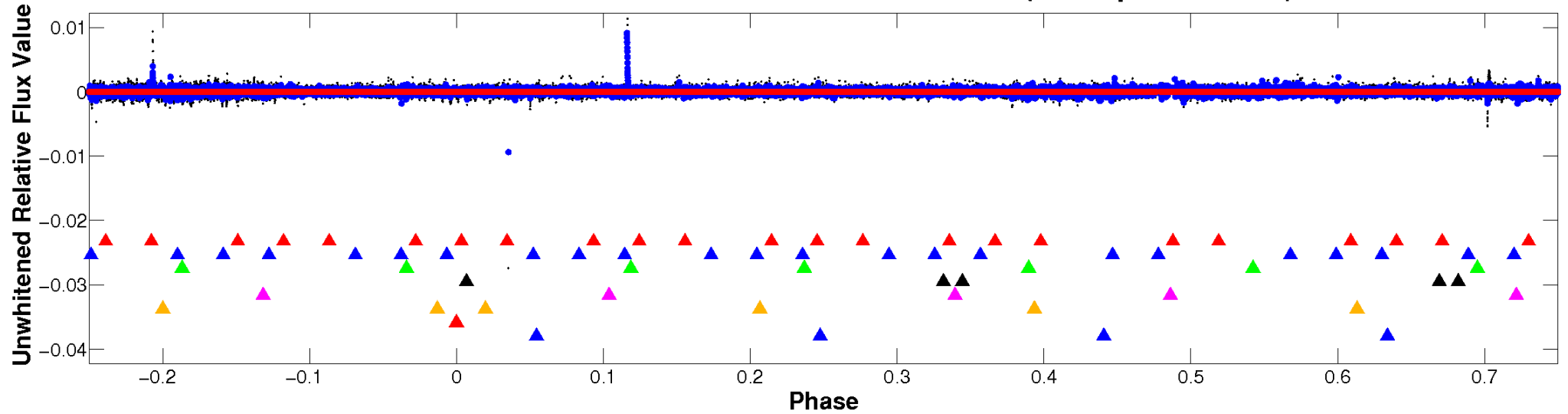
ALT Odd/Even

TCE 004736208-07



Non-Whitened Vs. Whitened Light Curve

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

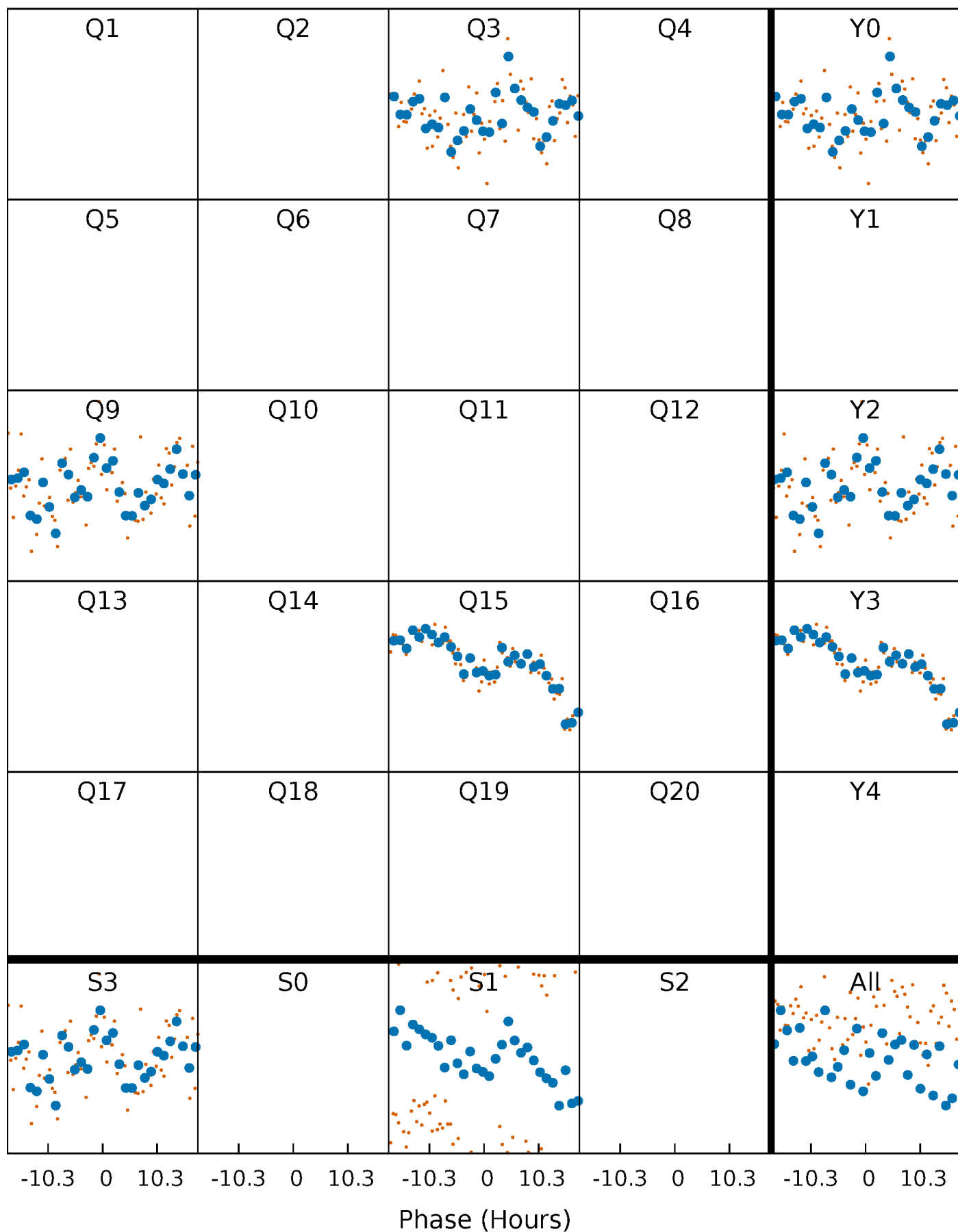


Planet 7 : Phased Whitened Flux Time Series (TPS Epoch/Period)



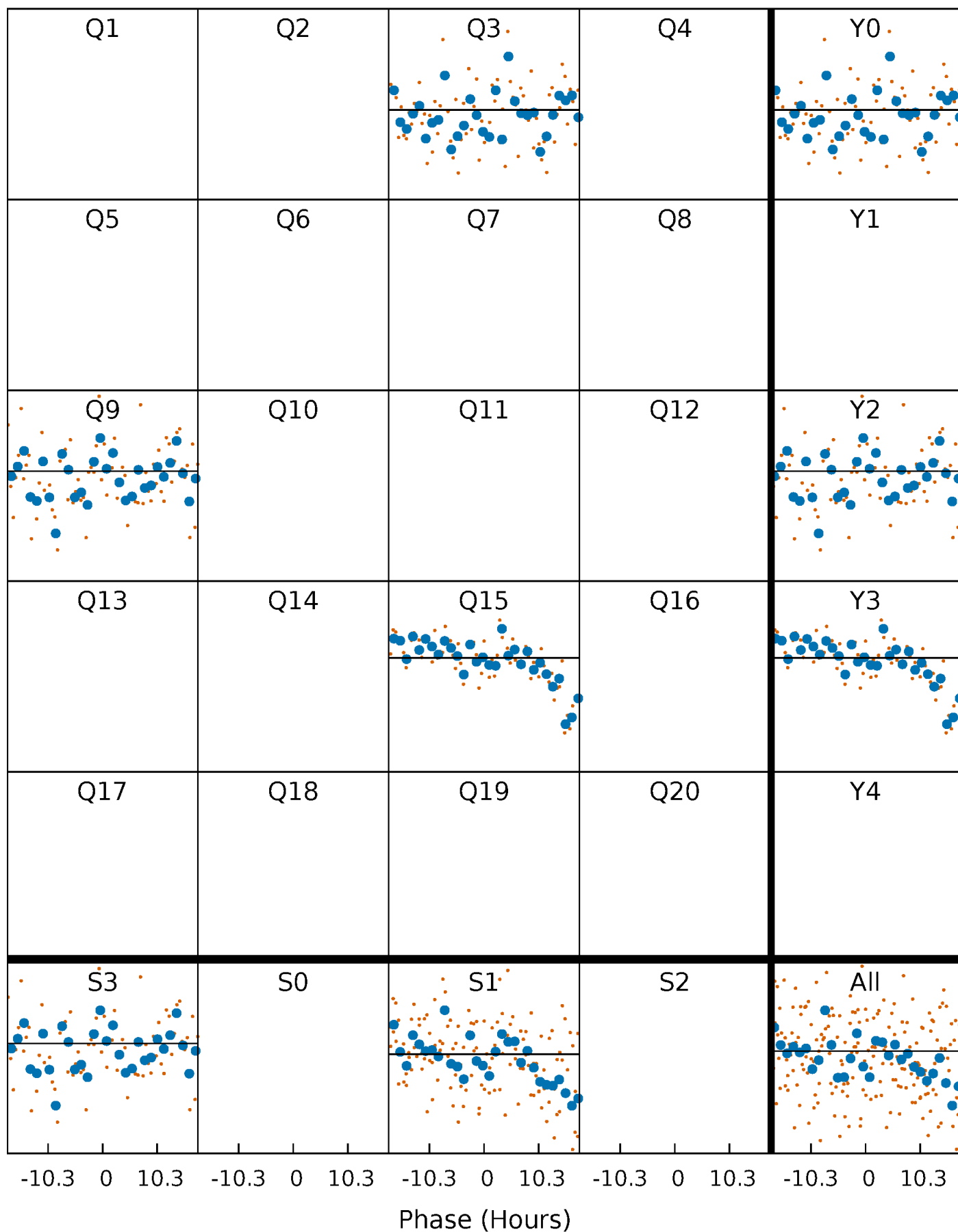
PDC Quarter-Phased Transit Curves

TCE 004736208-07 $P=525.809988$ Days $T_0=340.461173$ (BKJD)



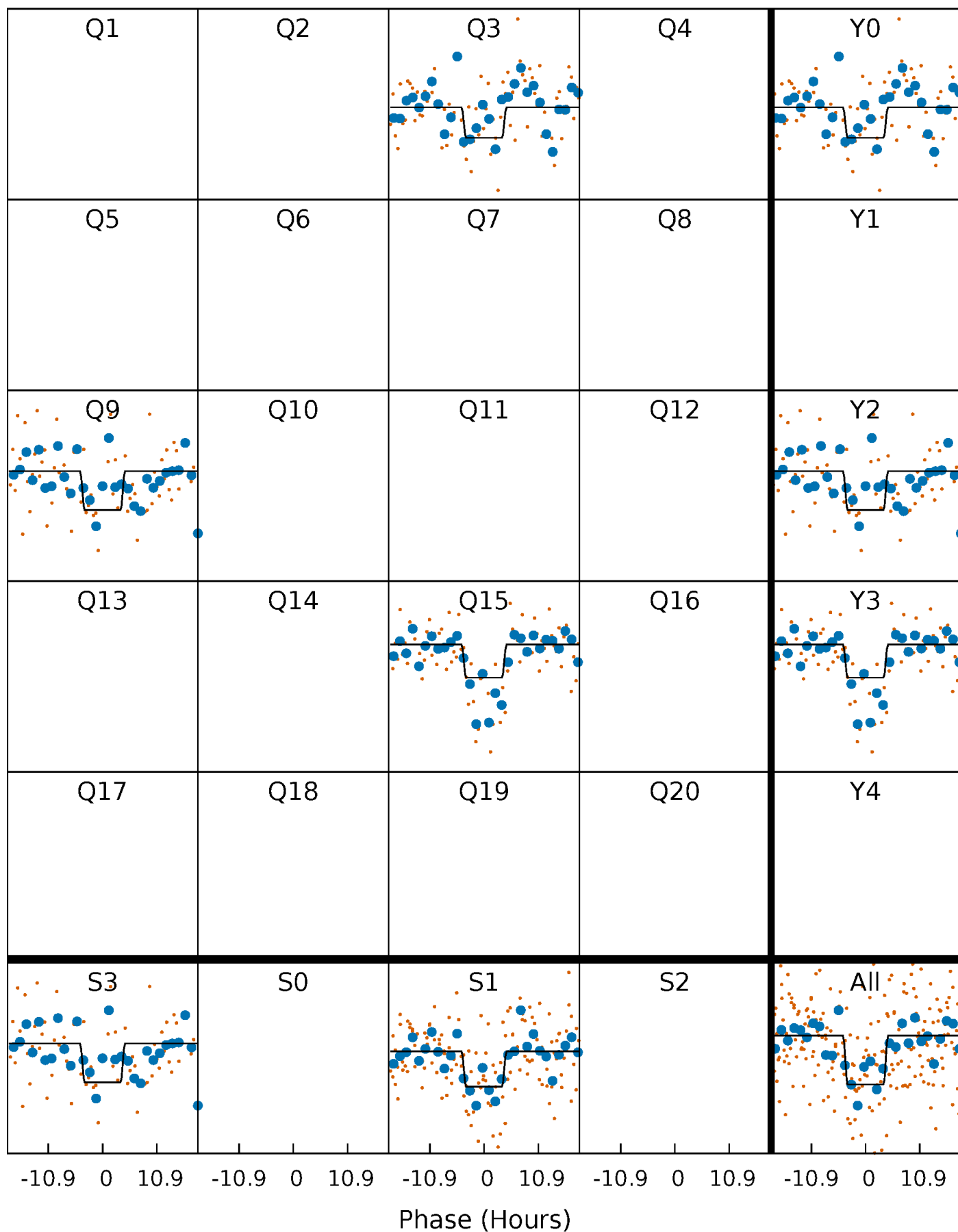
DV Quarter-Phased Transit Curves

TCE 004736208-07 $P=525.809988$ Days $T_0=340.461173$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

