

KIC 005966921

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})
005966921-01	OBS	No	529.195841	364.031059	926.6	3.406	15.4	3.0	0.61	3983	2.08	0.07
005966921-02	OBS	No	691.689628	146.042661	887.3	12.000	19.0	-1.0	0.61	3983	1.76	0.05
005966921-03	OBS	No	399.028195	433.319599	3156.3	3.000	24.0	-1.0	0.61	3983	3.34	0.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005966921-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
005966921-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005966921-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

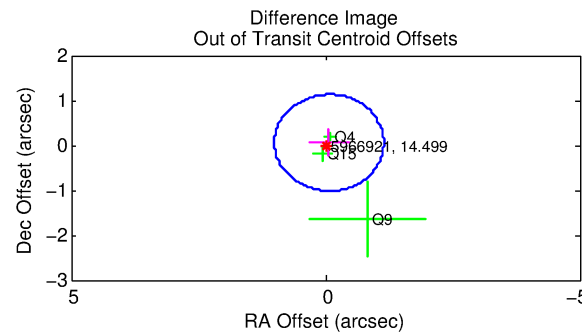
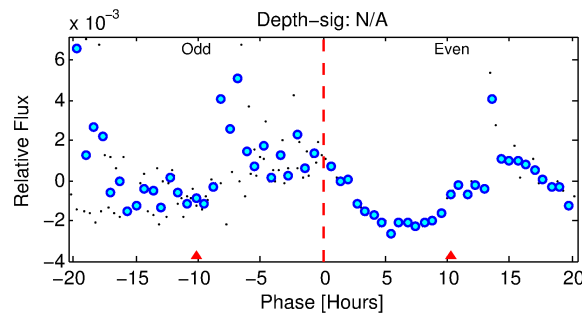
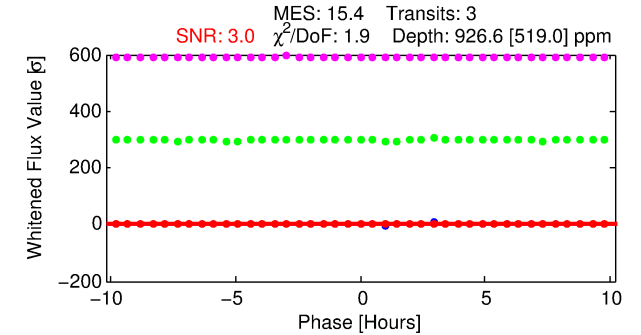
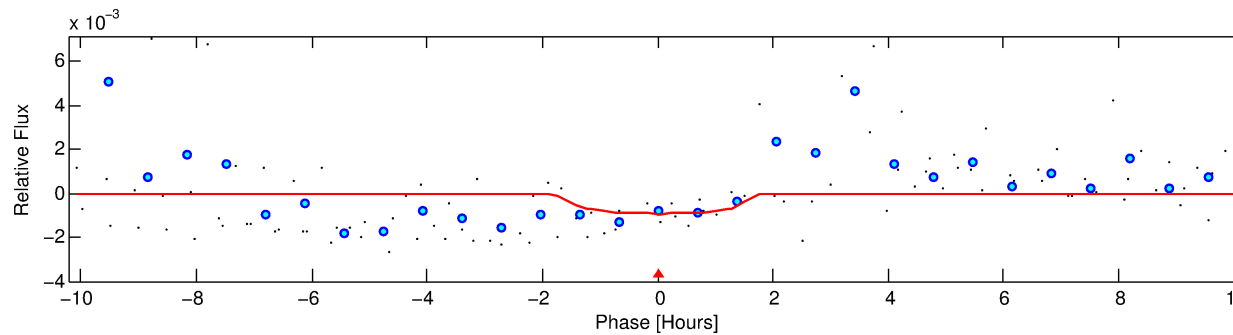
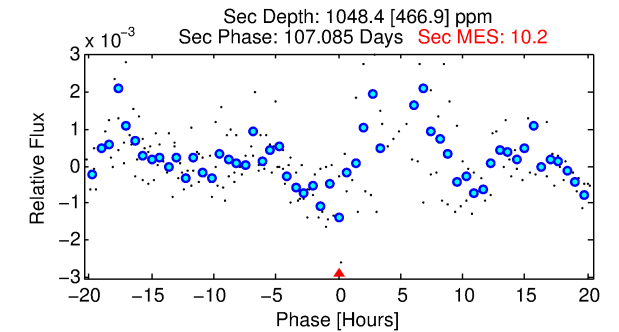
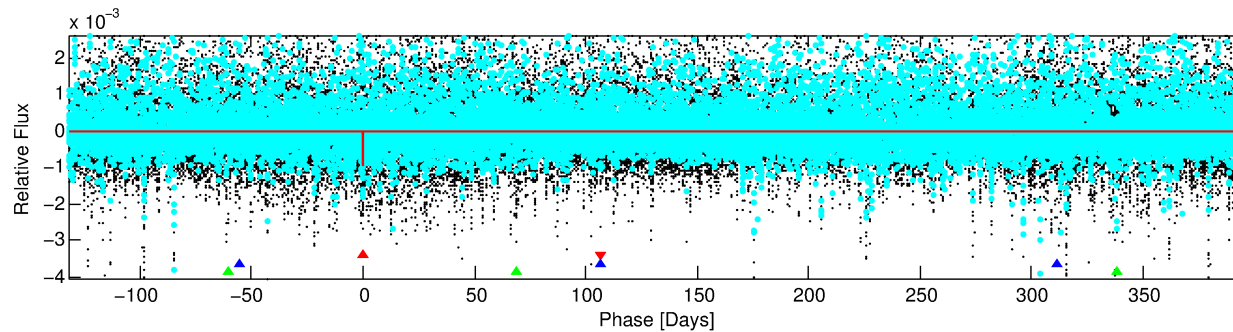
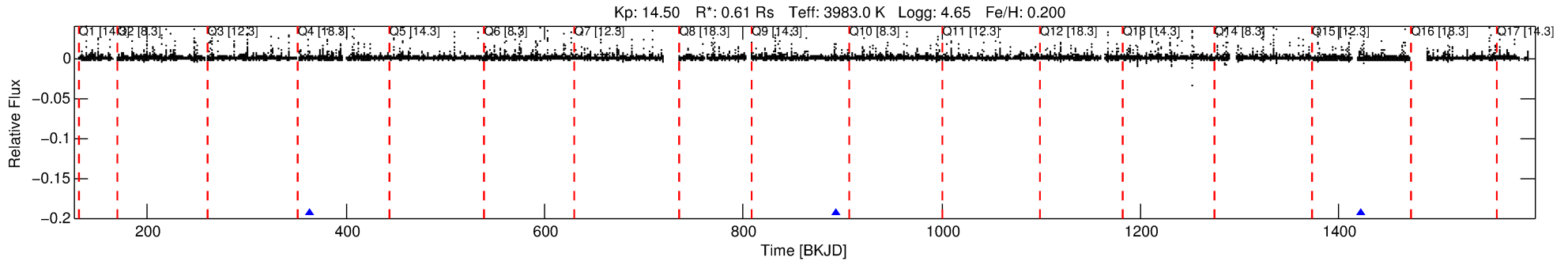
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005966921-01

No Significant Match Found

DV One-Page Summary

KIC: 5966921 Candidate: 1 of 3 Period: 529.196 d



DV Fit Results:

Period = 529.19584 [0.01897] d
Epoch = 364.0311 [0.0226] BKJD
Rp/R* = 0.0310 [0.0863]
a/R* = 797.62 [7599.61]
b = 0.78 [4.87]
Seff = 0.07 [0.01]
Teq = 132 [6] K
Rp = 2.08 [5.79] Re
a = 1.0890 [0.0909] AU
Ag = 158278.04 [884432.73] [0.18 σ]
Teffp = 4072 [5689] K [0.69 σ]

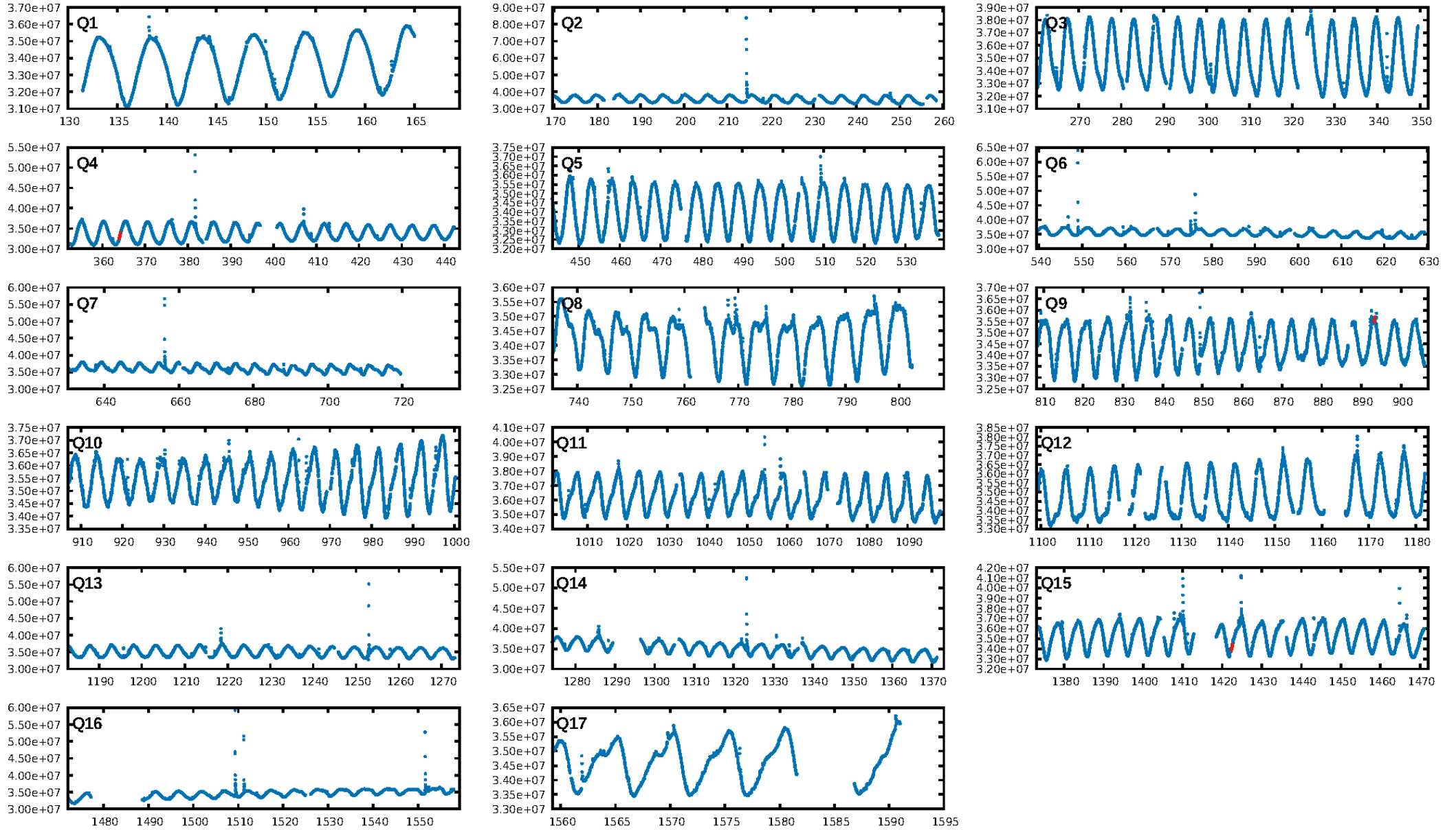
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [688.24 σ]
LongPeriod-sig: 100.0% [312.64 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 14.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.125
Centroid-sig: 46.3%
Centroid-so: 2.962 arcsec [1.10 σ]
OotOffset-rm: 0.088 arcsec [0.25 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 0.227 arcsec [0.61 σ]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

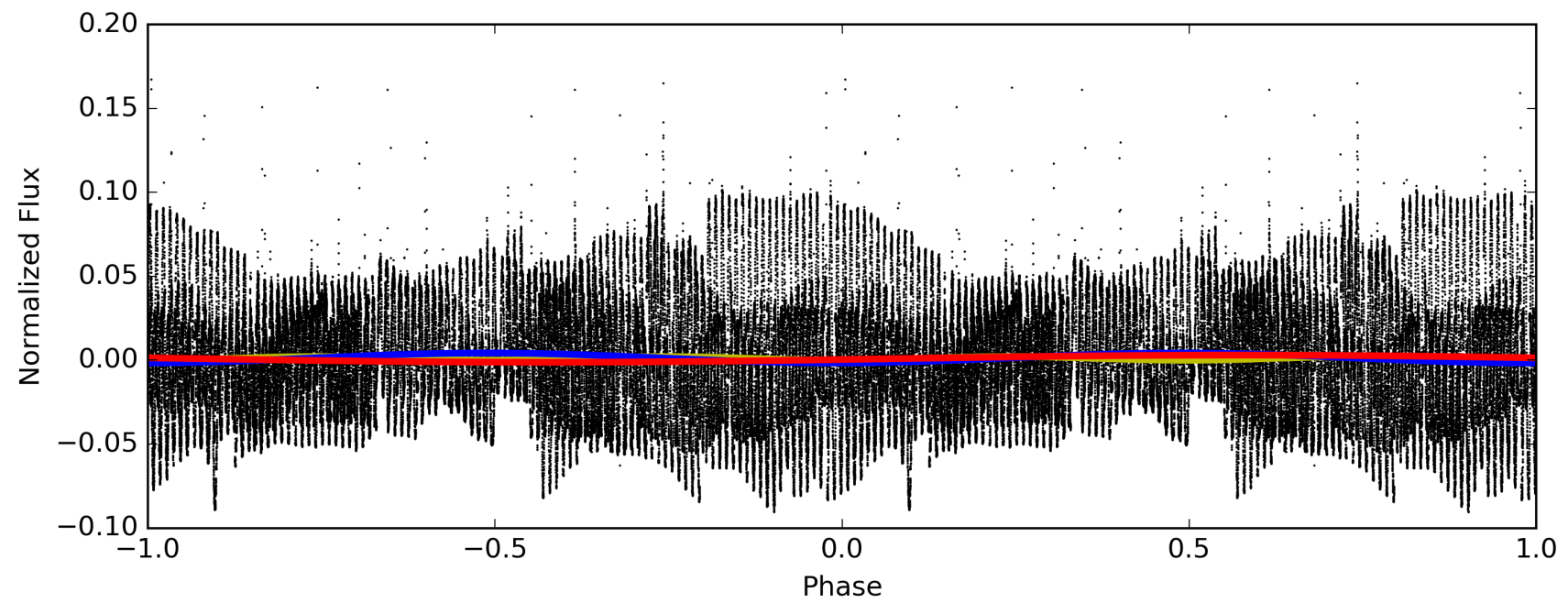
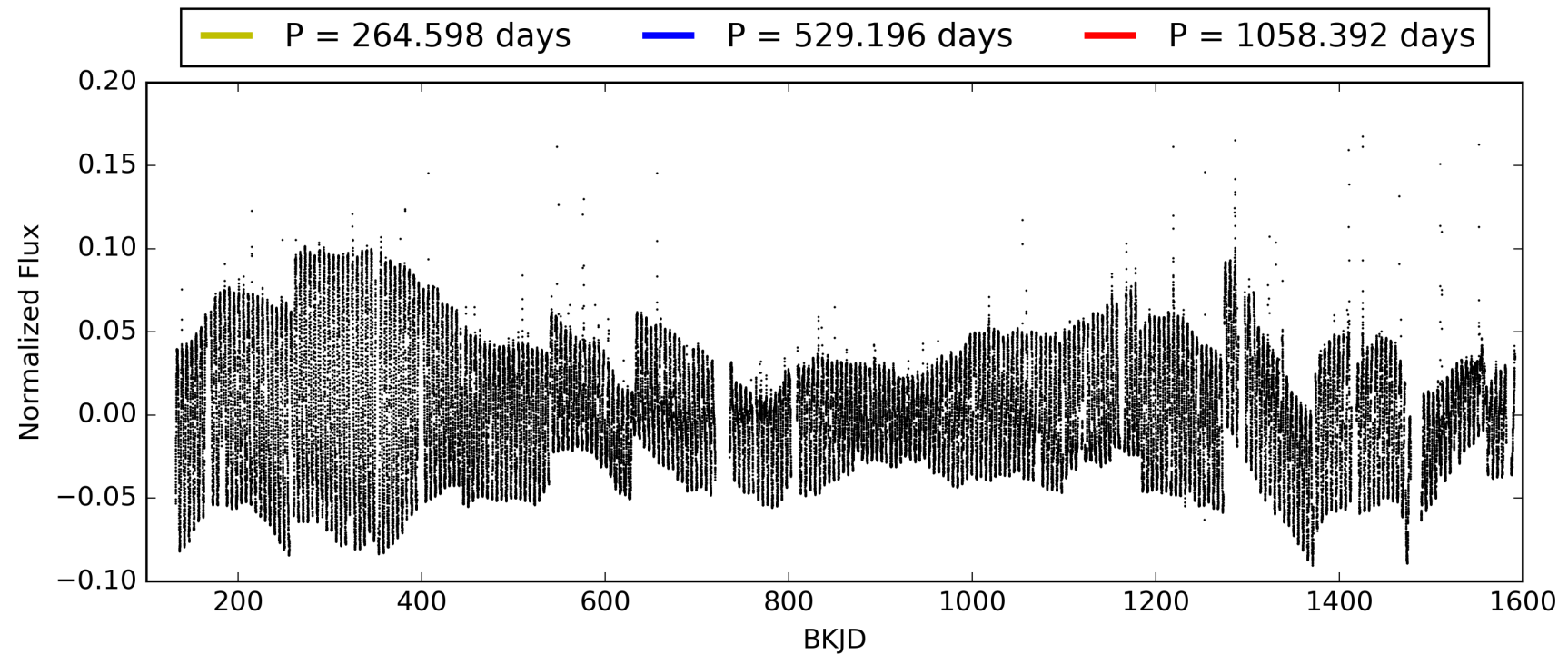
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:04:15 Z

