

KIC 005736461

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})
005736461-01	OBS	6623.01	7.346160	136.891169	121442.5	6.588	3781.8	3265.0	0.81	5616	41.54	114.86
005736461-02	OBS	No	7.346153	132.705651	93349.5	6.890	2983.5	2651.2	0.81	5616	35.32	114.86
005736461-03	OBS	No	212.815527	221.486770	4137.8	15.000	24.4	-1.0	0.81	5616	5.15	1.29
005736461-04	OBS	No	446.027766	203.024031	1241.1	1.180	14.1	2.7	0.81	5616	3.03	0.48
005736461-05	OBS	No	446.233674	202.344830	864.6	10.989	14.5	4.0	0.81	5616	2.37	0.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005736461-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
005736461-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
005736461-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
005736461-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005736461-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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.

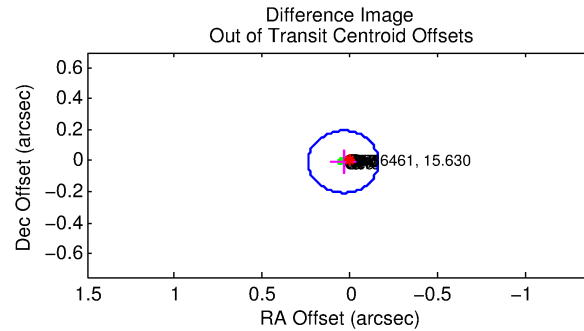
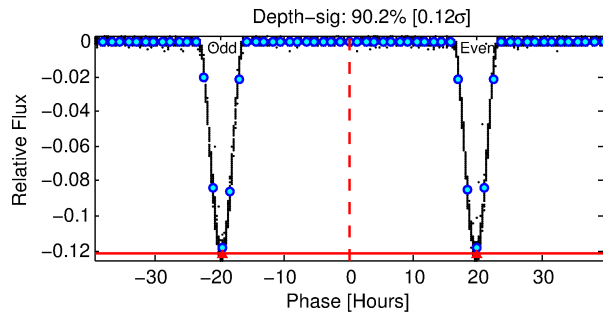
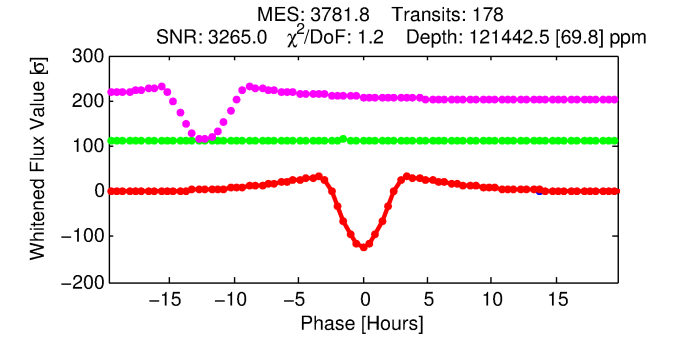
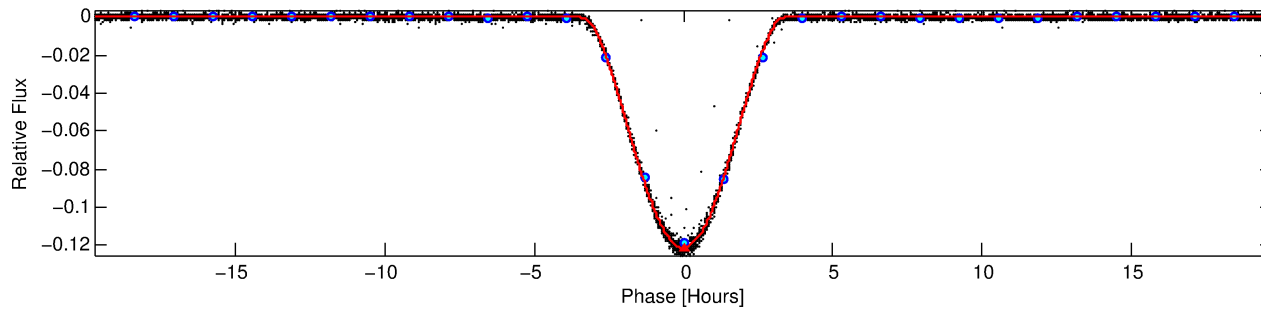
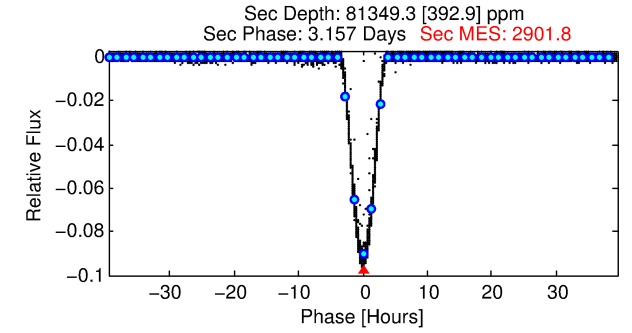
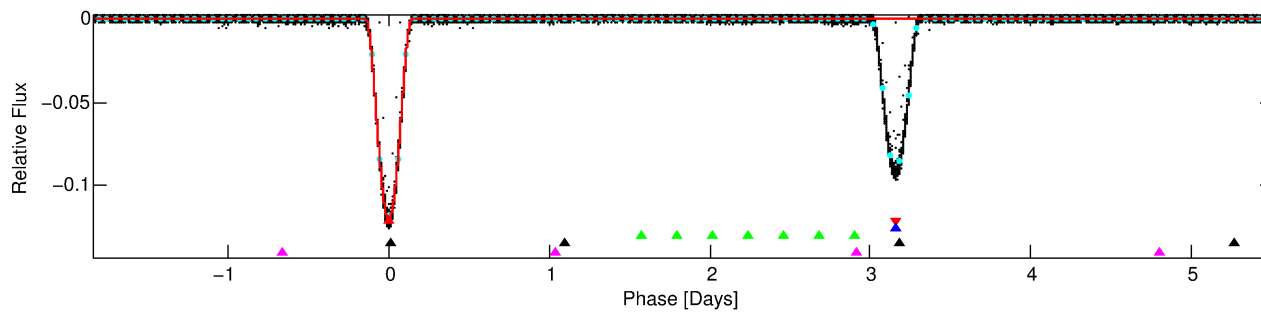
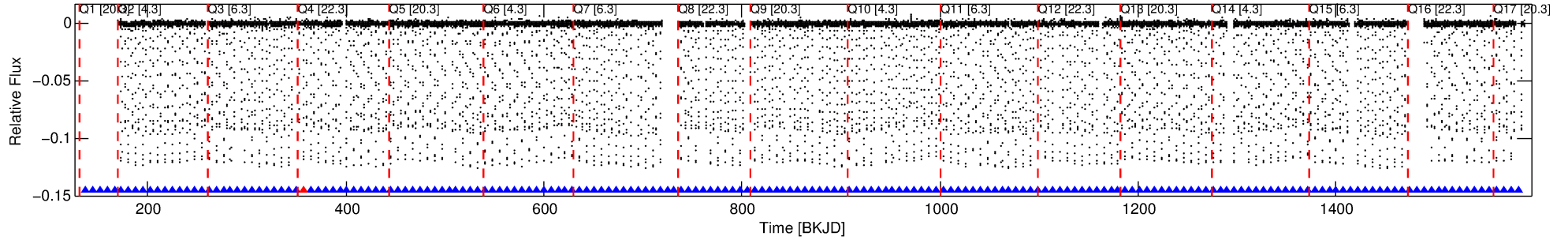
Ephemeris Match Information For 005736461-01

No Significant Match Found

DV One-Page Summary

KIC: 5736461 Candidate: 1 of 5 Period: 7.346 d
KOI: K06623.01 Corr: 0.999

Kp: 15.63 R*: 0.81 Rs Teff: 5616.0 K Logg: 4.57 Fe/H: -0.200



DV Fit Results:

Period = 7.34616 [0.00000] d
Epoch = 136.8912 [0.0000] BKJD
Rp/R* = 0.4699 [0.0254]
a/R* = 9.96 [0.04]
b = 0.90 [0.04]
Seff = 114.86 [38.10]
Teq = 835 [69] K
Rp = 41.54 [10.85] Re
a = 0.0714 [0.0152] AU
Ag = 132.05 [43.24] [3.03σ]
Teffp = 4375 [177] K [18.63σ]

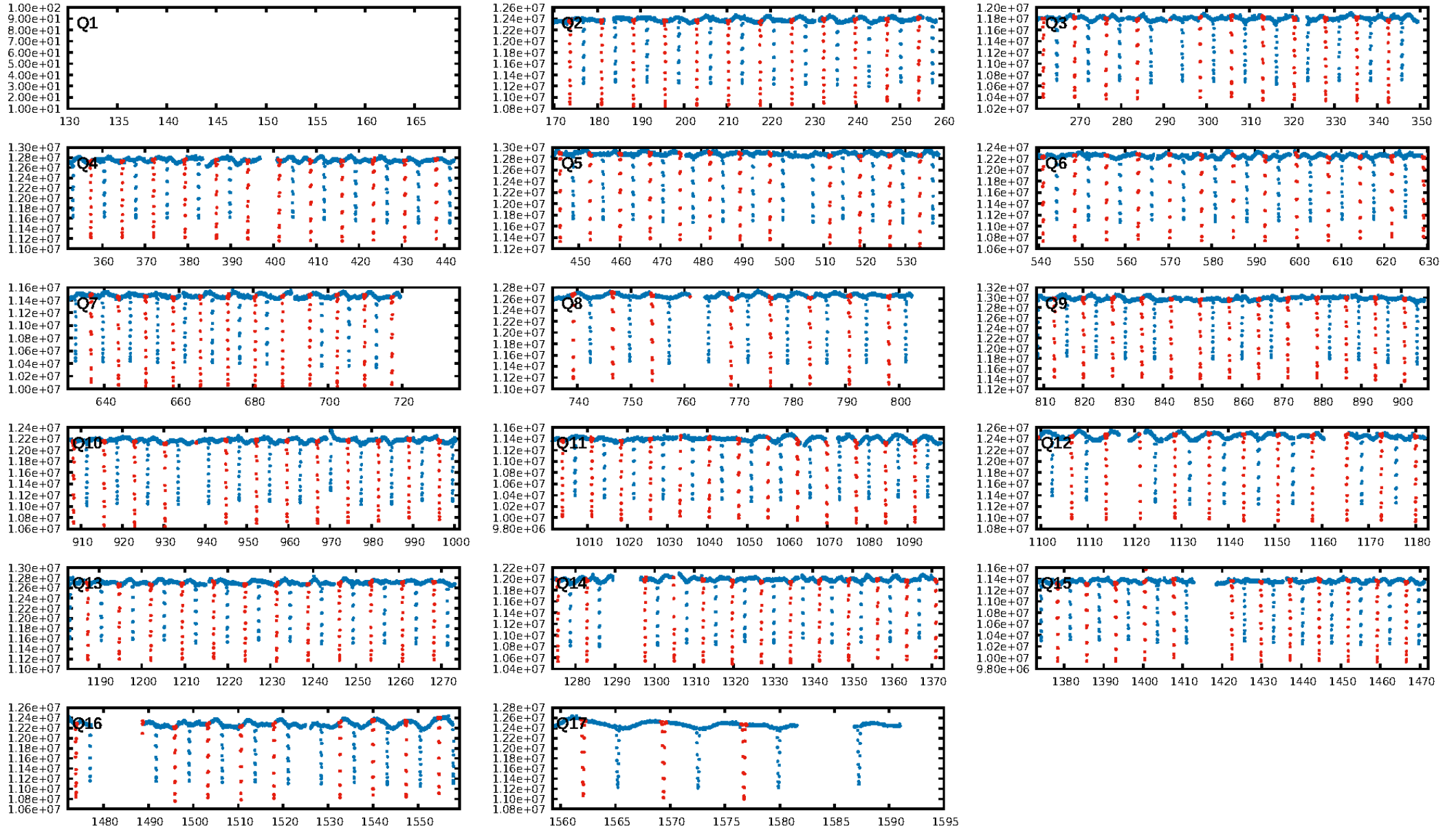
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [301.00σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [174/175]
GhostDiagnostic-chr: 2.633
Centroid-sig: 0.0%
Centroid-so: 0.644 arcsec [190.96σ]
OotOffset-rm: 0.039 arcsec [0.59σ]
KicOffset-rm: 0.081 arcsec [1.20σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

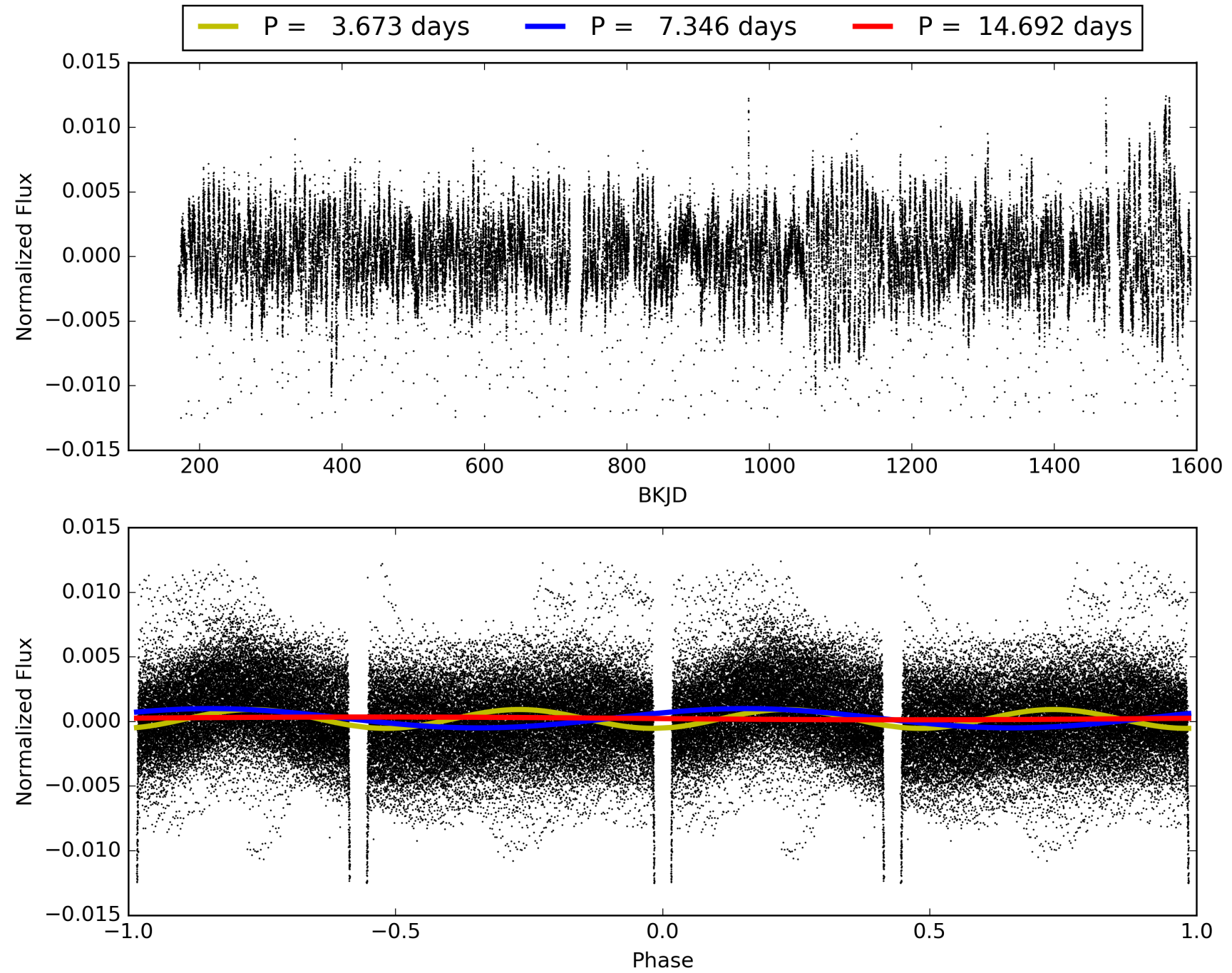
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005736461-01, PDC Light Curves

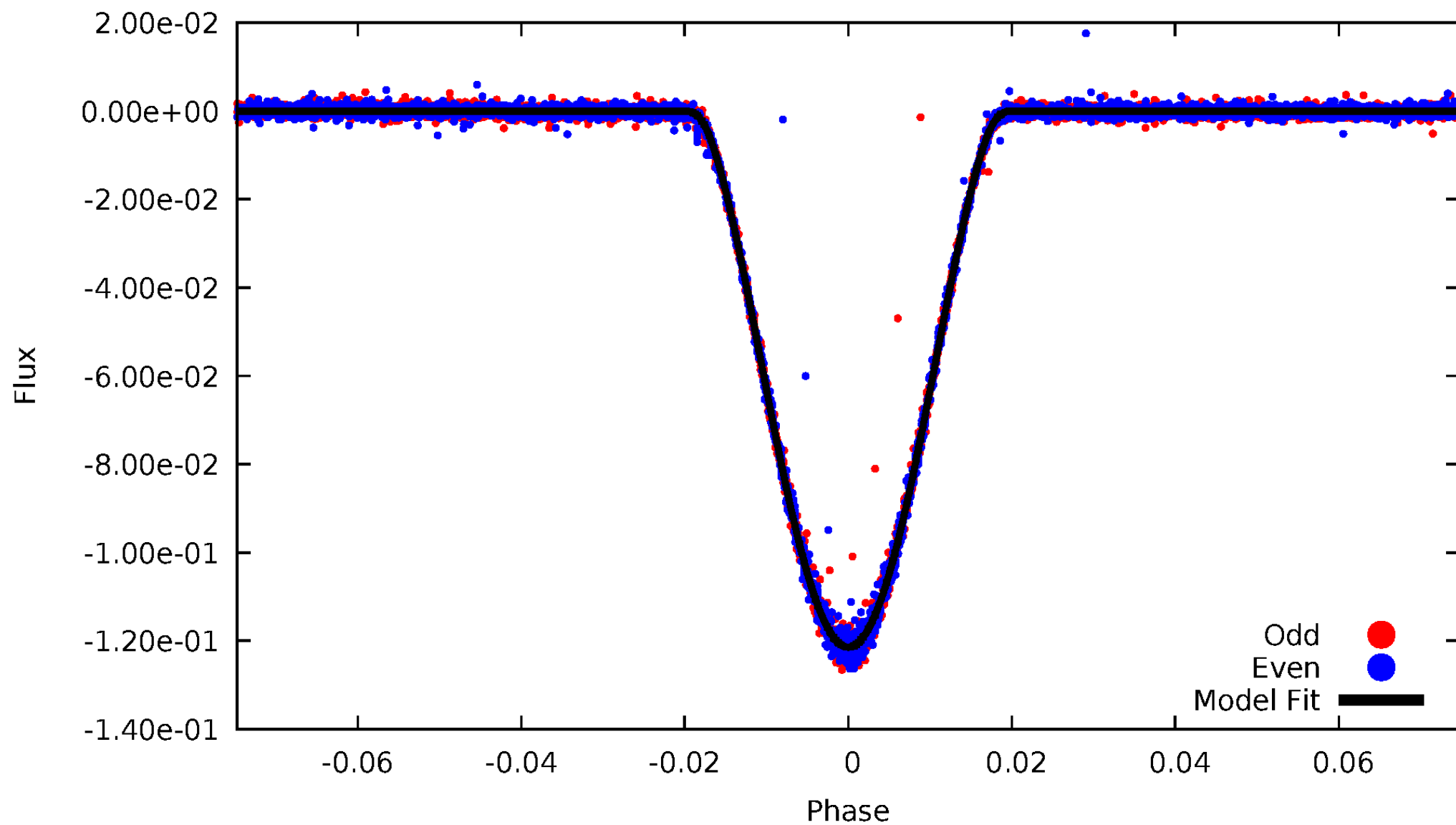


TCE 005736461-01



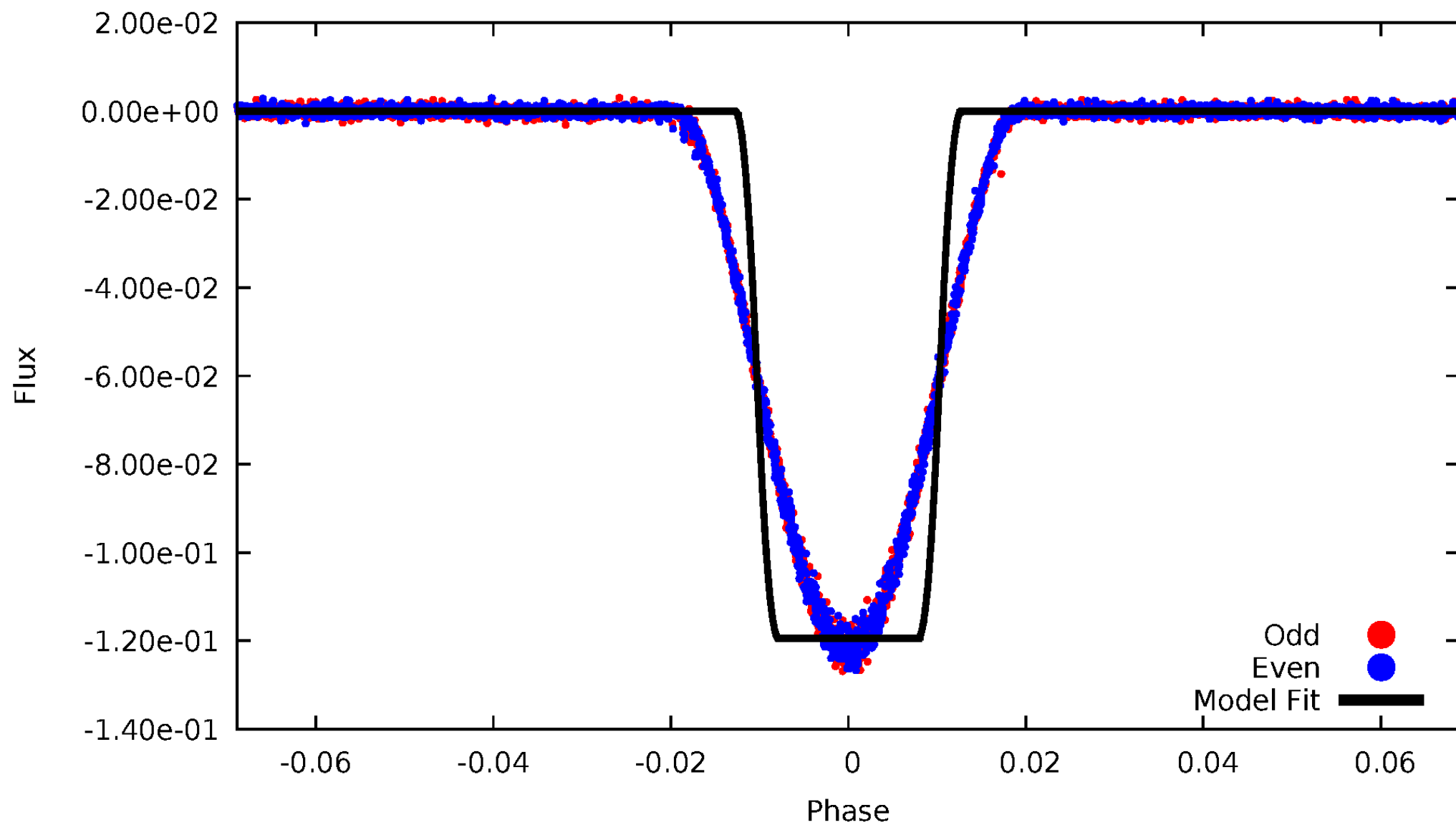
DV Odd/Even

TCE 005736461-01



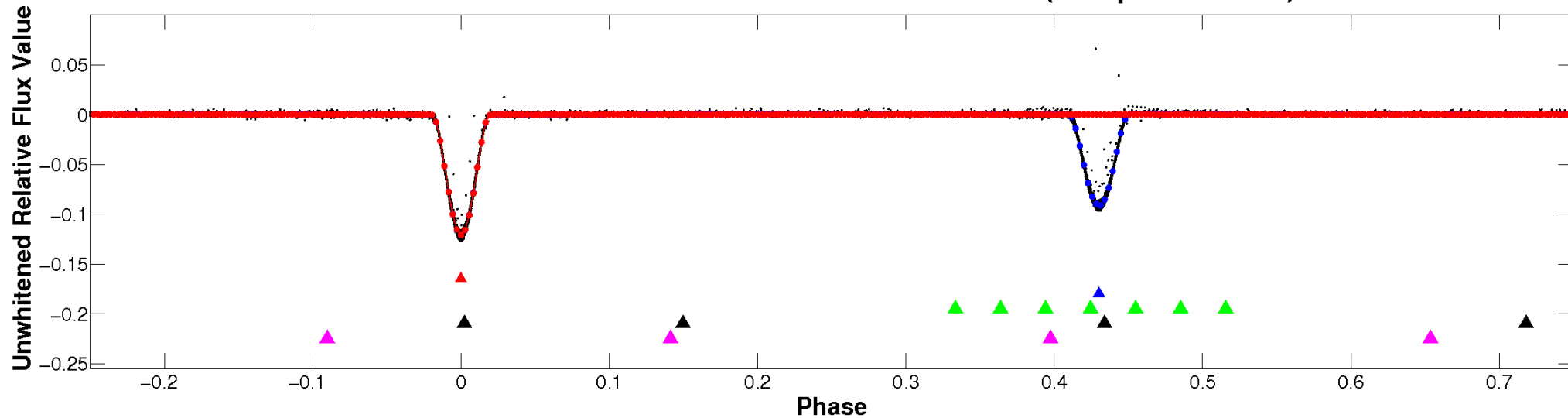
ALT Odd/Even

TCE 005736461-01

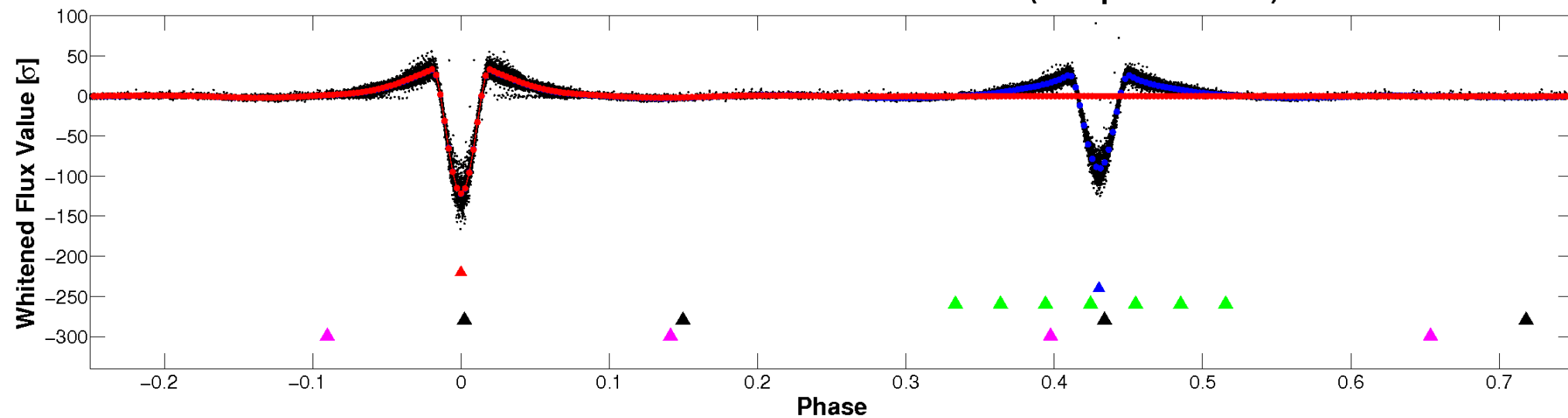


Non-Whitened Vs. Whitened Light Curve

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

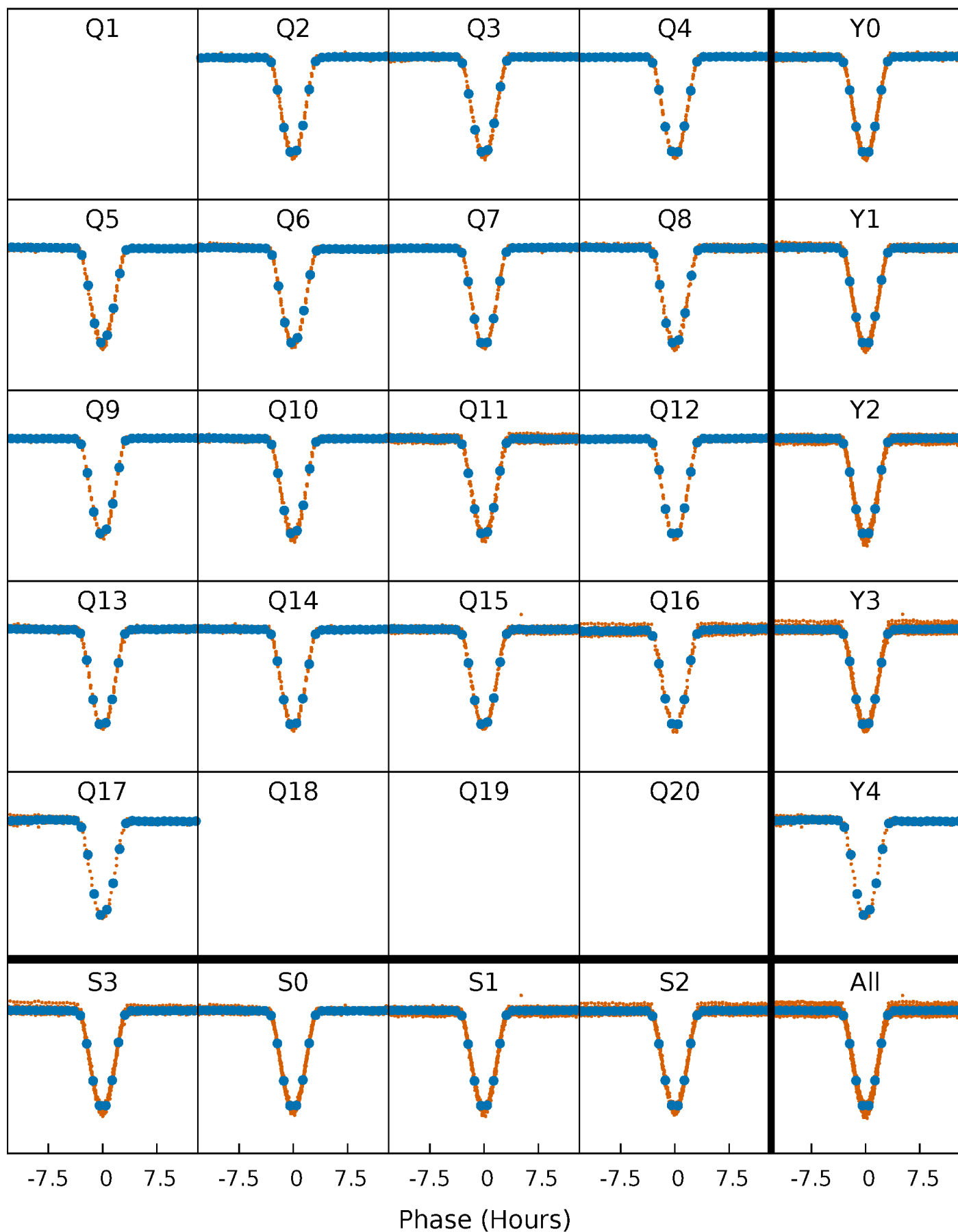


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



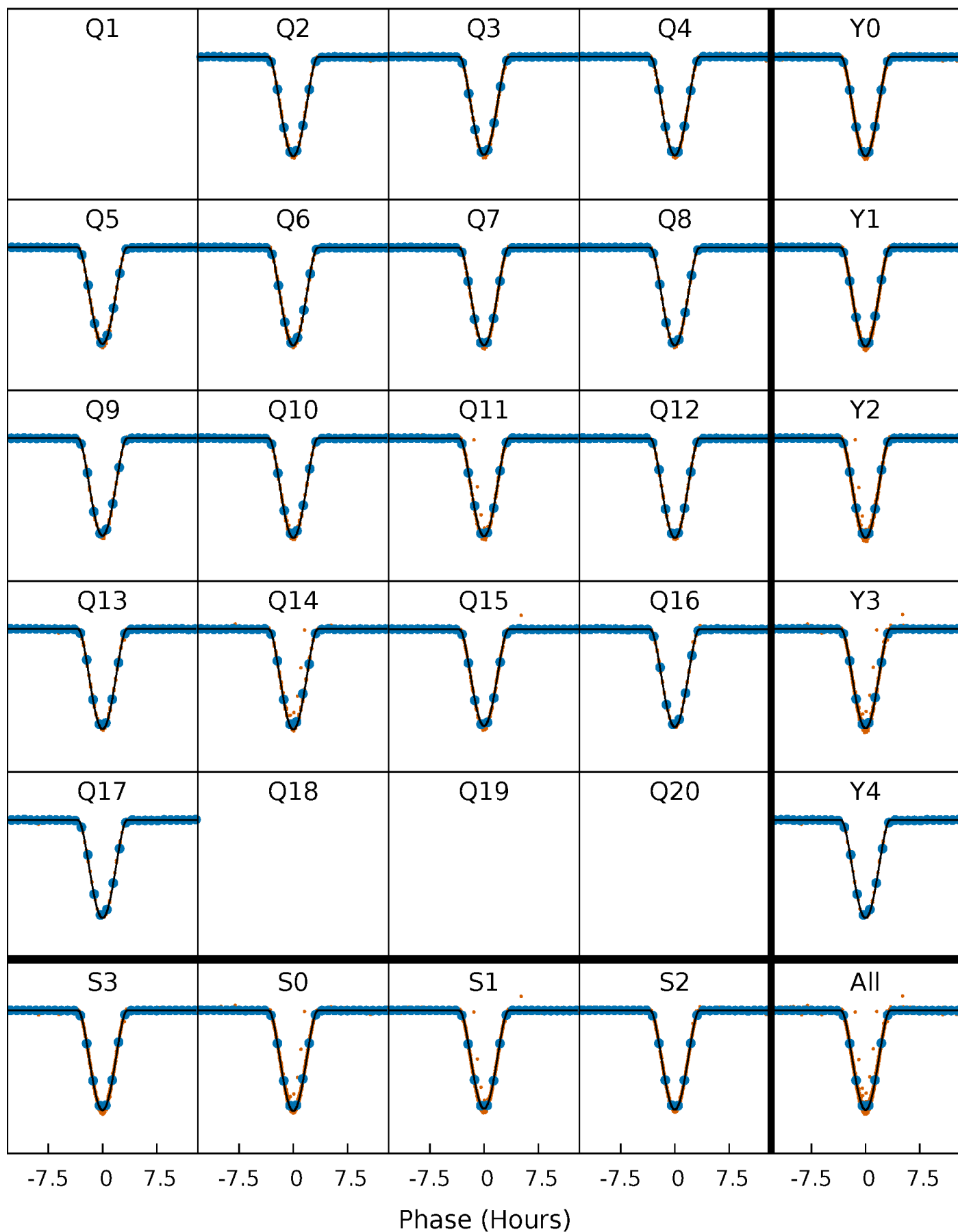
PDC Quarter-Phased Transit Curves

TCE 005736461-01 P= 7.346160 Days $T_0=136.891169$ (BKJD)



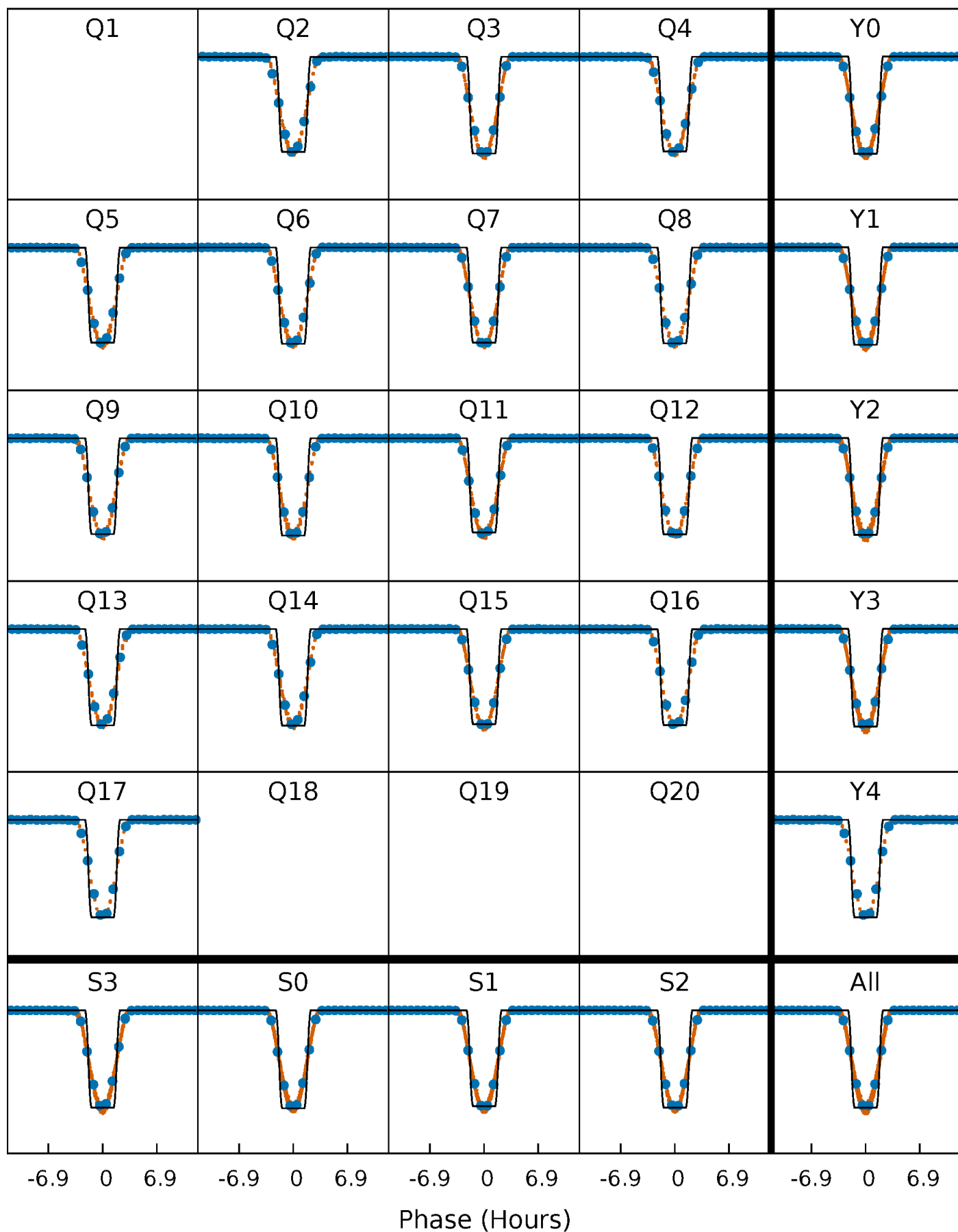
DV Quarter-Phased Transit Curves

TCE 005736461-01 P= 7.346160 Days $T_0=136.891169$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

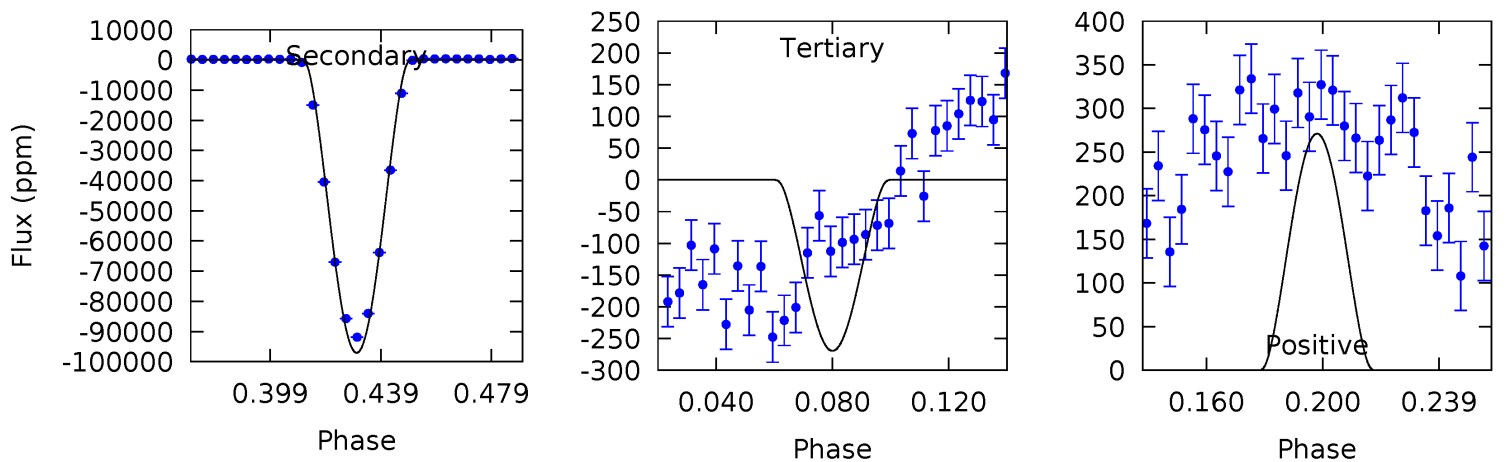
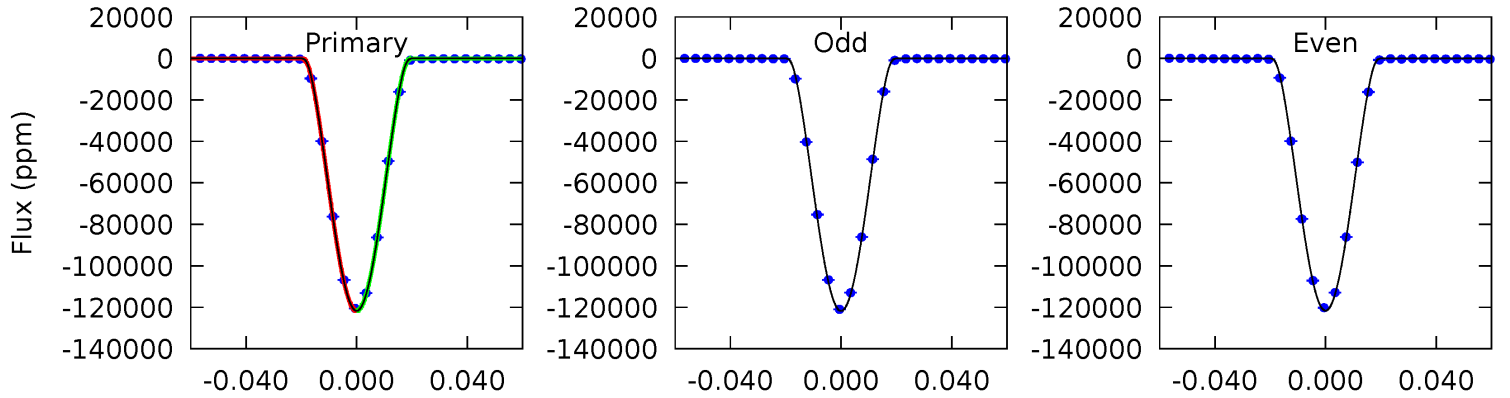
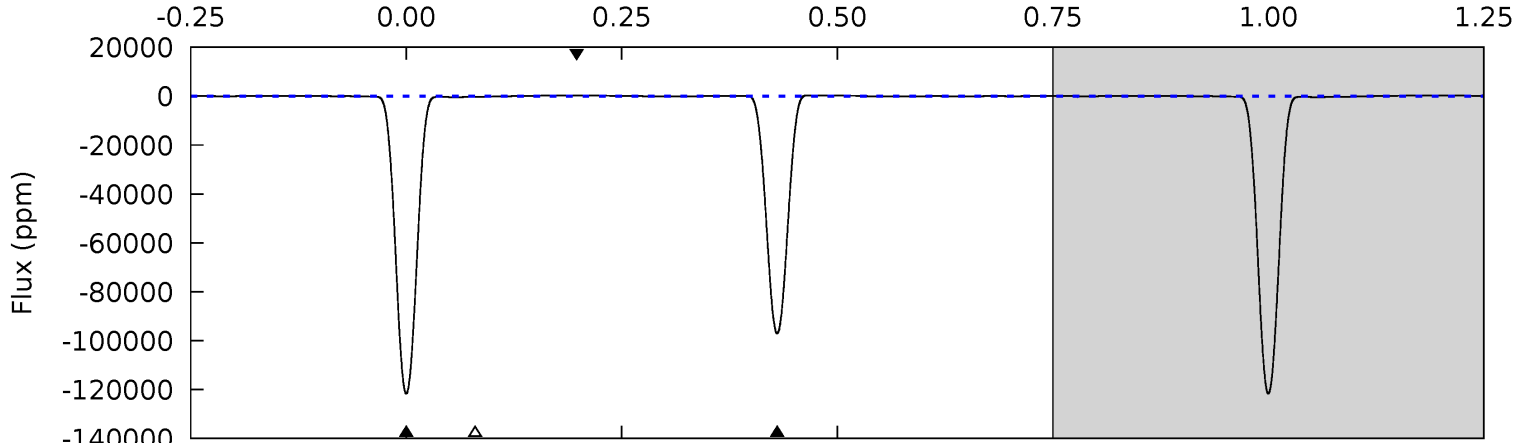
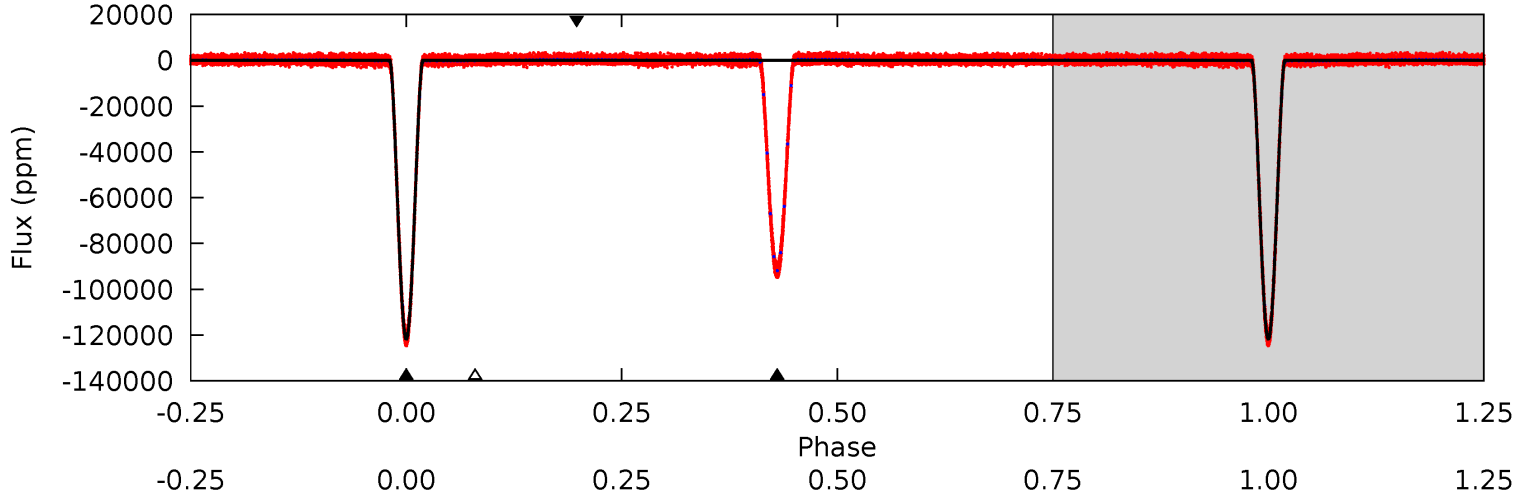
TCE 005736461-01 P= 7.346149 Days $T_0=136.892244$ (BKJD)