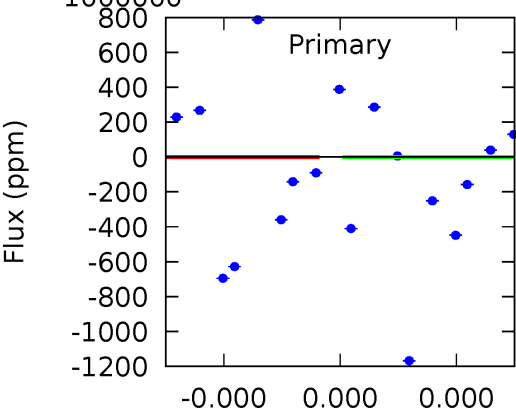
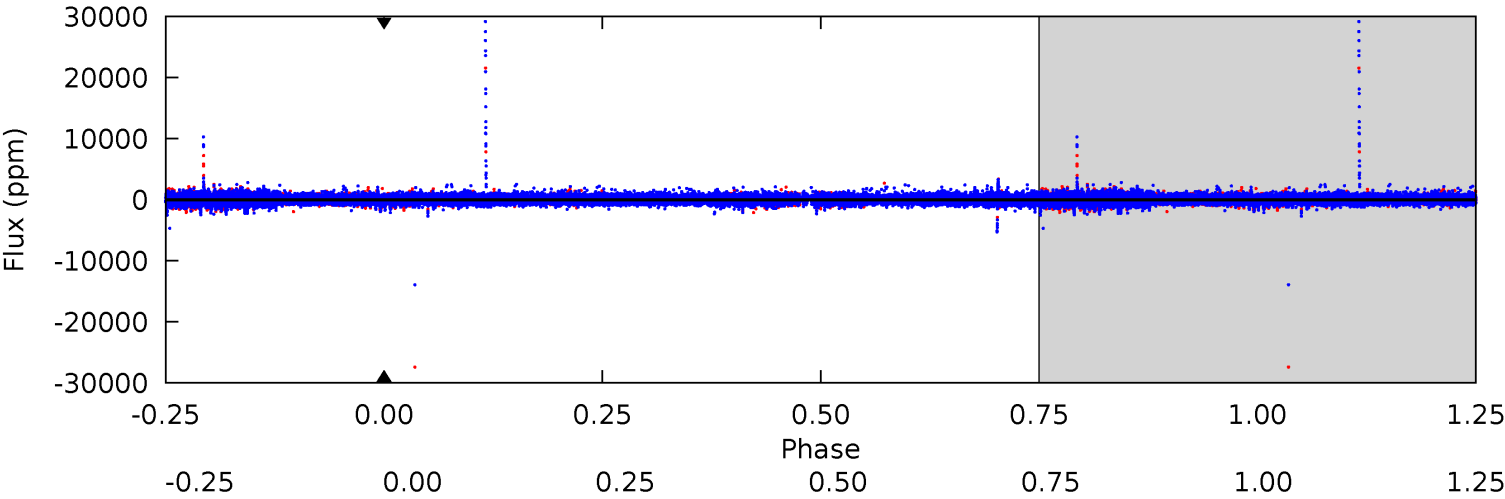
TCE 004736208-07 $P=525.809988$ Days $T_0=340.366694$ (BKJD)



DV Model-Shift Uniqueness Test

004736208-07, P = 525.809988 Days, E = 340.461173 Days

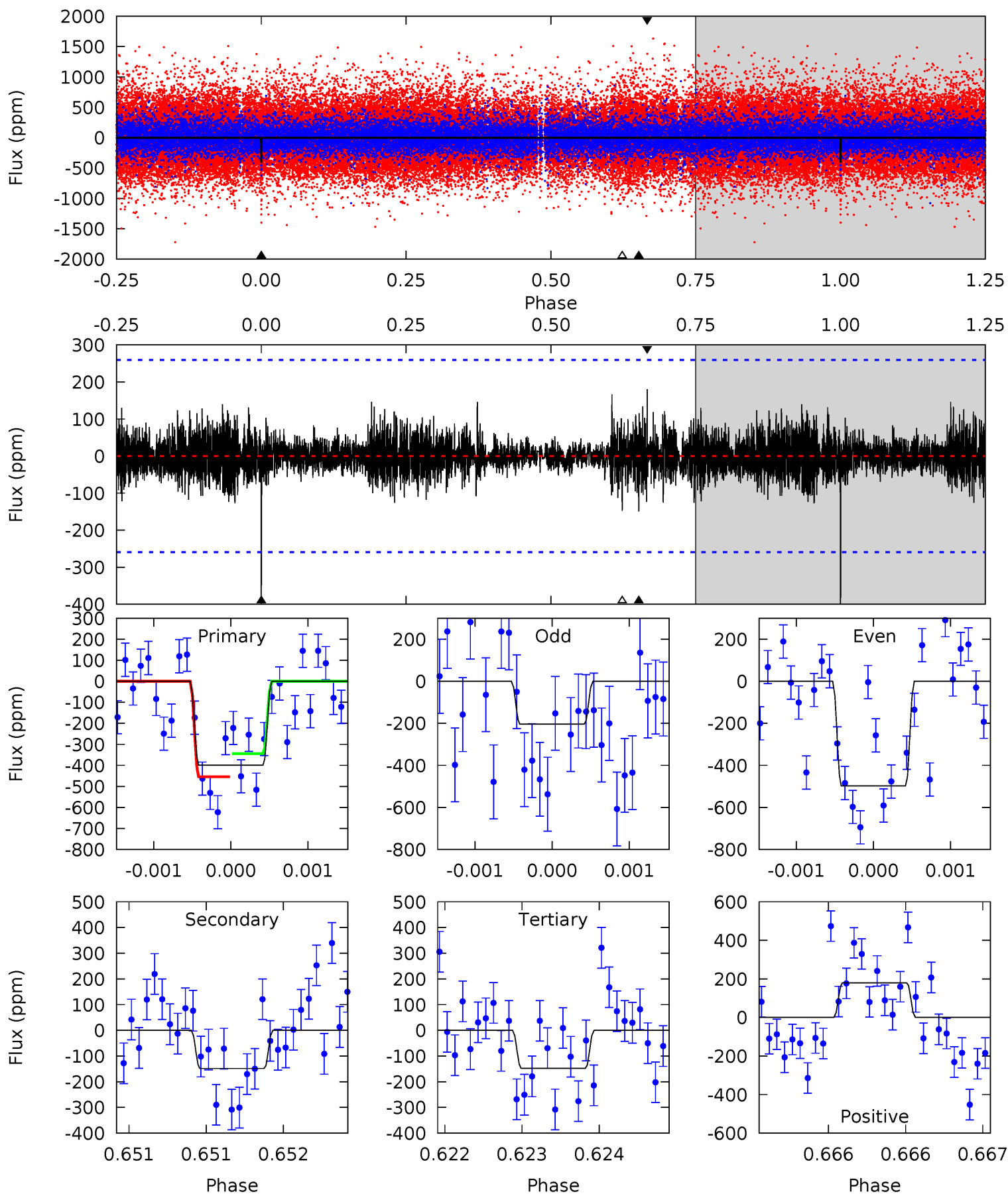
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004736208-07, P = 525.809988 Days, E = 340.366694 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.51	3.16	3.14	3.83	5.52	3.40	0.77	5.37	4.68	0.02	-0.67	2.54	1.39	0.31	1.17



Stellar Parameters For KIC 004736208

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5979^{+179}_{-197}	$4.386^{+0.108}_{-0.201}$	$-0.140^{+0.300}_{-0.300}$	$1.054^{+0.315}_{-0.170}$	$0.986^{+0.145}_{-0.119}$	$1.187^{+0.575}_{-0.584}$
	+3%/-3%	+2%/-5%	+214%/-214%	+30%/-16%	+15%/-12%	+48%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004736208-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$11.29^{+10.03}_{-7.57}$	340^{+25}_{-20}	4809^{+13019}_{-20050}	$25000^{+1313768}_{-1032153}$
Alt.	-148 ± 47	$9.18^{+8.94}_{-6.32}$	341^{+27}_{-19}	3001^{+1358}_{-503}	1457^{+12495}_{-1126}

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

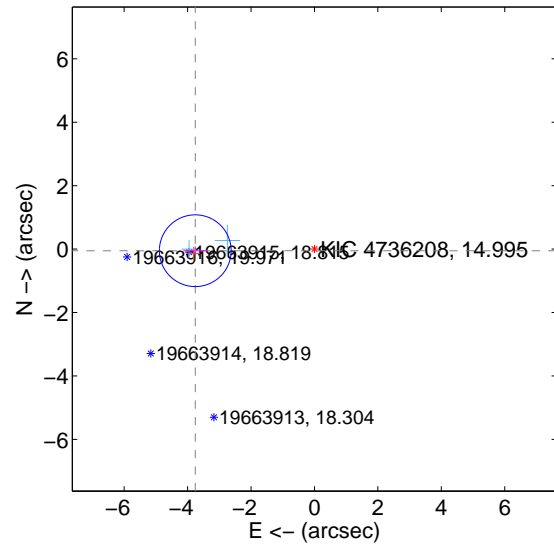
Supplemental centroid analysis for 004736208-07. Kepler magnitude: 14.99. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

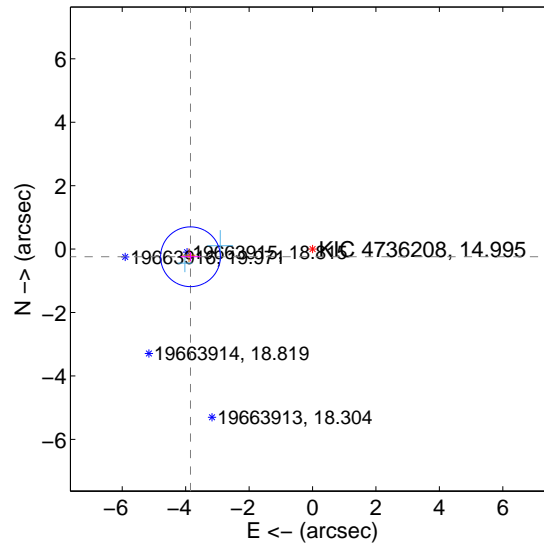
The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.758 ± 0.377	9.97	3.757 ± 0.376	-0.051 ± 0.134
PRF-fit source offset from KIC position	3.855 ± 0.314	12.27	3.847 ± 0.315	-0.241 ± 0.147
photometric centroid source offset	1.53 ± 1.61	0.95	-0.80 ± 1.68	-1.31 ± 1.58

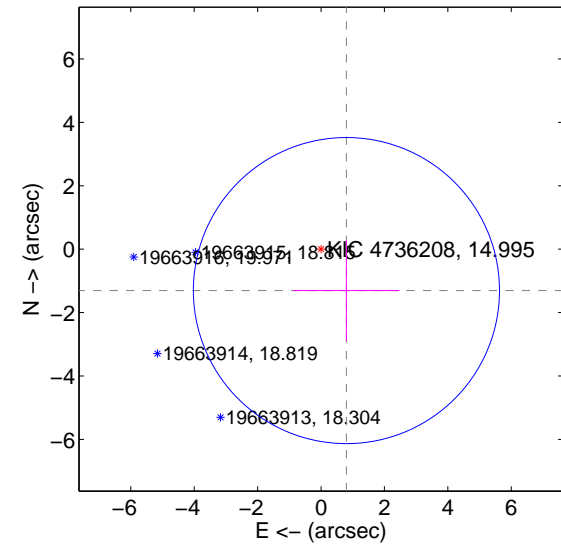
offset from difference PRF-fit to OOT PRF-fit



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

Q1 no difference image



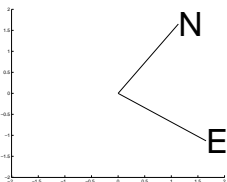
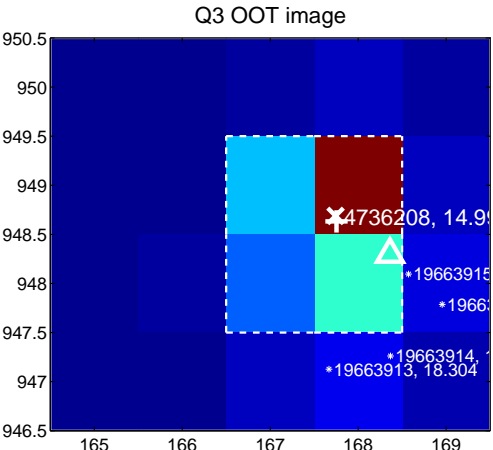
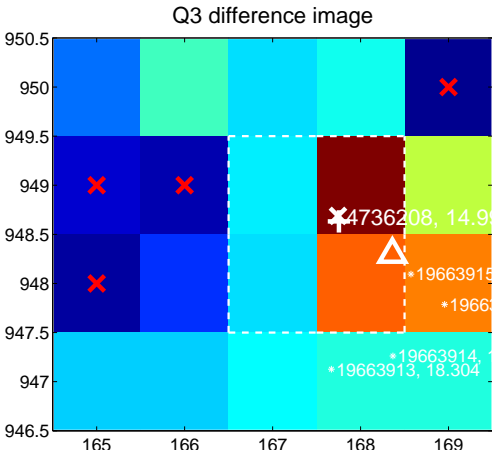
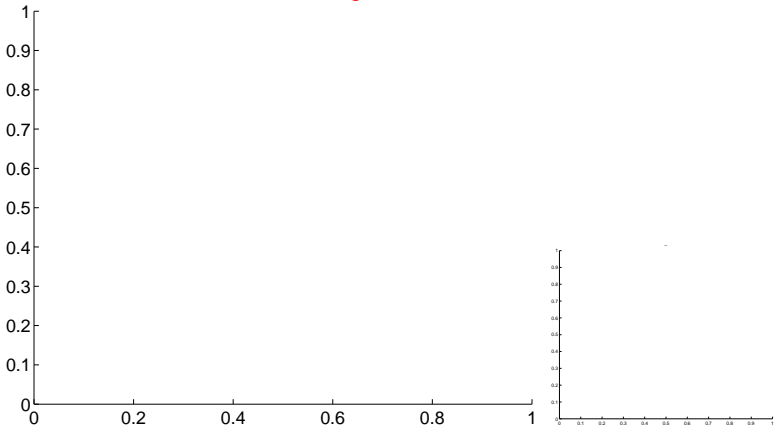
Q1 no OOT image



