

KIC 010532561

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})
010532561-01	OBS	No	349.983747	315.475738	435.8	2.928	17.0	4.6	2.93	5350	6.17	5.58
010532561-02	OBS	No	665.883881	176.933958	1369.2	5.399	14.6	8.9	2.93	5350	13.94	2.37
010532561-03	OBS	No	397.752041	524.982560	868.4	3.139	13.6	6.6	2.93	5350	9.16	4.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010532561-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
010532561-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010532561-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—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.

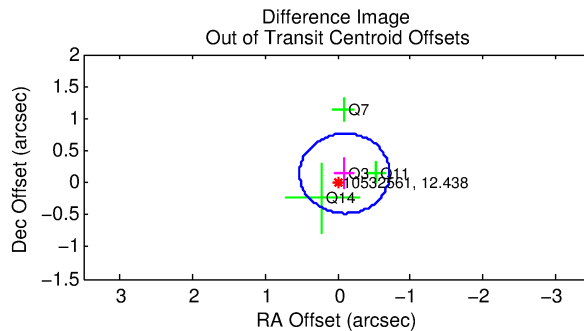
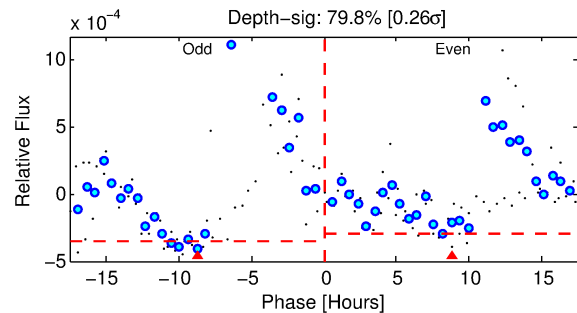
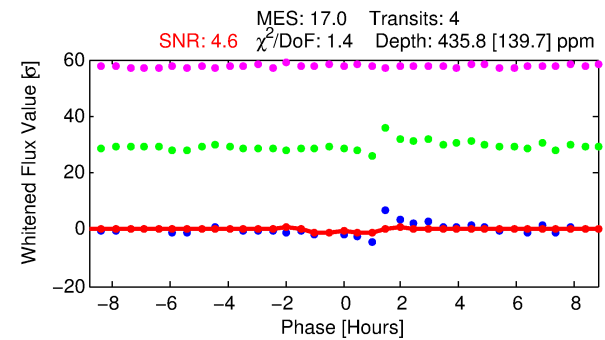
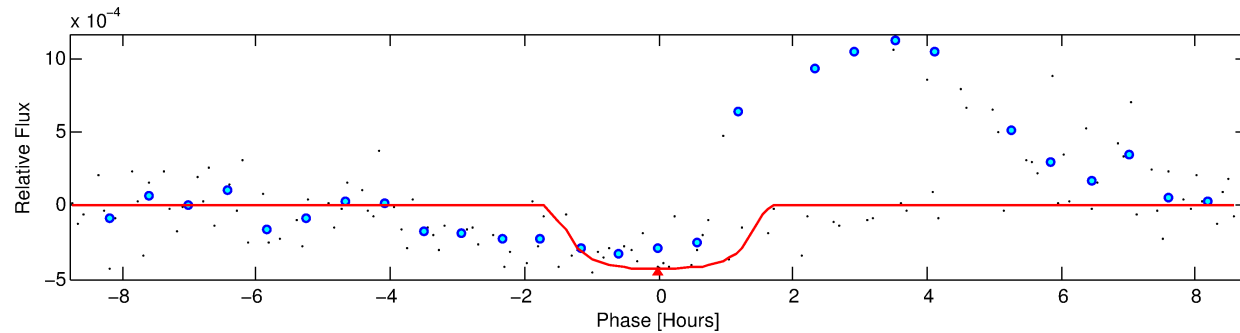
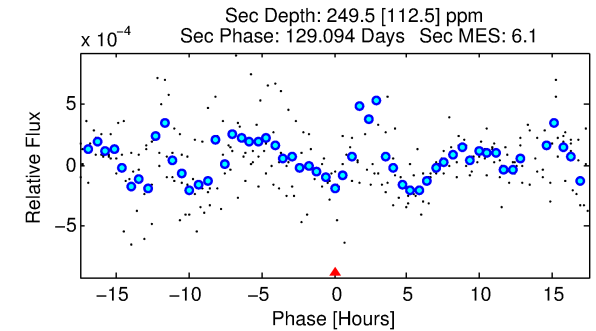
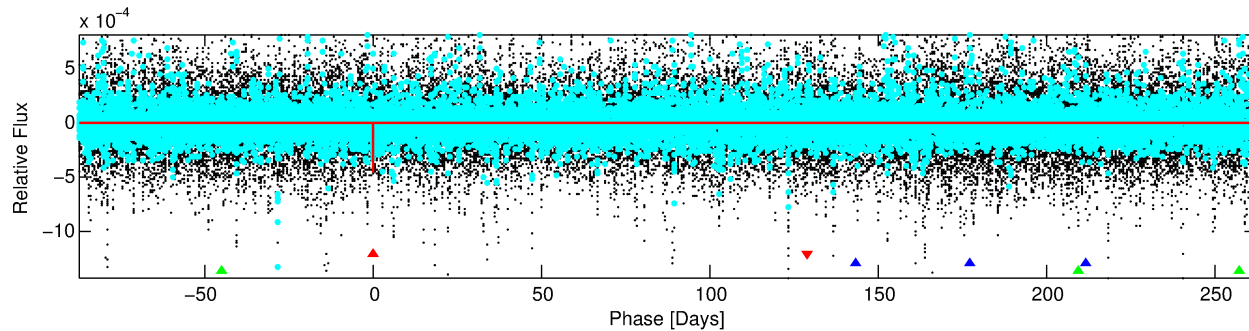
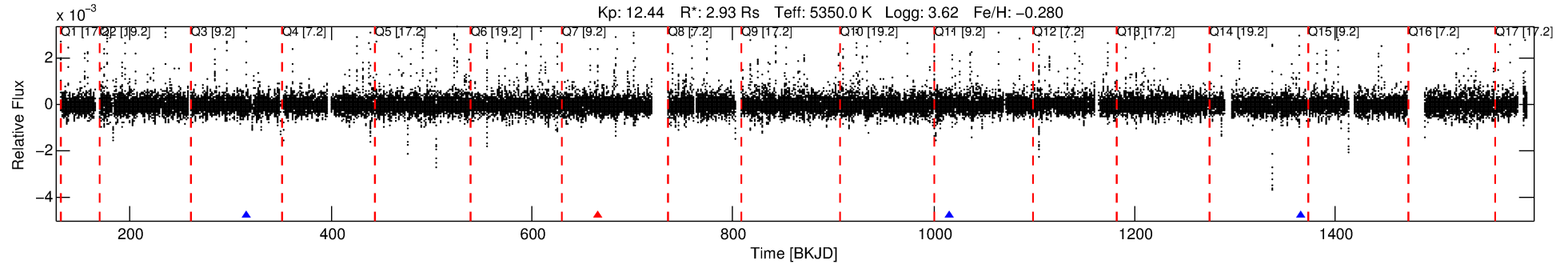
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010532561-01

No Significant Match Found

DV One-Page Summary

KIC: 10532561 Candidate: 1 of 3 Period: 349.984 d



DV Fit Results:

Period = 349.98375 [0.00279] d
Epoch = 315.4757 [0.0080] BKJD
Rp/R* = 0.0193 [0.0849]
a/R* = 835.65 [14774.66]
b = 0.45 [31.83]
Seff = 5.58 [8.03]
Teq = 392 [141] K
Rp = 6.17 [27.43] Re
a = 1.0615 [0.8612] AU
Ag = 4059.07 [36186.37] [0.11 σ]
Teffp = 4836 [10639] K [0.42 σ]

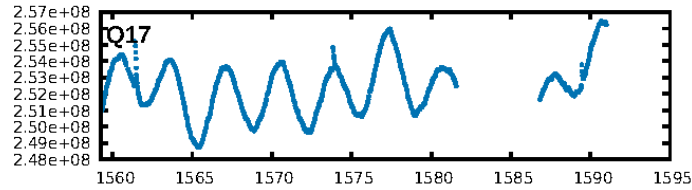
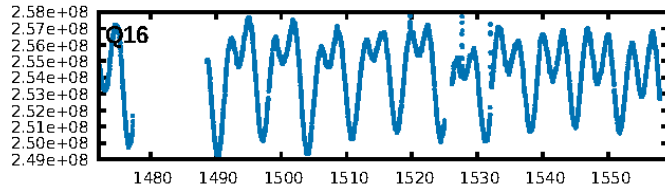
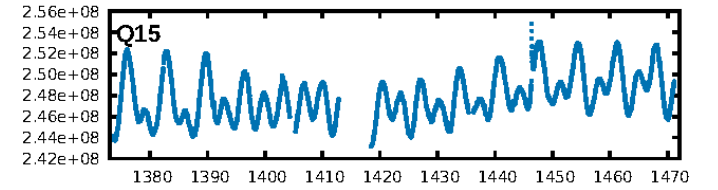
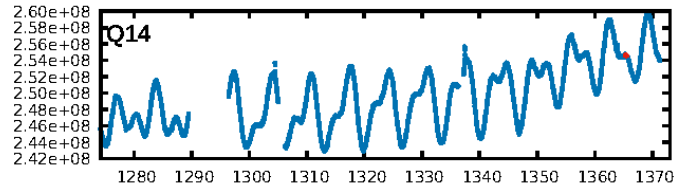
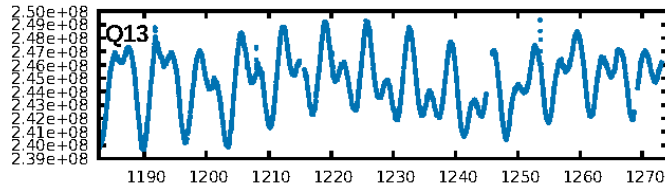
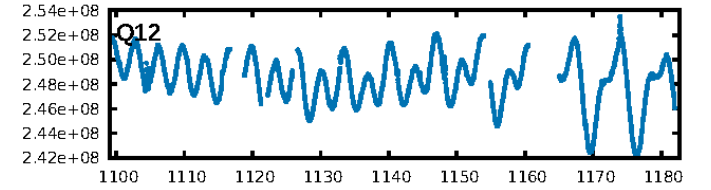
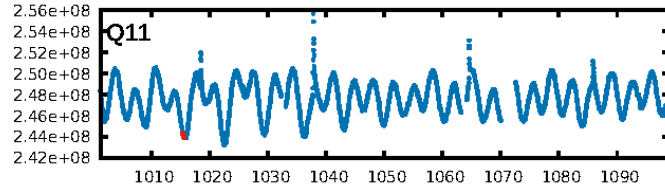
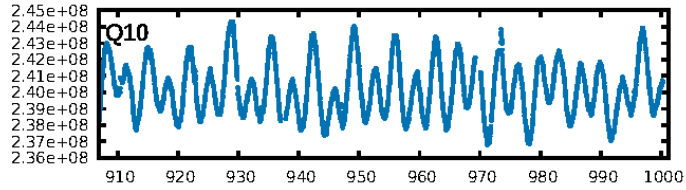
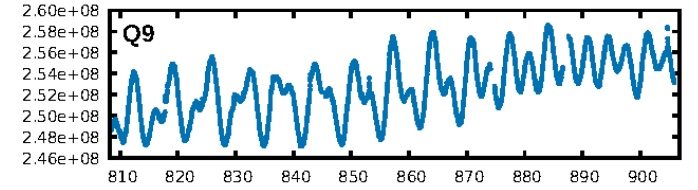
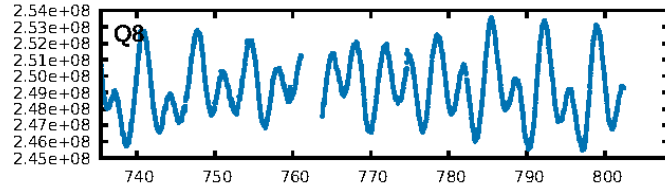
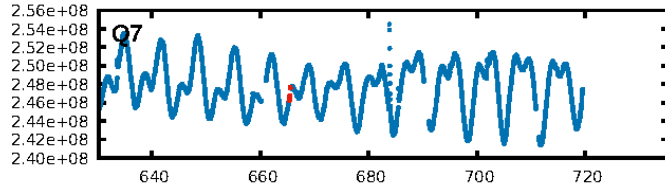
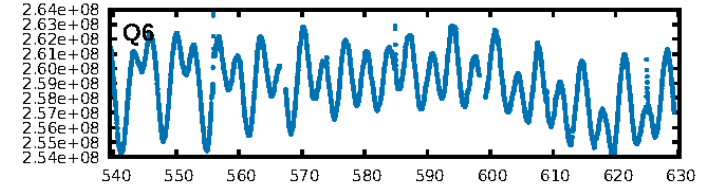
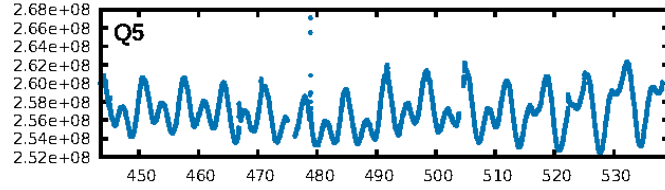
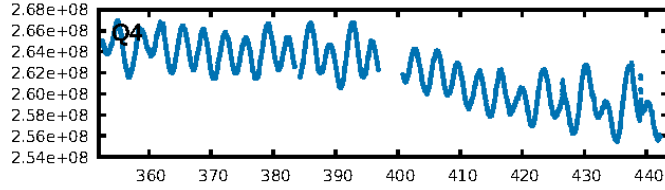
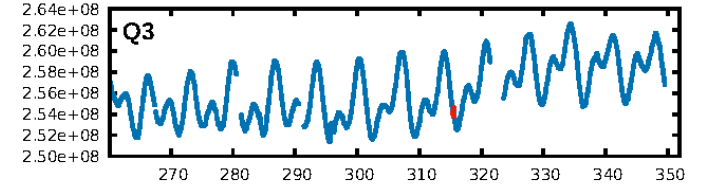
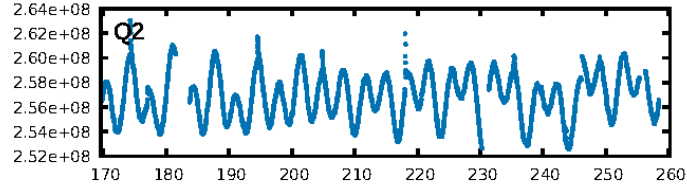
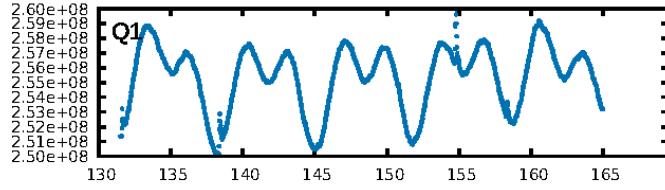
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [267.07 σ]
ModelChiSquare2-sig: 3.0%
ModelChiSquareGof-sig: 92.1%
Bootstrap-pfa: 6.74e-14
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: -2.482
Centroid-sig: 15.3%
Centroid-so: 0.712 arcsec [0.58 σ]
OotOffset-rm: 0.171 arcsec [0.82 σ]
KicOffset-rm: 0.068 arcsec [0.39 σ]
OotOffset-st: 1/3/0/0 [4]
KicOffset-st: 1/3/0/0 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 1.00 [4/4]

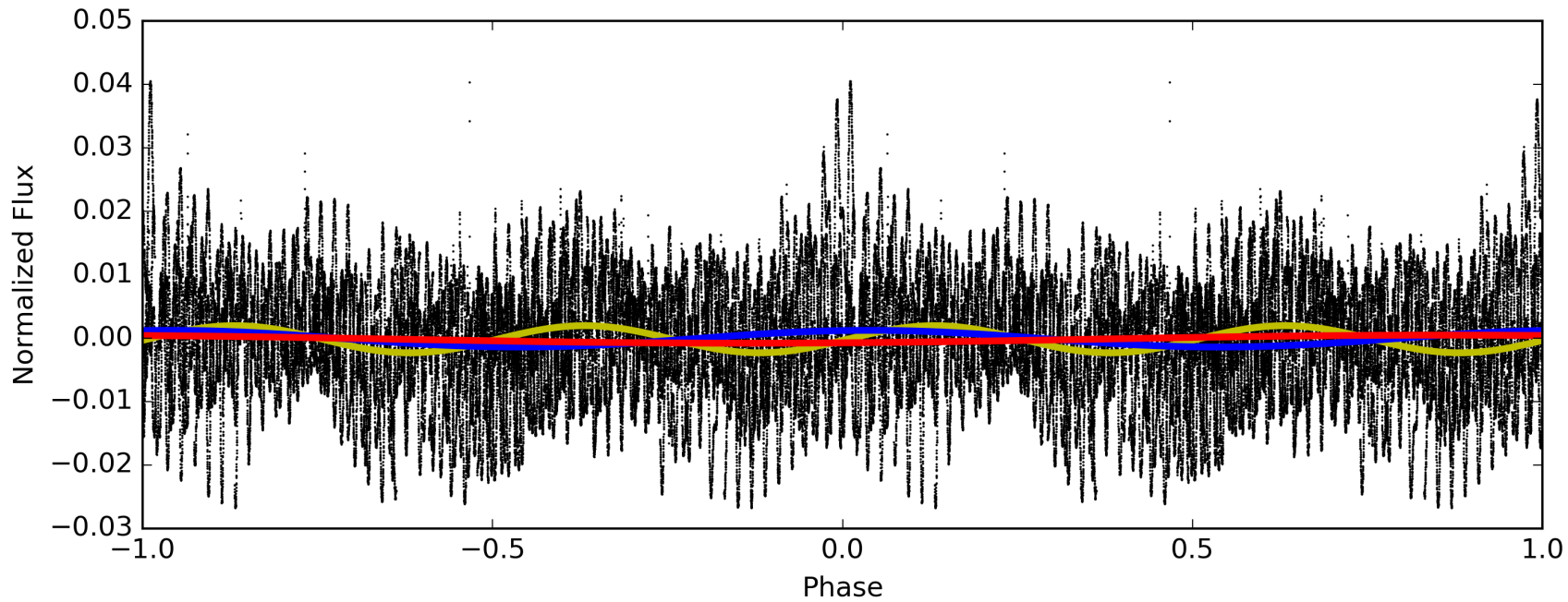
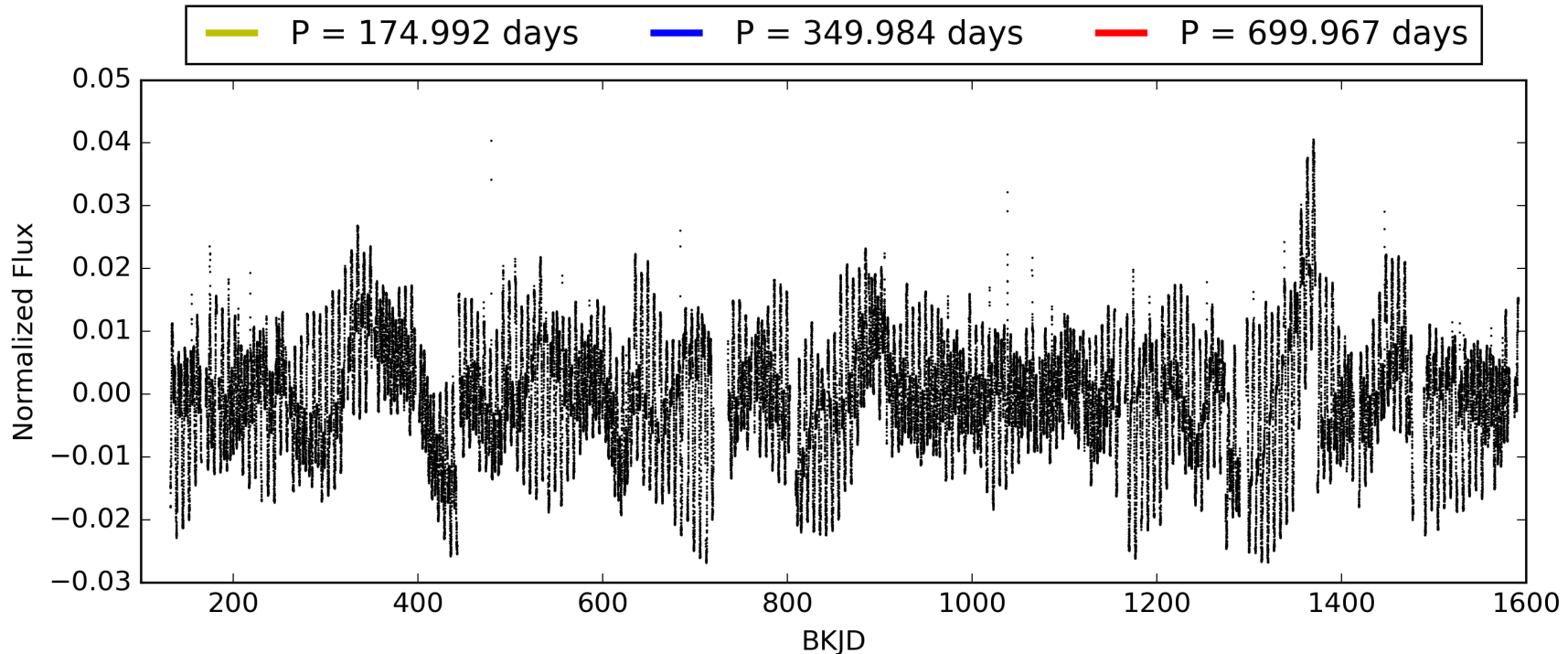
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010532561-01, PDC Light Curves