DV Model-Shift Uniqueness Test

005736461-01, P = 7.346160 Days, E = 136.891169 Days

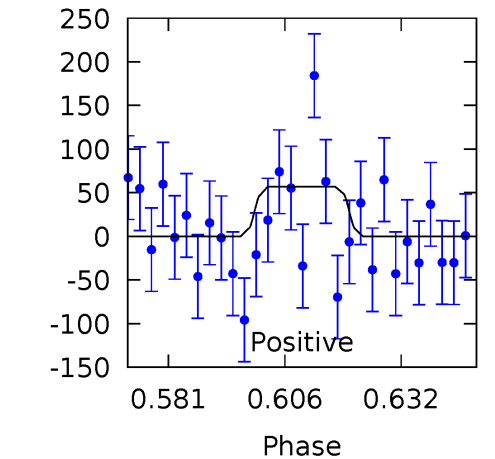
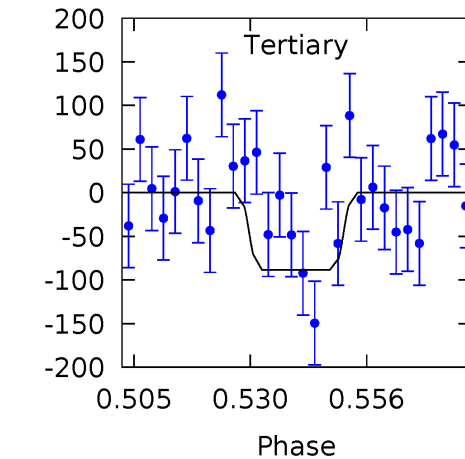
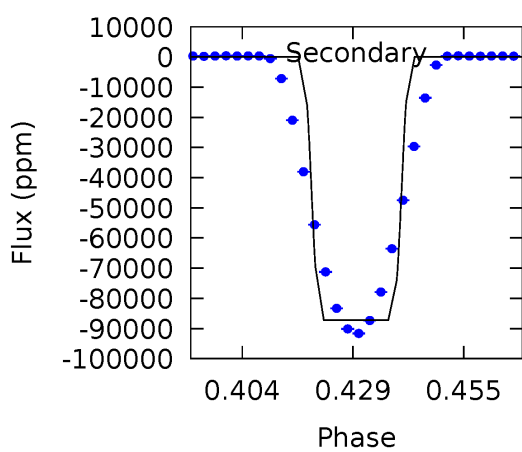
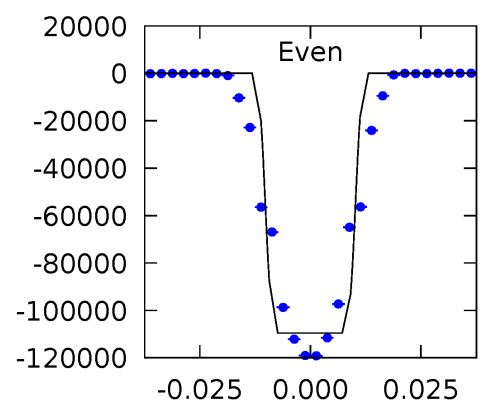
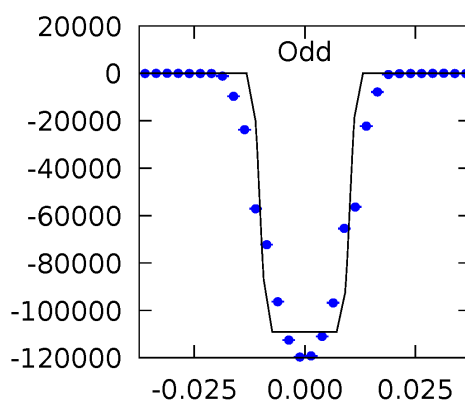
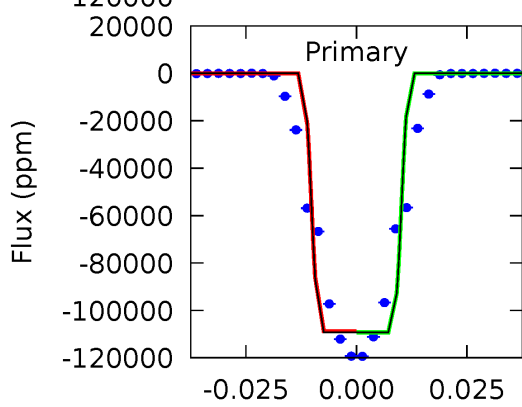
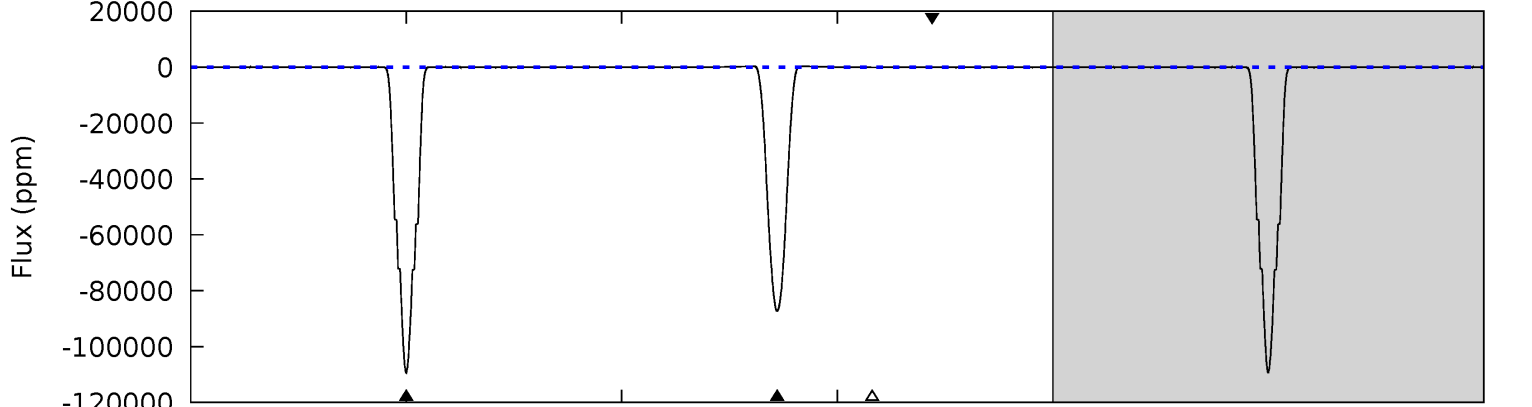
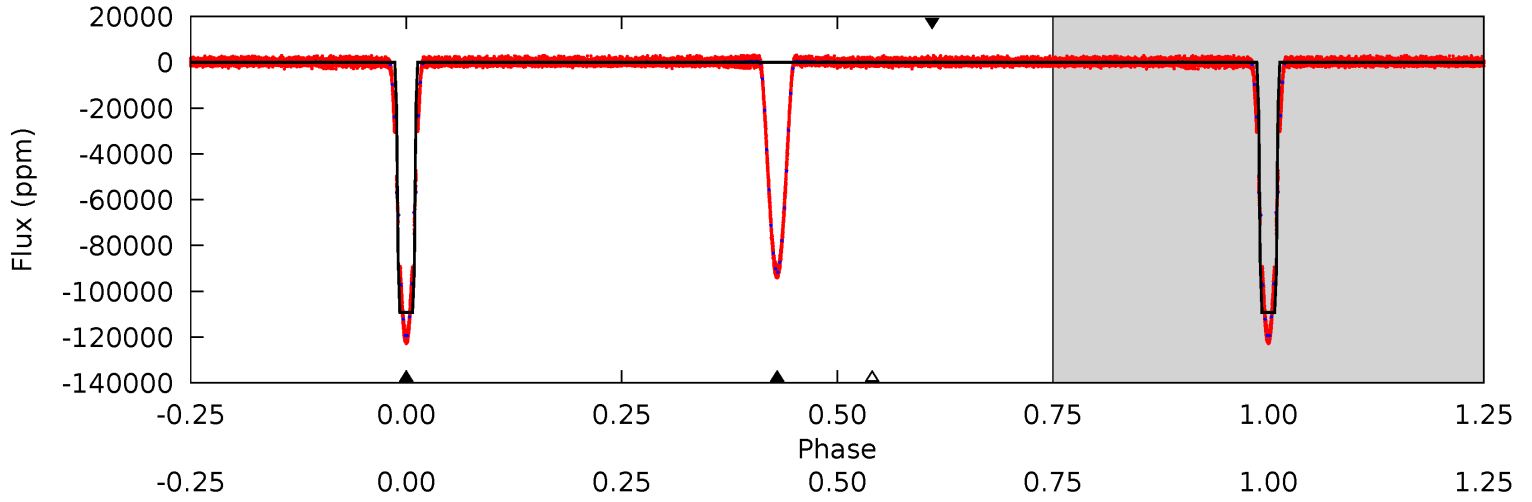
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7689	6135	17.0	17.1	4.75	2.05	9.00	7672	7672	6118	6118	4.30	1.00	0.00	0.01



Alt Model-Shift Uniqueness Test

005736461-01, P = 7.346149 Days, E = 136.892244 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4915	3922	3.98	2.56	4.85	2.24	2.91	4911	4913	3918	3920	11.4	1.00	0.00	0.61



Stellar Parameters For KIC 005736461

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5616^{+169}_{-169}	$4.574^{+0.042}_{-0.168}$	$-0.200^{+0.300}_{-0.300}$	$0.810^{+0.207}_{-0.069}$	$0.905^{+0.083}_{-0.104}$	$2.400^{+0.398}_{-1.104}$
	+3%/-3%	+1%/-4%	+150%/-150%	+26%/-9%	+9%/-11%	+17%/-46%
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 005736461-01 / KOI 6623.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-97088 ± 16	$42.90^{+5.65}_{-3.69}$	1184^{+75}_{-49}	4792^{+153}_{-170}	161^{+30}_{-31}
Alt.	-87219 ± 22	$31.44^{+3.84}_{-3.18}$	1188^{+67}_{-53}	5334^{+245}_{-222}	268^{+58}_{-55}

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 $A_{obs} \gg 1.0$

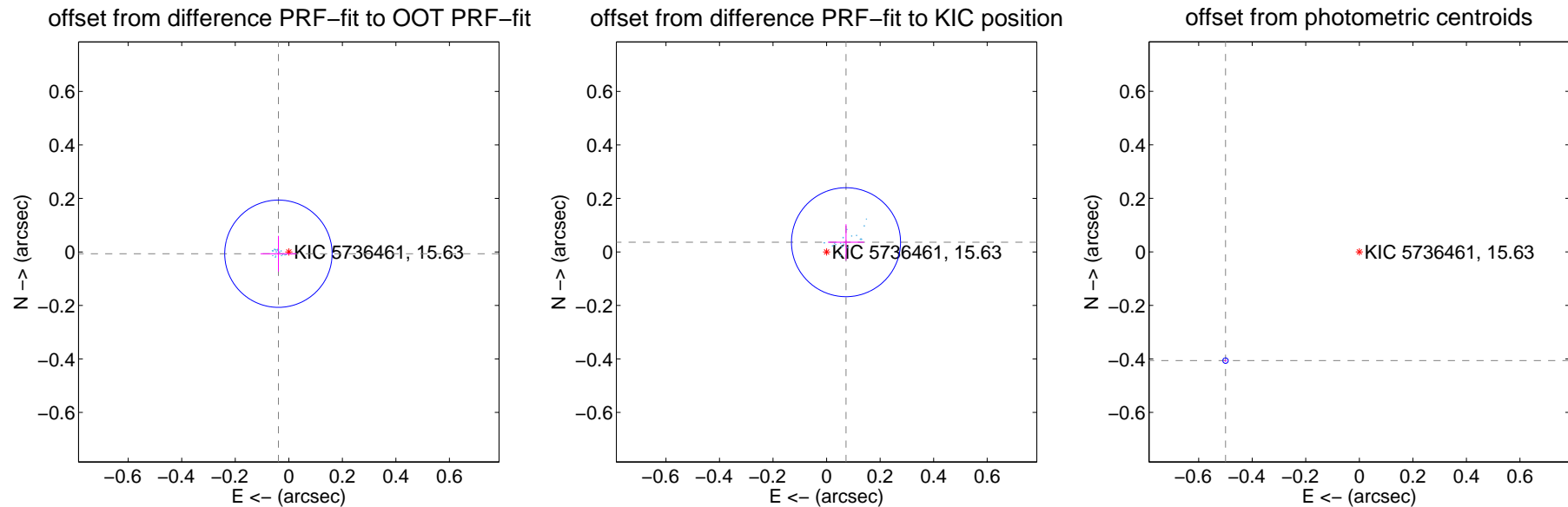
DV Centroid Data

Supplemental centroid analysis for 005736461-01. Kepler magnitude: 15.63. Transit SNR 3265.04

There are 16 quarters with good PRF difference image offsets

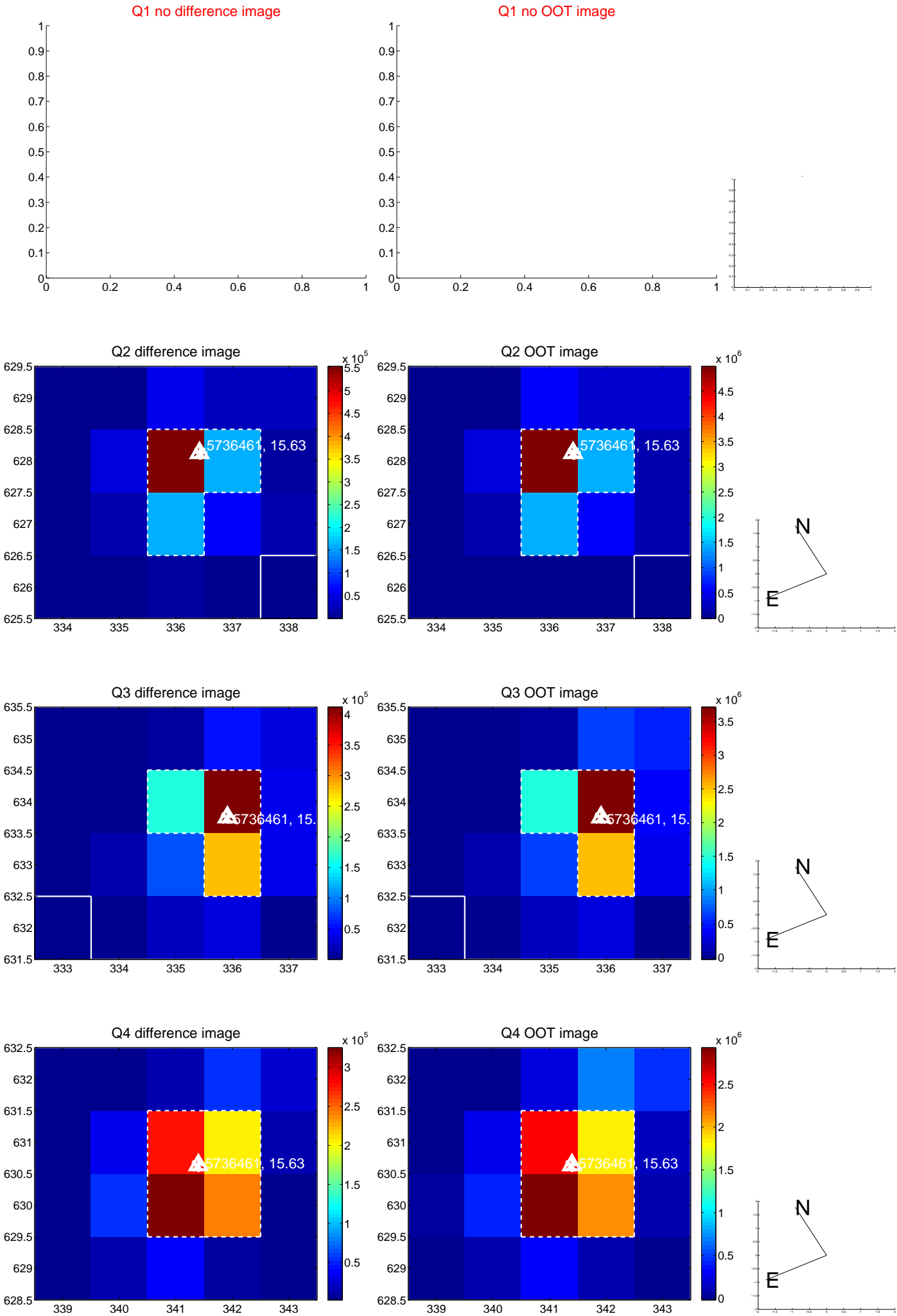
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.039 ± 0.067	0.59	0.039 ± 0.067	-0.007 ± 0.067
PRF-fit source offset from KIC position	0.081 ± 0.068	1.20	-0.073 ± 0.068	0.036 ± 0.067
photometric centroid source offset	0.64 ± 0.00	190.96	0.50 ± 0.00	-0.41 ± 0.00

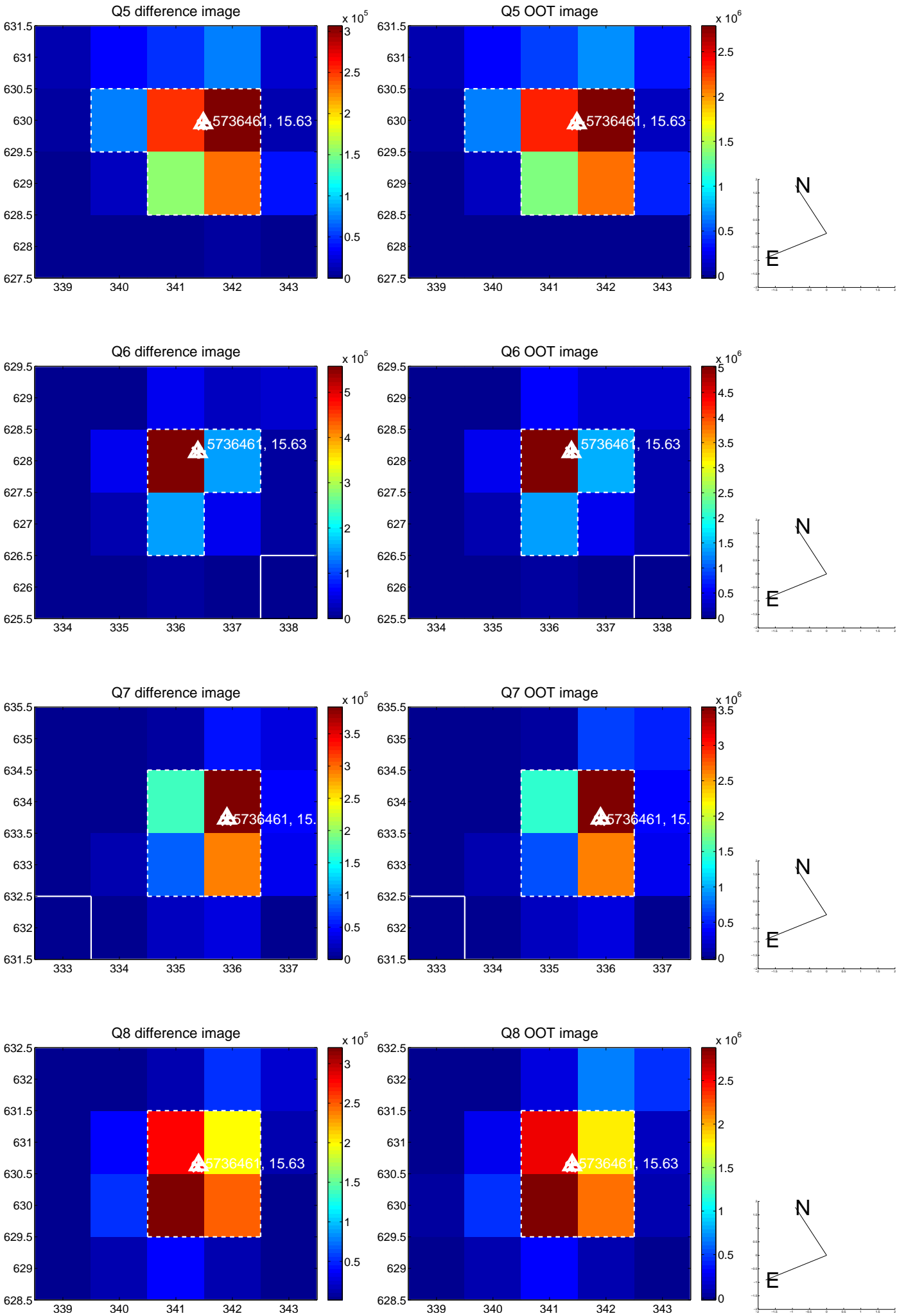


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

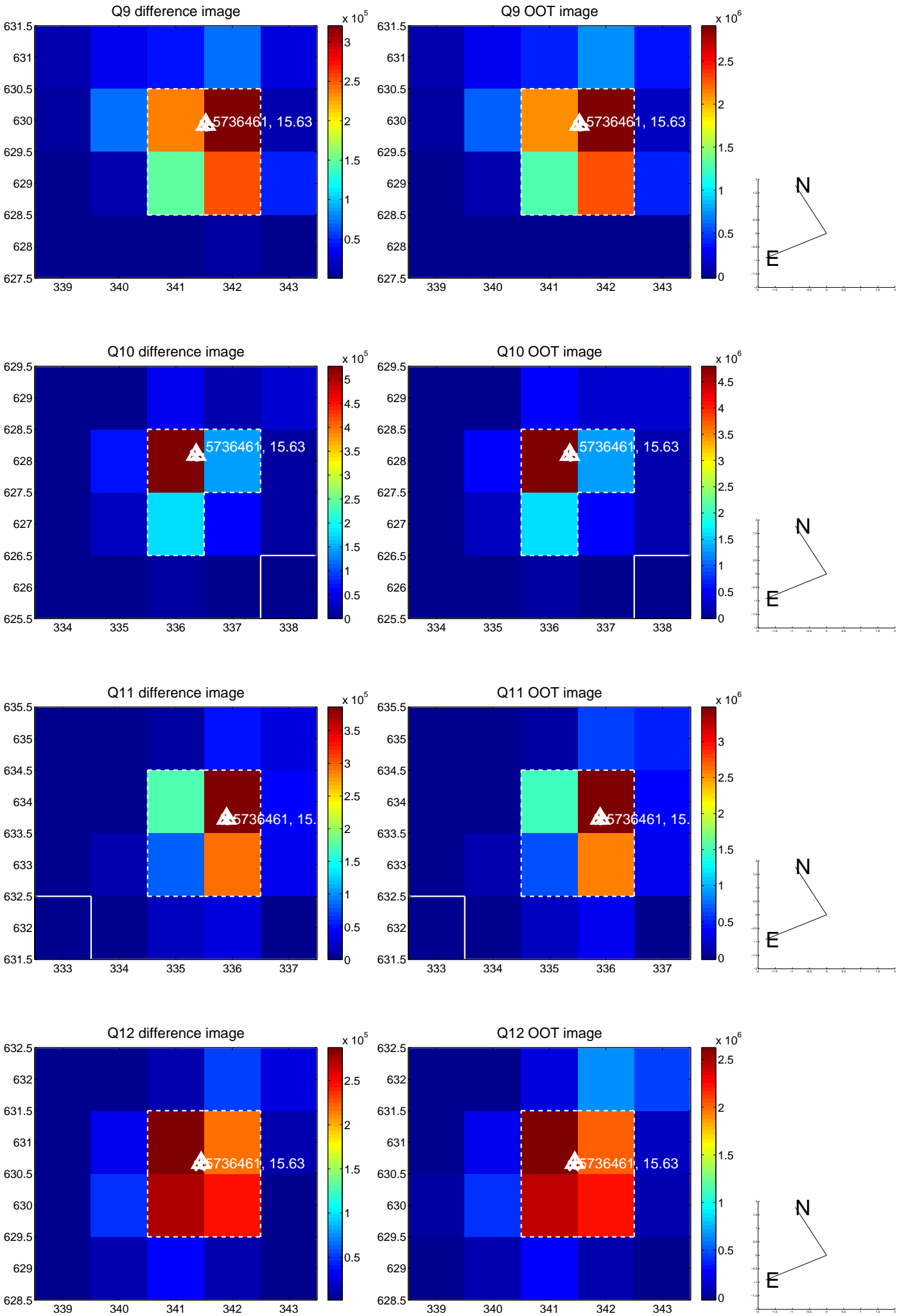
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



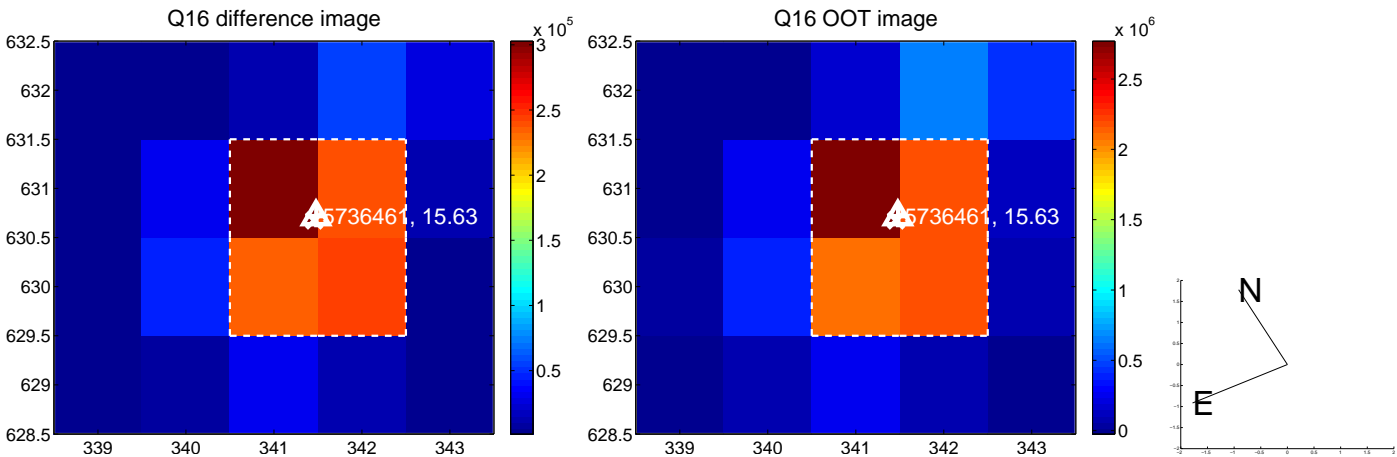
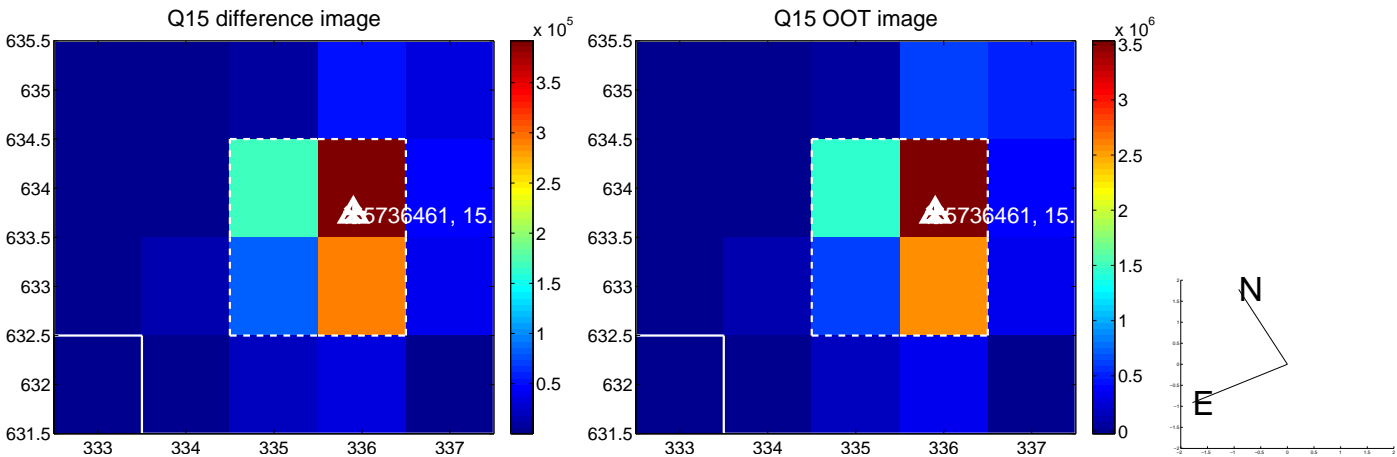
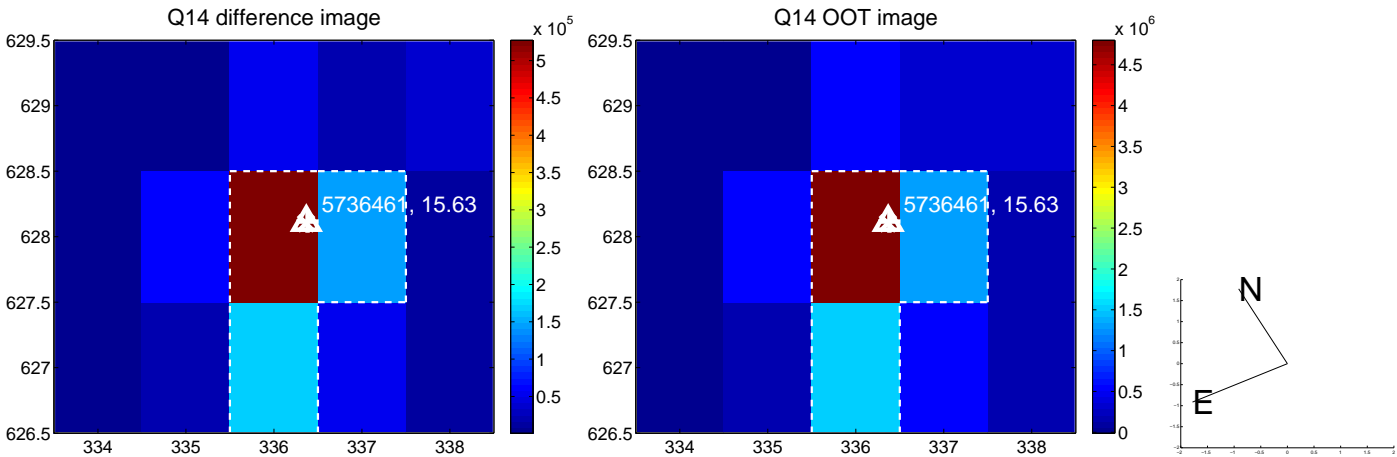
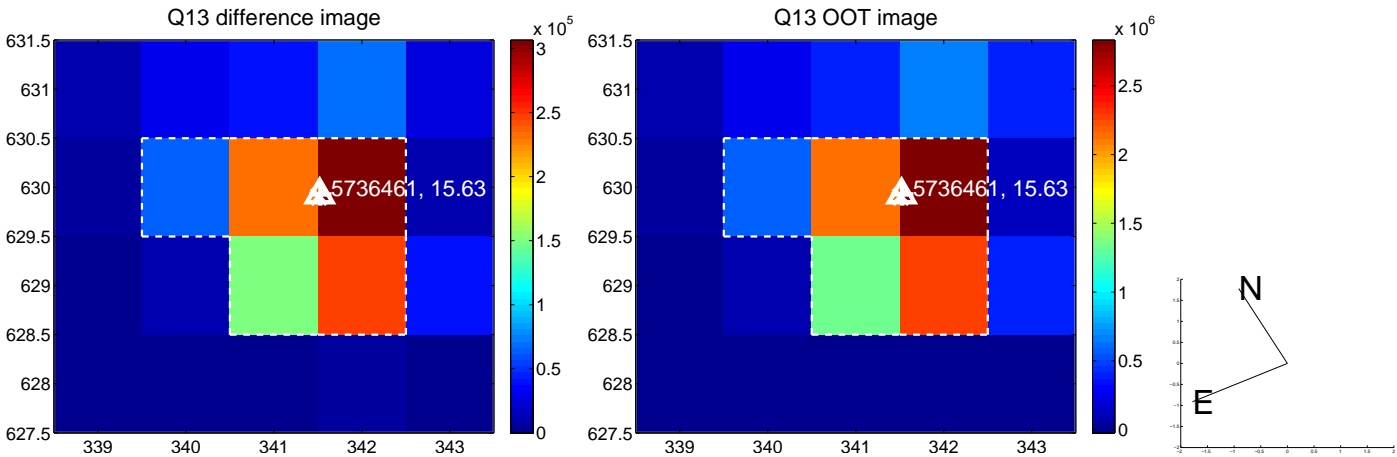
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



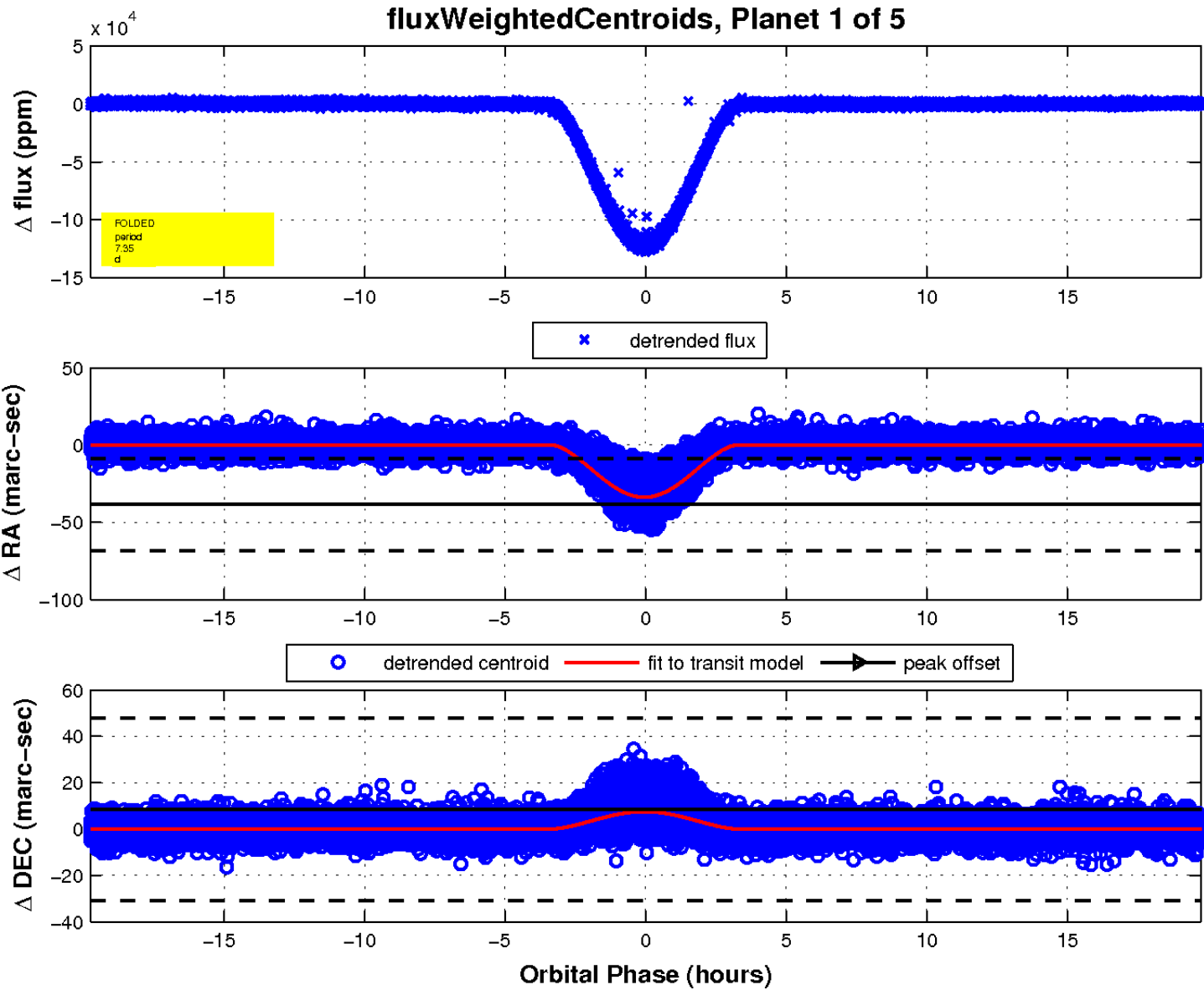
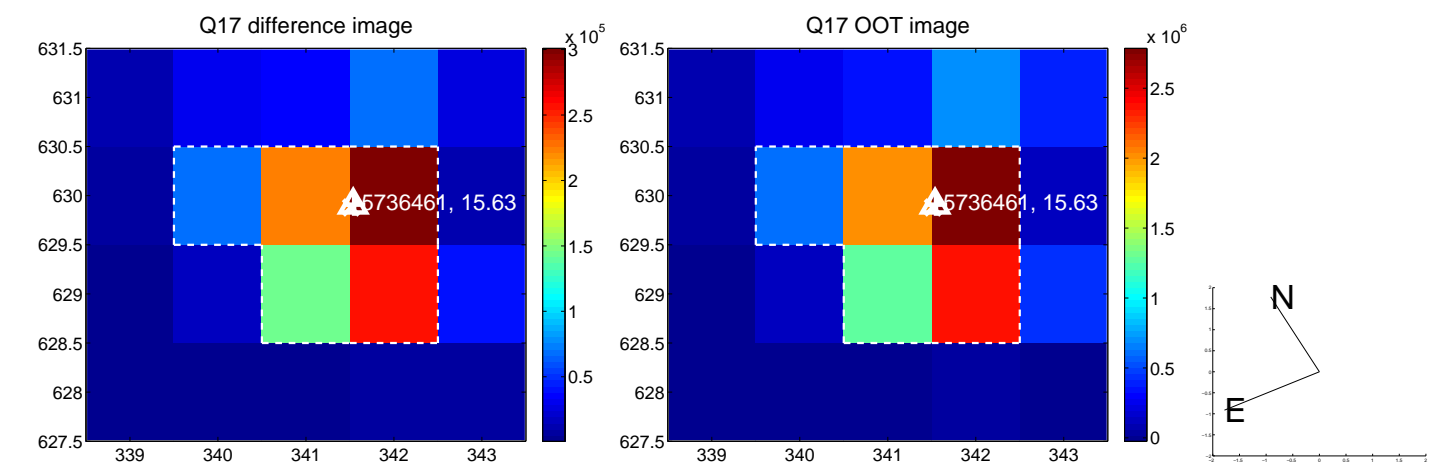
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white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

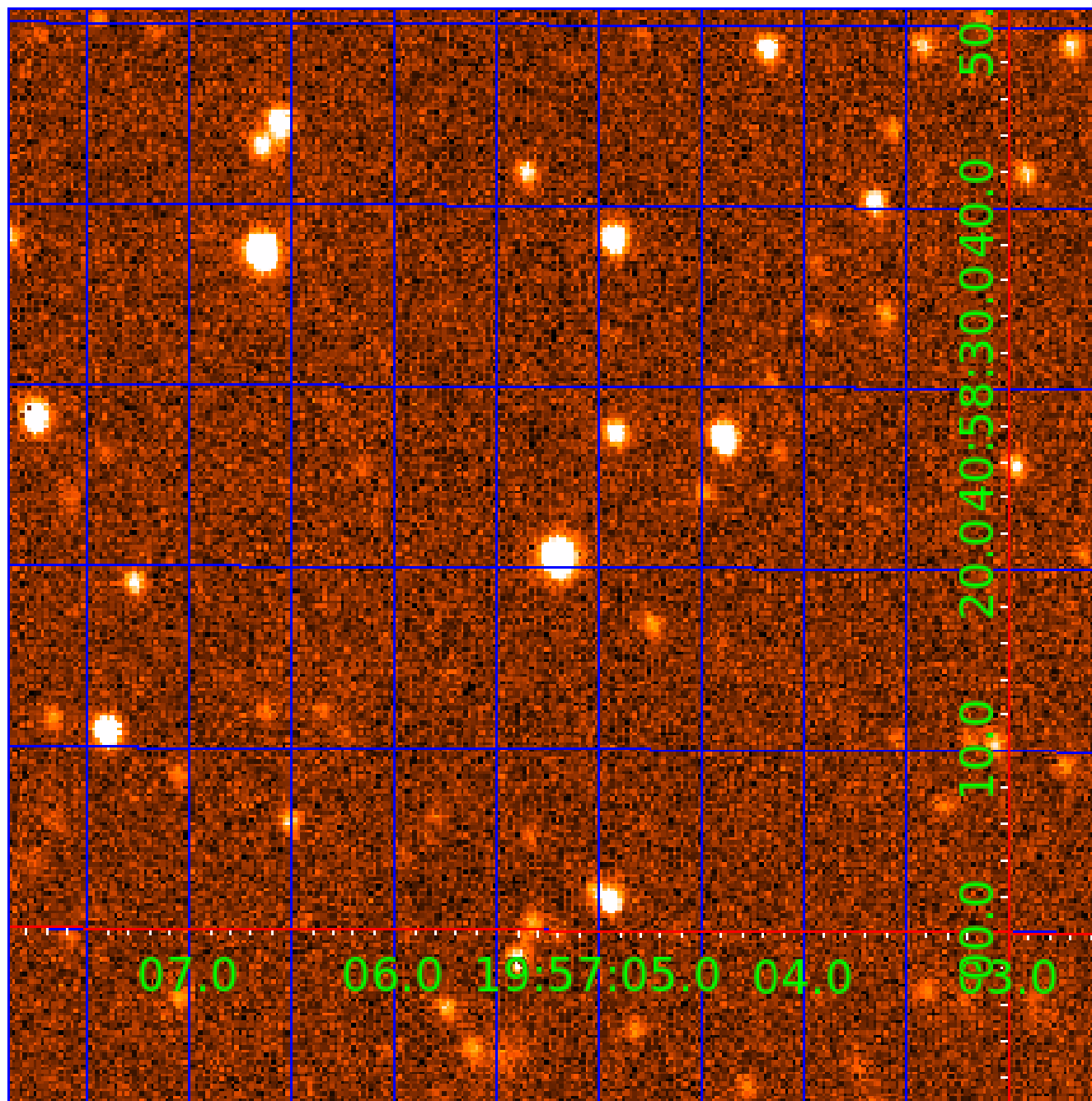


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005736461

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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005736461-05	OBS	No	446.233674	202.344830	864.6	10.989	14.5	4.0	0.81	5616	2.37	0.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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005736461-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
005736461-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
005736461-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005736461-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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.

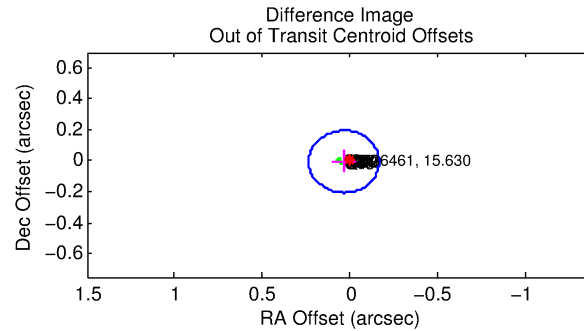
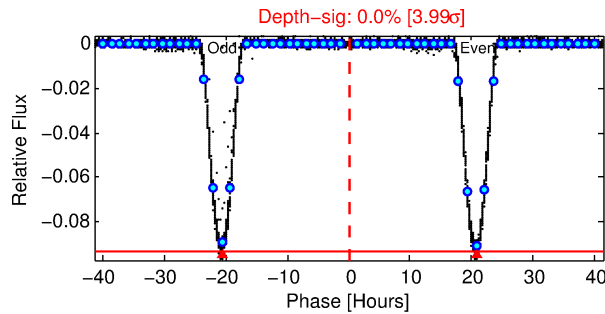
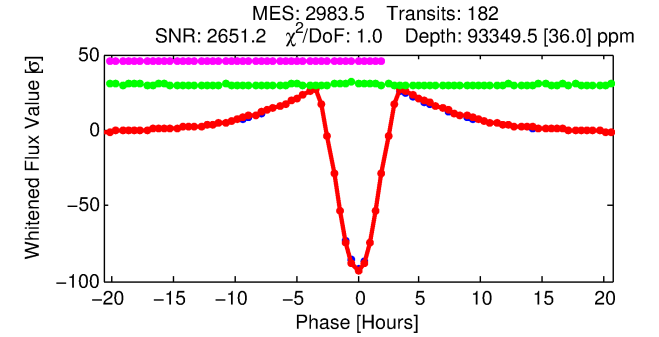
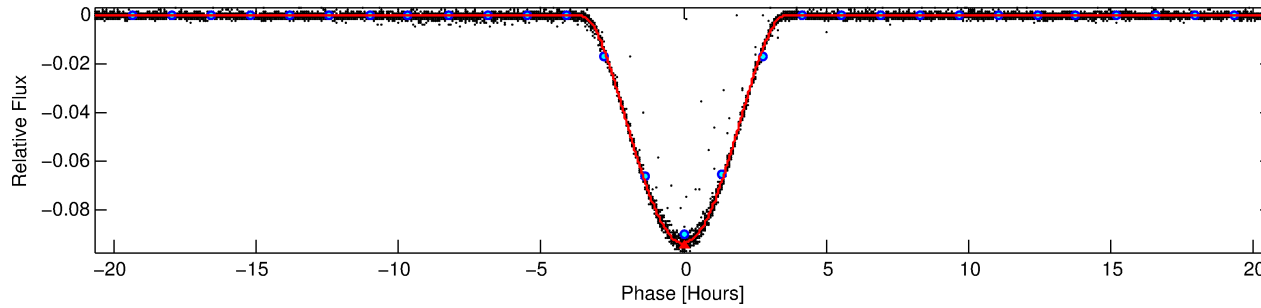
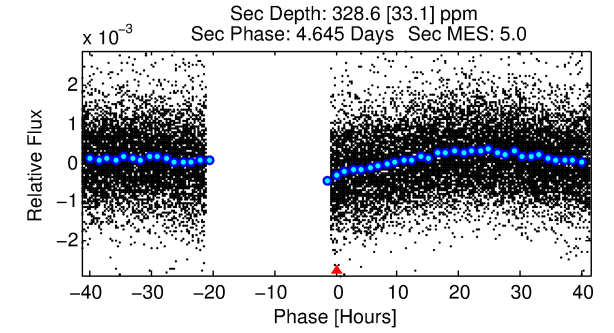
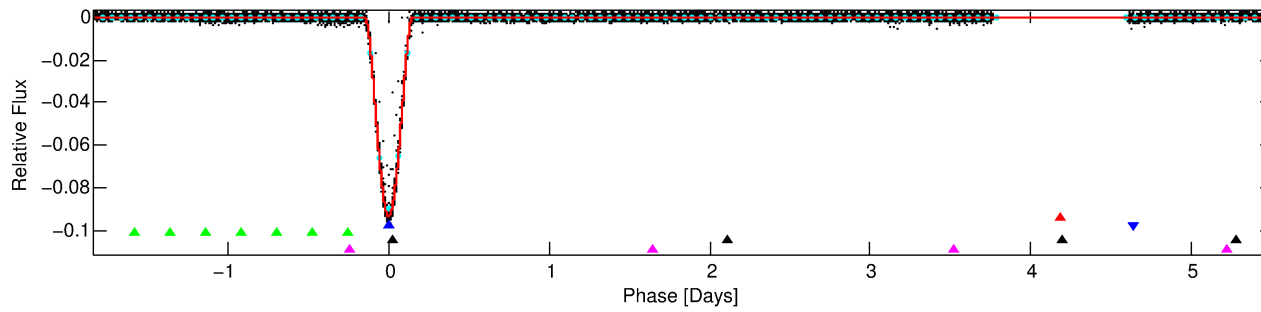
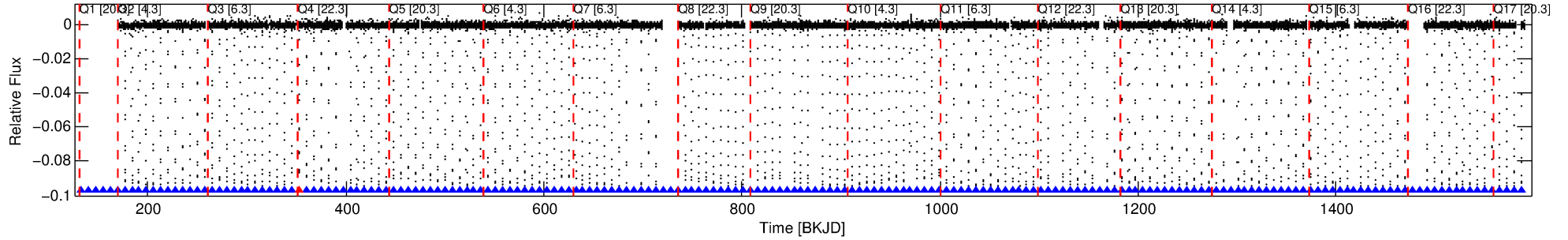
Ephemeris Match Information For 005736461-02

No Significant Match Found

DV One-Page Summary

KIC: 5736461 Candidate: 2 of 5 Period: 7.346 d
KOI: K06623 Corr: No Ephemeris Match

Kp: 15.63 R*: 0.81 Rs Teff: 5616.0 K Logg: 4.57 Fe/H: -0.200



DV Fit Results:

Period = 7.34615 [0.00000] d
Epoch = 132.7057 [0.0000] BKJD
Rp/R* = 0.3996 [0.0084]
a/R* = 8.86 [0.00]
b = 0.89 [0.01]
Seff = 114.86 [38.10]
Teq = 835 [69] K
Rp = 35.32 [9.06] Re
a = 0.0713 [0.0152] AU
Ag = 0.74 [0.24] [-1.08 σ]
Teffp = 1196 [49] K [4.27 σ]

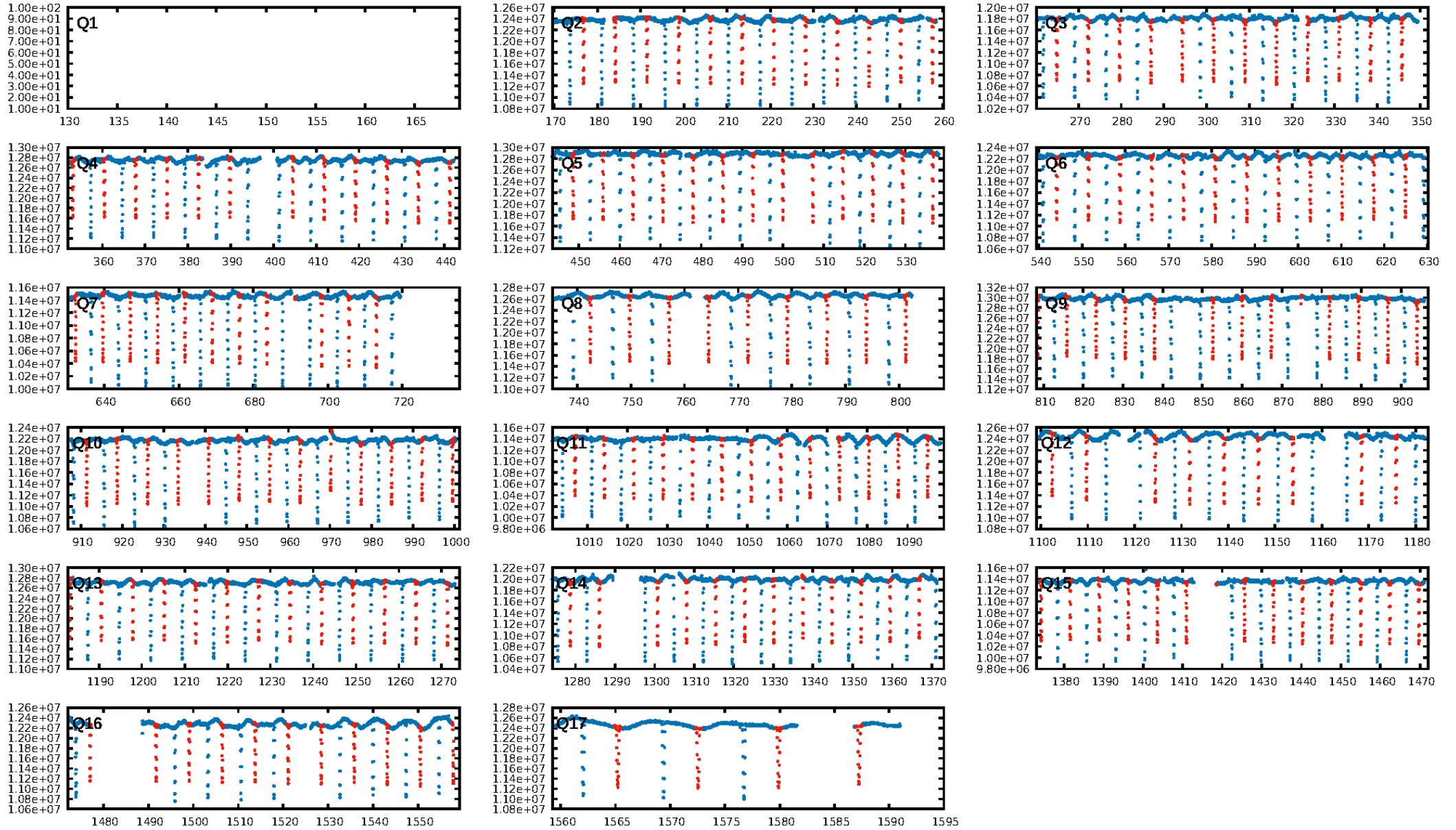
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [177/178]
GhostDiagnostic-chr: 2.749
Centroid-sig: 0.0%
Centroid-so: 0.626 arcsec [148.23 σ]
OotOffset-rm: 0.037 arcsec [0.55 σ]
KicOffset-rm: 0.088 arcsec [1.28 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