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

TCE 005966921-01, PDC Light Curves

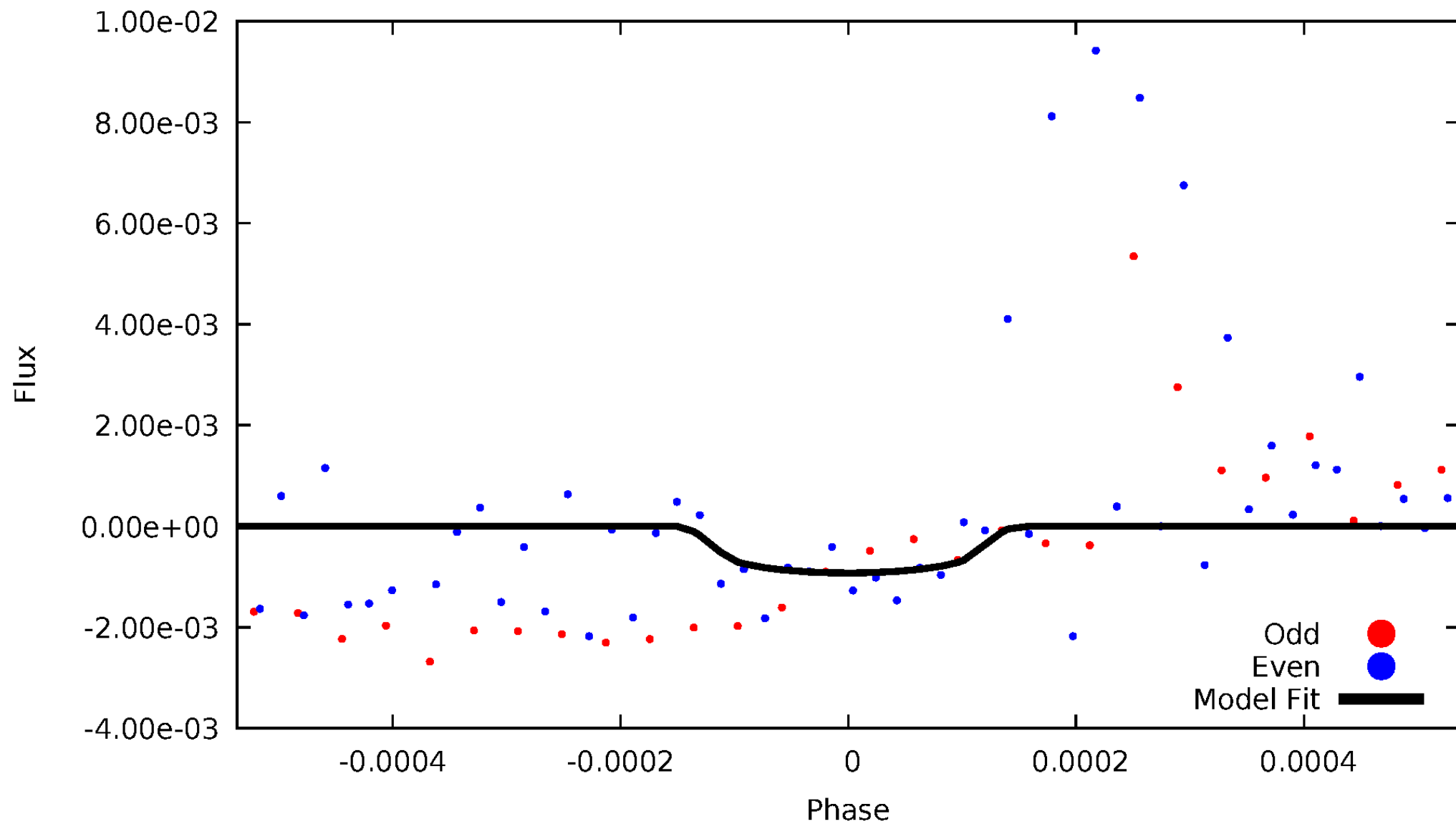


TCE 005966921-01



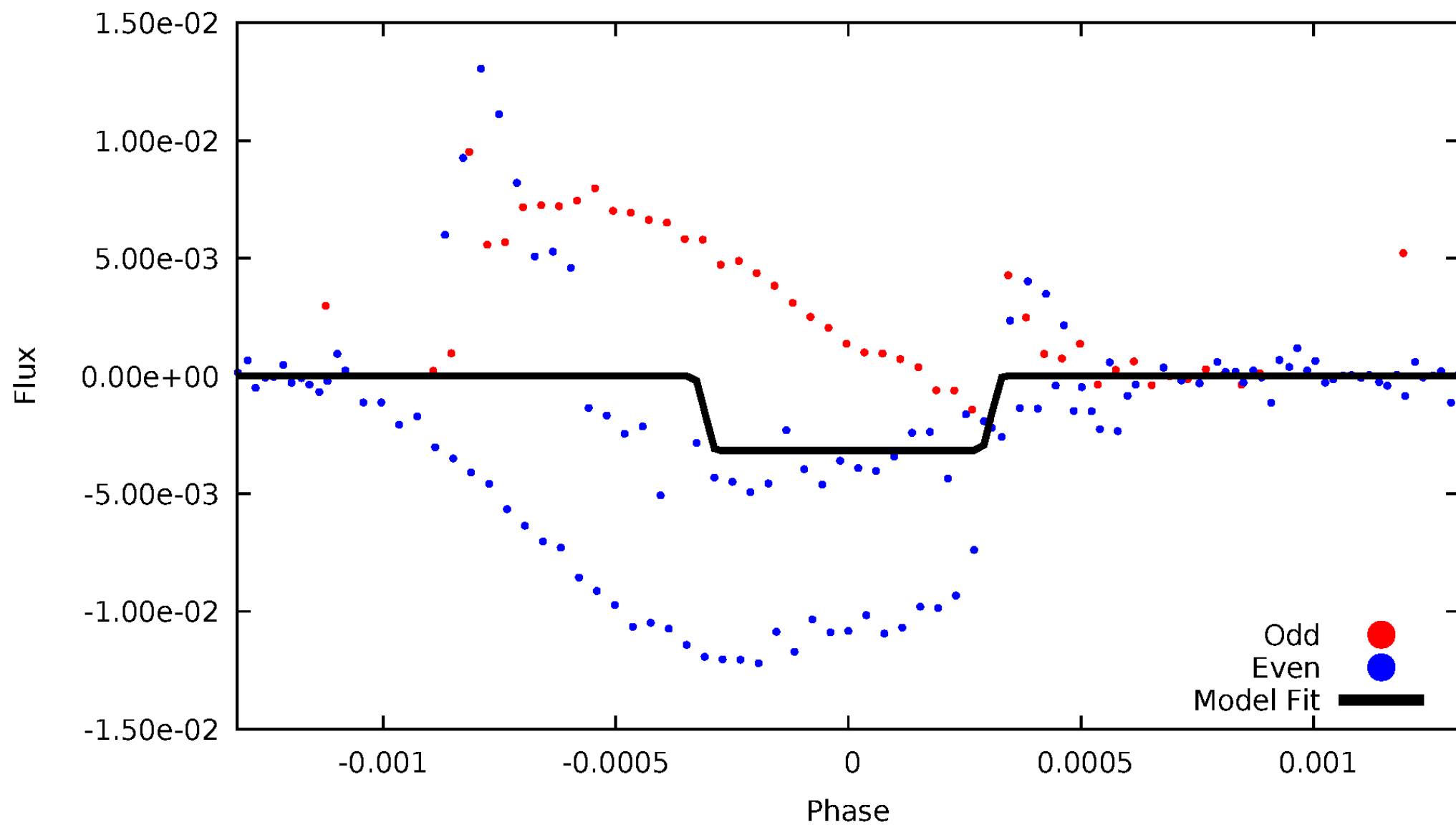
DV Odd/Even

TCE 005966921-01



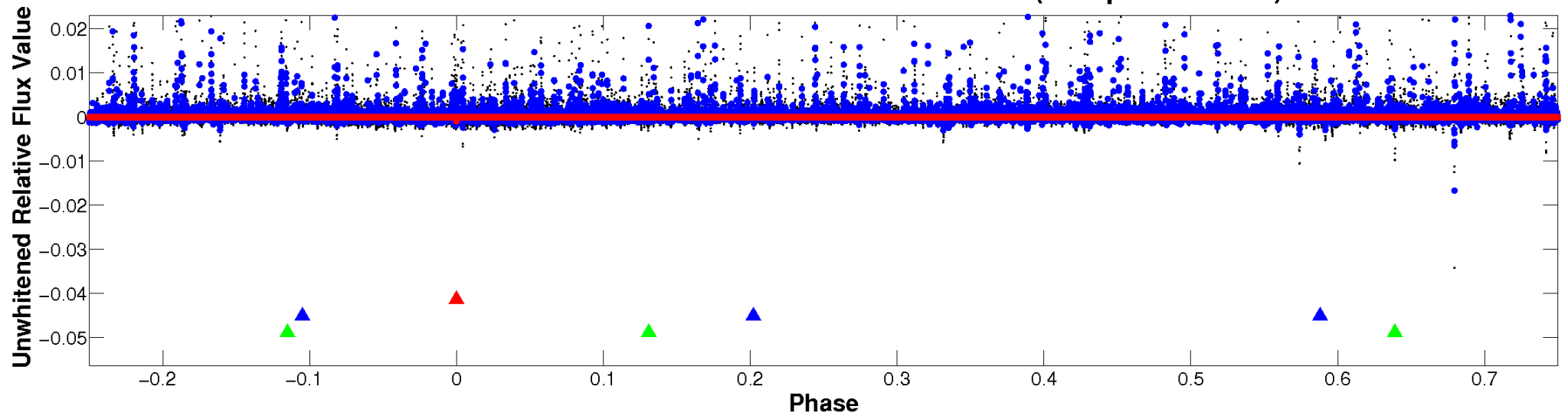
ALT Odd/Even

TCE 005966921-01

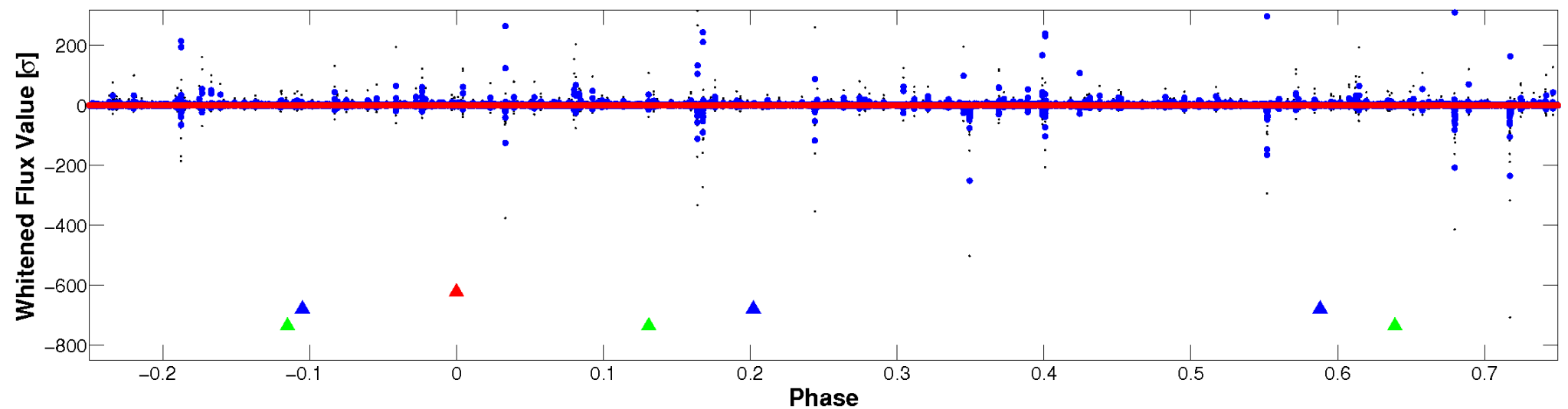


Non-Whitened Vs. Whitened Light Curve

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

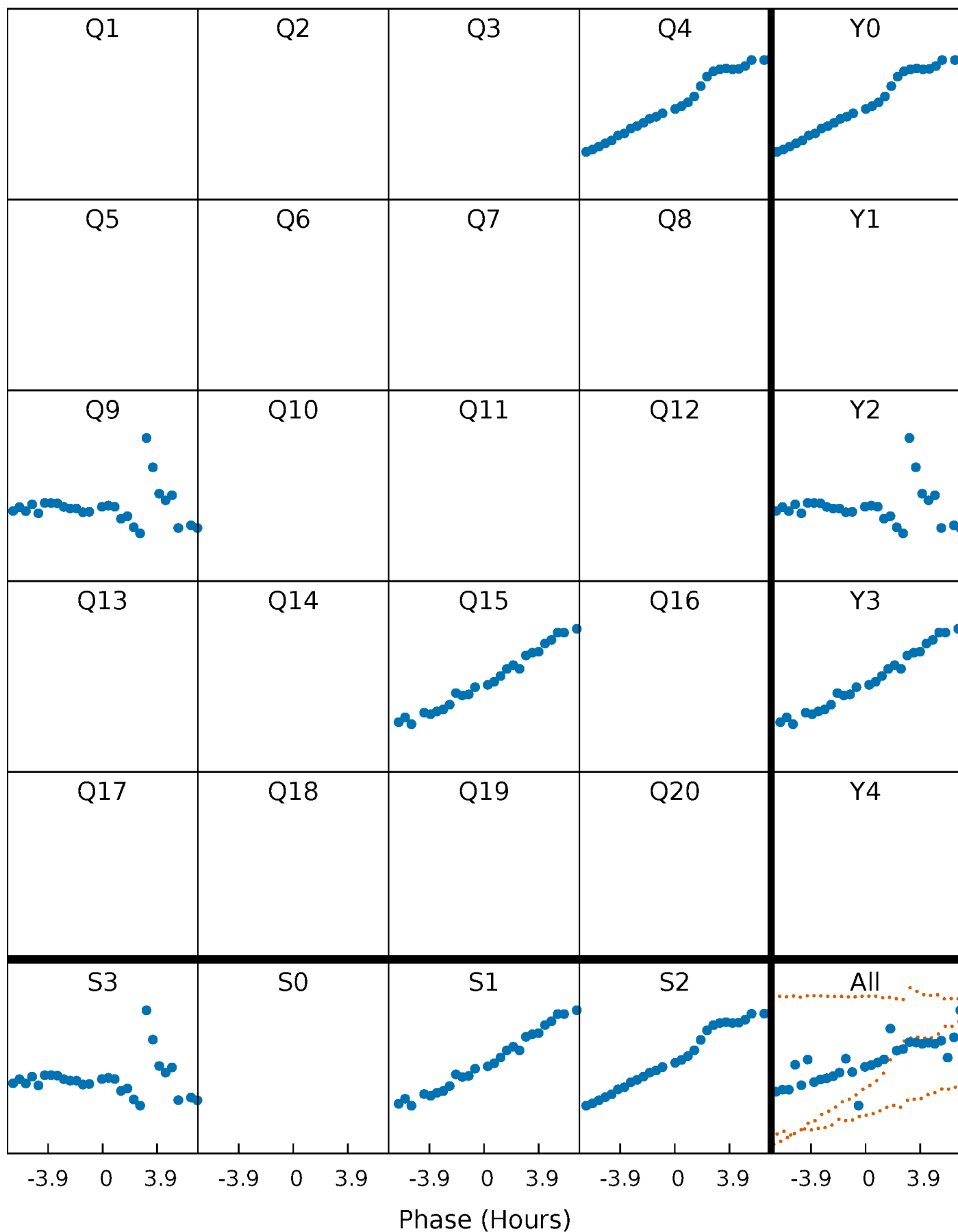


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



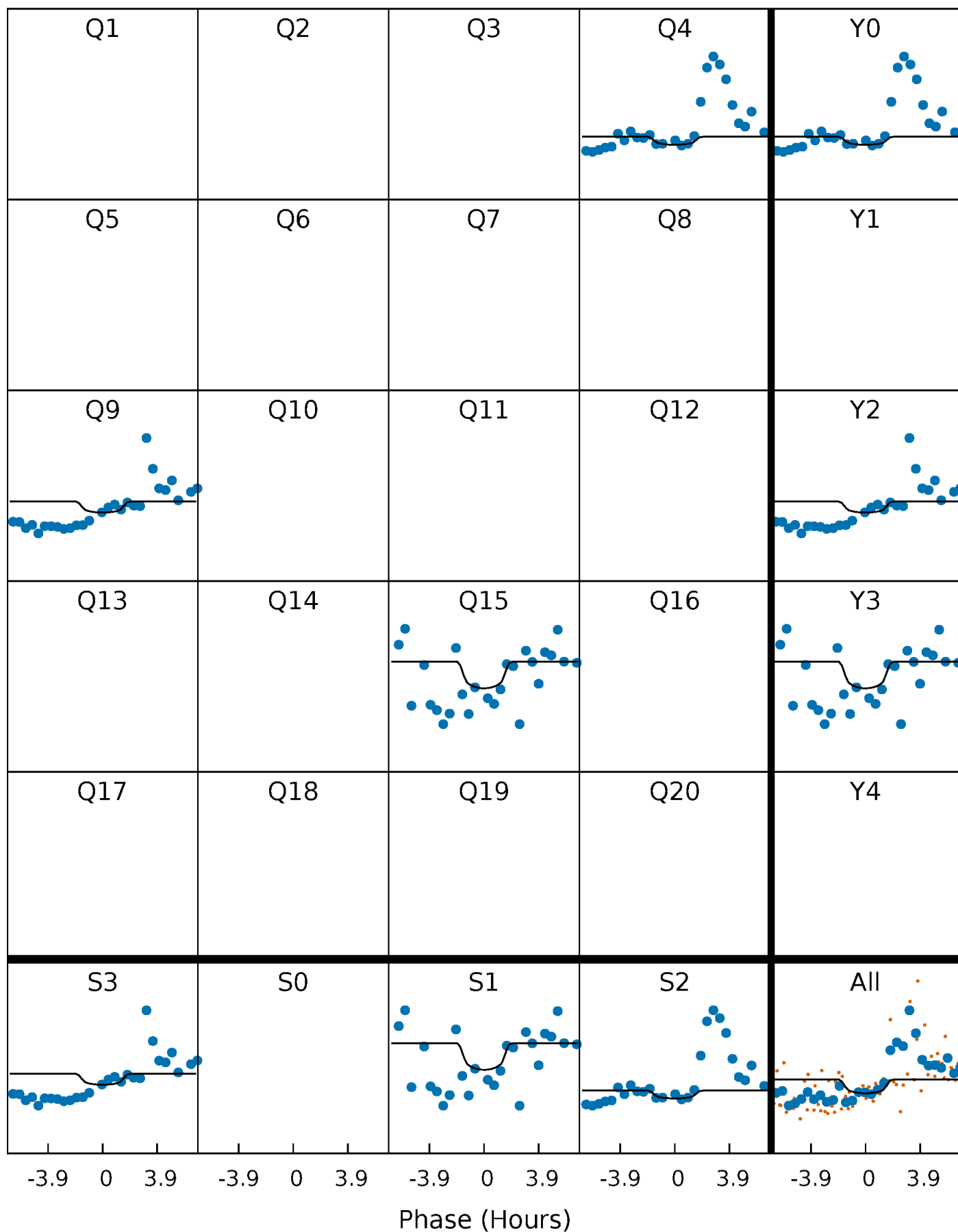
PDC Quarter-Phased Transit Curves

TCE 005966921-01 P=529.195841 Days $T_0=364.031059$ (BKJD)



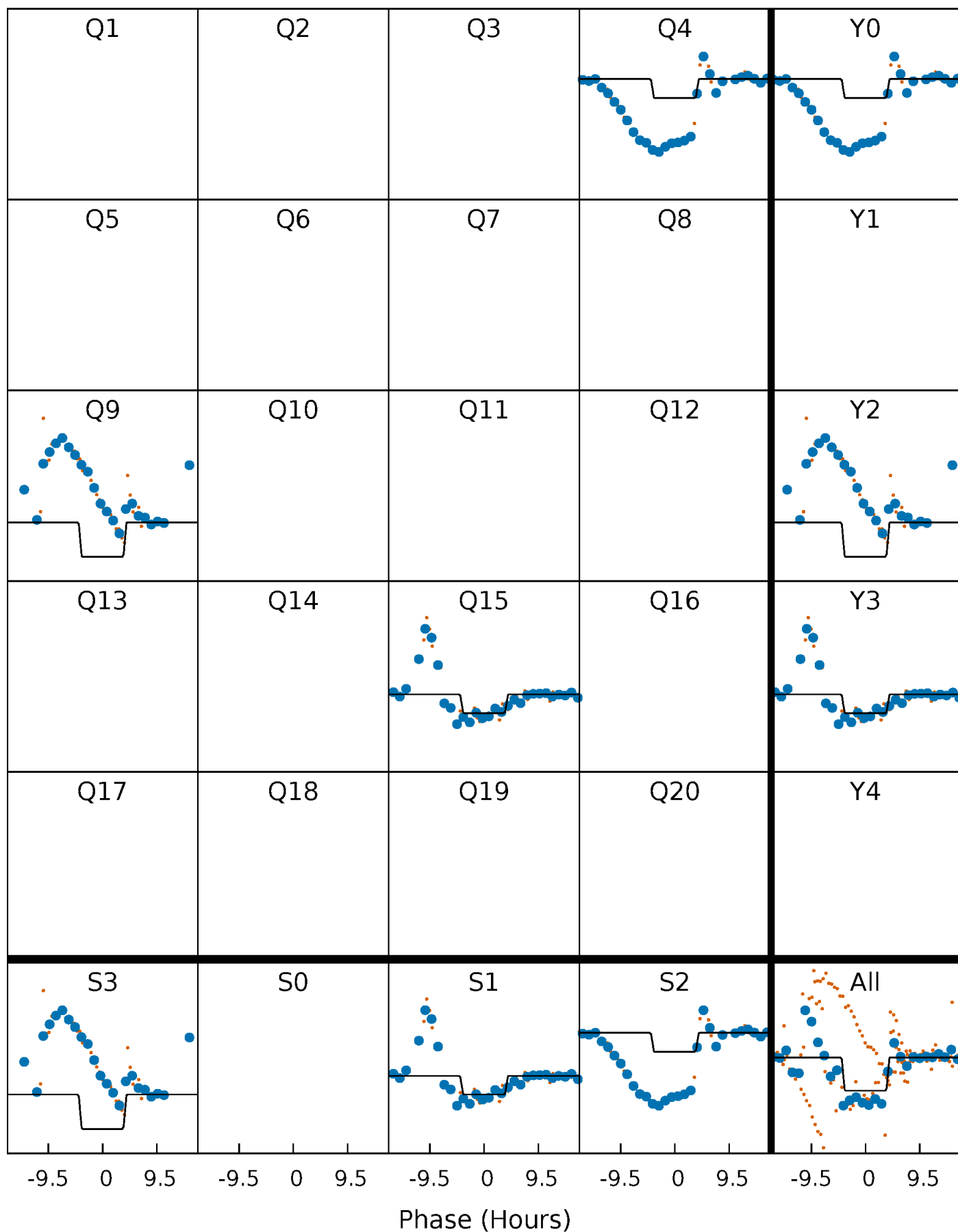
DV Quarter-Phased Transit Curves

TCE 005966921-01 P=529.195841 Days $T_0=364.031059$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

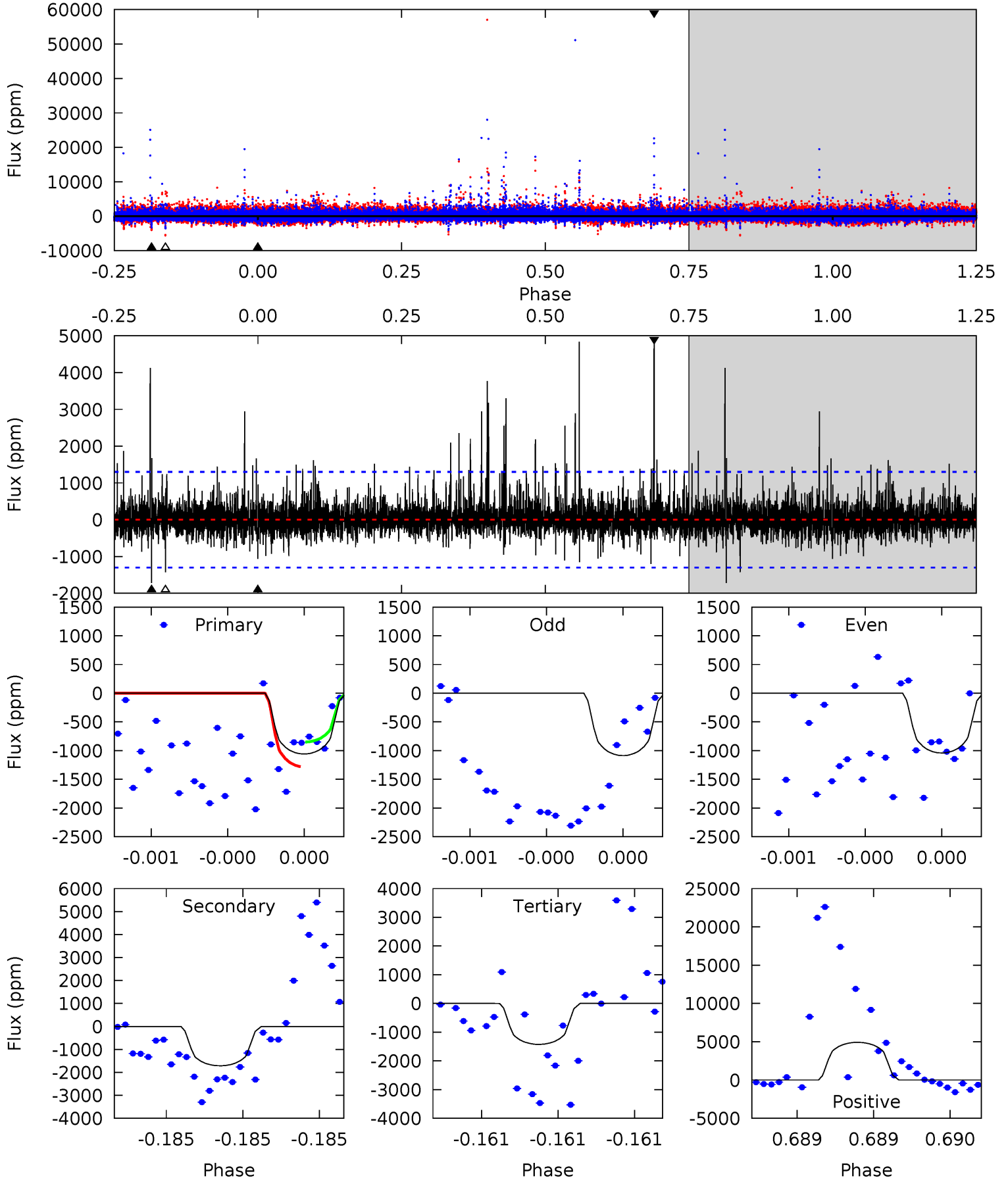
TCE 005966921-01 P=529.236015 Days $T_0=363.941679$ (BKJD)



DV Model-Shift Uniqueness Test

005966921-01, P = 529.195841 Days, E = 364.031059 Days

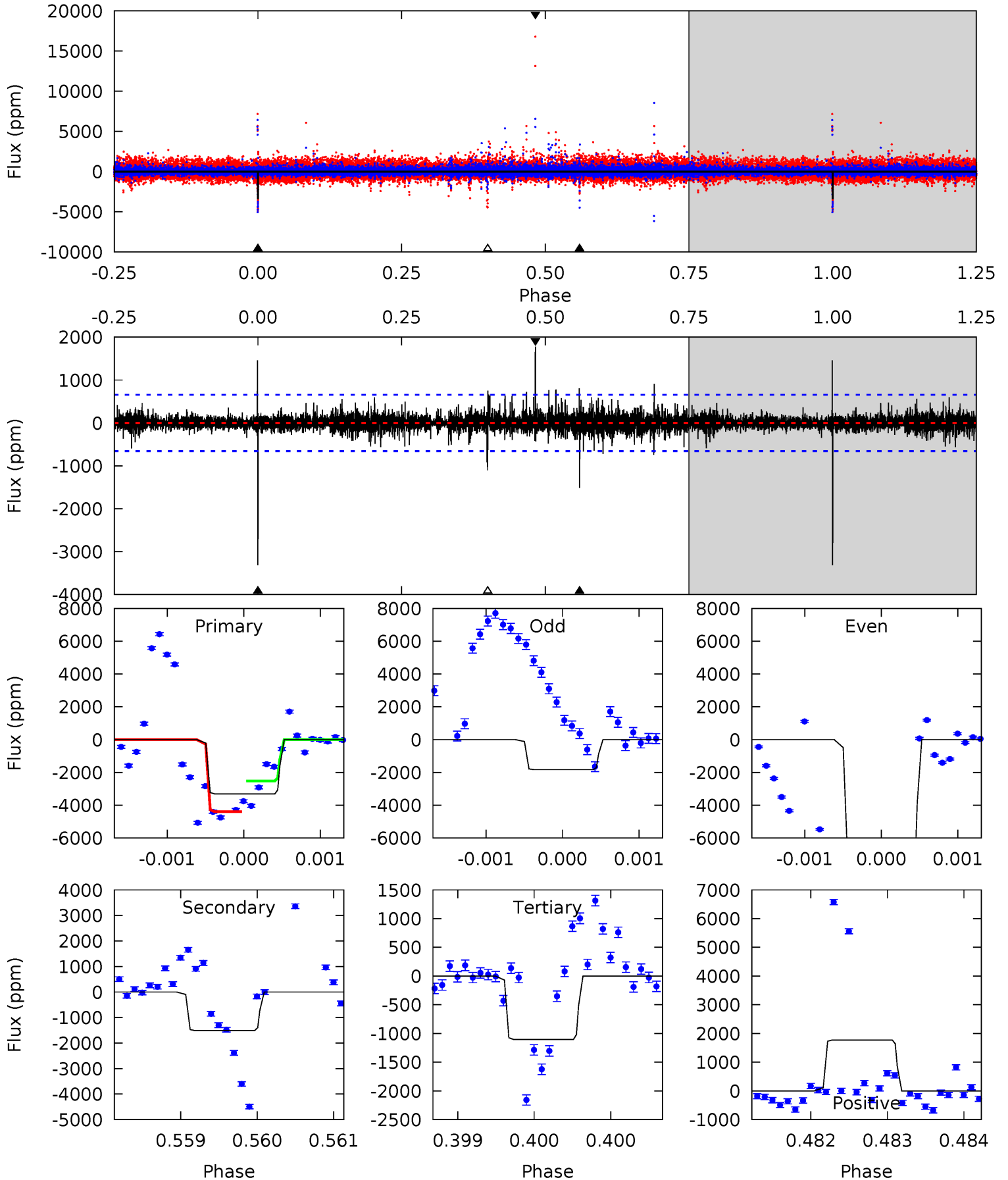
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.61	7.46	6.21	21.4	5.66	3.62	1.53	-1.60	-16.8	1.25	-14.0	0.03	0.95	0.74	0.94