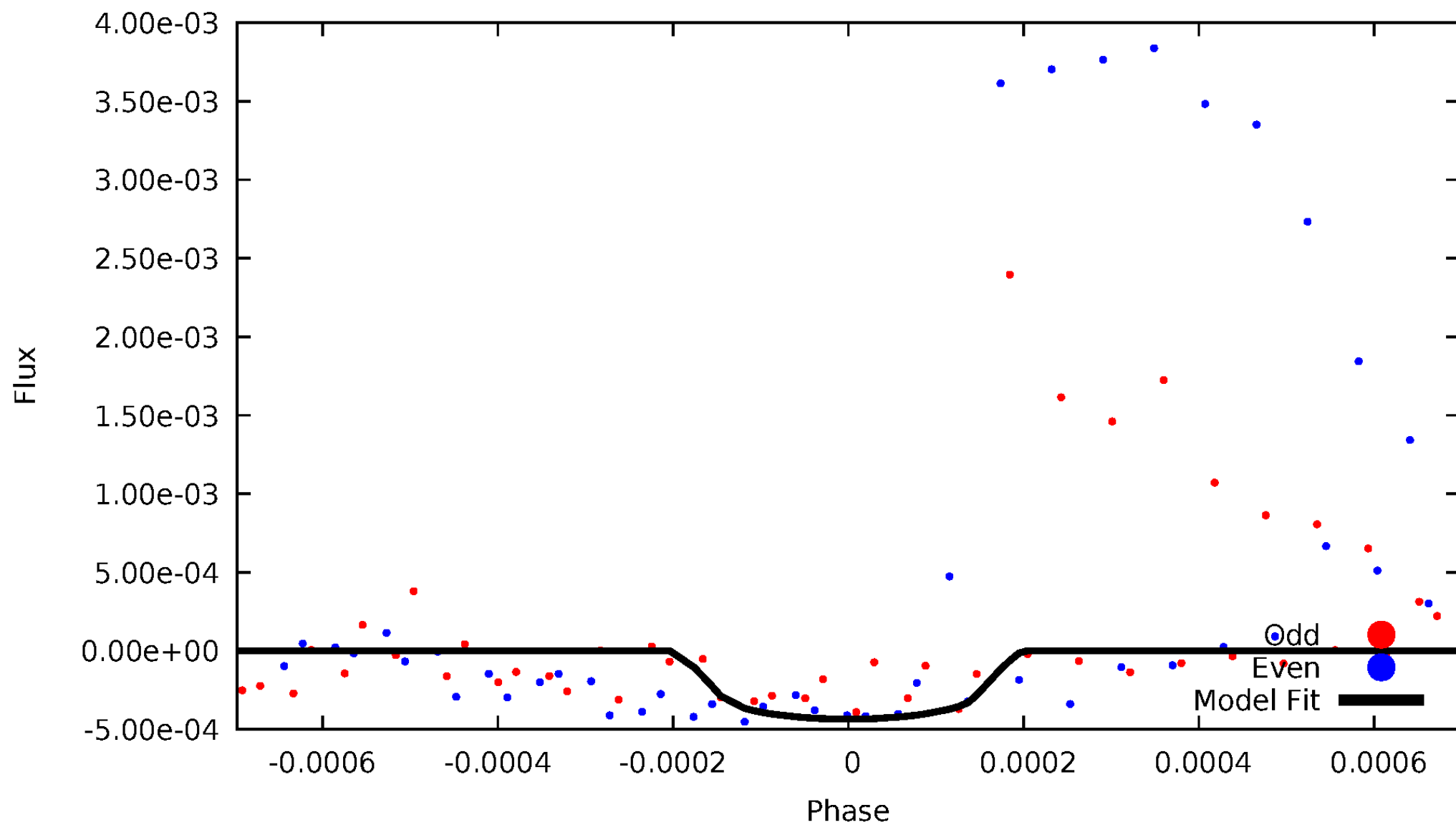


TCE 010532561-01



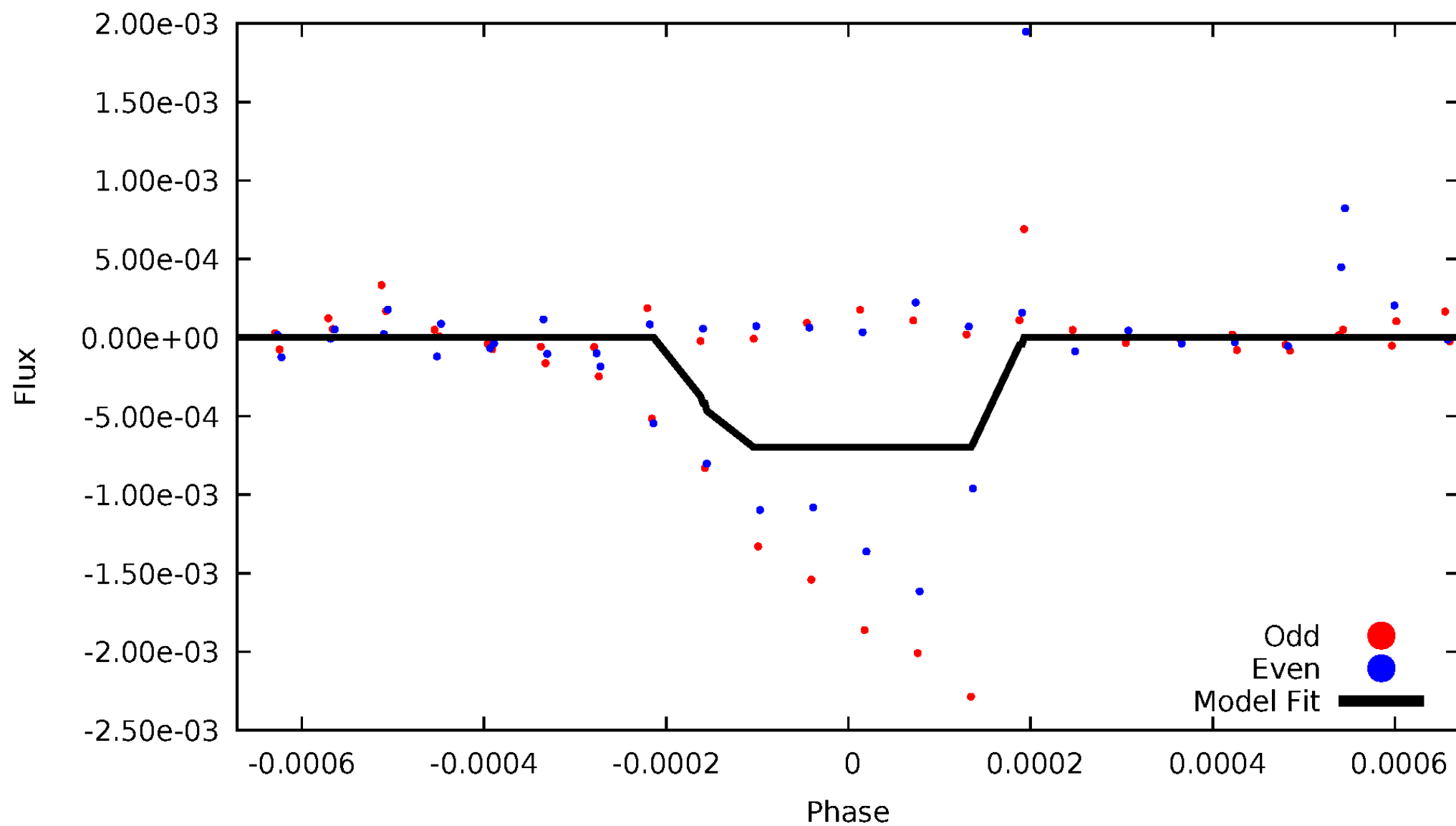
DV Odd/Even

TCE 010532561-01



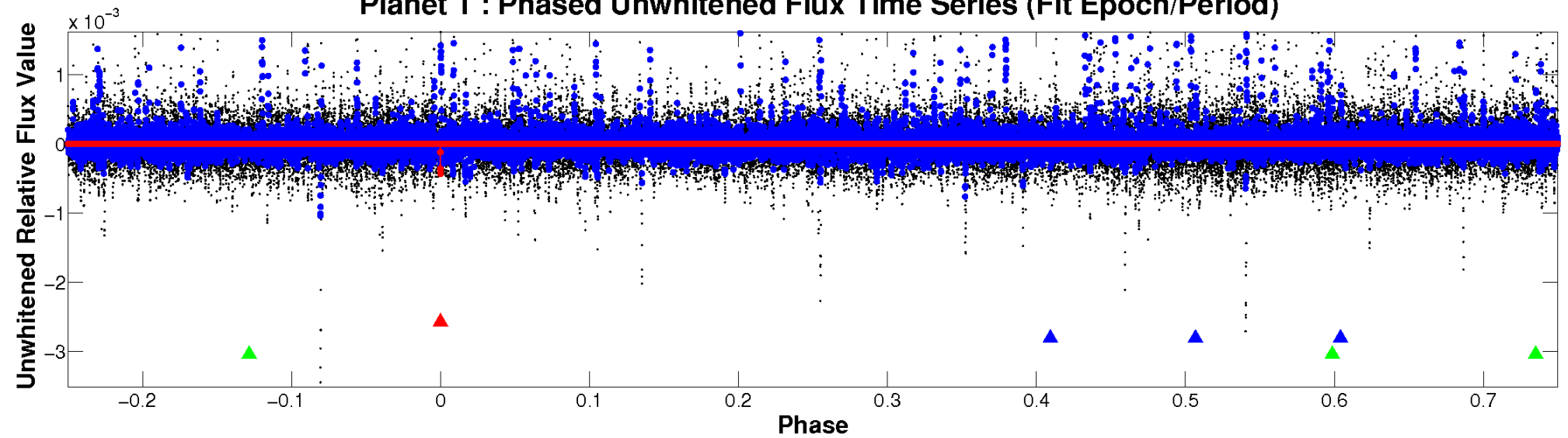
ALT Odd/Even

TCE 010532561-01

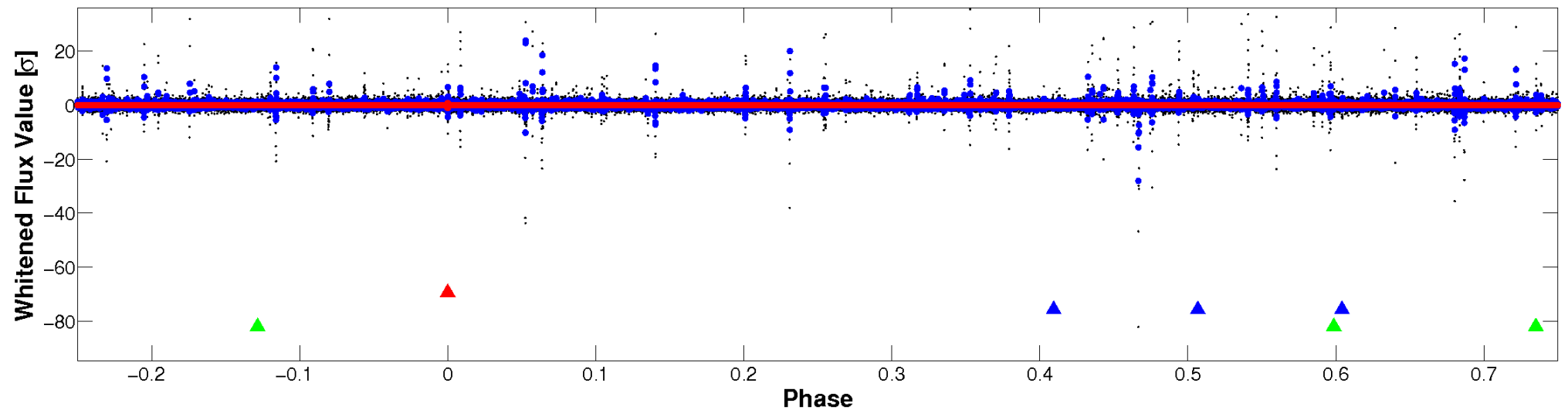


Non-Whitened Vs. Whitened Light Curve

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

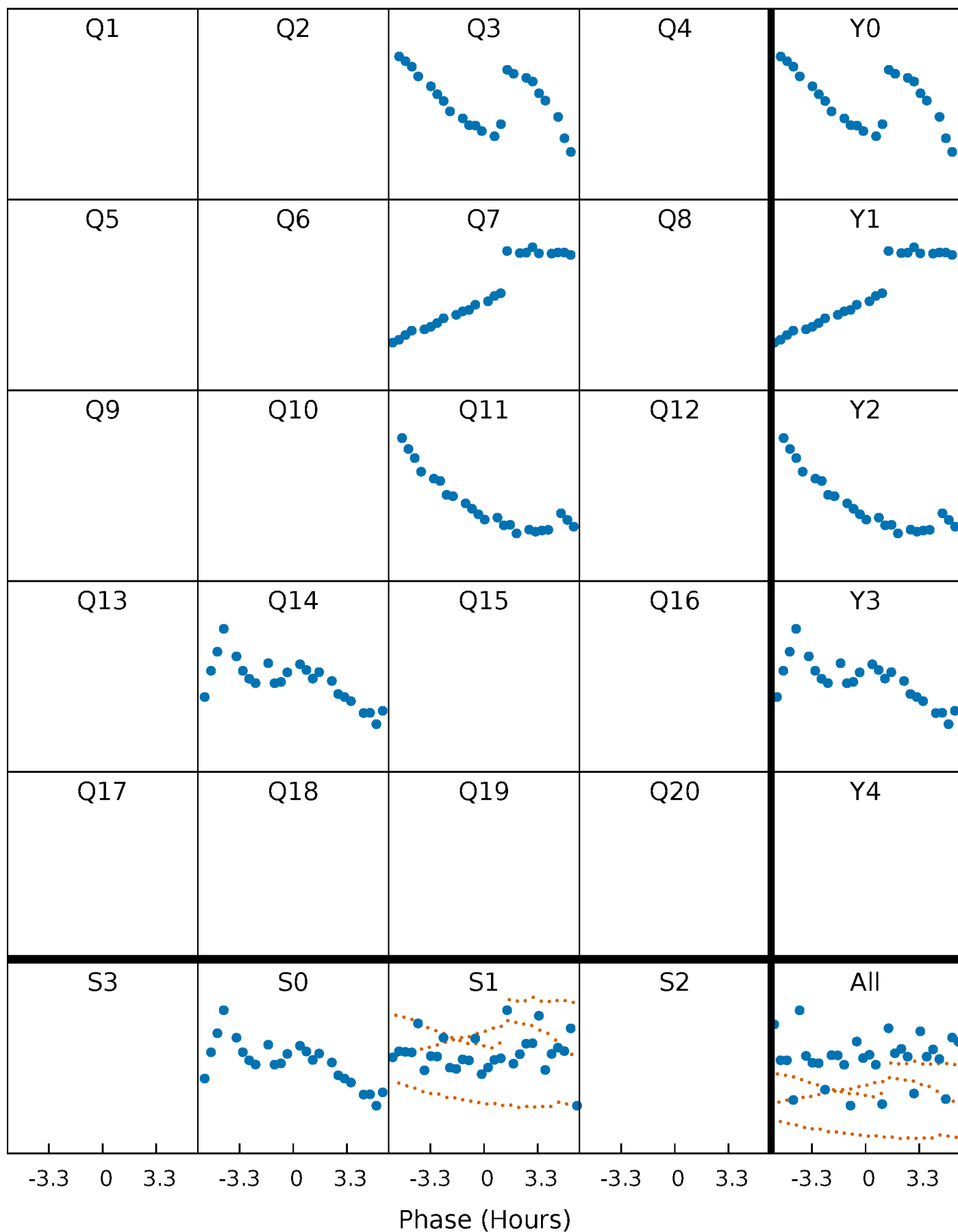


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



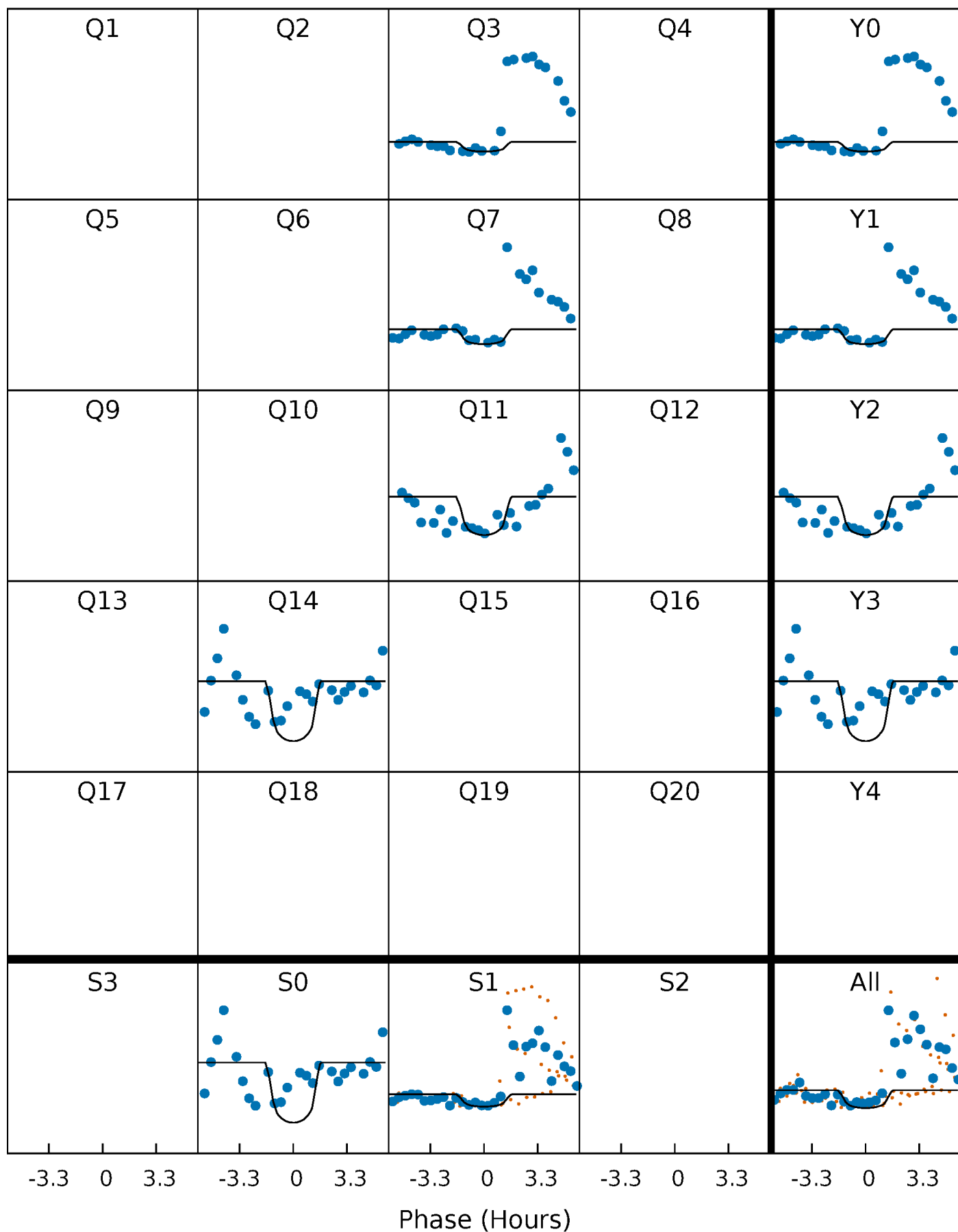
PDC Quarter-Phased Transit Curves

TCE 010532561-01 P=349.983747 Days $T_0=315.475738$ (BKJD)



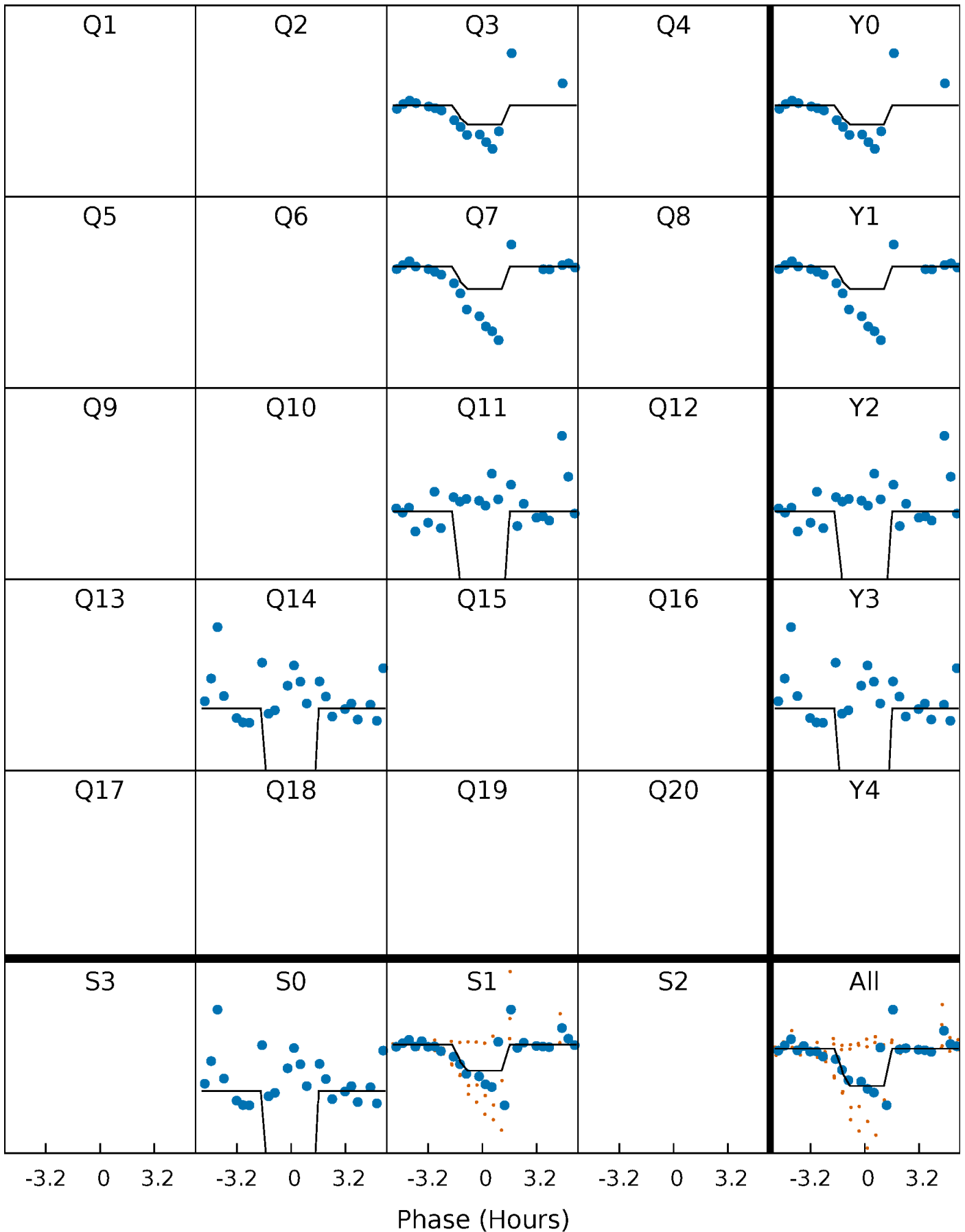
DV Quarter-Phased Transit Curves

TCE 010532561-01 P=349.983747 Days $T_0=315.475738$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

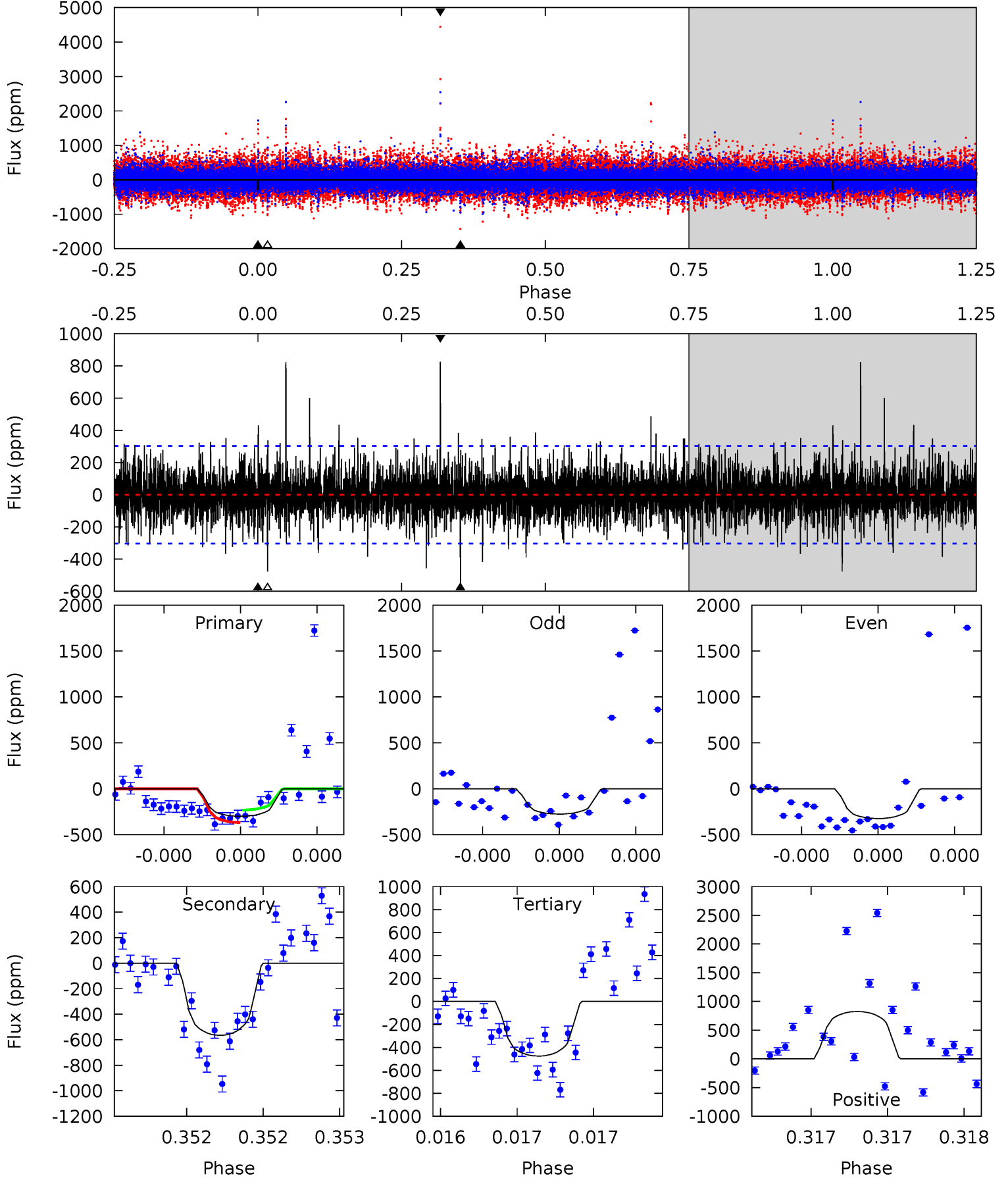
TCE 010532561-01 P=349.988183 Days $T_0=315.468287$ (BKJD)



DV Model-Shift Uniqueness Test

010532561-01, P = 349.983747 Days, E = 315.475738 Days

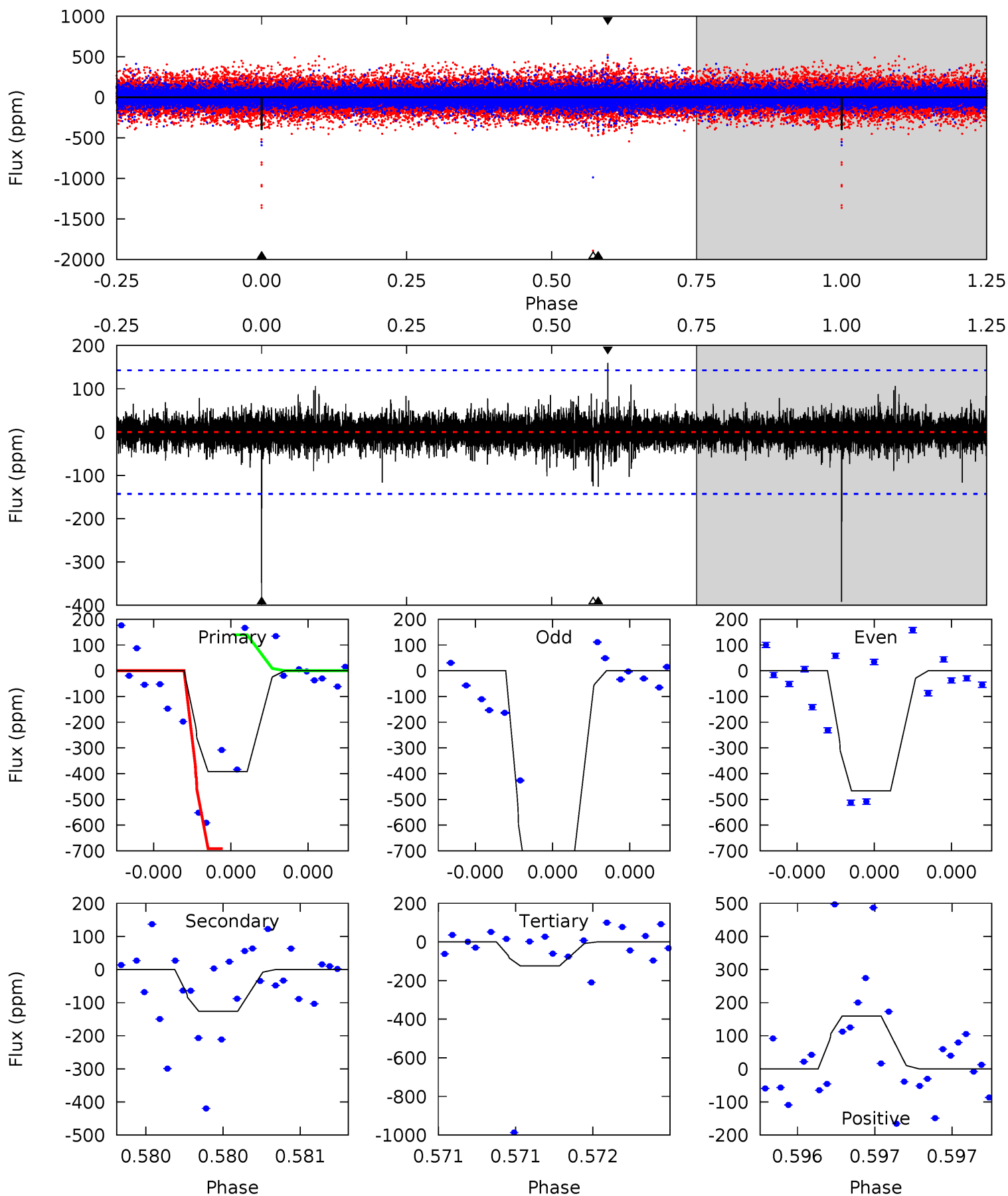
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.57	10.5	8.83	15.3	5.63	3.57	1.93	-3.27	-9.75	1.67	-4.81	0.33	0.94	0.59	1.27