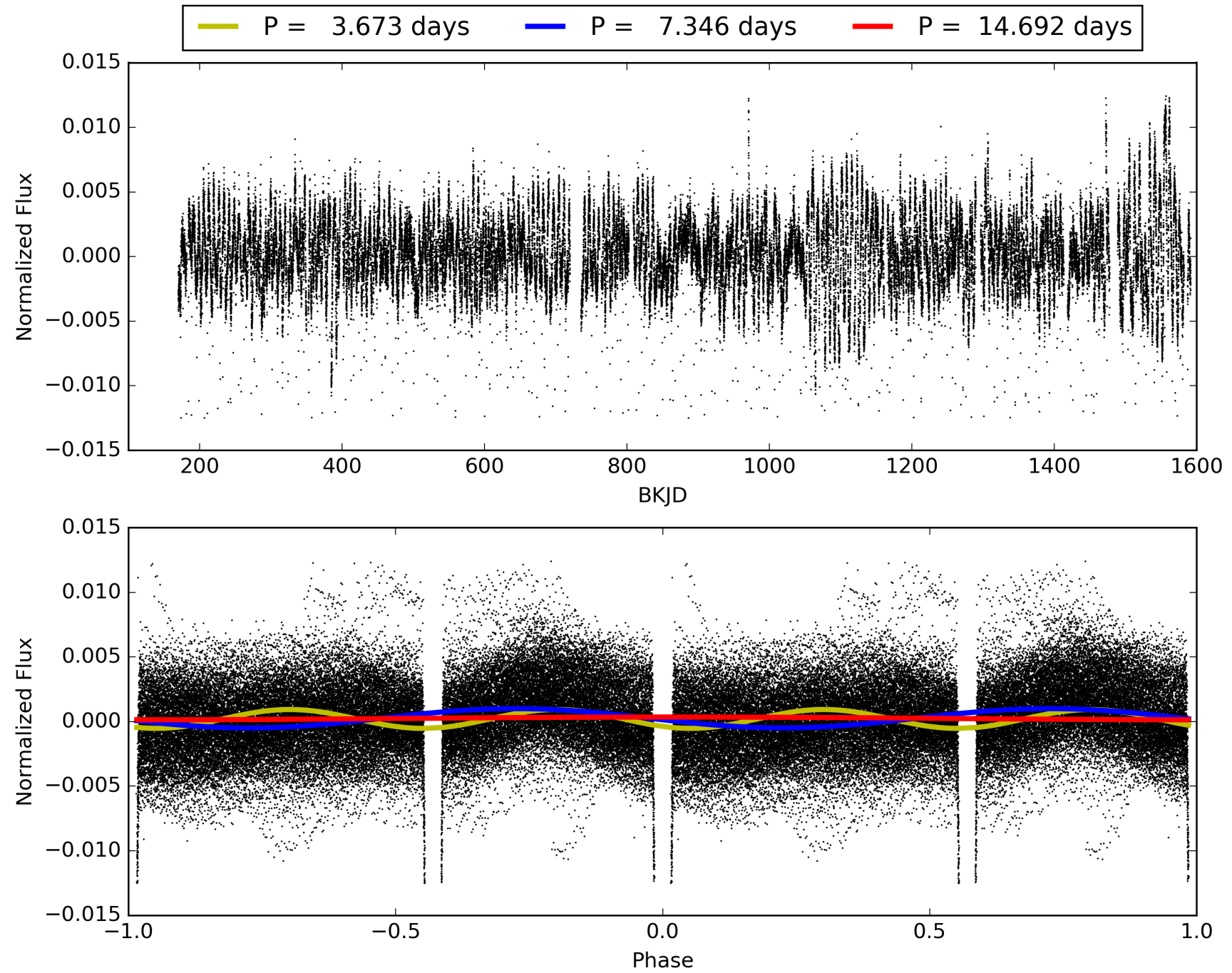
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:52:46 Z

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

TCE 005736461-02, PDC Light Curves

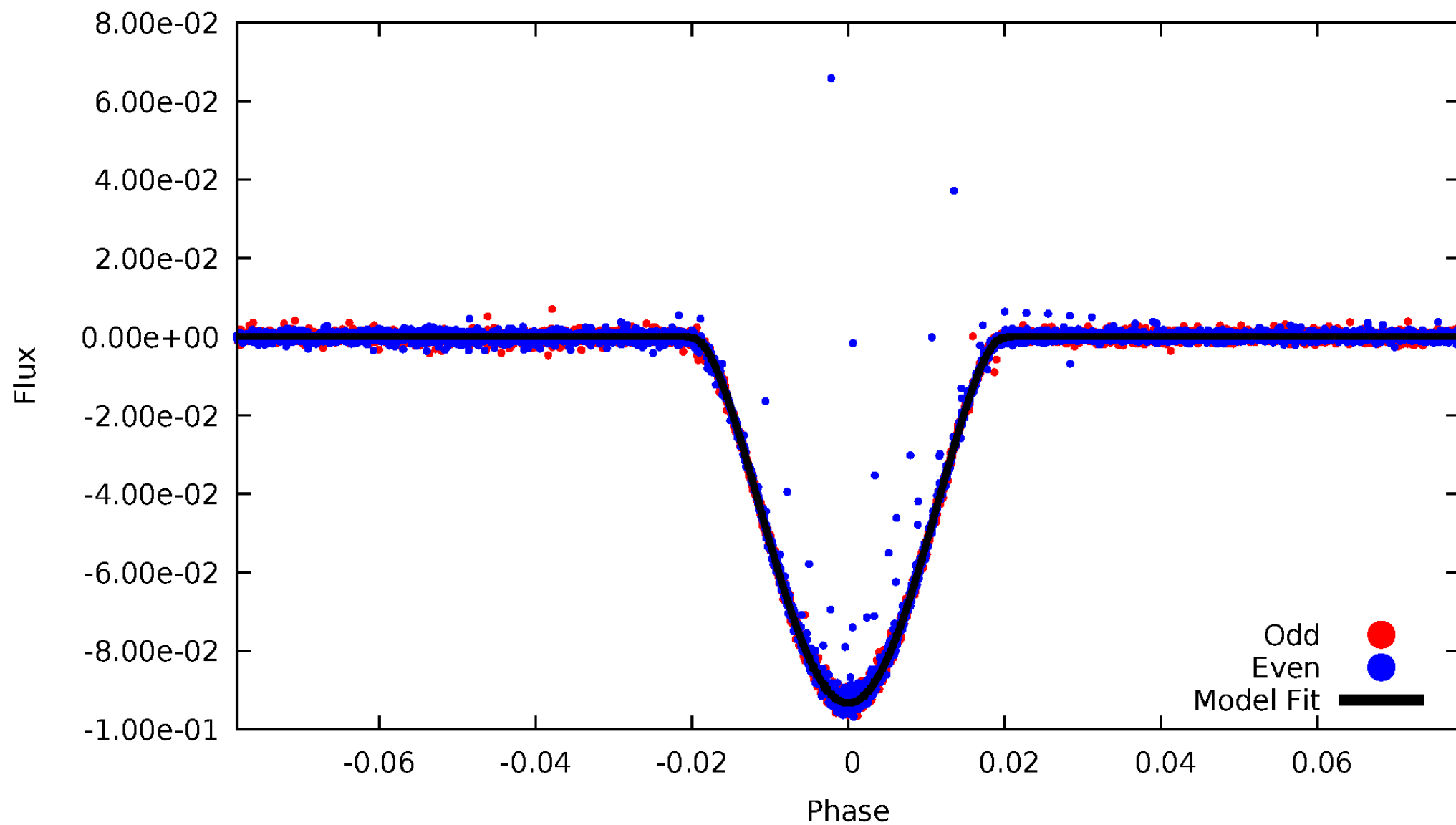


TCE 005736461-02



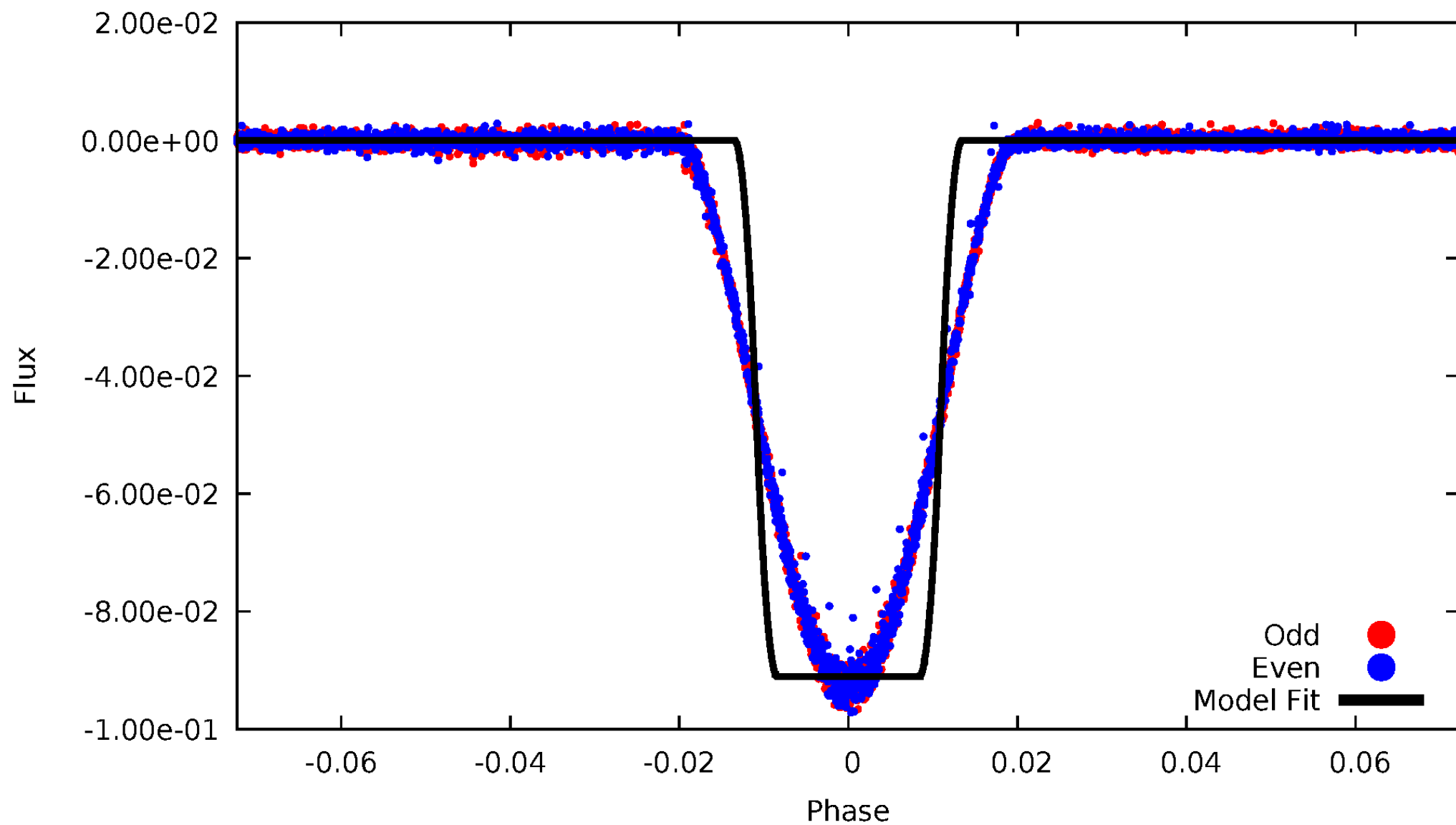
DV Odd/Even

TCE 005736461-02



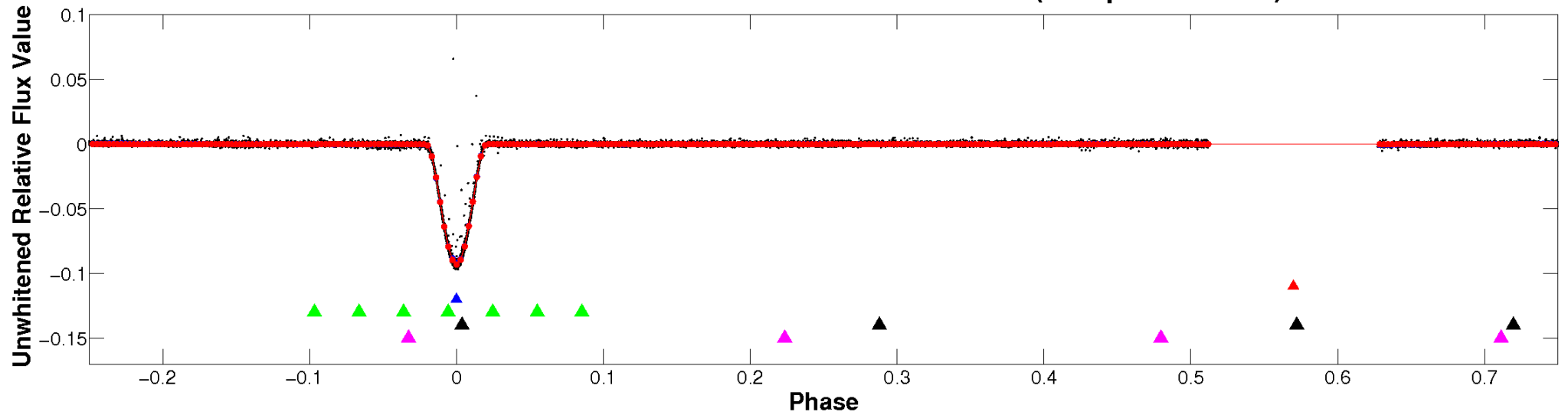
ALT Odd/Even

TCE 005736461-02

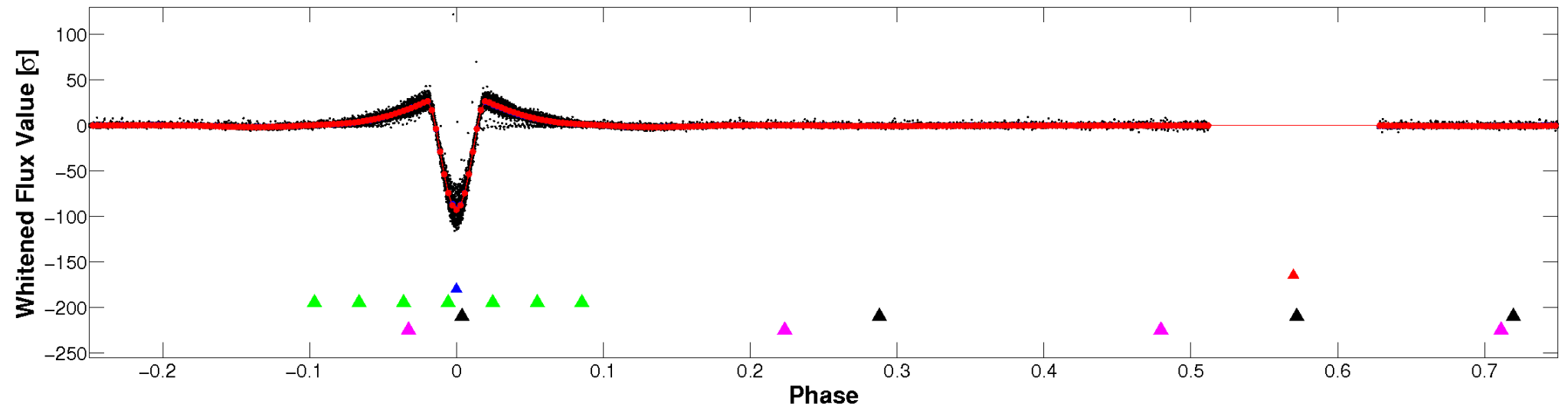


Non-Whitened Vs. Whitened Light Curve

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

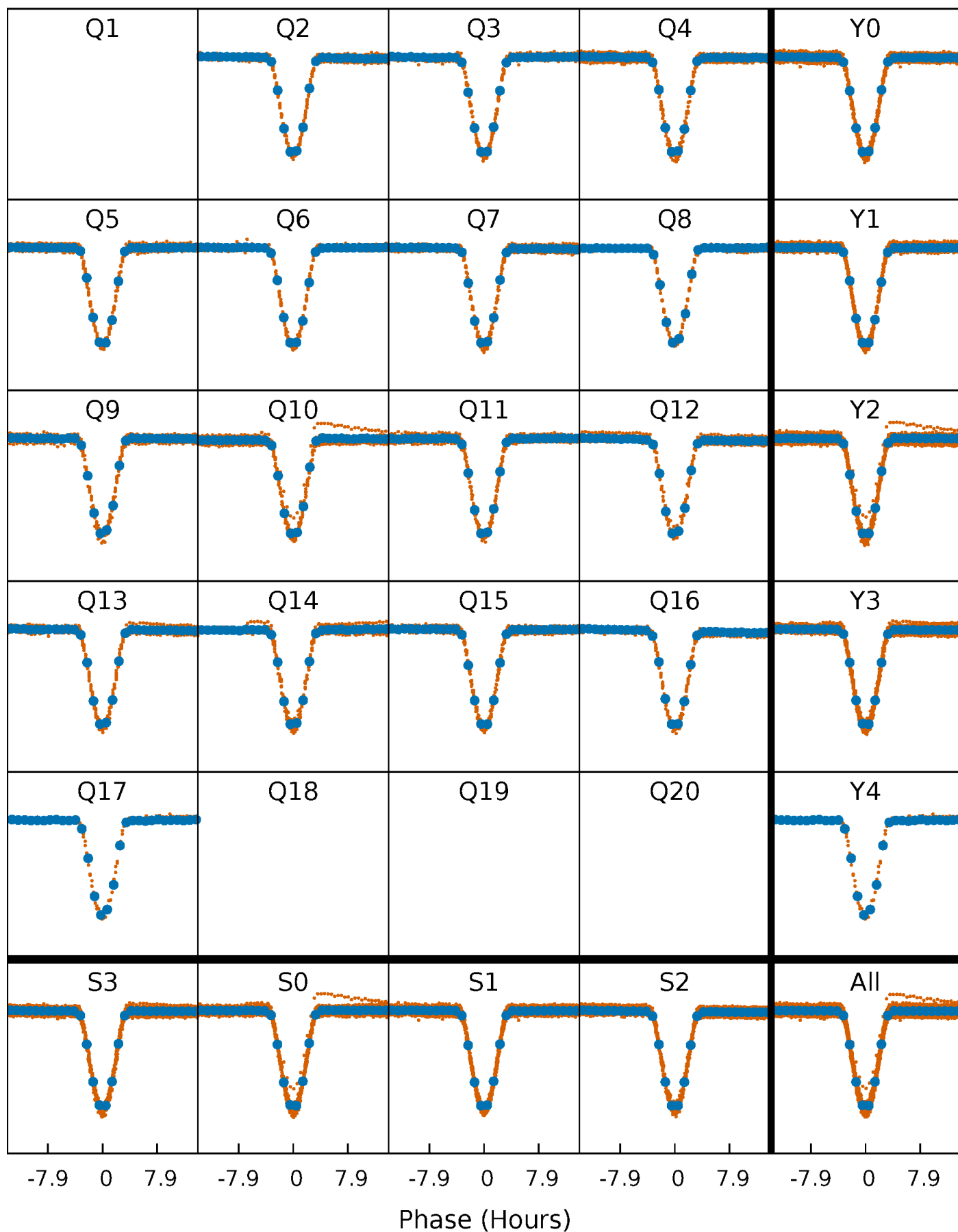


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



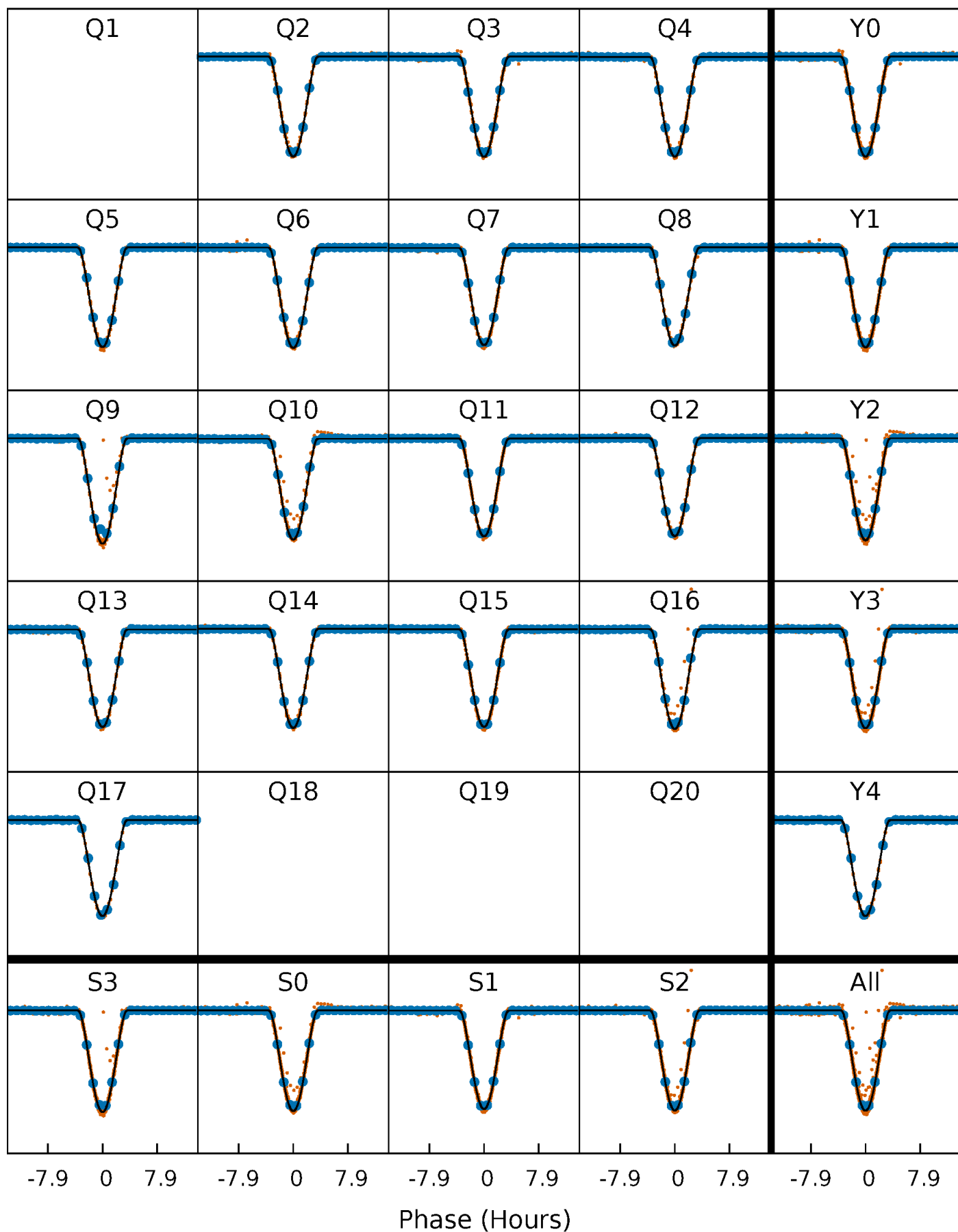
PDC Quarter-Phased Transit Curves

TCE 005736461-02 P= 7.346153 Days $T_0=132.705651$ (BKJD)



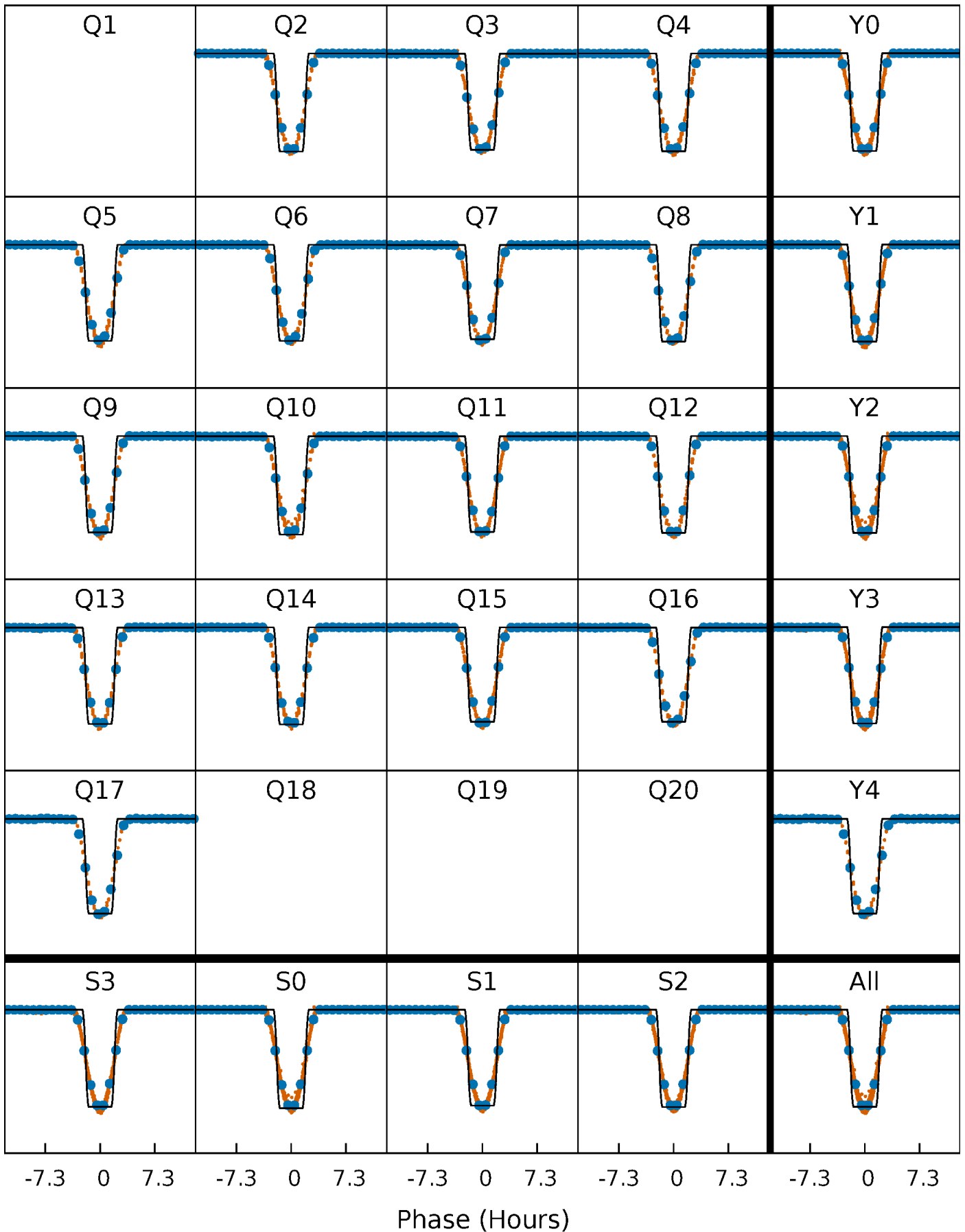
DV Quarter-Phased Transit Curves

TCE 005736461-02 P= 7.346153 Days $T_0=132.705651$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

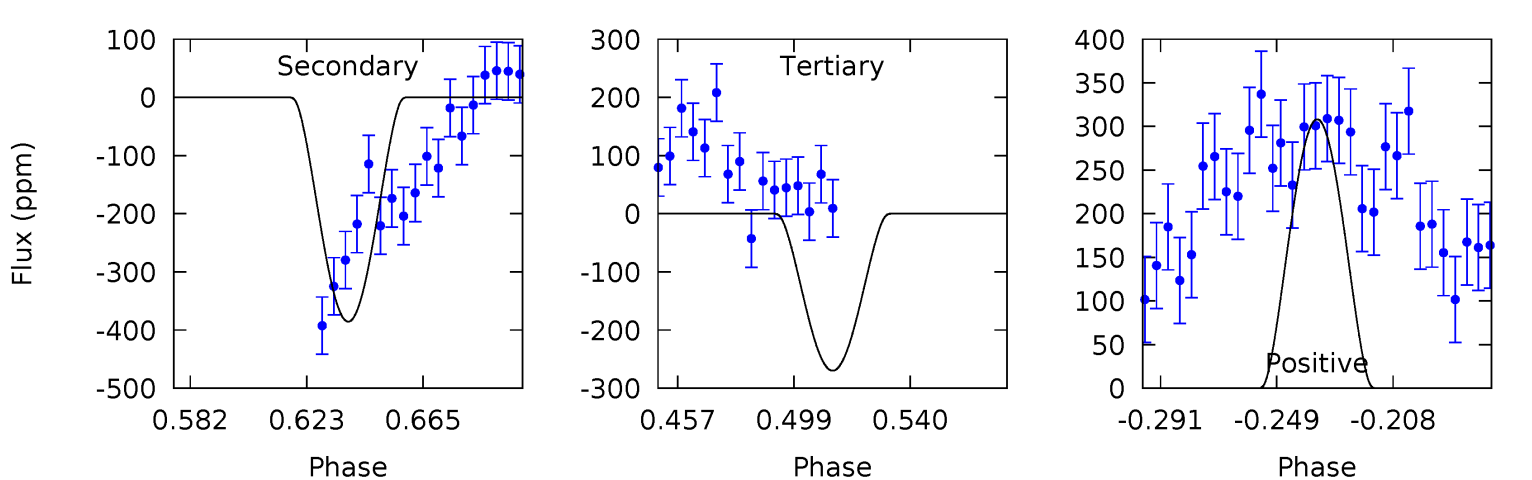
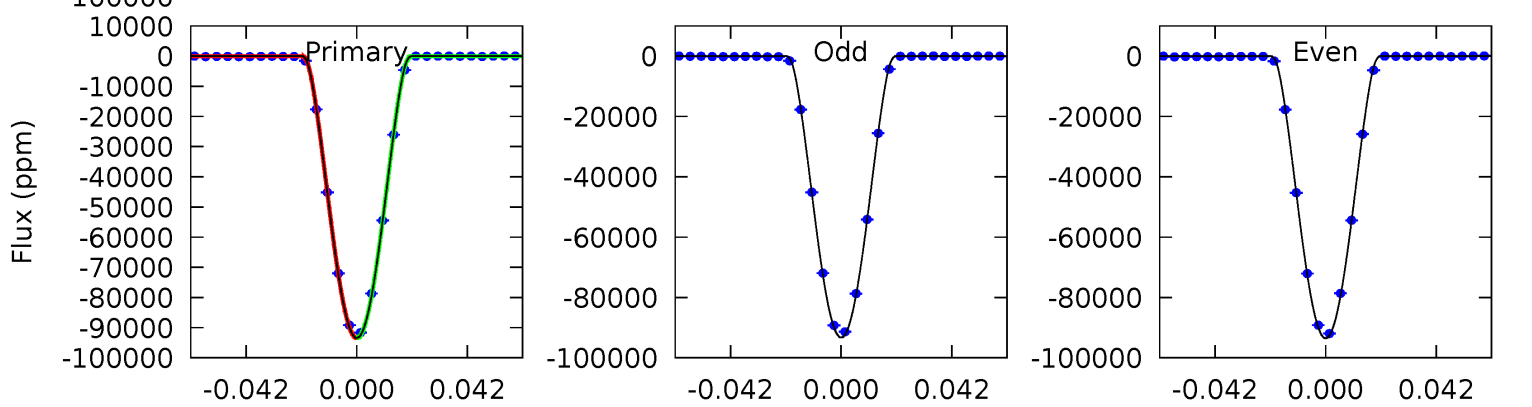
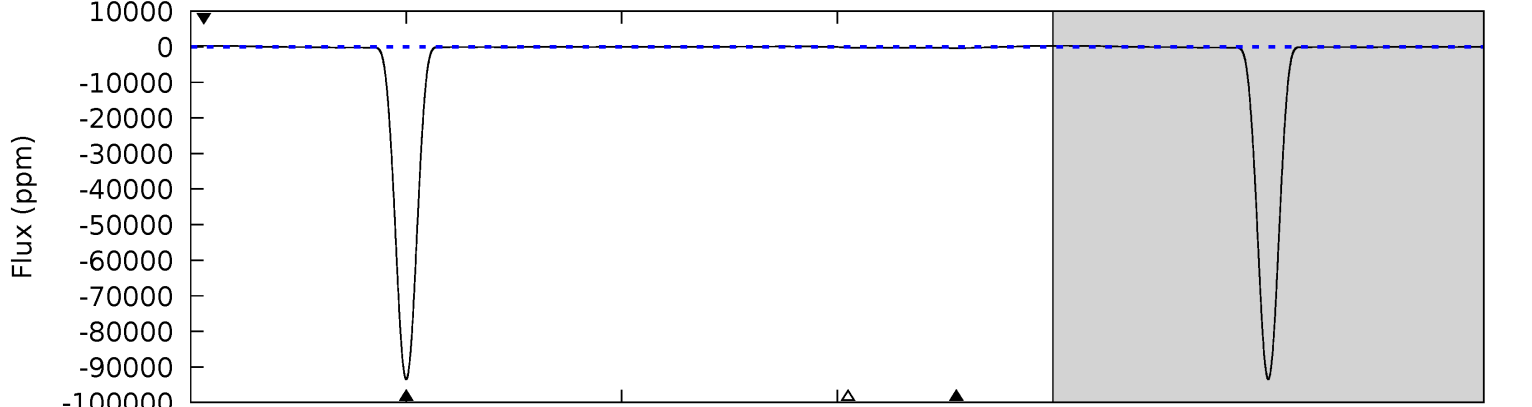
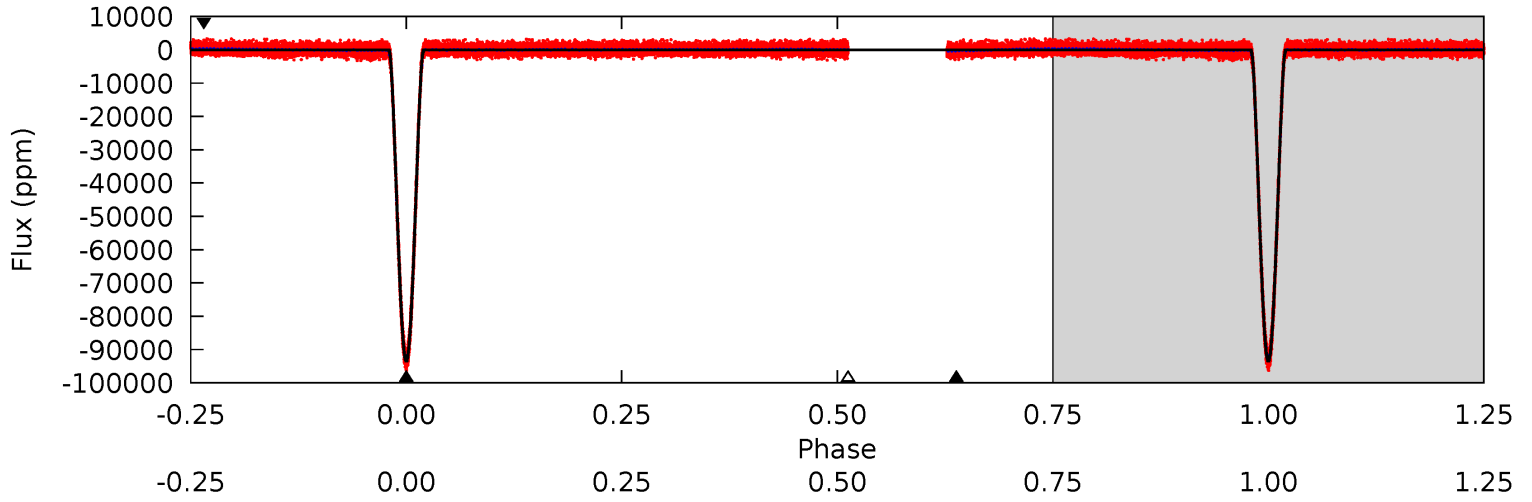
TCE 005736461-02 $P = 7.346149$ Days $T_0 = 132.706062$ (BKJD)



DV Model-Shift Uniqueness Test

005736461-02, P = 7.346153 Days, E = 132.705651 Days

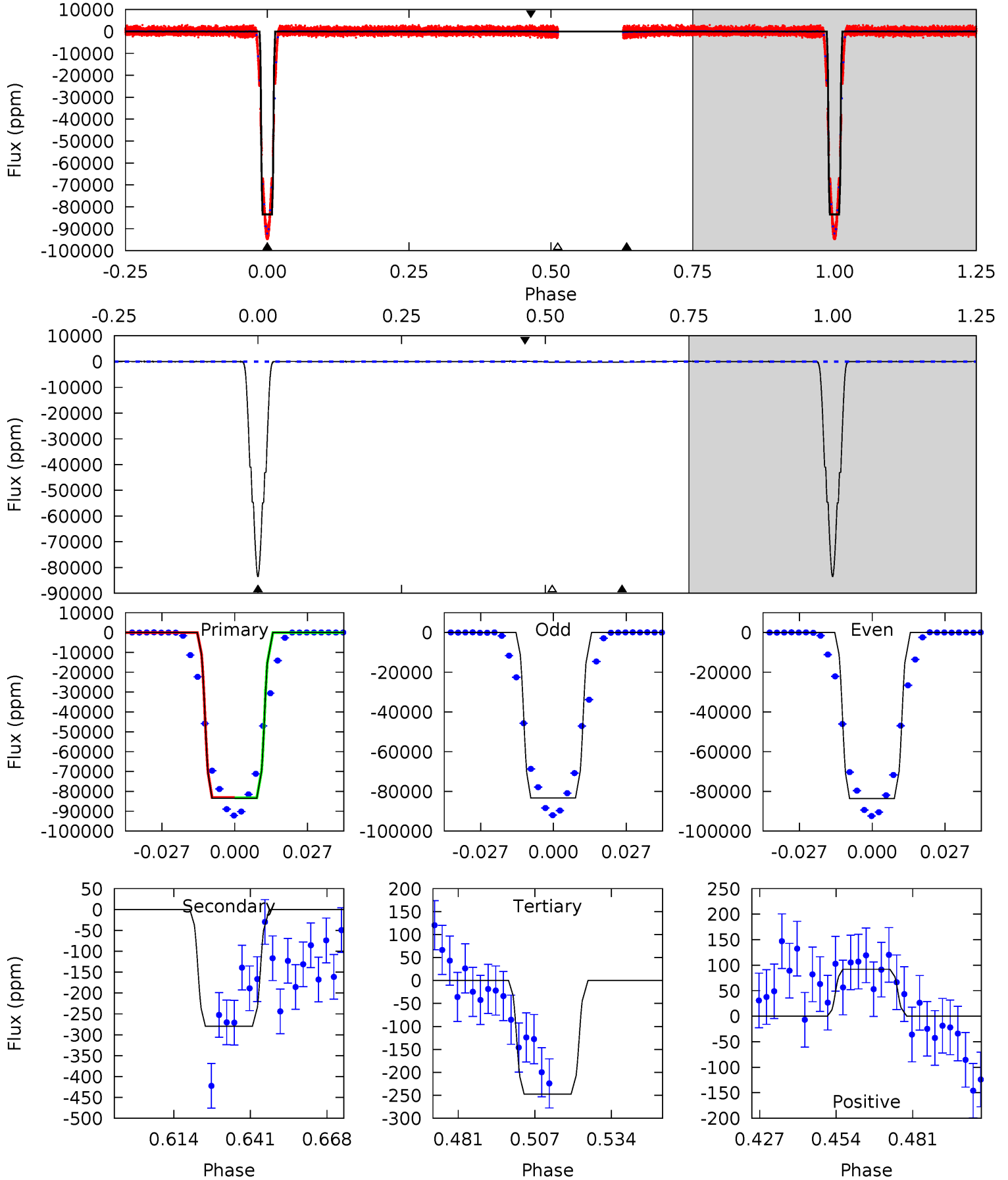
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6192	25.6	17.9	20.4	4.75	2.04	8.15	6174	6172	7.66	5.12	7.65	0.99	0.00	3.43



Alt Model-Shift Uniqueness Test

005736461-02, P = 7.346149 Days, E = 132.706062 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4088	13.7	12.1	4.51	4.83	2.22	2.23	4076	4083	1.59	9.19	7.52	1.00	0.00	3.33



Stellar Parameters For KIC 005736461

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5616^{+169}_{-169}	$4.574^{+0.042}_{-0.168}$	$-0.200^{+0.300}_{-0.300}$	$0.810^{+0.207}_{-0.069}$	$0.905^{+0.083}_{-0.104}$	$2.400^{+0.398}_{-1.104}$
	+3%/-3%	+1%/-4%	+150%/-150%	+26%/-9%	+9%/-11%	+17%/-46%
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 005736461-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-386 ± 15	$36.37^{+4.96}_{-2.64}$	1188^{+74}_{-52}	2081^{+38}_{-45}	$0.804^{+0.120}_{-0.166}$
Alt.	-280 ± 20	$27.47^{+3.73}_{-2.04}$	1191^{+68}_{-53}	2165^{+44}_{-49}	$1.017^{+0.172}_{-0.208}$

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

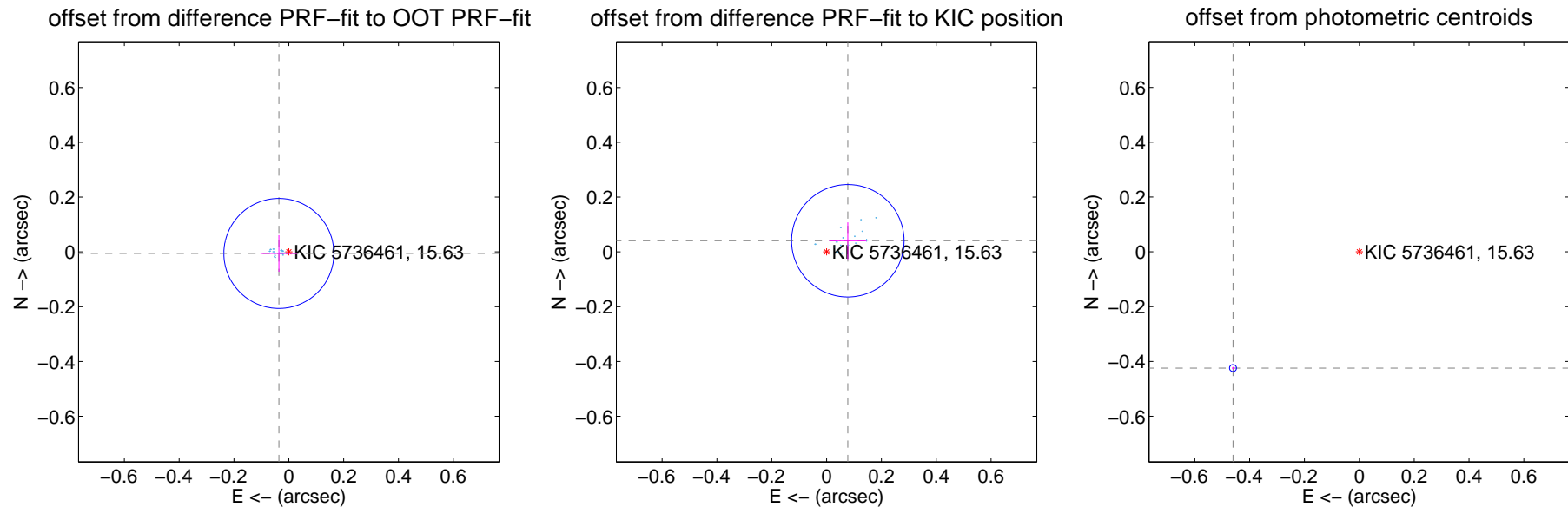
DV Centroid Data

Supplemental centroid analysis for 005736461-02. Kepler magnitude: 15.63. Transit SNR 2651.22

There are 16 quarters with good PRF difference image offsets

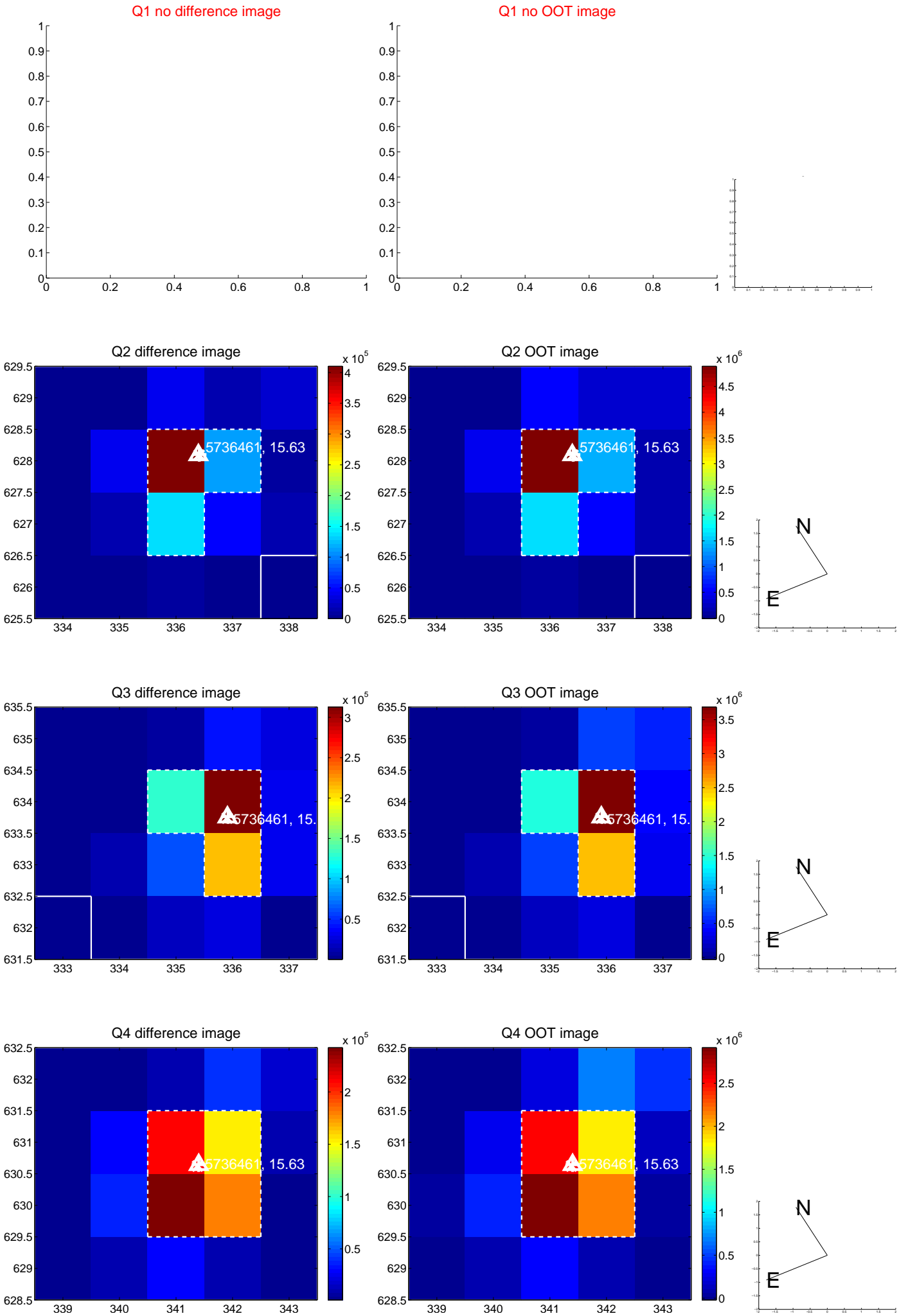
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.037 ± 0.067	0.55	0.036 ± 0.067	-0.006 ± 0.067
PRF-fit source offset from KIC position	0.088 ± 0.068	1.28	-0.078 ± 0.068	0.041 ± 0.067
photometric centroid source offset	0.63 ± 0.00	148.23	0.46 ± 0.00	-0.42 ± 0.00