Alt Model-Shift Uniqueness Test

005966921-01, P = 529.236015 Days, E = 363.941679 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.9	12.7	9.28	14.9	5.53	3.41	1.08	18.6	13.0	3.43	-2.22	33.2	1.16	0.35	0



Stellar Parameters For KIC 005966921

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3983^{+140}_{-140}	$4.649^{+0.056}_{-0.020}$	$0.200^{+0.200}_{-0.300}$	$0.615^{+0.033}_{-0.066}$	$0.615^{+0.046}_{-0.062}$	$3.726^{+1.011}_{-0.341}$
	+4%/-4%	+1%/-0%	+100%/-150%	+5%/-11%	+7%/-10%	+27%/-9%
Source	KIC0	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 005966921-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1715 ± 230	$4.85^{+4.56}_{-3.27}$	183^{+7}_{-7}	3305^{+1566}_{-592}	$48475^{+400168}_{-36160}$
Alt.	-1511 ± 119	$5.64^{+4.45}_{-3.85}$	183^{+7}_{-7}	3106^{+1459}_{-463}	$31131^{+289990}_{-21295}$

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 $A_{obs} \gg 1.0$

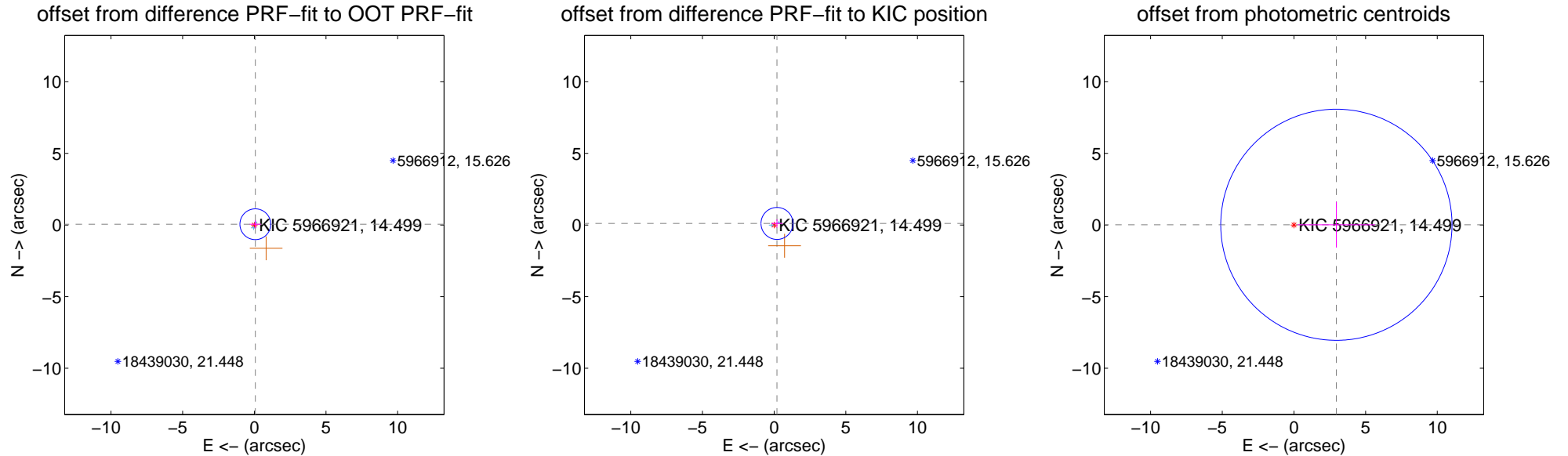
DV Centroid Data

Supplemental centroid analysis for 005966921-01. Kepler magnitude: 14.50. Transit SNR 2.97

There are 2 quarters with good PRF difference image offsets

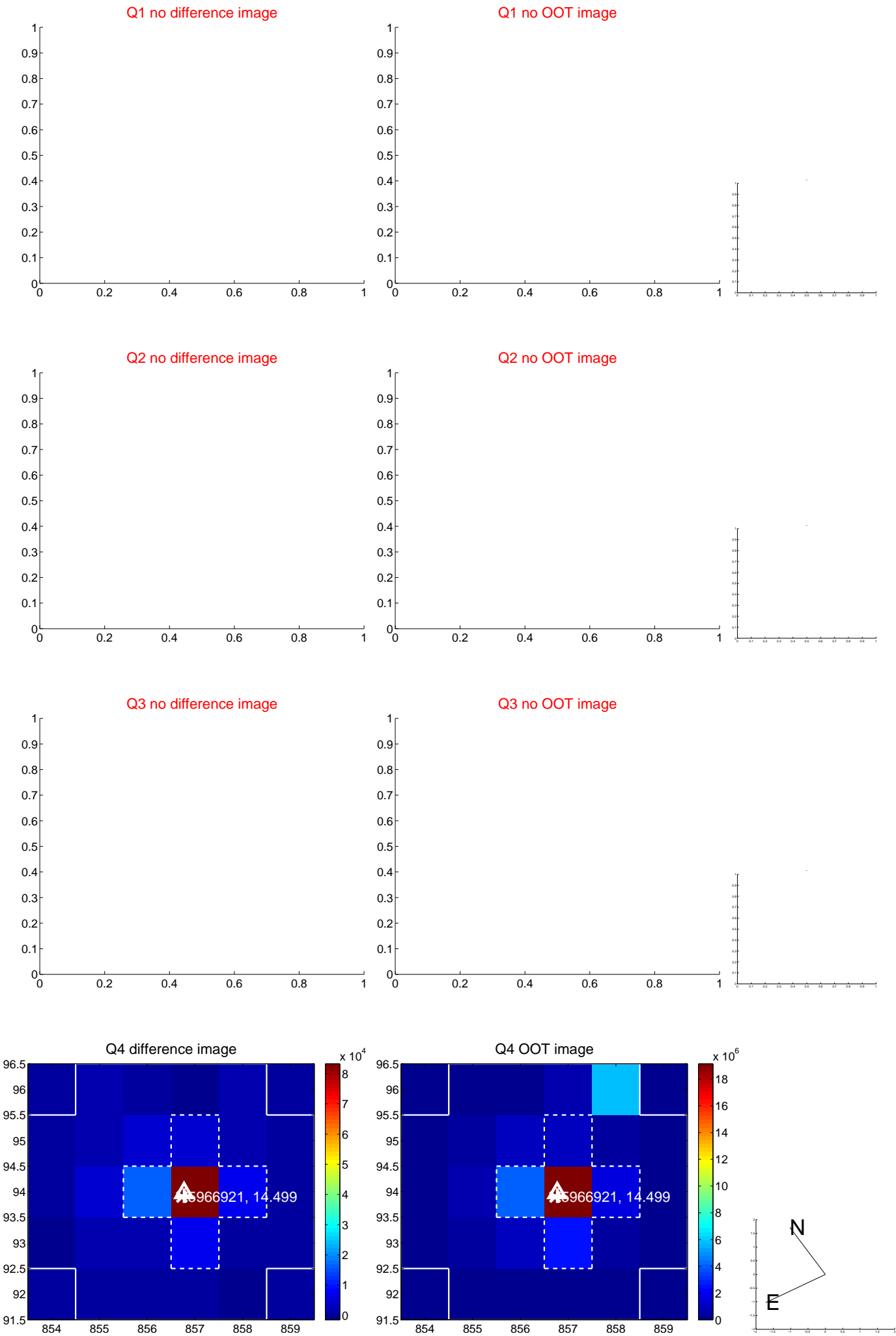
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.088 ± 0.358	0.25	-0.070 ± 0.393	0.054 ± 0.291
PRF-fit source offset from KIC position	0.227 ± 0.372	0.61	-0.199 ± 0.393	0.109 ± 0.291
photometric centroid source offset	2.96 ± 2.69	1.10	-2.96 ± 2.69	0.02 ± 1.60



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.

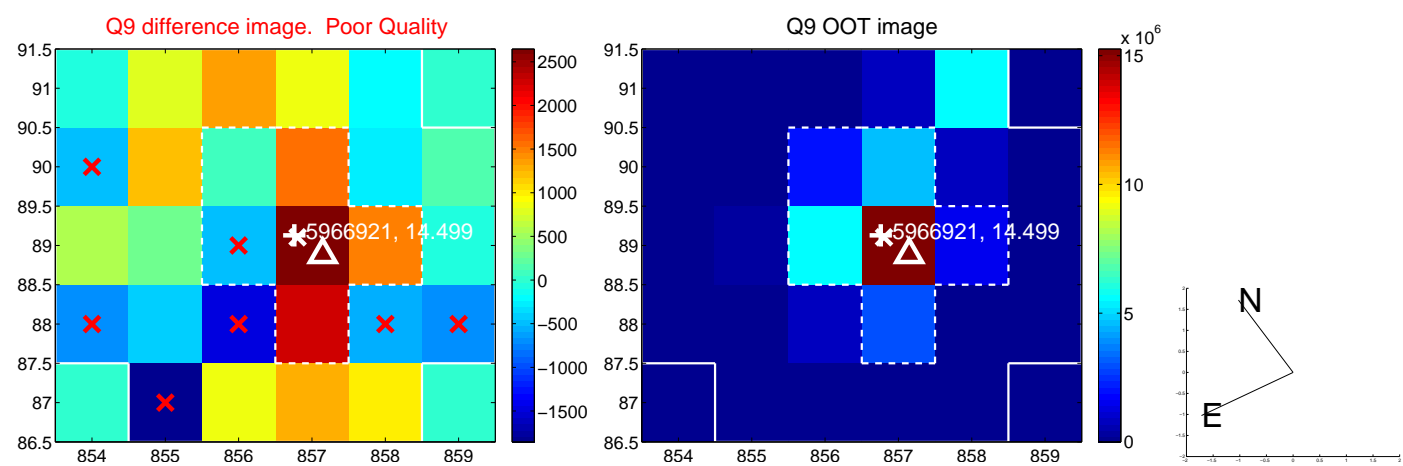
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



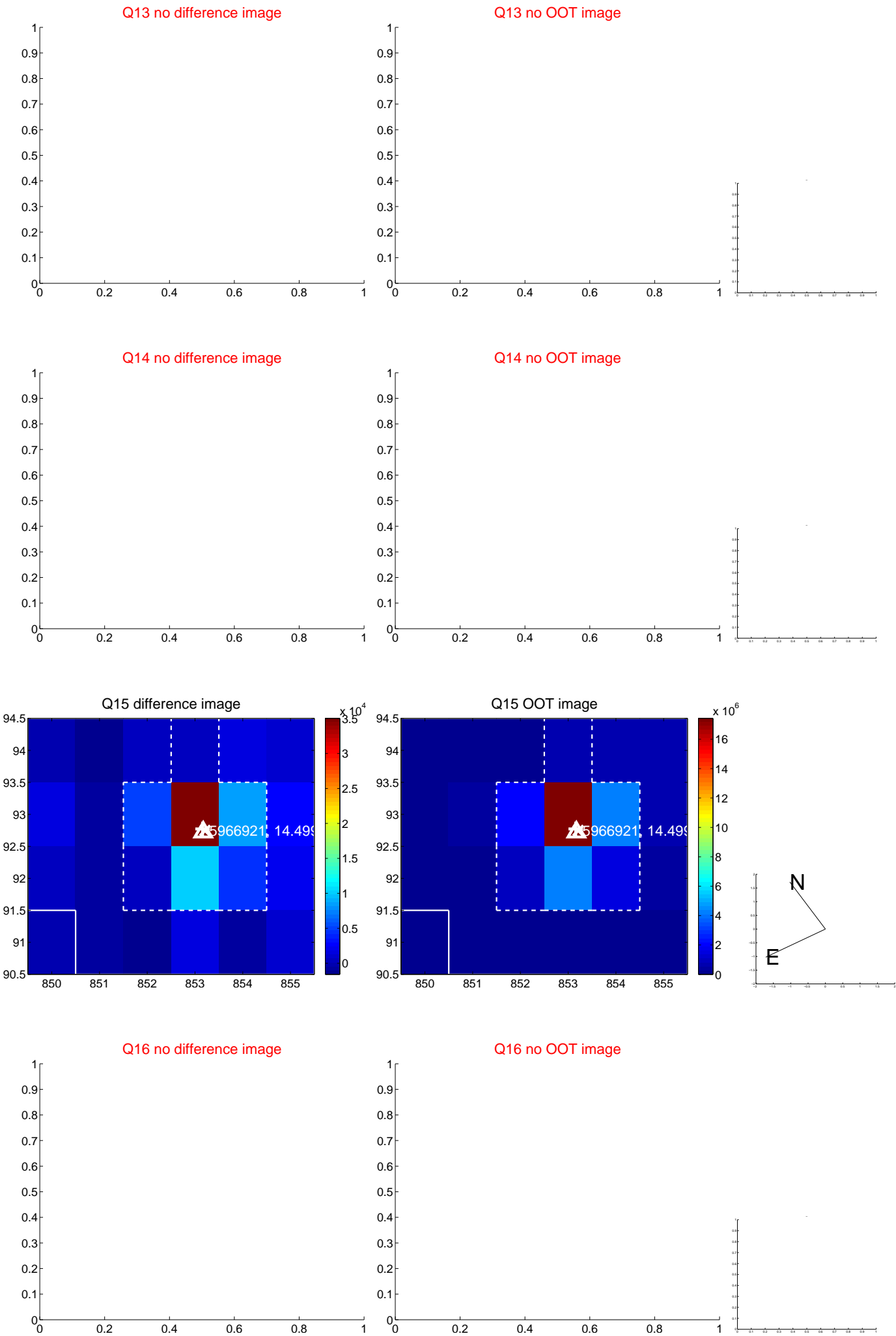
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



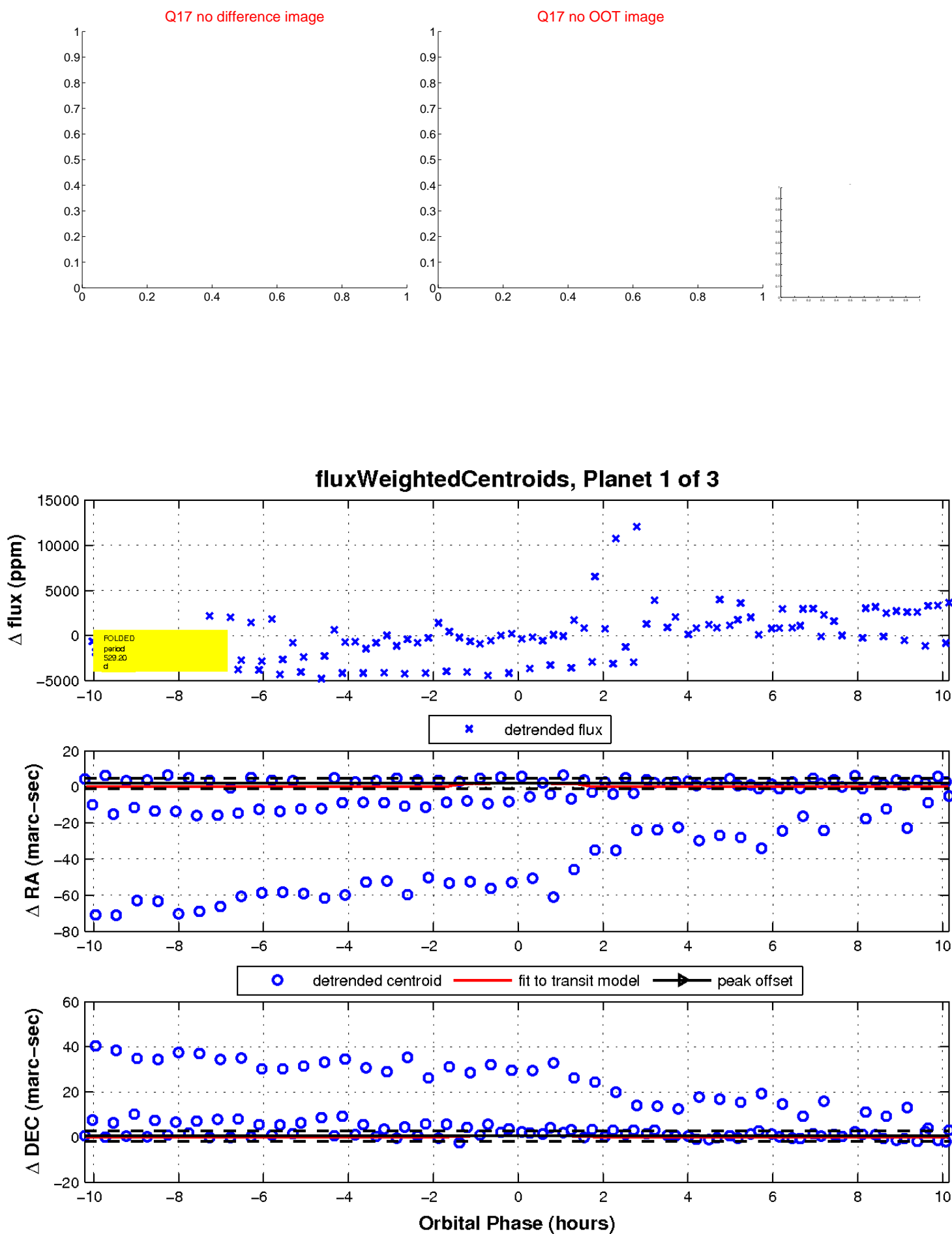
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



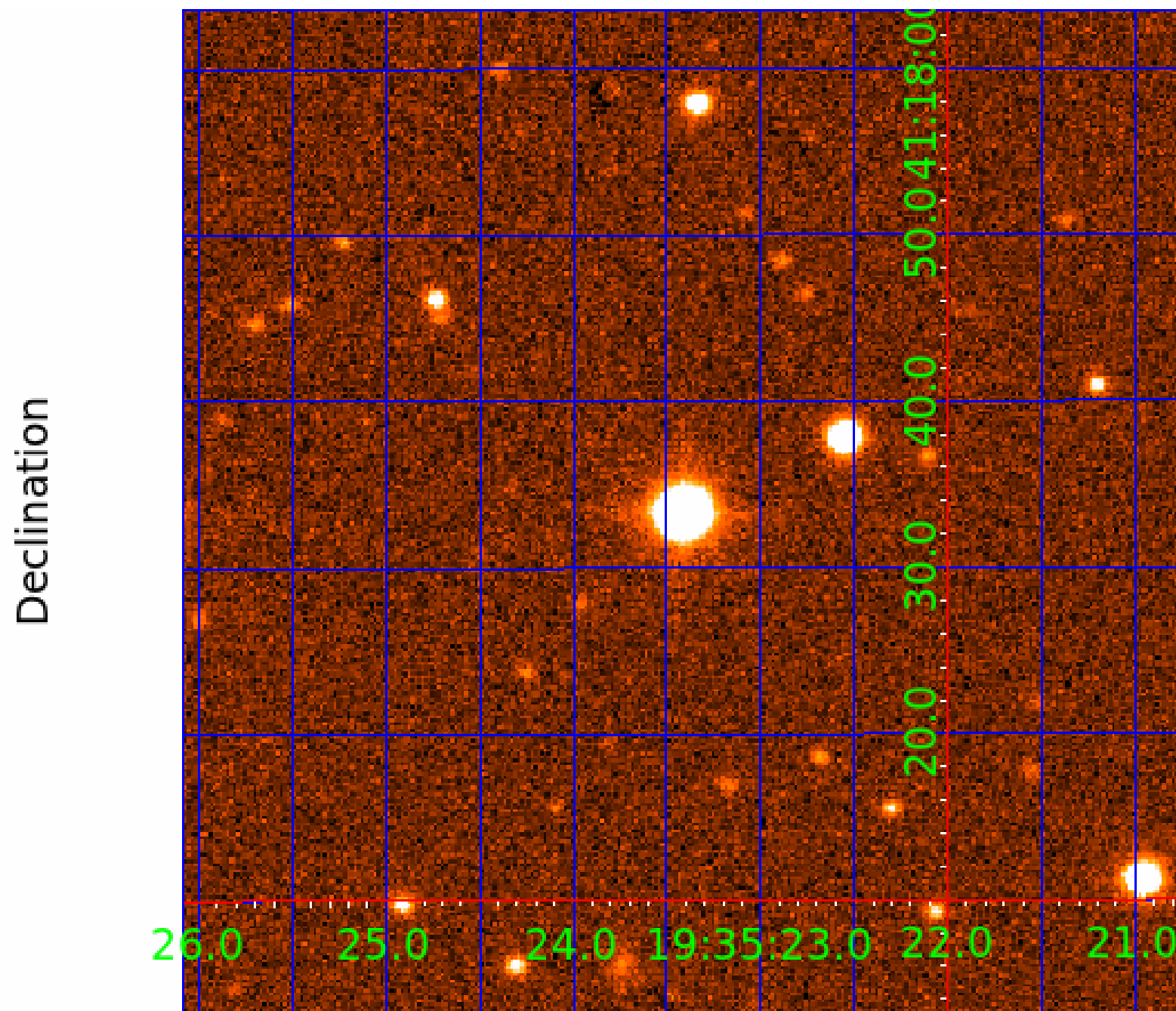
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005966921

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})
005966921-01	OBS	No	529.195841	364.031059	926.6	3.406	15.4	3.0	0.61	3983	2.08	0.07
005966921-02	OBS	No	691.689628	146.042661	887.3	12.000	19.0	-1.0	0.61	3983	1.76	0.05
005966921-03	OBS	No	399.028195	433.319599	3156.3	3.000	24.0	-1.0	0.61	3983	3.34	0.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005966921-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
005966921-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005966921-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