Alt Model-Shift Uniqueness Test

010532561-01, P = 349.988183 Days, E = 315.468287 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	4.98	4.92	6.30	5.63	3.57	0.80	10.6	9.19	0.06	-1.32	7.86	1.23	0.29	9.83



Stellar Parameters For KIC 010532561

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5350^{+186}_{-168}	$3.620^{+0.888}_{-0.222}$	$-0.280^{+0.350}_{-0.300}$	$2.926^{+1.040}_{-1.932}$	$1.304^{+0.163}_{-0.455}$	$0.073^{+1.606}_{-0.045}$
	+3%/-3%	+25%/-6%	+125%/-107%	+36%/-66%	+12%/-35%	+2189%/-61%
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 010532561-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-566 ± 54	$16.96^{+20.59}_{-11.67}$	533^{+61}_{-104}	3673^{+2042}_{-723}	1240^{+10634}_{-1003}
Alt.	-126 ± 25	$17.00^{+23.28}_{-12.26}$	533^{+61}_{-101}	2903^{+1345}_{-485}	257^{+3155}_{-212}

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 $A_{obs} \gg 1.0$

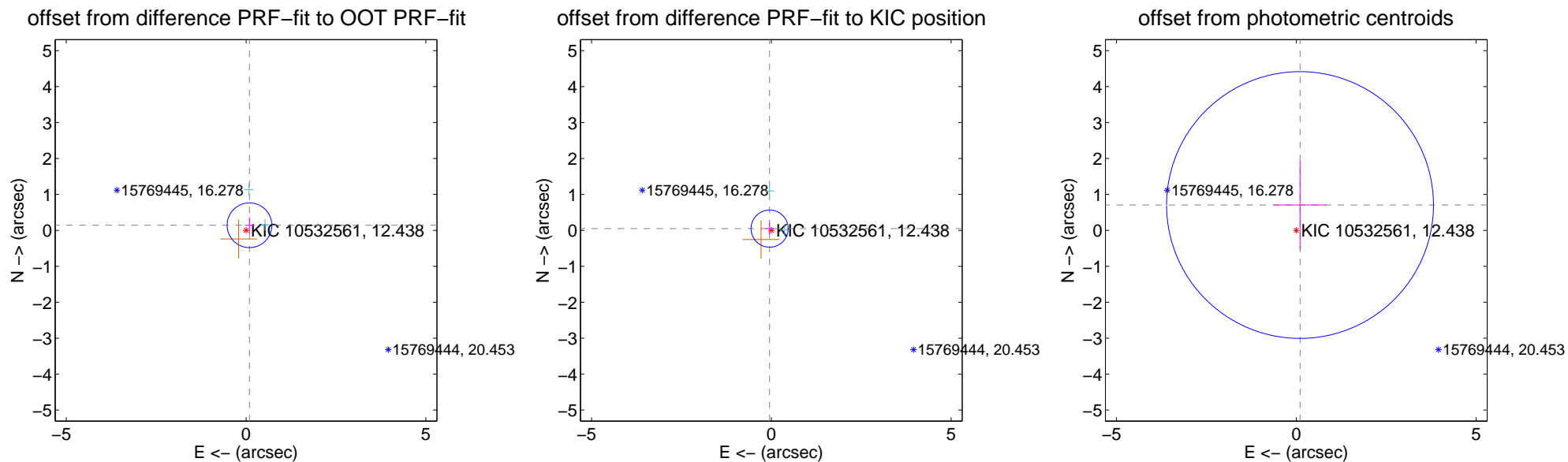
DV Centroid Data

Supplemental centroid analysis for 010532561-01. Kepler magnitude: 12.44. Transit SNR 4.56

There are 3 quarters with good PRF difference image offsets

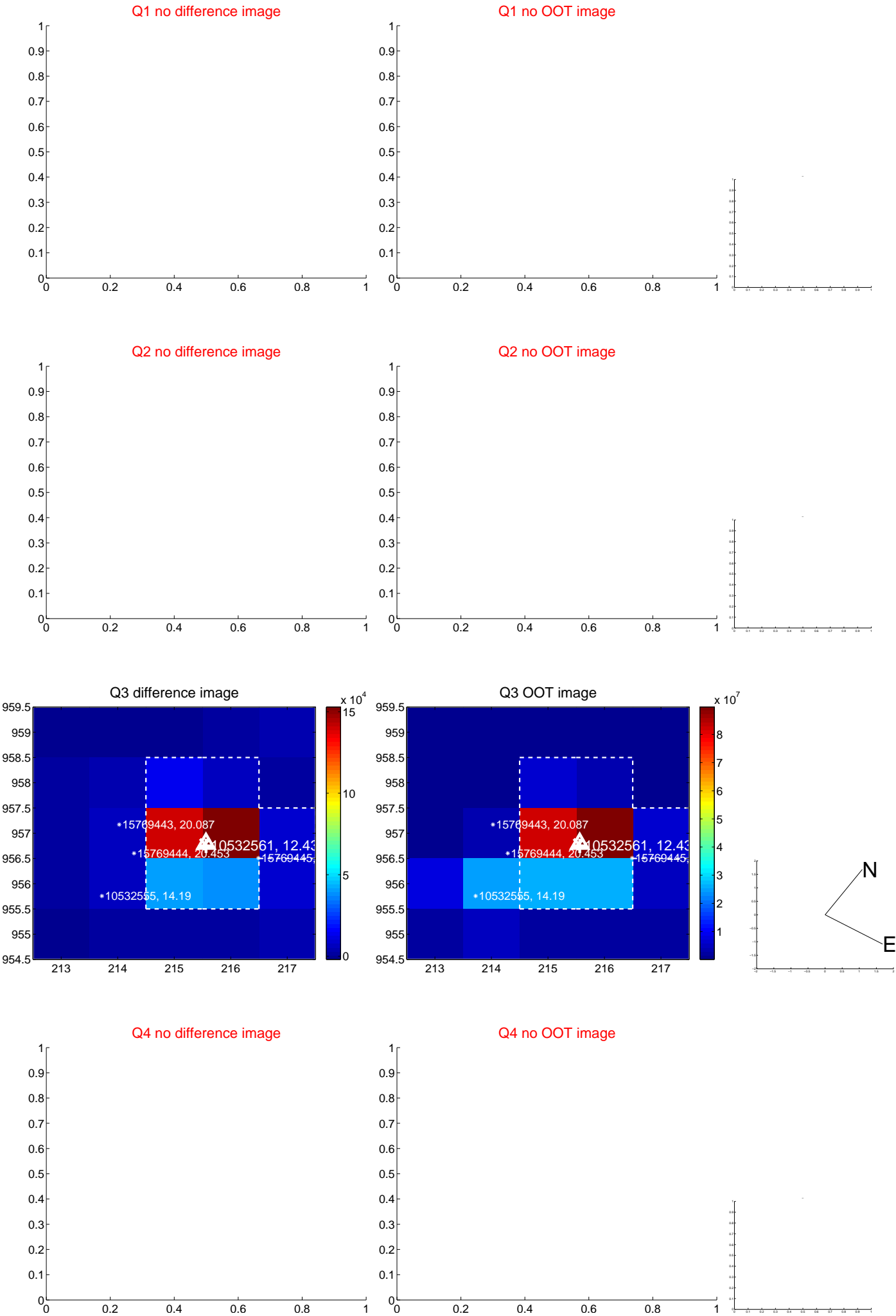
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.171 ± 0.207	0.82	-0.095 ± 0.122	0.142 ± 0.227
PRF-fit source offset from KIC position	0.068 ± 0.172	0.39	0.048 ± 0.120	0.048 ± 0.172
photometric centroid source offset	0.71 ± 1.24	0.58	-0.10 ± 0.74	0.70 ± 1.25

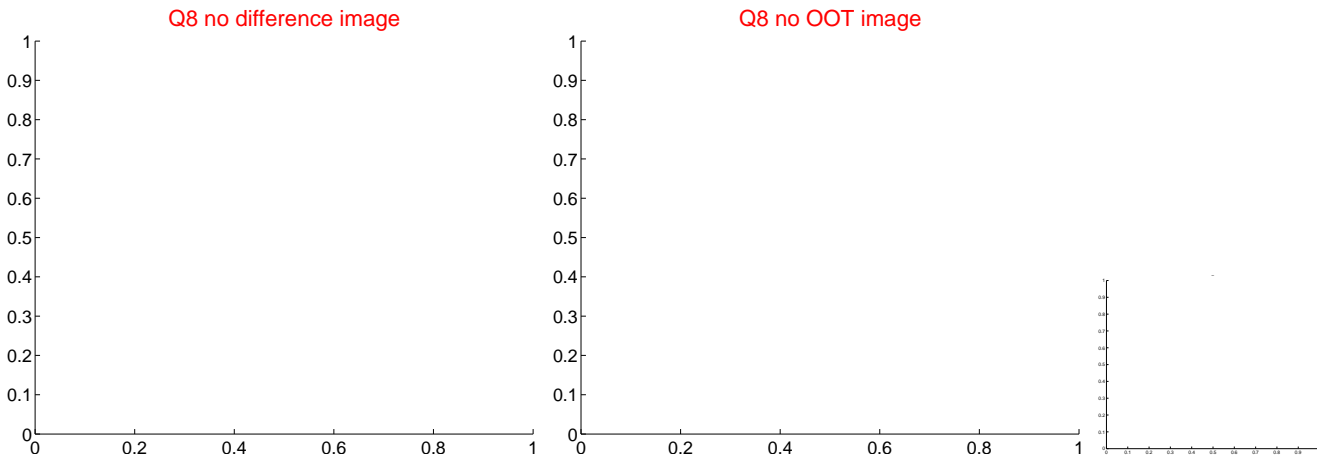
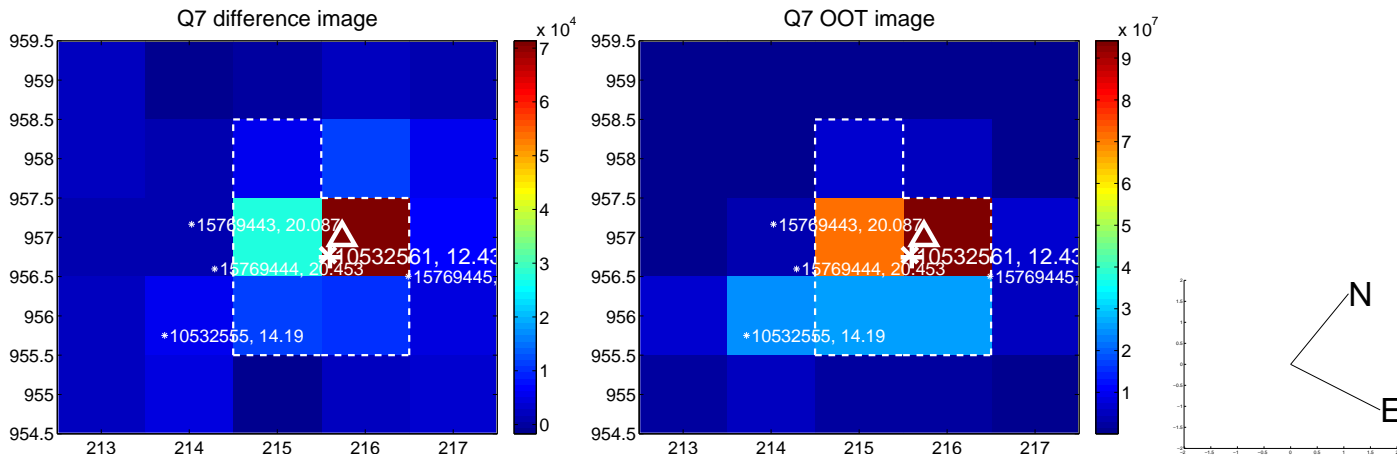
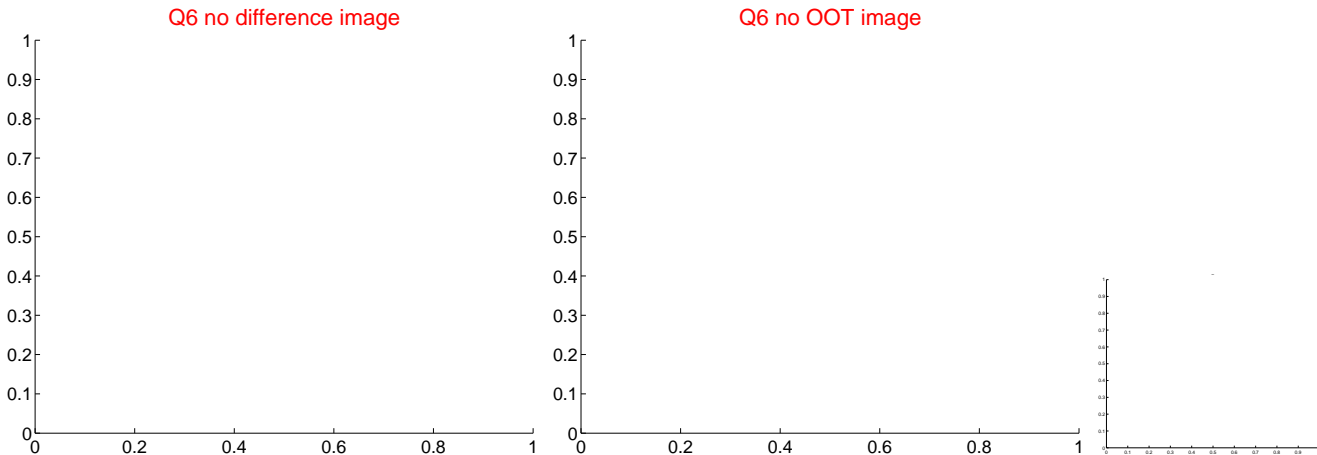
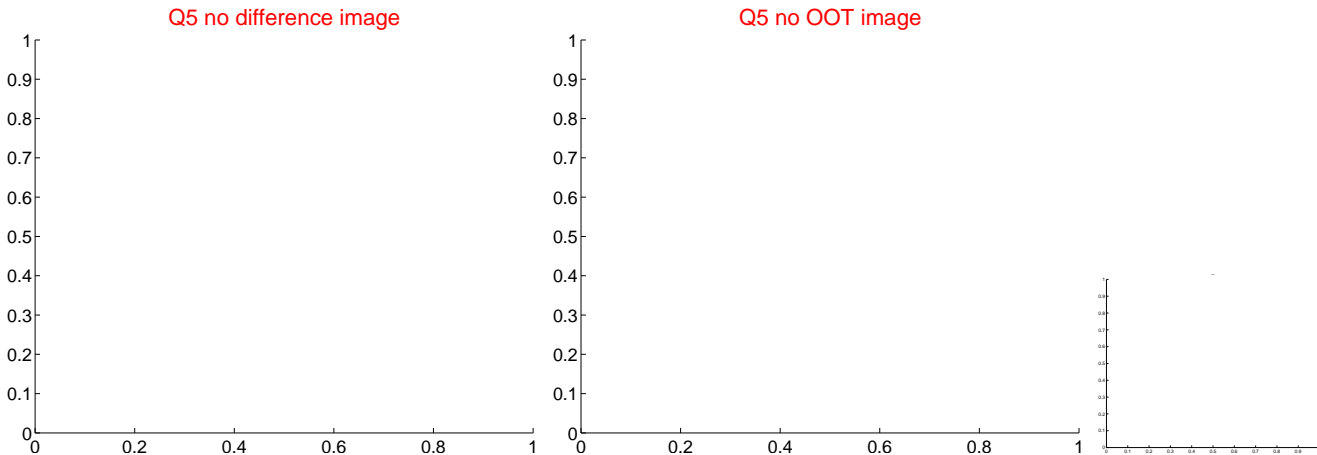


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

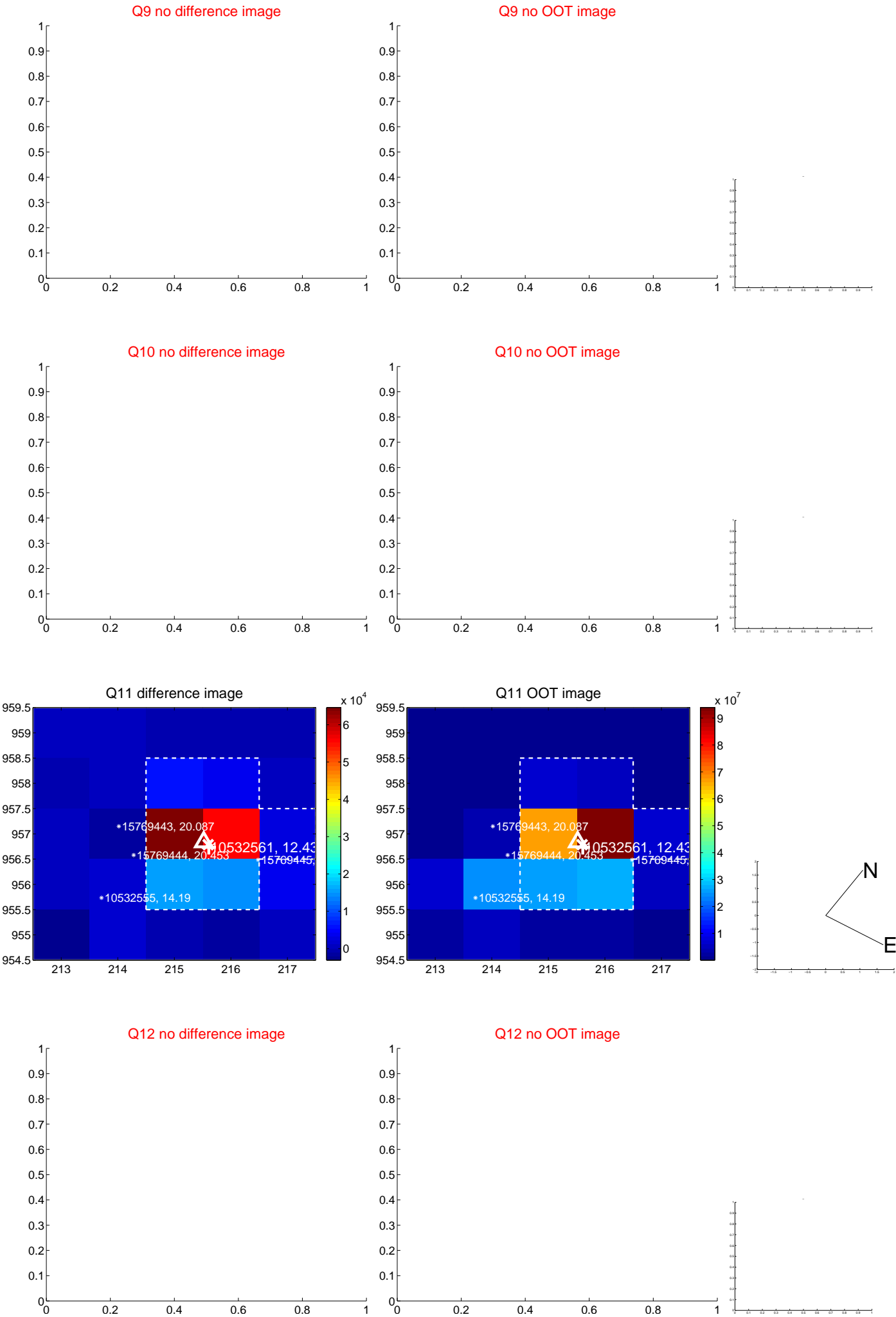
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



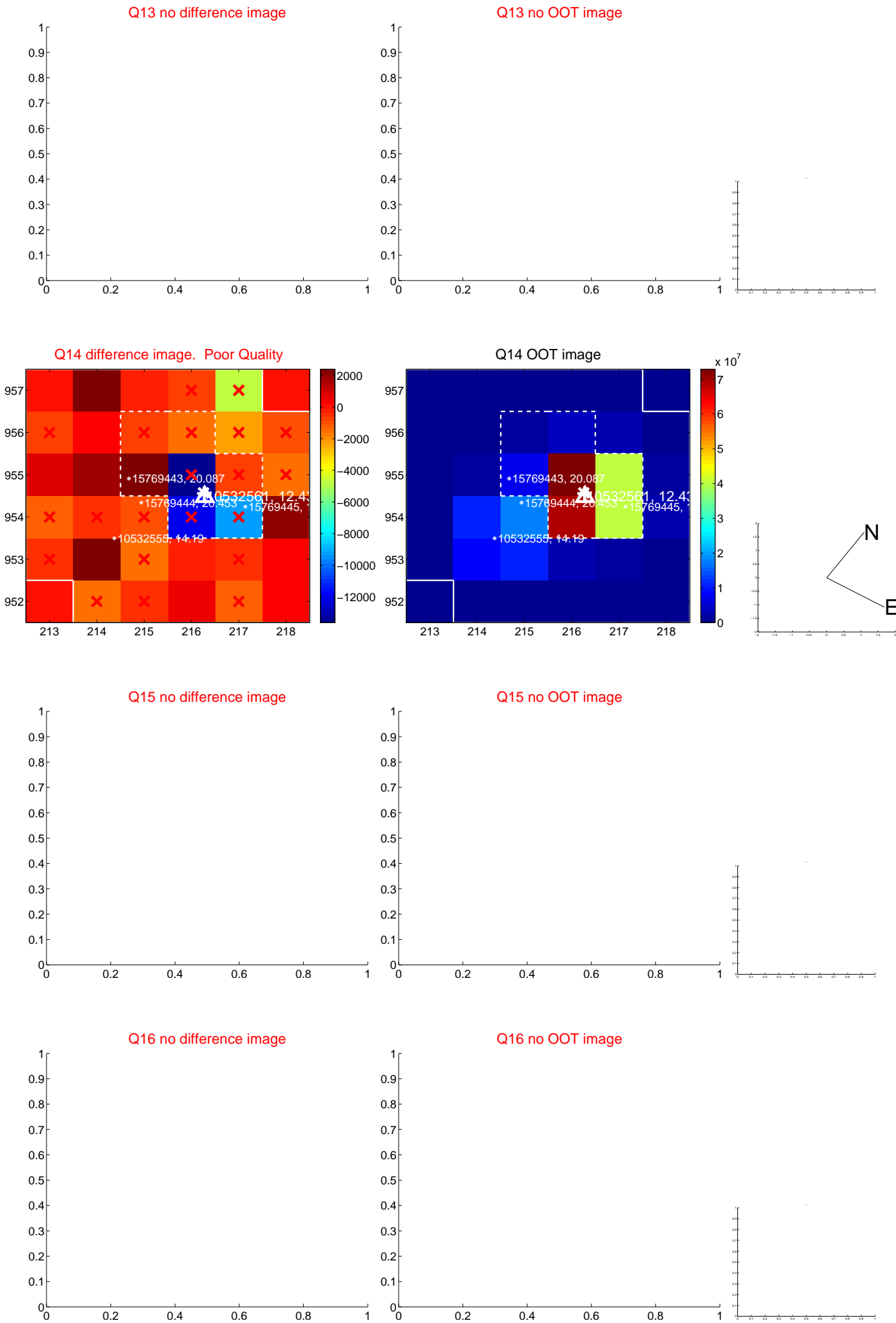
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