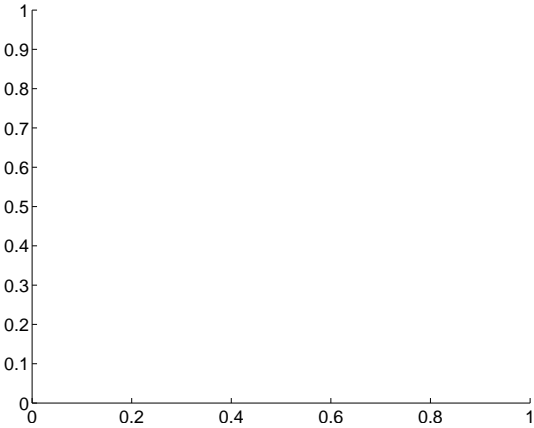
Q2 no difference image



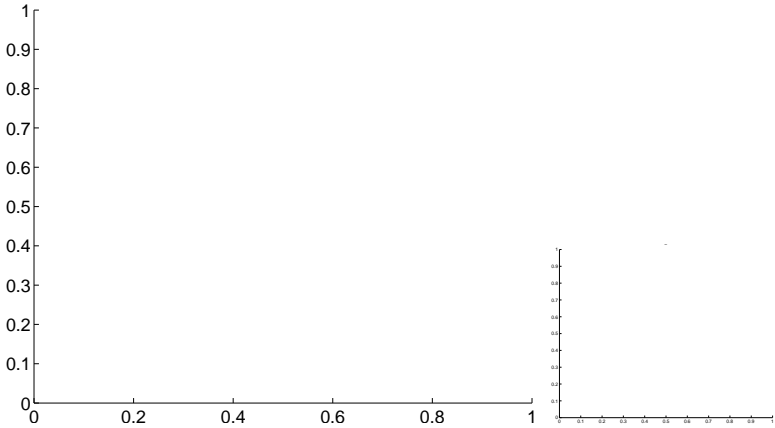
Q2 no OOT image



Q4 no difference image



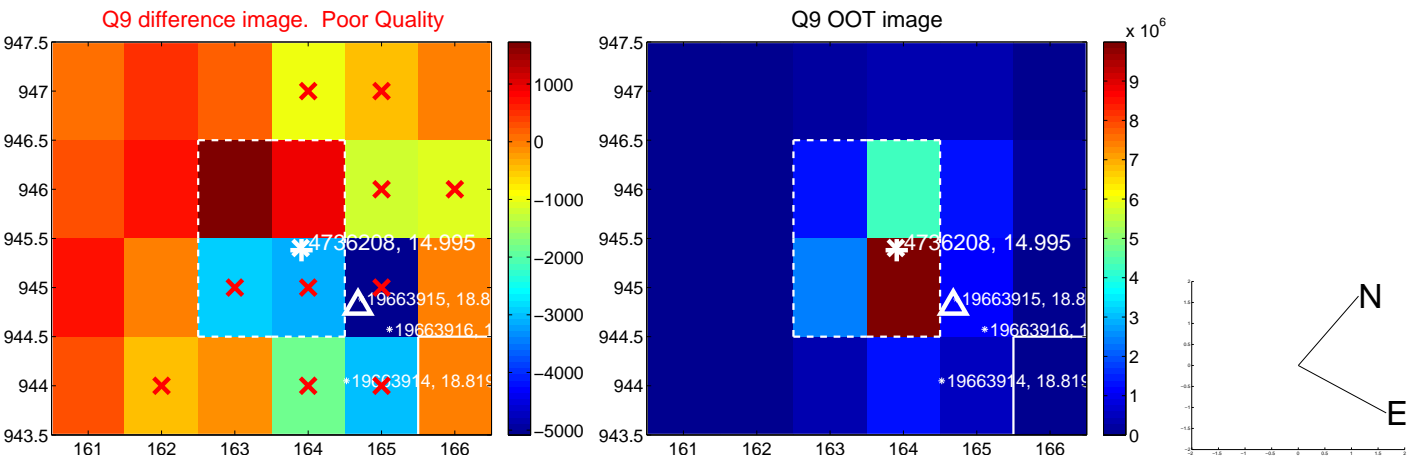
Q4 no OOT image



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



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



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

Q13 no difference image



Q13 no OOT image



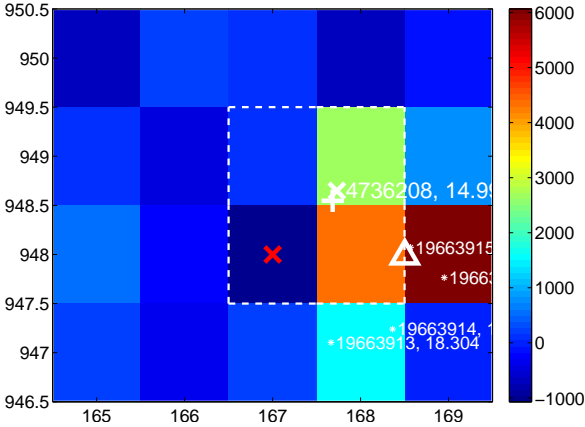
Q14 no difference image



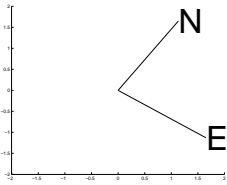
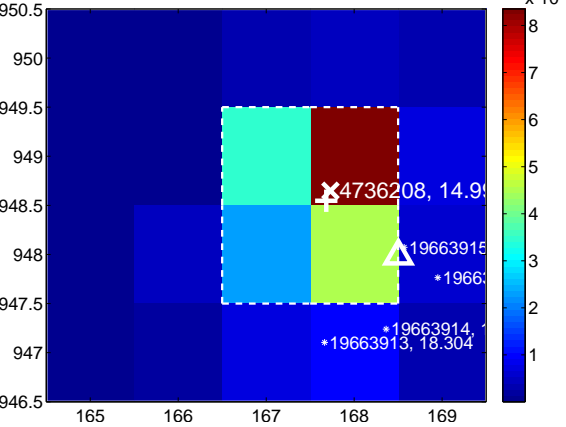
Q14 no OOT image



Q15 difference image



Q15 OOT image



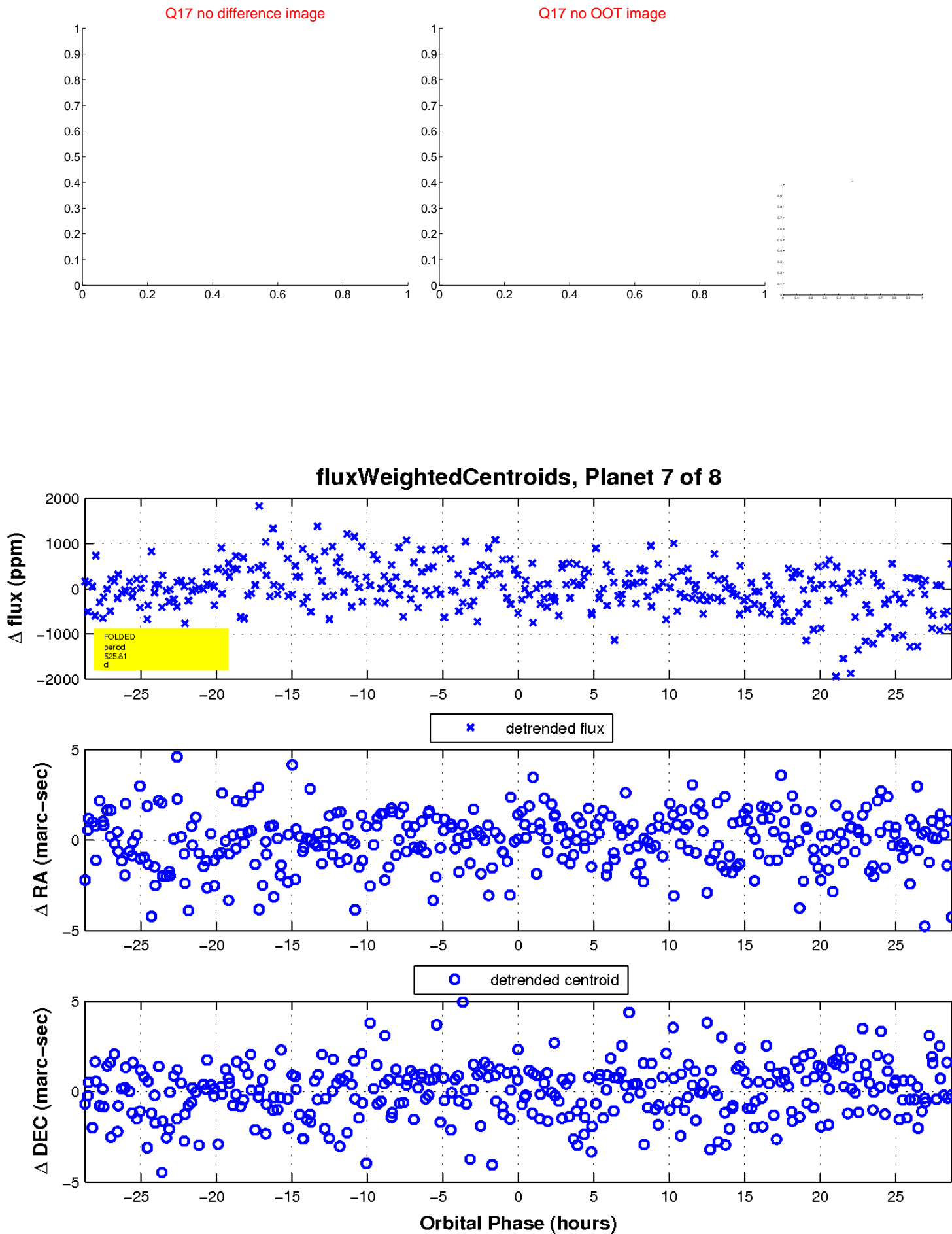
Q16 no difference image



Q16 no OOT image

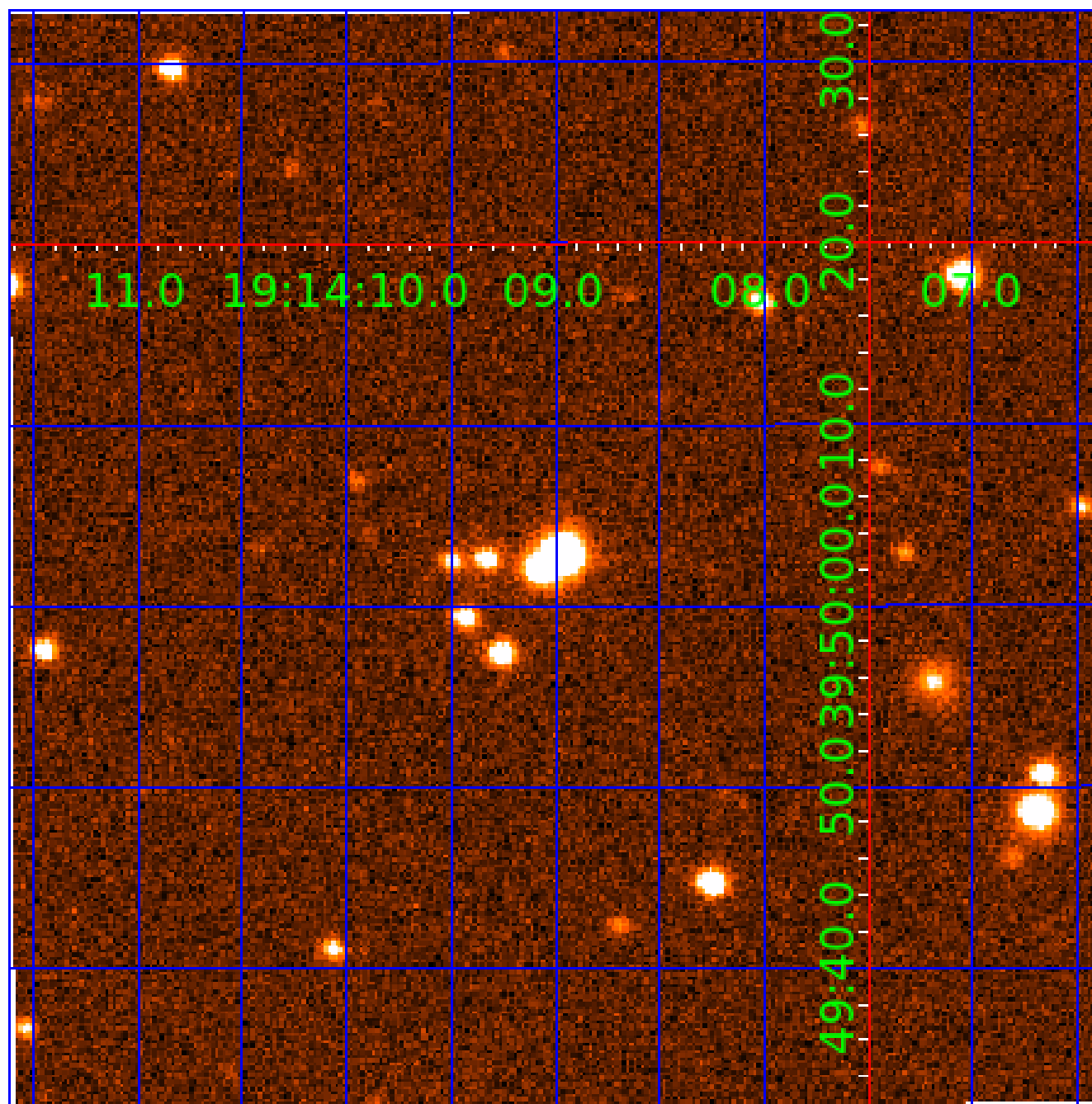


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004736208

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})
004736208-01	OBS	6439.01	63.681105	167.555794	355438.9	7.500	9944.7	-1.0	1.05	5979	57.51	13.18
004736208-02	OBS	No	63.680605	145.964332	321154.8	12.500	9480.5	-1.0	1.05	5979	53.91	13.18
004736208-03	OBS	No	222.739426	180.183734	4169.8	15.000	62.8	-1.0	1.05	5979	6.78	2.48
004736208-04	OBS	No	348.276408	173.311246	2161.7	15.000	46.9	-1.0	1.05	5979	4.88	1.37
004736208-06	OBS	No	213.769072	333.619336	6786.0	4.500	53.7	-1.0	1.05	5979	8.66	2.62
004736208-07	OBS	No	525.809988	340.461173	3904.5	9.000	47.7	-1.0	1.05	5979	6.57	0.79
004736208-08	OBS	No	424.262006	147.970226	3427.7	9.000	43.1	-1.0	1.05	5979	6.15	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004736208-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
004736208-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
004736208-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—CENT_NOFITS
004736208-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
004736208-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
004736208-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