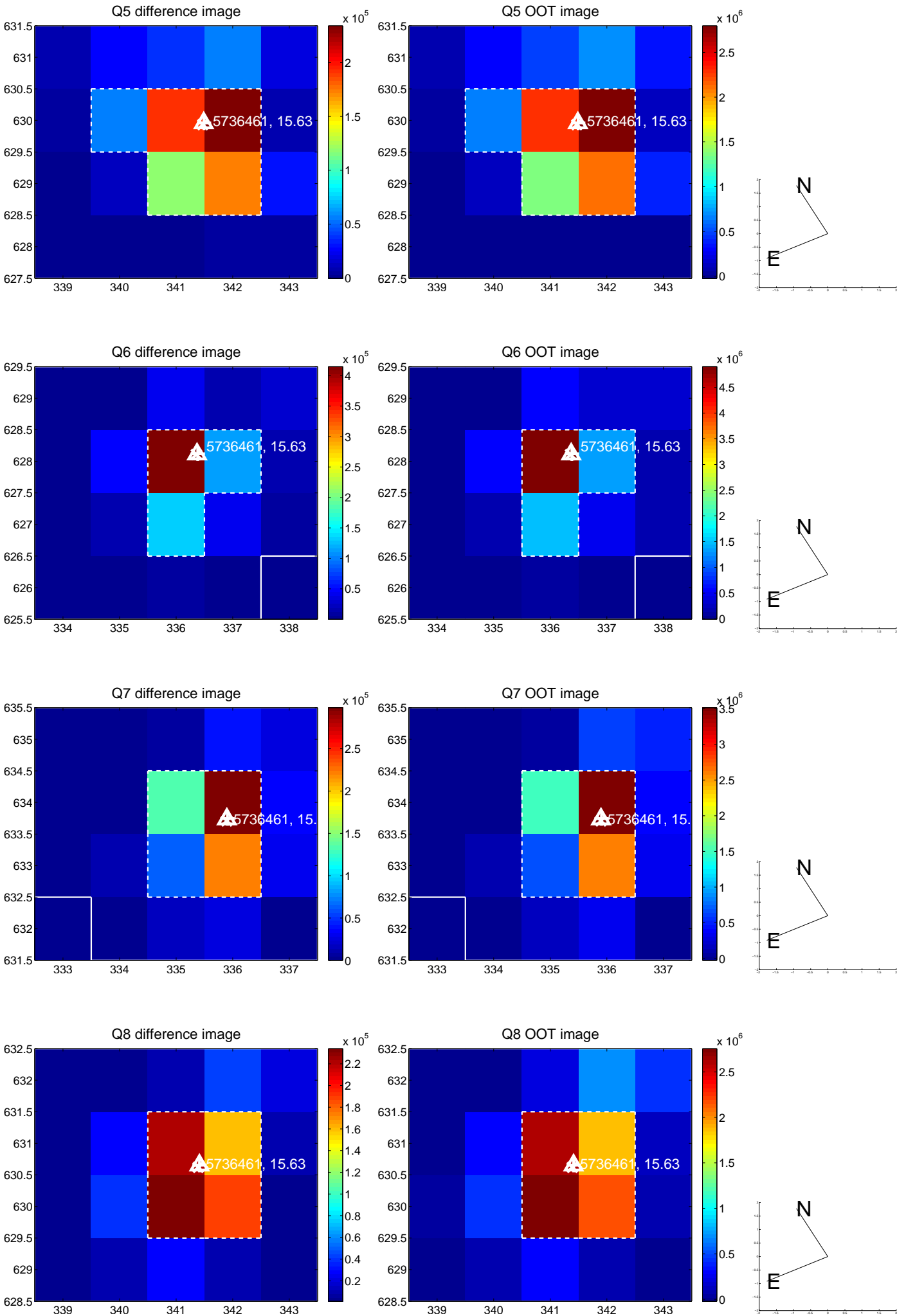


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

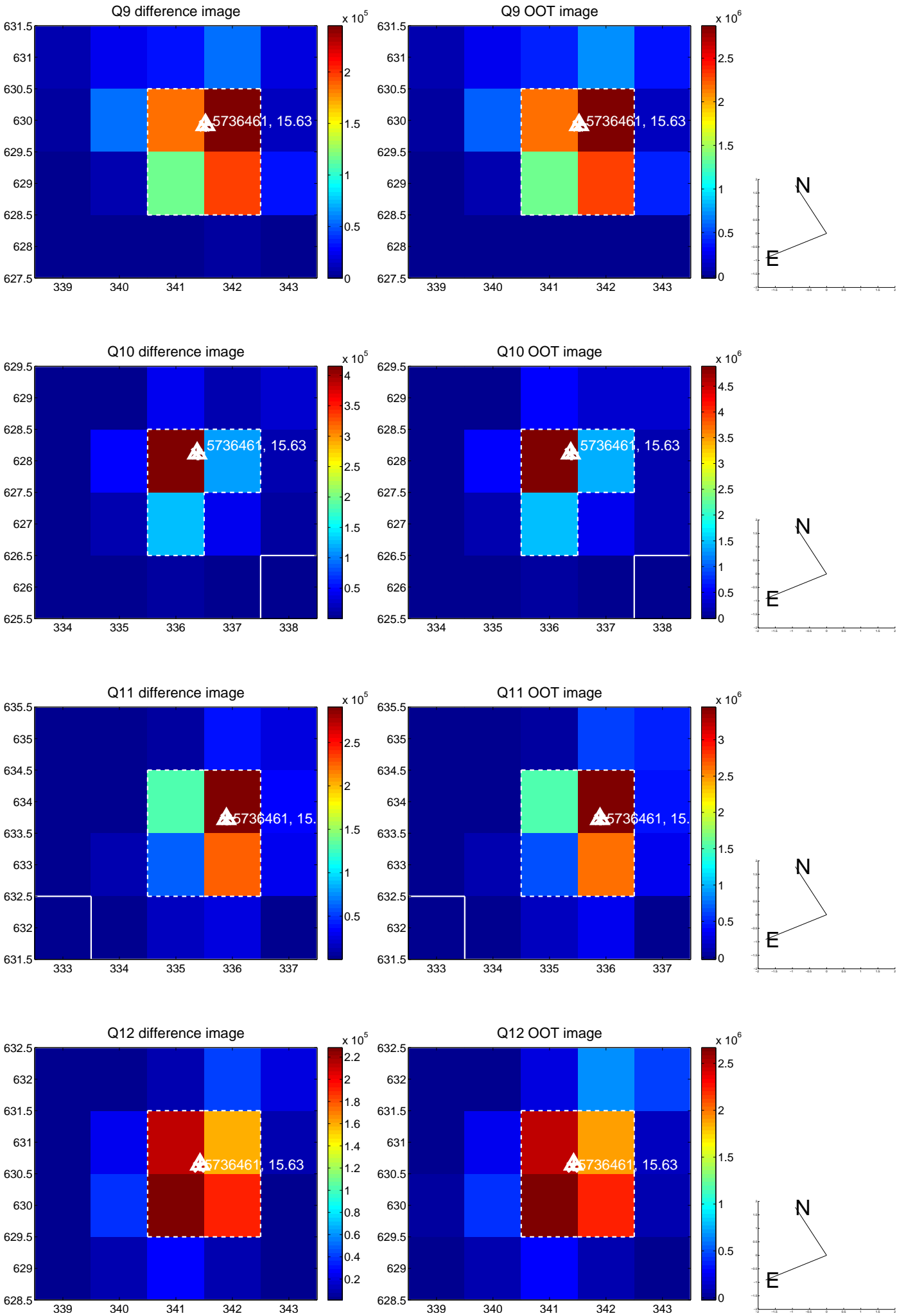
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



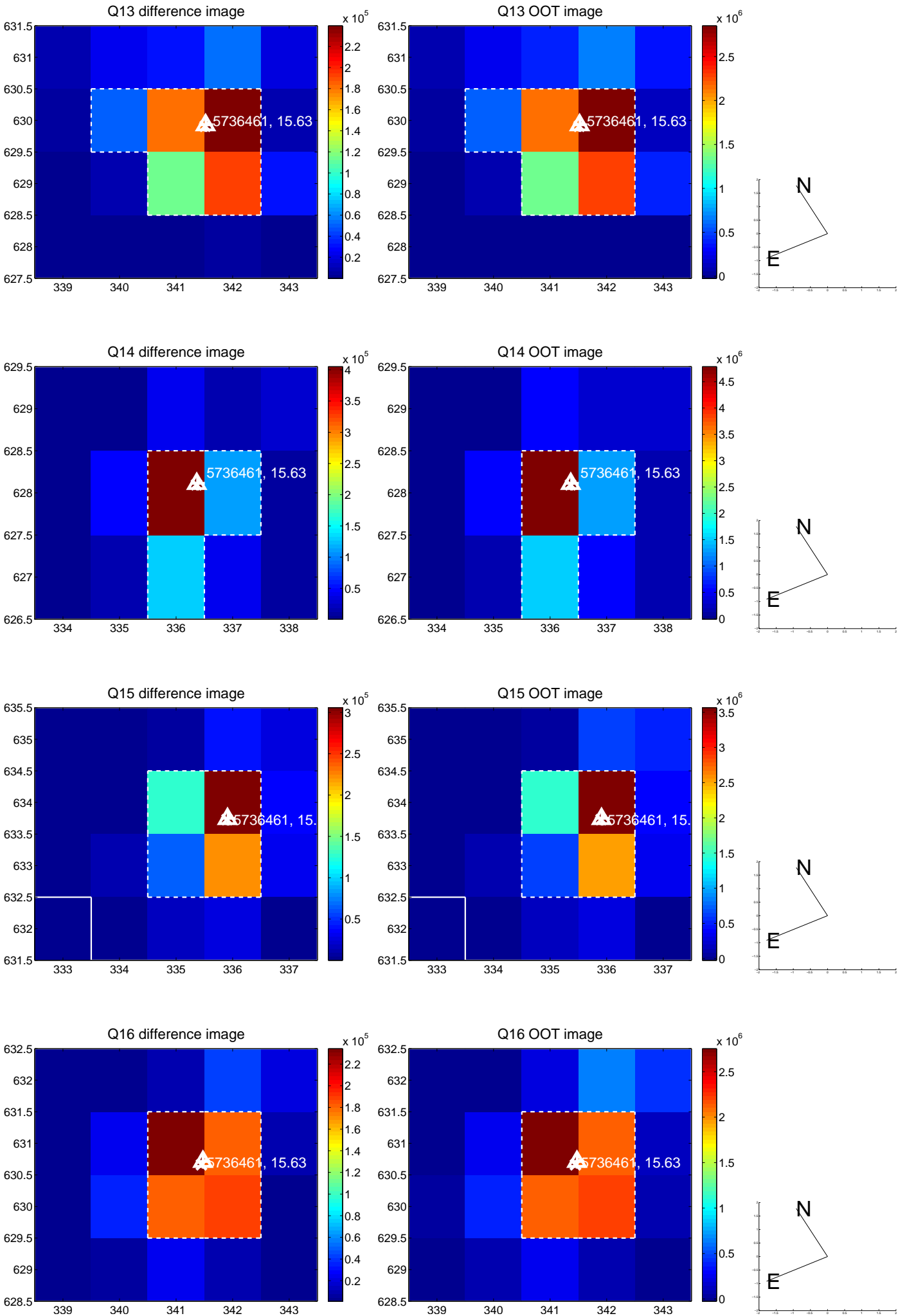
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



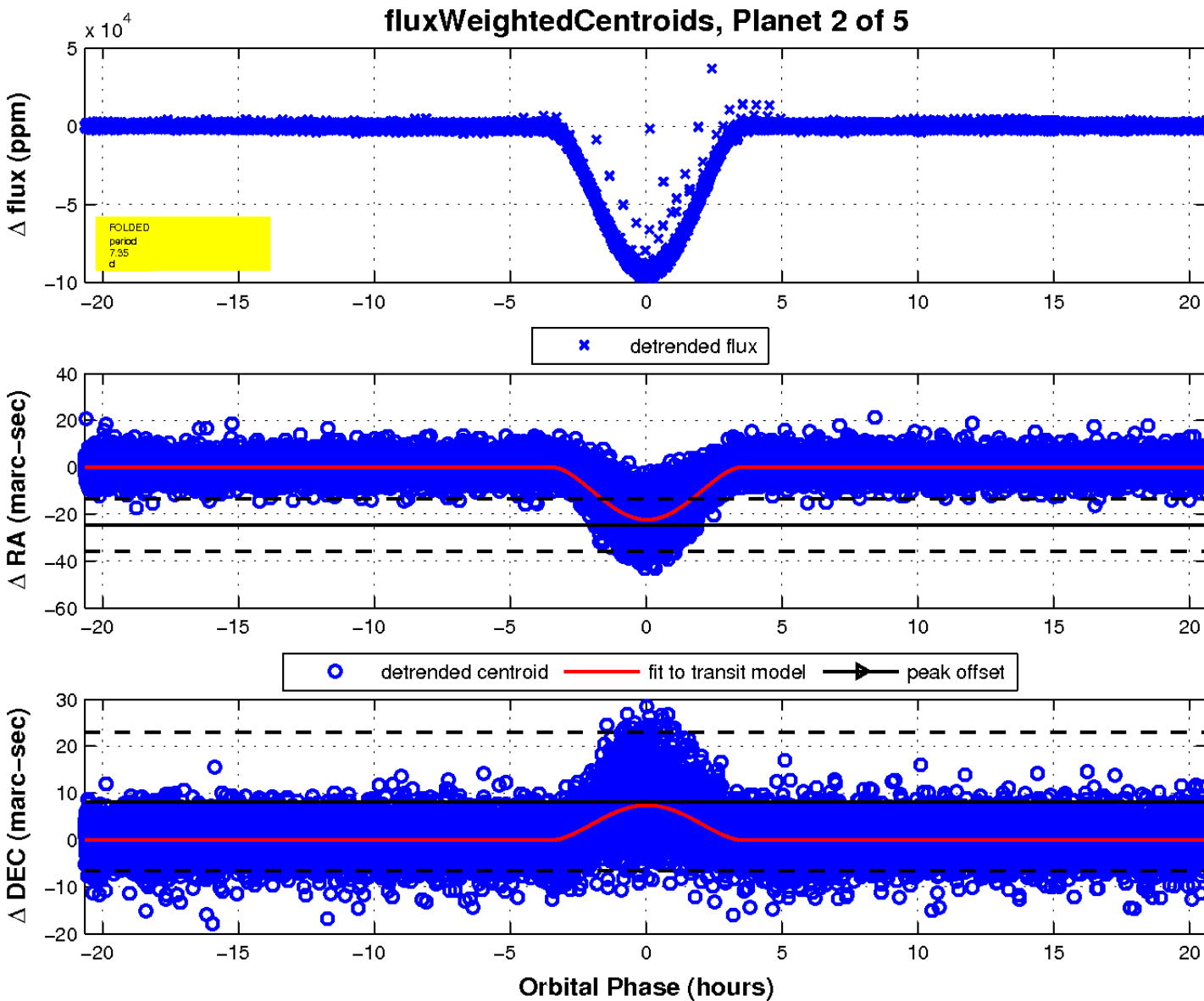
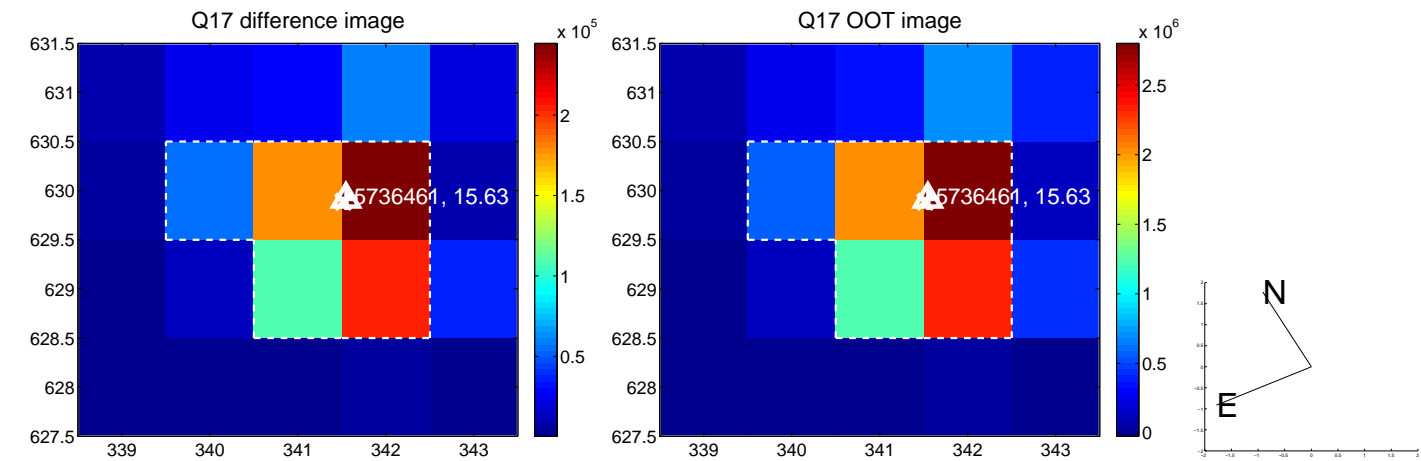
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

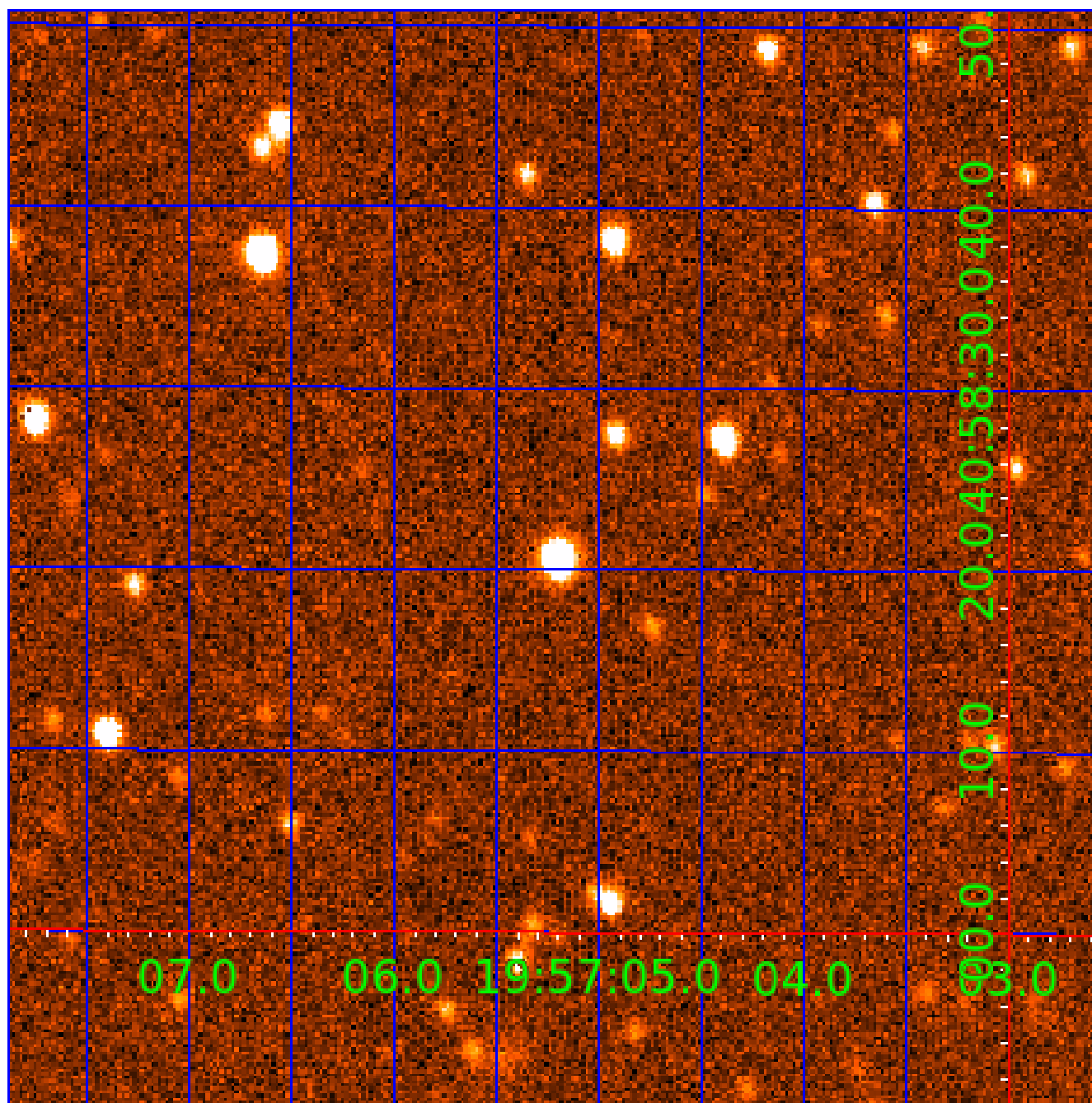


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005736461

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})
005736461-01	OBS	6623.01	7.346160	136.891169	121442.5	6.588	3781.8	3265.0	0.81	5616	41.54	114.86
005736461-02	OBS	No	7.346153	132.705651	93349.5	6.890	2983.5	2651.2	0.81	5616	35.32	114.86
005736461-03	OBS	No	212.815527	221.486770	4137.8	15.000	24.4	-1.0	0.81	5616	5.15	1.29
005736461-04	OBS	No	446.027766	203.024031	1241.1	1.180	14.1	2.7	0.81	5616	3.03	0.48
005736461-05	OBS	No	446.233674	202.344830	864.6	10.989	14.5	4.0	0.81	5616	2.37	0.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005736461-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
005736461-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
005736461-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
005736461-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005736461-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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 005736461-03

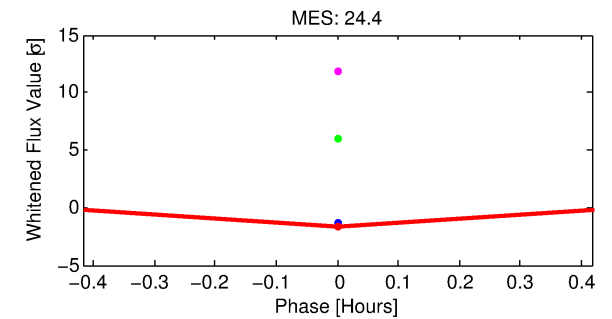
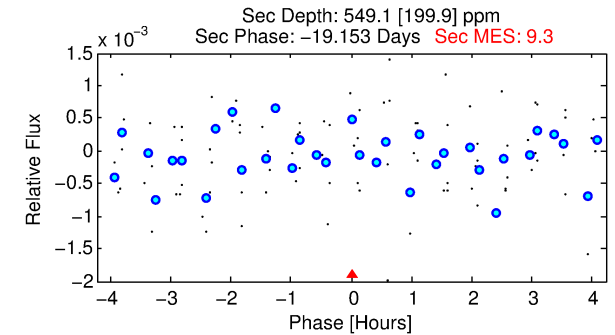
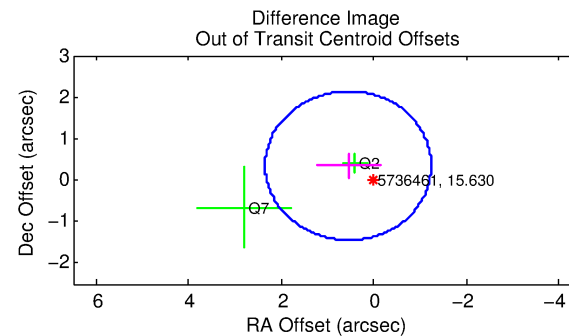
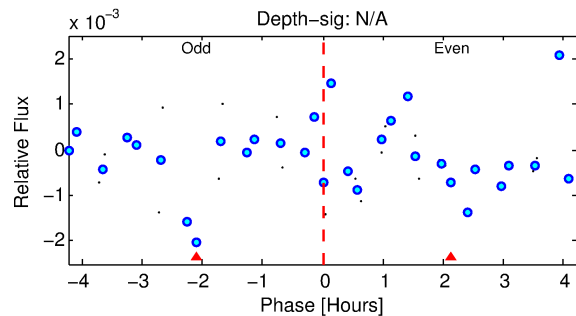
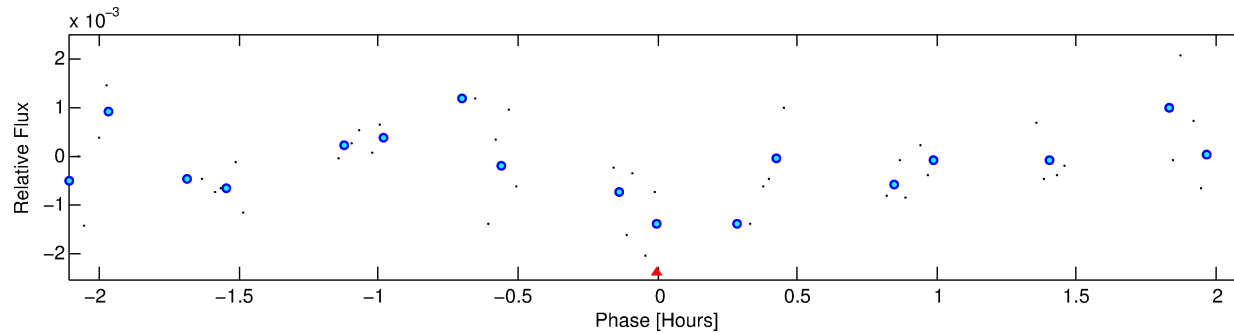
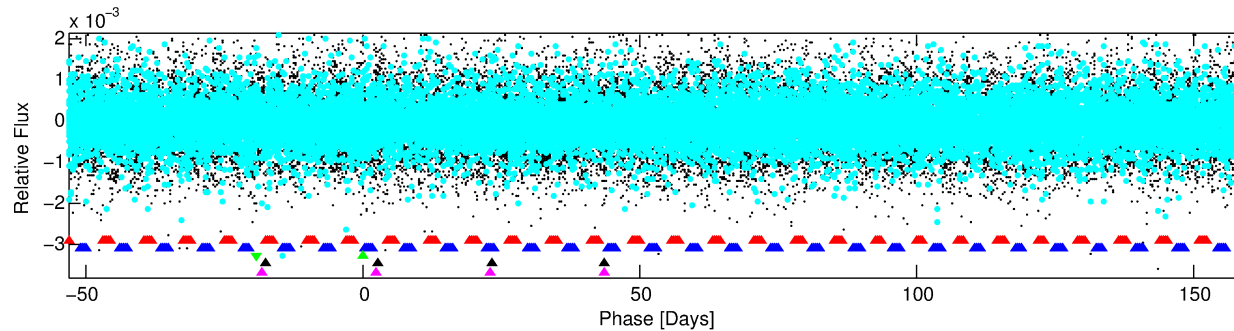
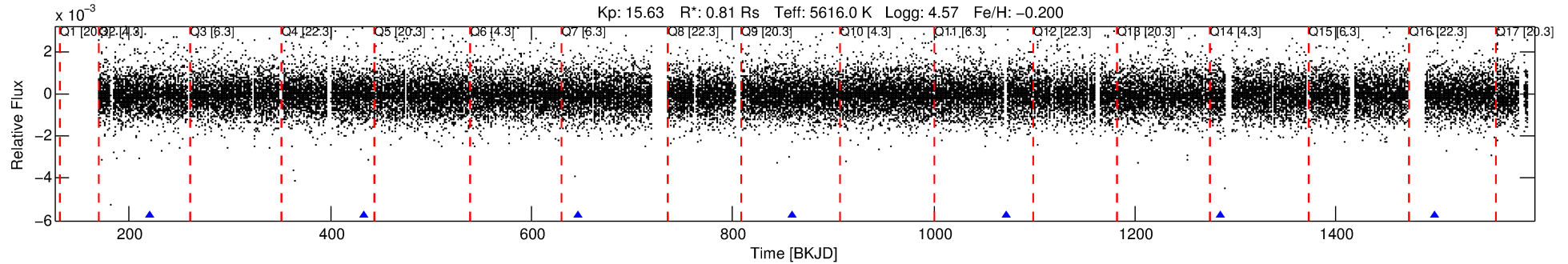
No Significant Match Found

DV One-Page Summary

KIC: 5736461 Candidate: 3 of 5 Period: 212.816 d

KOI: K06623 Corr: No Ephemeris Match

Kp: 15.63 R*: 0.81 Rs Teff: 5616.0 K Logg: 4.57 Fe/H: -0.200



TPS TCE Results:

Period = 212.81553 d
Epoch = 221.4868 BKJD

DV fit results are unavailable

DV Diagnostic Results:

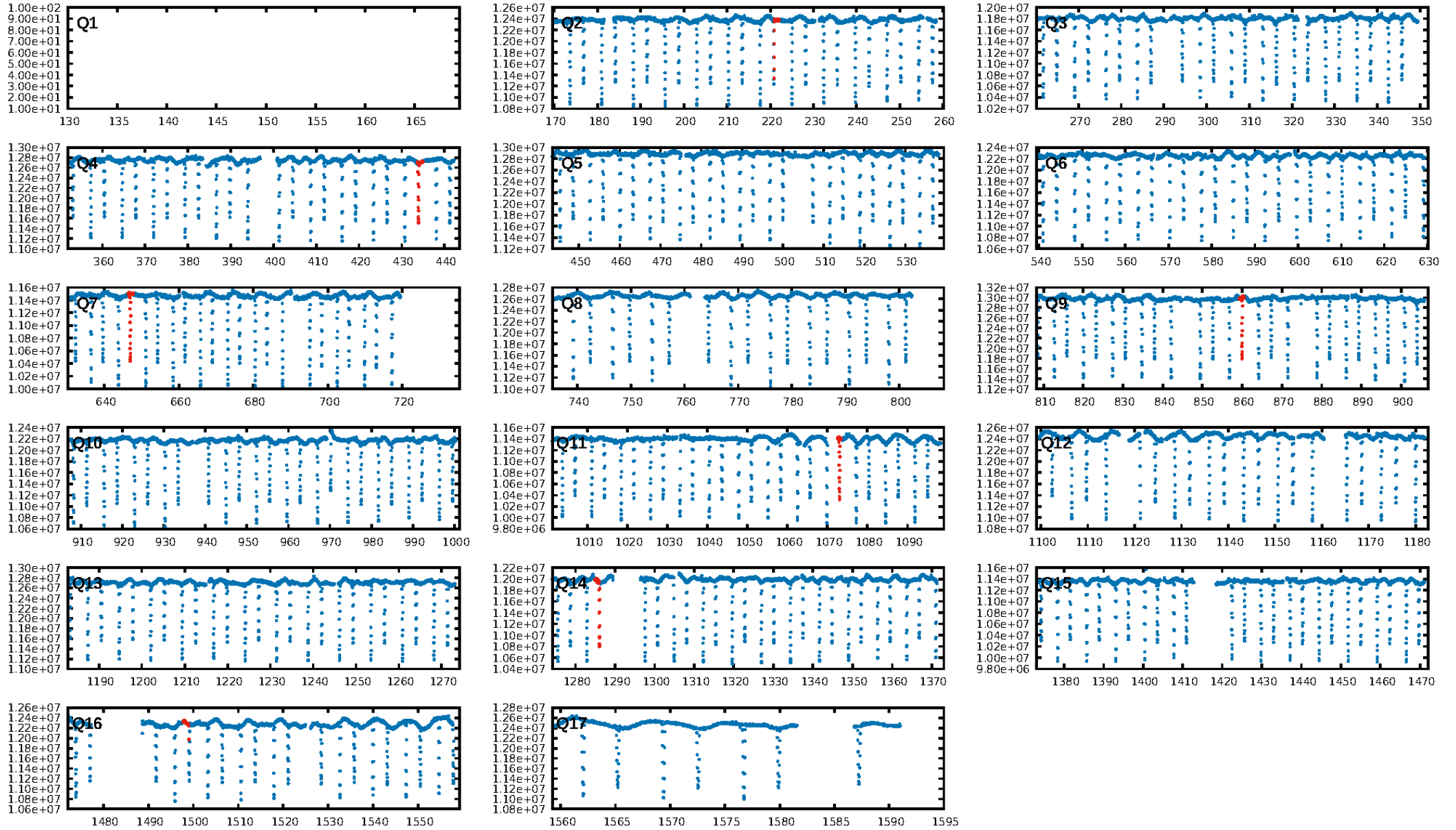
ShortPeriod-sig: 100.0% [301.00σ]
LongPeriod-sig: 100.0% [371.99σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.60e-81
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.369

Centroid-sig: 86.8%
Centroid-so: 0.845 arcsec [0.18σ]
OotOffset-rm: 0.652 arcsec [1.09σ]
KicOffset-rm: 0.646 arcsec [1.17σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 0.83 [5/6]

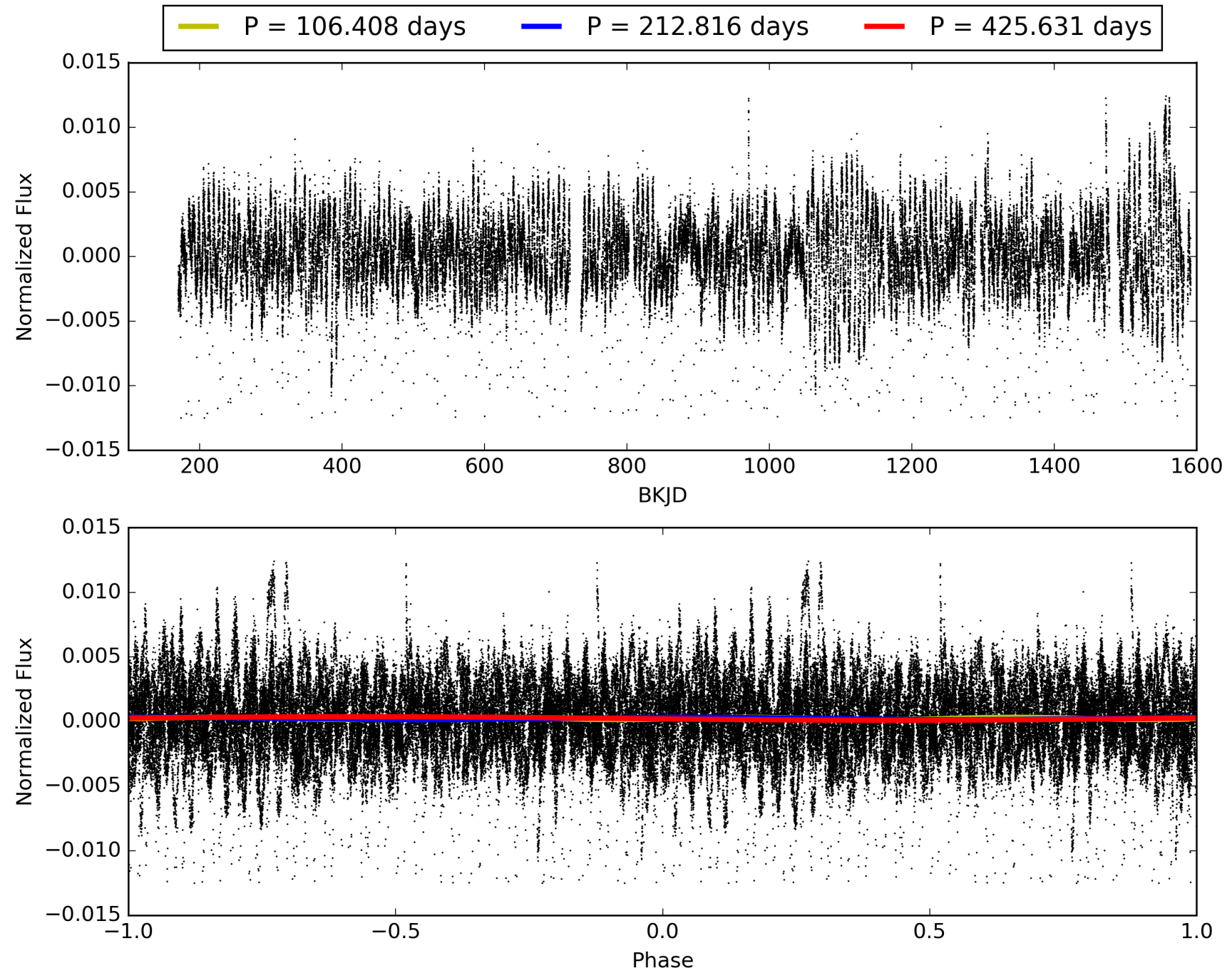
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:53:14 Z

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

TCE 005736461-03, PDC Light Curves

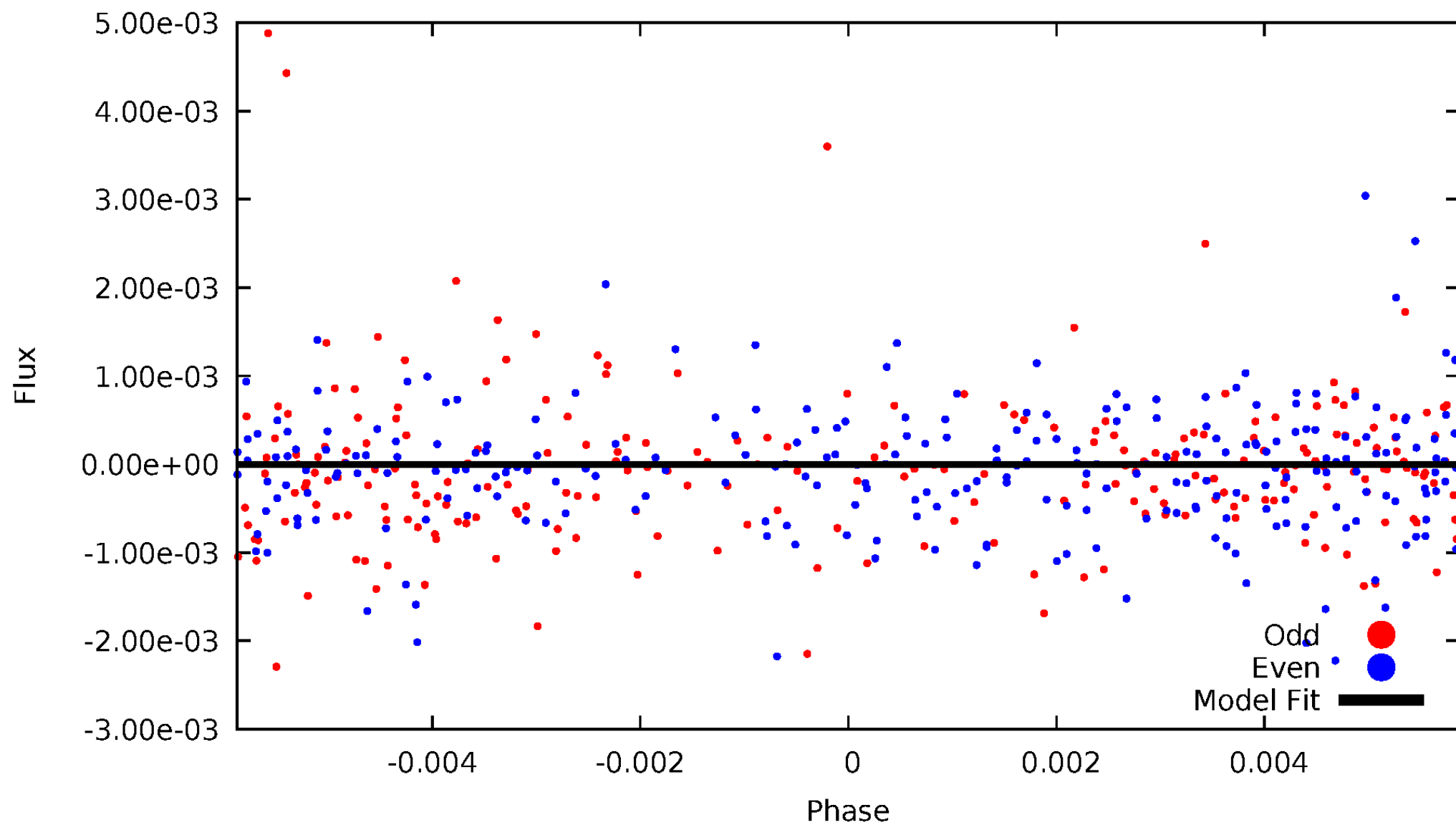


TCE 005736461-03



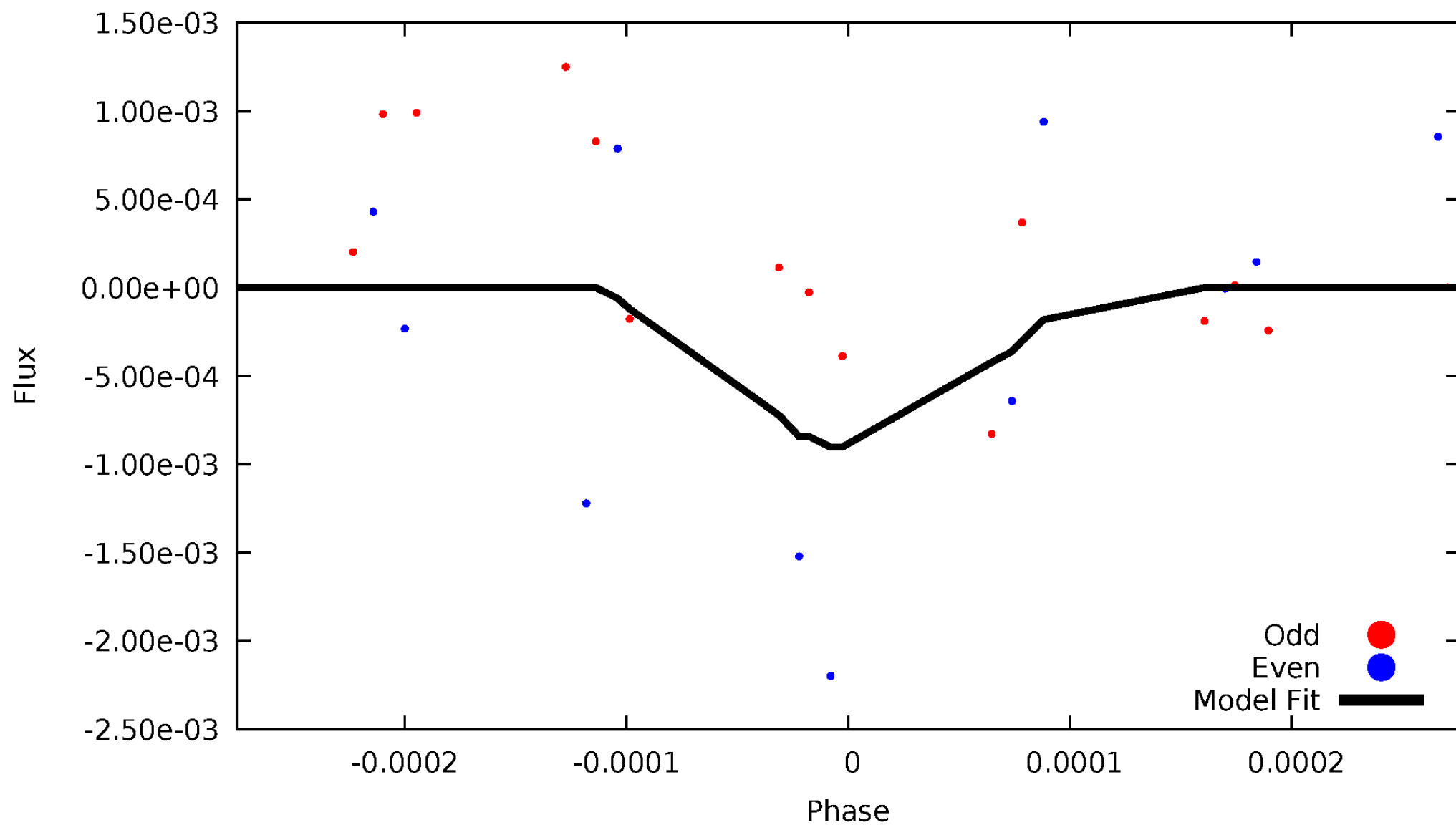
DV Odd/Even

TCE 005736461-03



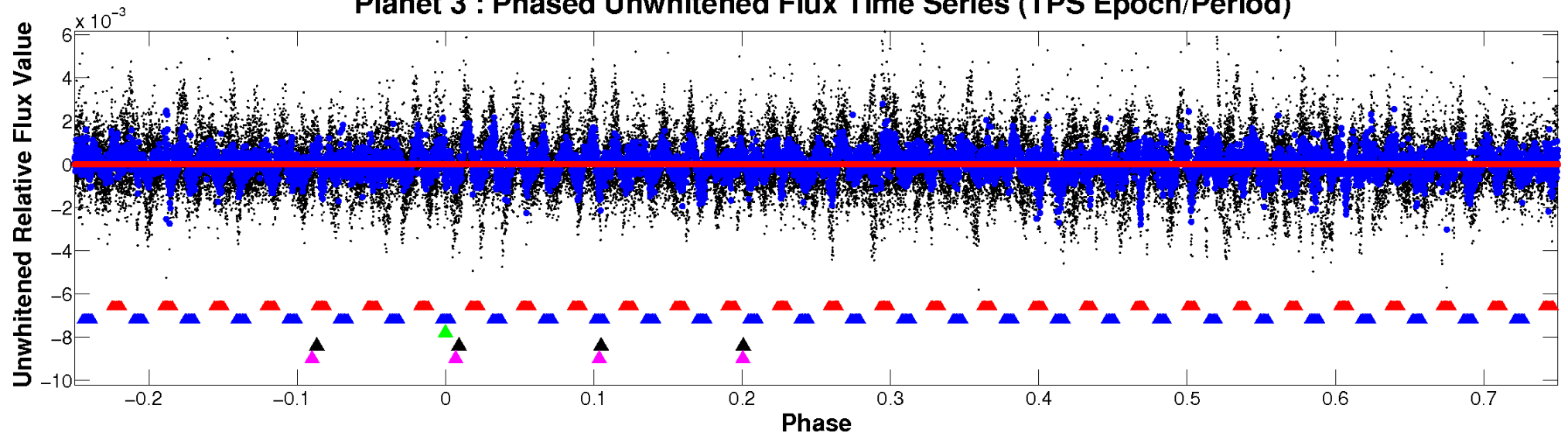
ALT Odd/Even

TCE 005736461-03



Non-Whitened Vs. Whitened Light Curve

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

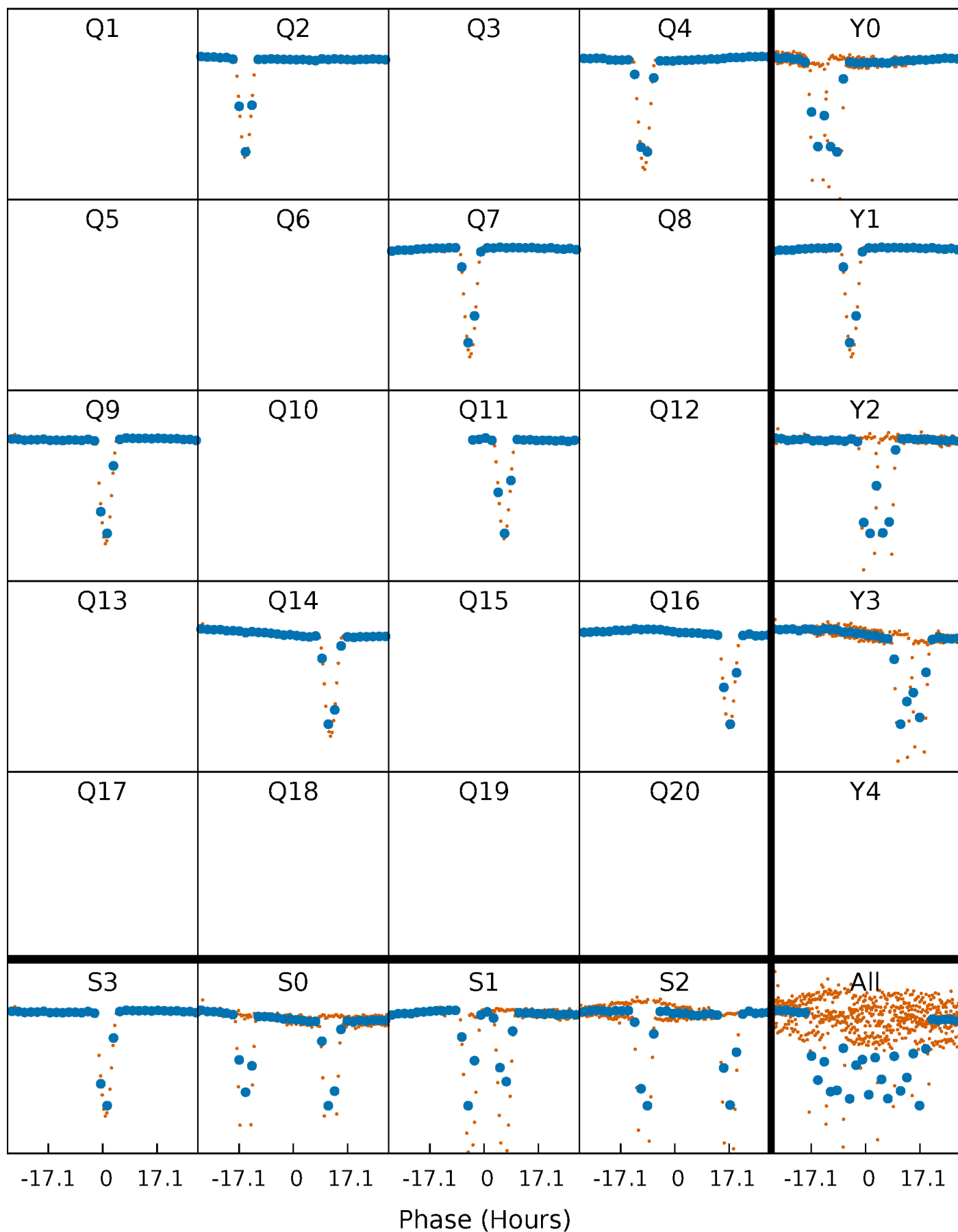


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



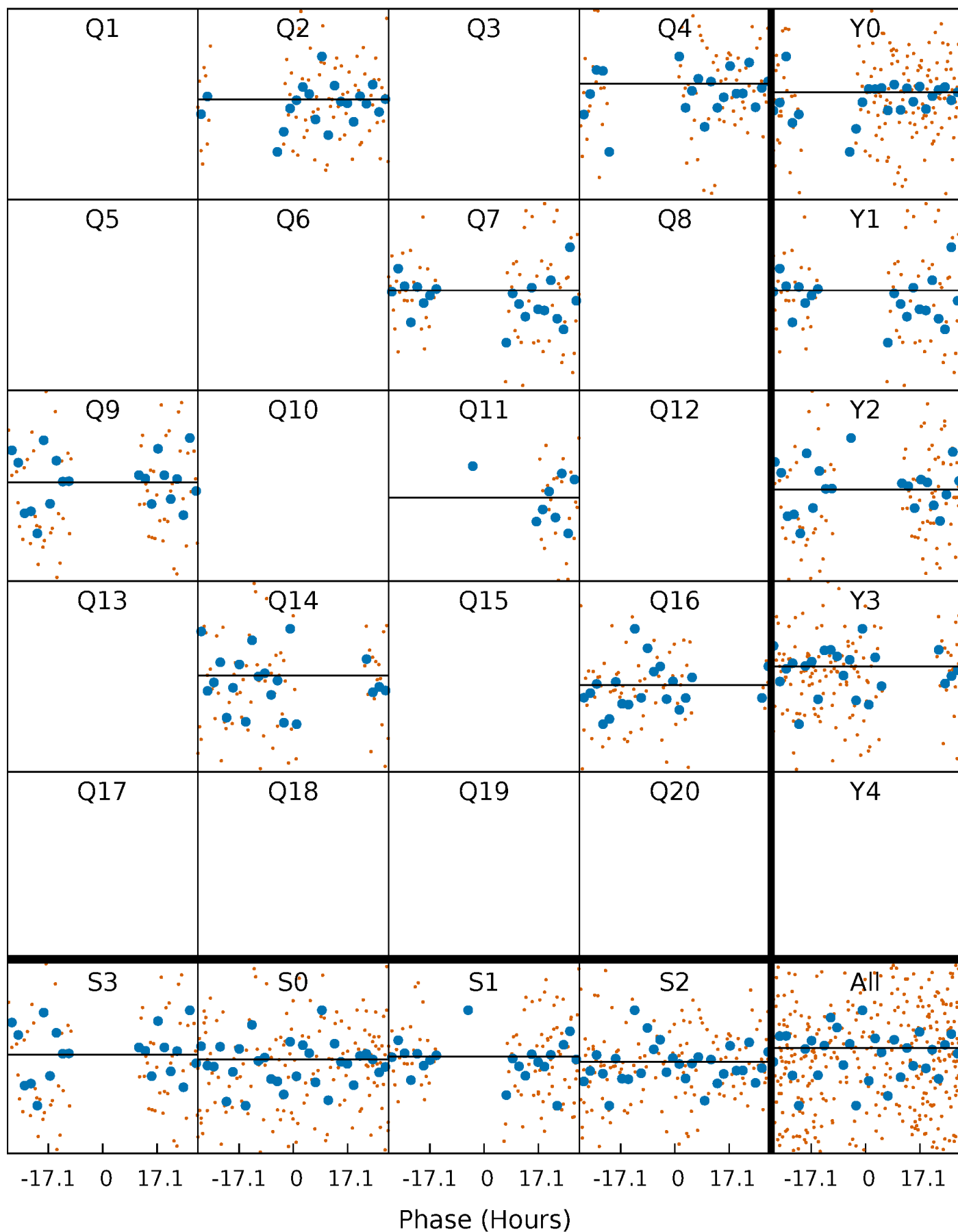
PDC Quarter-Phased Transit Curves

TCE 005736461-03 P=212.815527 Days $T_0=221.486770$ (BKJD)