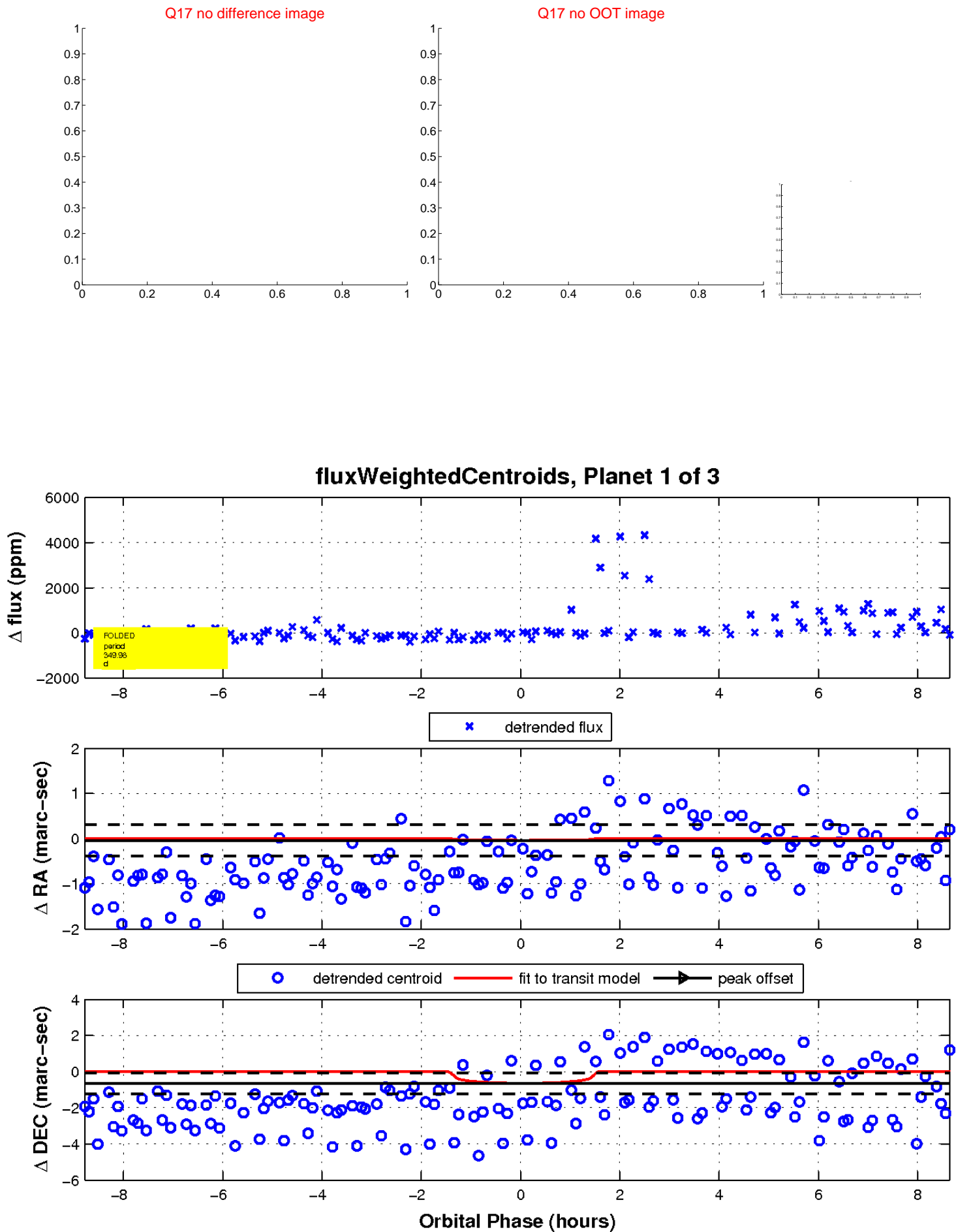
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



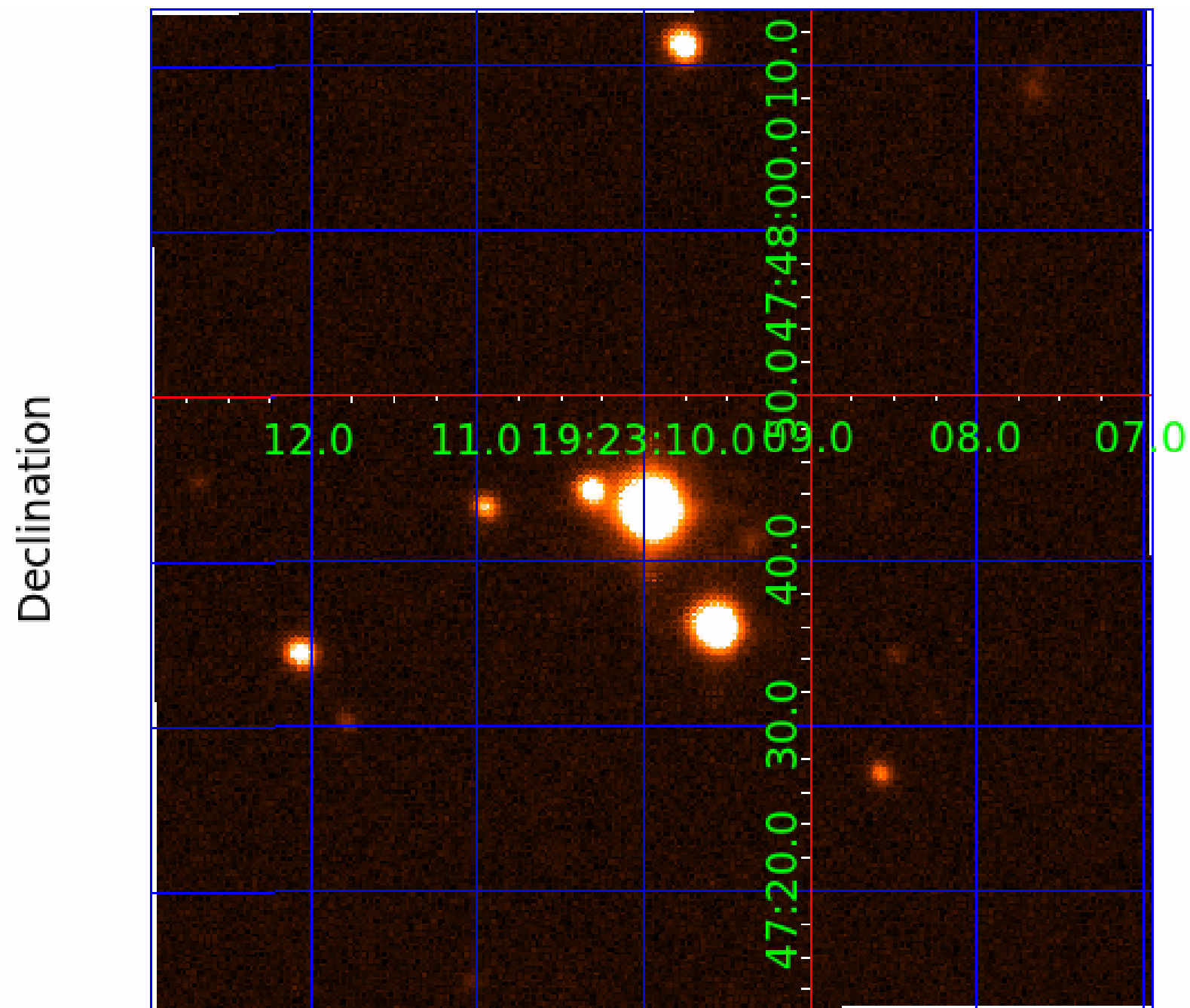
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UKIRT Image



KIC 010532561

Q1-17 DR25 TCE Parameters

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Robovetter Results

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010532561-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010532561-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

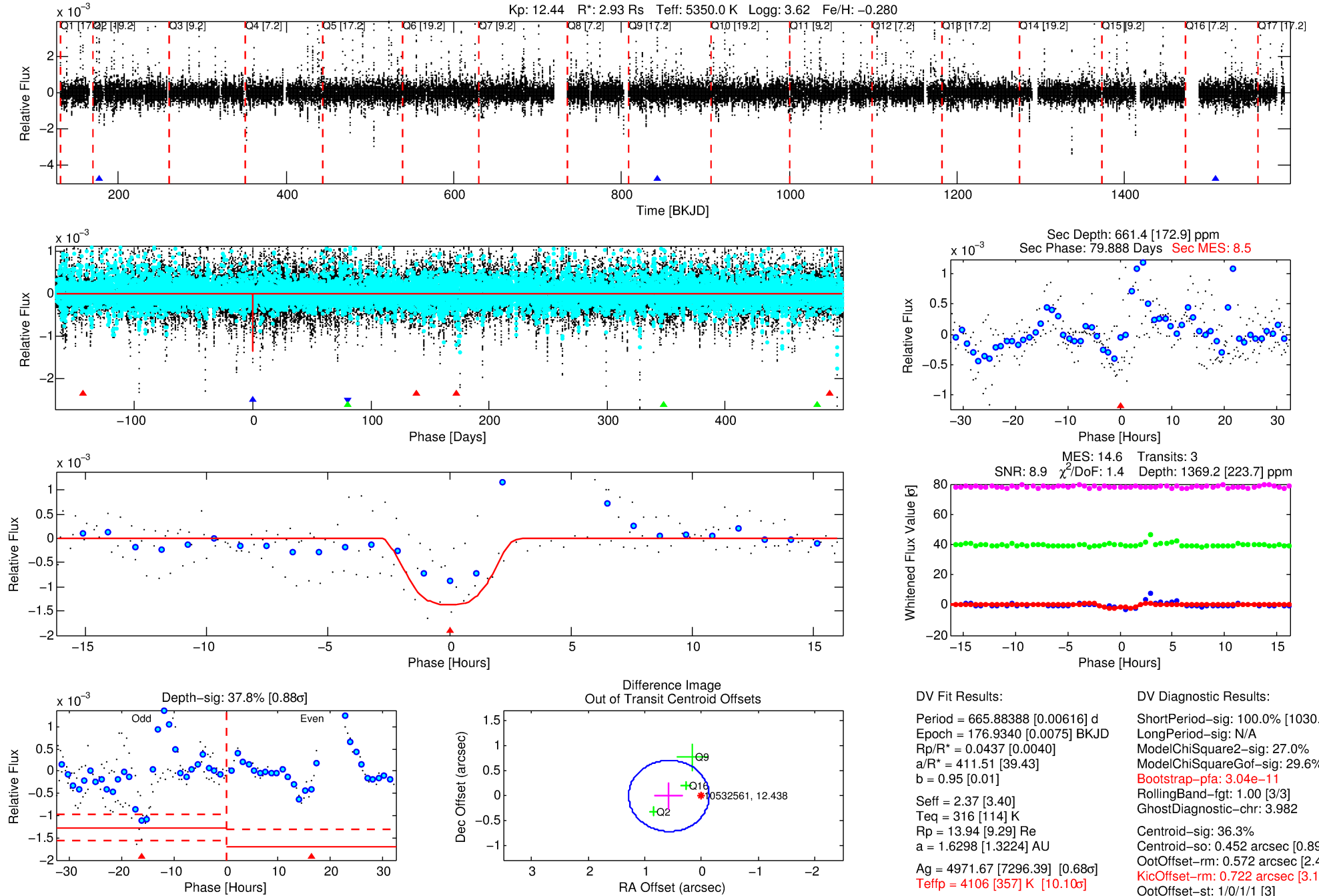
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010532561-02

No Significant Match Found

DV One-Page Summary

KIC: 10532561 Candidate: 2 of 3 Period: 665.884 d



DV Fit Results:

Period = 665.88388 [0.00616] d
 Epoch = 176.9340 [0.0075] BKJD
 Rp/R* = 0.0437 [0.0040]
 a/R* = 411.51 [39.43]
 b = 0.95 [0.01]
 S_{eff} = 2.37 [3.40]
 T_{eq} = 316 [114] K
 Rp = 13.94 [9.29] Re
 a = 1.6298 [1.3224] AU
 Ag = 4971.67 [7296.39] [0.68 σ]
 T_{effp} = 4106 [357] K [10.10 σ]

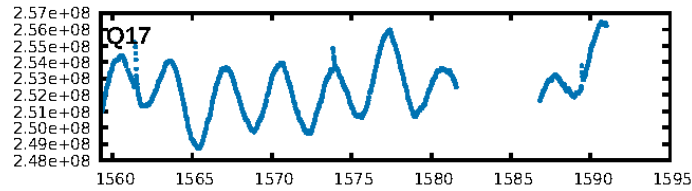
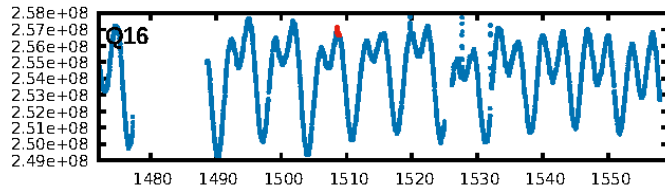
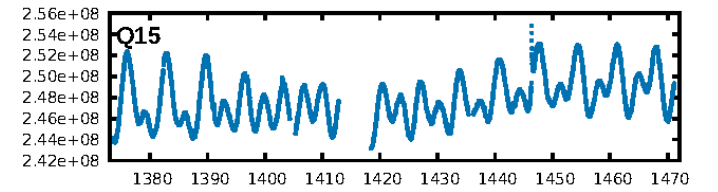
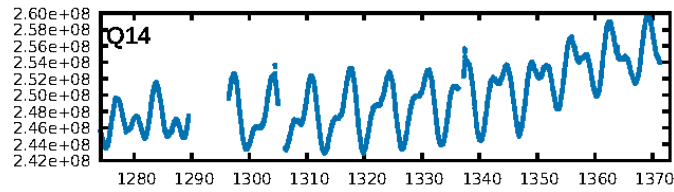
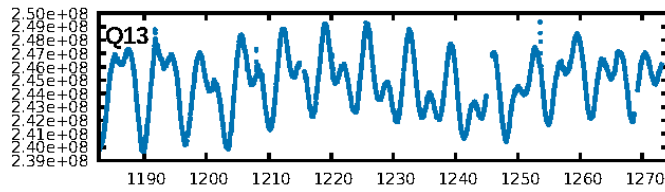
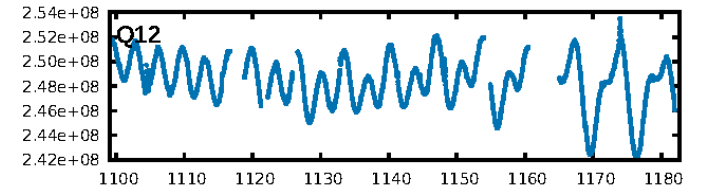
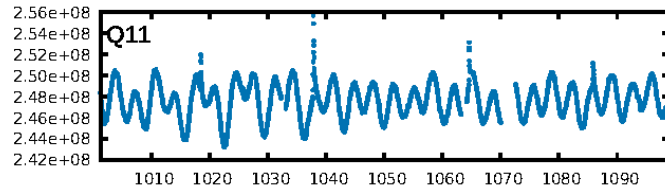
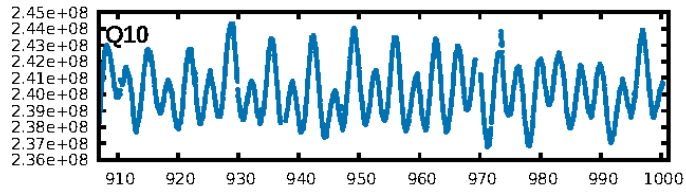
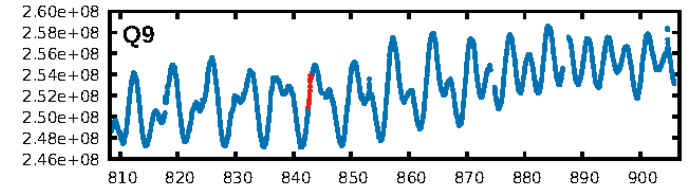
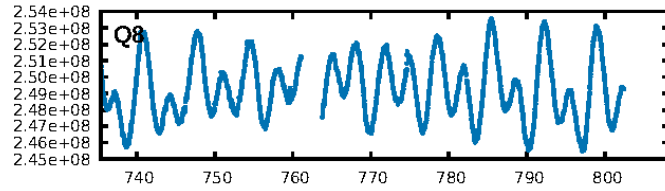
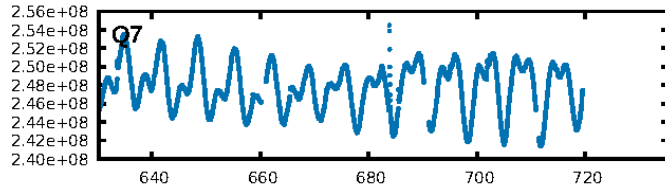
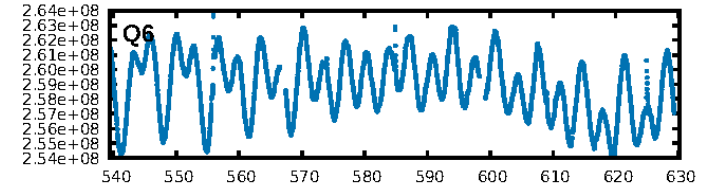
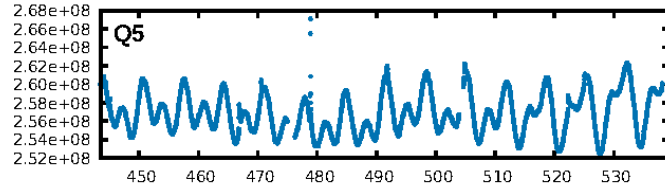
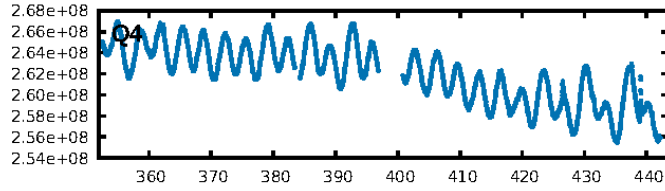
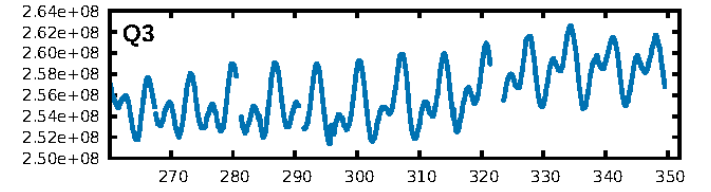
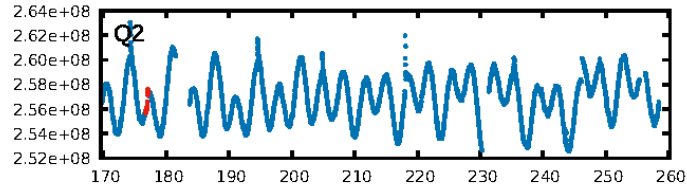
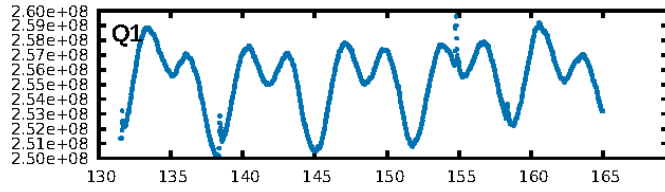
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1030.34 σ]
 LongPeriod-sig: N/A
 ModelChiSquare2-sig: 27.0%
 ModelChiSquareGof-sig: 29.6%
 Bootstrap-pfa: 3.04e-11
 RollingBand-fgt: 1.00 [3/3]
 GhostDiagnostic-chr: 3.982
 Centroid-sig: 36.3%
 Centroid-so: 0.452 arcsec [0.89 σ]
 OotOffset-rm: 0.572 arcsec [2.41 σ]
 KicOffset-rm: 0.722 arcsec [3.14 σ]
 OotOffset-st: 1/0/1/1 [3]
 KicOffset-st: 1/0/1/1 [3]
 DiffImageQuality-fgm: 0.67 [2/3]
 DiffImageOverlap-fno: 1.00 [3/3]

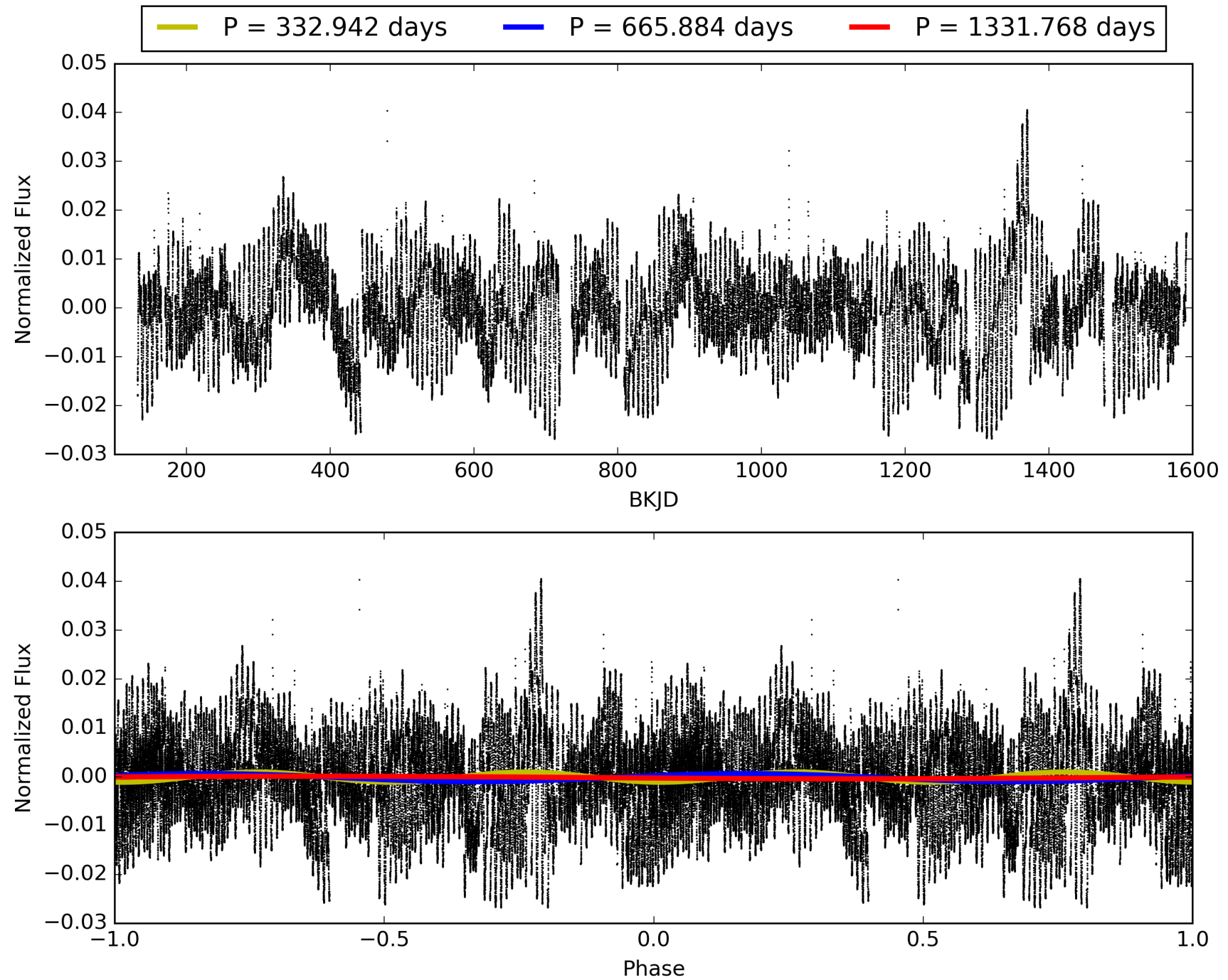
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:36:50 Z