Ephemeris Match Information For 004736208-08

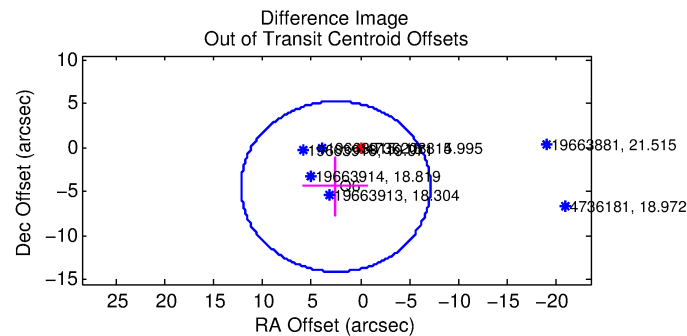
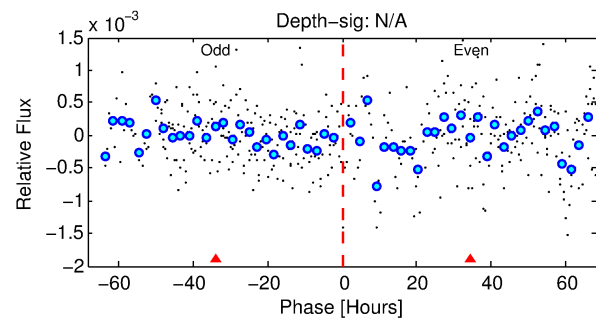
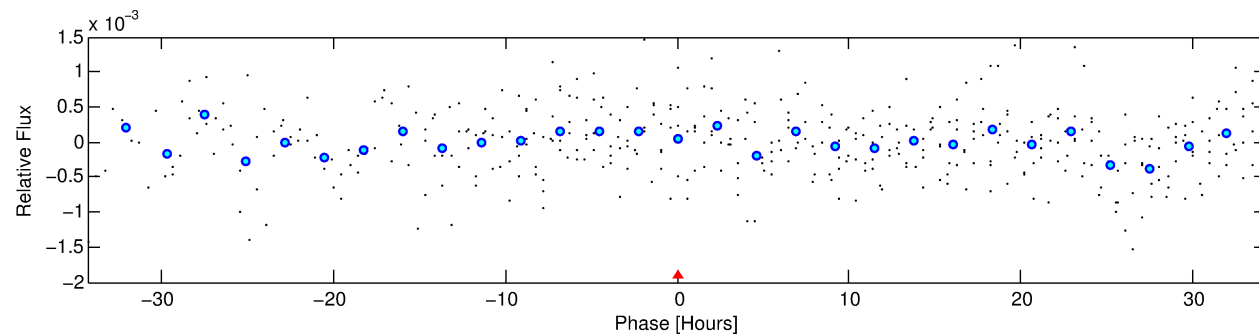
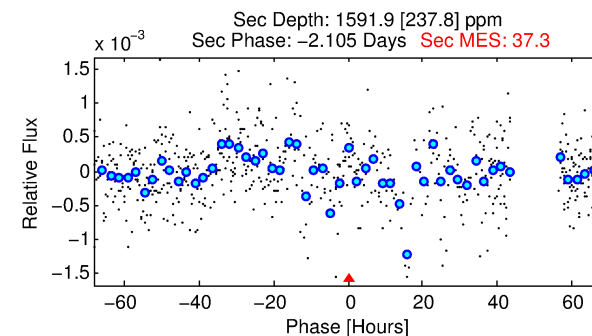
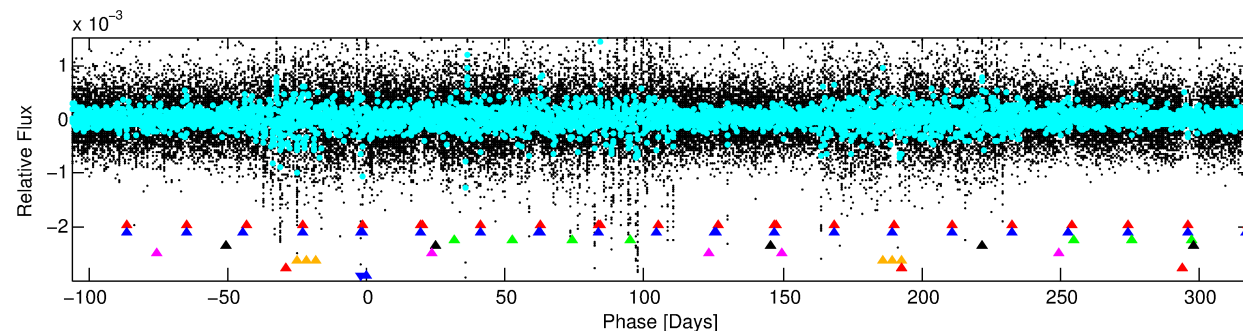
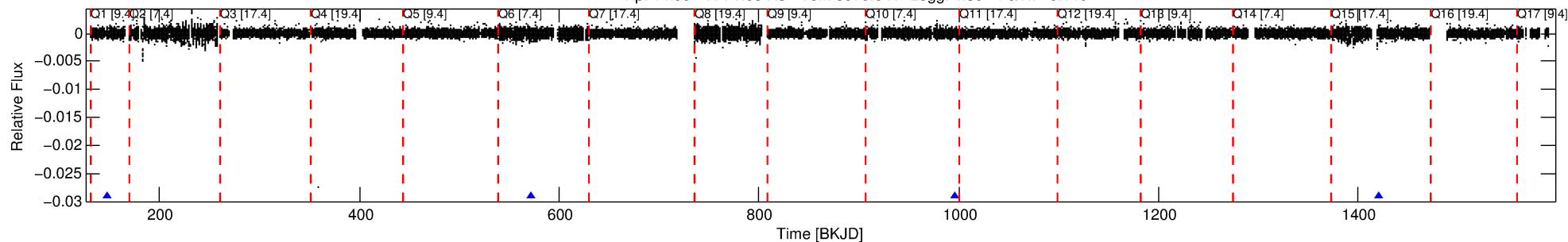
No Significant Match Found

DV One-Page Summary

KIC: 4736208 Candidate: 8 of 8 Period: 424.262 d

KOI: K06439 Corr: No Ephemeris Match

Kp: 14.99 R*: 1.05 Rs Teff: 5979.0 K Logg: 4.39 Fe/H: -0.140



TPS TCE Results:

Period = 424.26201 d

Epoch = 147.9702 BKJD

DV fit results are unavailable

DV Diagnostic Results:

ShortPeriod-sig: 100.0% [104.25 σ]

LongPeriod-sig: 100.0% [191.48 σ]

ModelChiSquare2-sig: N/A

ModelChiSquareGof-sig: N/A

Bootstrap-pfa: N/A

RollingBand-fgt: 1.00 [3/3]

GhostDiagnostic-chr: -20.51

Centroid-sig: N/A

Centroid-so: 0.778 arcsec [0.84 σ]

OotOffset-rm: 5.091 arcsec [1.58 σ]

KicOffset-rm: 4.932 arcsec [1.53 σ]

OotOffset-st: 1/0/0/0 [1]

KicOffset-st: 1/0/0/0 [1]

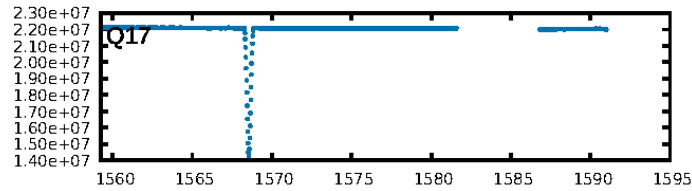
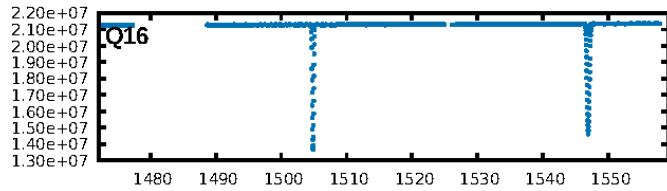
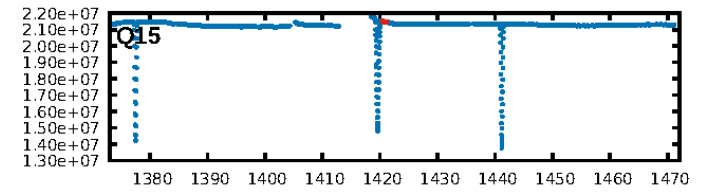
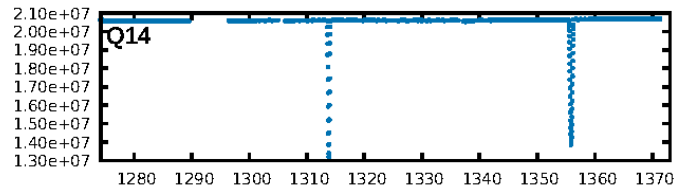
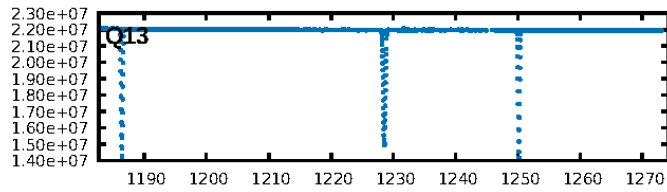
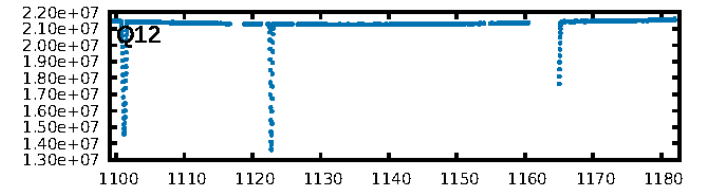
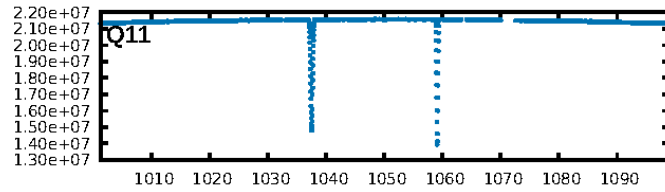
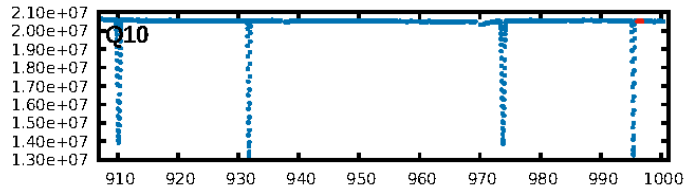
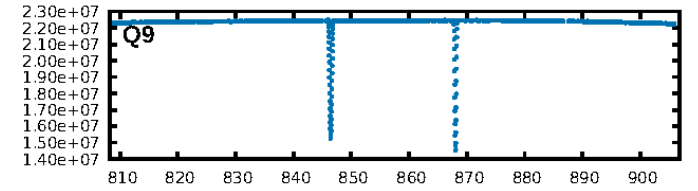
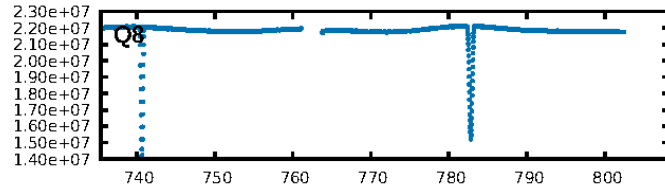
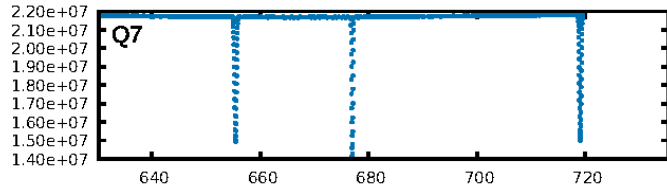
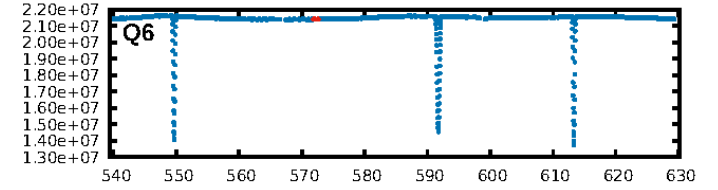
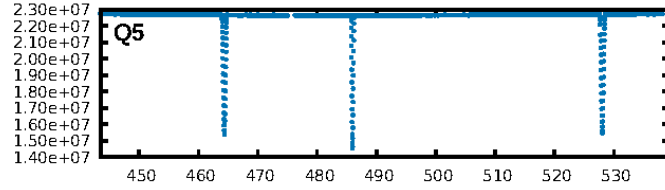
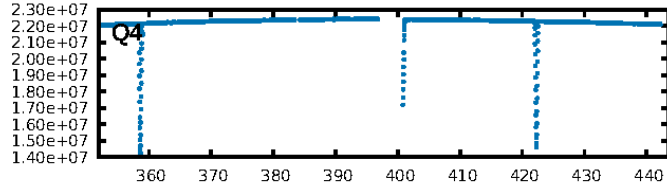
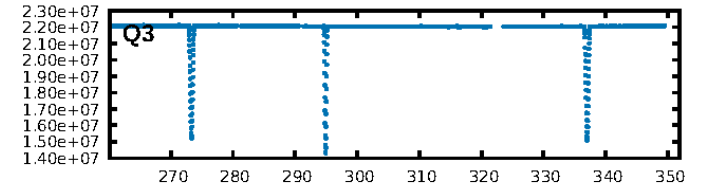
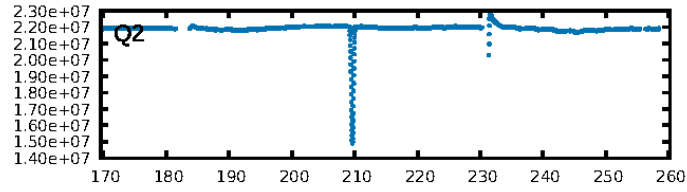
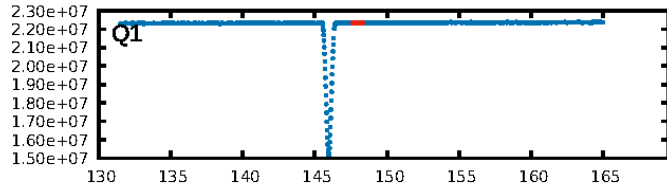
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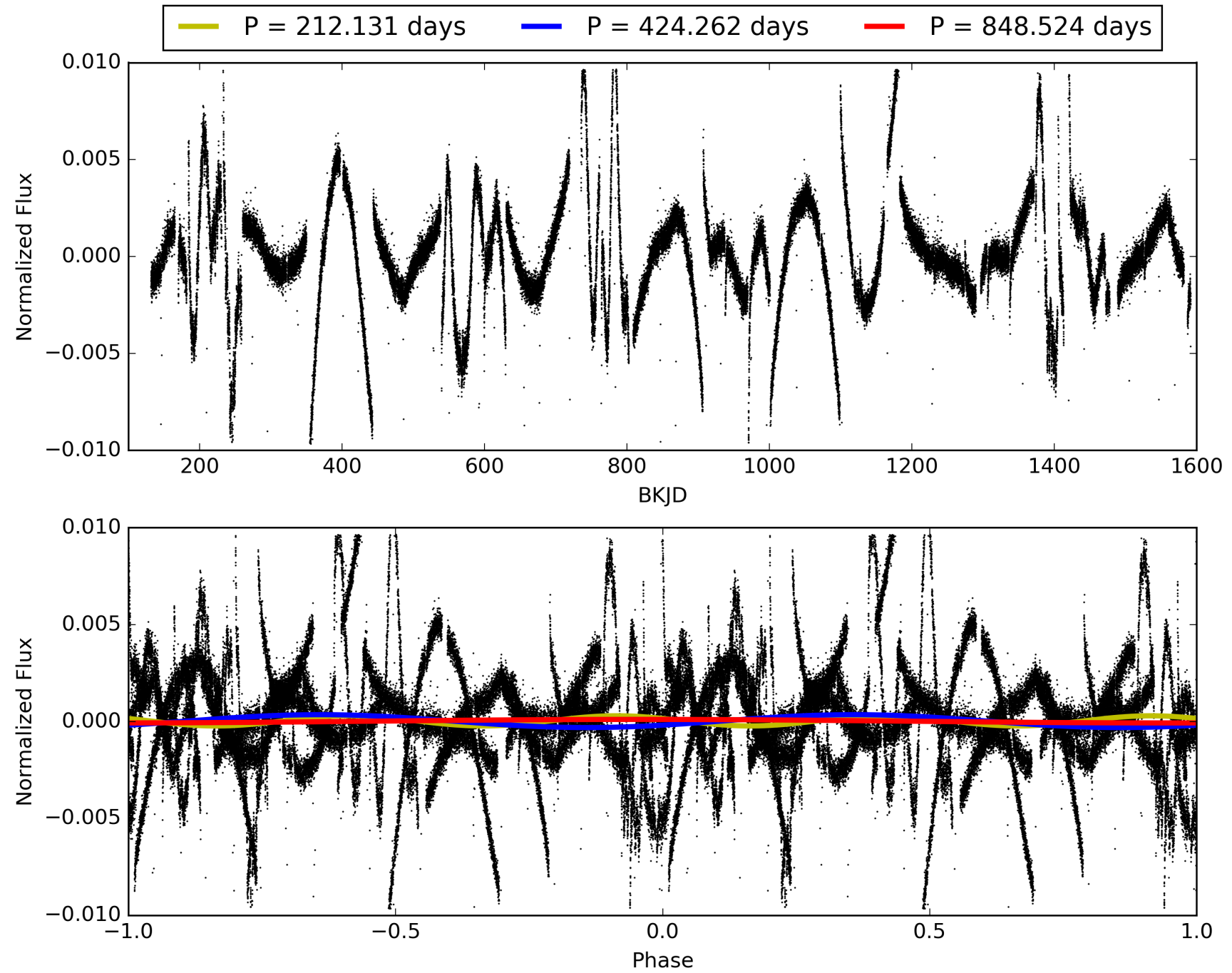
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:58:50 Z