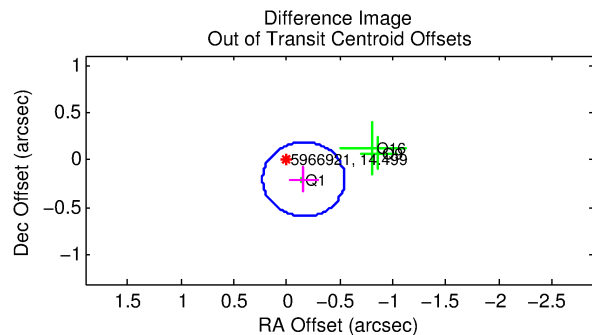
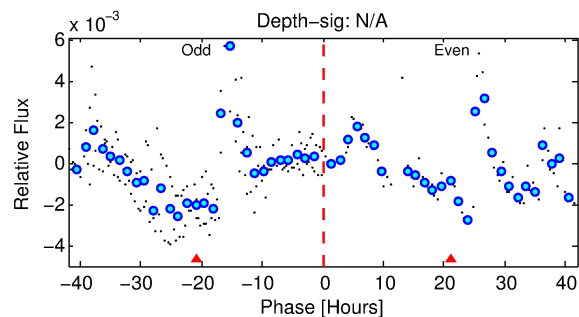
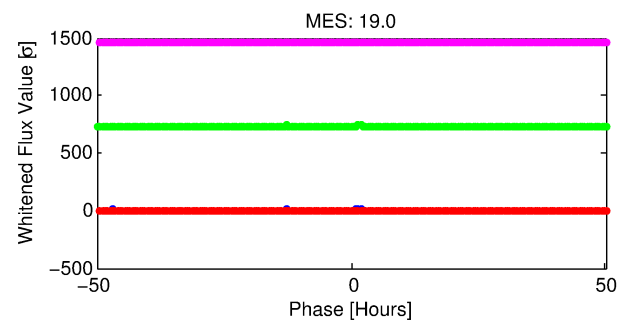
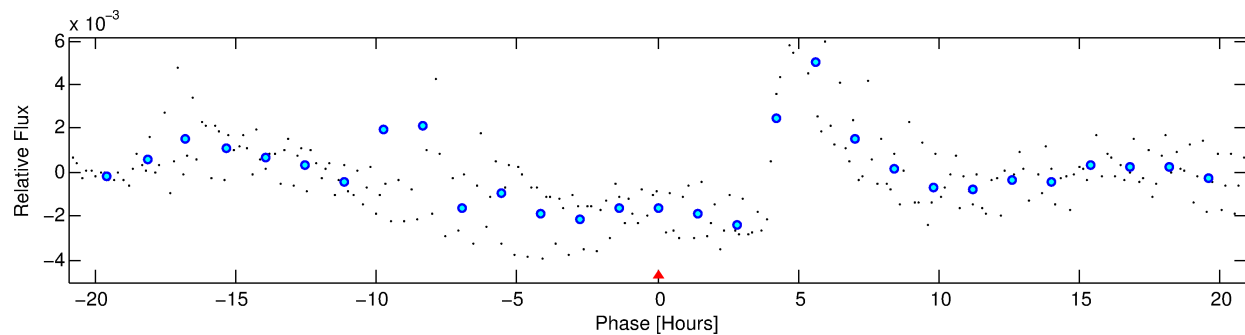
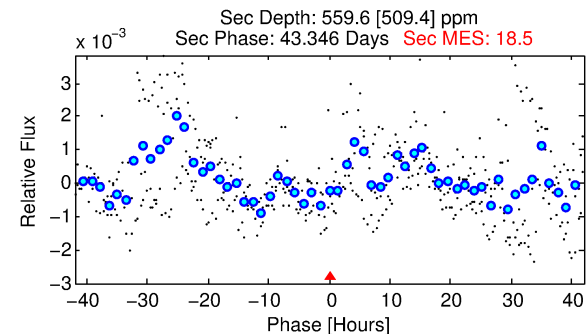
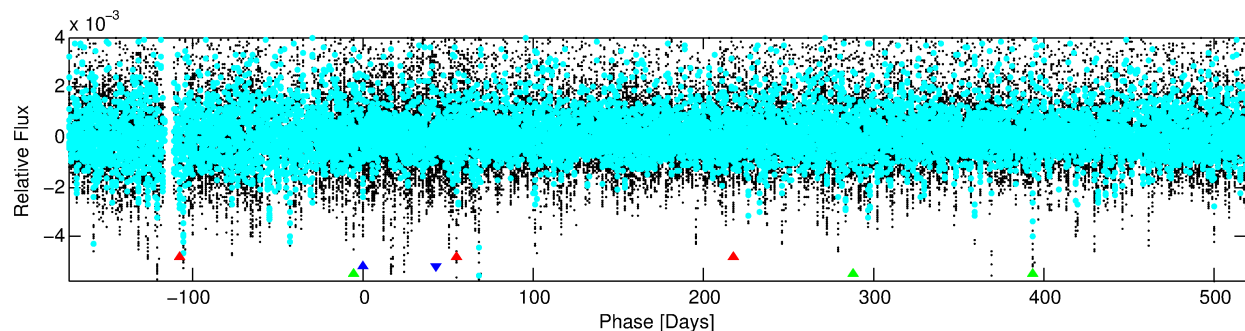
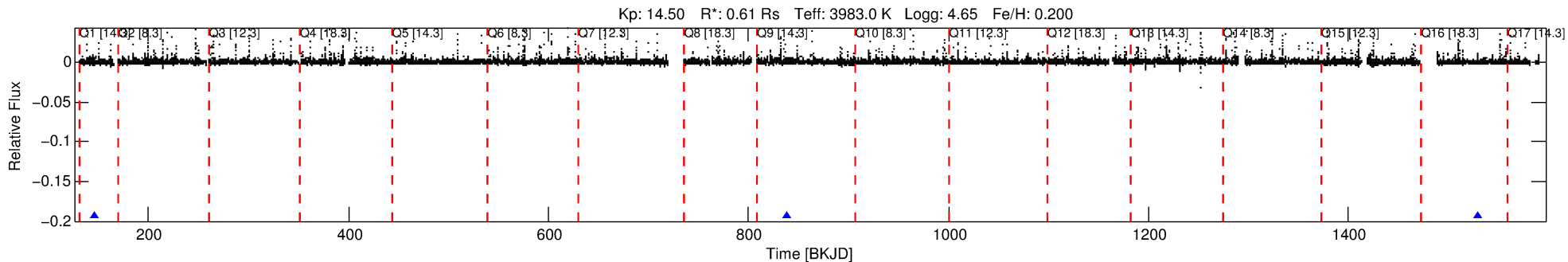
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005966921-02

No Significant Match Found

DV One-Page Summary

KIC: 5966921 Candidate: 2 of 3 Period: 691.690 d



TPS TCE Results:

Period = 691.68963 d
Epoch = 146.0427 BKJD

DV fit results are unavailable

DV Diagnostic Results:

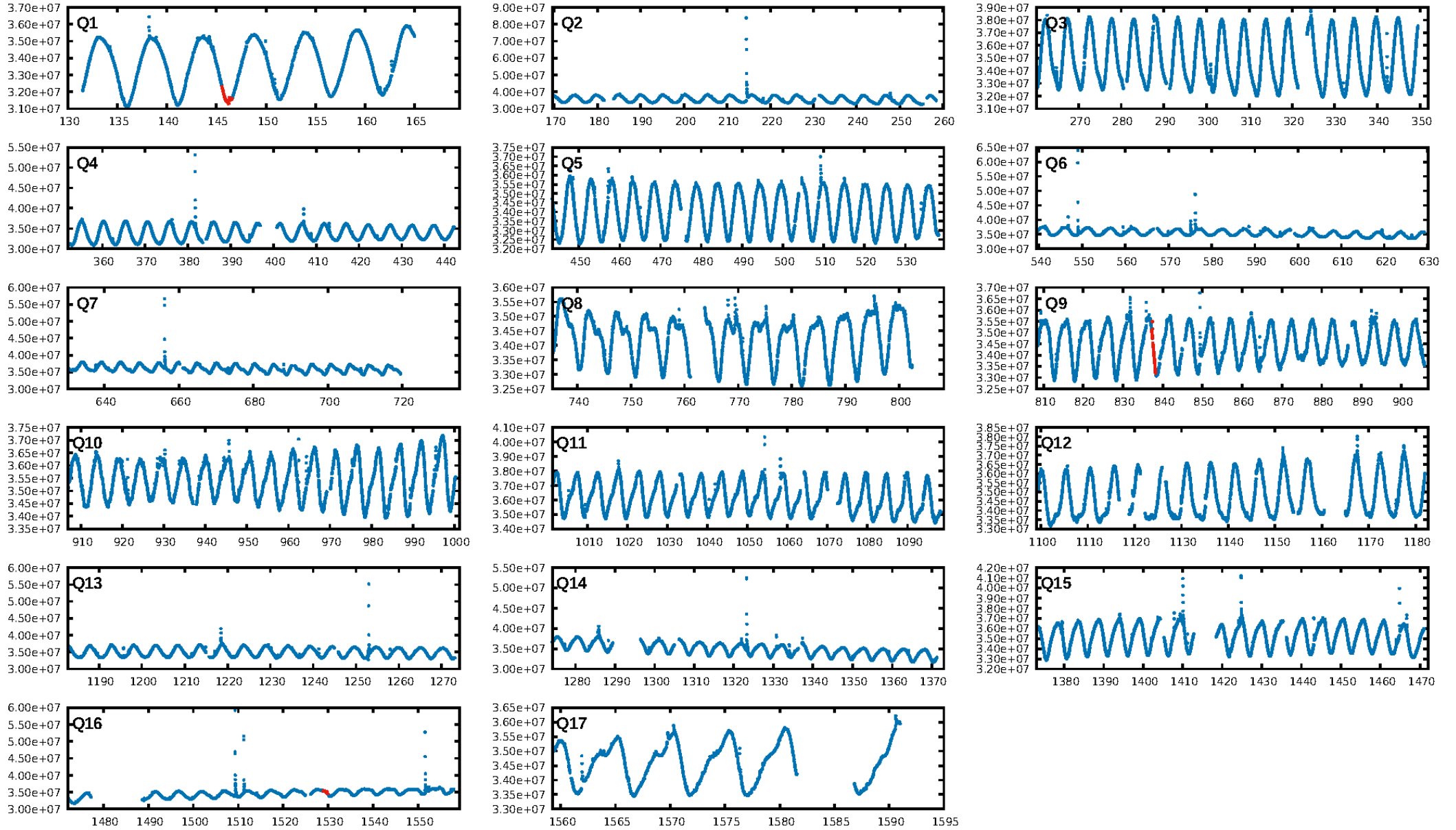
ShortPeriod-sig: 100.0% [312.64σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.8133

Centroid-sig: 25.9%
Centroid-so: 2.782 arcsec [0.97σ]
OotOffset-rm: 0.257 arcsec [1.98σ]
KicOffset-rm: 0.078 arcsec [0.56σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

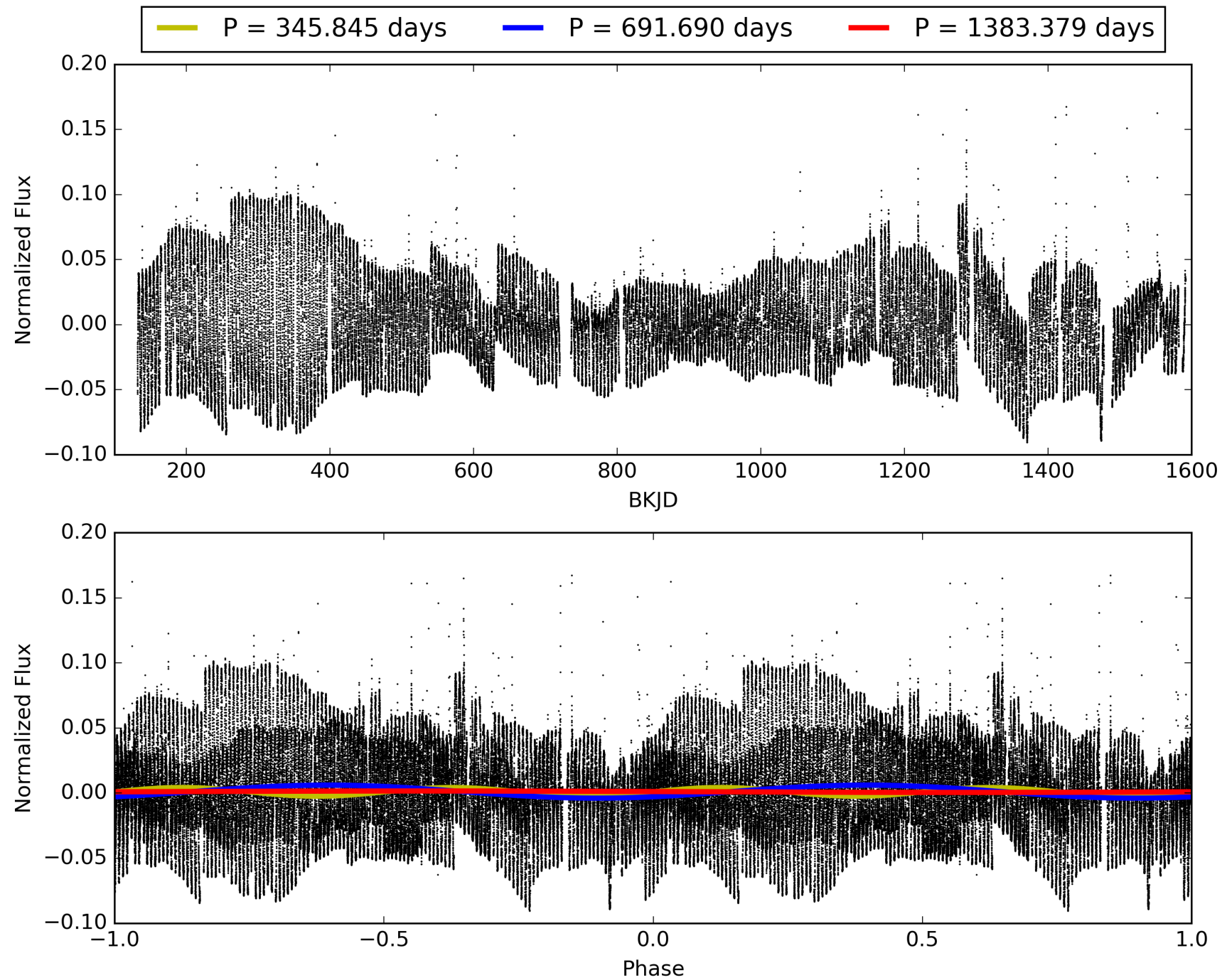
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:04:30 Z