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

TCE 010532561-02, PDC Light Curves

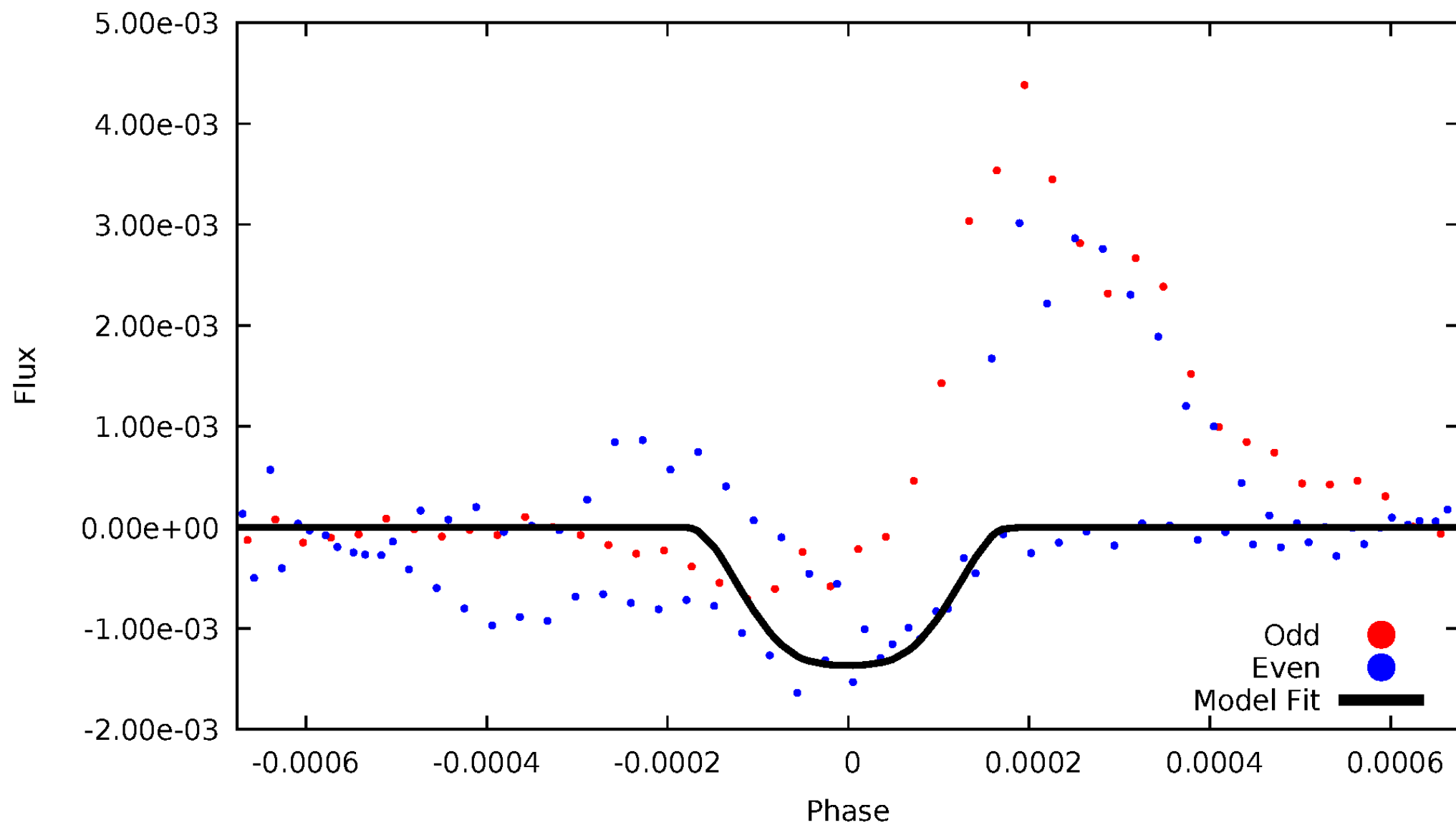


TCE 010532561-02



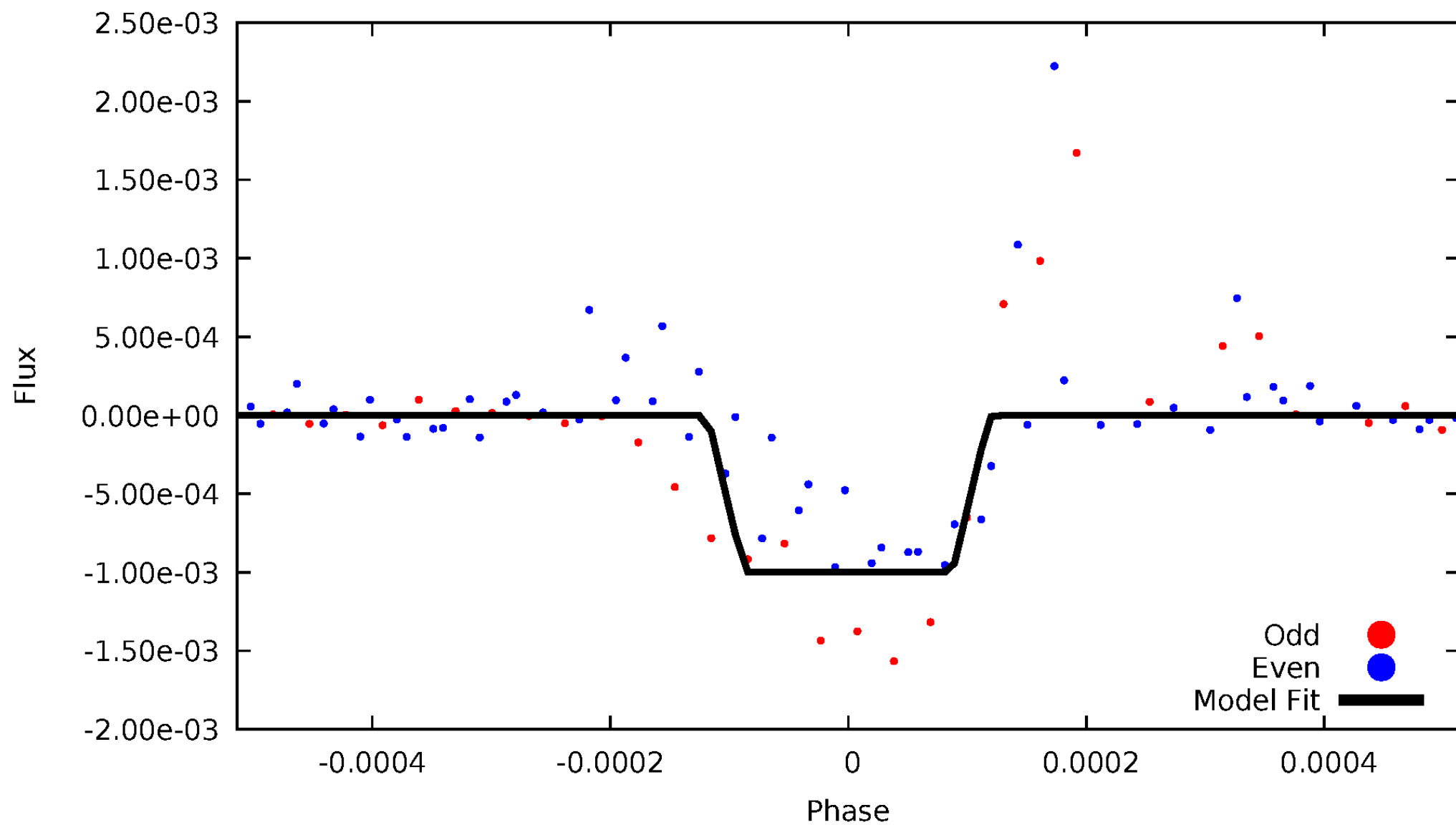
DV Odd/Even

TCE 010532561-02



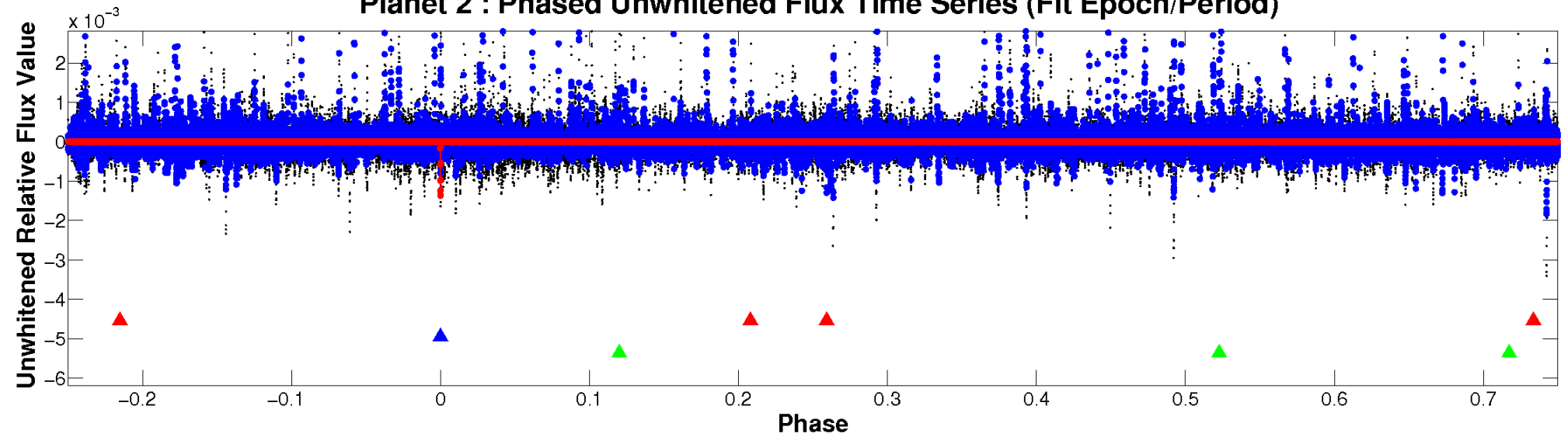
ALT Odd/Even

TCE 010532561-02

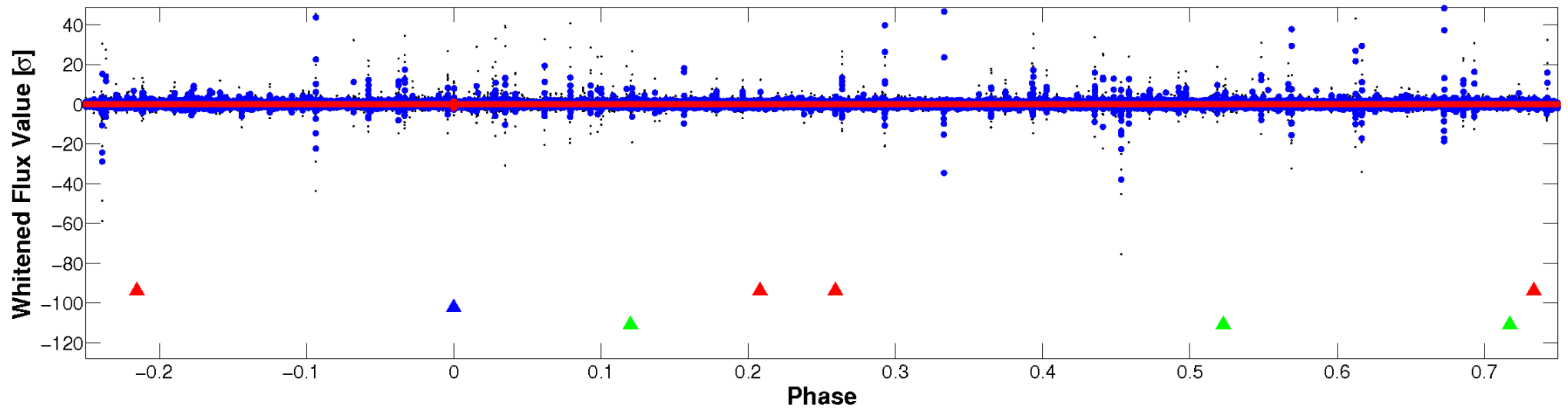


Non-Whitened Vs. Whitened Light Curve

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

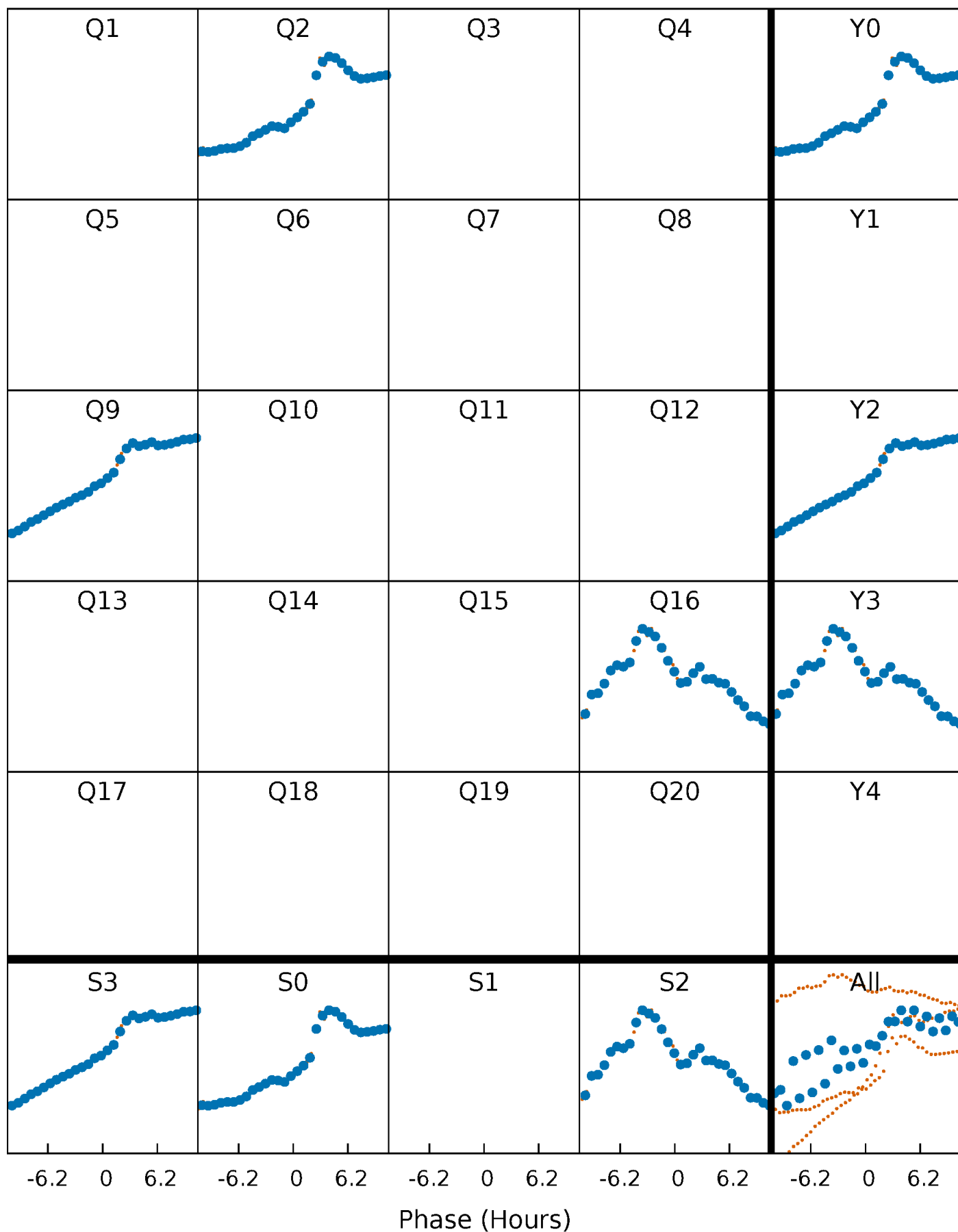


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



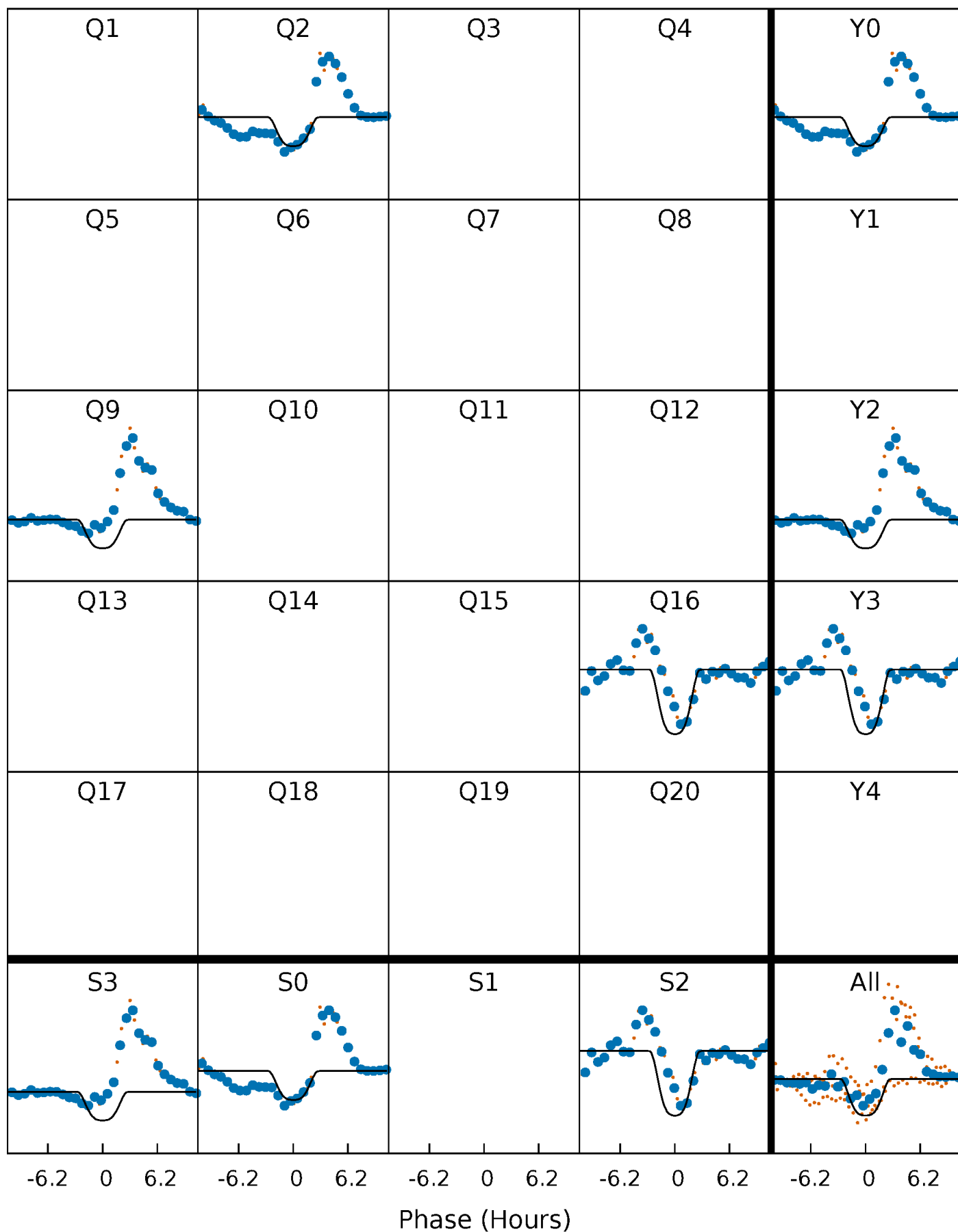
PDC Quarter-Phased Transit Curves

TCE 010532561-02 P=665.883881 Days $T_0=176.933958$ (BKJD)



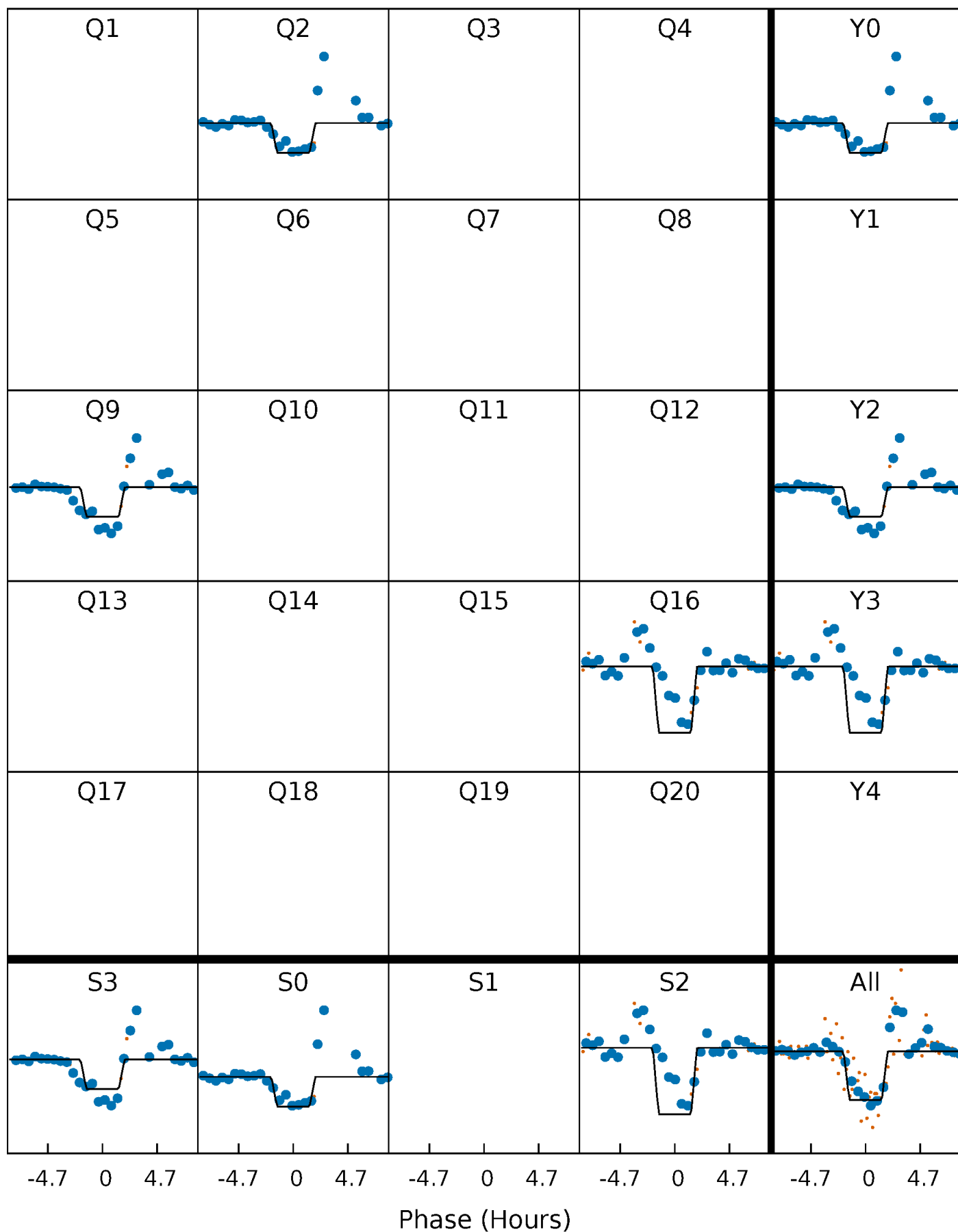
DV Quarter-Phased Transit Curves

TCE 010532561-02 $P=665.883881$ Days $T_0=176.933958$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

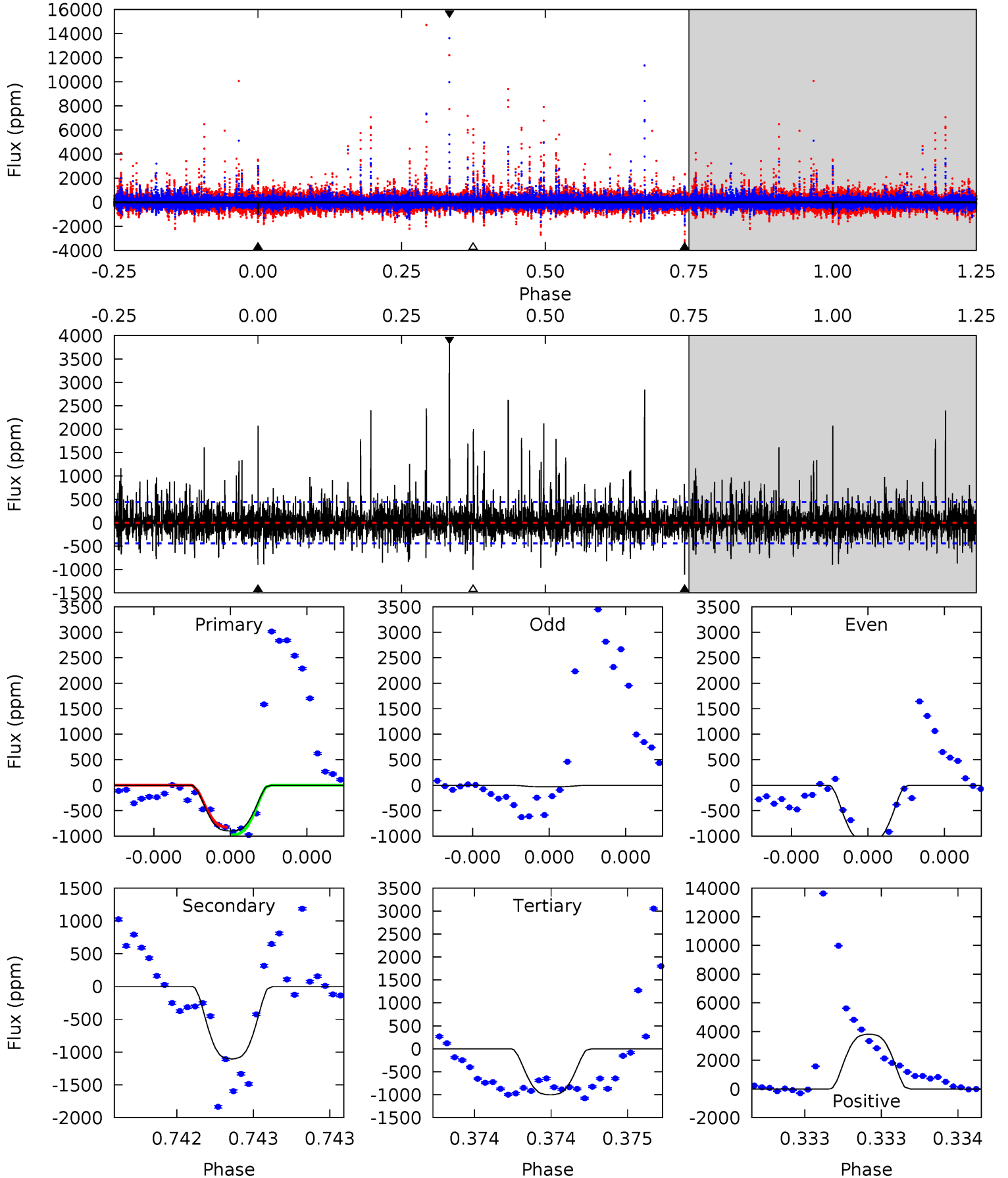
TCE 010532561-02 P=665.875231 Days $T_0=176.944744$ (BKJD)