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

TCE 004736208-08, PDC Light Curves

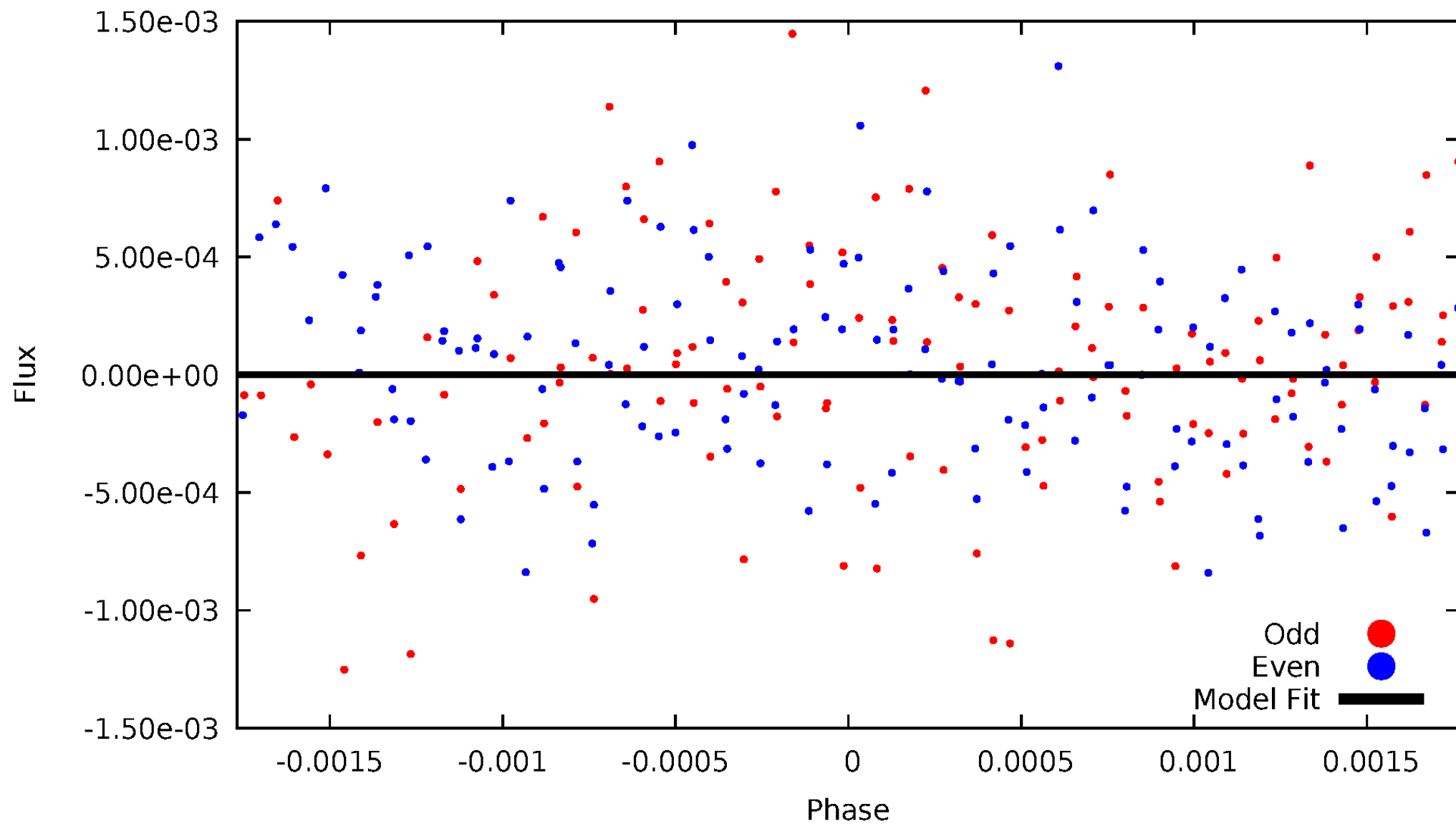


TCE 004736208-08



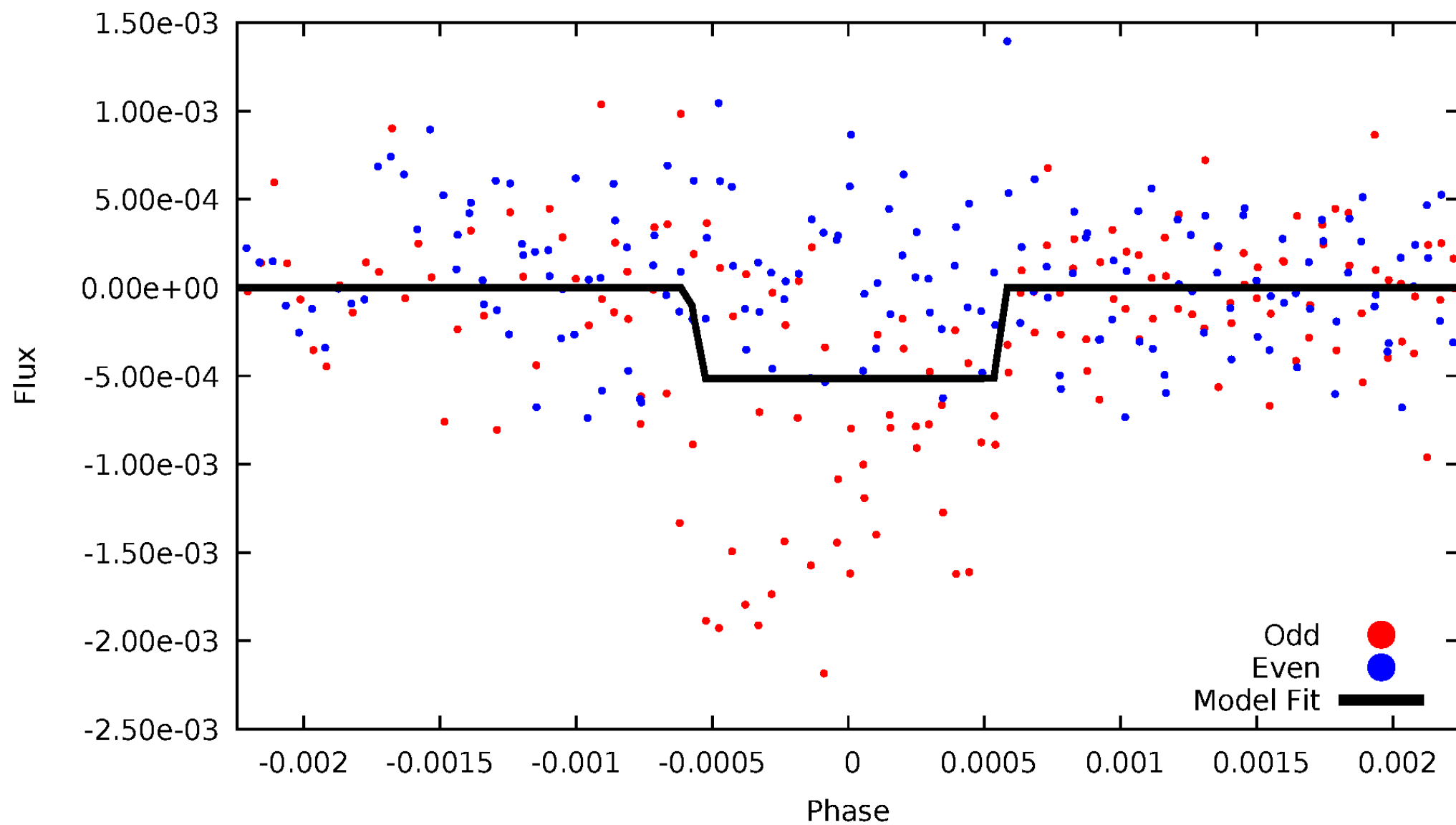
DV Odd/Even

TCE 004736208-08



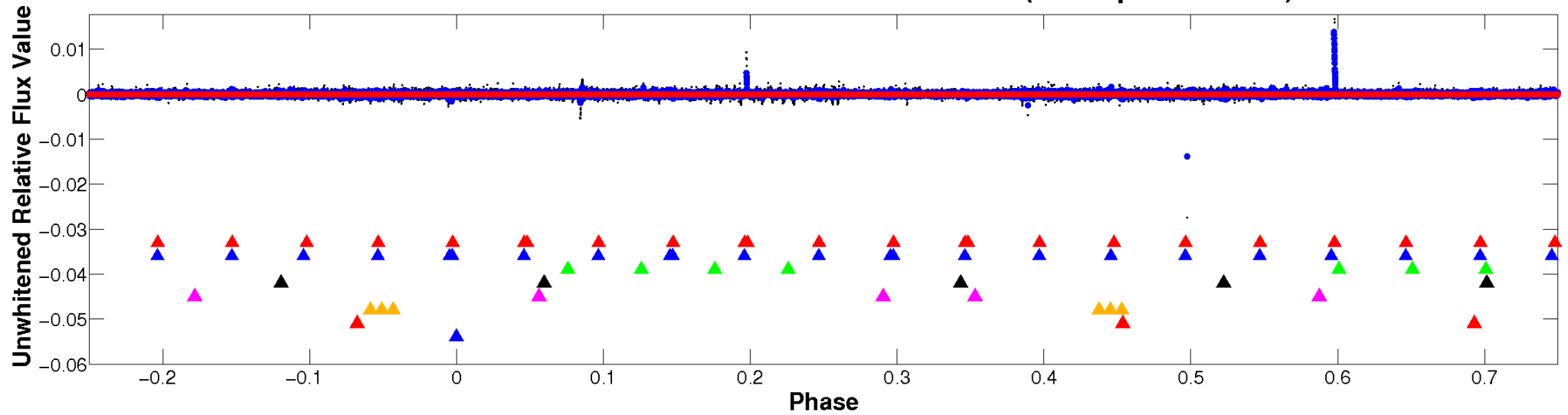
ALT Odd/Even

TCE 004736208-08



Non-Whitened Vs. Whitened Light Curve

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

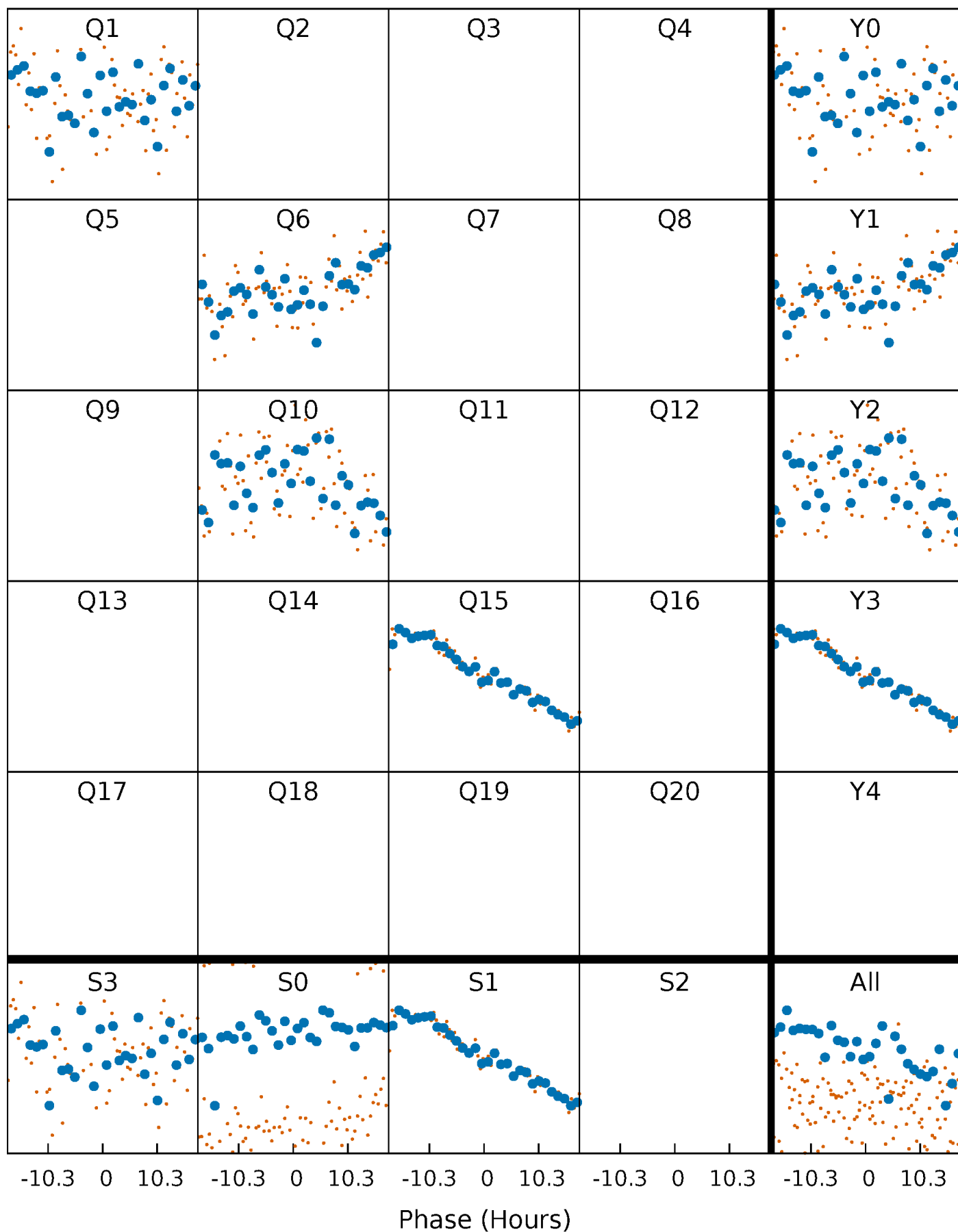