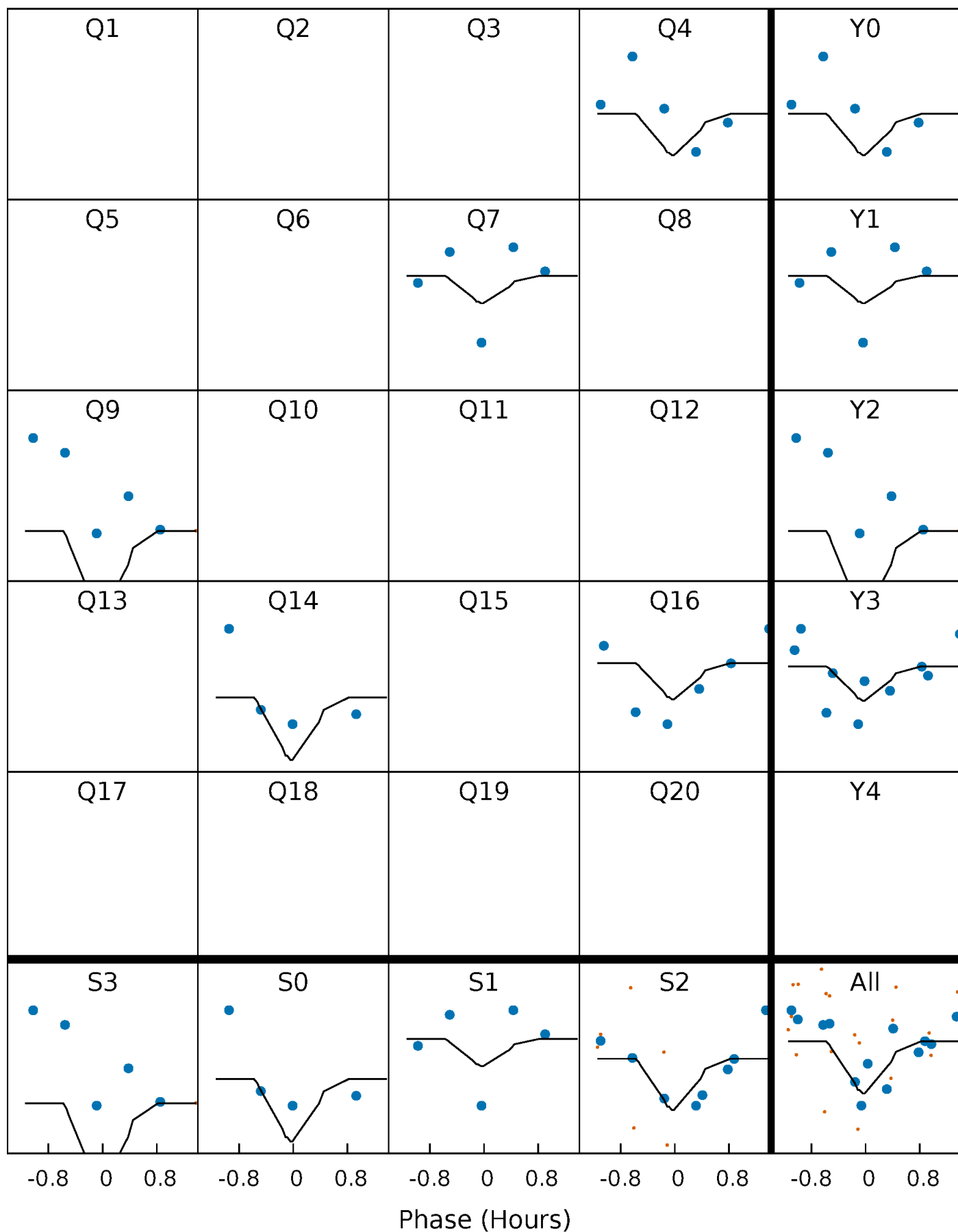
DV Quarter-Phased Transit Curves

TCE 005736461-03 $P=212.815527$ Days $T_0=221.486770$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

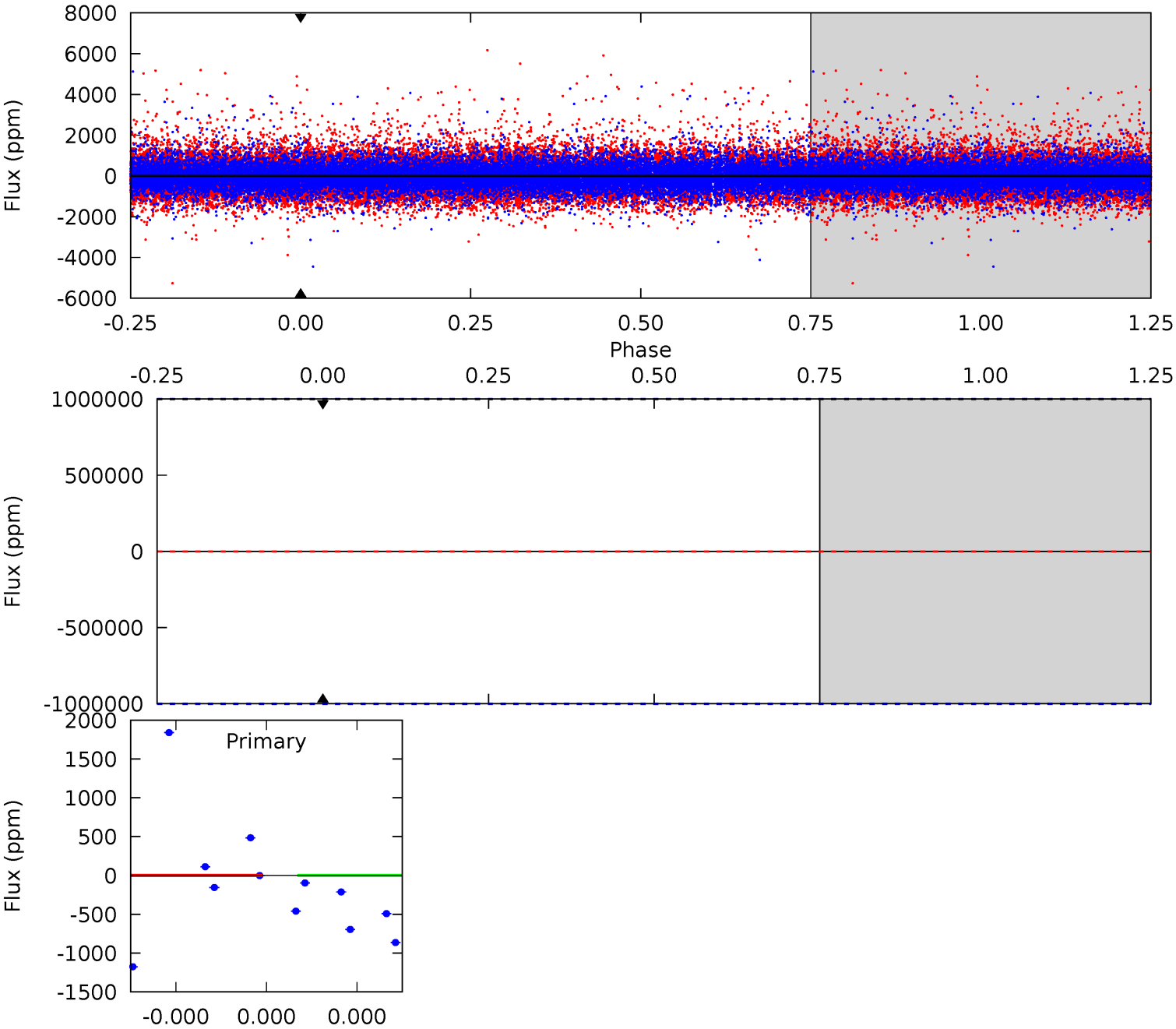
TCE 005736461-03 P=212.815527 Days $T_0=220.606697$ (BKJD)



DV Model-Shift Uniqueness Test

005736461-03, P = 212.815527 Days, E = 8.671243 Days

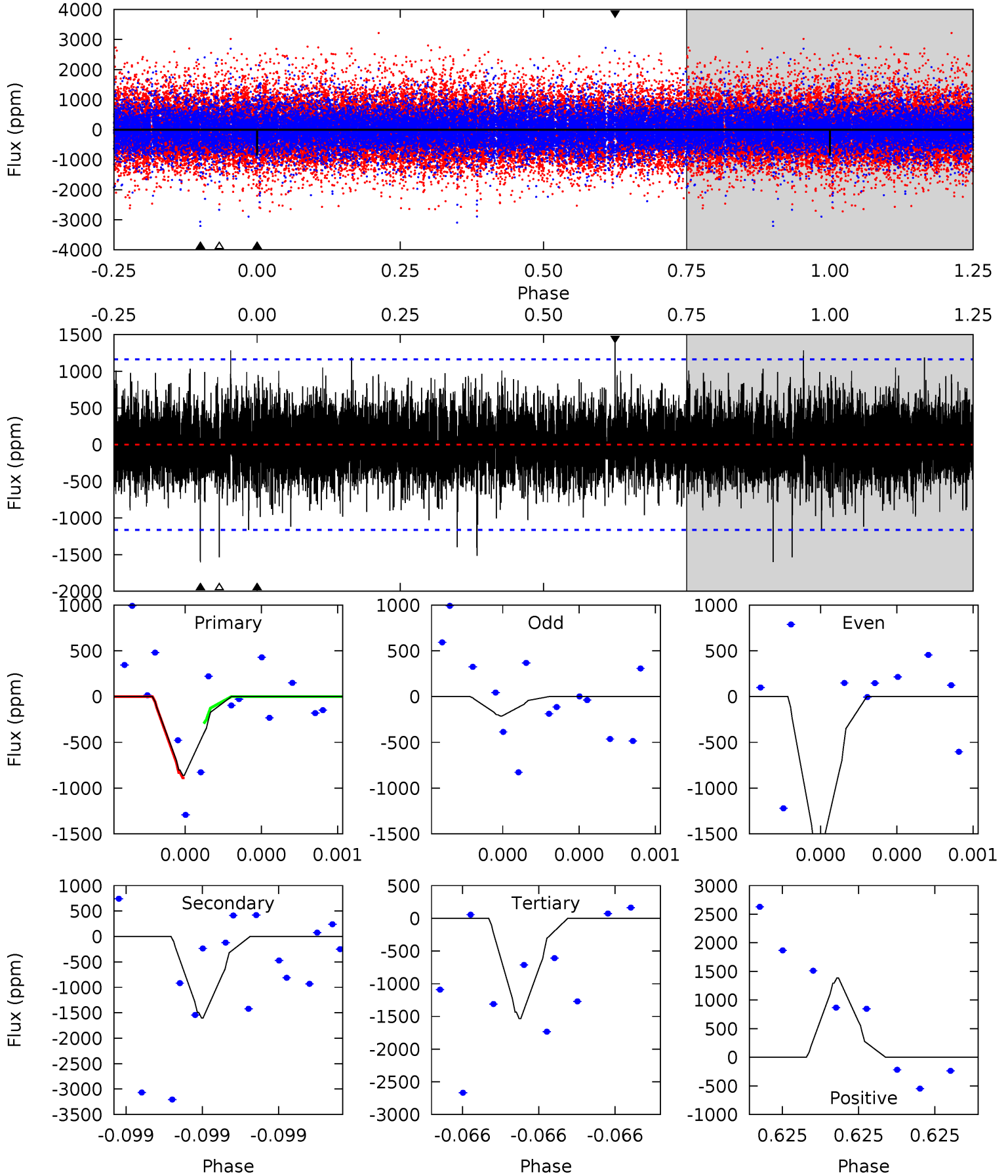
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005736461-03, P = 212.815527 Days, E = 7.791170 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.20	7.82	7.50	6.77	5.68	3.65	1.35	-3.30	-2.57	0.32	1.05	3.68	2.06	0.46	1.42



Stellar Parameters For KIC 005736461

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5616^{+169}_{-169}	$4.574^{+0.042}_{-0.168}$	$-0.200^{+0.300}_{-0.300}$	$0.810^{+0.207}_{-0.069}$	$0.905^{+0.083}_{-0.104}$	$2.400^{+0.398}_{-1.104}$
	+3%/-3%	+1%/-4%	+150%/-150%	+26%/-9%	+9%/-11%	+17%/-46%
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 005736461-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$8.42^{+8.03}_{-5.41}$	386^{+22}_{-16}	-4099^{+18838}_{-10017}	$-5917.140^{+527254.099}_{-503761.664}$
Alt.	-1602 ± 205	$7.48^{+7.72}_{-5.40}$	387^{+23}_{-18}	4189^{+3338}_{-882}	7010^{+87649}_{-5298}

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

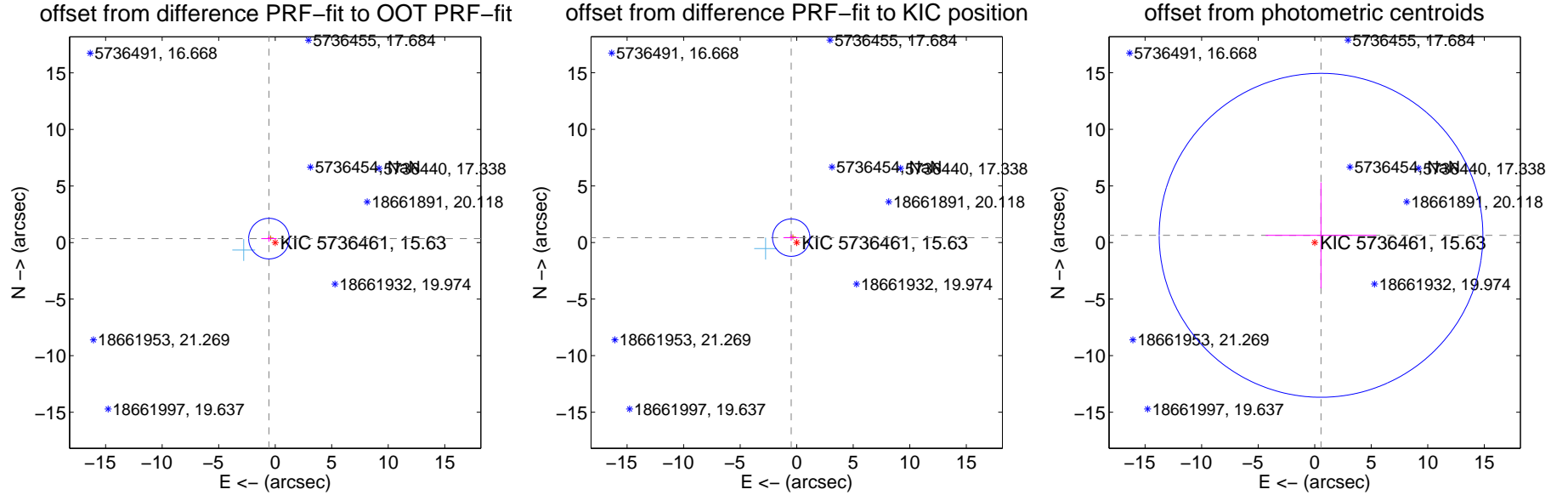
DV Centroid Data

Supplemental centroid analysis for 005736461-03. Kepler magnitude: 15.63. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

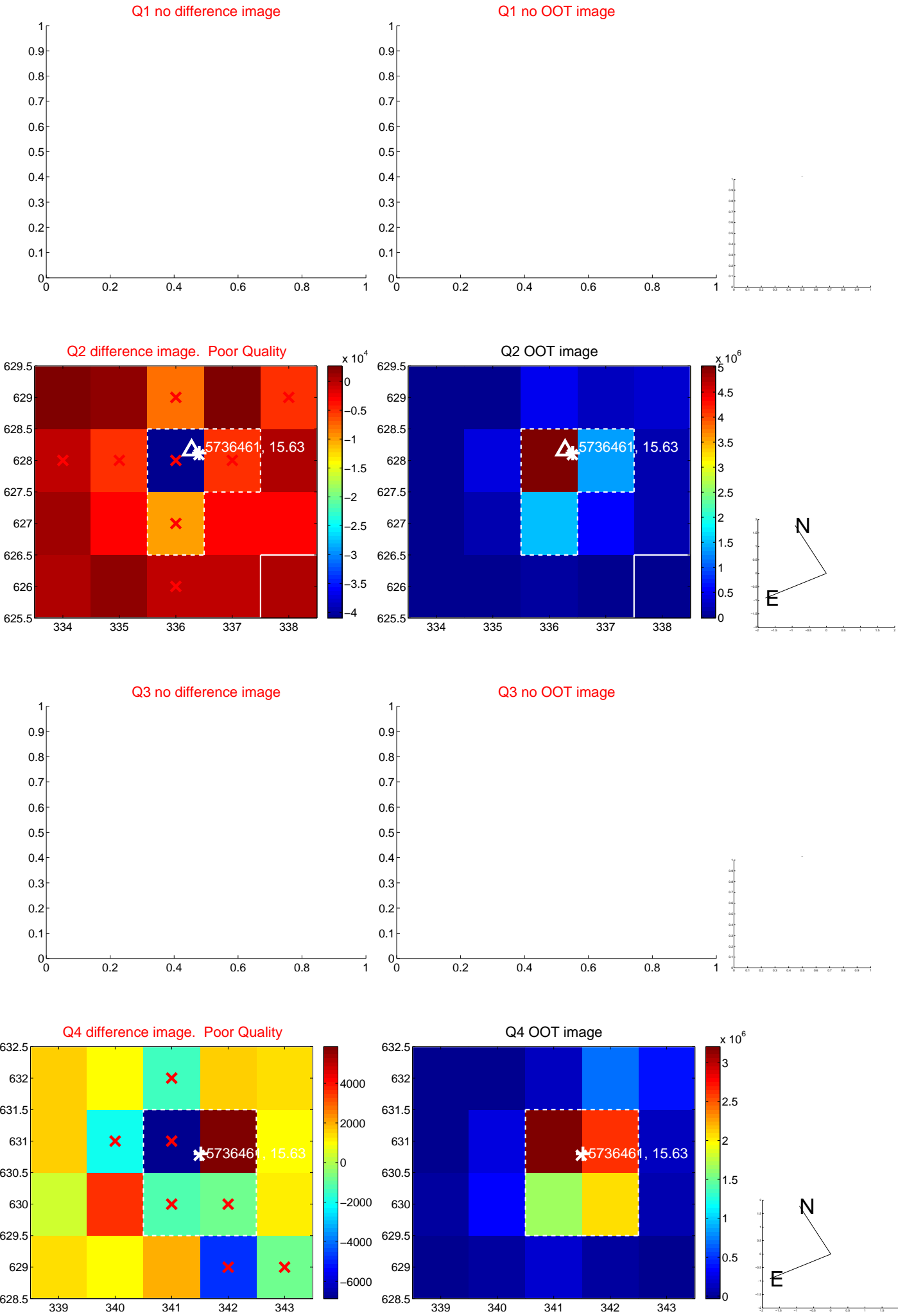
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.652 ± 0.598	1.09	0.551 ± 0.684	0.348 ± 0.286
PRF-fit source offset from KIC position	0.646 ± 0.551	1.17	0.484 ± 0.694	0.429 ± 0.277
photometric centroid source offset	0.85 ± 4.77	0.18	-0.56 ± 4.89	0.63 ± 4.68



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

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



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

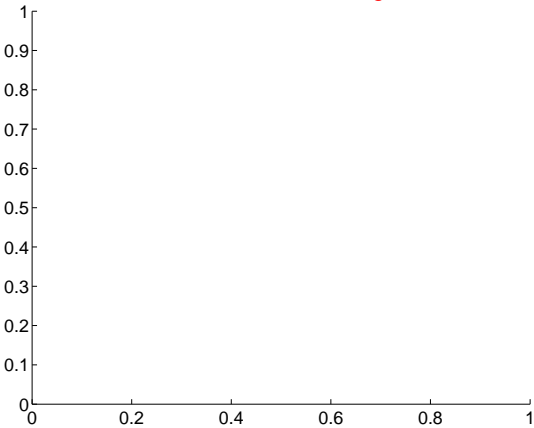
Q5 no difference image



Q5 no OOT image



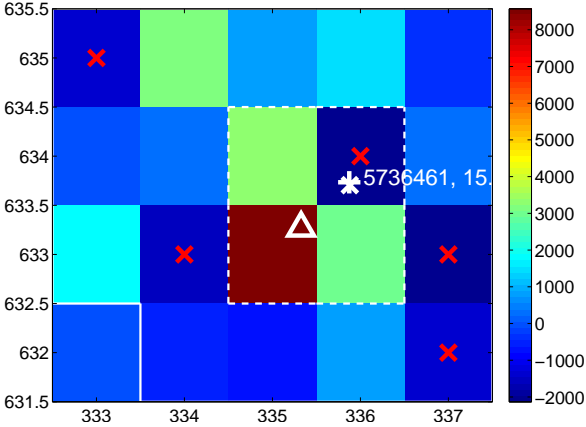
Q6 no difference image



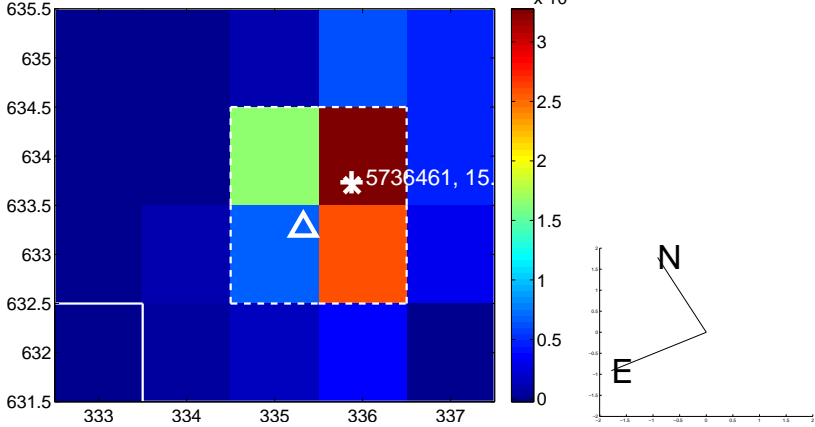
Q6 no OOT image



Q7 difference image



Q7 OOT image



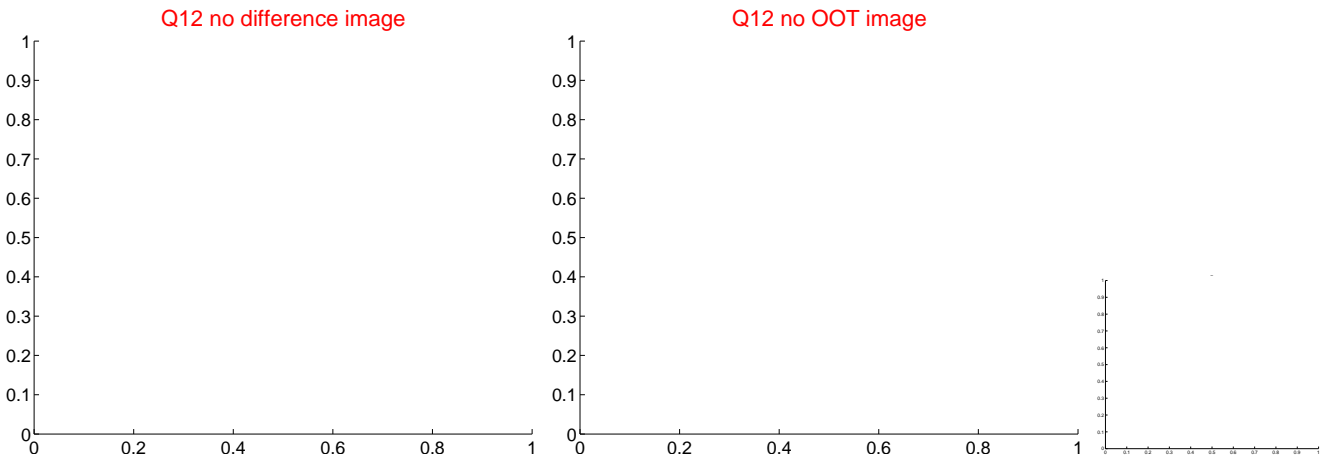
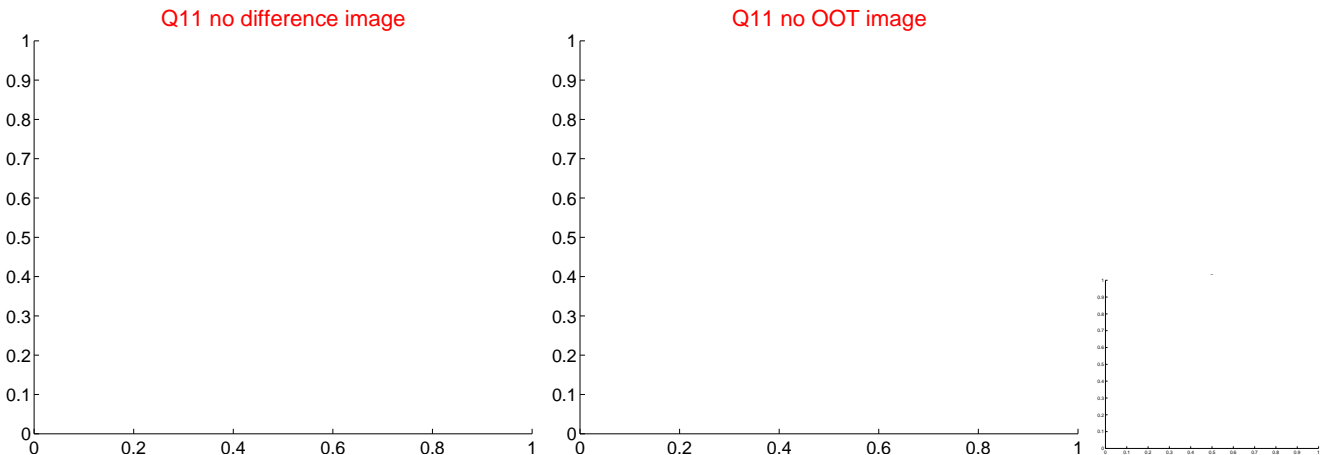
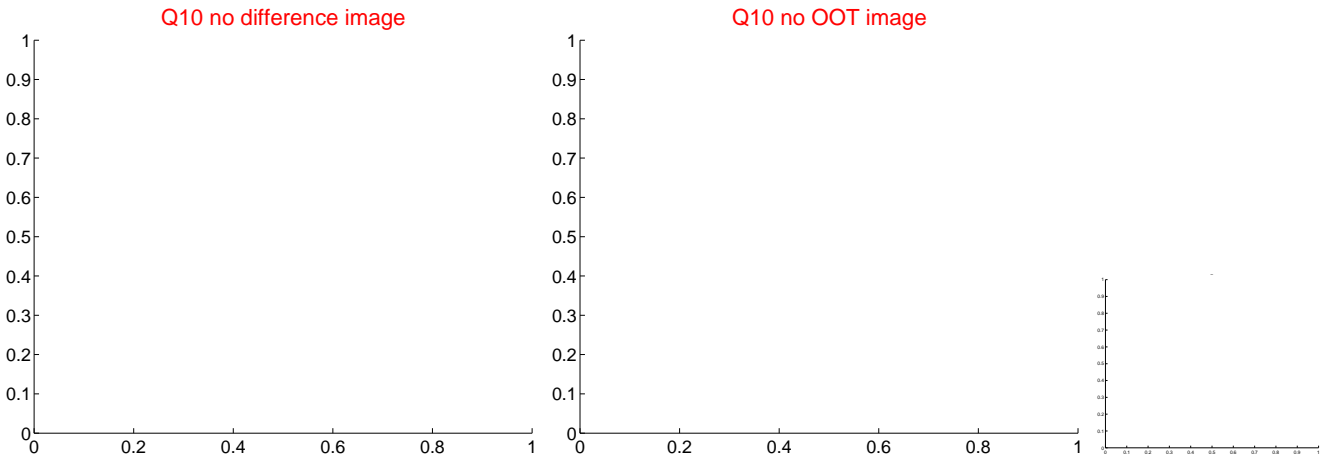
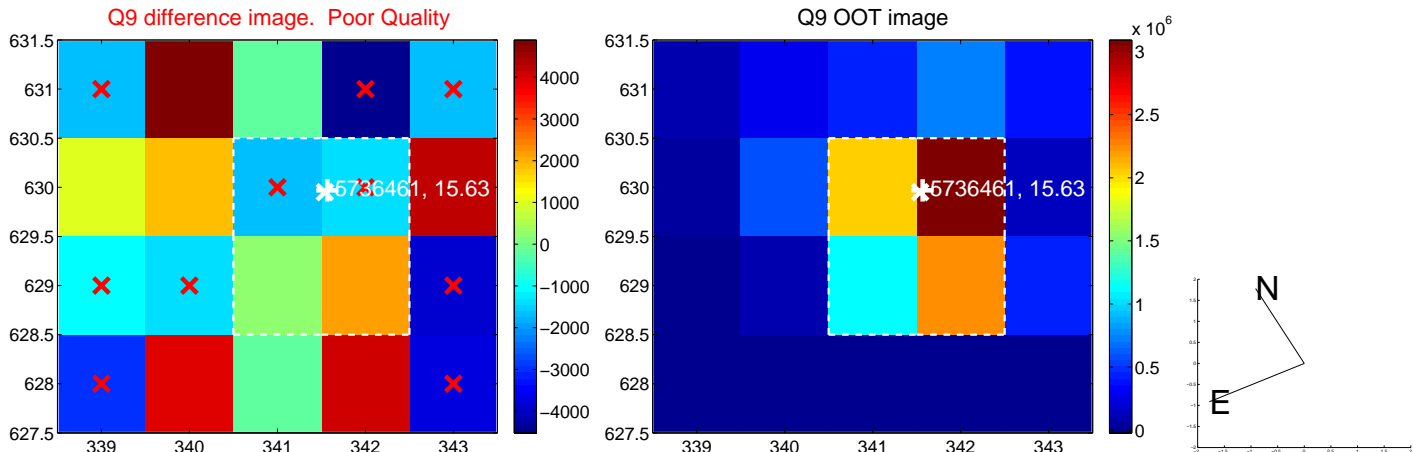
Q8 no difference image



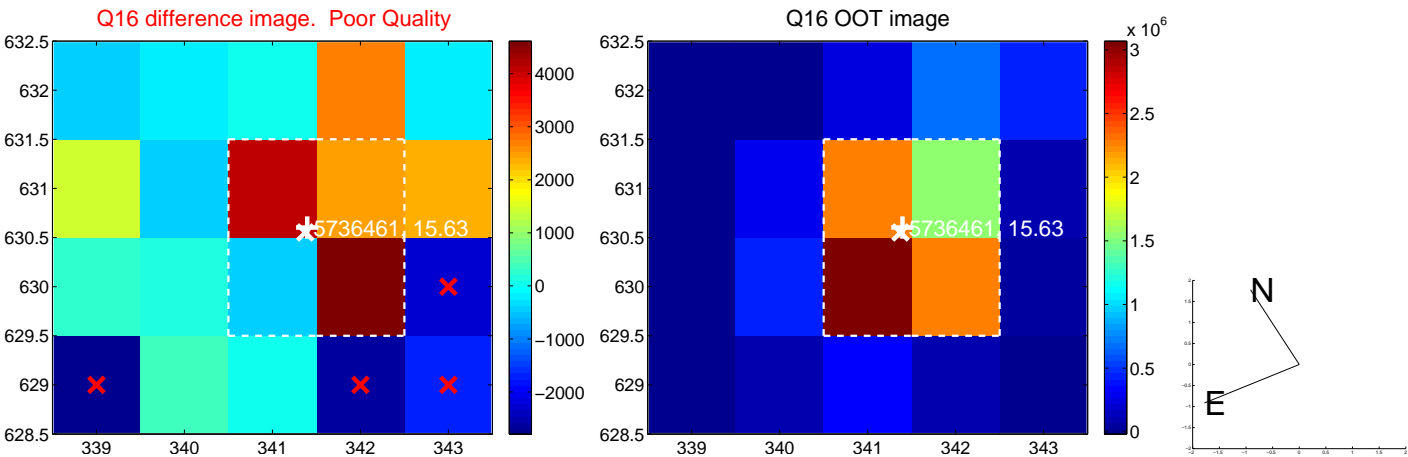
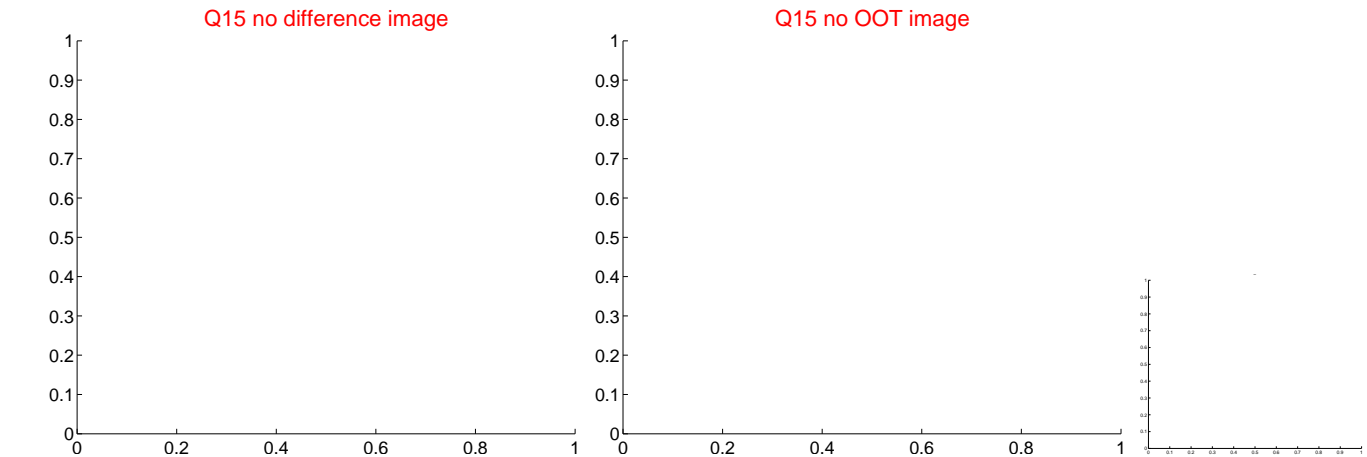
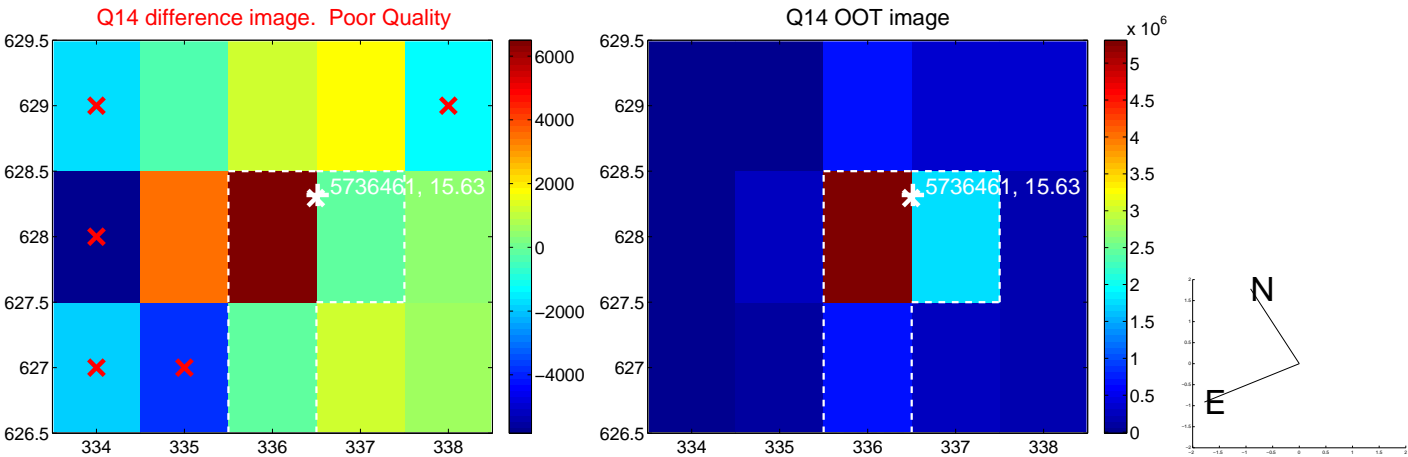
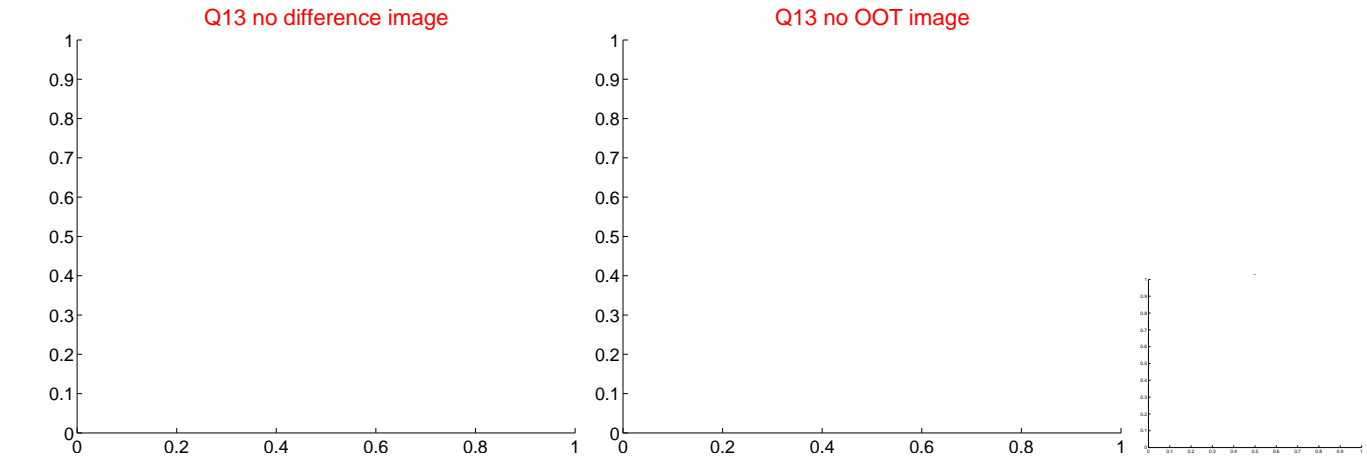
Q8 no OOT image



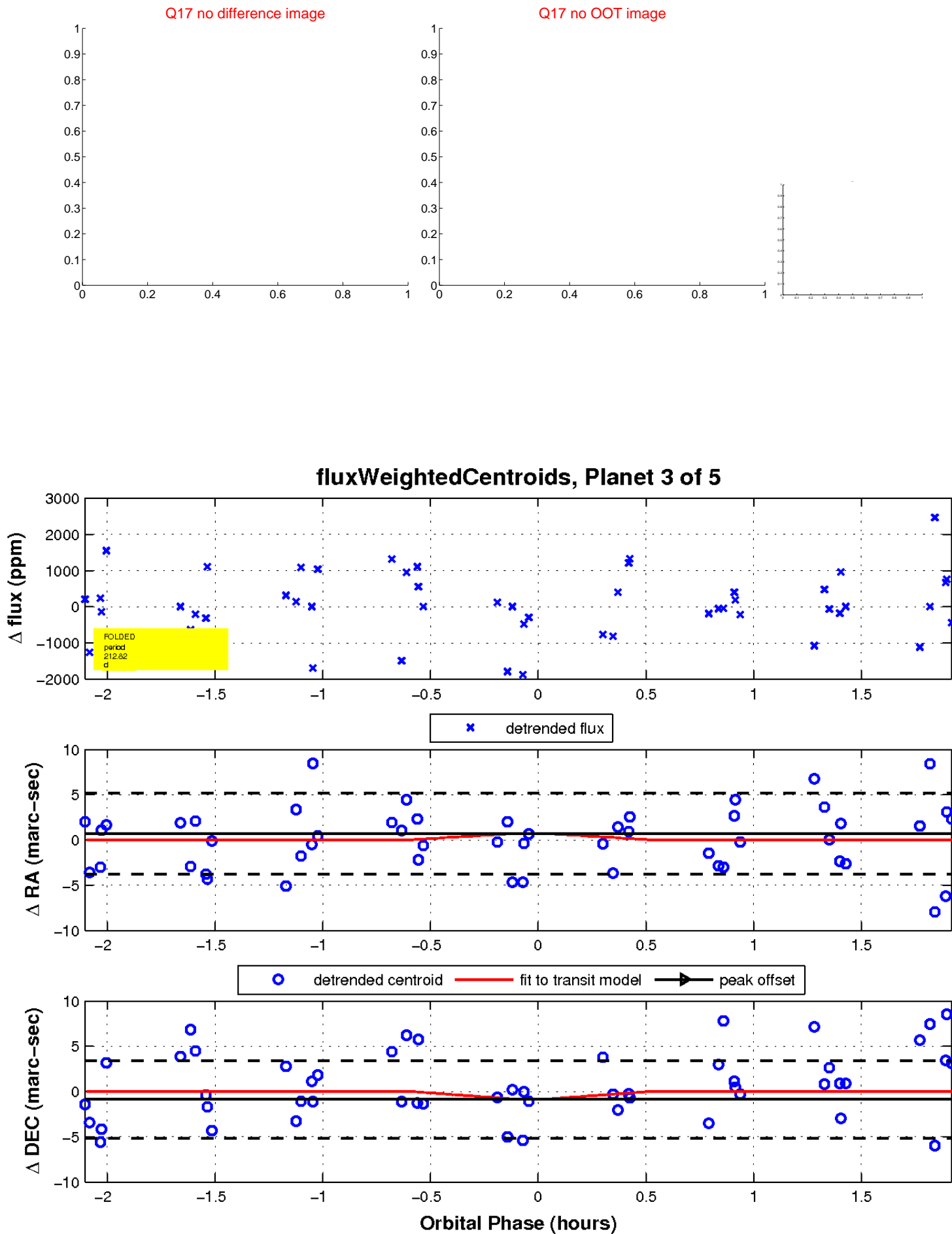
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

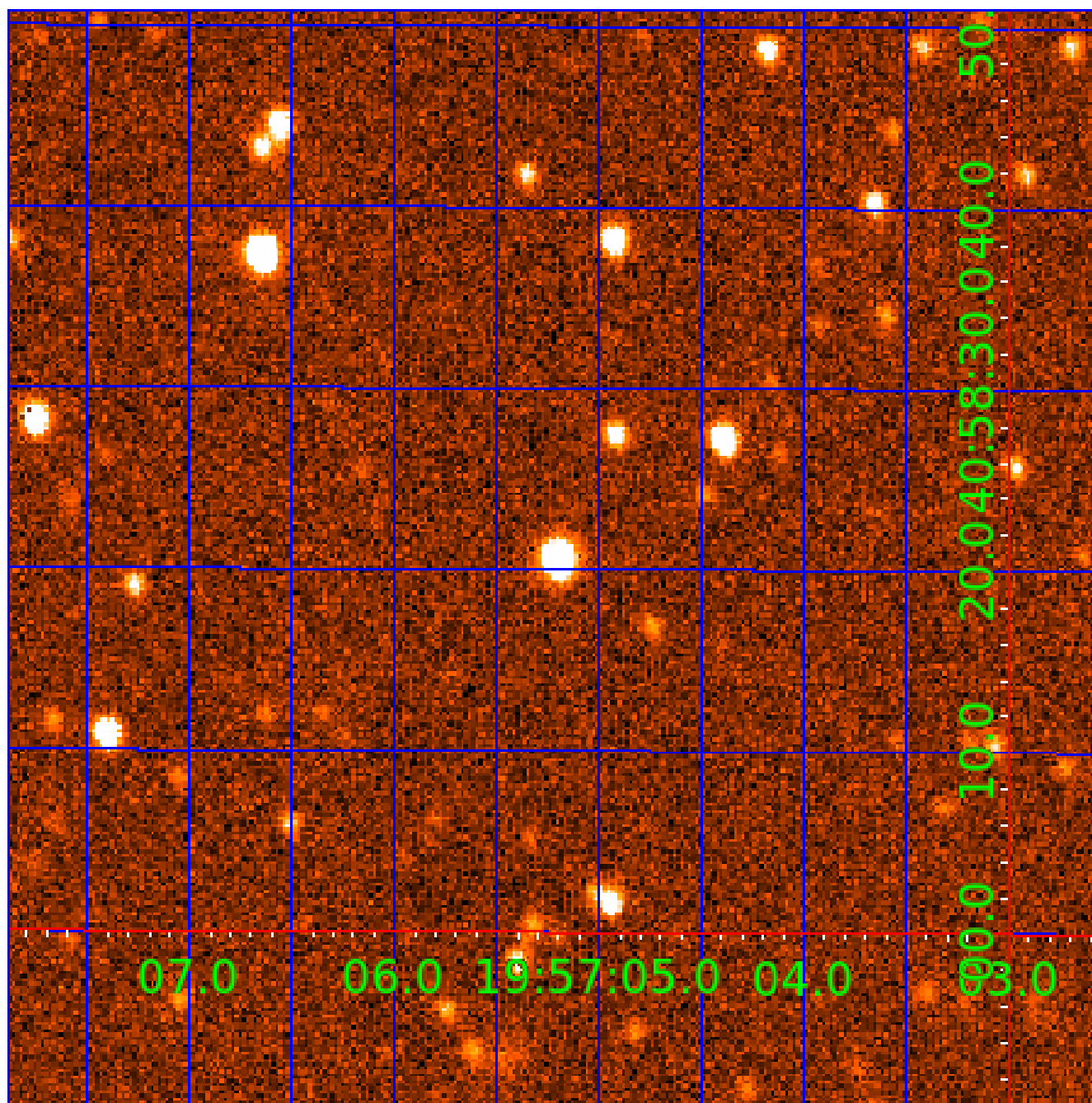


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005736461

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})
005736461-01	OBS	6623.01	7.346160	136.891169	121442.5	6.588	3781.8	3265.0	0.81	5616	41.54	114.86
005736461-02	OBS	No	7.346153	132.705651	93349.5	6.890	2983.5	2651.2	0.81	5616	35.32	114.86
005736461-03	OBS	No	212.815527	221.486770	4137.8	15.000	24.4	-1.0	0.81	5616	5.15	1.29
005736461-04	OBS	No	446.027766	203.024031	1241.1	1.180	14.1	2.7	0.81	5616	3.03	0.48
005736461-05	OBS	No	446.233674	202.344830	864.6	10.989	14.5	4.0	0.81	5616	2.37	0.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005736461-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
005736461-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
005736461-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
005736461-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005736461-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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.