DV Model-Shift Uniqueness Test

010532561-02, P = 665.883881 Days, E = 176.933958 Days

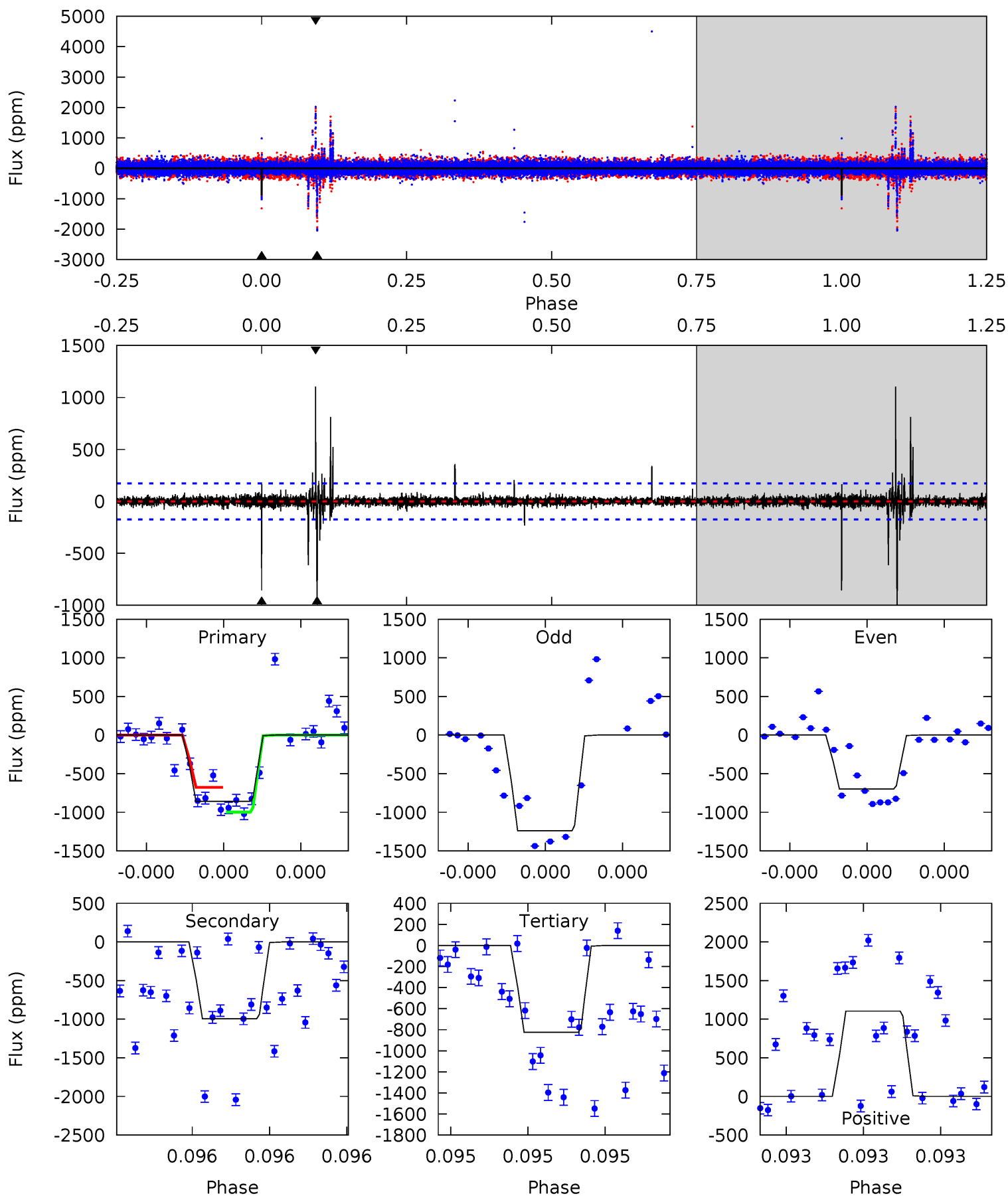
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	14.1	12.8	48.8	5.63	3.57	3.42	-1.35	-37.3	1.30	-34.6	4.91	0.96	0.78	0.95



Alt Model-Shift Uniqueness Test

010532561-02, P = 665.875231 Days, E = 176.944744 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.1	32.6	27.0	36.2	5.70	3.68	1.46	1.06	-8.11	5.53	-3.65	7.55	1.01	0.53	5.51



Stellar Parameters For KIC 010532561

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} \text{ (g}\cdot\text{cm}^{-3}\text{)}$
	5350^{+186}_{-168}	$3.620^{+0.888}_{-0.222}$	$-0.280^{+0.350}_{-0.300}$	$2.926^{+1.040}_{-1.932}$	$1.304^{+0.163}_{-0.455}$	$0.073^{+1.606}_{-0.045}$
	+3%/-3%	+25%/-6%	+125%/-107%	+36%/-66%	+12%/-35%	+2189%/-61%
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 010532561-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} \text{ (K)}$	$T_{obs} \text{ (K)}$	A_{obs}
DV	-1105 ± 78	$12.62^{+3.80}_{-4.66}$	425^{+54}_{-79}	4785^{+244}_{-231}	10094^{+13692}_{-4127}
Alt.	-993 ± 30	$9.23^{+2.69}_{-3.53}$	427^{+51}_{-79}	5355^{+397}_{-339}	16746^{+22547}_{-6688}

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 $A_{obs} \gg 1.0$

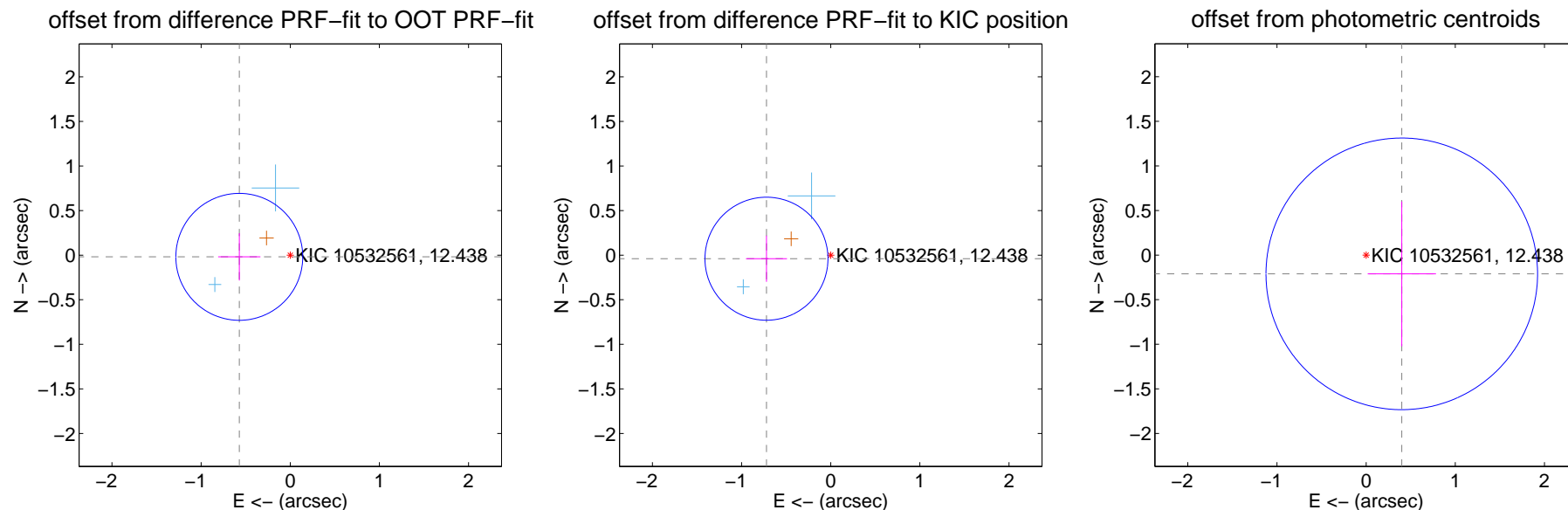
DV Centroid Data

Supplemental centroid analysis for 010532561-02. Kepler magnitude: 12.44. Transit SNR 8.88

There are 2 quarters with good PRF difference image offsets

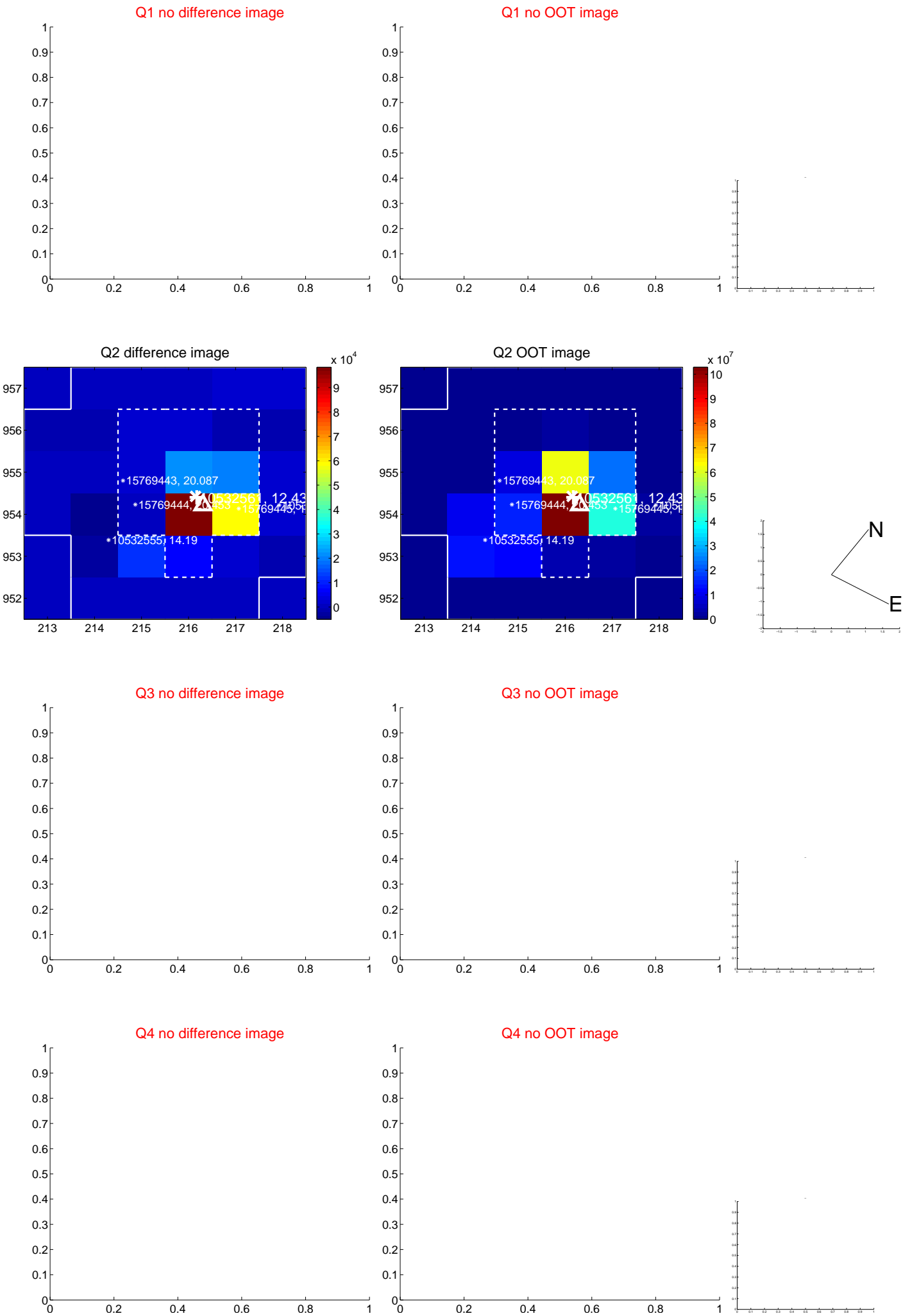
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.572 ± 0.237	2.41	0.572 ± 0.237	-0.019 ± 0.265
PRF-fit source offset from KIC position	0.722 ± 0.230	3.14	0.721 ± 0.230	-0.040 ± 0.259
photometric centroid source offset	0.45 ± 0.51	0.89	-0.40 ± 0.38	-0.21 ± 0.81

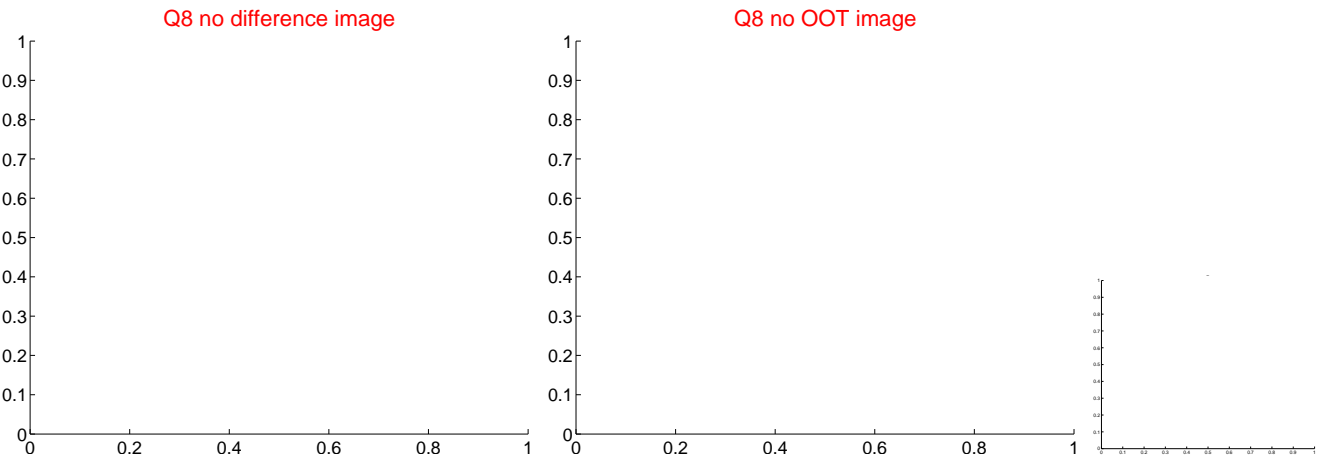
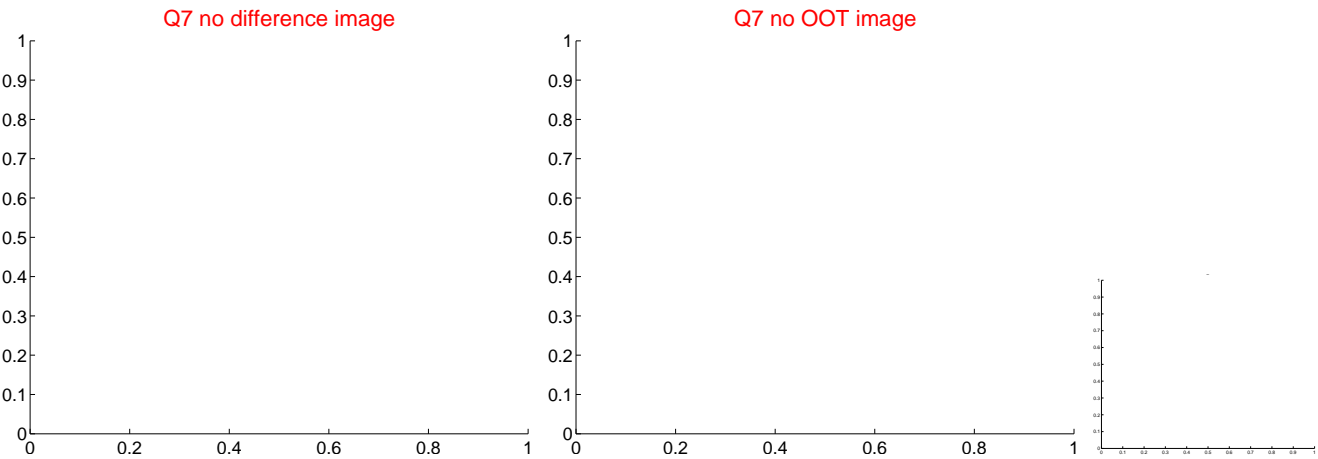
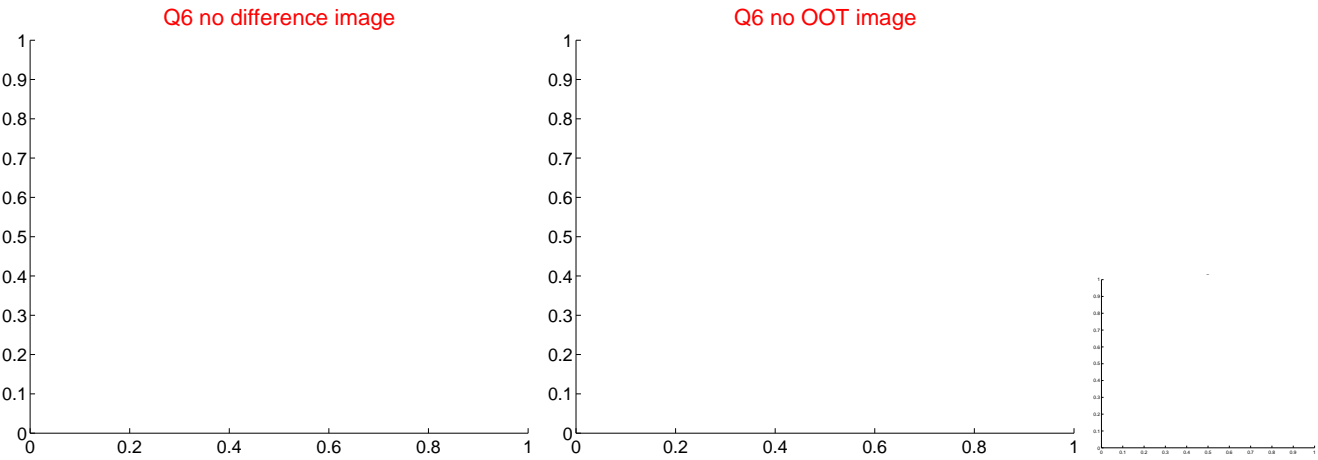
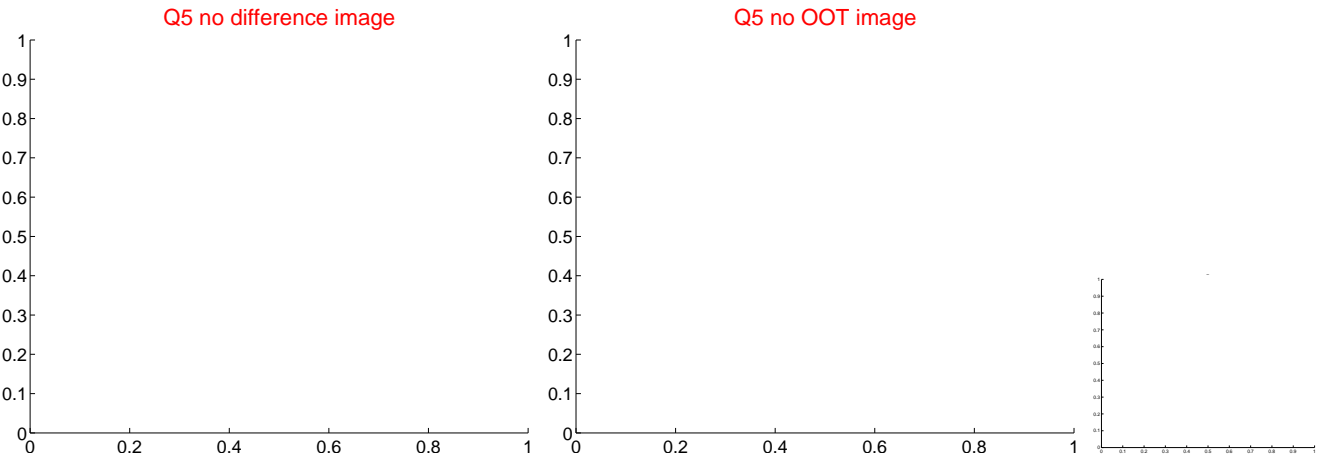


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

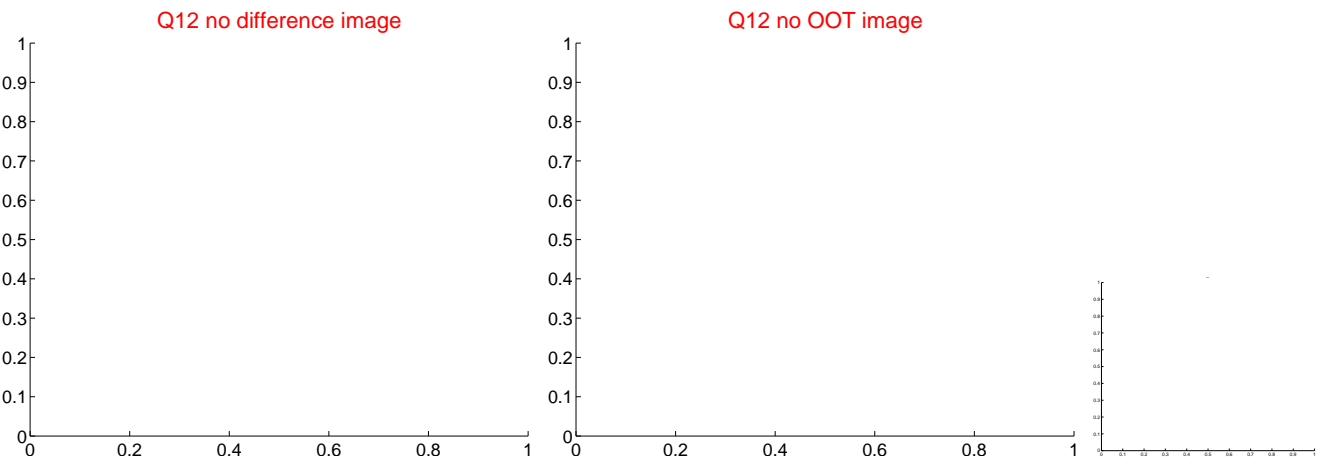
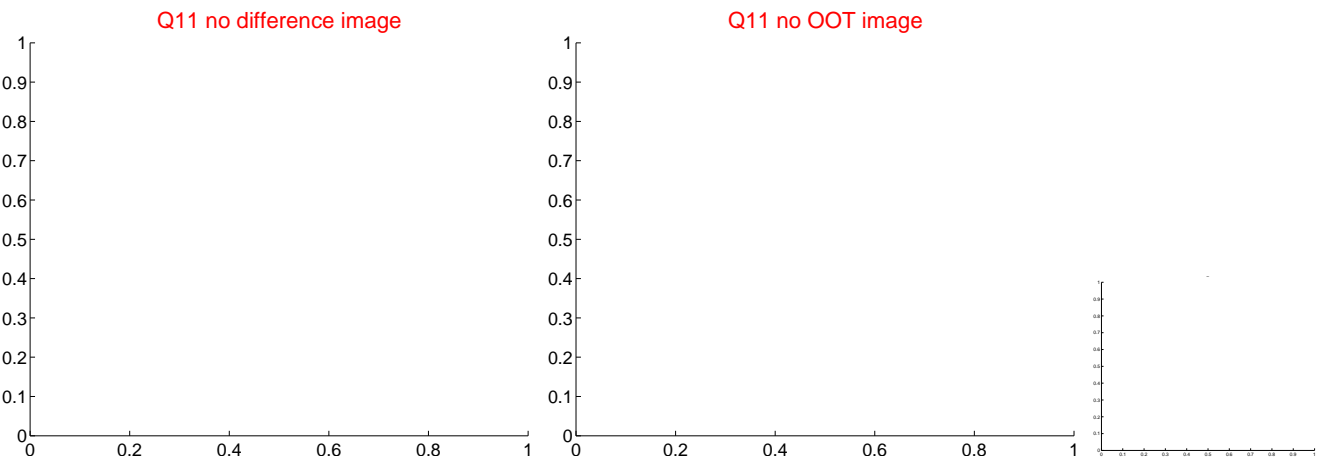
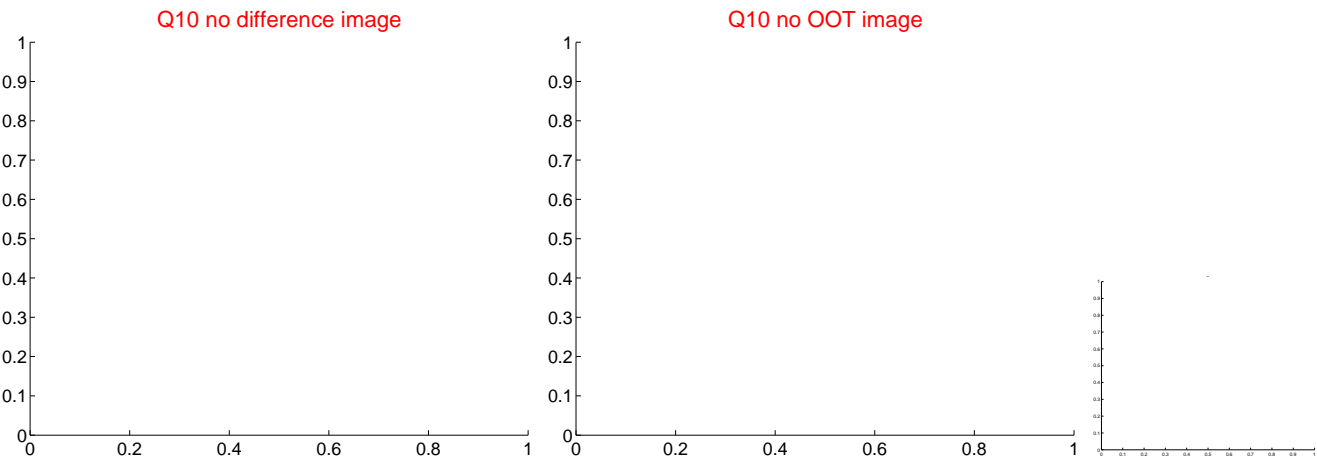
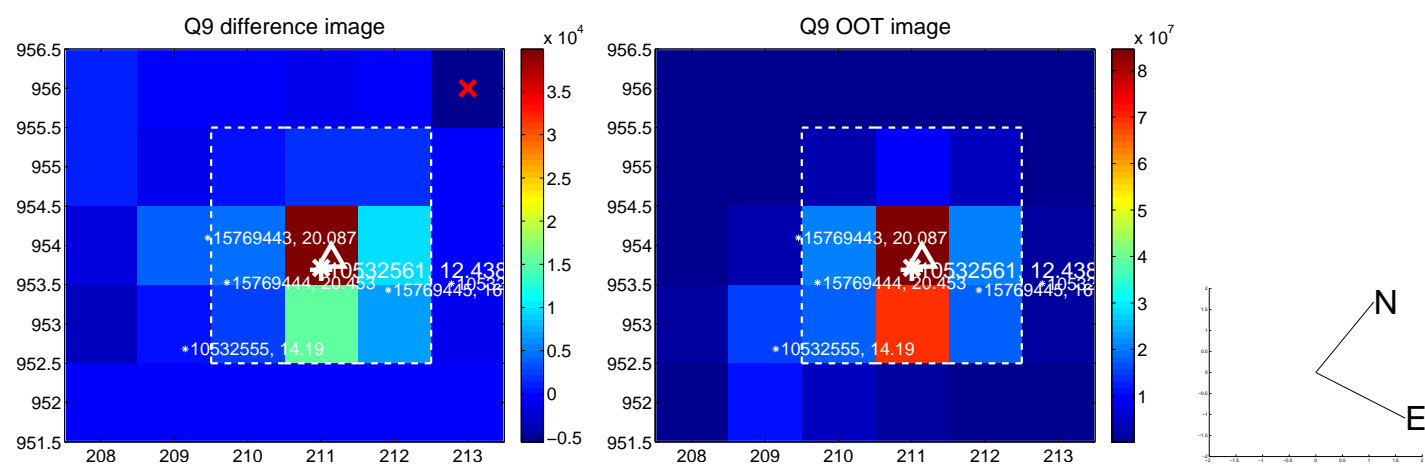
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