Planet 8 : Phased Whitened Flux Time Series (TPS Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 004736208-08 $P=424.262006$ Days $T_0=147.970226$ (BKJD)



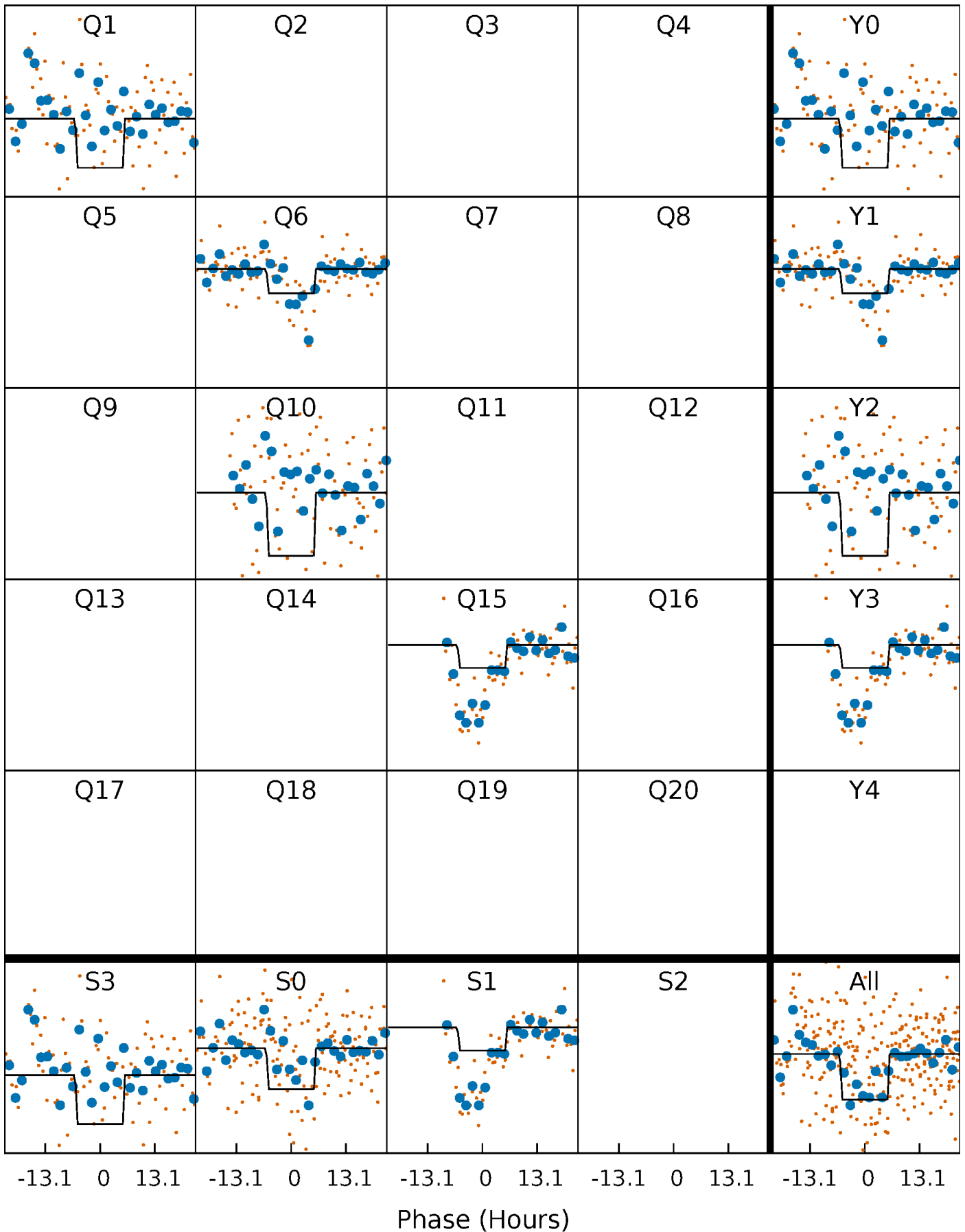
DV Quarter-Phased Transit Curves

TCE 004736208-08 $P=424.262006$ Days $T_0=147.970226$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

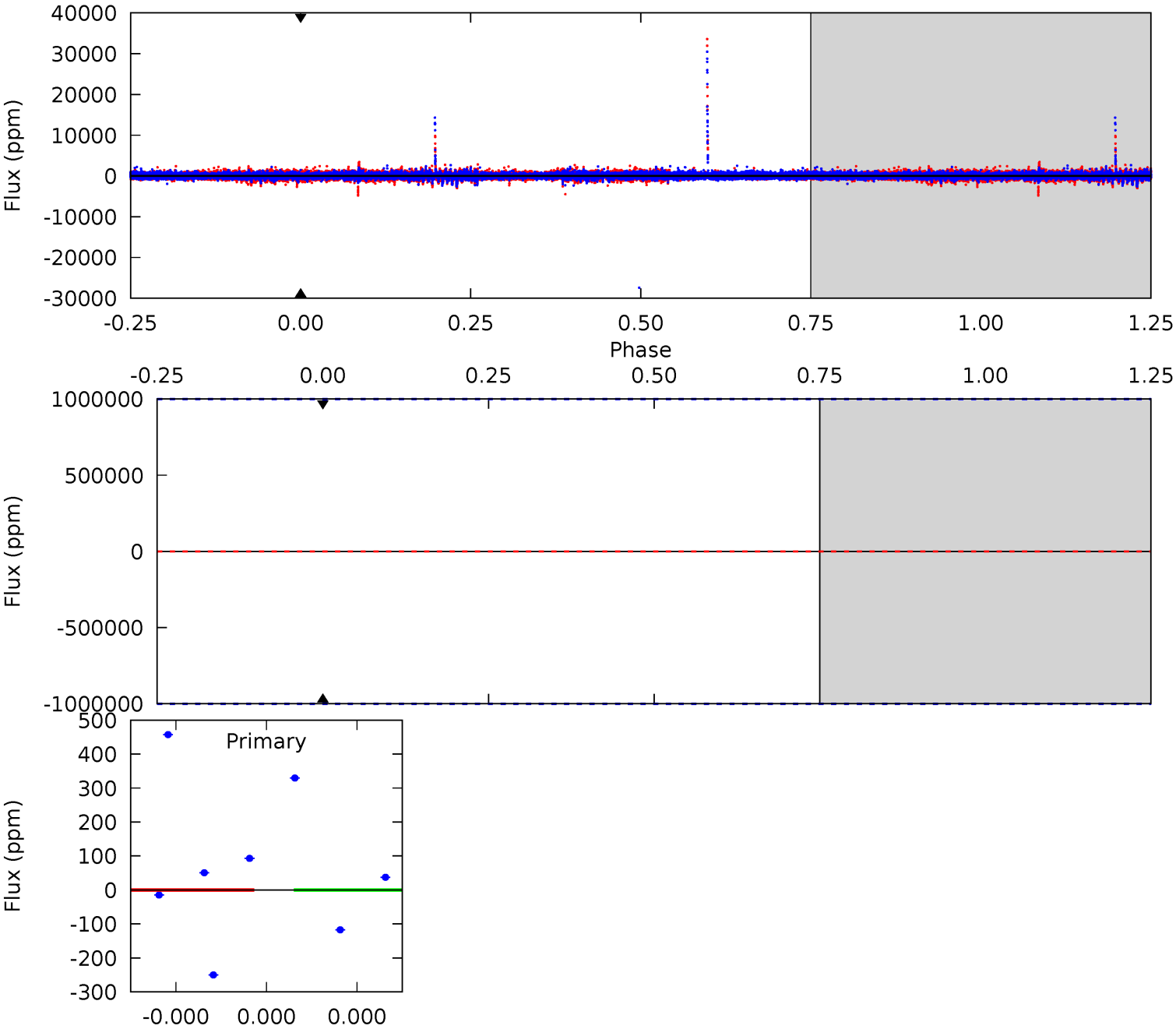
TCE 004736208-08 $P=424.262006$ Days $T_0=147.980556$ (BKJD)