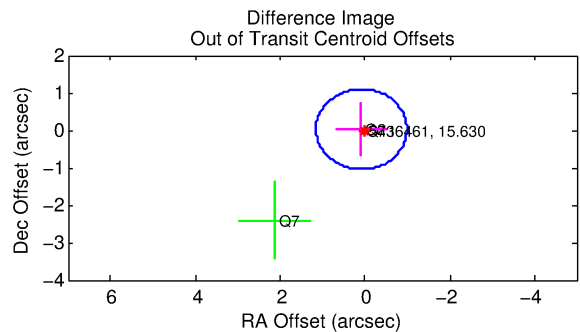
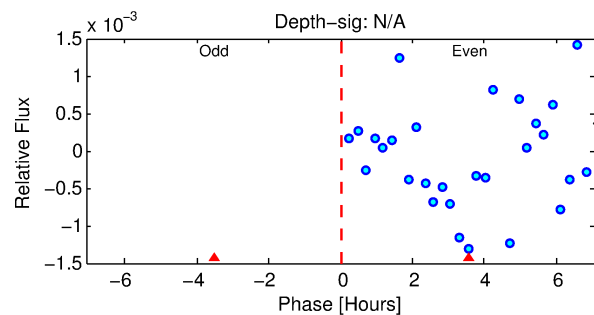
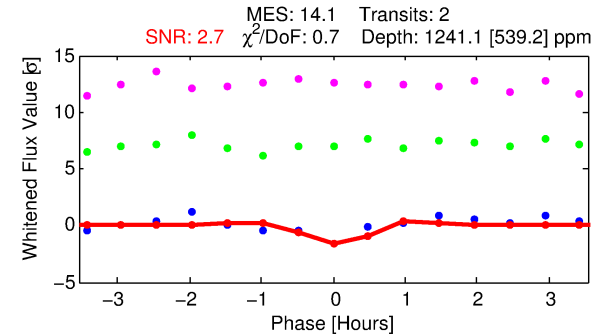
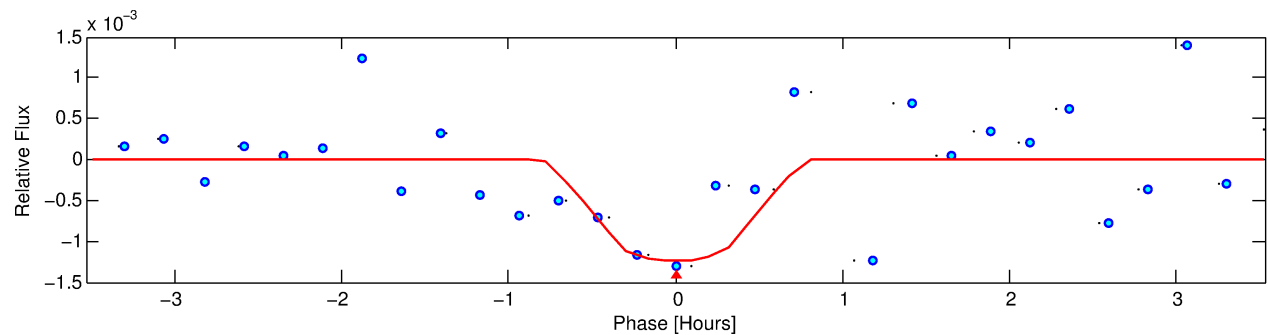
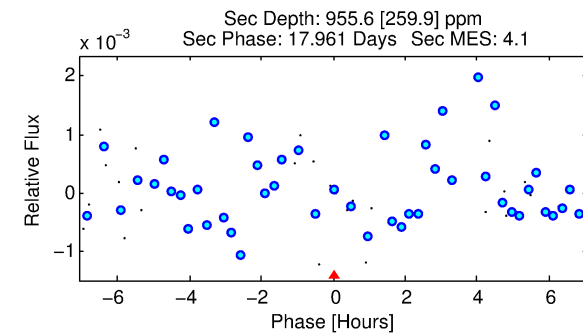
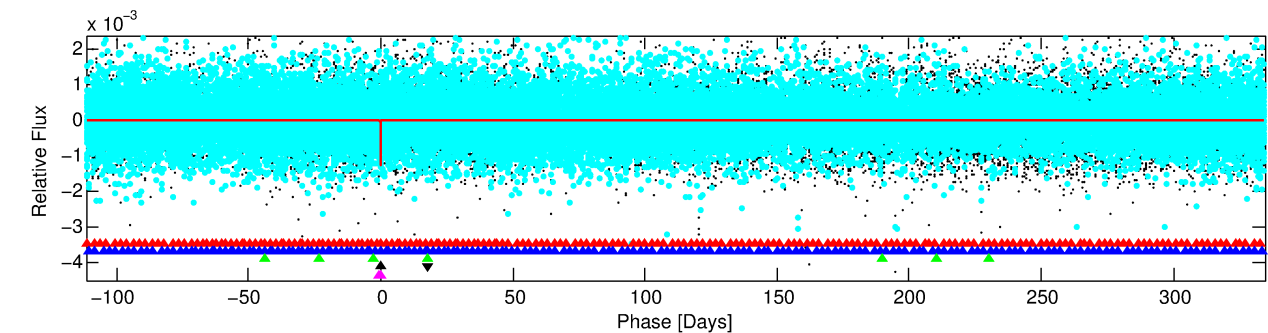
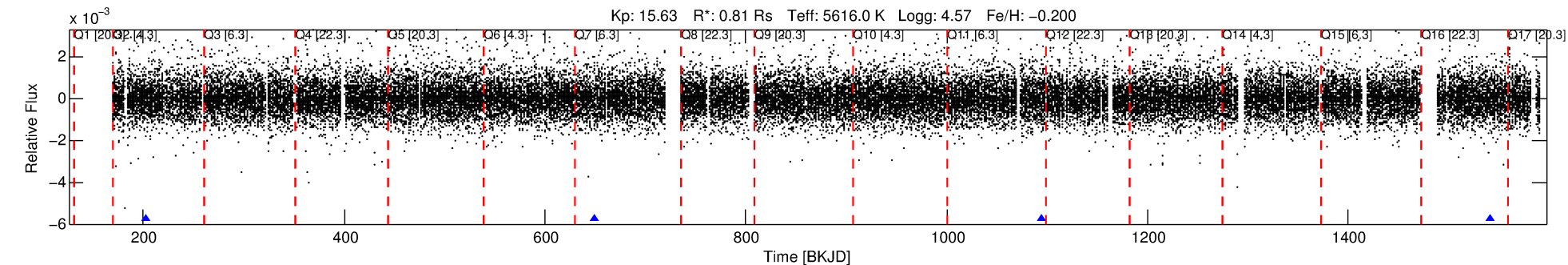
Ephemeris Match Information For 005736461-04

No Significant Match Found

DV One-Page Summary

KIC: 5736461 Candidate: 4 of 5 Period: 446.028 d
KOI: K06623 Corr: No Ephemeris Match

Kp: 15.63 R*: 0.81 Rs Teff: 5616.0 K Logg: 4.57 Fe/H: -0.200



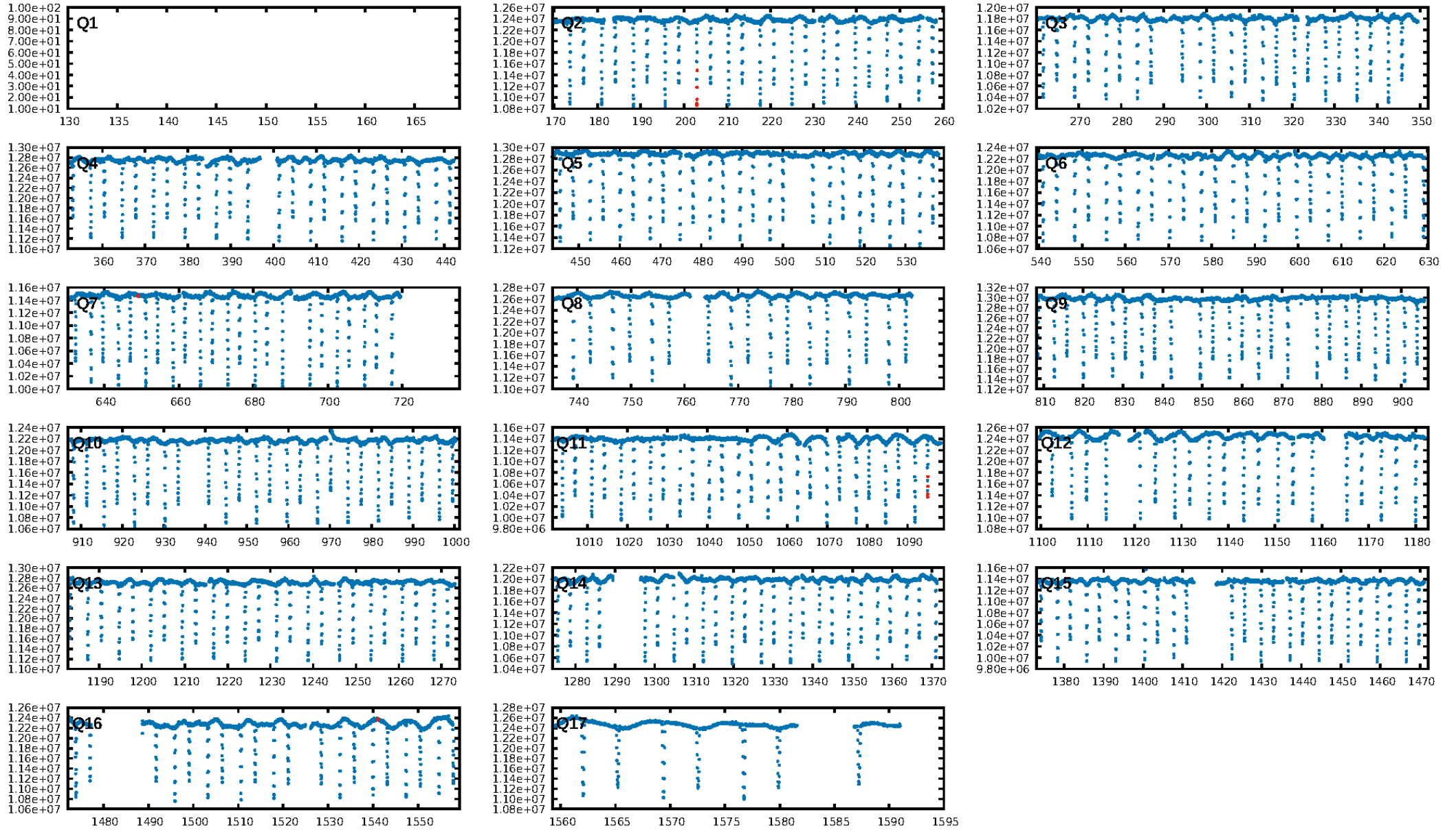
DV Fit Results:

Period = 446.02777 [0.00744] d
Epoch = 203.0240 [0.0158] BKJD
Rp/R* = 0.0343 [0.5856]
a/R* = 2314.30 [168897.09]
b = 0.65 [64.53]
Seff = 0.48 [0.16]
Teq = 212 [18] K
Rp = 3.03 [51.76] Re
a = 1.1022 [0.2355] AU
Ag = 69365.55 [2366514.73] [0.03σ]
Teff = 5329 [45452] K [0.11σ]

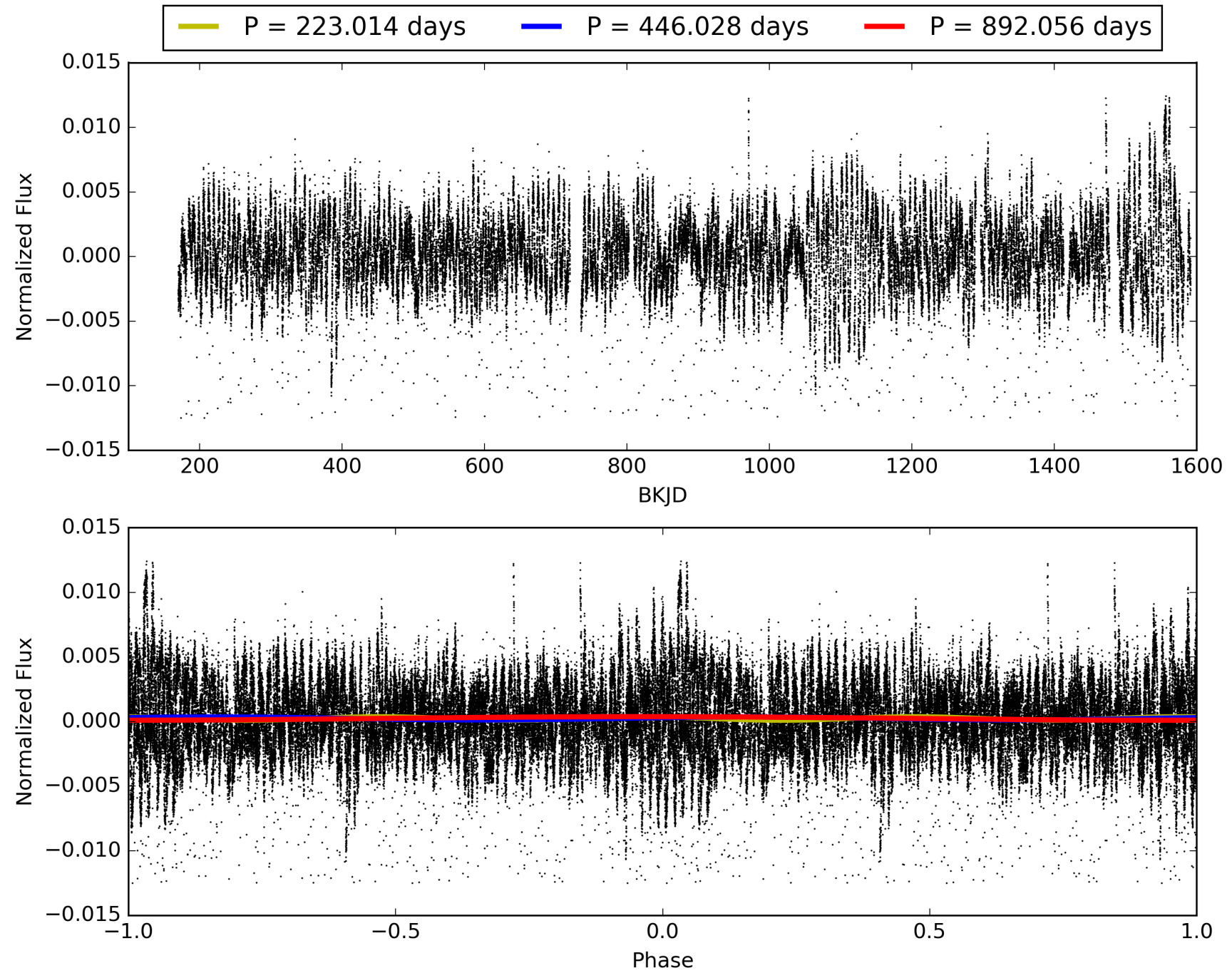
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [371.99σ]
LongPeriod-sig: 34.5% [0.45σ]
ModelChiSquare2-sig: 82.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.52e-23
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.7235
Centroid-sig: 89.8%
Centroid-so: 1.439 arcsec [0.43σ]
OotOffset-rm: 0.086 arcsec [0.24σ]
KicOffset-rm: 0.102 arcsec [0.18σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.25 [1/4]

TCE 005736461-04, PDC Light Curves

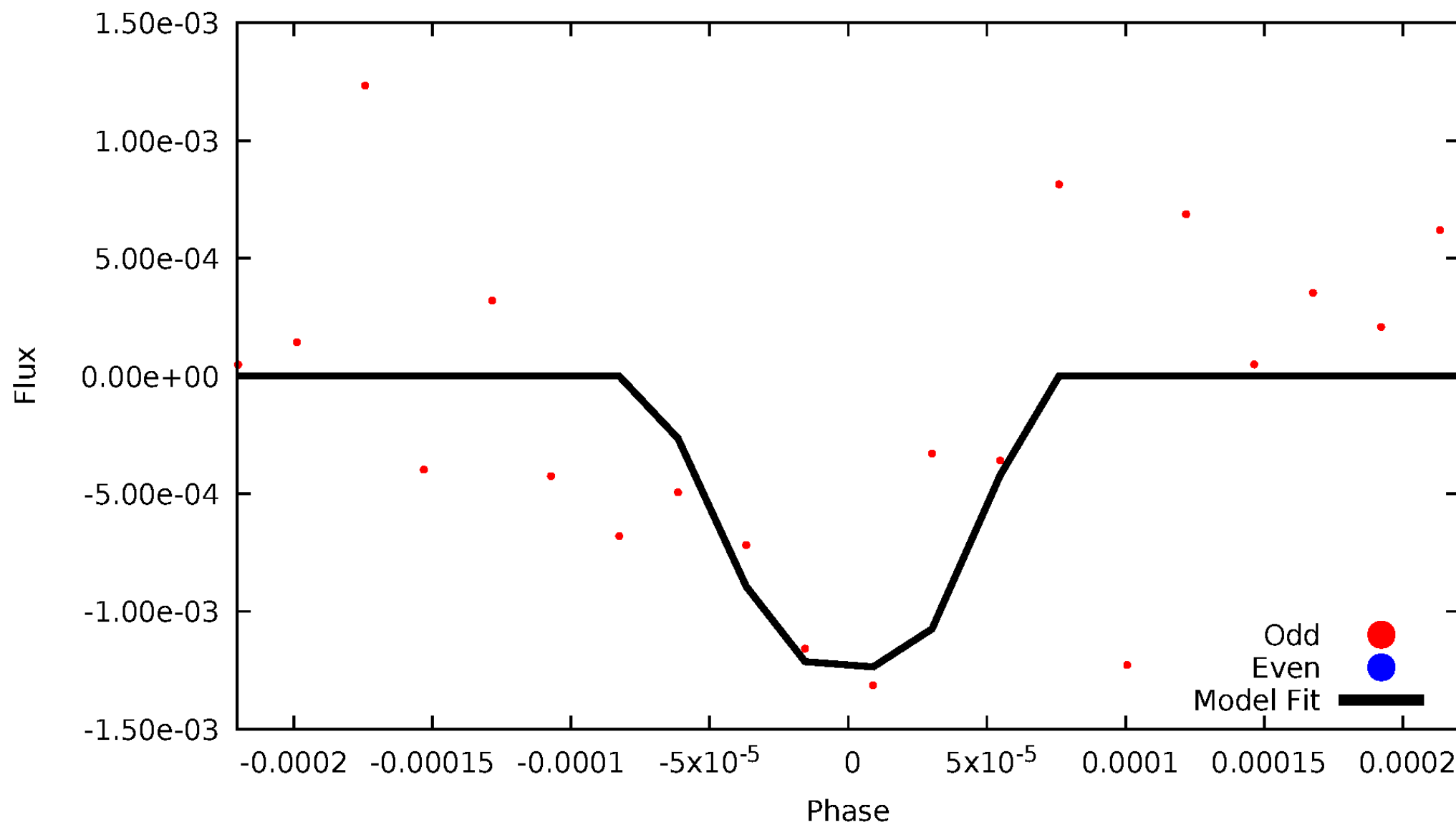


TCE 005736461-04



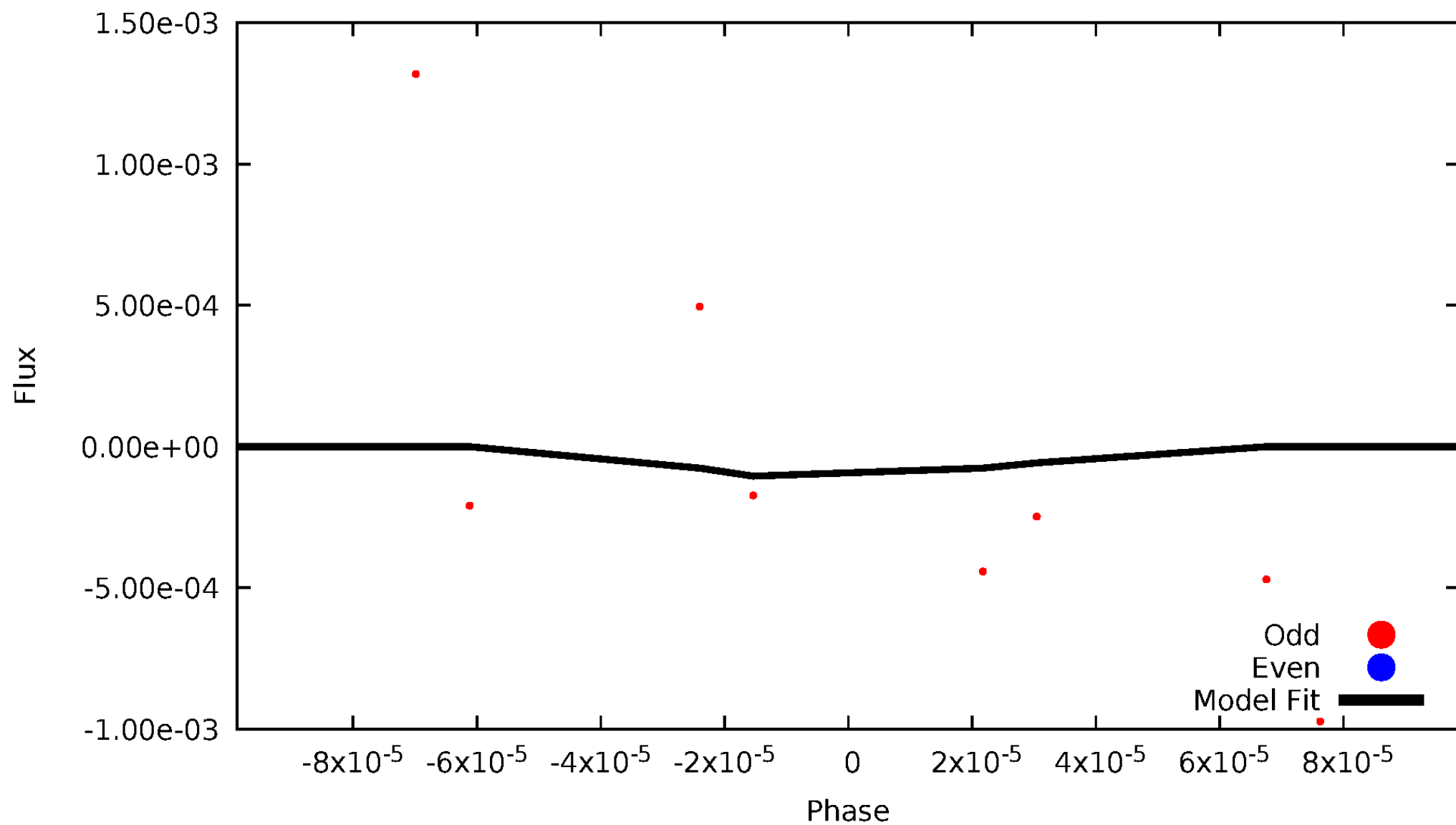
DV Odd/Even

TCE 005736461-04



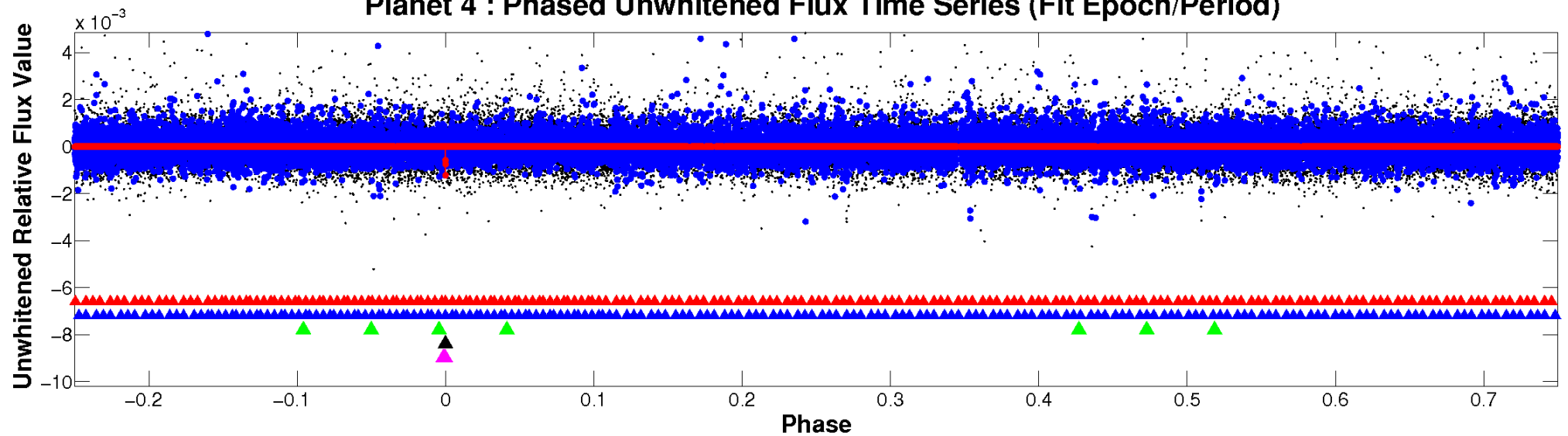
ALT Odd/Even

TCE 005736461-04

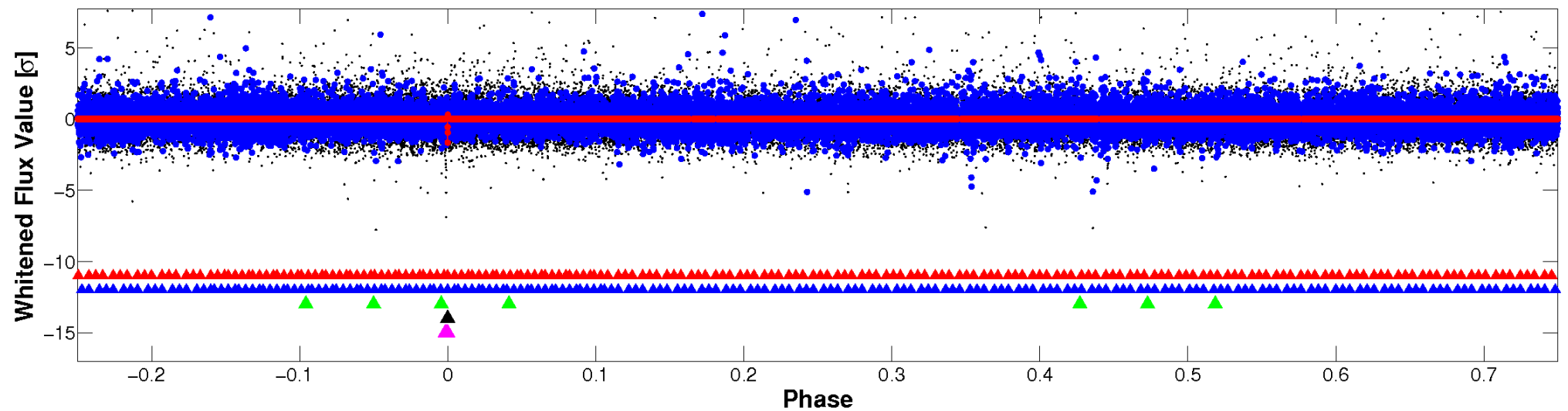


Non-Whitened Vs. Whitened Light Curve

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

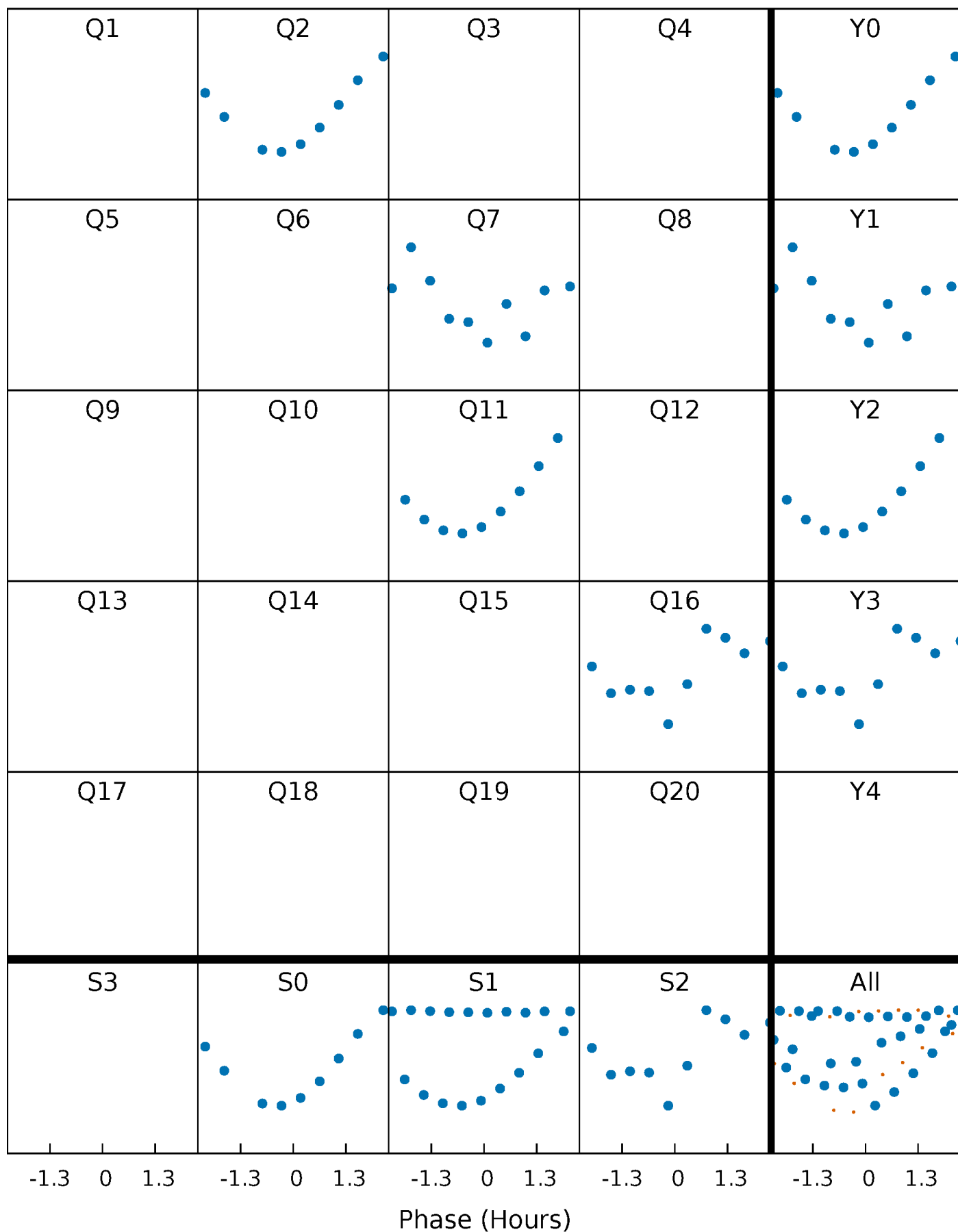


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



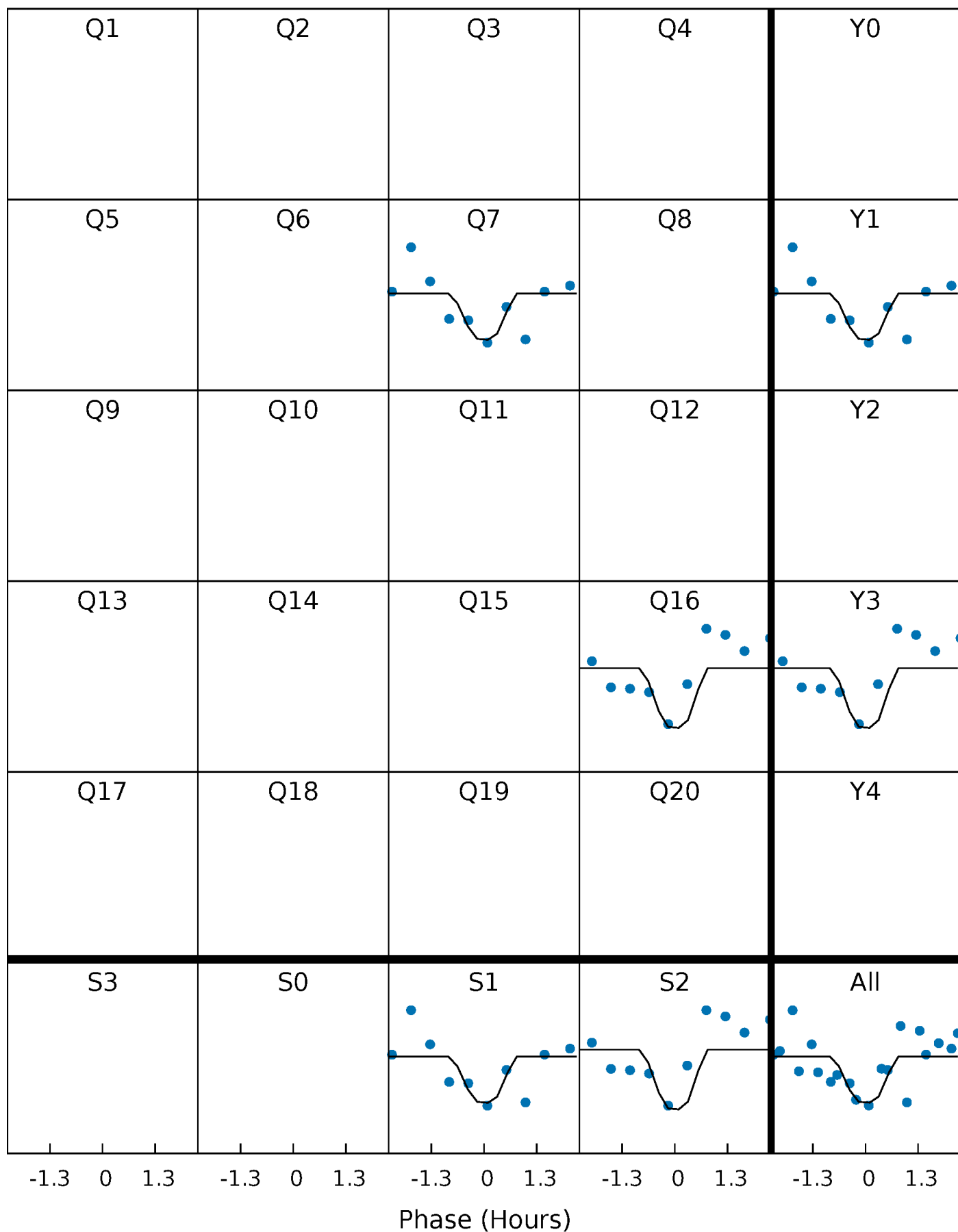
PDC Quarter-Phased Transit Curves

TCE 005736461-04 P=446.027766 Days $T_0=203.024031$ (BKJD)



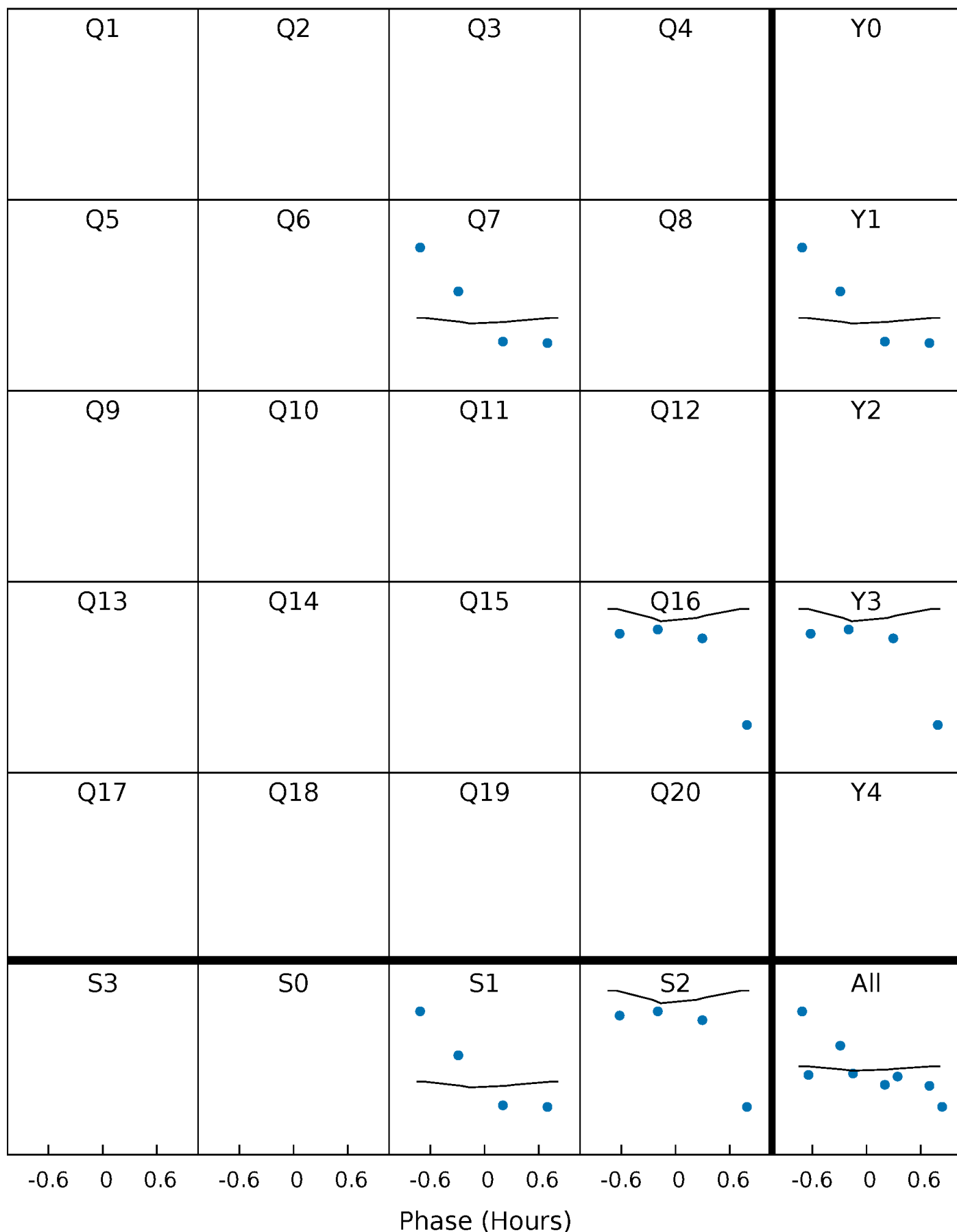
DV Quarter-Phased Transit Curves

TCE 005736461-04 P=446.027766 Days $T_0=203.024031$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

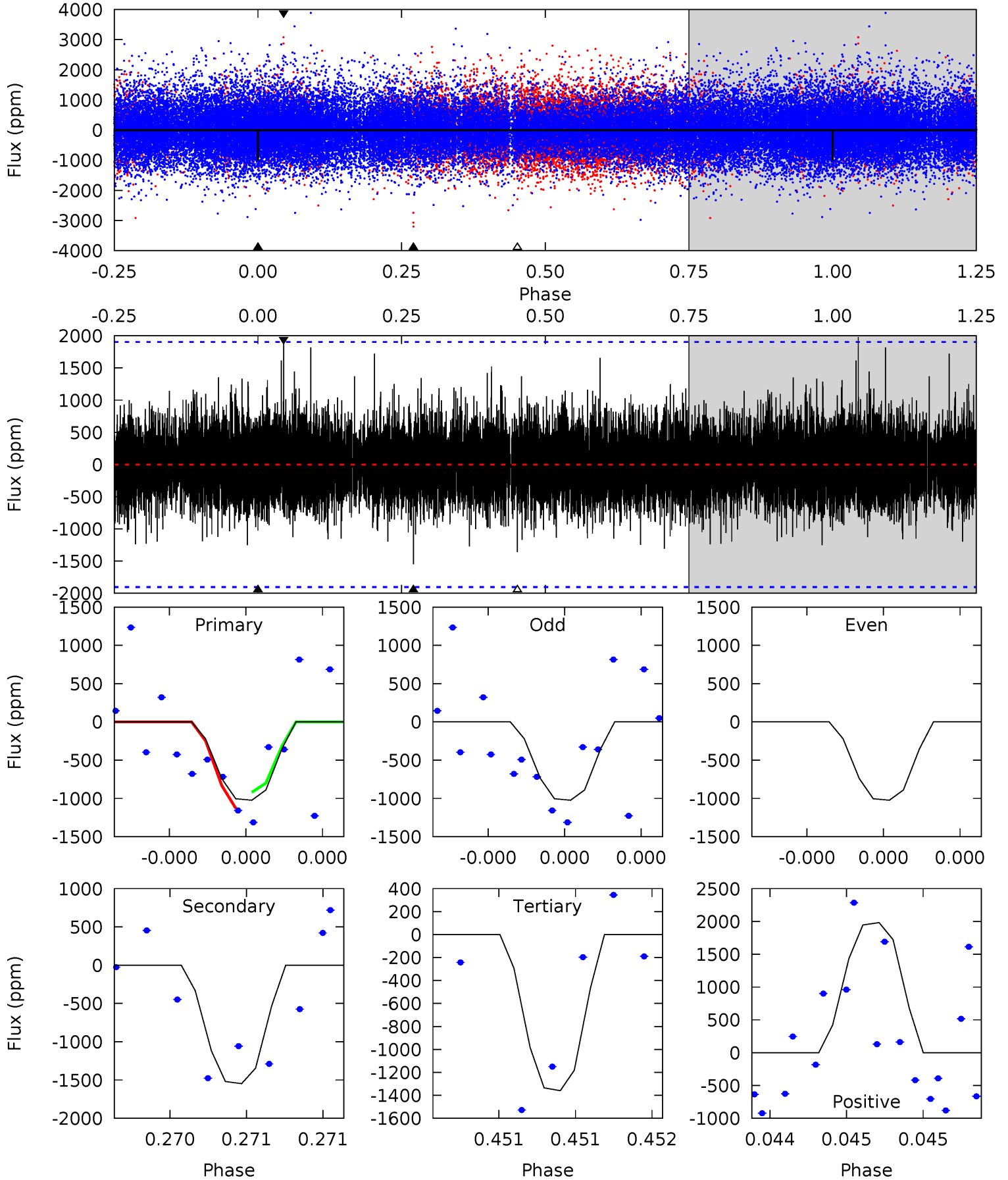
TCE 005736461-04 P=446.030559 Days $T_0=202.974663$ (BKJD)



DV Model-Shift Uniqueness Test

005736461-04, P = 446.027766 Days, E = 203.024031 Days

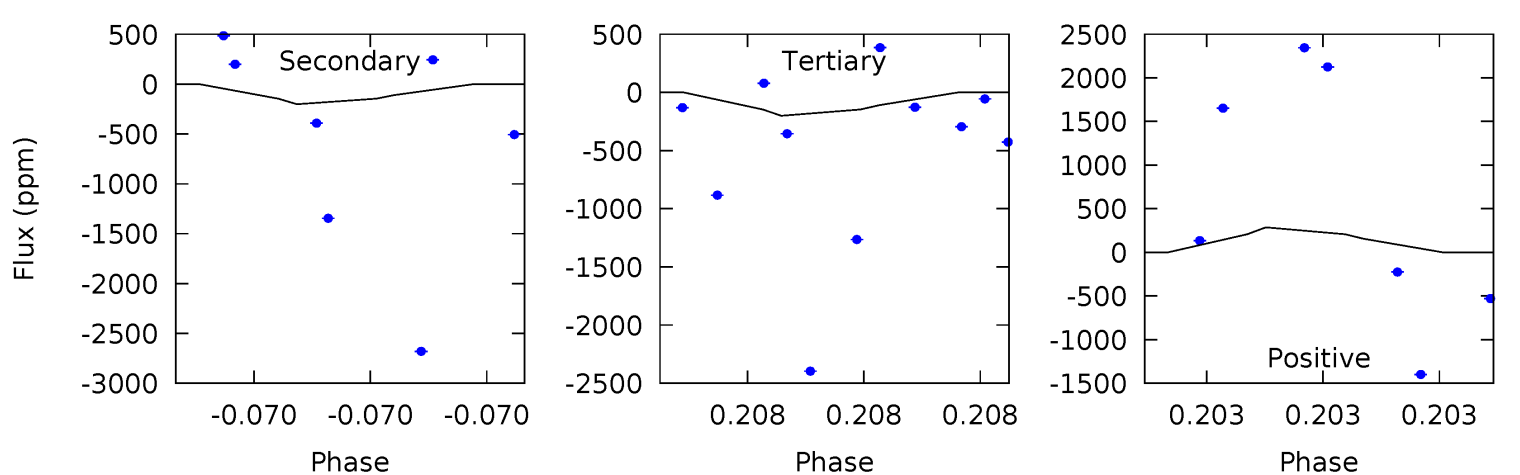
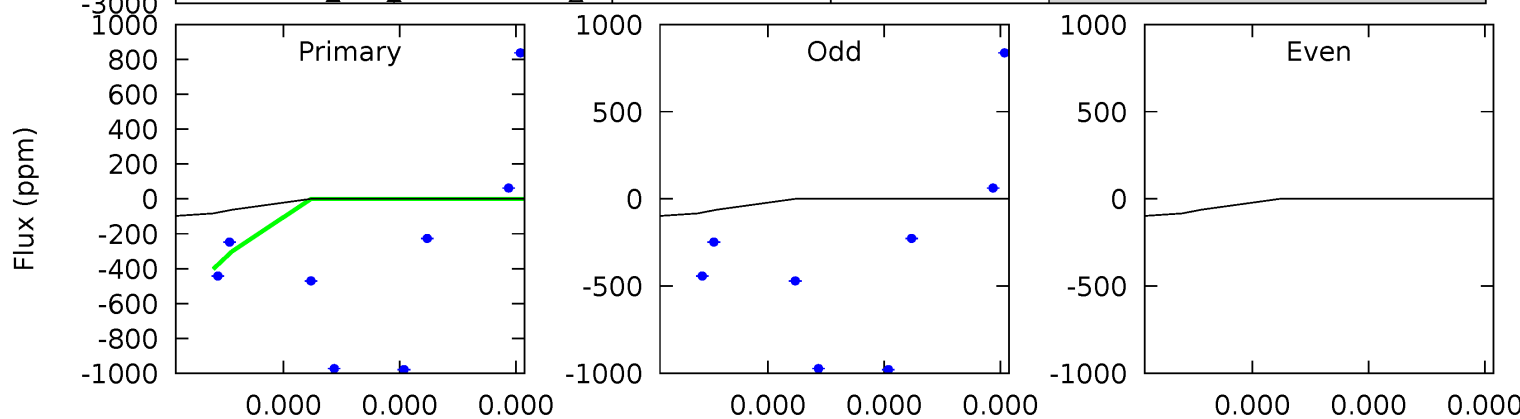
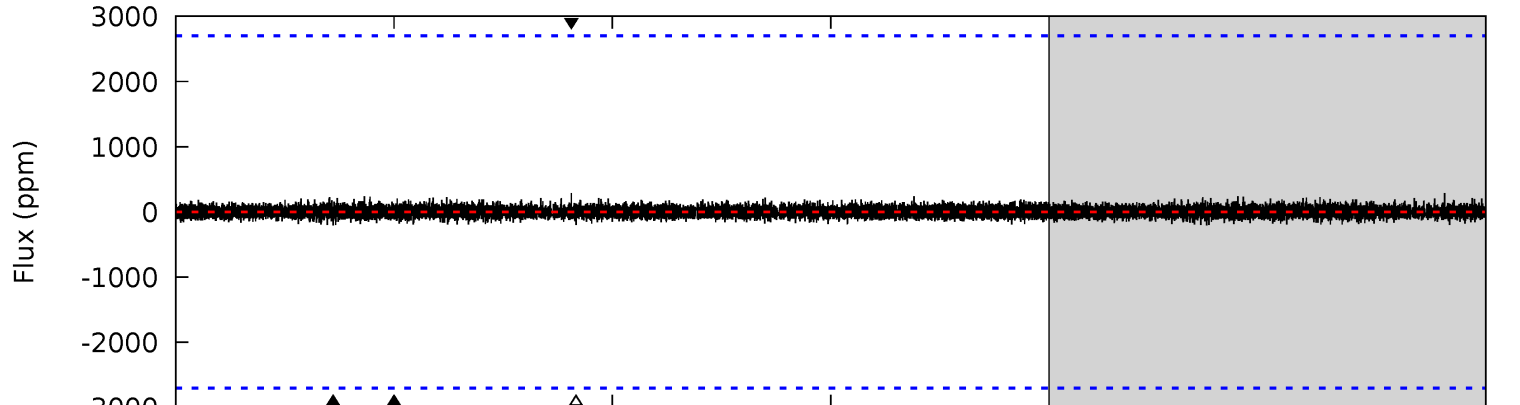
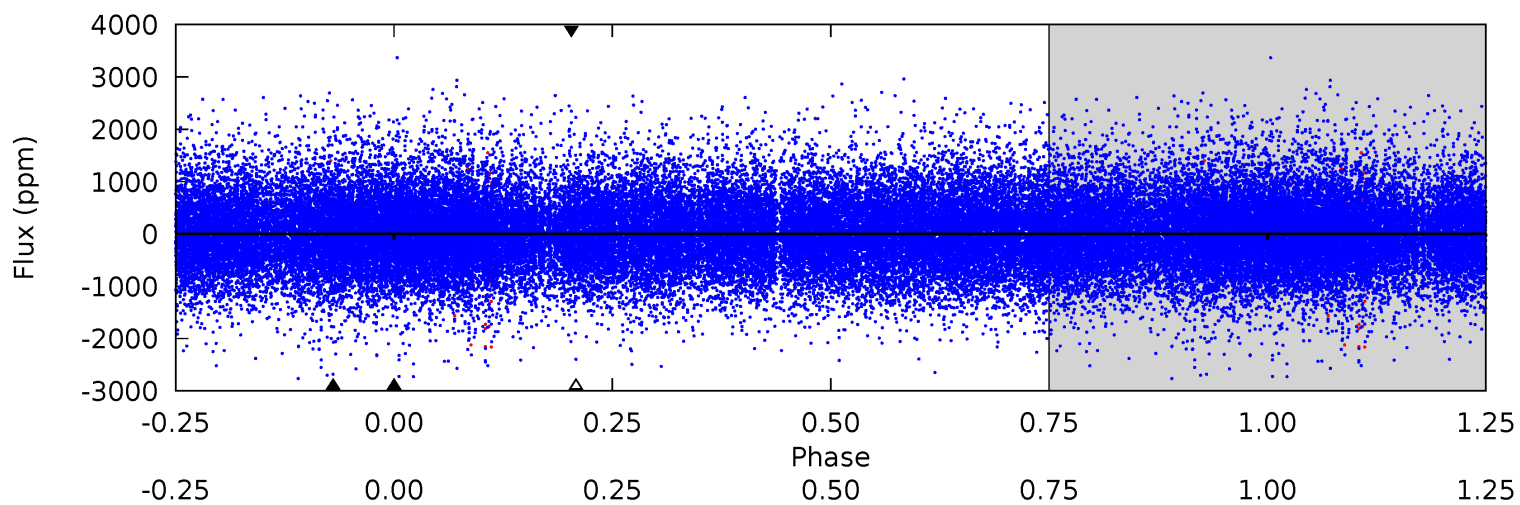
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.13	4.73	4.16	6.06	5.82	3.85	1.02	-1.03	-2.93	0.58	-1.33	0	1.00	0.56	0.32