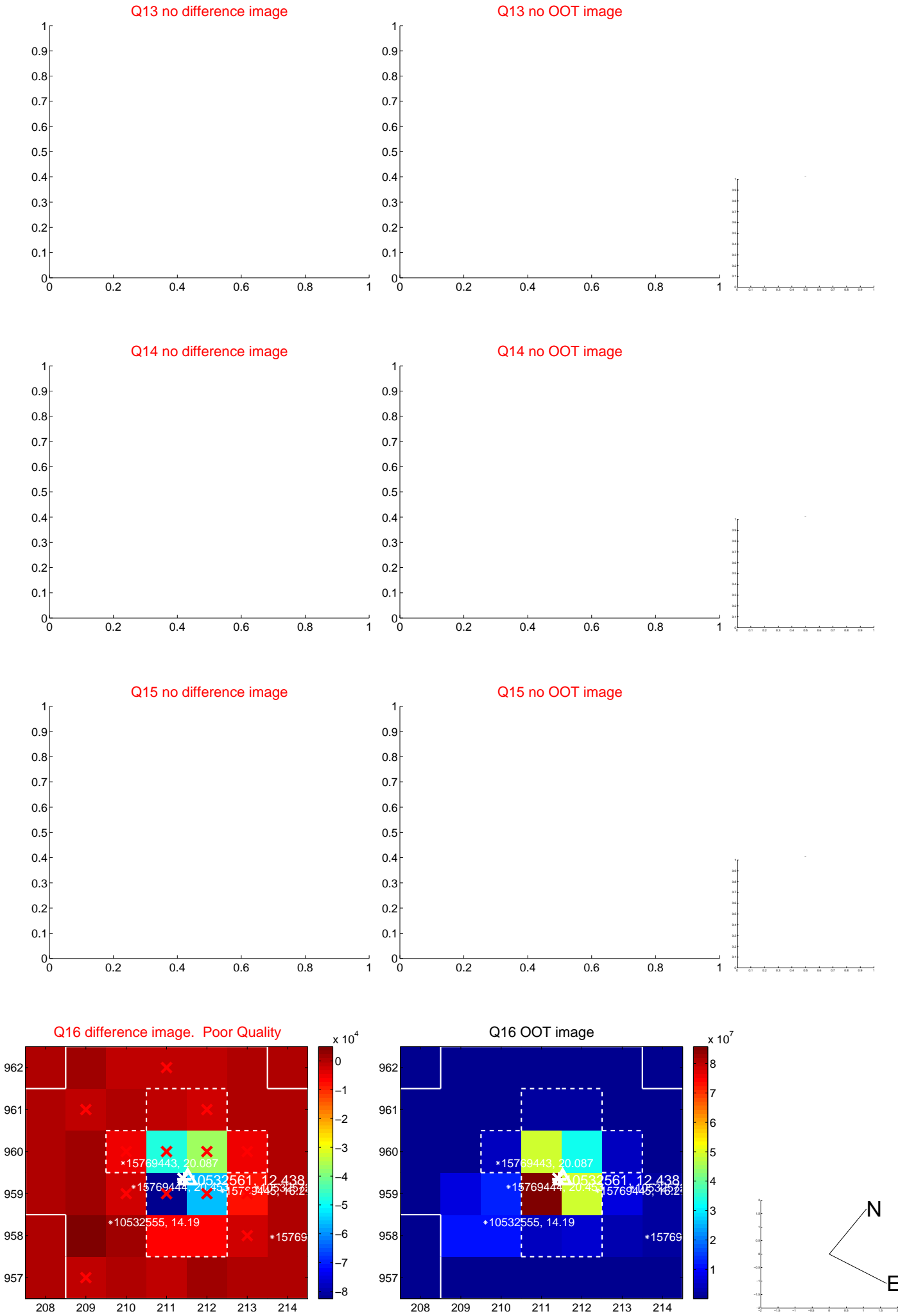
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



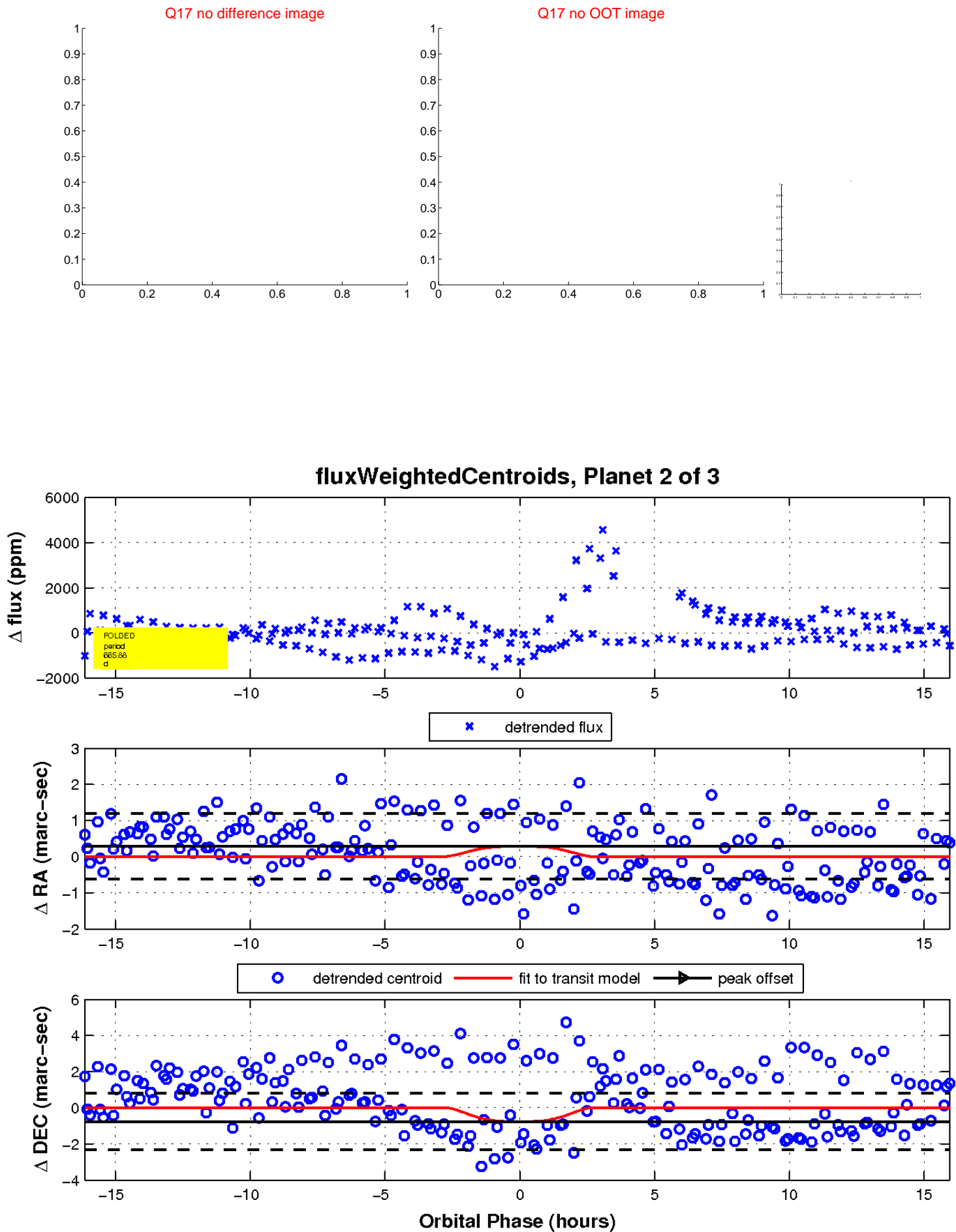
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



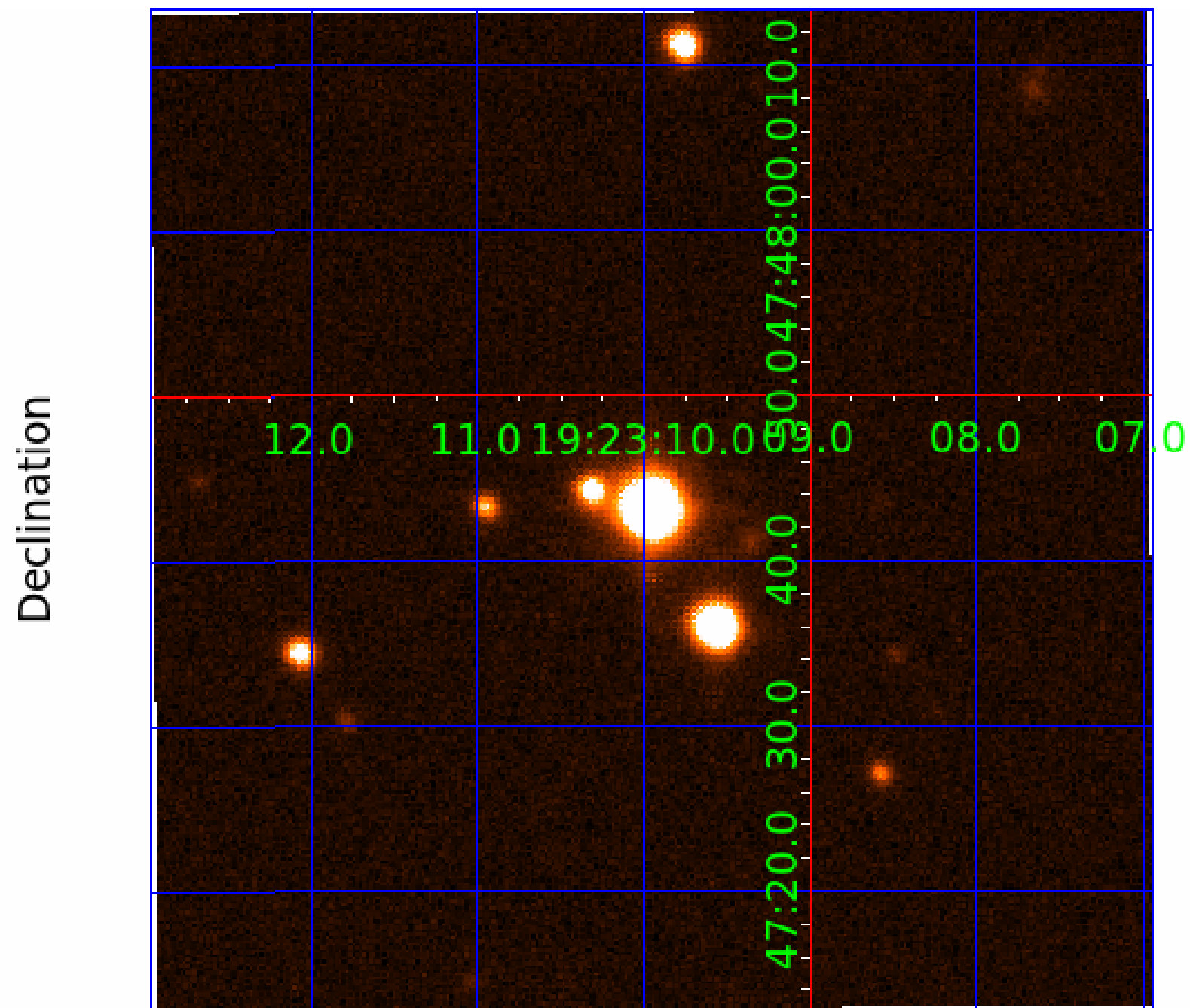
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 010532561

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})
010532561-01	OBS	No	349.983747	315.475738	435.8	2.928	17.0	4.6	2.93	5350	6.17	5.58
010532561-02	OBS	No	665.883881	176.933958	1369.2	5.399	14.6	8.9	2.93	5350	13.94	2.37
010532561-03	OBS	No	397.752041	524.982560	868.4	3.139	13.6	6.6	2.93	5350	9.16	4.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010532561-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
010532561-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010532561-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—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.

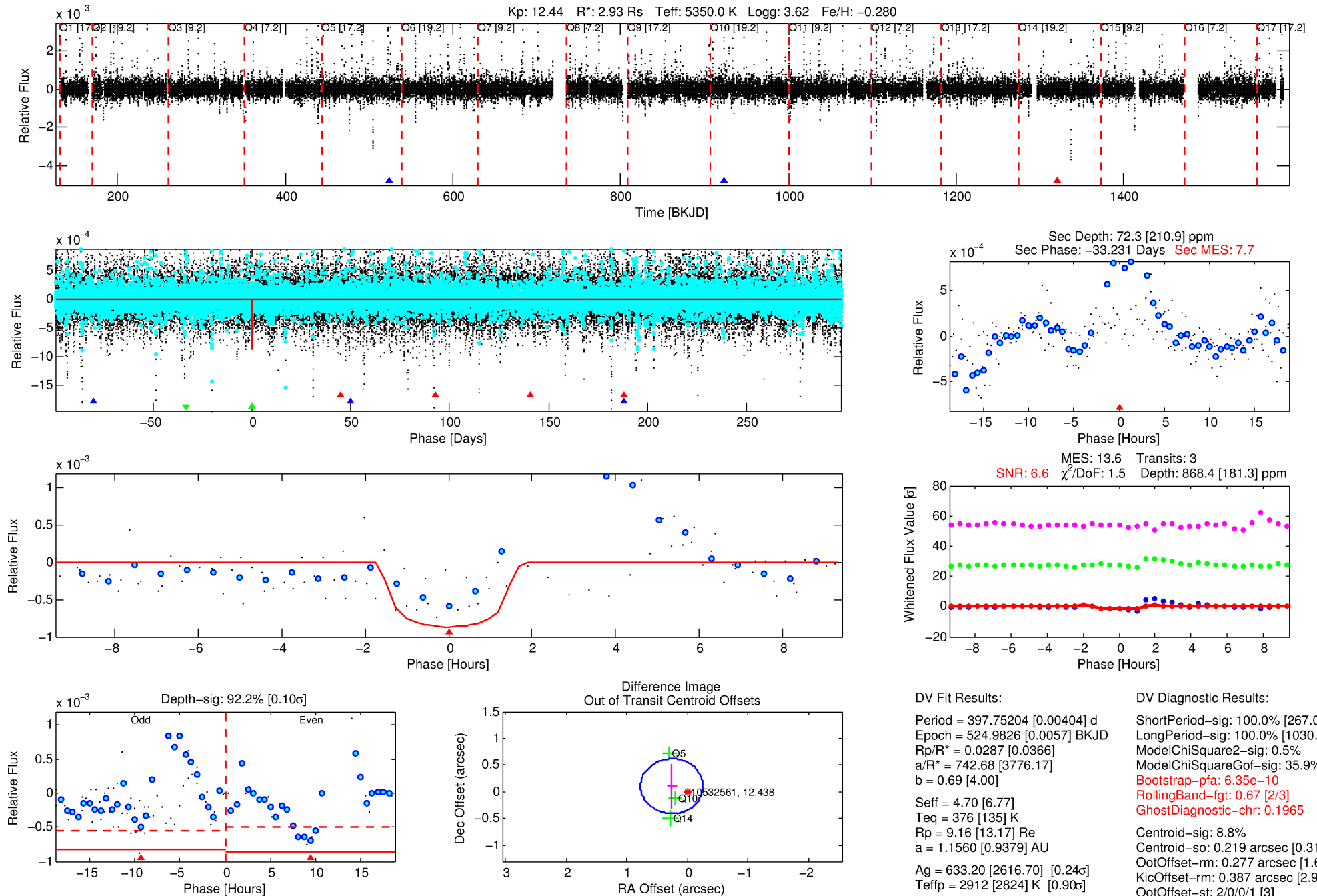
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010532561-03

No Significant Match Found

DV One-Page Summary

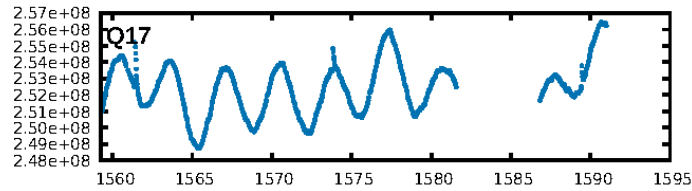
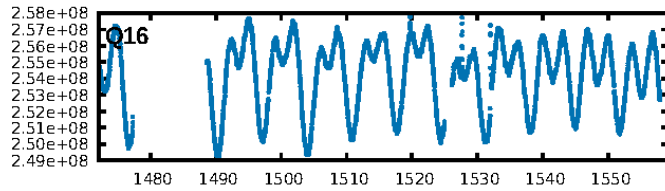
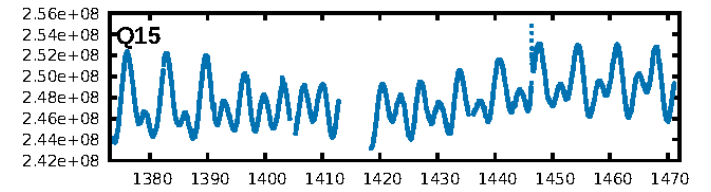
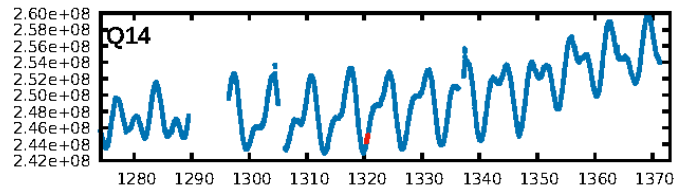
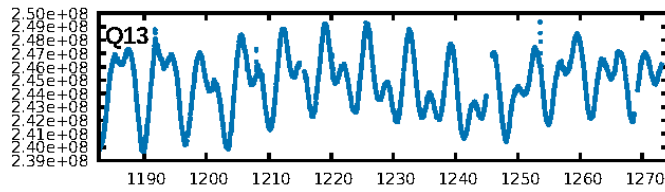
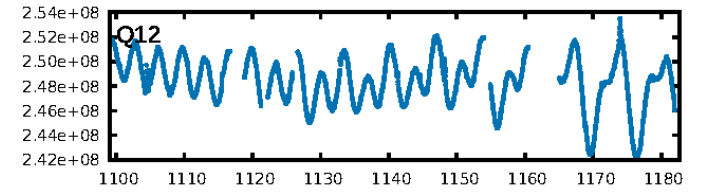
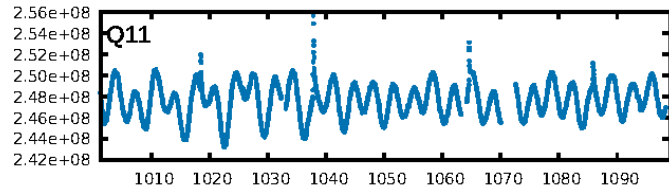
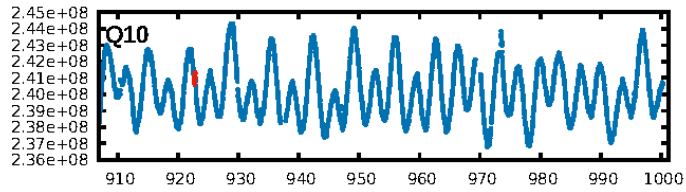
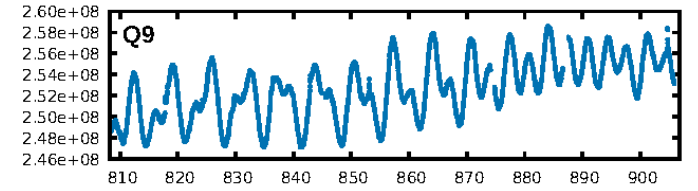
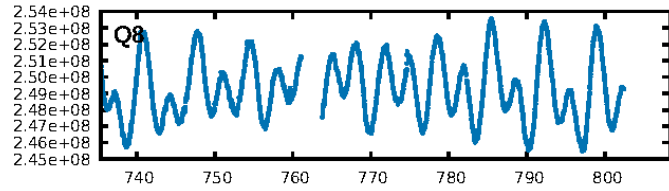
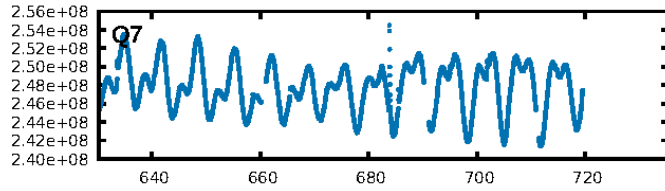
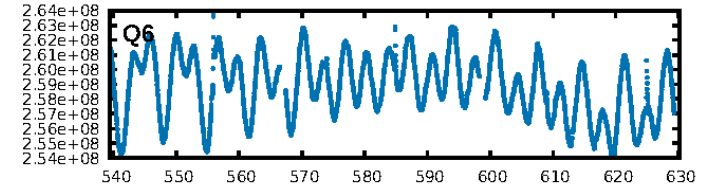
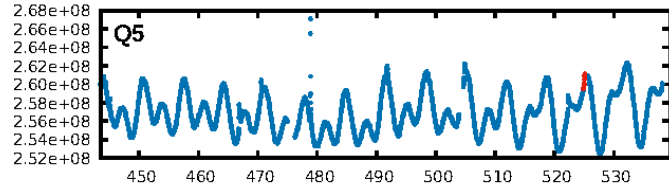
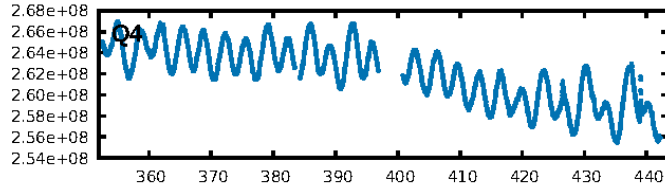
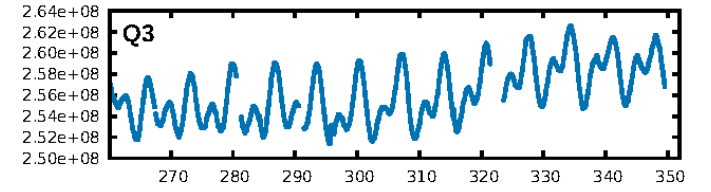
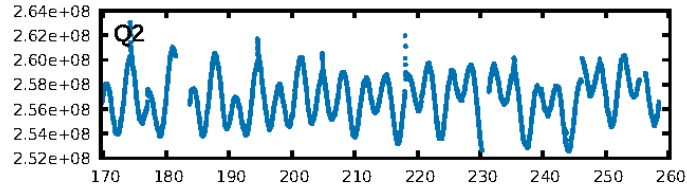
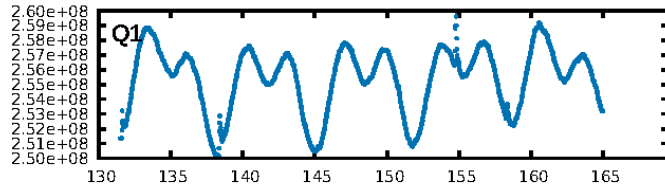
KIC: 10532561 Candidate: 3 of 3 Period: 397.752 d