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

TCE 005966921-02, PDC Light Curves

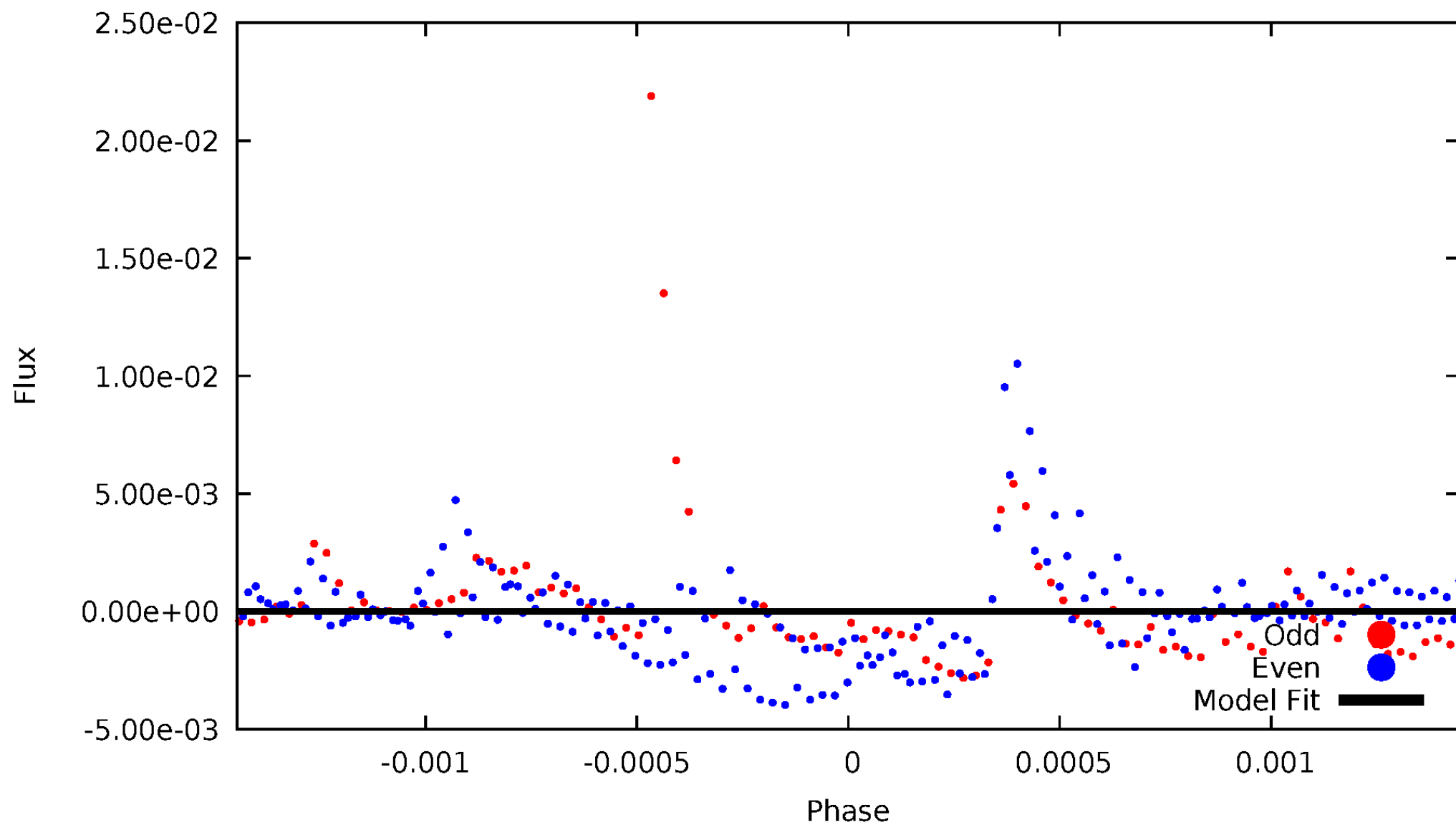


TCE 005966921-02



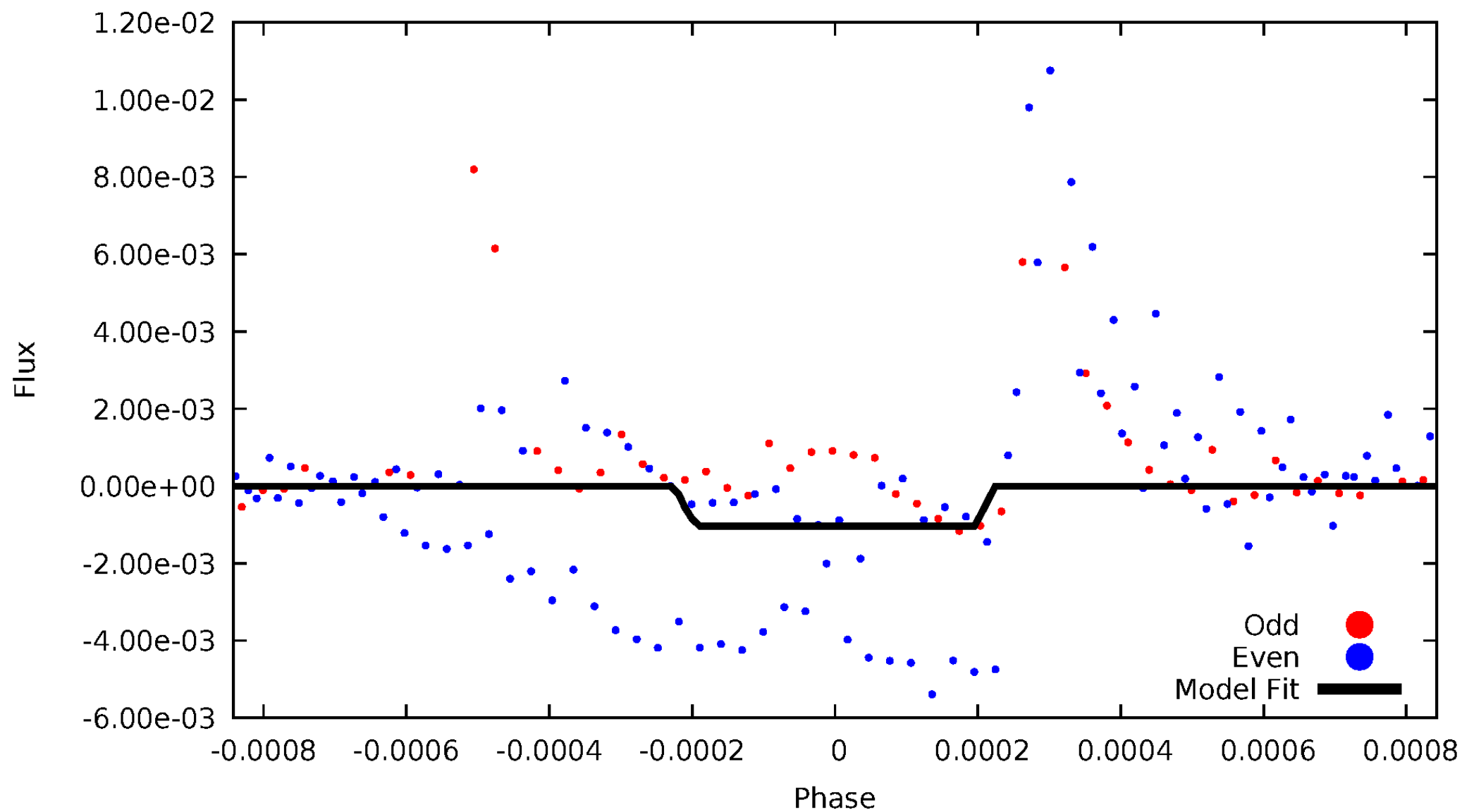
DV Odd/Even

TCE 005966921-02



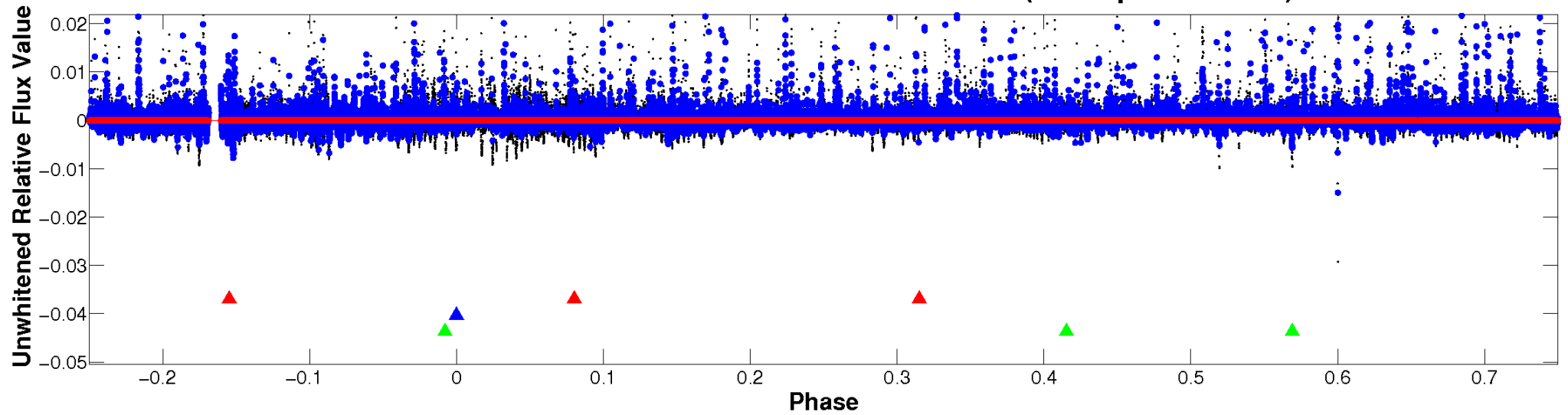
ALT Odd/Even

TCE 005966921-02



Non-Whitened Vs. Whitened Light Curve

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

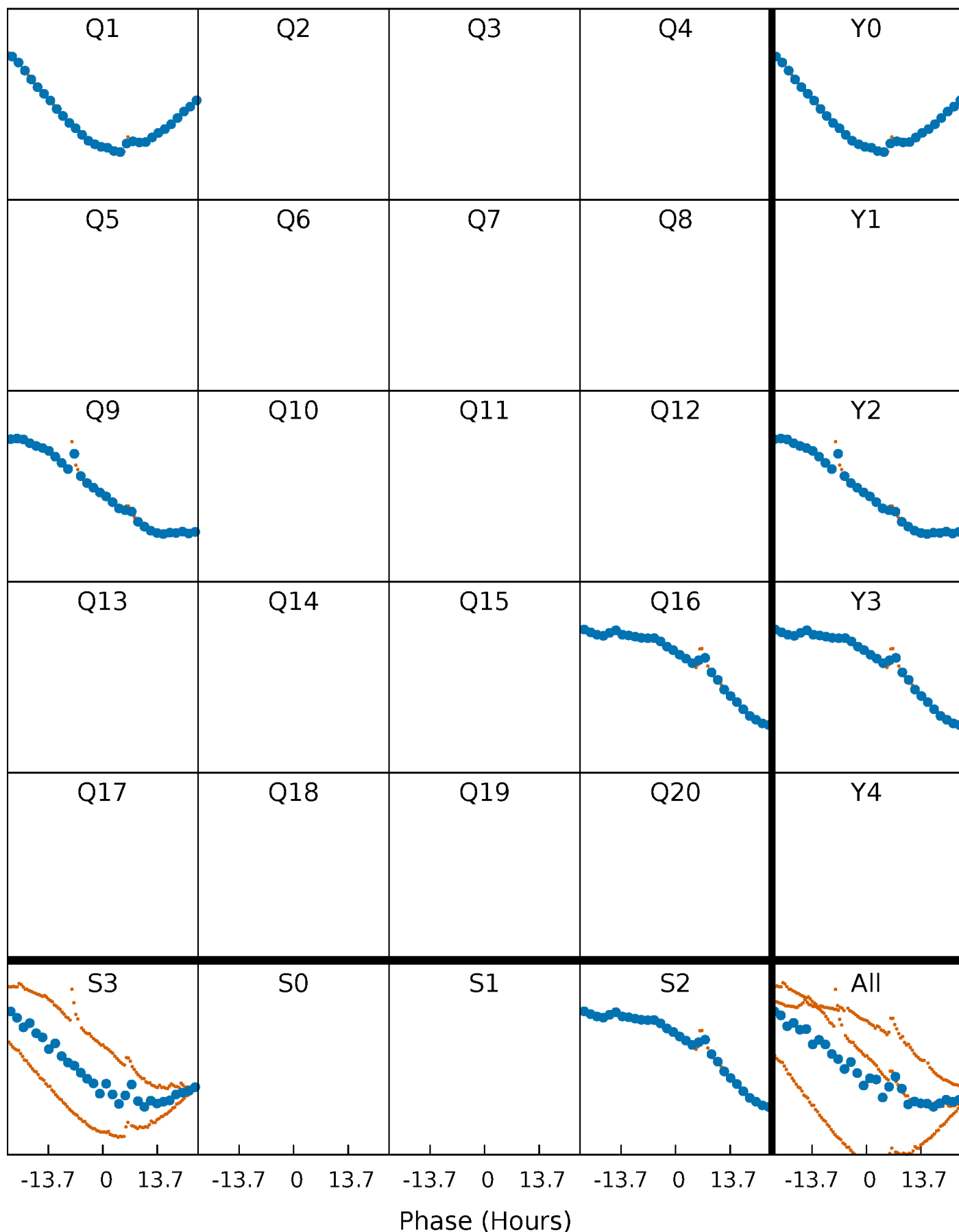


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



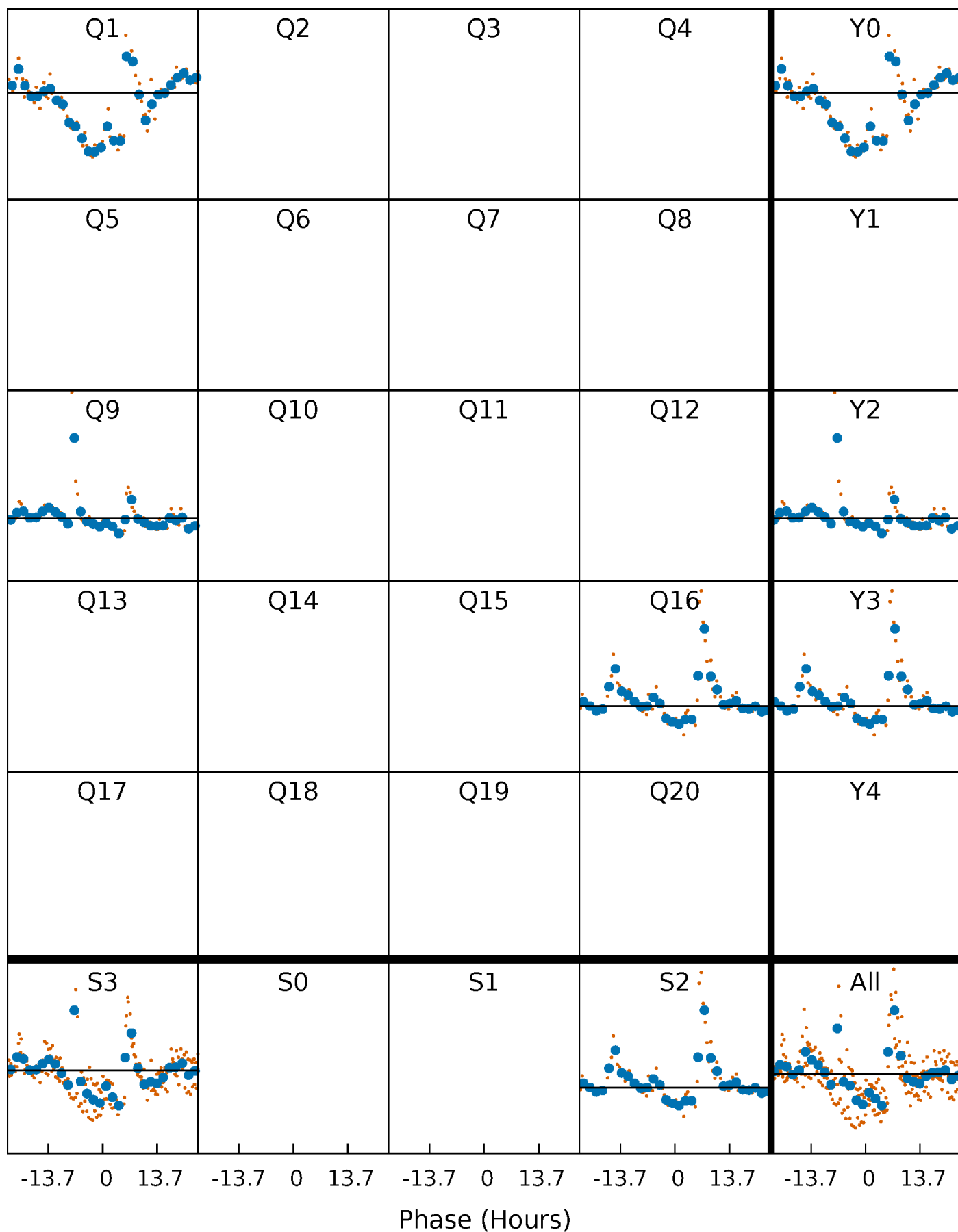
PDC Quarter-Phased Transit Curves

TCE 005966921-02 P=691.689628 Days $T_0=146.042661$ (BKJD)



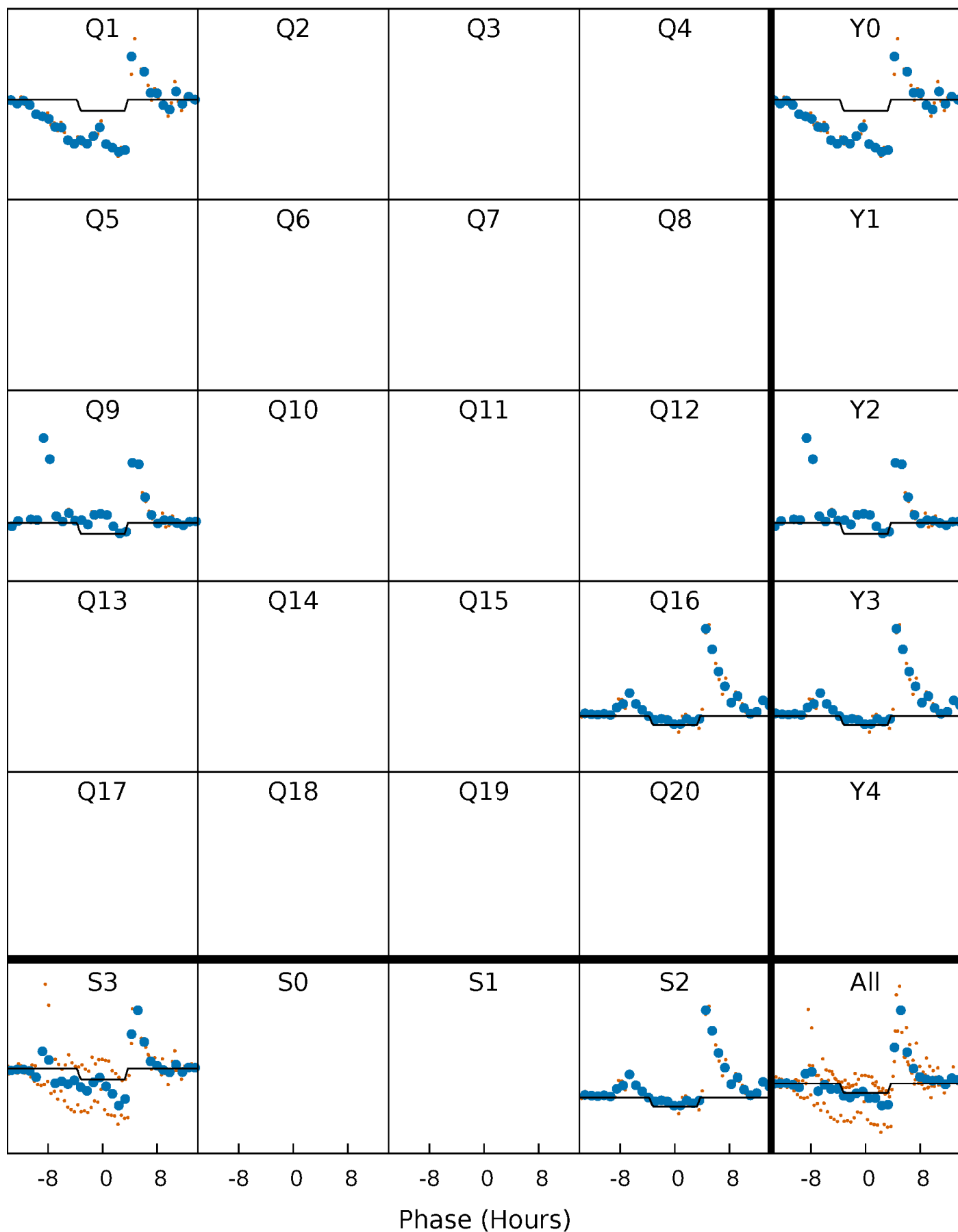
DV Quarter-Phased Transit Curves

TCE 005966921-02 $P=691.689628$ Days $T_0=146.042661$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

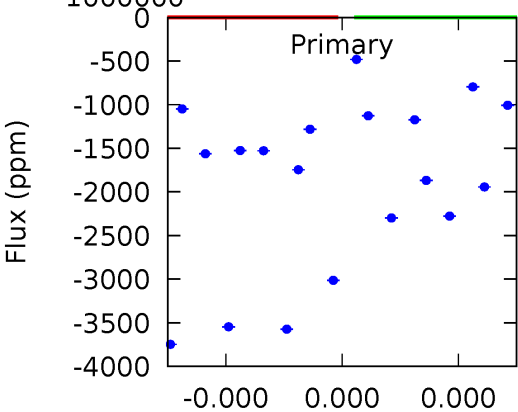
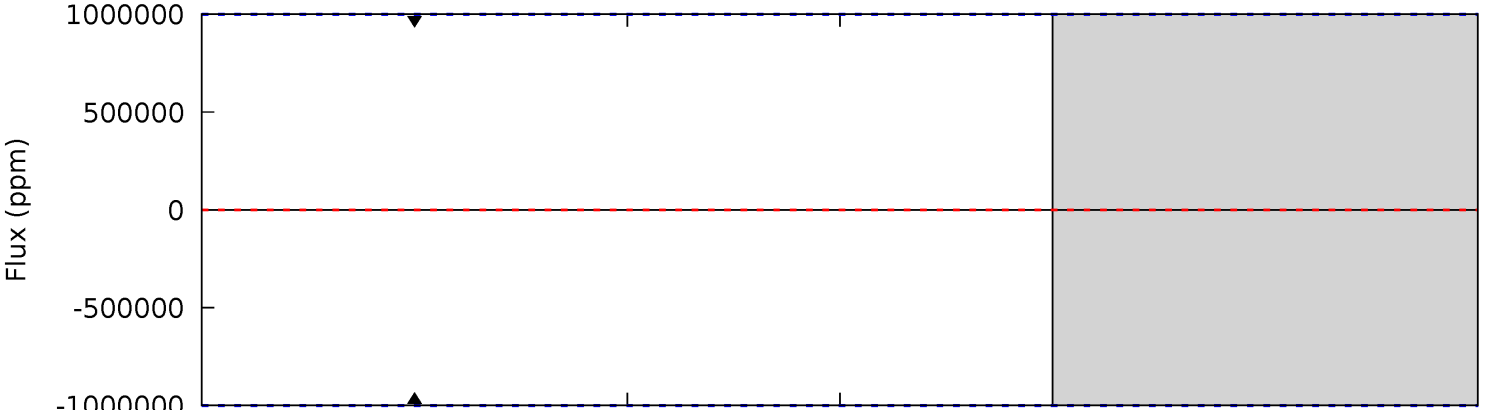
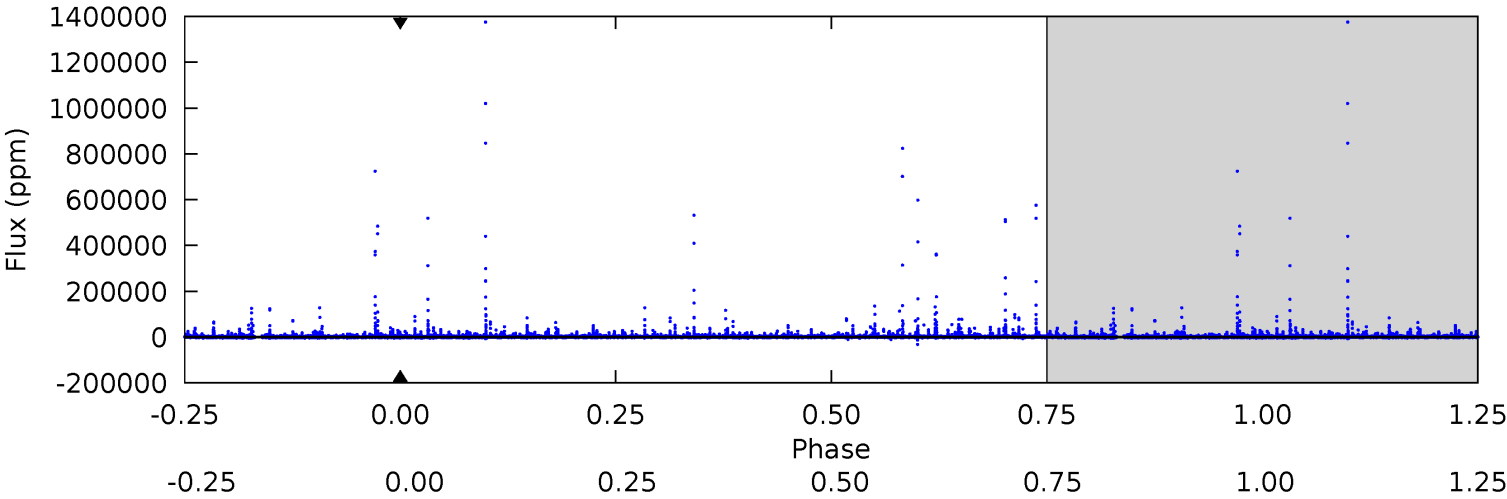
TCE 005966921-02 $P=691.689628$ Days $T_0=146.110728$ (BKJD)



DV Model-Shift Uniqueness Test

005966921-02, P = 691.689628 Days, E = 146.042661 Days

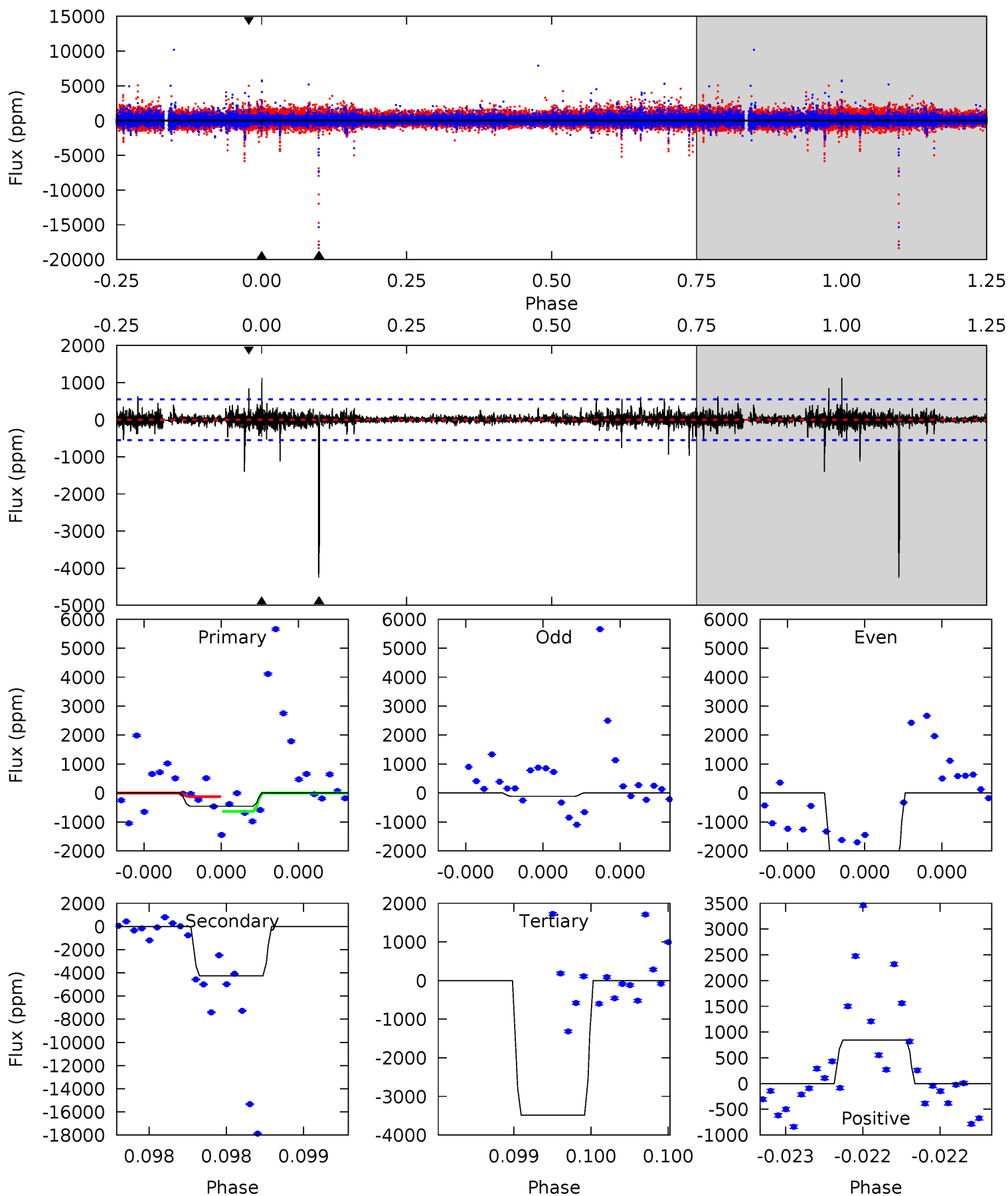
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005966921-02, P = 691.689628 Days, E = 146.110728 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.68	43.3	35.4	8.58	5.59	3.51	1.07	-30.7	-3.90	7.86	34.7	5.77	2.43	0.21	2.69



Stellar Parameters For KIC 005966921

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3983^{+140}_{-140}	$4.649^{+0.056}_{-0.020}$	$0.200^{+0.200}_{-0.300}$	$0.615^{+0.033}_{-0.066}$	$0.615^{+0.046}_{-0.062}$	$3.726^{+1.011}_{-0.341}$
	+4%/-4%	+1%/-0%	+100%/-150%	+5%/-11%	+7%/-10%	+27%/-9%
Source	KIC0	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 005966921-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$4.99^{+4.95}_{-3.44}$	168^{+7}_{-7}	3565^{+6448}_{-12038}	$114025^{+8510842}_{-4941679}$
Alt.	-4256 ± 98	$5.35^{+5.20}_{-3.71}$	167^{+6}_{-6}	3705^{+2233}_{-696}	$139854^{+1328501}_{-102810}$

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 $A_{obs} \gg 1.0$

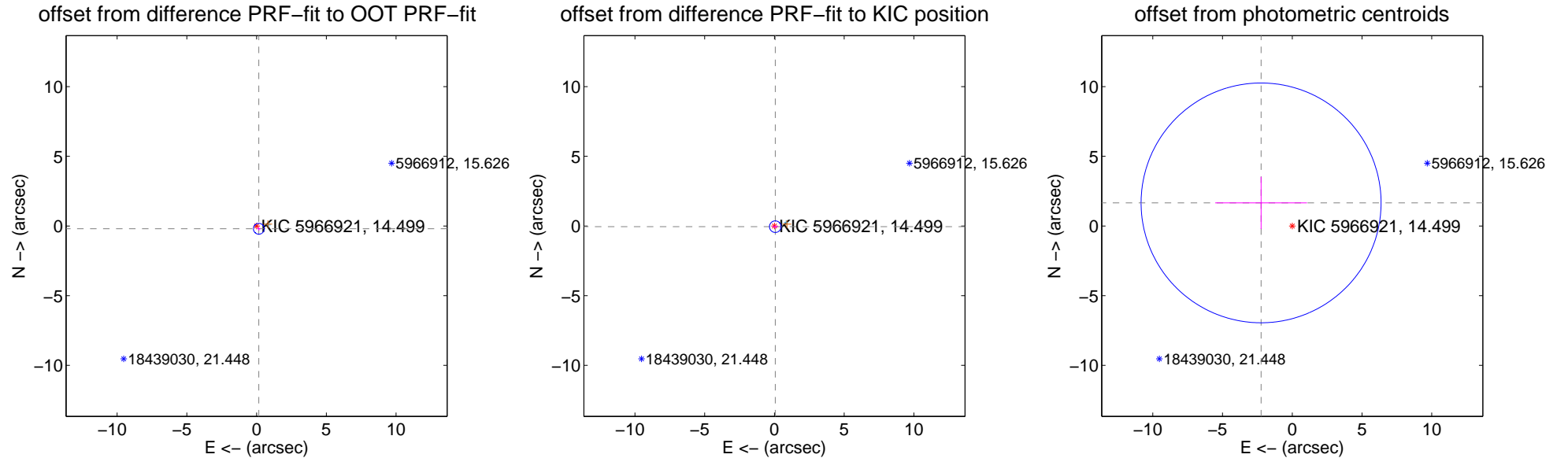
DV Centroid Data

Supplemental centroid analysis for 005966921-02. Kepler magnitude: 14.50. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

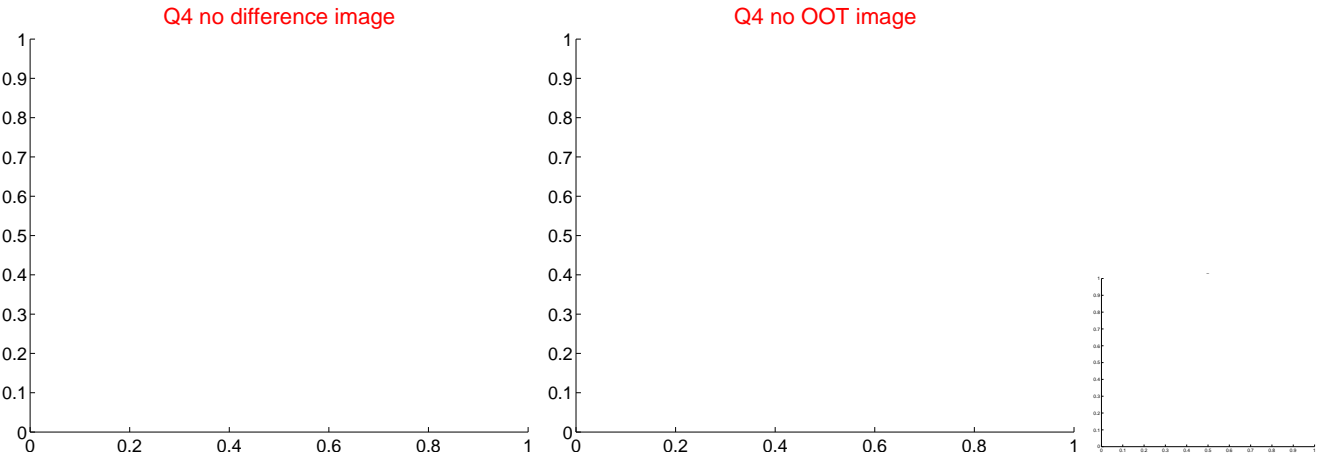
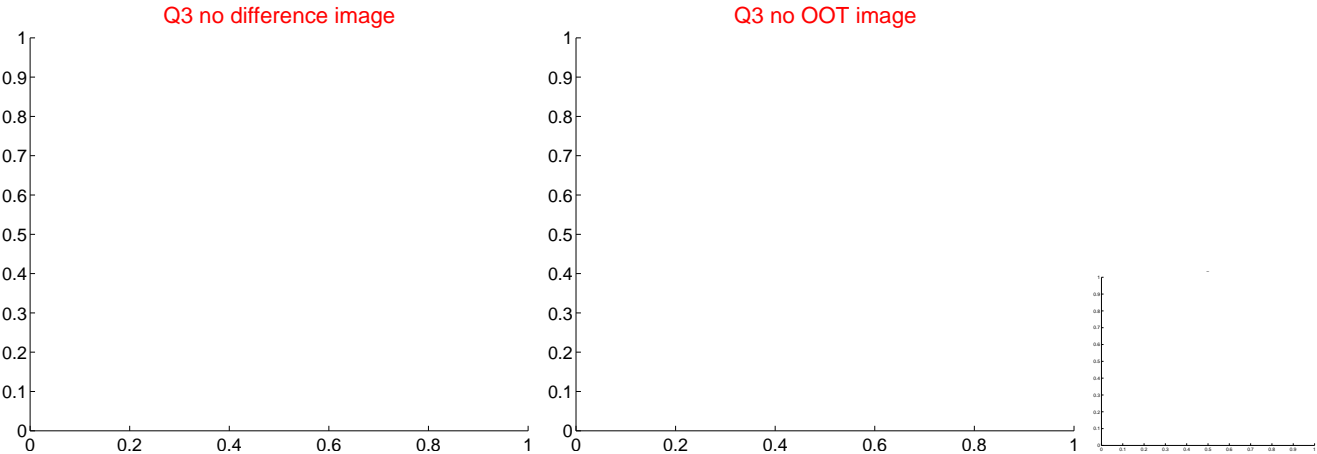
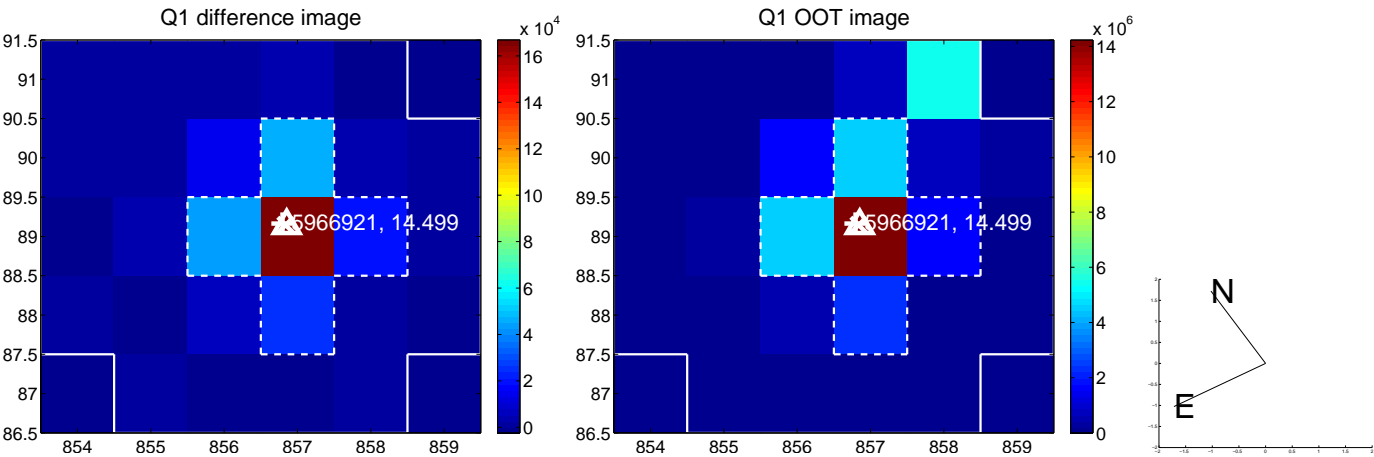
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.257 ± 0.130	1.98	-0.161 ± 0.133	-0.200 ± 0.127
PRF-fit source offset from KIC position	0.078 ± 0.139	0.56	-0.061 ± 0.207	-0.048 ± 0.092
photometric centroid source offset	2.78 ± 2.87	0.97	2.23 ± 3.29	1.66 ± 1.87



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.