Alt Model-Shift Uniqueness Test

005736461-04, P = 446.030559 Days, E = 202.974663 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.25	0.44	0.44	0.63	5.95	4.04	0.11	-0.19	-0.38	0.00	-0.19	0	1.00	0.59	0.31



Stellar Parameters For KIC 005736461

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5616^{+169}_{-169}	$4.574^{+0.042}_{-0.168}$	$-0.200^{+0.300}_{-0.300}$	$0.810^{+0.207}_{-0.069}$	$0.905^{+0.083}_{-0.104}$	$2.400^{+0.398}_{-1.104}$
	+3%/-3%	+1%/-4%	+150%/-150%	+26%/-9%	+9%/-11%	+17%/-46%
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 005736461-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1548 ± 327	$36.33^{+42.54}_{-24.48}$	303^{+20}_{-14}	2596^{+1015}_{-423}	818^{+7046}_{-648}
Alt.	-202 ± 454	$36.39^{+44.74}_{-24.36}$	304^{+17}_{-14}	1887^{+677}_{-4027}	42^{+668}_{-186}

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

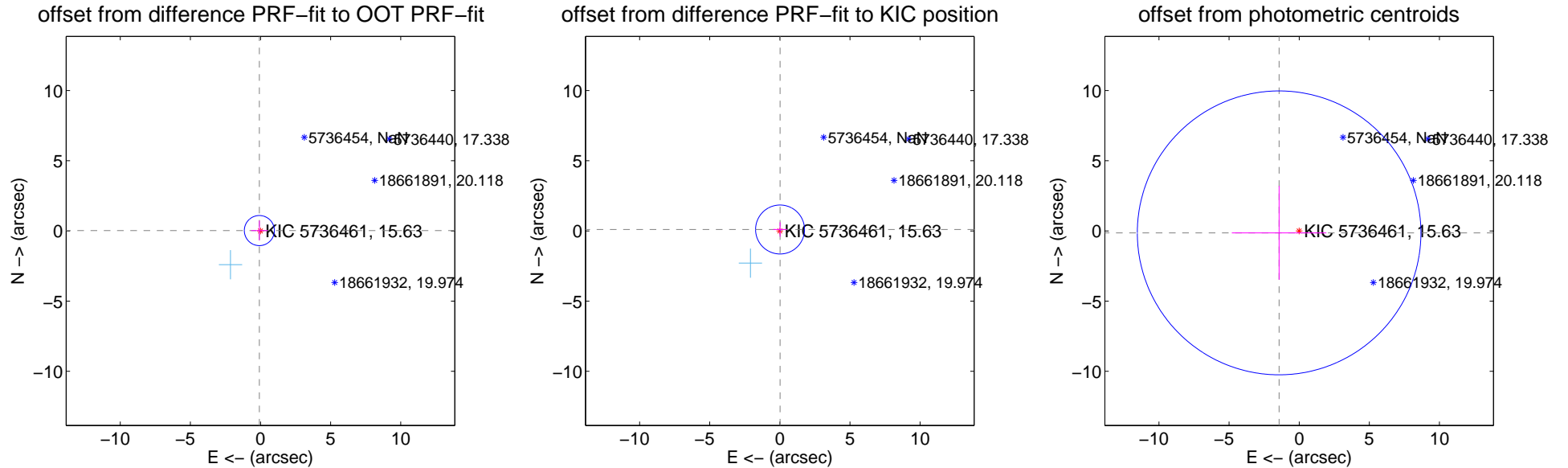
DV Centroid Data

Supplemental centroid analysis for 005736461-04. Kepler magnitude: 15.63. Transit SNR 2.72

There are 3 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.086 ± 0.357	0.24	0.082 ± 0.593	0.026 ± 0.712
PRF-fit source offset from KIC position	0.102 ± 0.582	0.18	-0.014 ± 0.495	0.101 ± 0.520
photometric centroid source offset	1.44 ± 3.37	0.43	1.43 ± 3.37	-0.14 ± 3.34



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

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

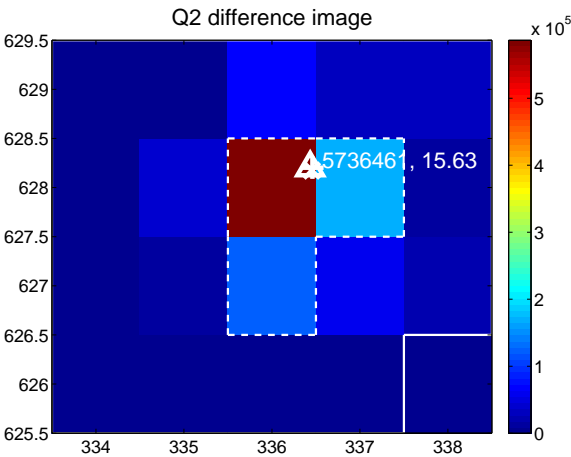
Q1 no difference image



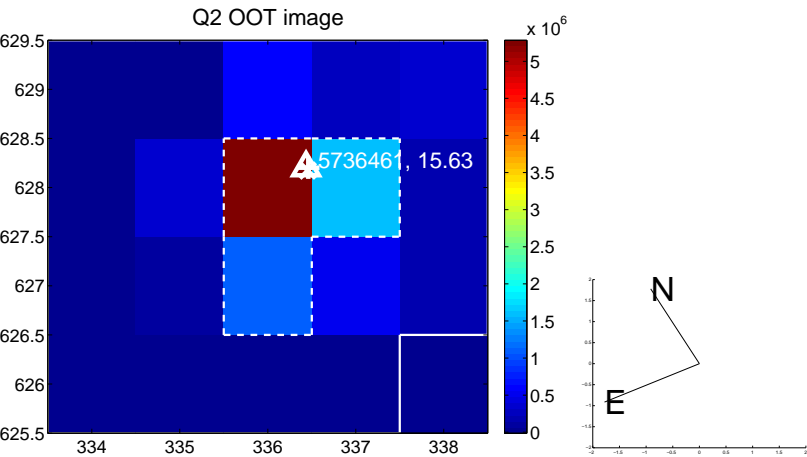
Q1 no OOT image



Q2 difference image



Q2 OOT image



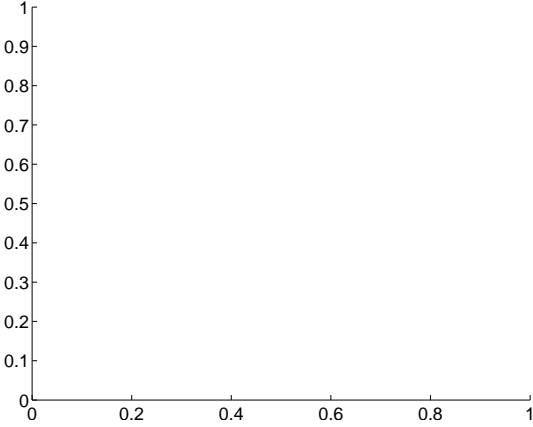
Q3 no difference image



Q3 no OOT image



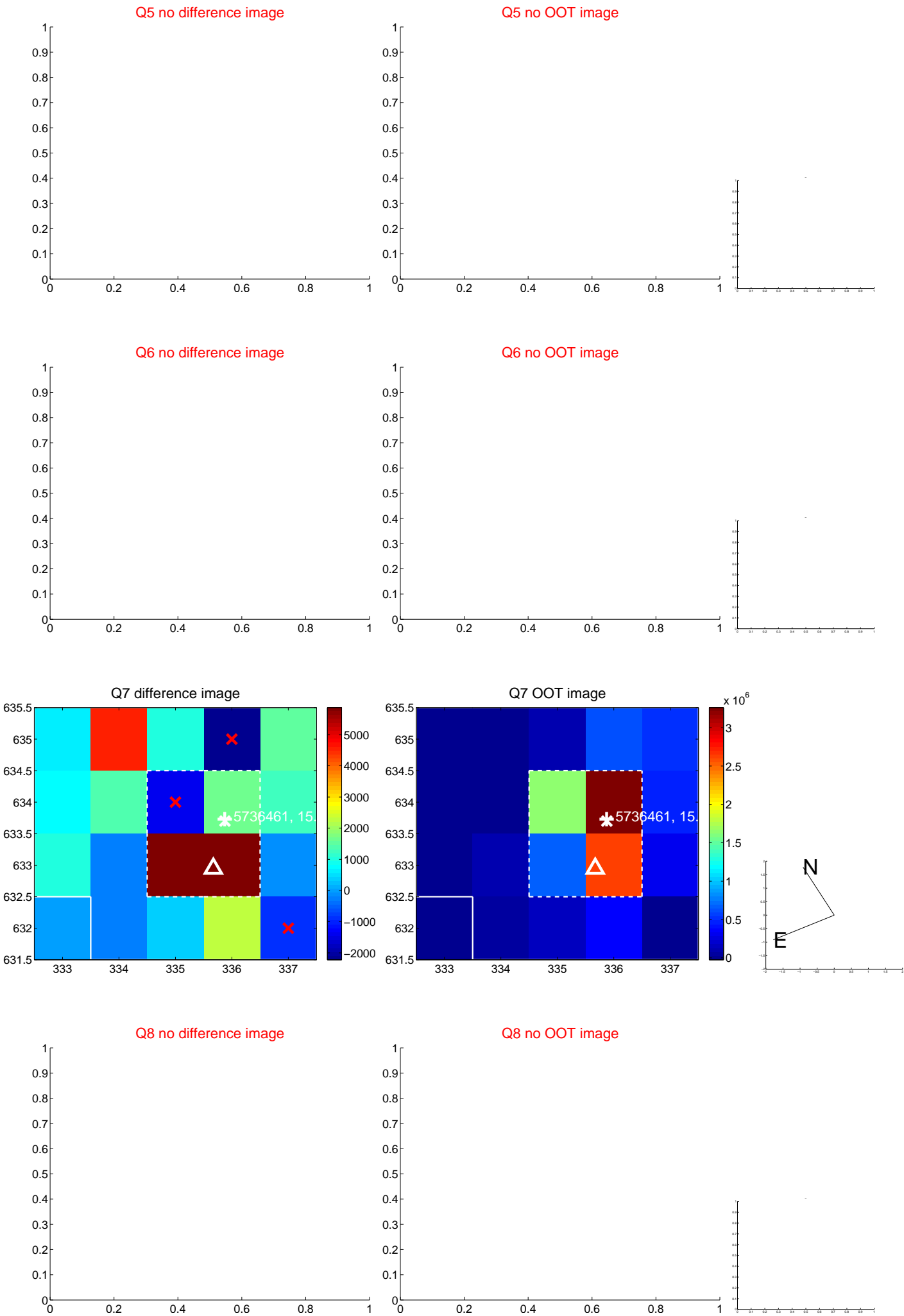
Q4 no difference image



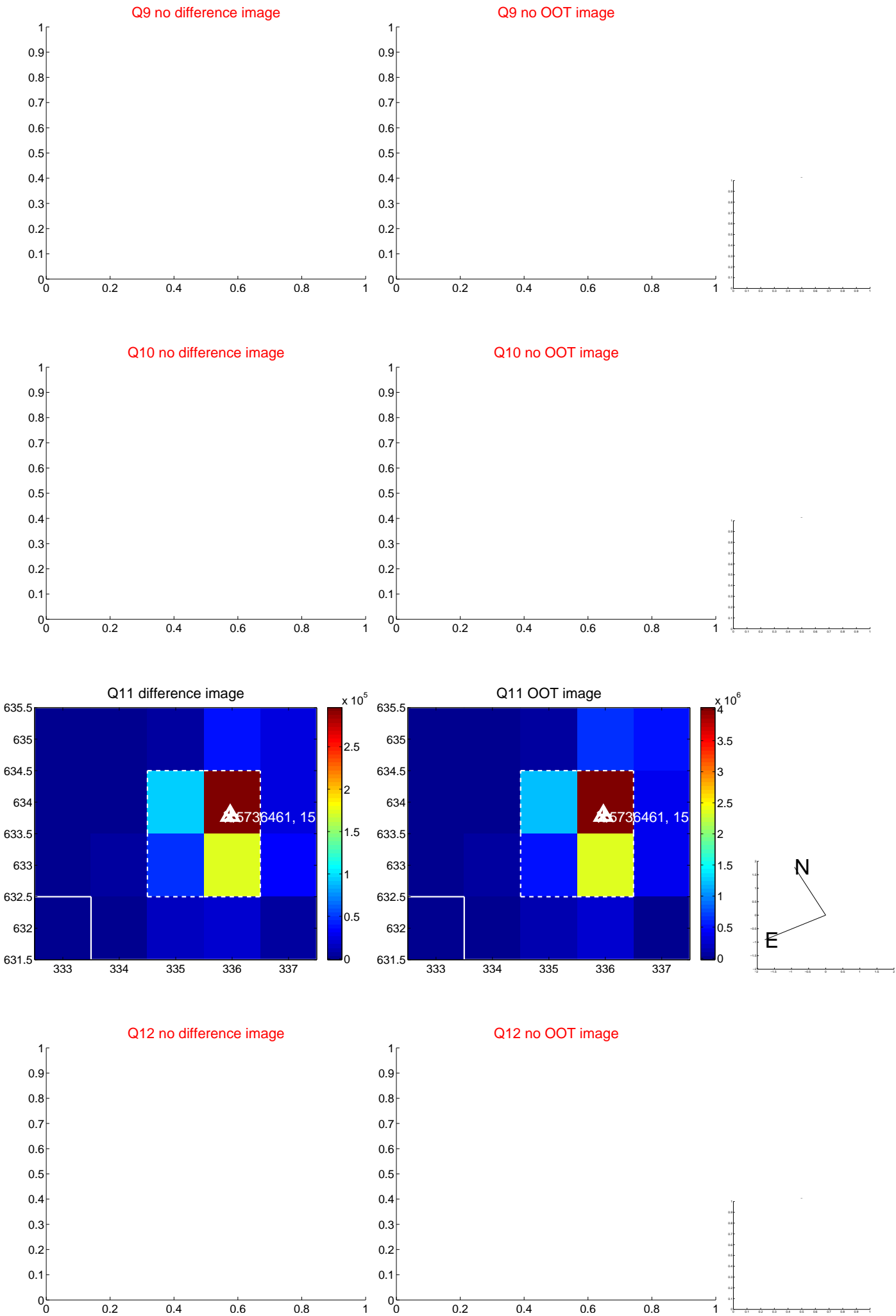
Q4 no OOT image



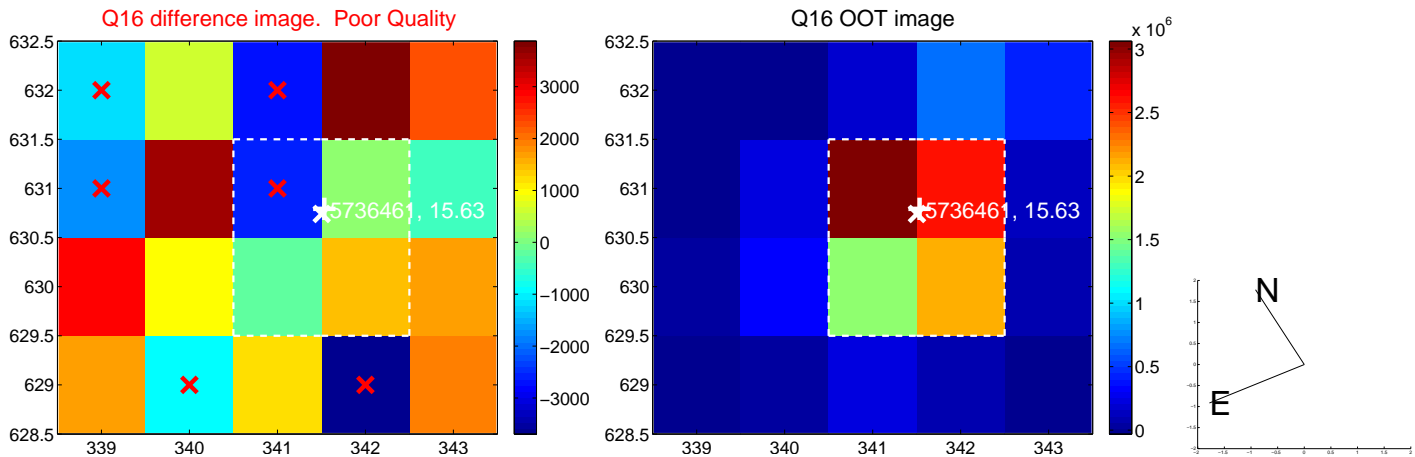
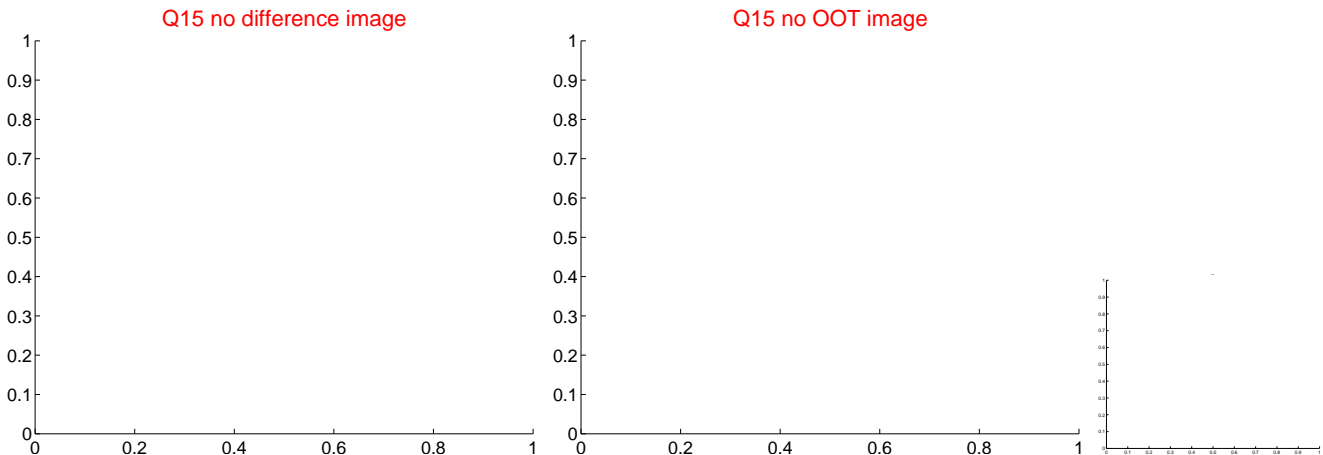
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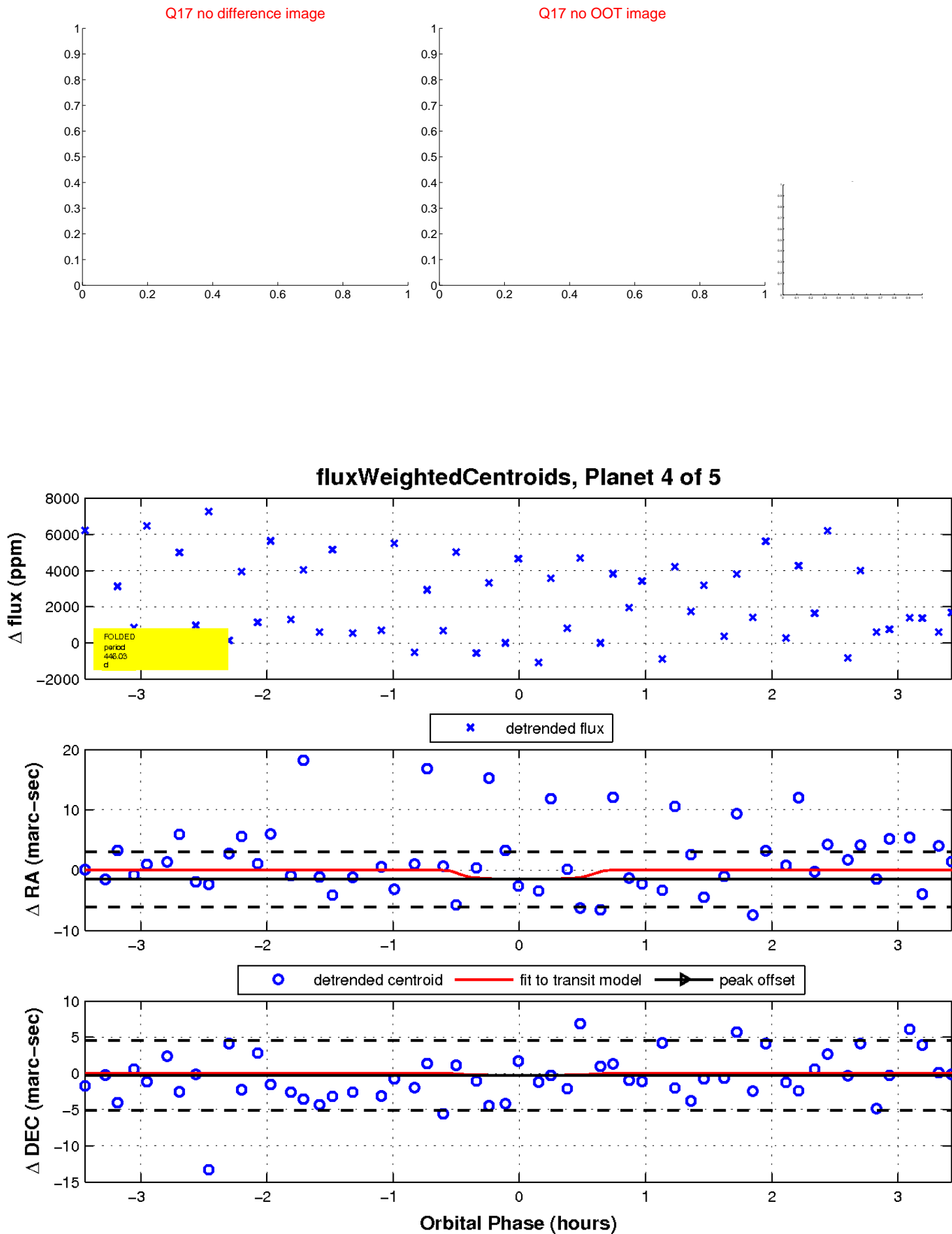
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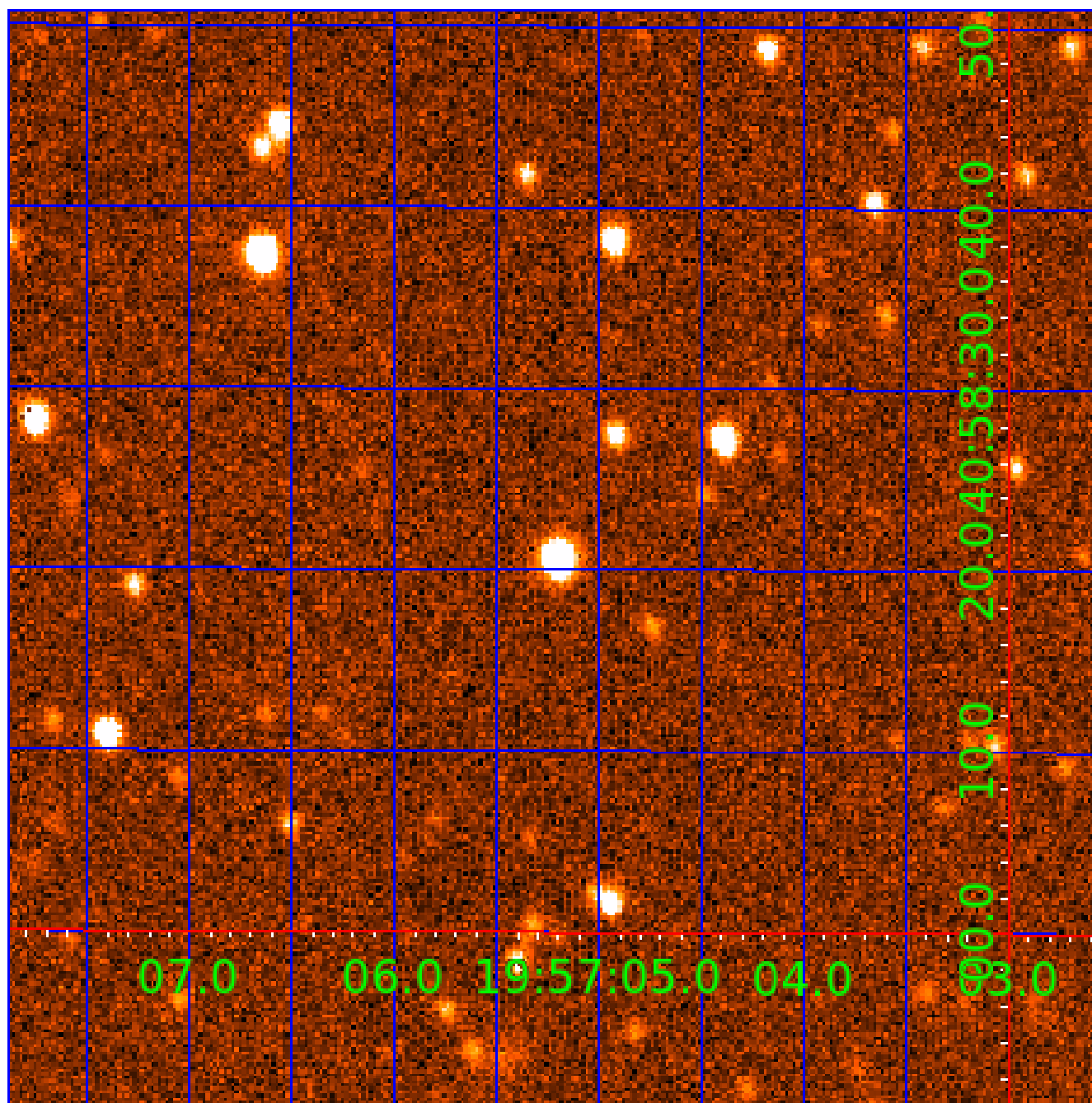


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005736461

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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005736461-03	OBS	No	212.815527	221.486770	4137.8	15.000	24.4	-1.0	0.81	5616	5.15	1.29
005736461-04	OBS	No	446.027766	203.024031	1241.1	1.180	14.1	2.7	0.81	5616	3.03	0.48
005736461-05	OBS	No	446.233674	202.344830	864.6	10.989	14.5	4.0	0.81	5616	2.37	0.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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005736461-02	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD
005736461-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
005736461-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005736461-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

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.

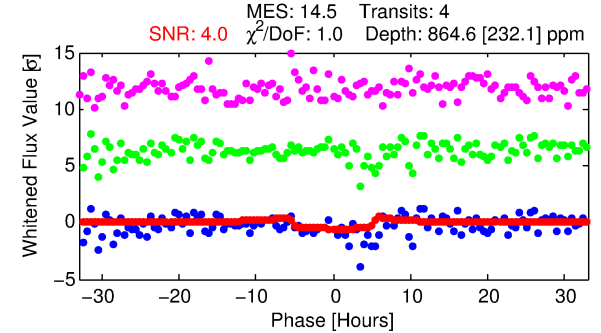
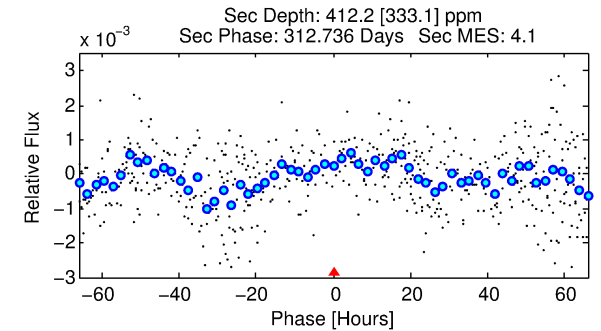
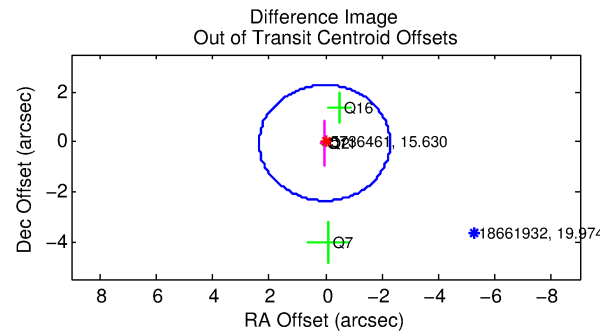
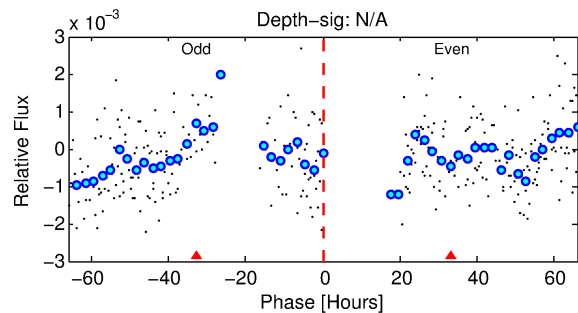
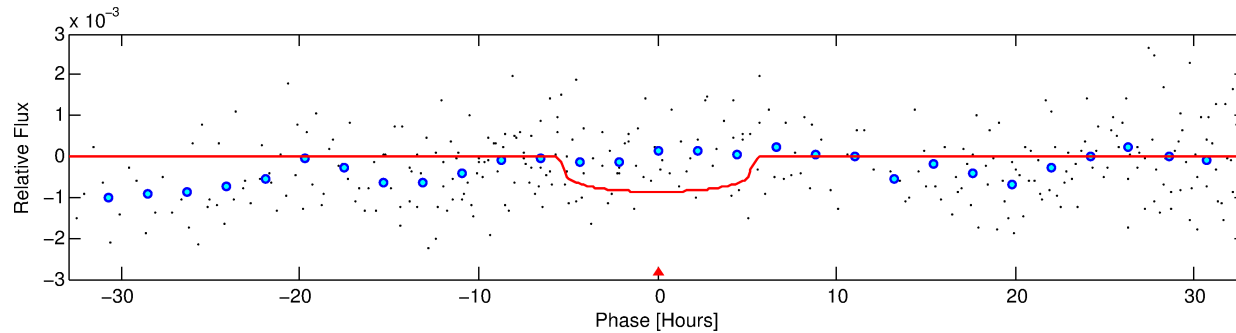
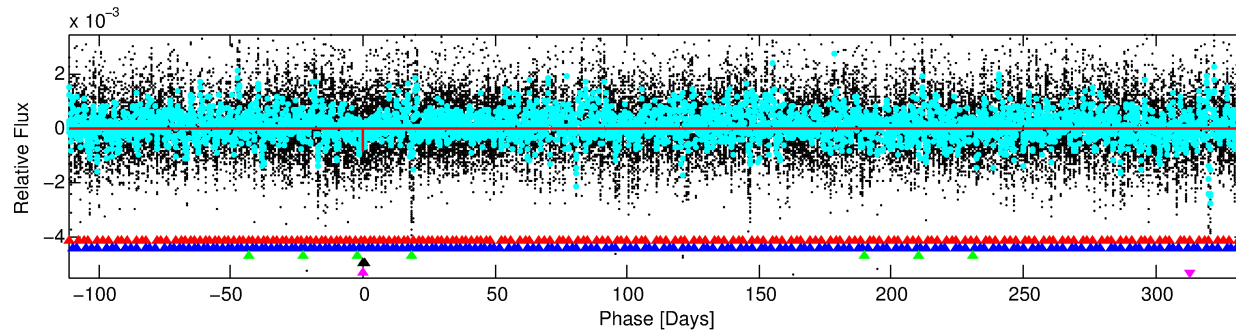
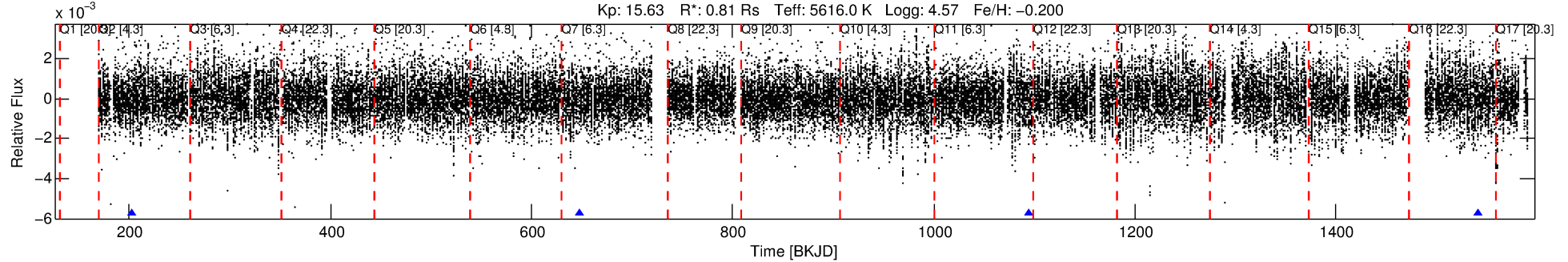
Ephemeris Match Information For 005736461-05

No Significant Match Found

DV One-Page Summary

KIC: 5736461 Candidate: 5 of 5 Period: 446.234 d
KOI: K06623 Corr: No Ephemeris Match

Kp: 15.63 R*: 0.81 Rs Teff: 5616.0 K Logg: 4.57 Fe/H: -0.200



DV Fit Results:

Period = 446.23367 [0.00994] d
Epoch = 202.3448 [0.0191] BKJD
Rp/R* = 0.0268 [0.0348]
a/R* = 307.18 [1677.51]
b = 0.27 [18.74]
Seff = 0.48 [0.16]
Teq = 212 [18] K
Rp = 2.37 [3.13] Re
a = 1.1025 [0.2356] AU
Ag = 48992.70 [133919.33] [0.37σ]
Teffp = 4885 [3320] K [1.41σ]

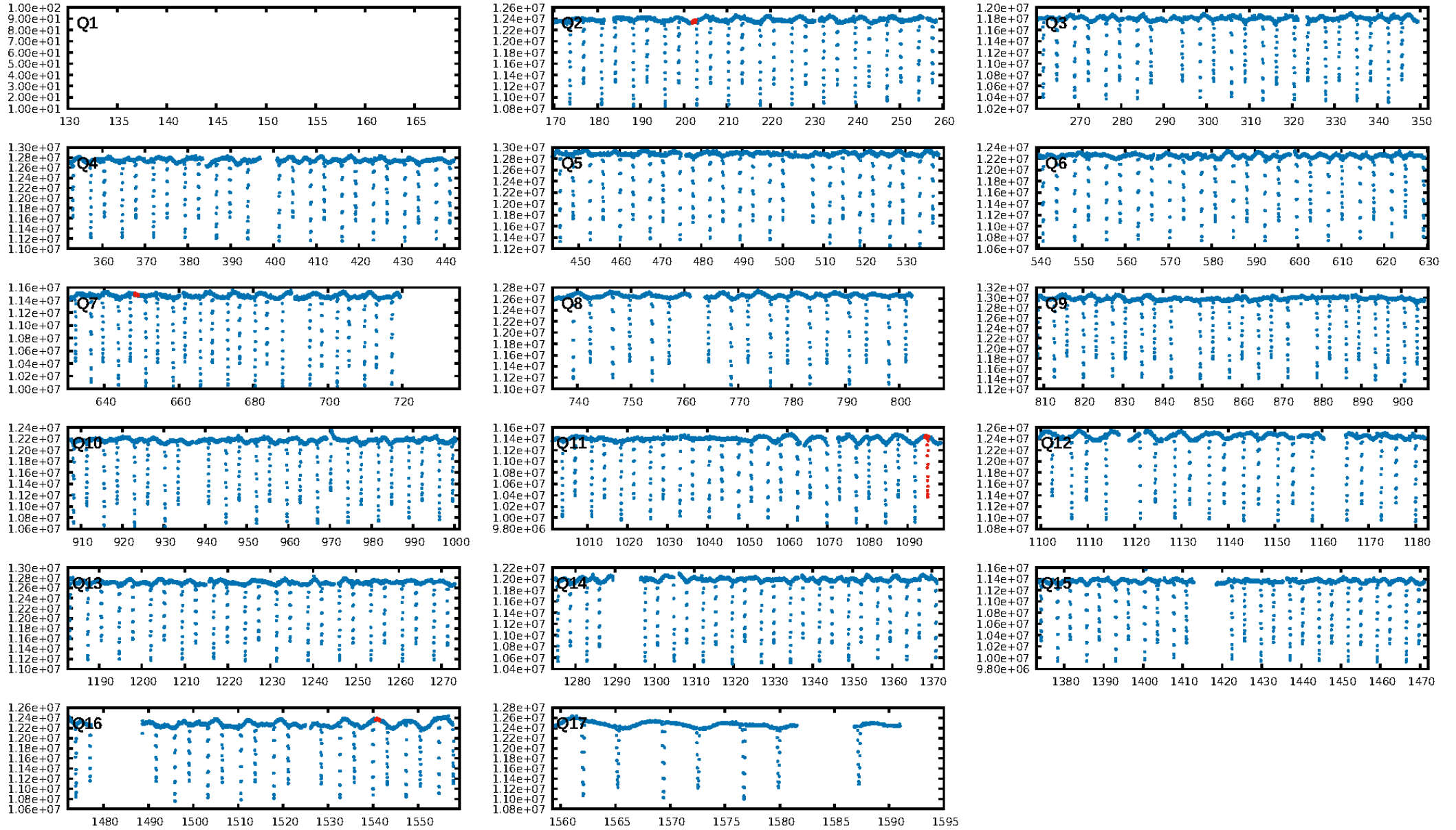
DV Diagnostic Results:

ShortPeriod-sig: 34.5% [0.45σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.68e-23
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.108
Centroid-sig: 0.4%
Centroid-so: 3.534 arcsec [1.89σ]
OotOffset-rm: 0.056 arcsec [0.07σ]
KicOffset-rm: 0.064 arcsec [0.12σ]
OotOffset-st: 1/2/1/0 [4]
KicOffset-st: 1/2/1/0 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.00 [0/4]

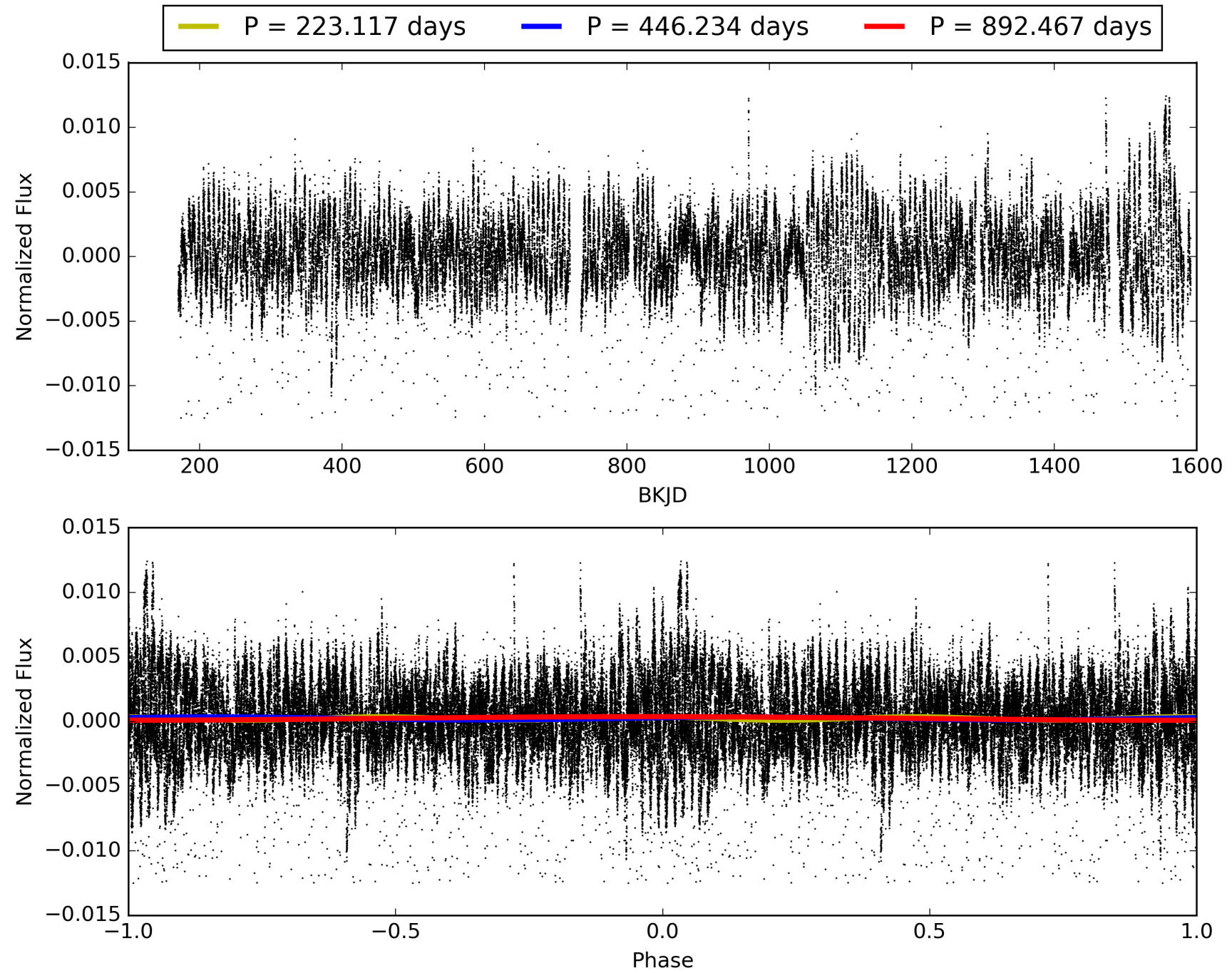
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:53:58 Z

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

TCE 005736461-05, PDC Light Curves

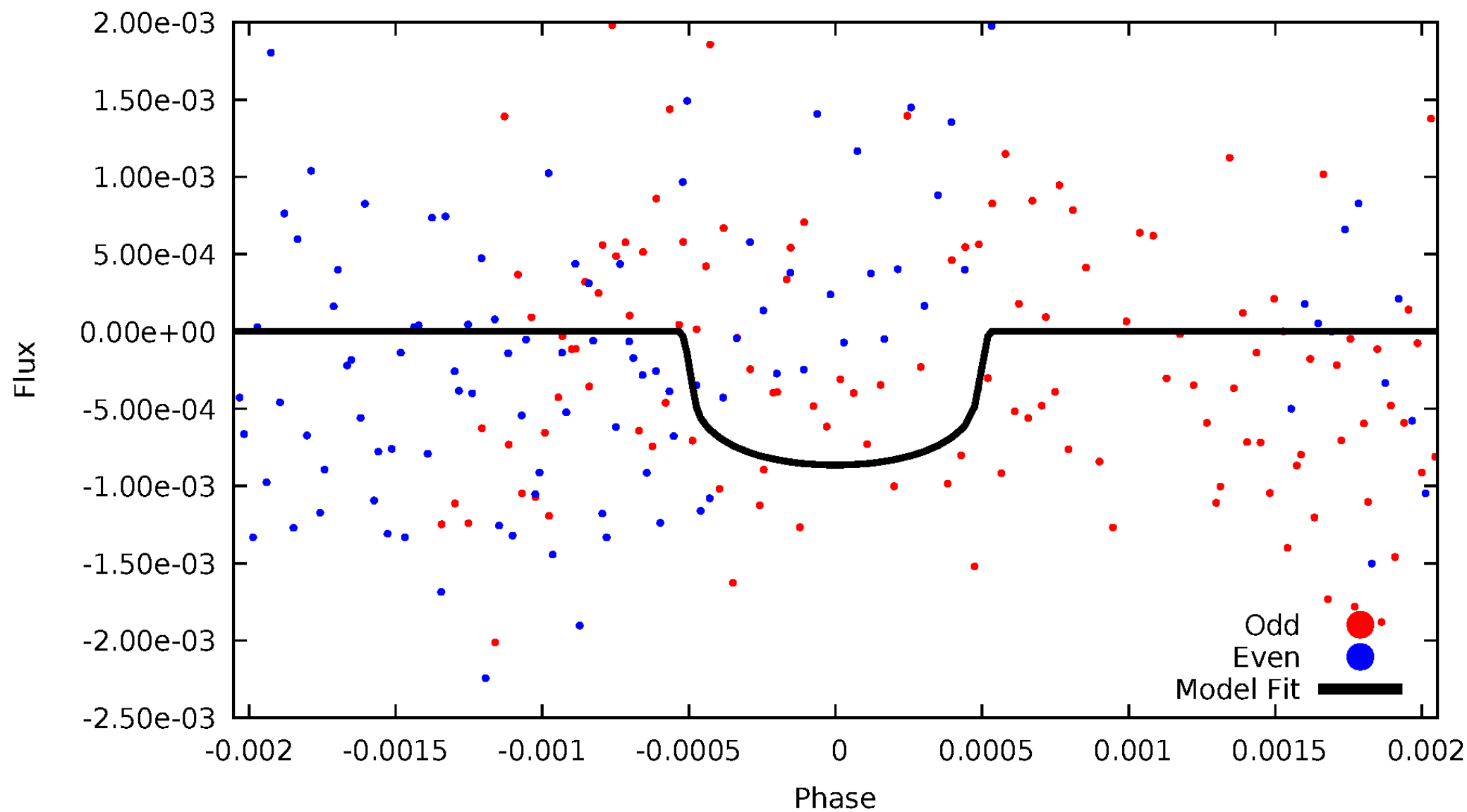


TCE 005736461-05



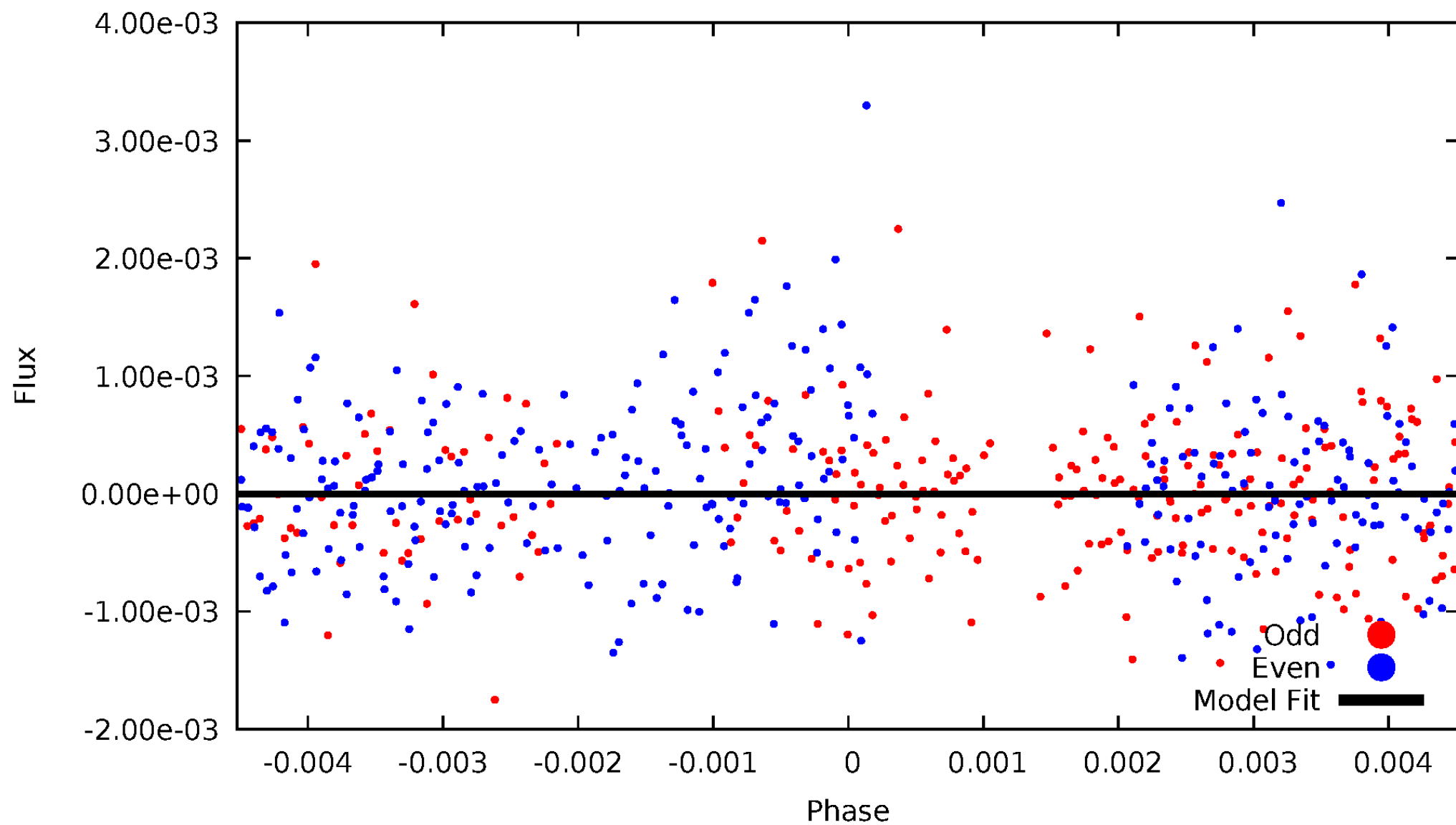
DV Odd/Even

TCE 005736461-05

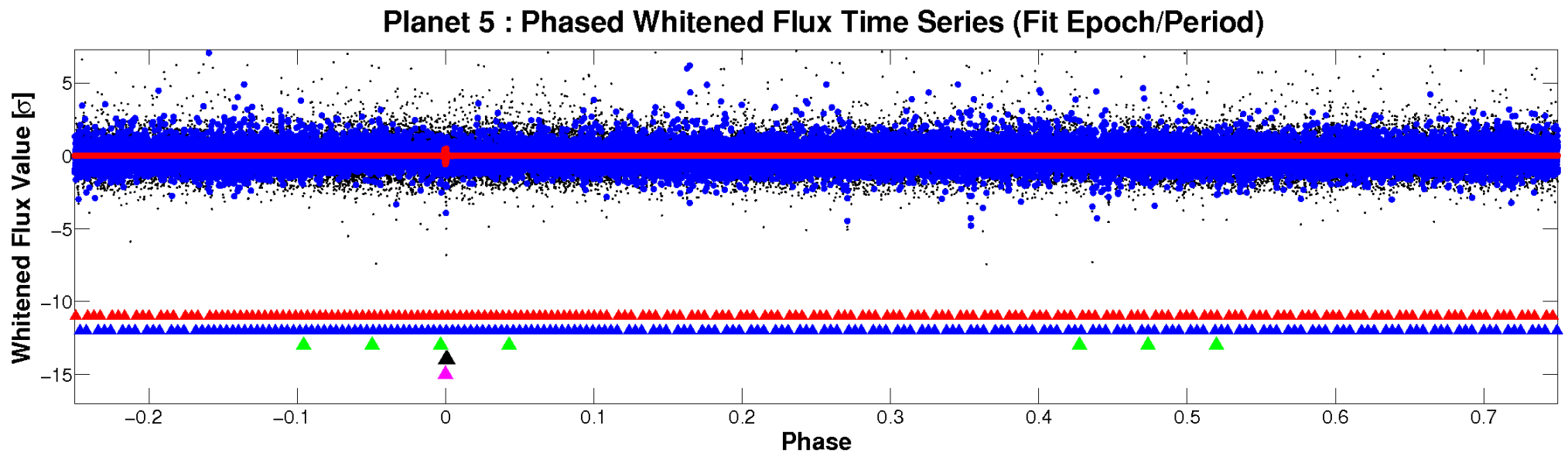
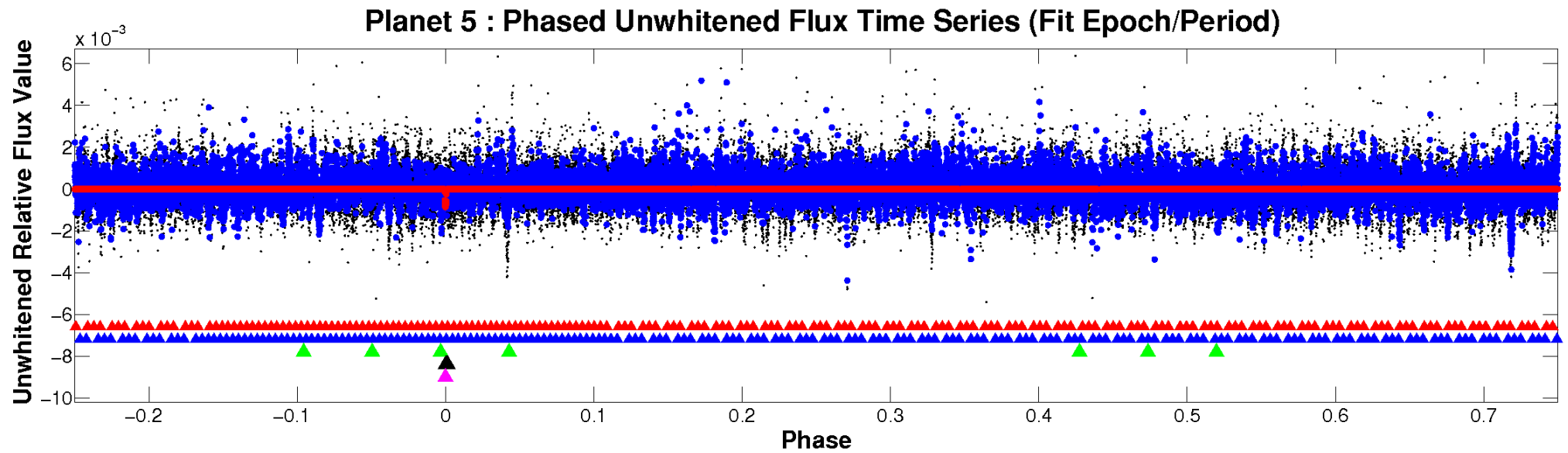