DV Model-Shift Uniqueness Test

004736208-08, P = 424.262006 Days, E = 147.970226 Days

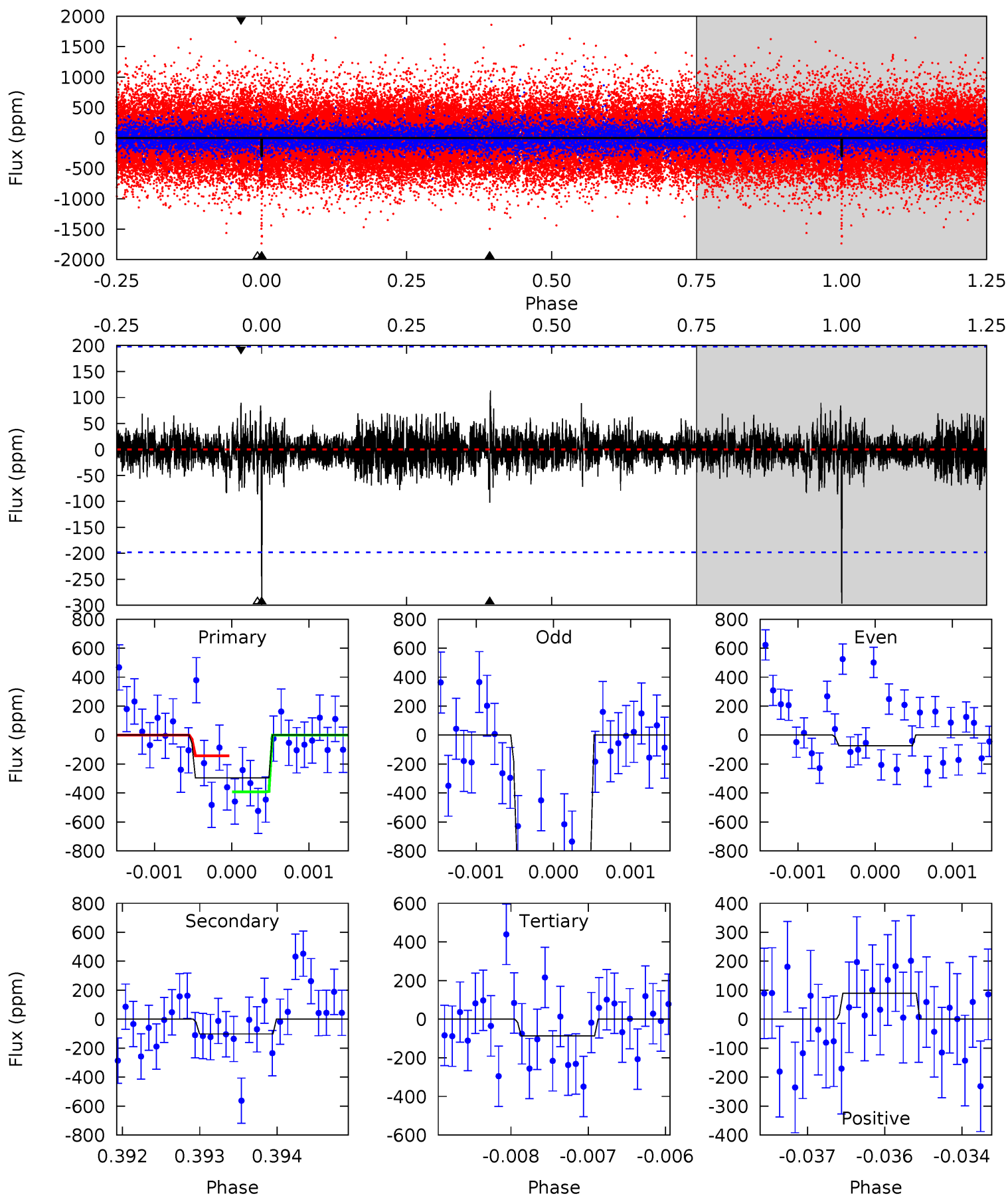
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004736208-08, P = 424.262006 Days, E = 147.980556 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.13	2.80	2.37	2.45	5.43	3.26	0.59	5.76	5.68	0.43	0.35	8.55	1.71	0.28	3.35



Stellar Parameters For KIC 004736208

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5979^{+179}_{-197}	$4.386^{+0.108}_{-0.201}$	$-0.140^{+0.300}_{-0.300}$	$1.054^{+0.315}_{-0.170}$	$0.986^{+0.145}_{-0.119}$	$1.187^{+0.575}_{-0.584}$
	+3%/-3%	+2%/-5%	+214%/-214%	+30%/-16%	+15%/-12%	+48%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004736208-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$10.94^{+9.86}_{-7.45}$	365^{+30}_{-21}	-3577^{+22302}_{-13475}	$-3110.051^{+1050594.694}_{-955395.615}$
Alt.	-102 ± 36	$8.49^{+9.55}_{-5.57}$	363^{+31}_{-21}	2901^{+1124}_{-515}	864^{+6469}_{-689}

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 $A_{obs} \gg 1.0$

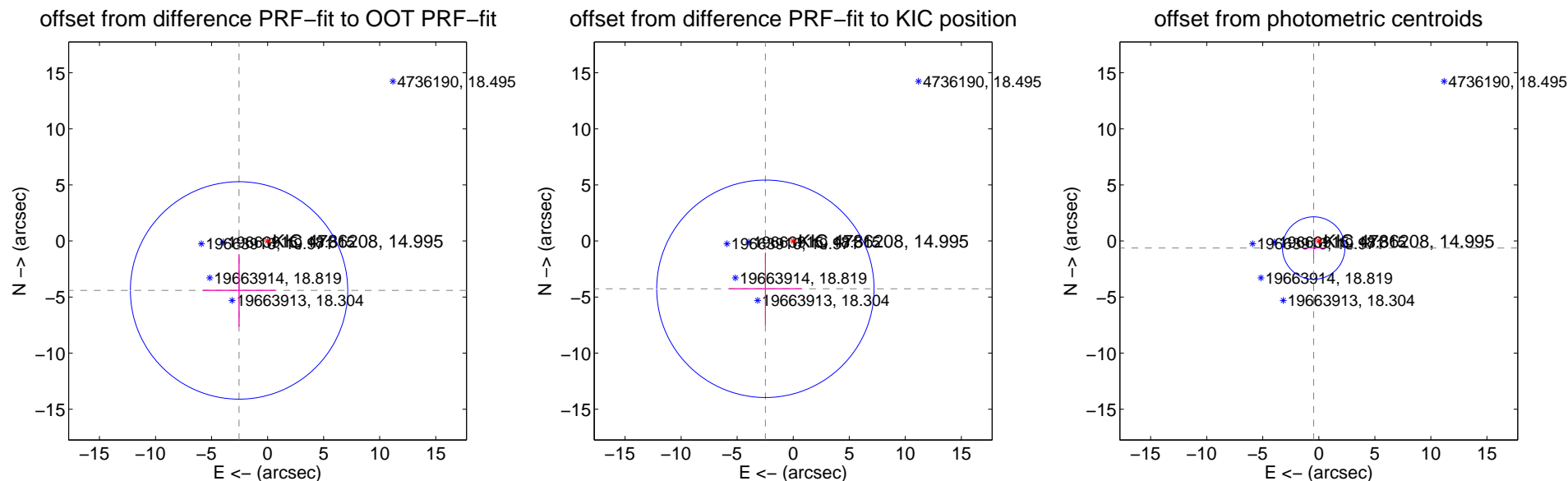
DV Centroid Data

Supplemental centroid analysis for 004736208-08. Kepler magnitude: 14.99. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

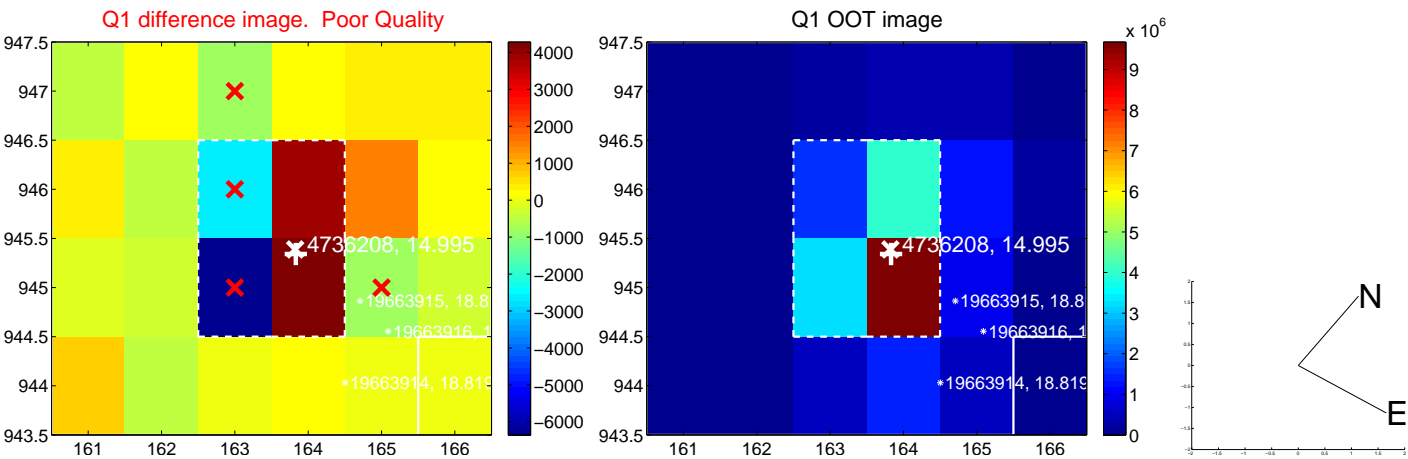
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.091 ± 3.232	1.58	2.548 ± 3.229	-4.408 ± 3.232
PRF-fit source offset from KIC position	4.932 ± 3.232	1.53	2.482 ± 3.229	-4.262 ± 3.232
photometric centroid source offset	0.78 ± 0.93	0.84	0.46 ± 0.95	-0.63 ± 0.92

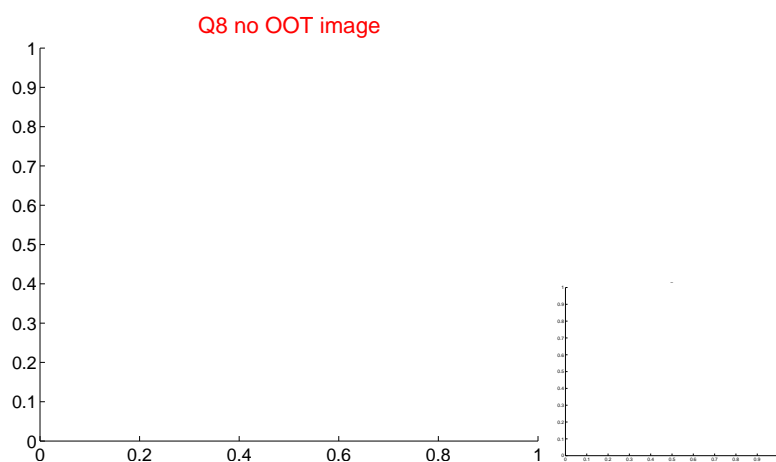
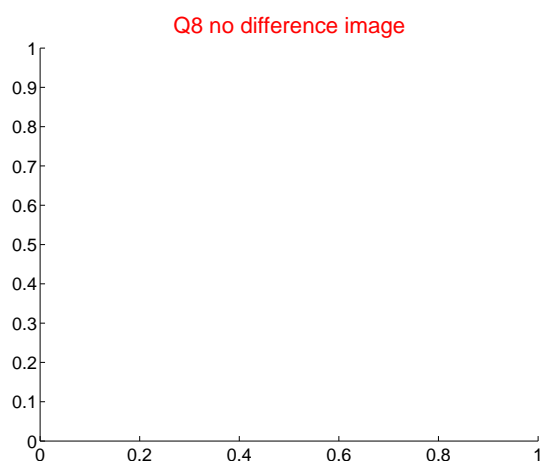
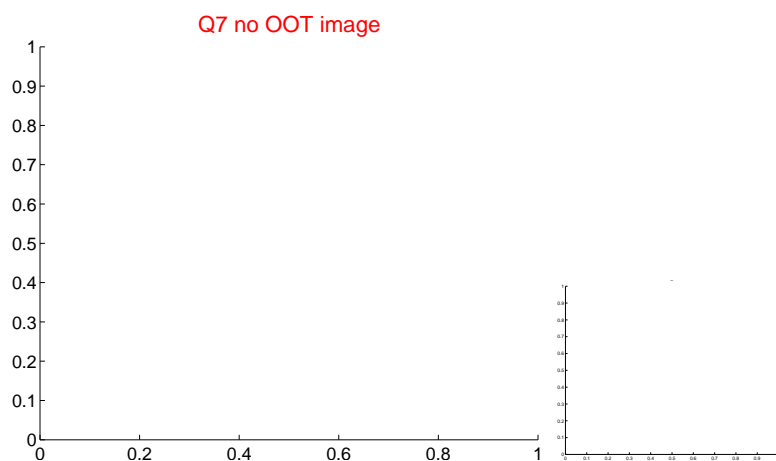
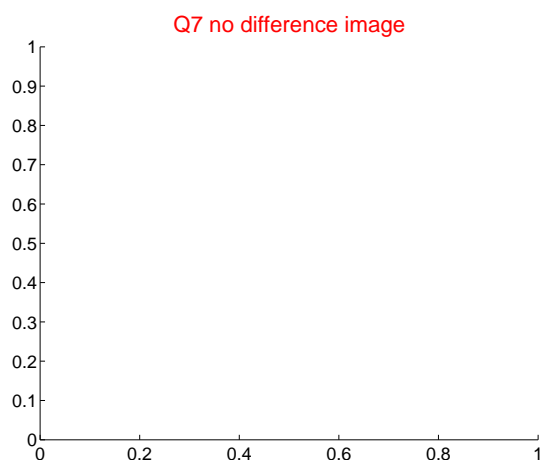
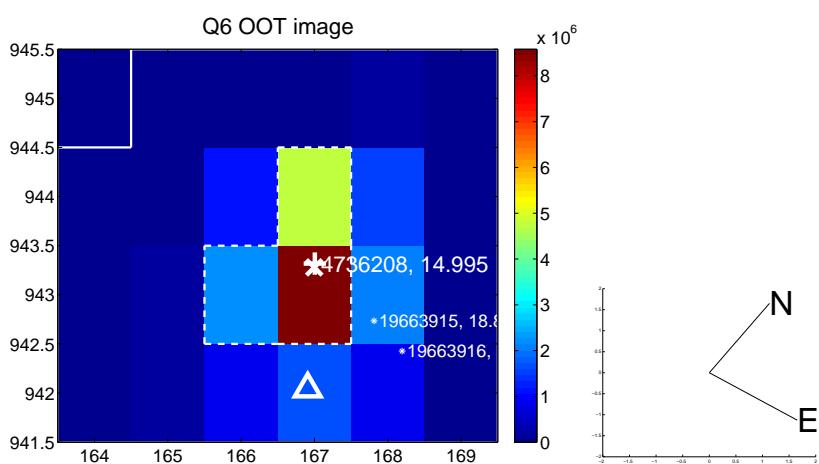
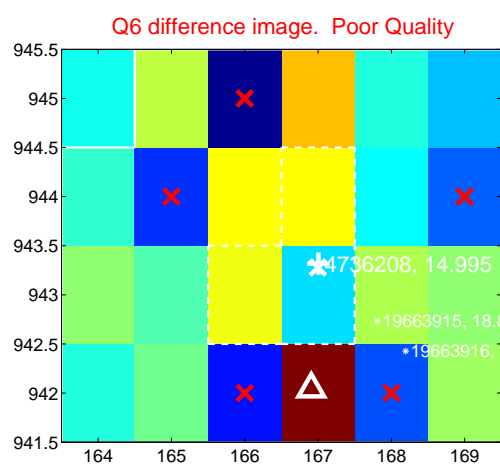
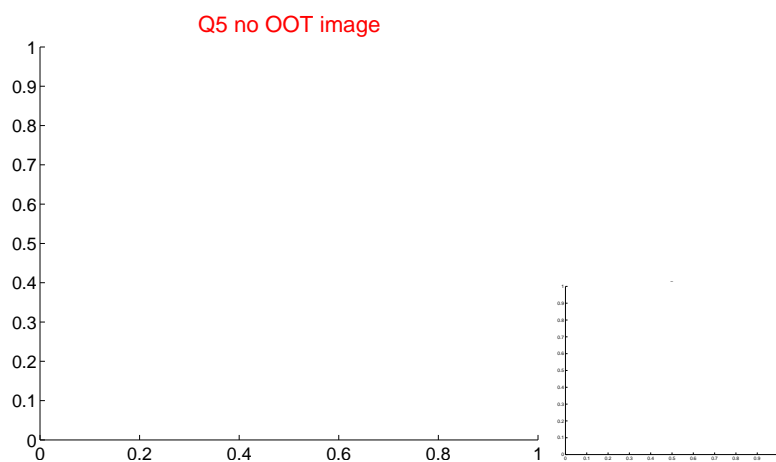
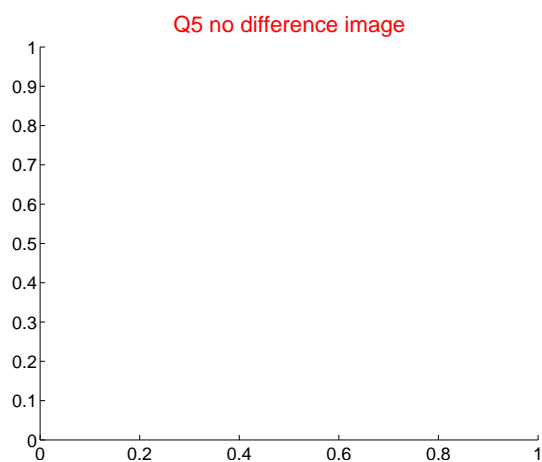