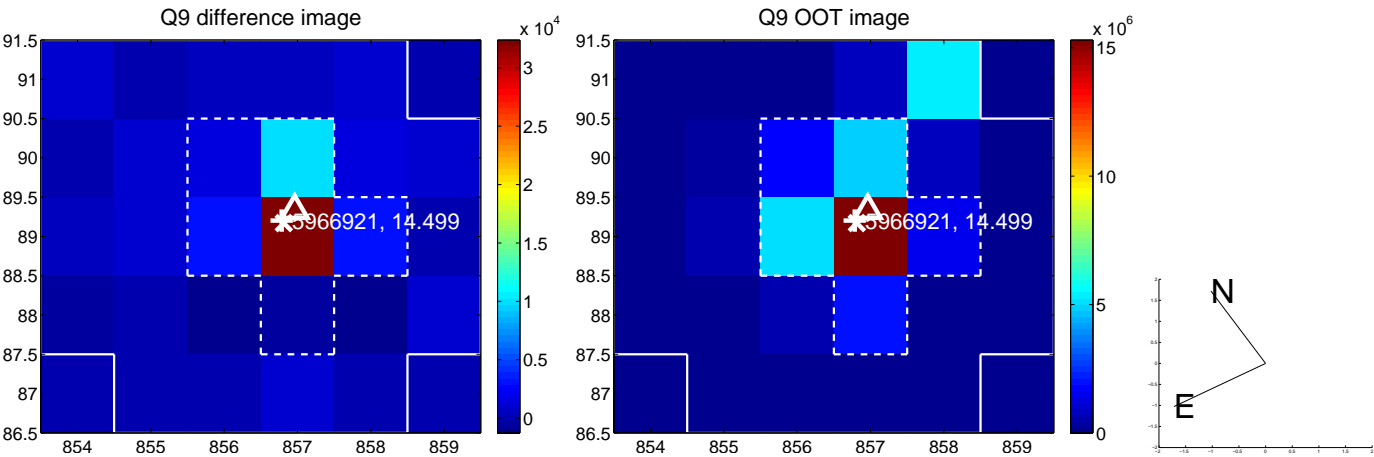
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



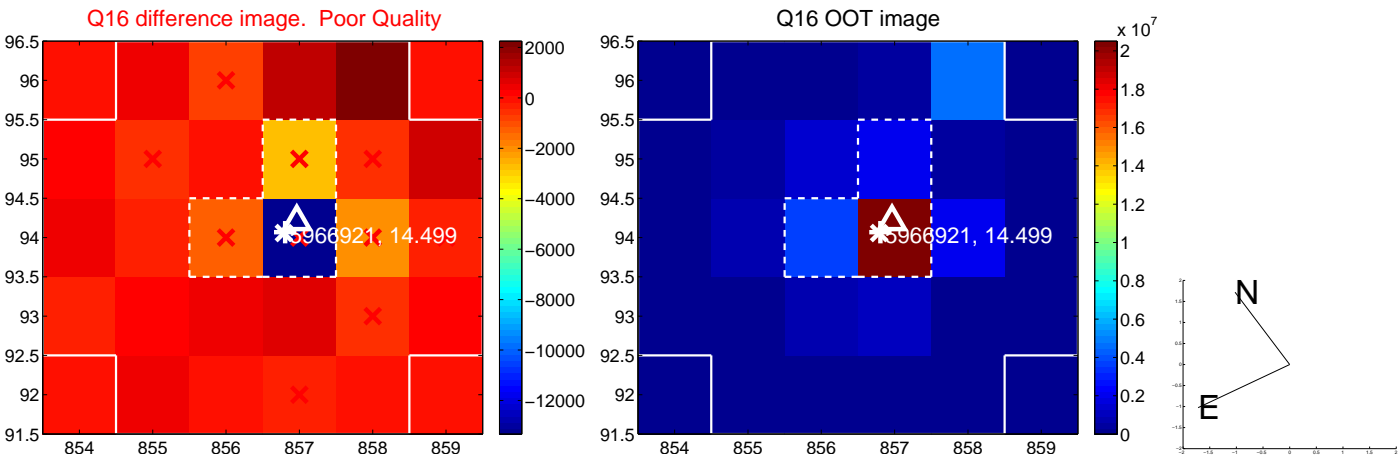
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



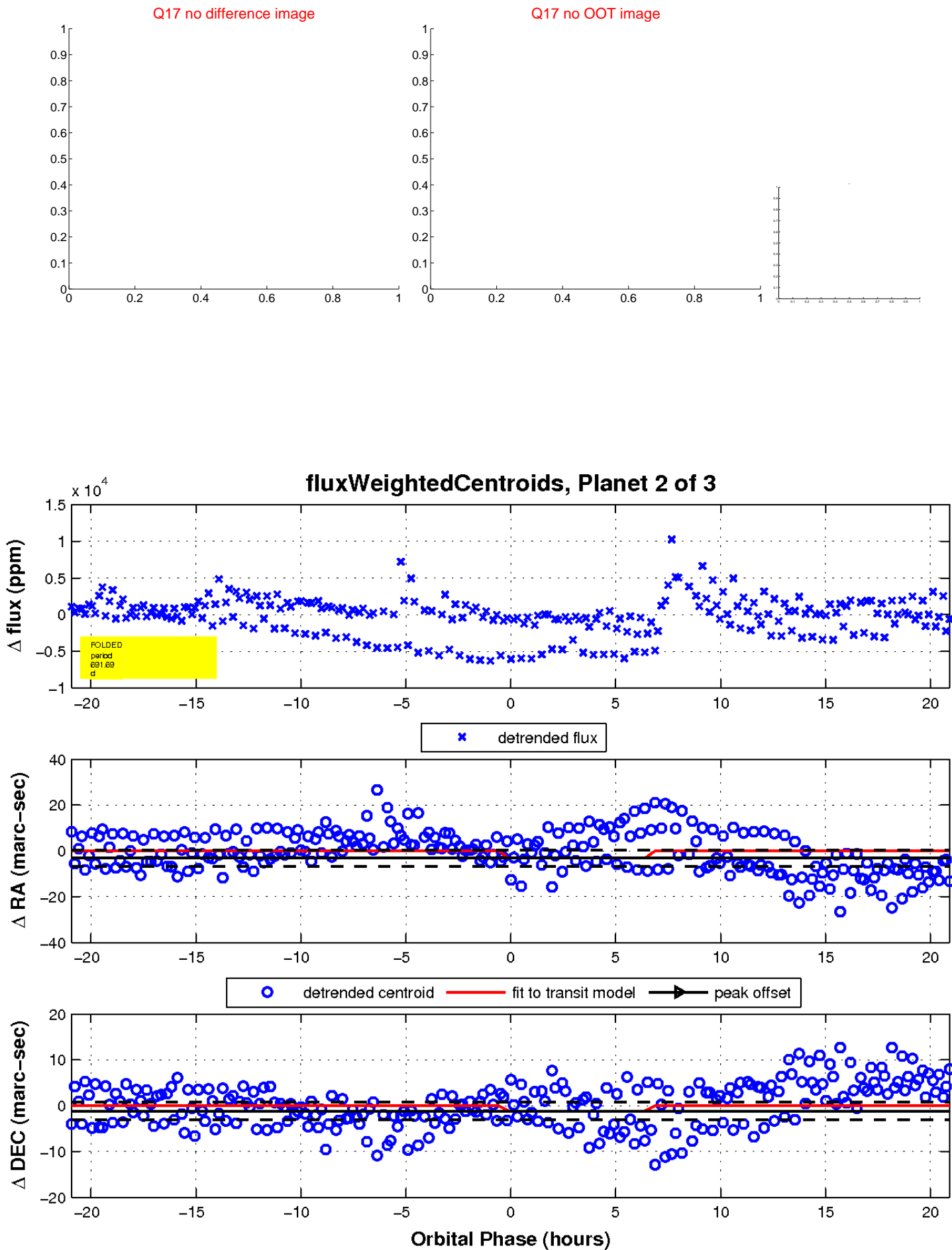
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



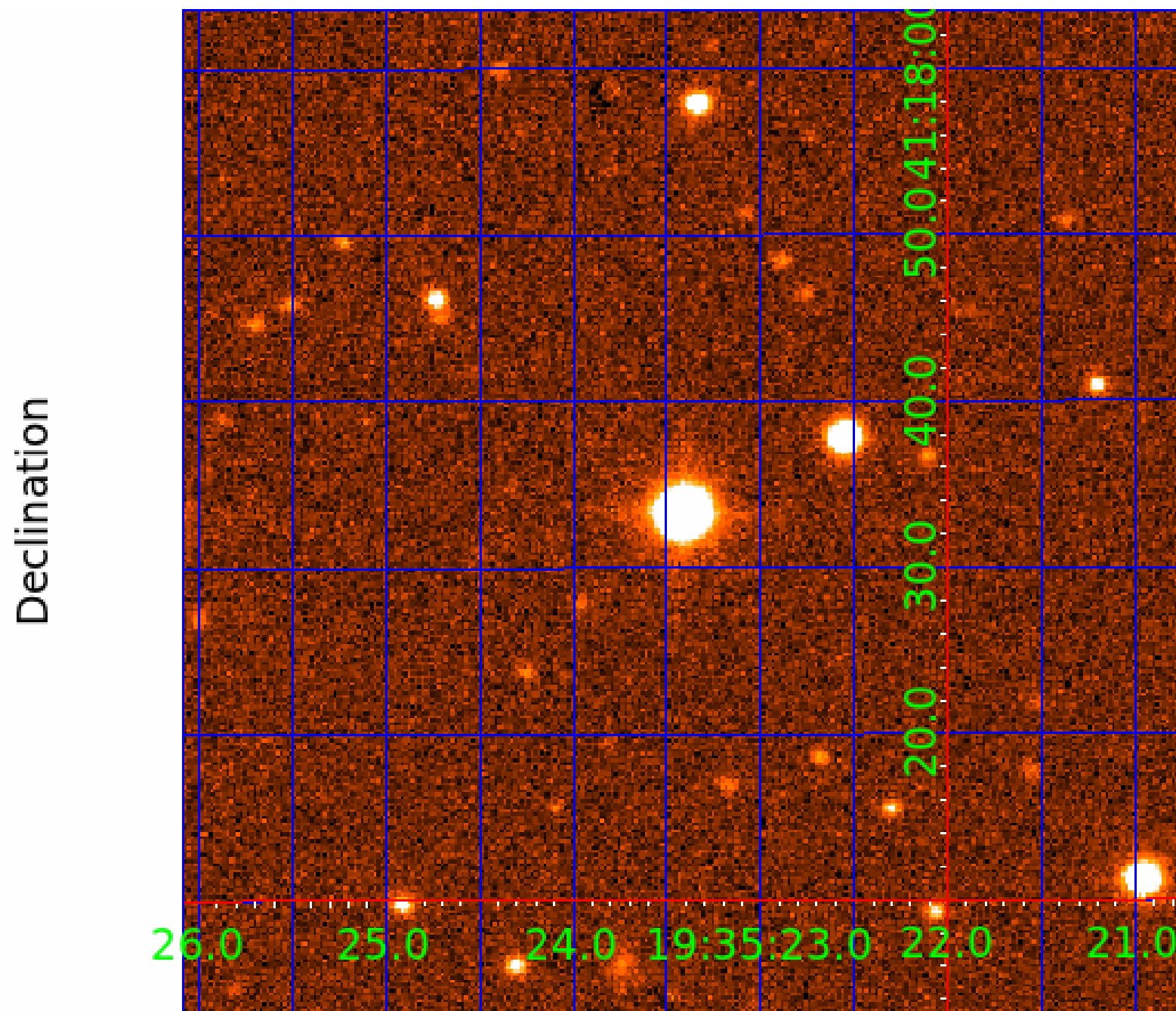
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image



KIC 005966921

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})
005966921-01	OBS	No	529.195841	364.031059	926.6	3.406	15.4	3.0	0.61	3983	2.08	0.07
005966921-02	OBS	No	691.689628	146.042661	887.3	12.000	19.0	-1.0	0.61	3983	1.76	0.05
005966921-03	OBS	No	399.028195	433.319599	3156.3	3.000	24.0	-1.0	0.61	3983	3.34	0.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005966921-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
005966921-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005966921-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

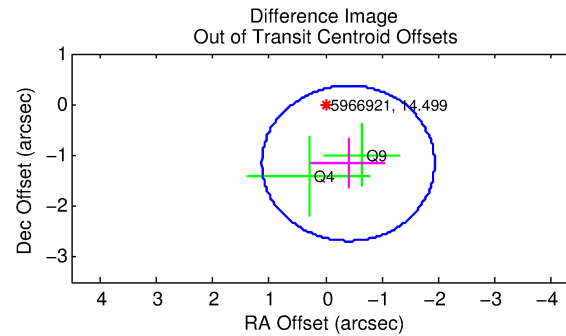
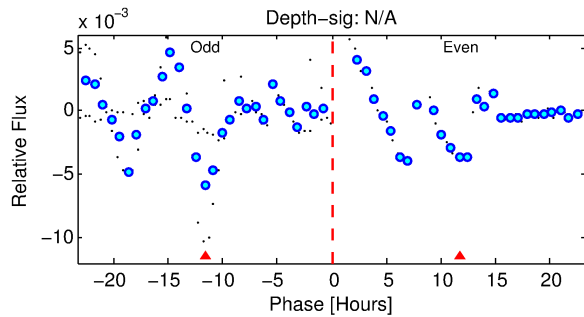
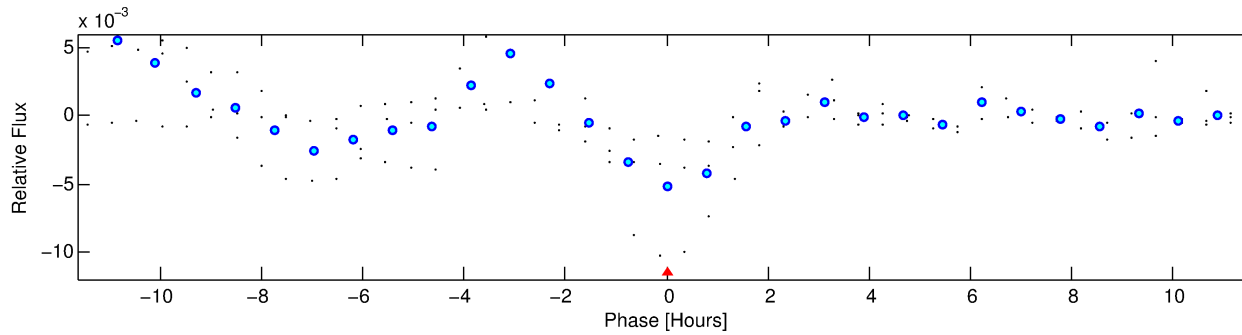
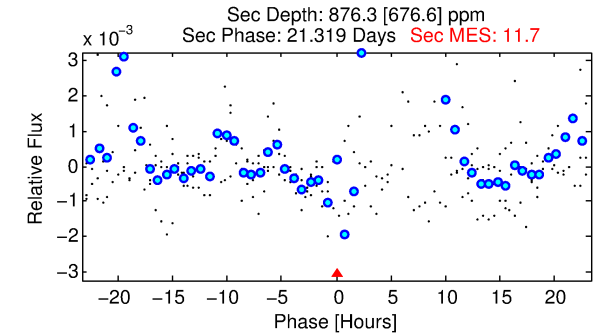
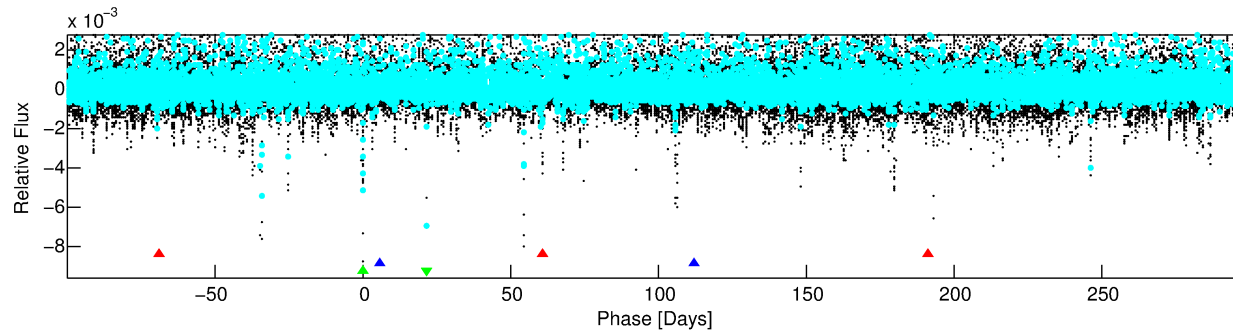
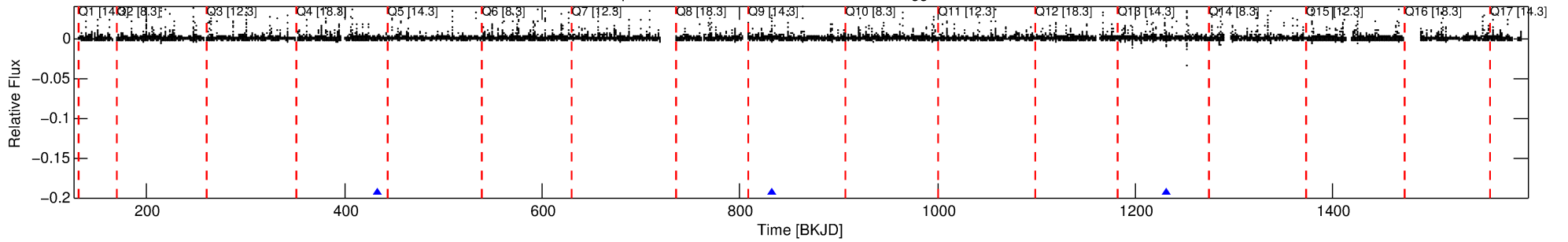
Ephemeris Match Information For 005966921-03

No Significant Match Found

DV One-Page Summary

KIC: 5966921 Candidate: 3 of 3 Period: 399.028 d

Kp: 14.50 R*: 0.61 Rs Teff: 3983.0 K Logg: 4.65 Fe/H: 0.200



TPS TCE Results:

Period = 399.02819 d
Epoch = 433.3196 BKJD

DV fit results are unavailable

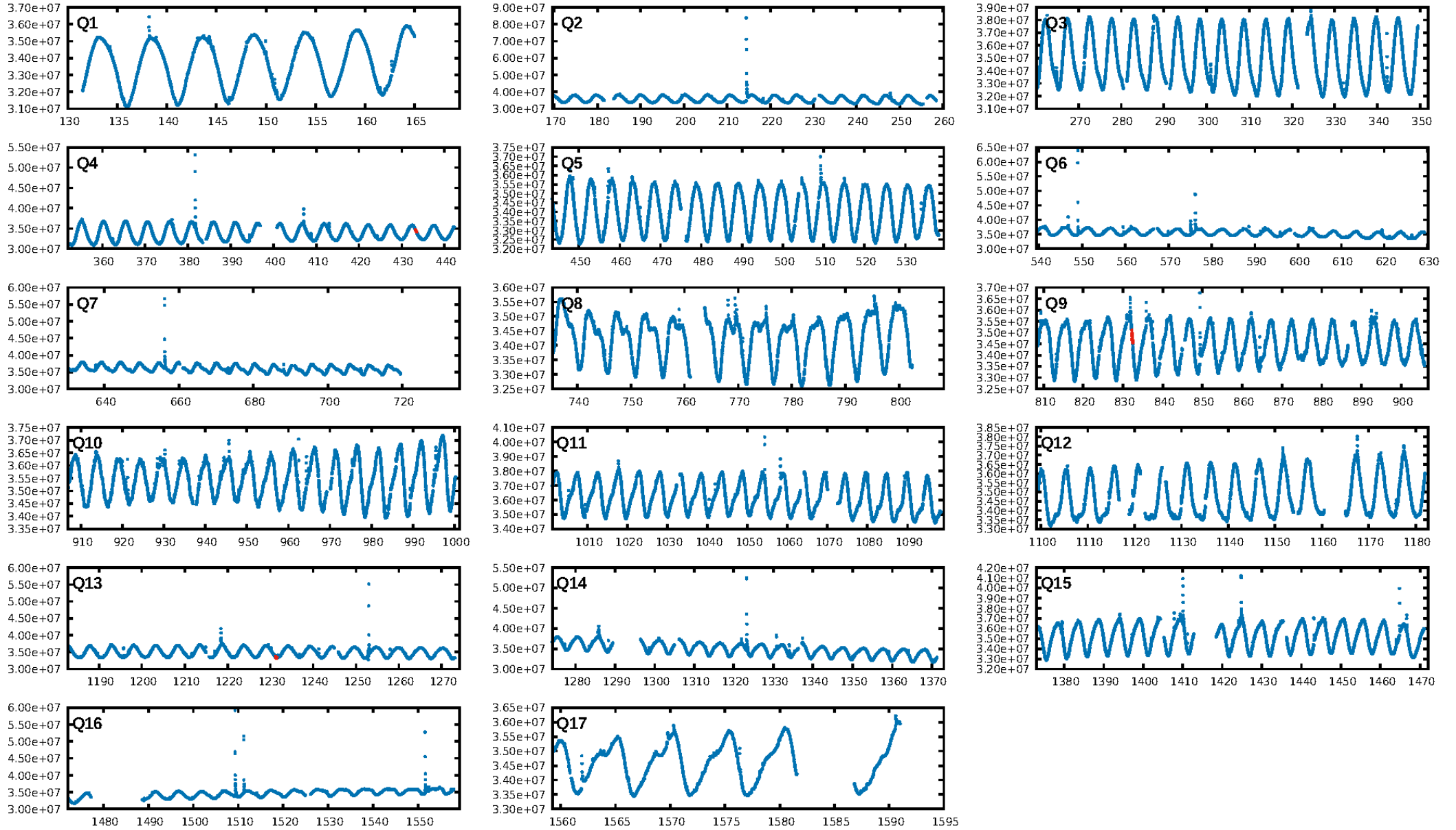
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [688.24σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.2839
Centroid-sig: 69.9%
Centroid-so: 0.755 arcsec [1.46σ]
OotOffset-rm: 1.229 arcsec [2.41σ]
KicOffset-rm: 1.181 arcsec [2.30σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