ALT Odd/Even

TCE 005736461-05

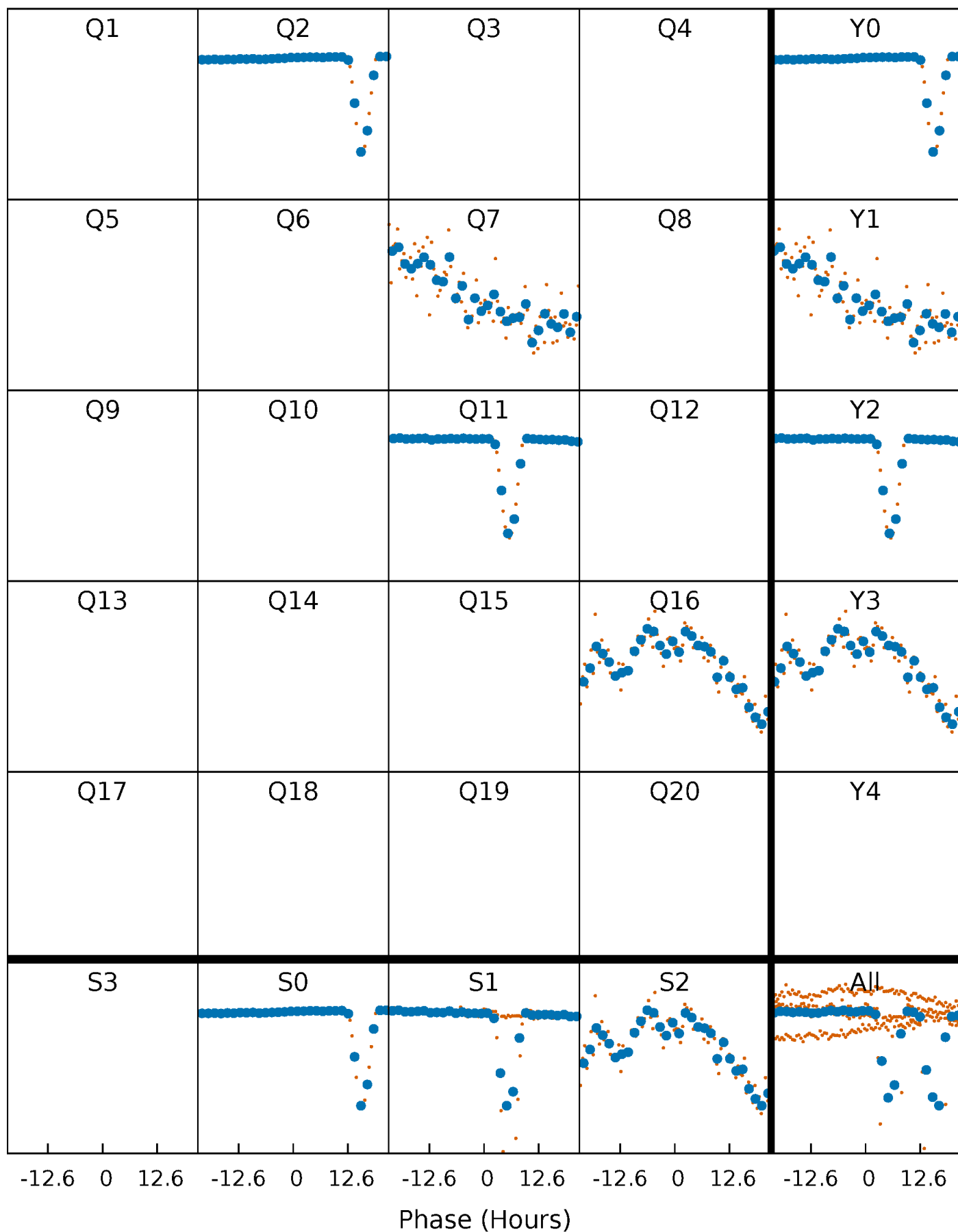


Non-Whitened Vs. Whitened Light Curve



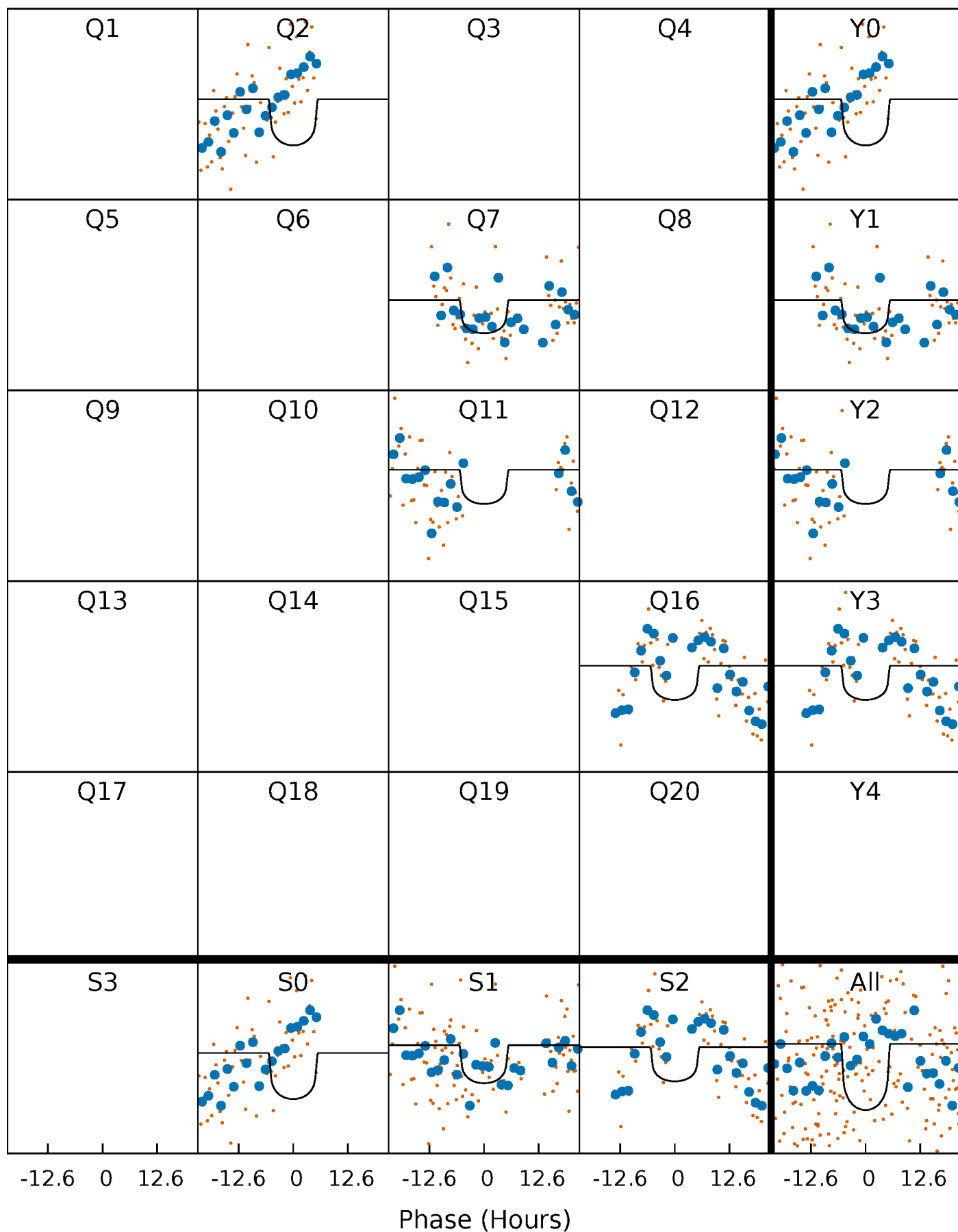
PDC Quarter-Phased Transit Curves

TCE 005736461-05 $P=446.233674$ Days $T_0=202.344830$ (BKJD)



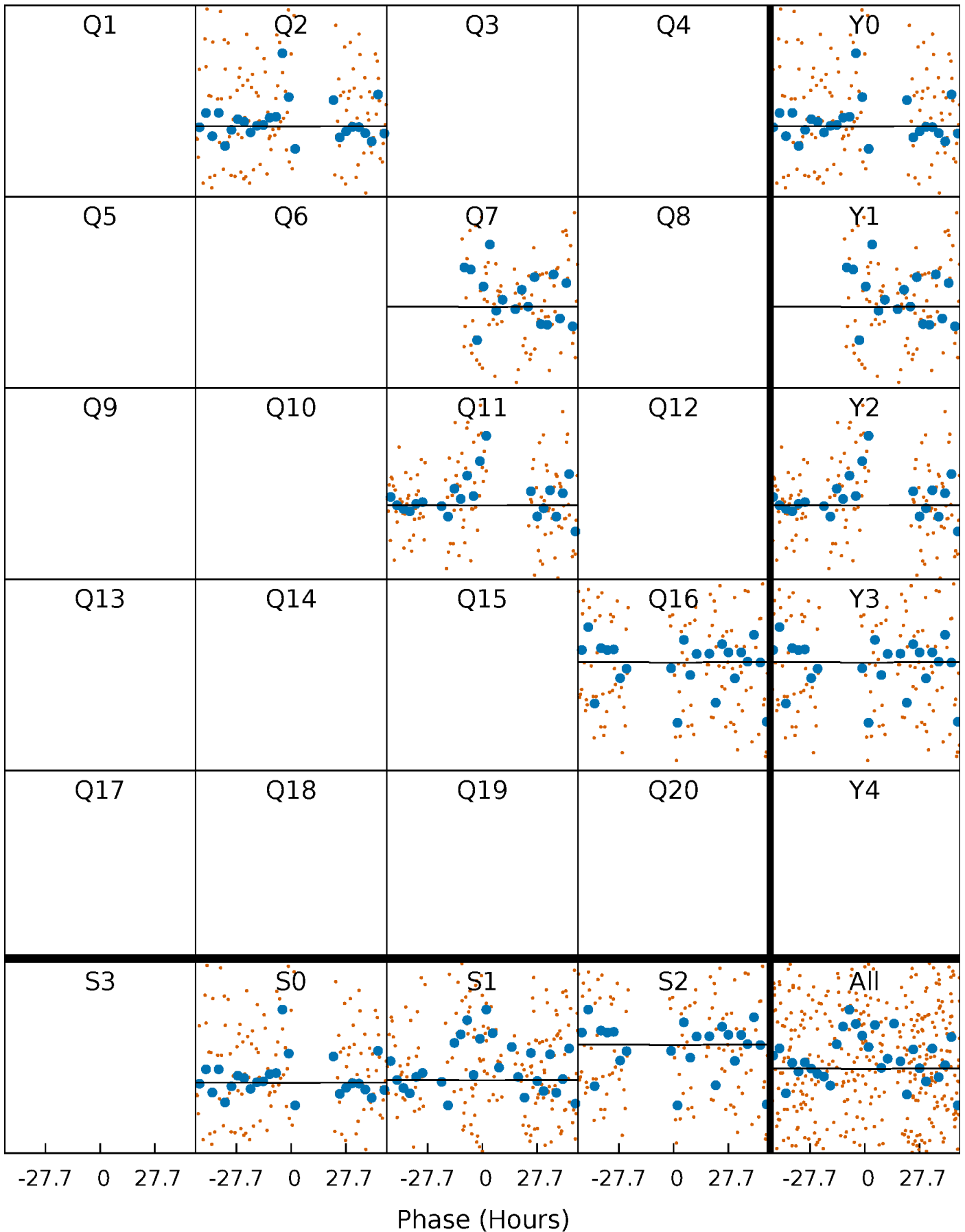
DV Quarter-Phased Transit Curves

TCE 005736461-05 $P=446.233674$ Days $T_0=202.344830$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

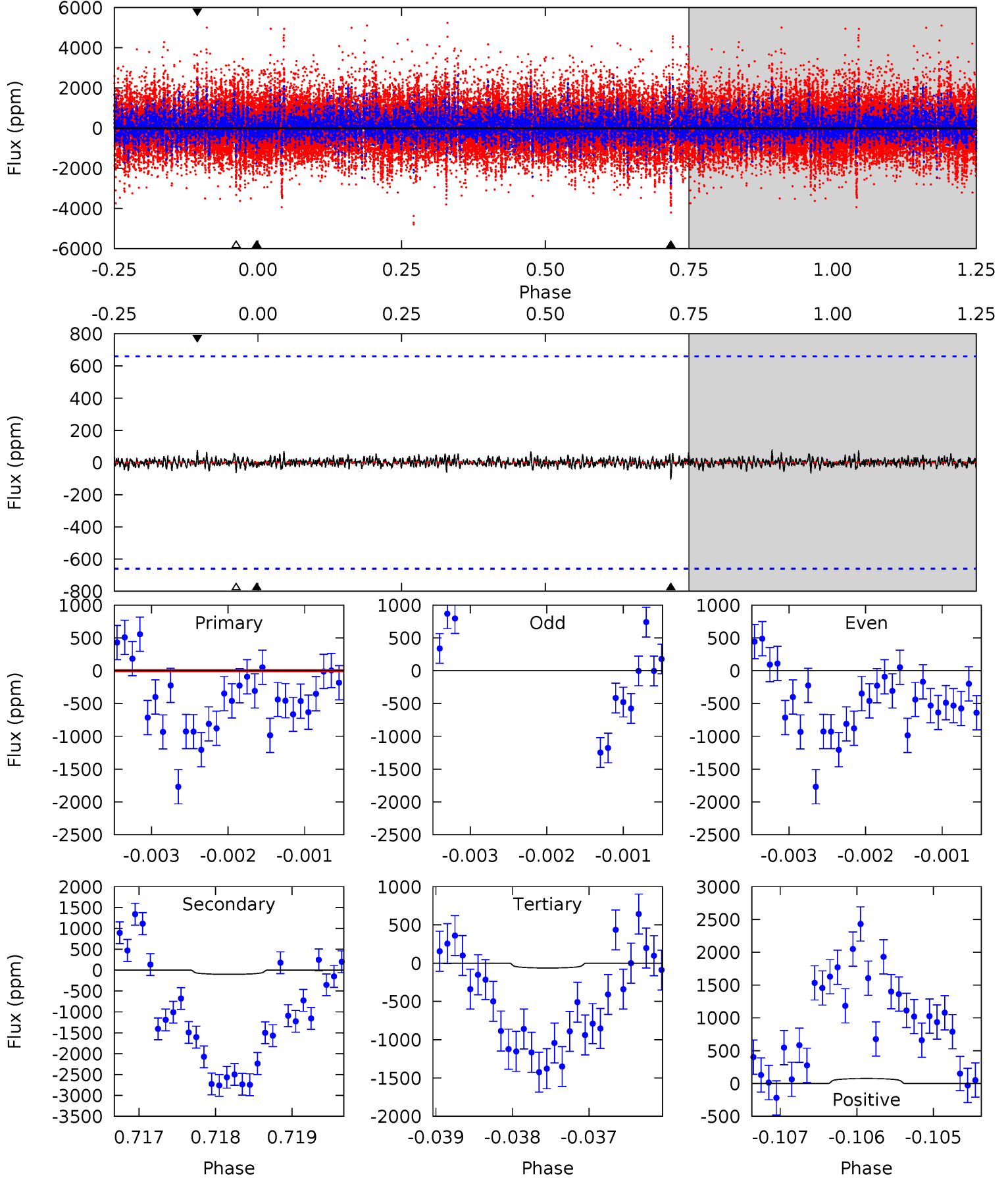
TCE 005736461-05 $P=446.003314$ Days $T_0=202.520120$ (BKJD)



DV Model-Shift Uniqueness Test

005736461-05, P = 446.233674 Days, E = 202.344830 Days

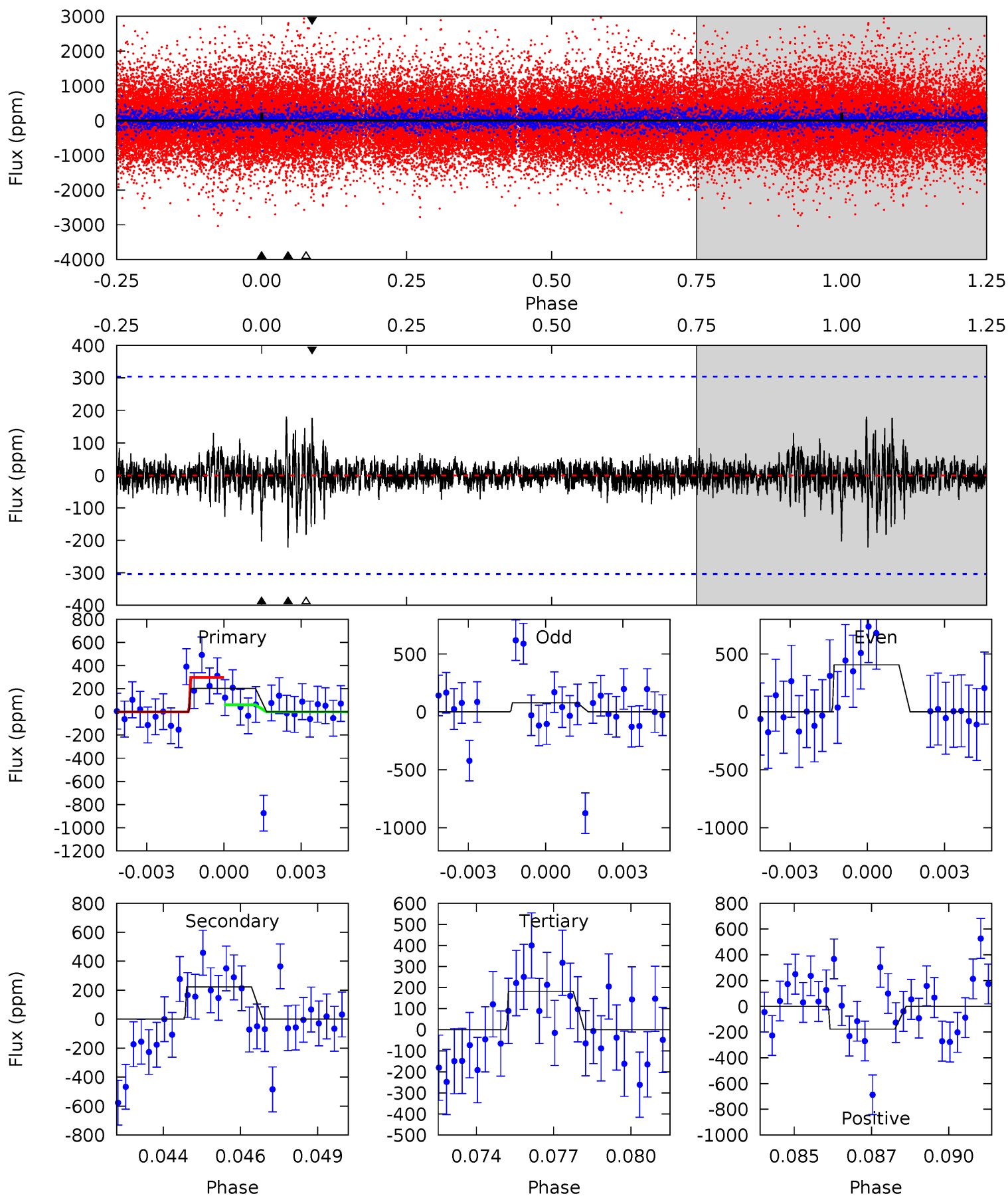
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.25	0.83	0.52	0.62	5.44	3.27	0.15	-0.27	-0.37	0.31	0.21	0.11	1.89	0.43	0.08



Alt Model-Shift Uniqueness Test

005736461-05, P = 446.003314 Days, E = 202.520120 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.53	3.86	3.17	3.07	5.28	3.02	0.55	0.36	0.45	0.69	0.78	2.87	0.99	0.45	2.03



Stellar Parameters For KIC 005736461

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5616^{+169}_{-169}	$4.574^{+0.042}_{-0.168}$	$-0.200^{+0.300}_{-0.300}$	$0.810^{+0.207}_{-0.069}$	$0.905^{+0.083}_{-0.104}$	$2.400^{+0.398}_{-1.104}$
	+3%/-3%	+1%/-4%	+150%/-150%	+26%/-9%	+9%/-11%	+17%/-46%
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 005736461-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-100 ± 121	$3.67^{+2.50}_{-2.33}$	302^{+21}_{-14}	3280^{+1383}_{-5843}	4193^{+29180}_{-5023}
Alt.	-222 ± 58	$2.33^{+2.47}_{-1.68}$	304^{+18}_{-15}	4460^{+3854}_{-983}	$26492^{+295246}_{-20363}$

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

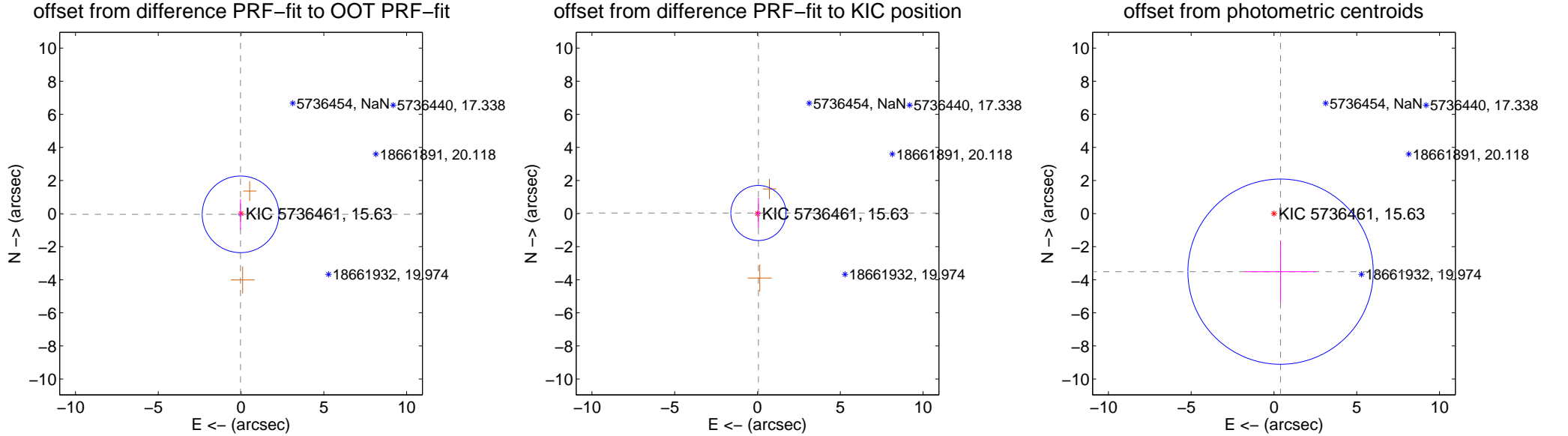
DV Centroid Data

Supplemental centroid analysis for 005736461-05. Kepler magnitude: 15.63. Transit SNR 4.03

There are 1 quarters with good PRF difference image offsets

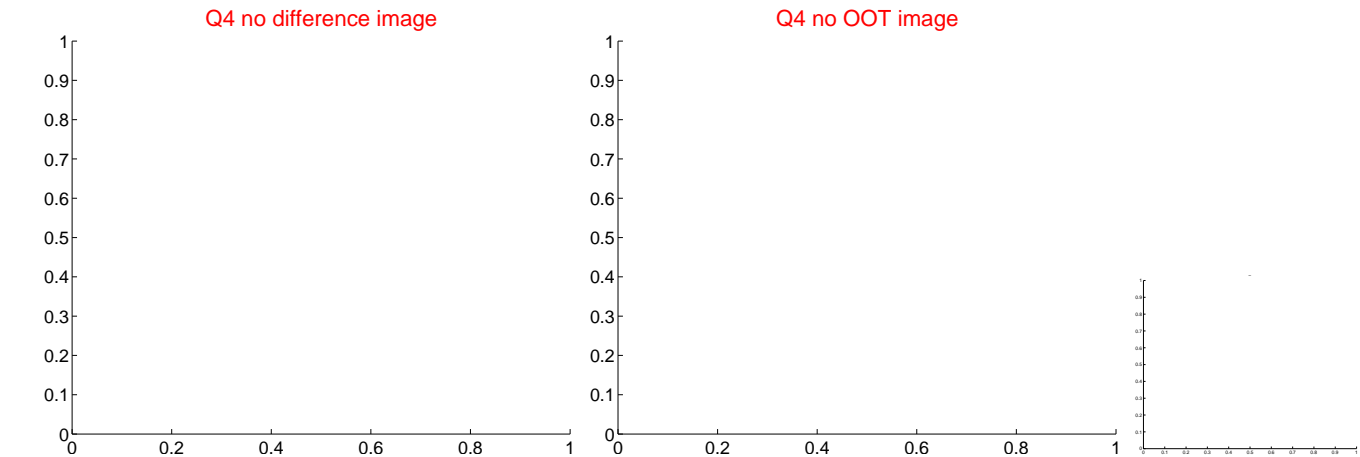
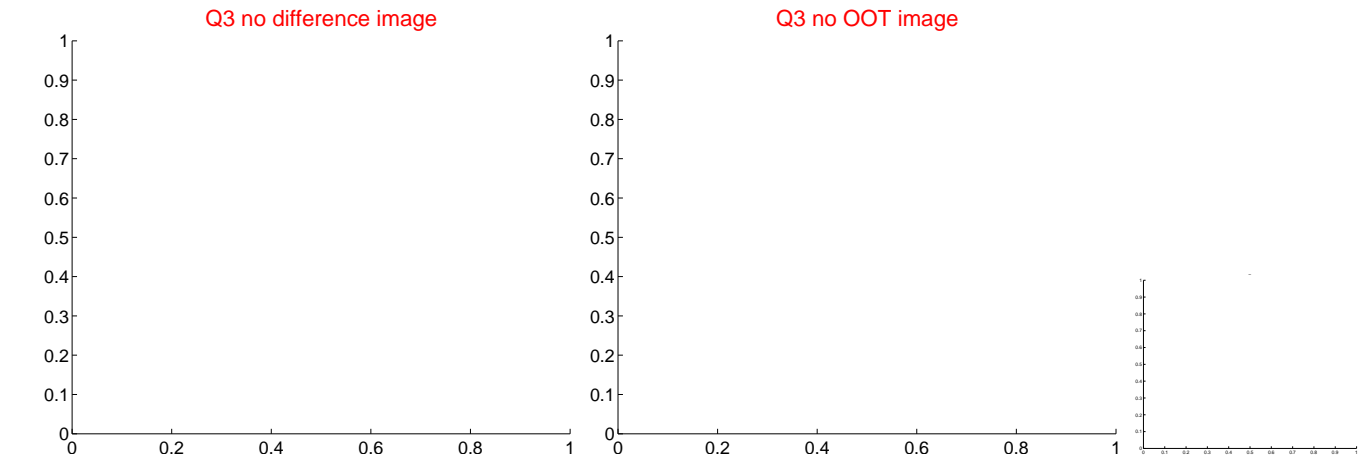
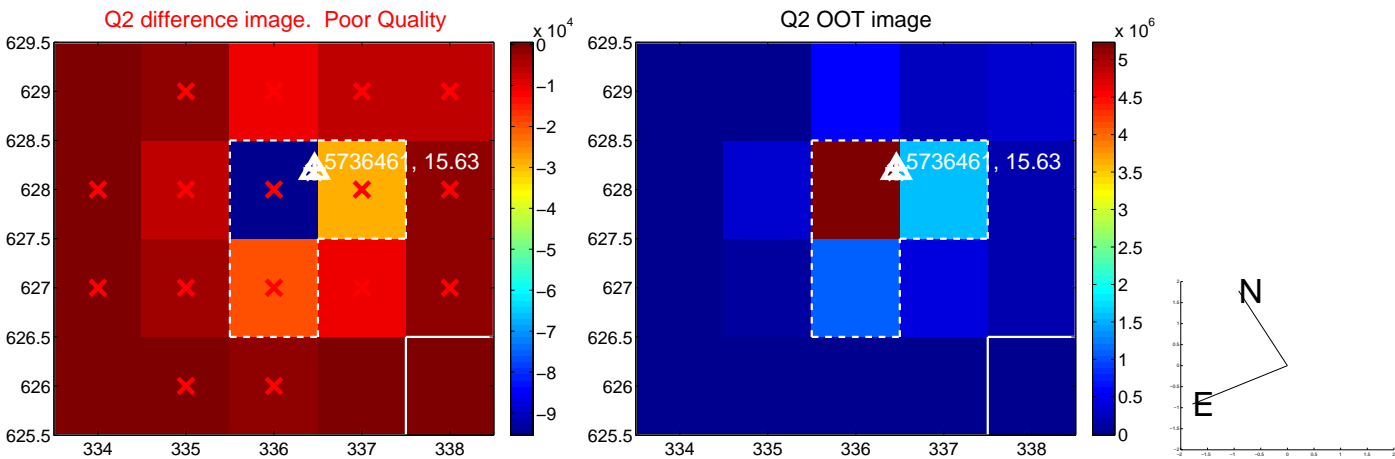
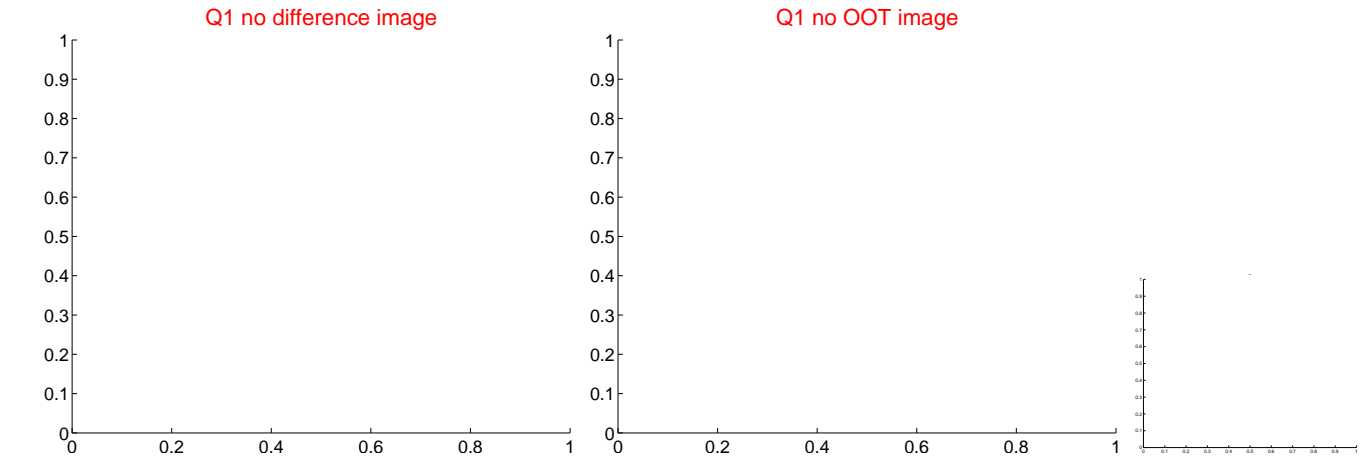
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.056 ± 0.772	0.07	0.032 ± 0.139	-0.046 ± 0.916
PRF-fit source offset from KIC position	0.064 ± 0.555	0.12	-0.053 ± 0.143	0.036 ± 0.927
photometric centroid source offset	3.53 ± 1.87	1.89	-0.40 ± 2.15	-3.51 ± 1.86

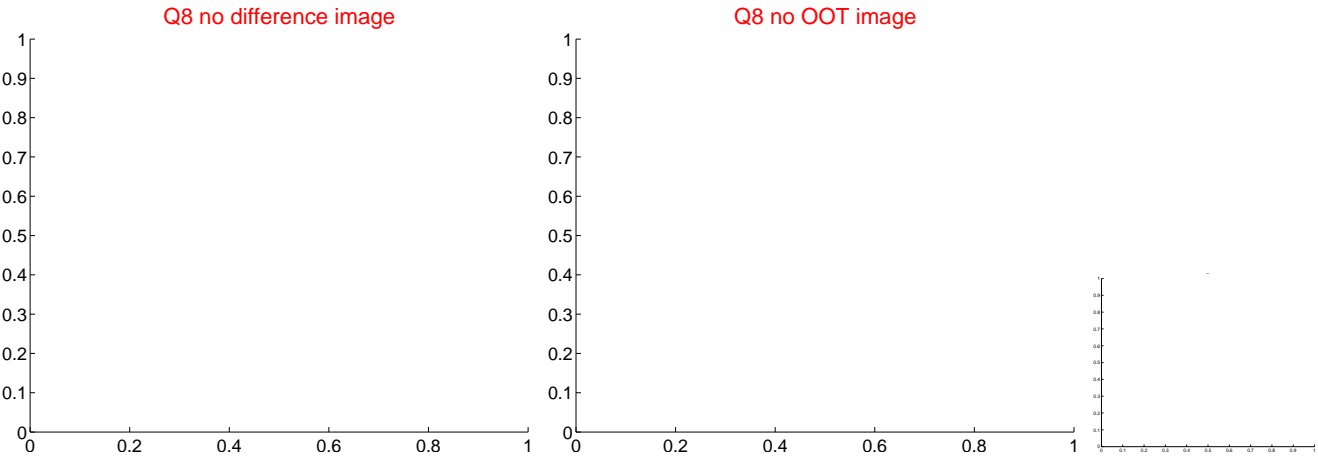
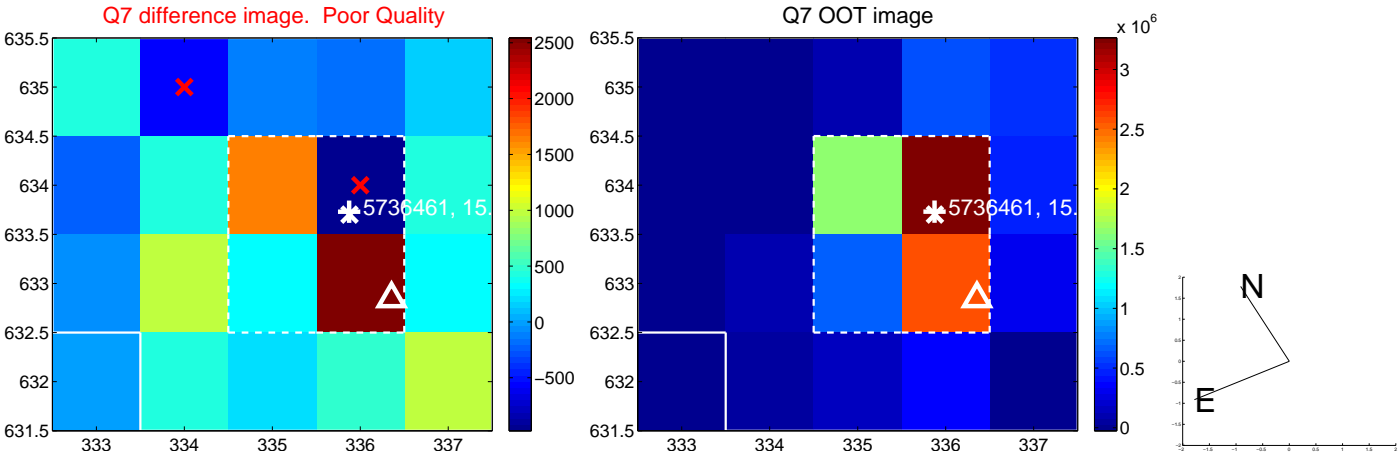


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

Q9 no difference image



Q9 no OOT image



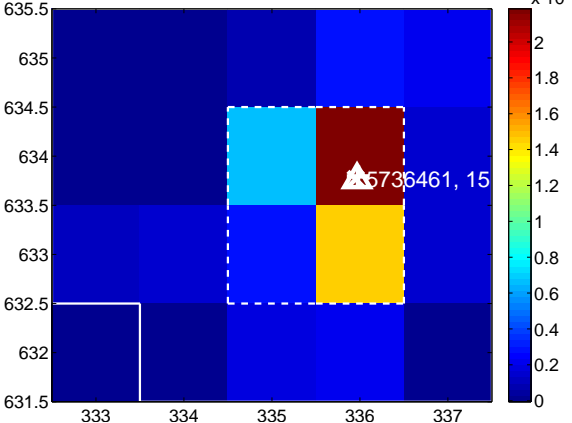
Q10 no difference image



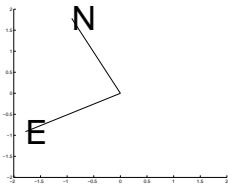
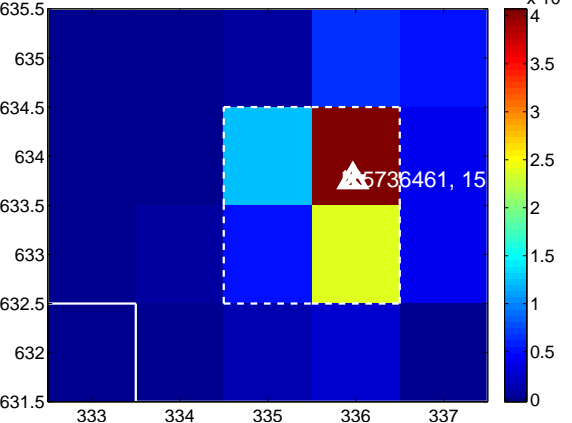
Q10 no OOT image



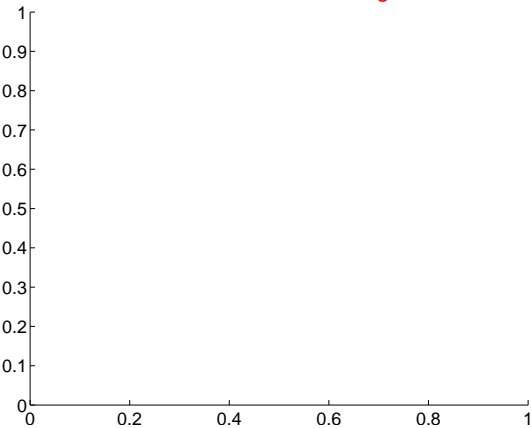
Q11 difference image



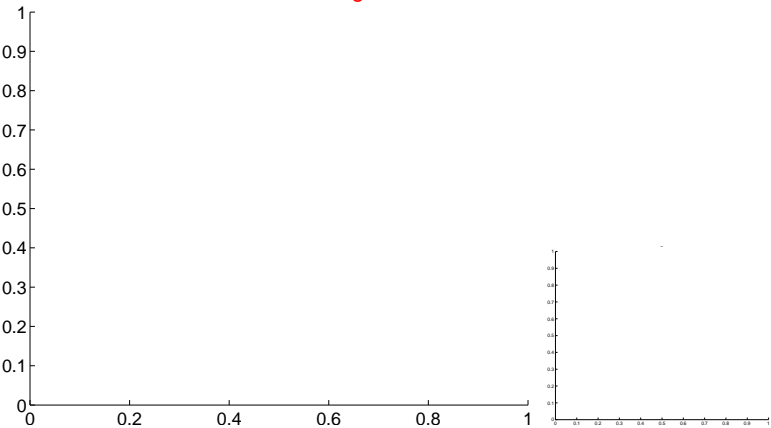
Q11 OOT image



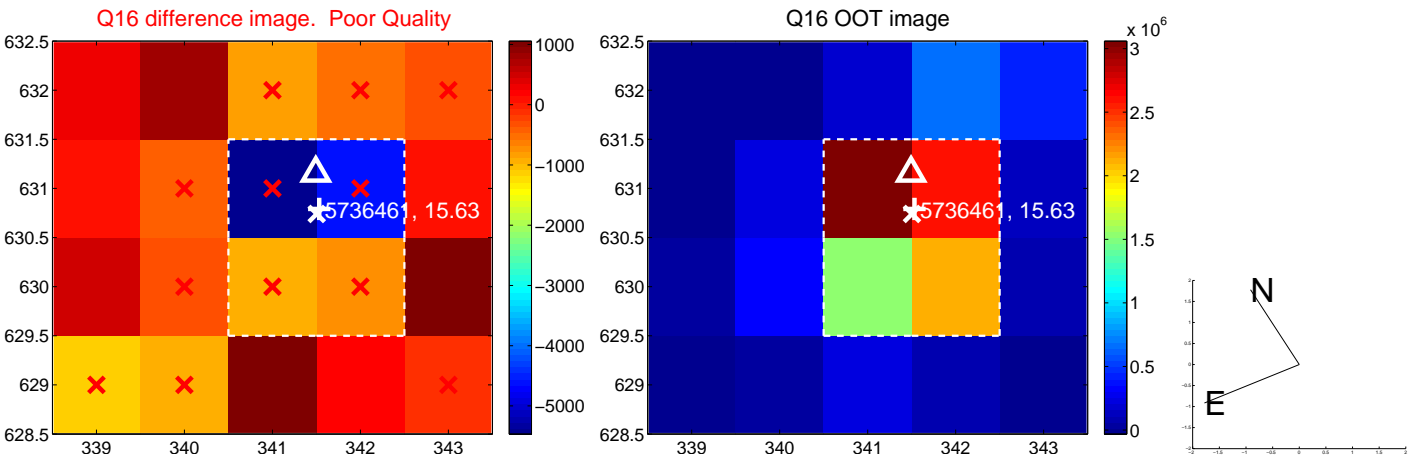
Q12 no difference image



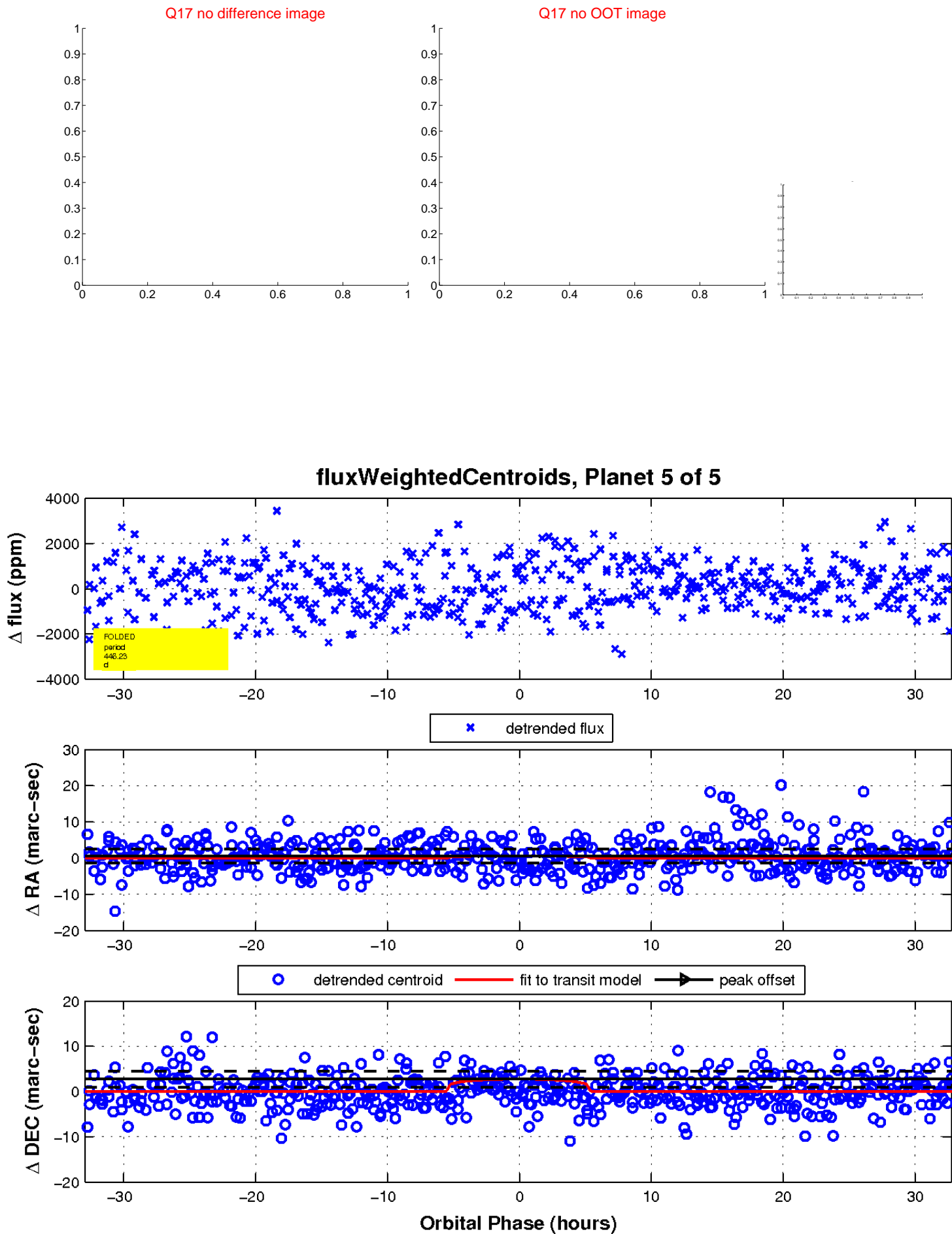
Q12 no OOT image



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



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



UKIRT Image

Declination