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

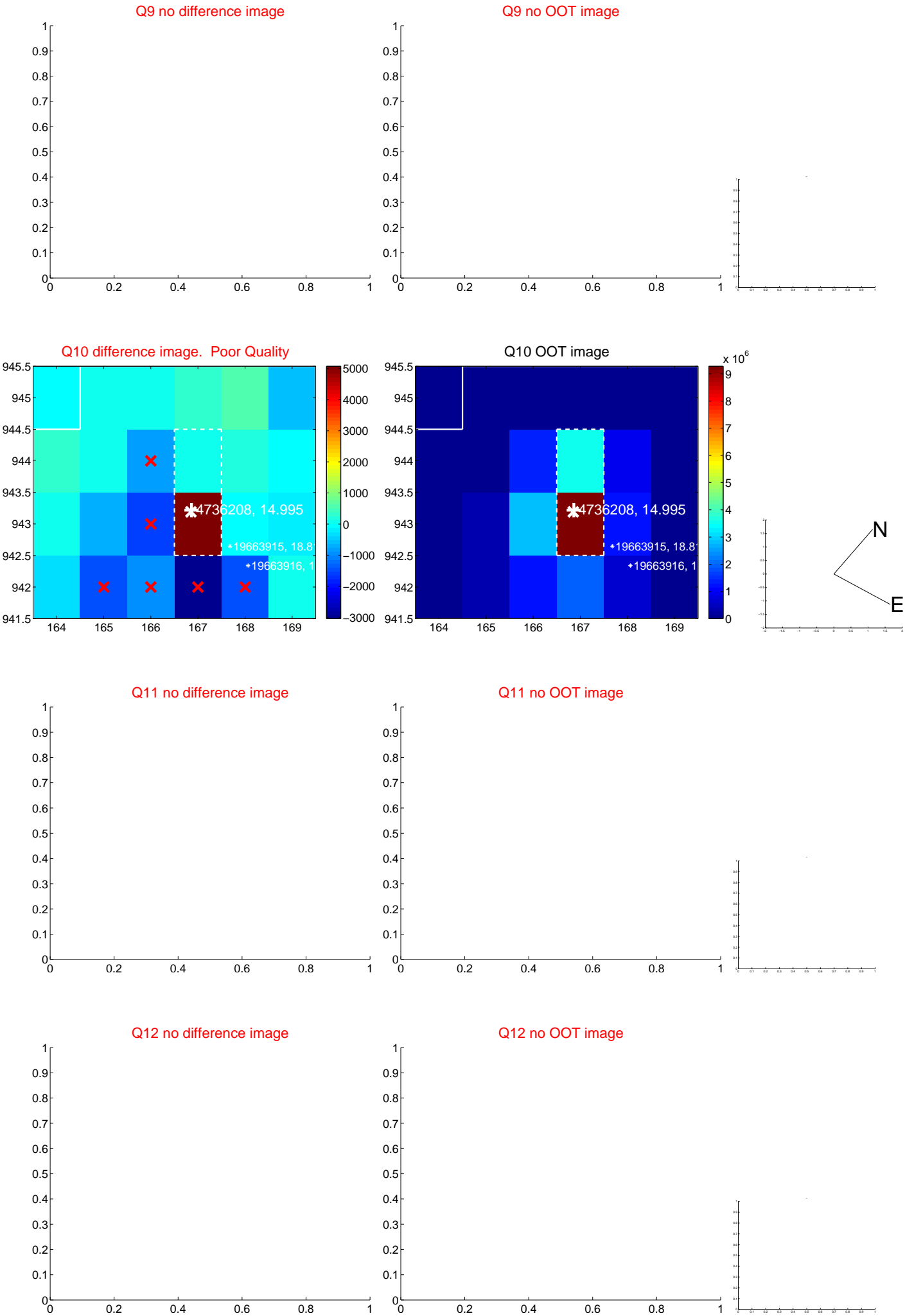
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



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



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

Q13 no difference image



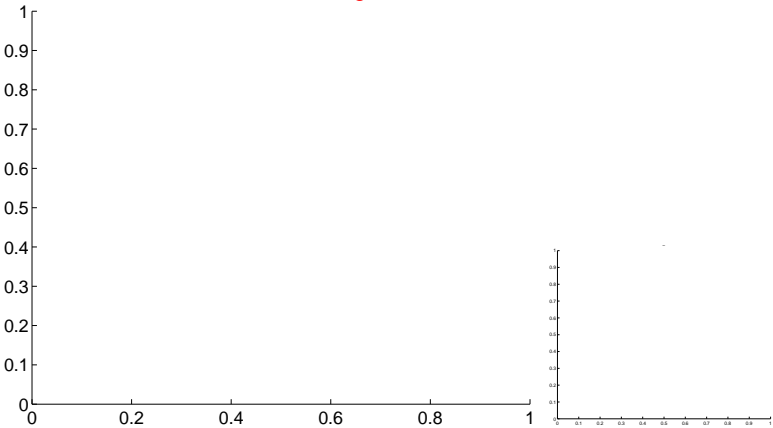
Q13 no OOT image



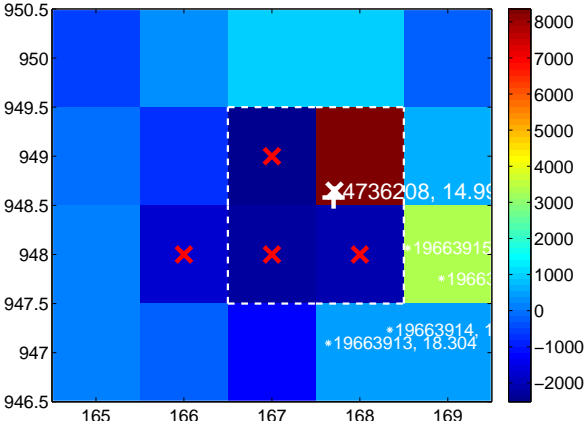
Q14 no difference image



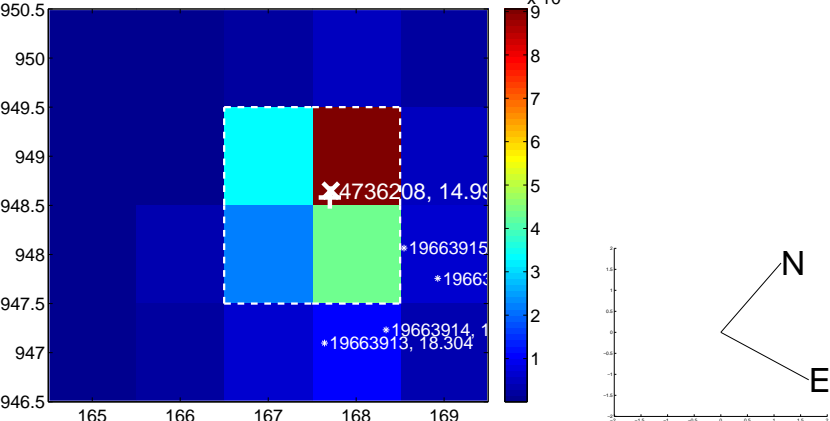
Q14 no OOT image



Q15 difference image. Poor Quality



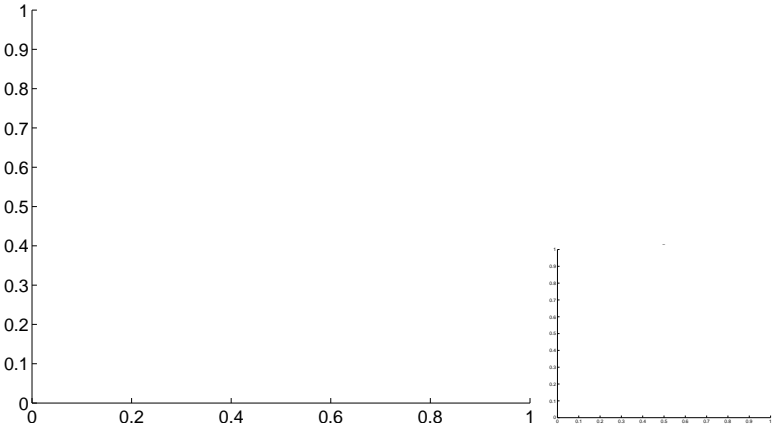
Q15 OOT image



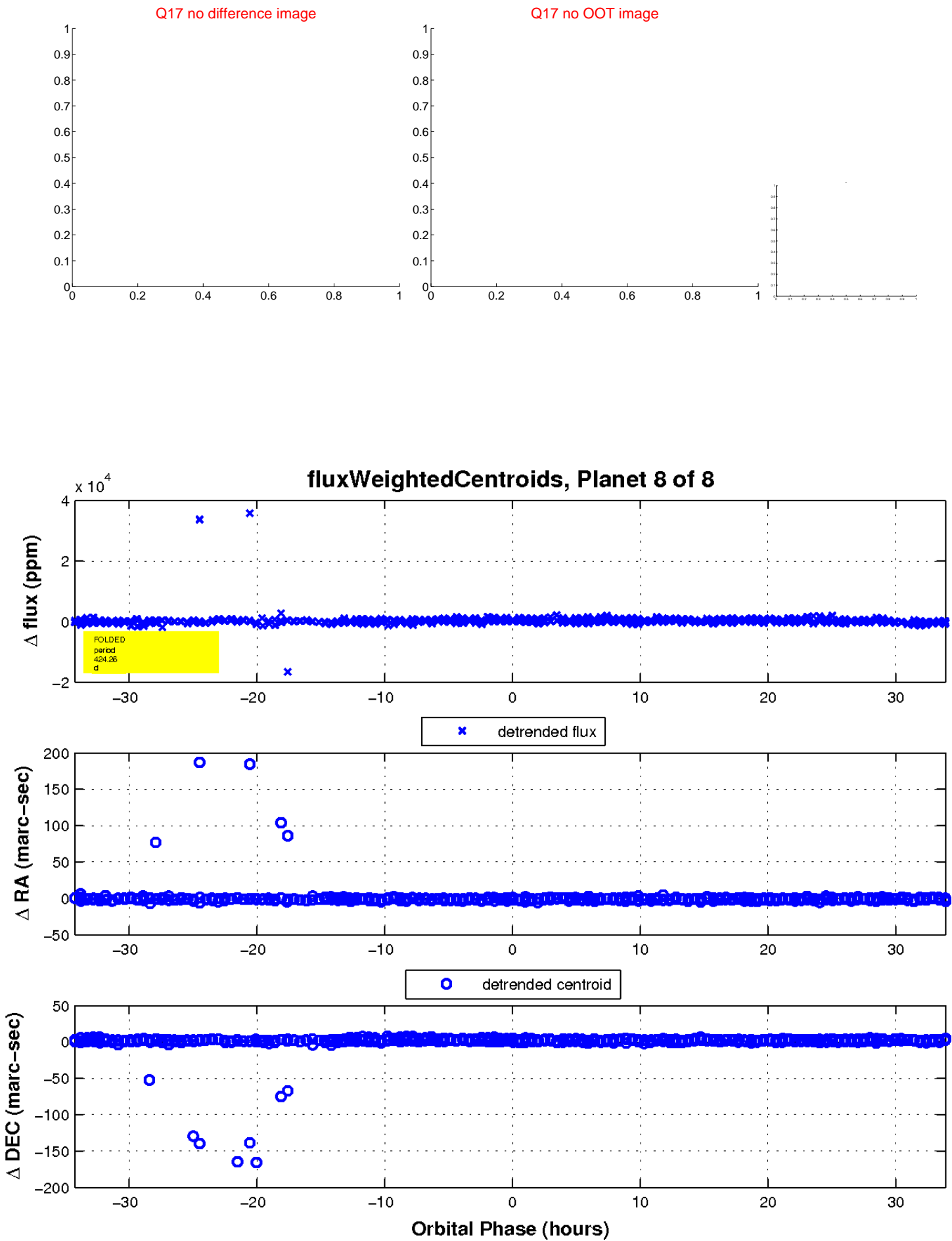
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