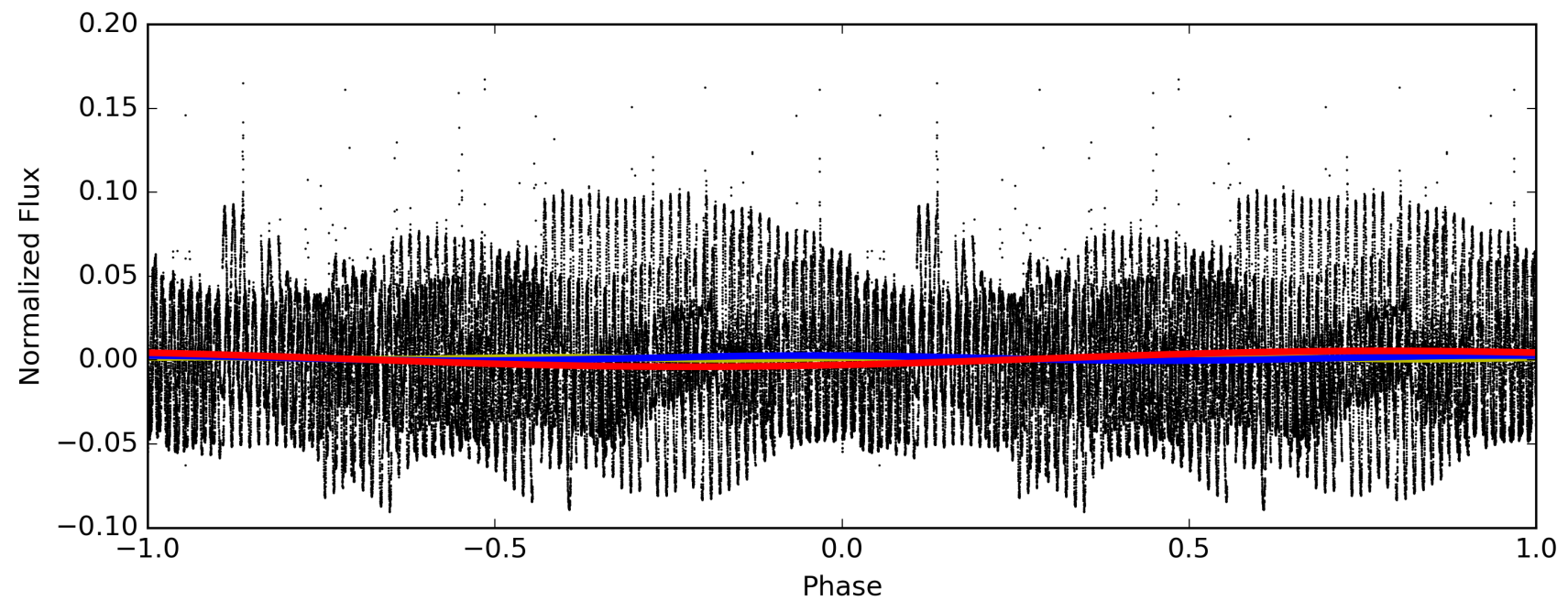
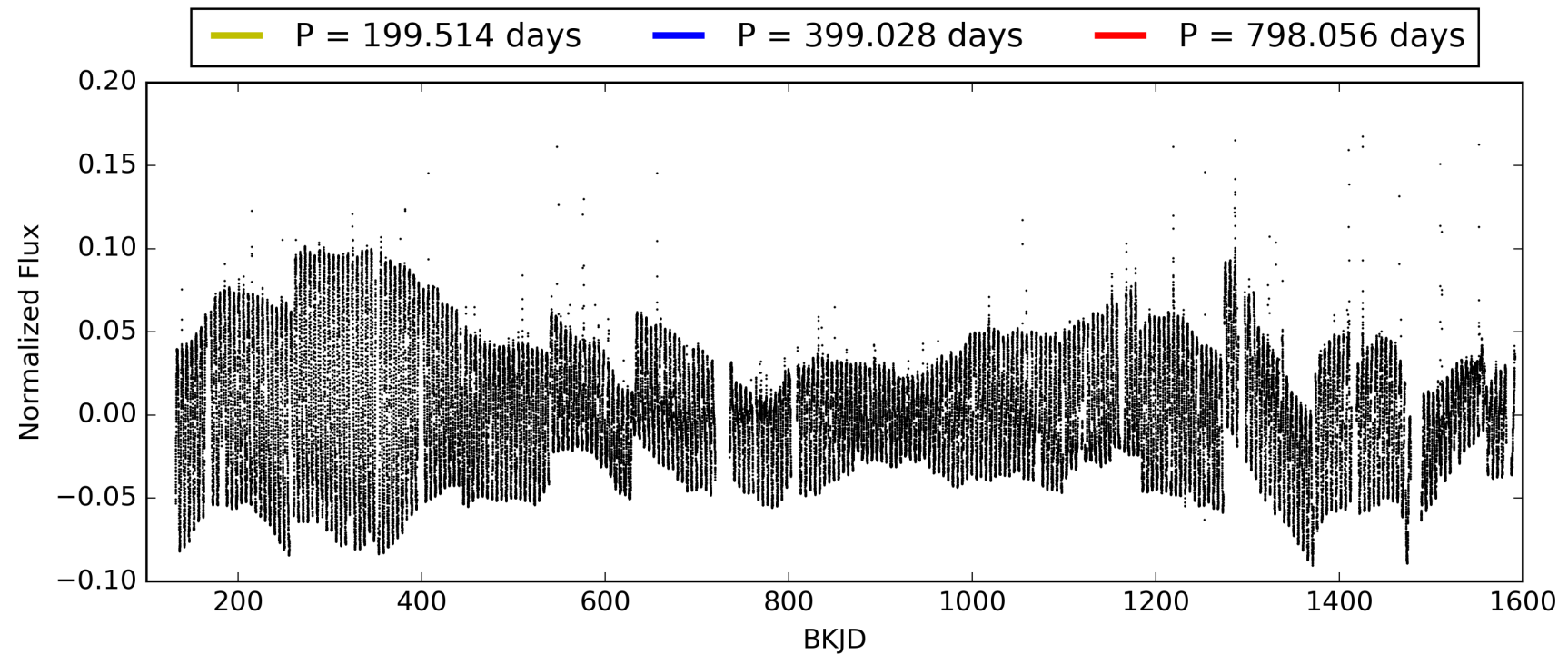
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:04:45 Z

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

TCE 005966921-03, PDC Light Curves

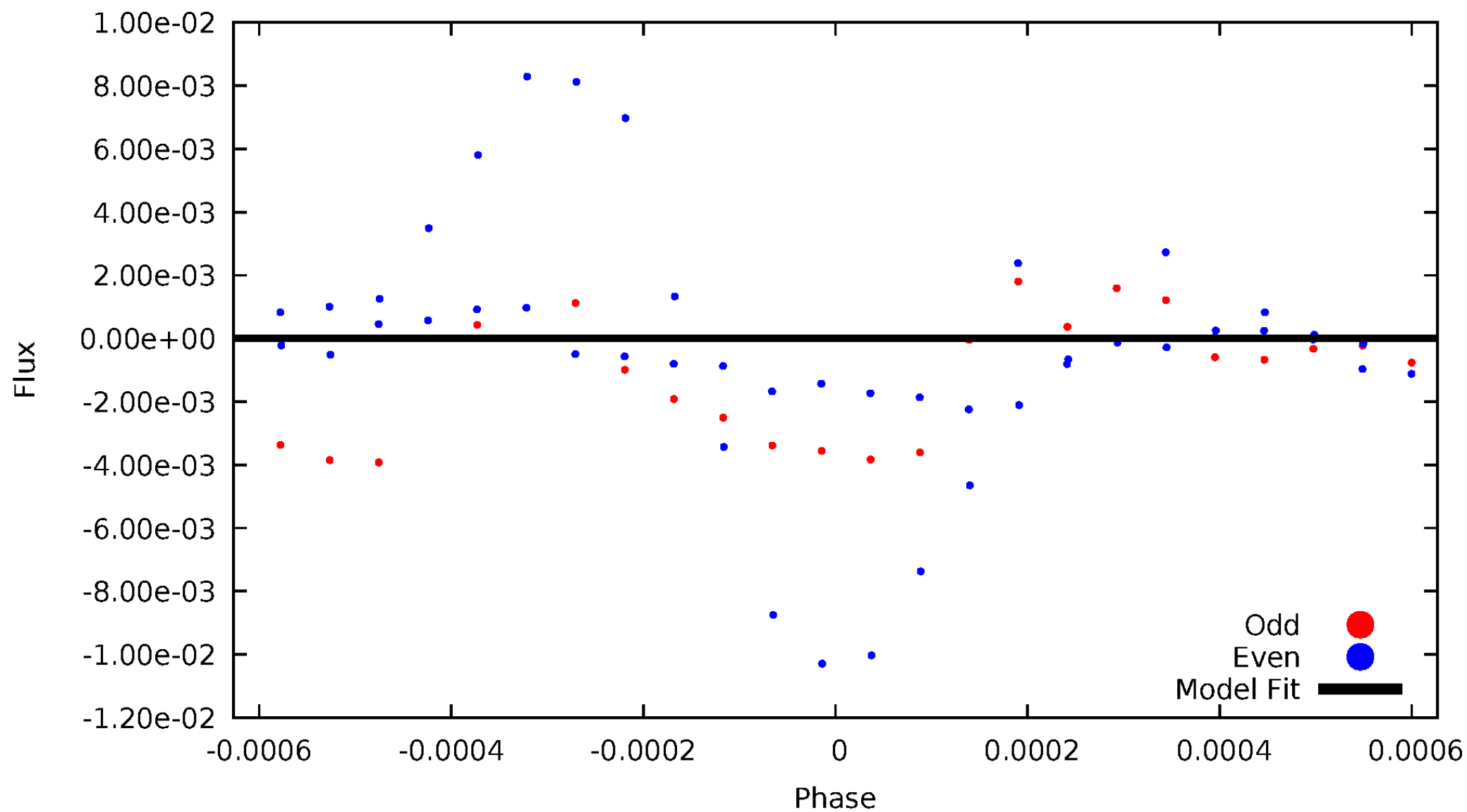


TCE 005966921-03



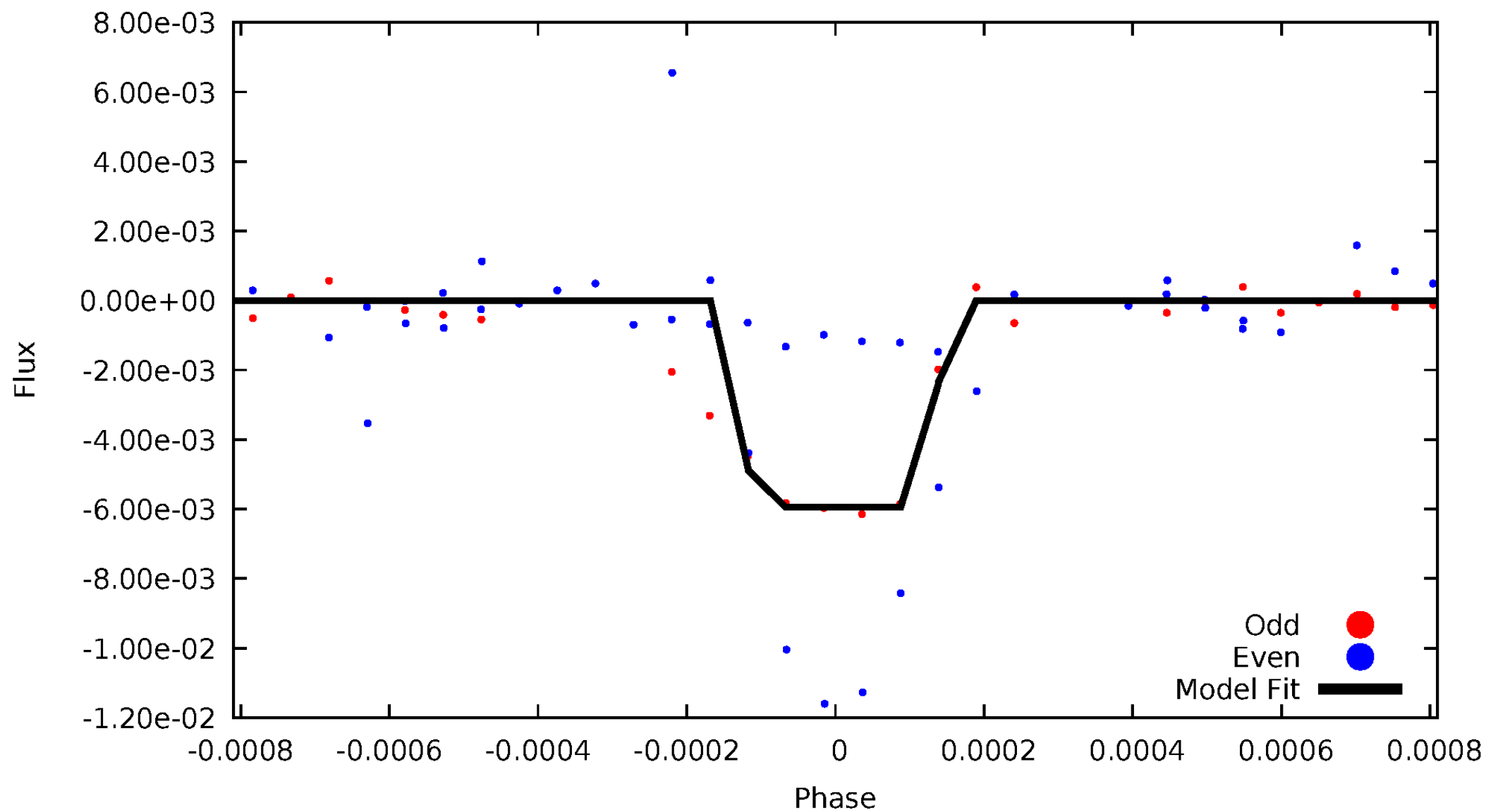
DV Odd/Even

TCE 005966921-03



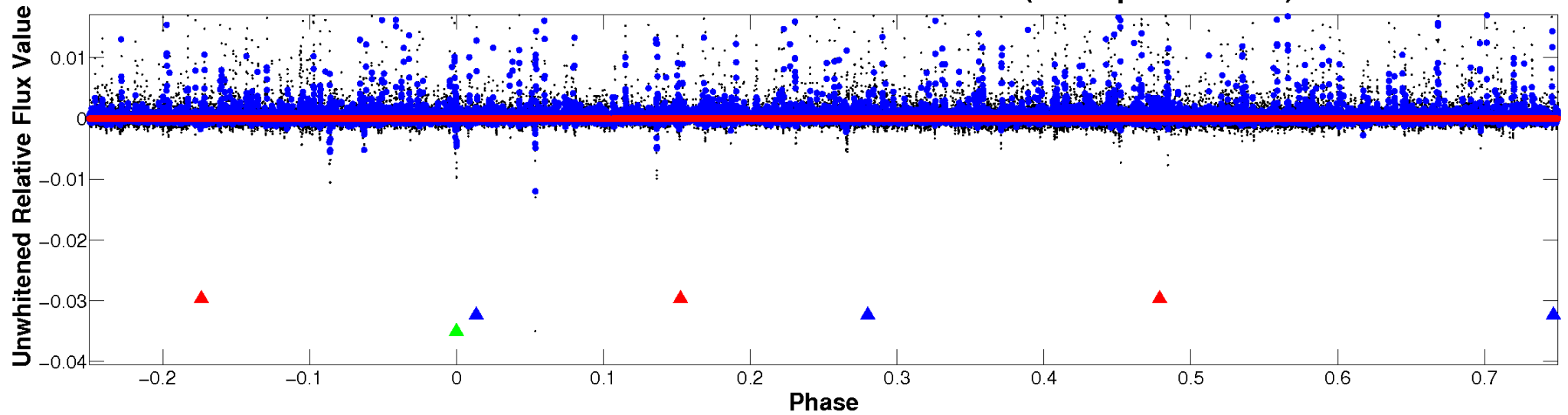
ALT Odd/Even

TCE 005966921-03



Non-Whitened Vs. Whitened Light Curve

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

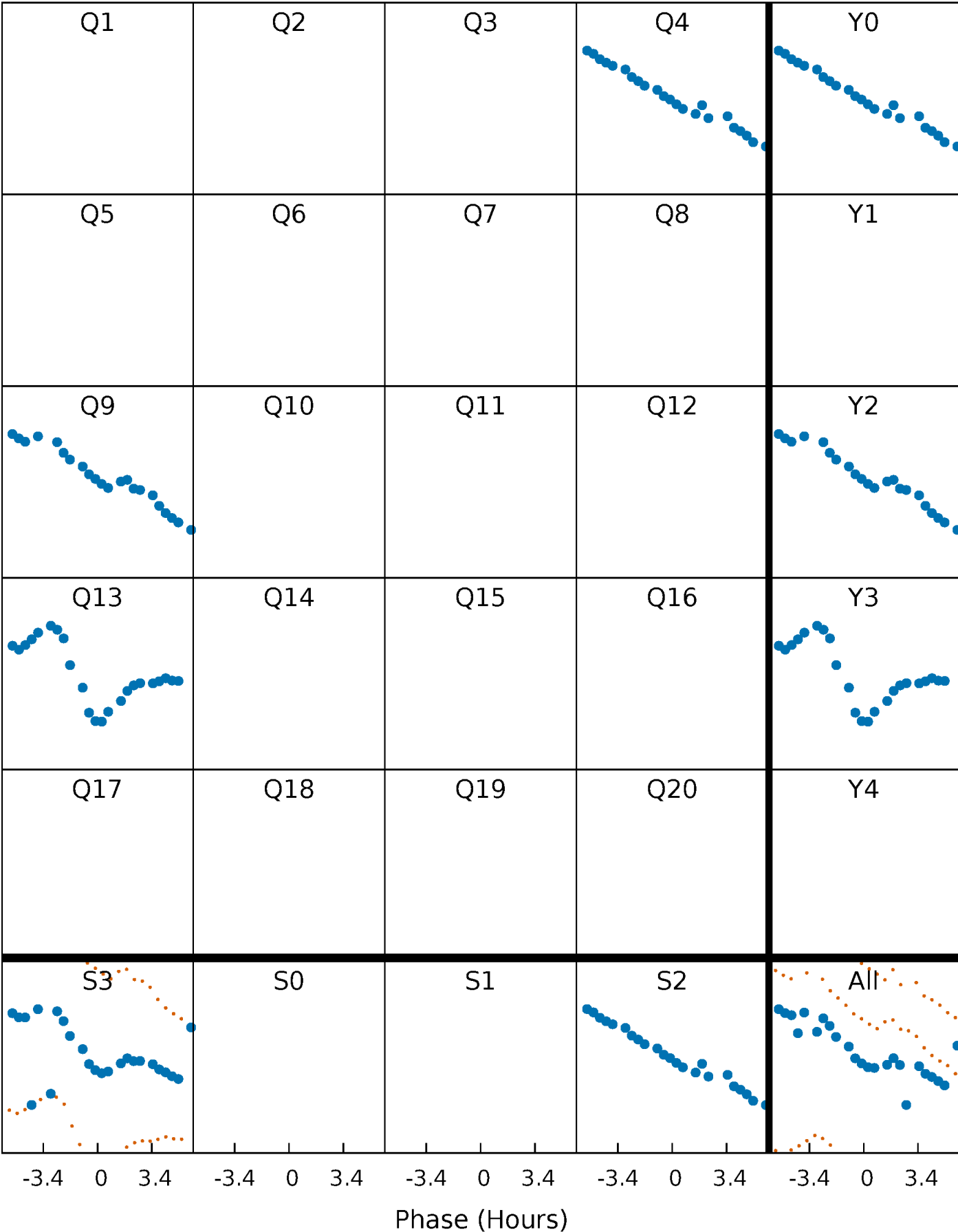


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



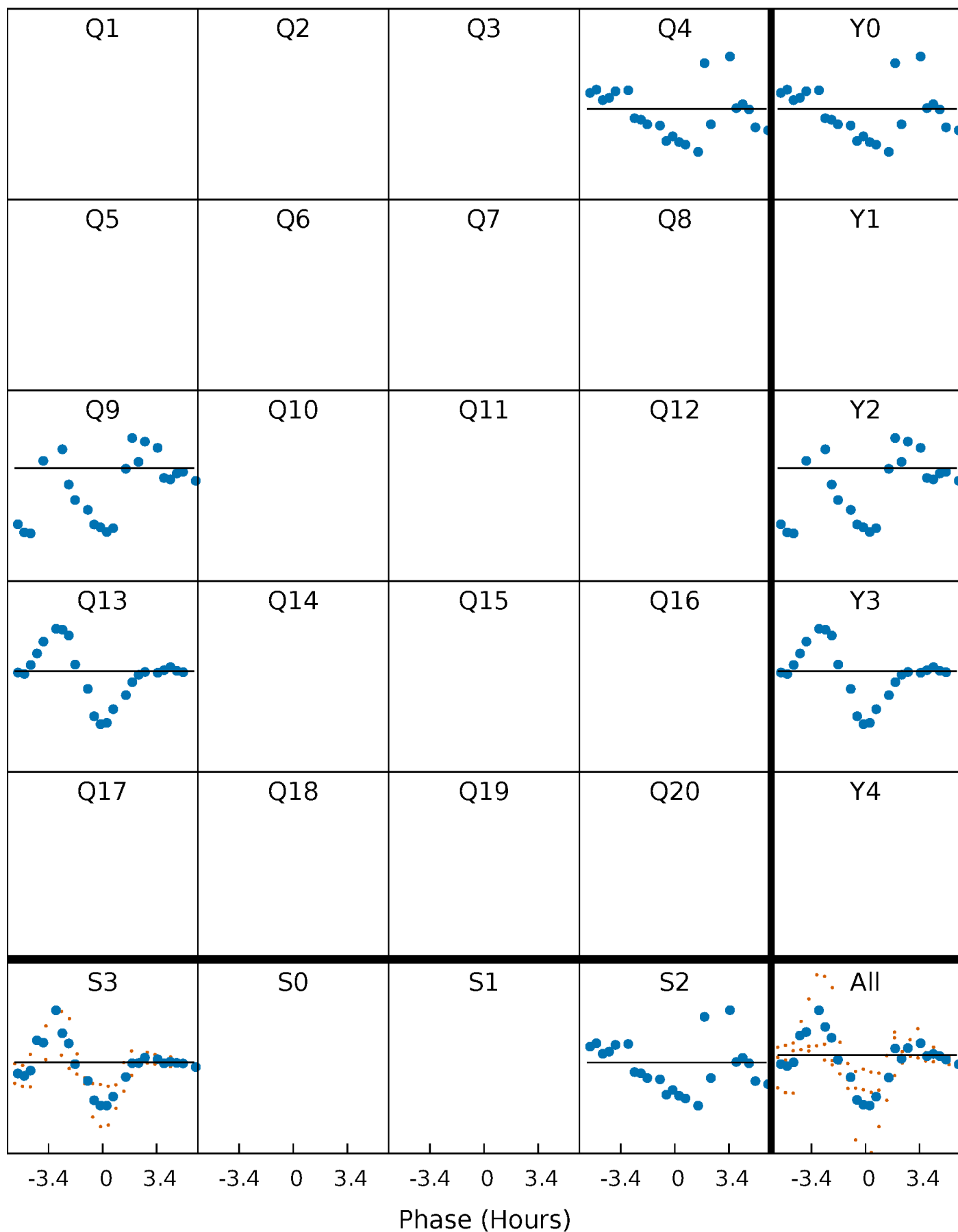
PDC Quarter-Phased Transit Curves

TCE 005966921-03 P=399.028195 Days $T_0=433.319599$ (BKJD)



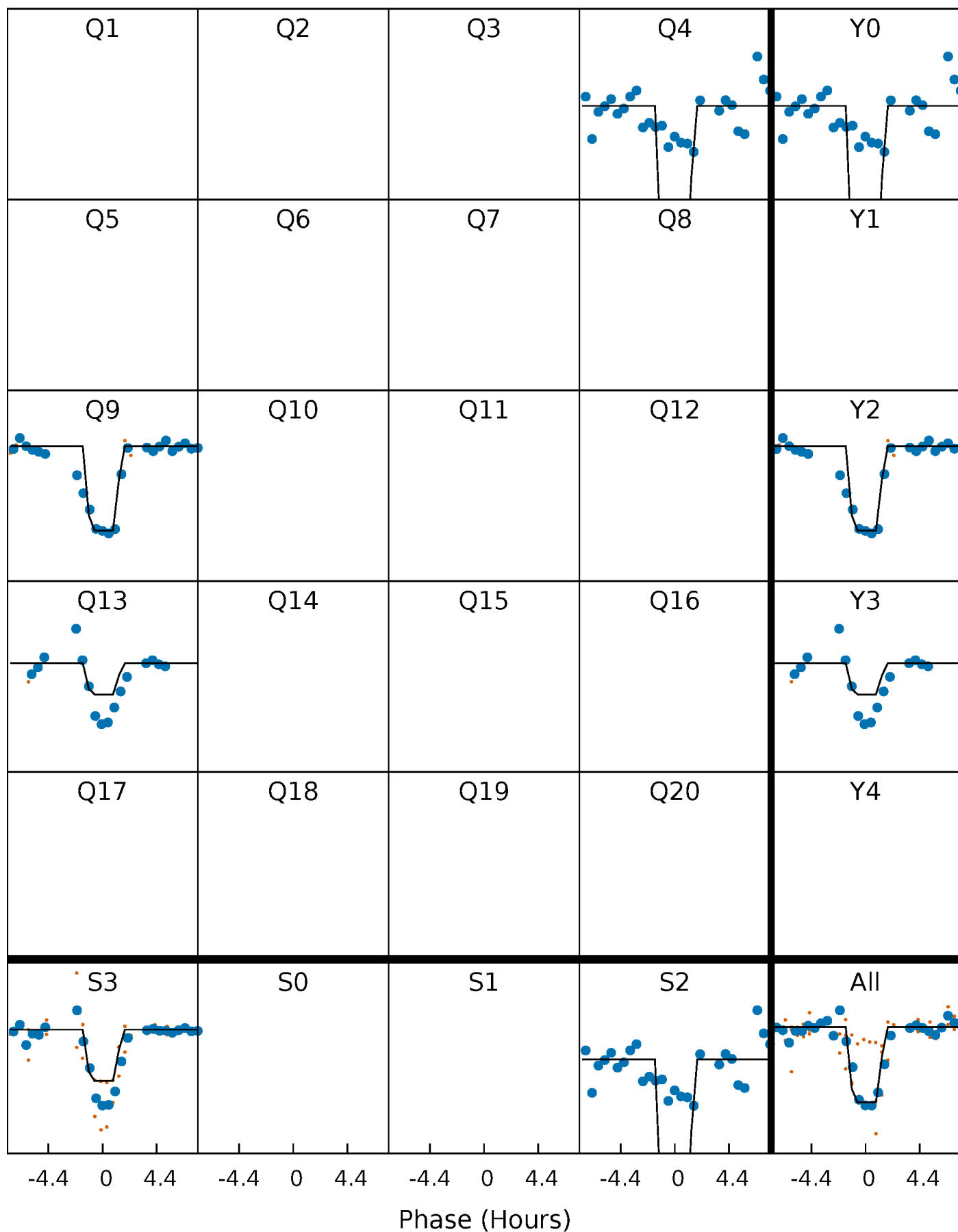
DV Quarter-Phased Transit Curves

TCE 005966921-03 $P=399.028195$ Days $T_0=433.319599$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

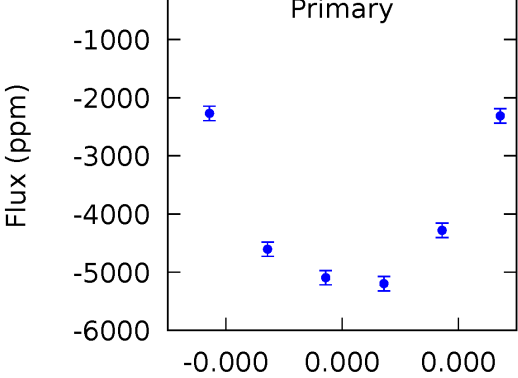
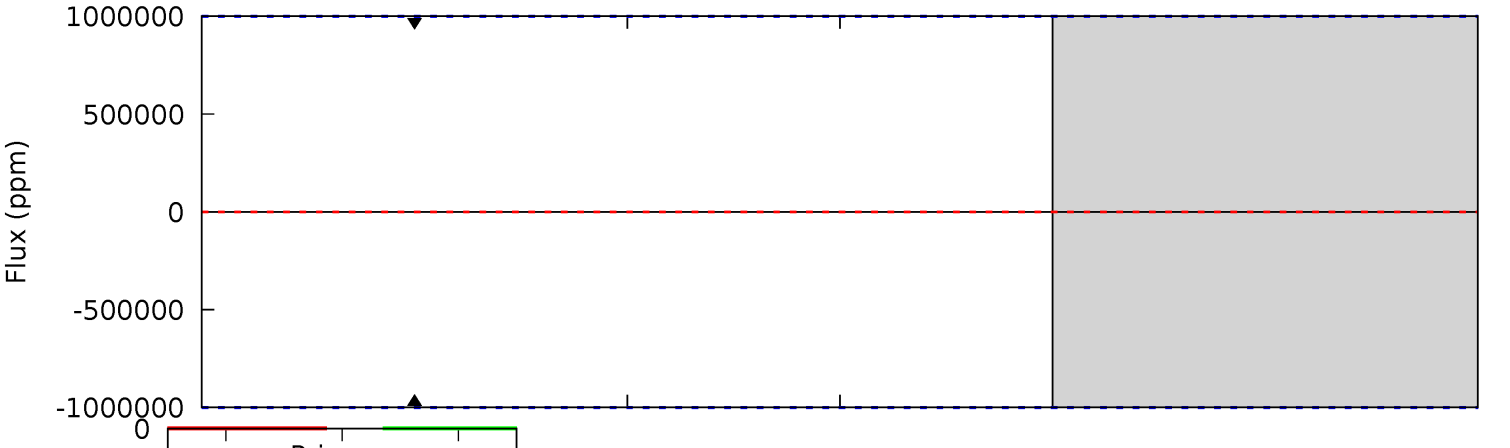
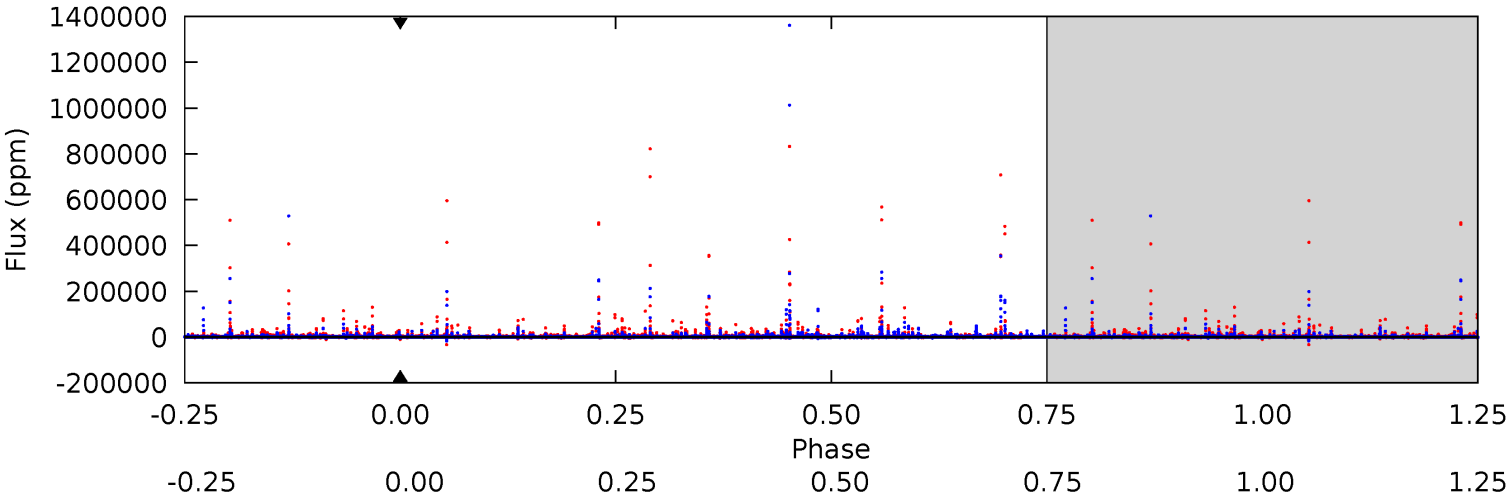
TCE 005966921-03 P=399.028195 Days $T_0=433.319942$ (BKJD)



DV Model-Shift Uniqueness Test

005966921-03, P = 399.028195 Days, E = 34.291404 Days

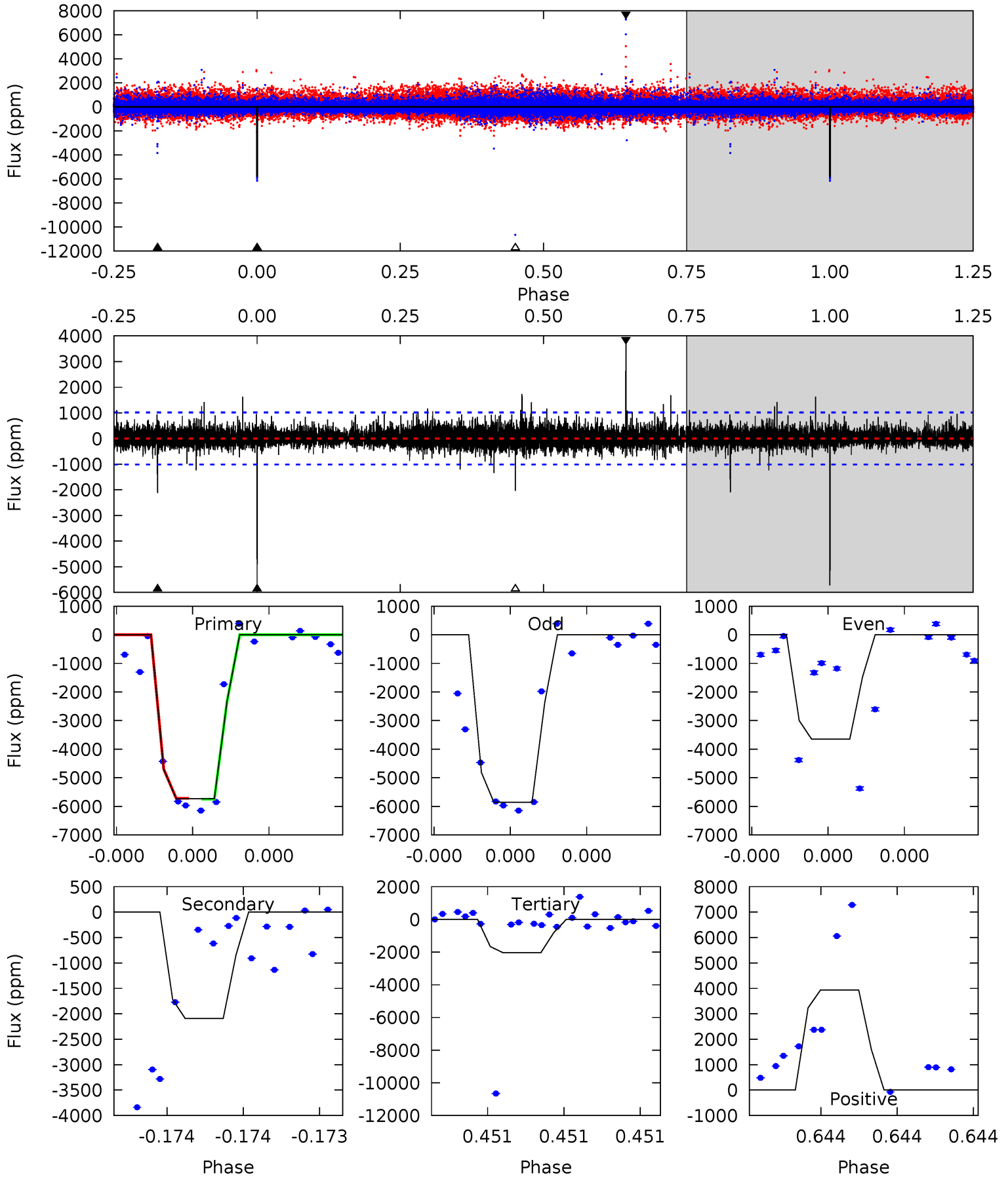
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005966921-03, P = 399.028195 Days, E = 34.291747 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.0	11.7	11.3	22.0	5.66	3.61	1.27	20.7	10.0	0.34	-10.3	5.90	0.96	0.41	0



Stellar Parameters For KIC 005966921

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3983^{+140}_{-140}	$4.649^{+0.056}_{-0.020}$	$0.200^{+0.200}_{-0.300}$	$0.615^{+0.033}_{-0.066}$	$0.615^{+0.046}_{-0.062}$	$3.726^{+1.011}_{-0.341}$
	+4%/-4%	+1%/-0%	+100%/-150%	+5%/-11%	+7%/-10%	+27%/-9%
Source	KIC0	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 005966921-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$6.00^{+5.50}_{-4.14}$	201^{+9}_{-8}	3314^{+5331}_{-11477}	$28821^{+2547302}_{-2393833}$
Alt.	-2091 ± 179	$6.67^{+5.95}_{-4.17}$	201^{+7}_{-8}	3099^{+1146}_{-498}	$20796^{+131393}_{-14849}$

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 $A_{obs} \gg 1.0$

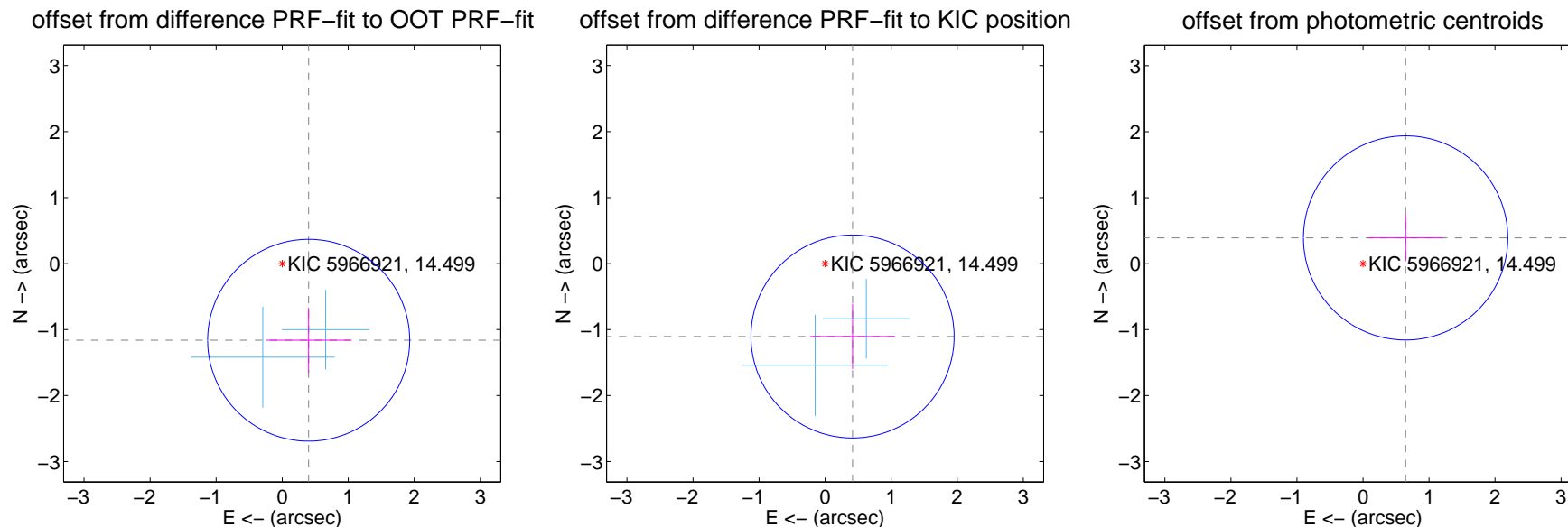
DV Centroid Data

Supplemental centroid analysis for 005966921-03. Kepler magnitude: 14.50. 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 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.229 ± 0.510	2.41	-0.401 ± 0.640	-1.162 ± 0.492
PRF-fit source offset from KIC position	1.181 ± 0.513	2.30	-0.415 ± 0.640	-1.105 ± 0.492
photometric centroid source offset	0.75 ± 0.52	1.46	-0.65 ± 0.56	0.39 ± 0.36



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

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

Q1 no difference image



Q1 no OOT image



Q2 no difference image



Q2 no OOT image



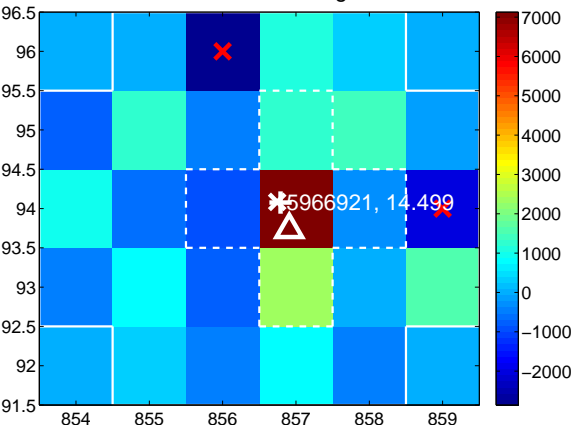
Q3 no difference image



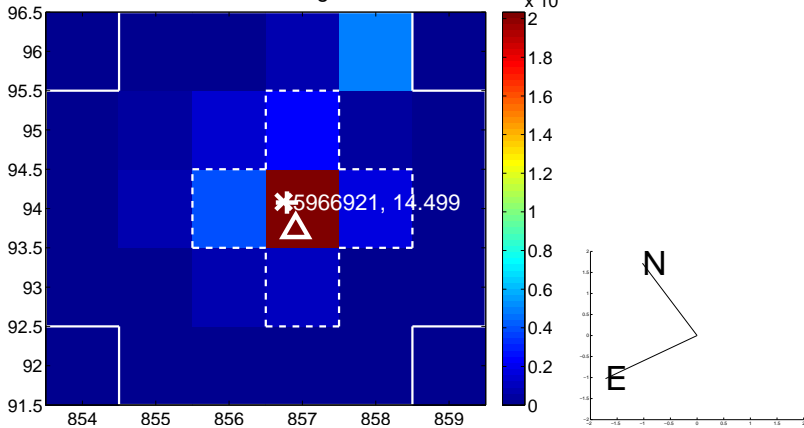
Q3 no OOT image



Q4 difference image



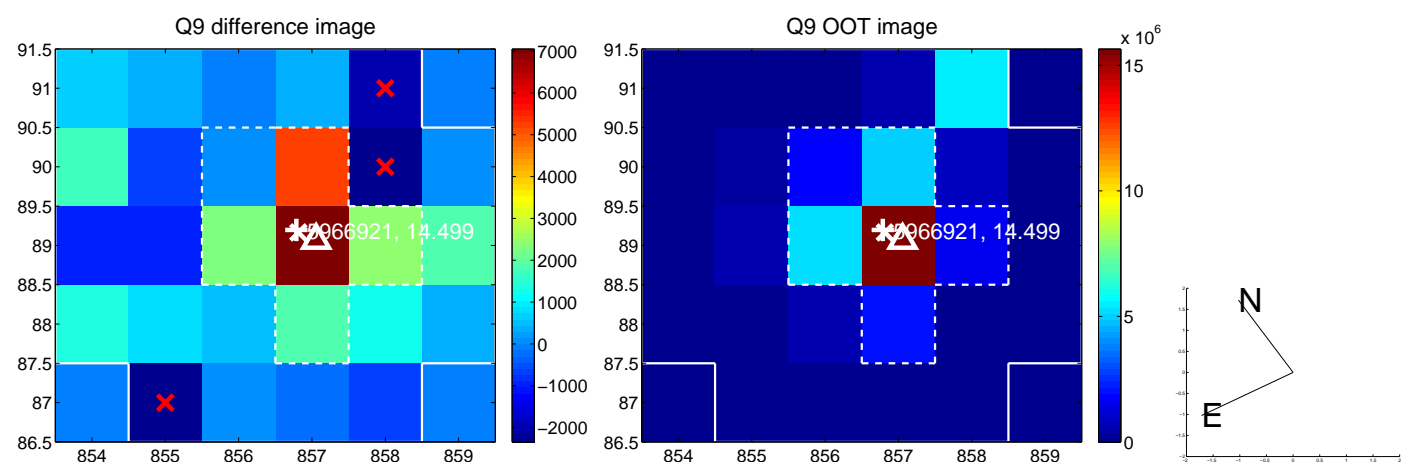
Q4 OOT image



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



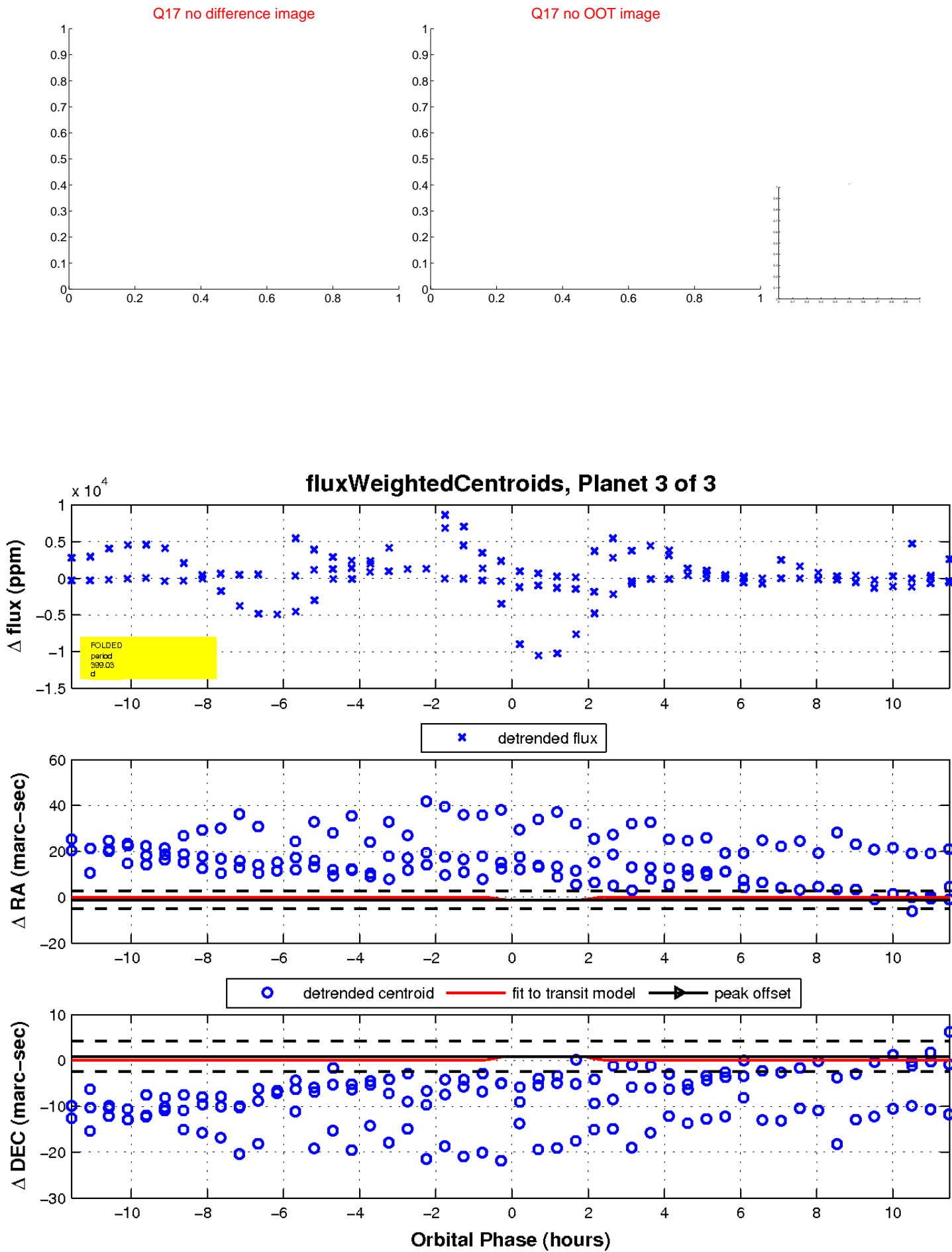
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