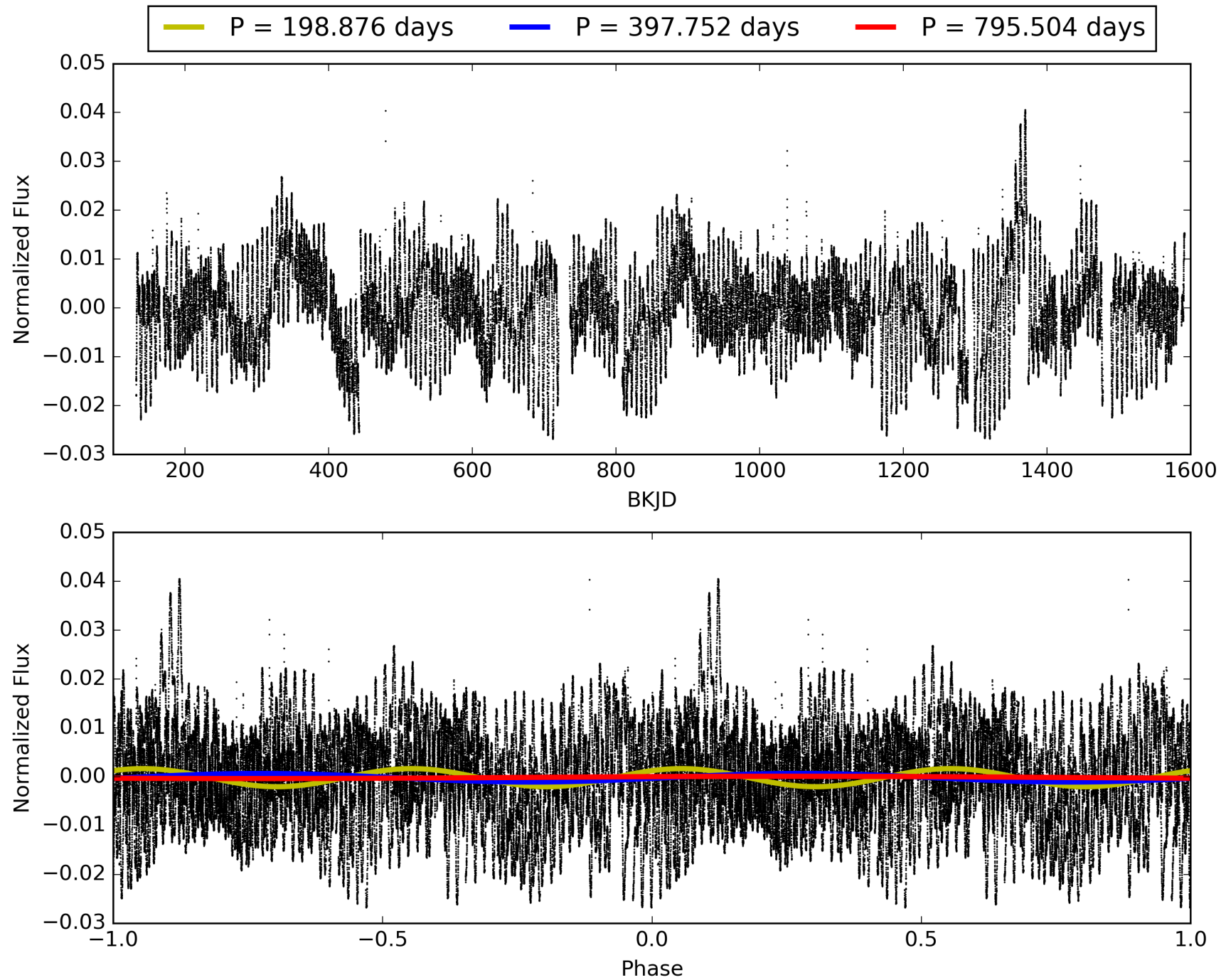
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:37:09 Z

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

TCE 010532561-03, PDC Light Curves

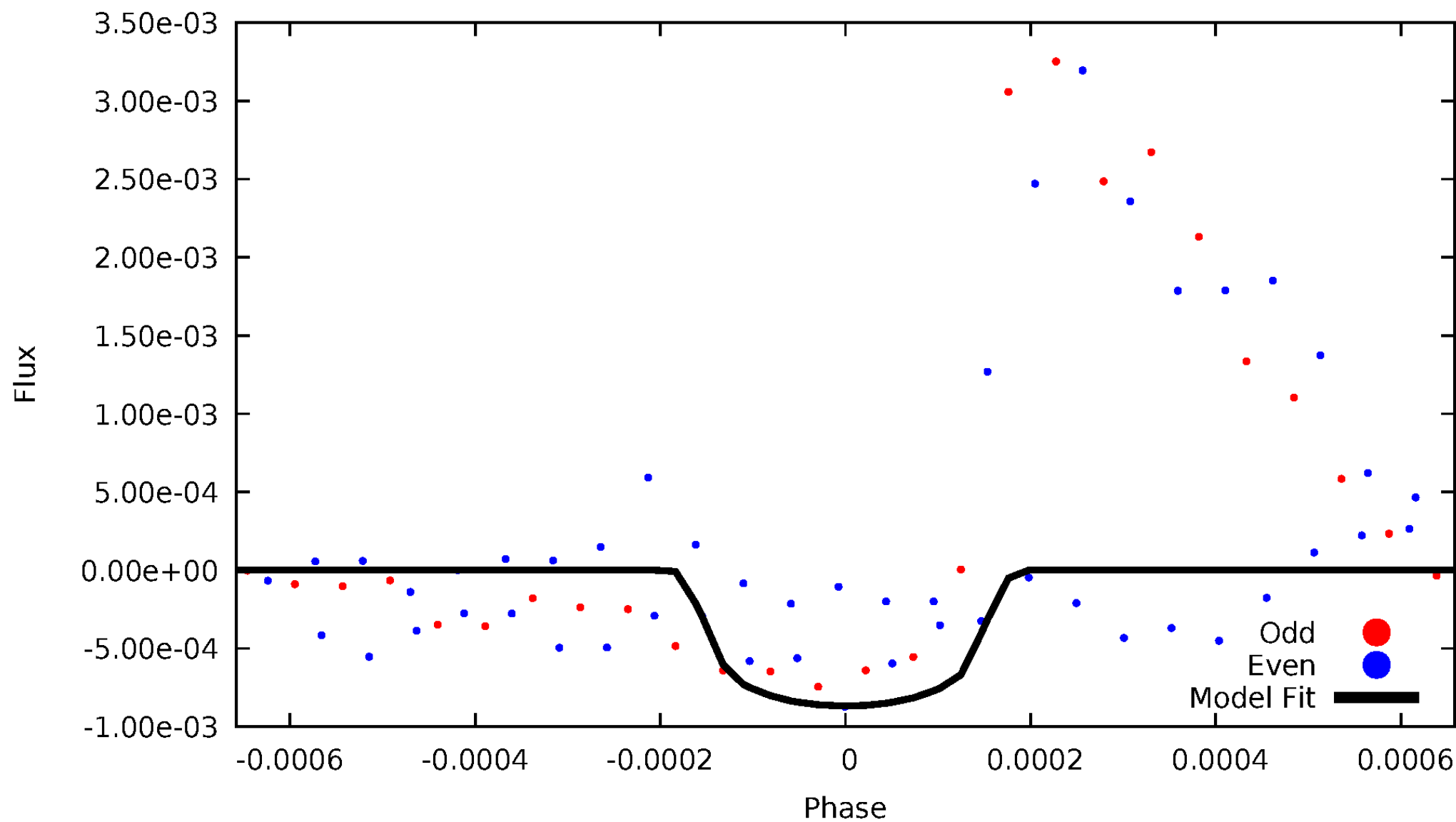


TCE 010532561-03



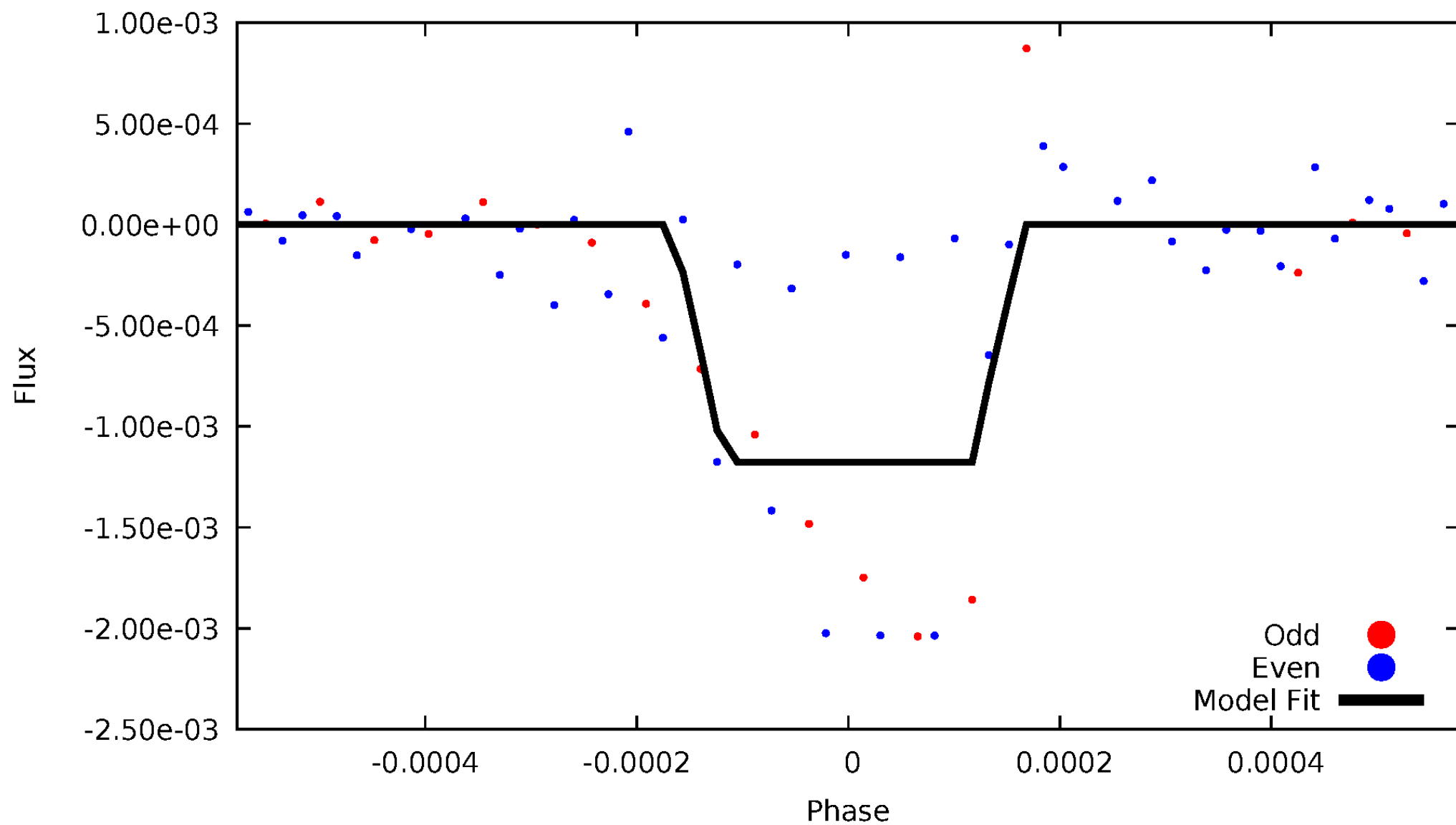
DV Odd/Even

TCE 010532561-03



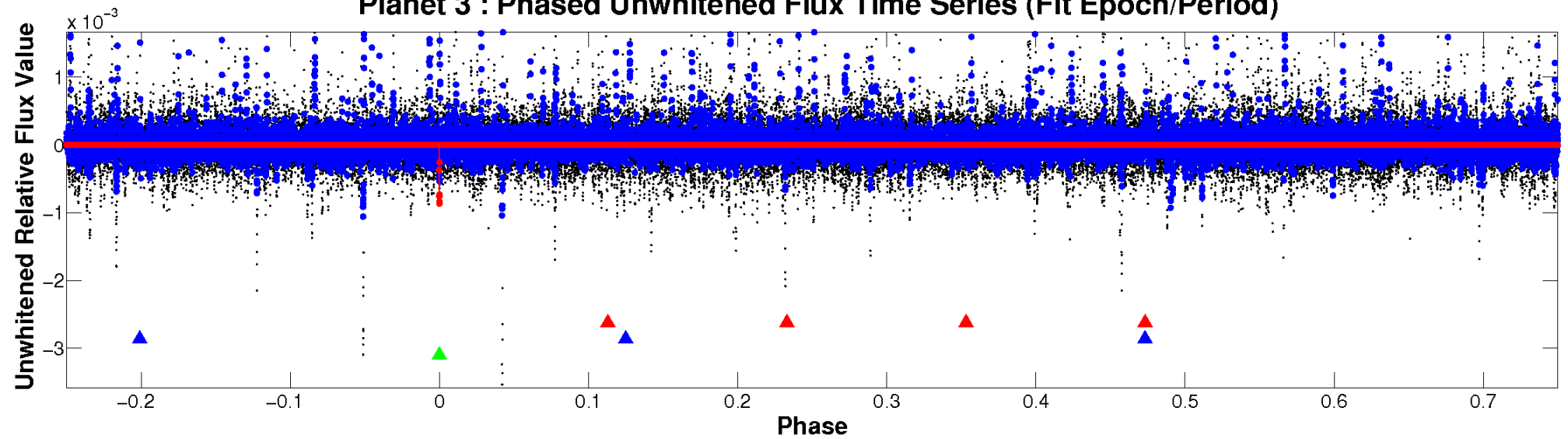
ALT Odd/Even

TCE 010532561-03

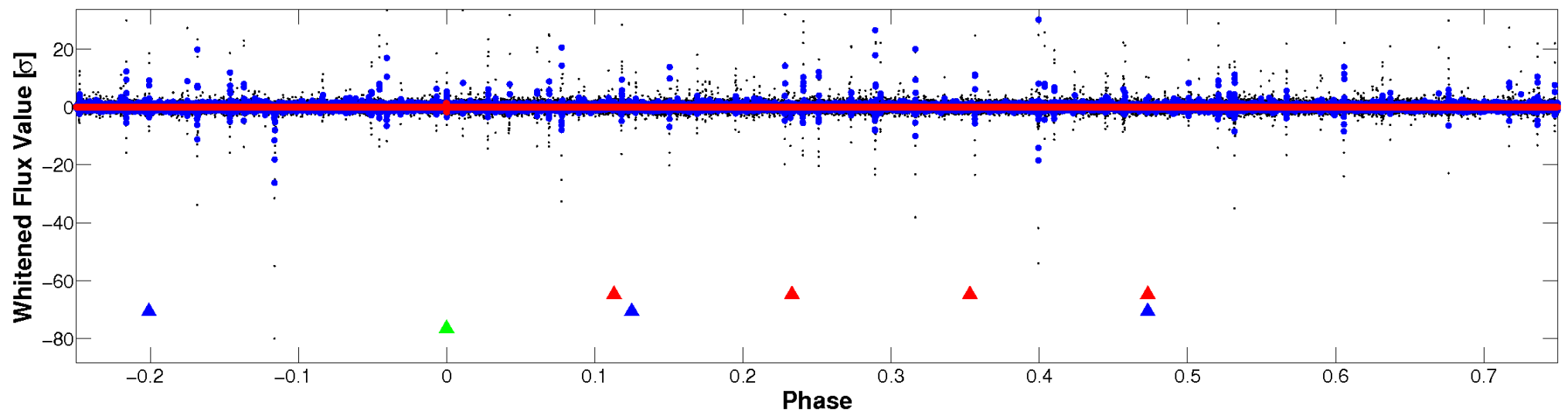


Non-Whitened Vs. Whitened Light Curve

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

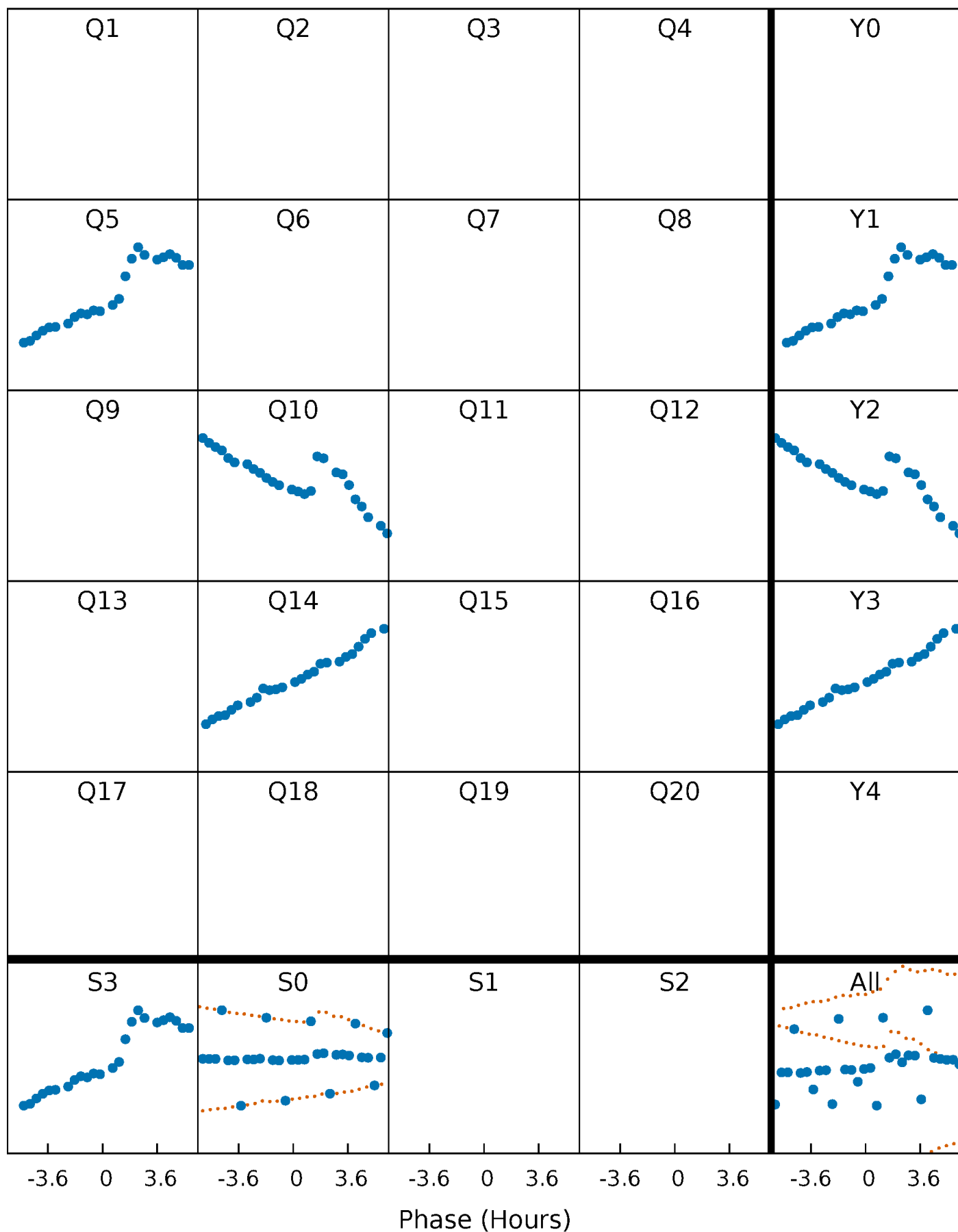


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



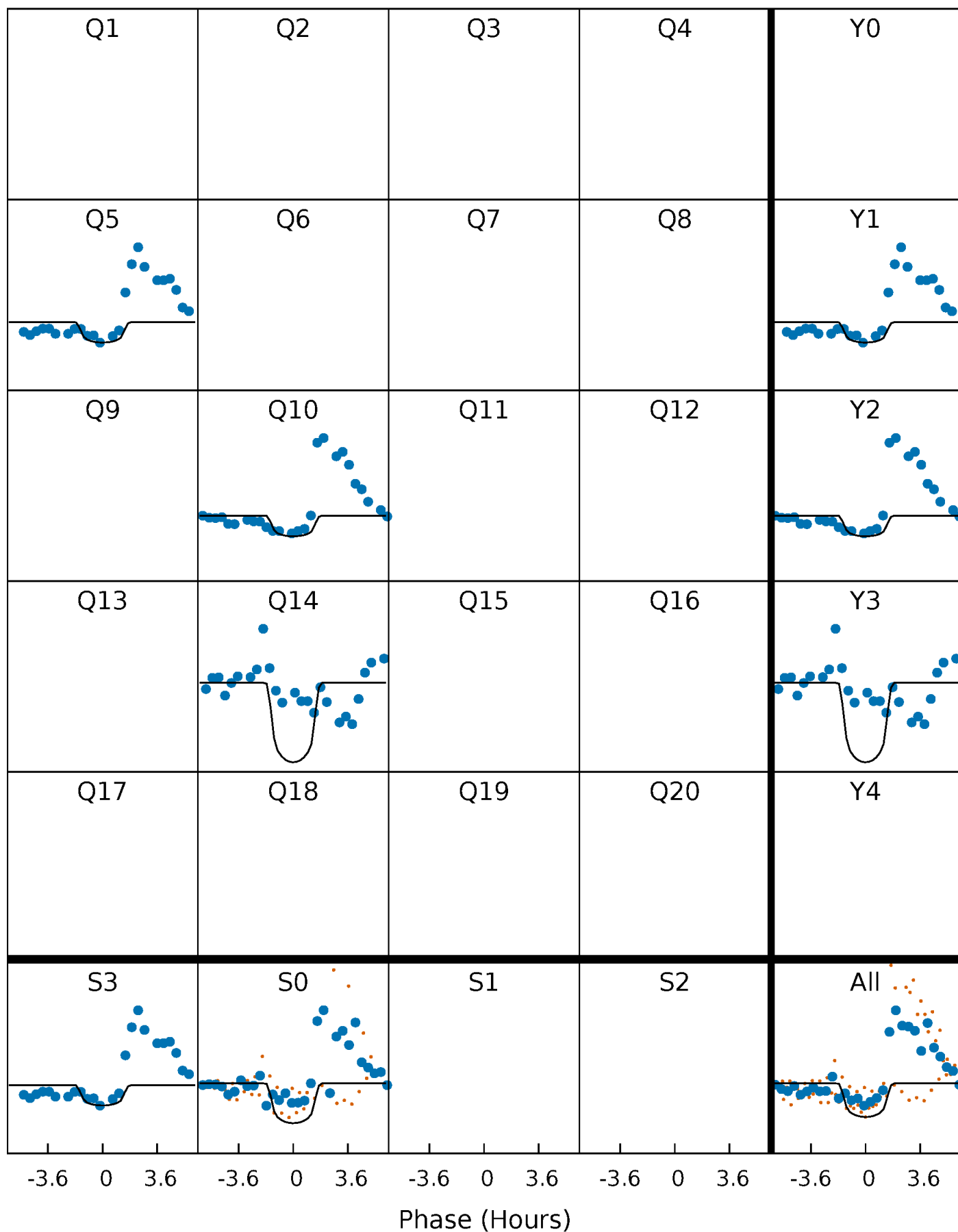
PDC Quarter-Phased Transit Curves

TCE 010532561-03 $P=397.752041$ Days $T_0=524.982560$ (BKJD)



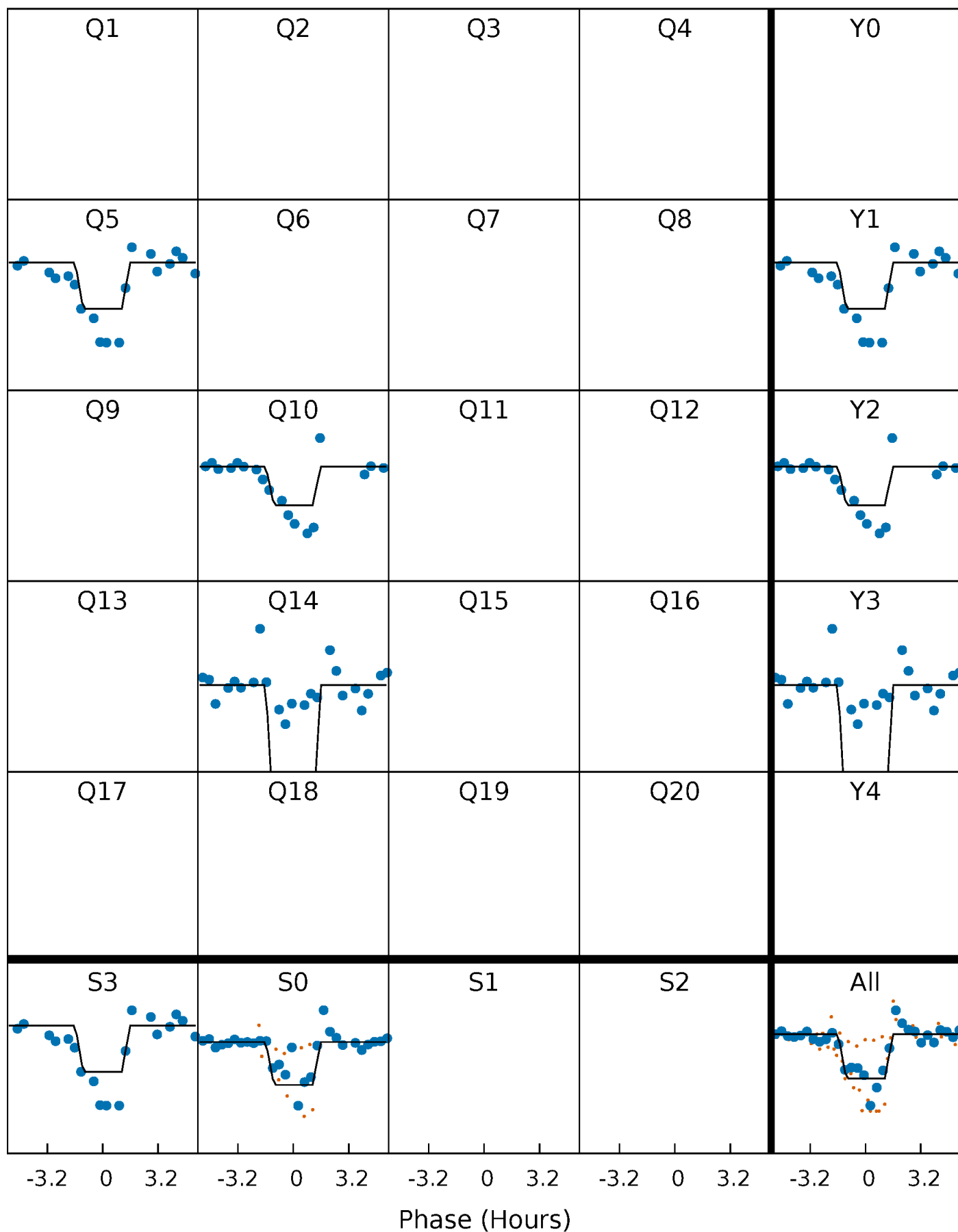
DV Quarter-Phased Transit Curves

TCE 010532561-03 P=397.752041 Days $T_0=524.982560$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

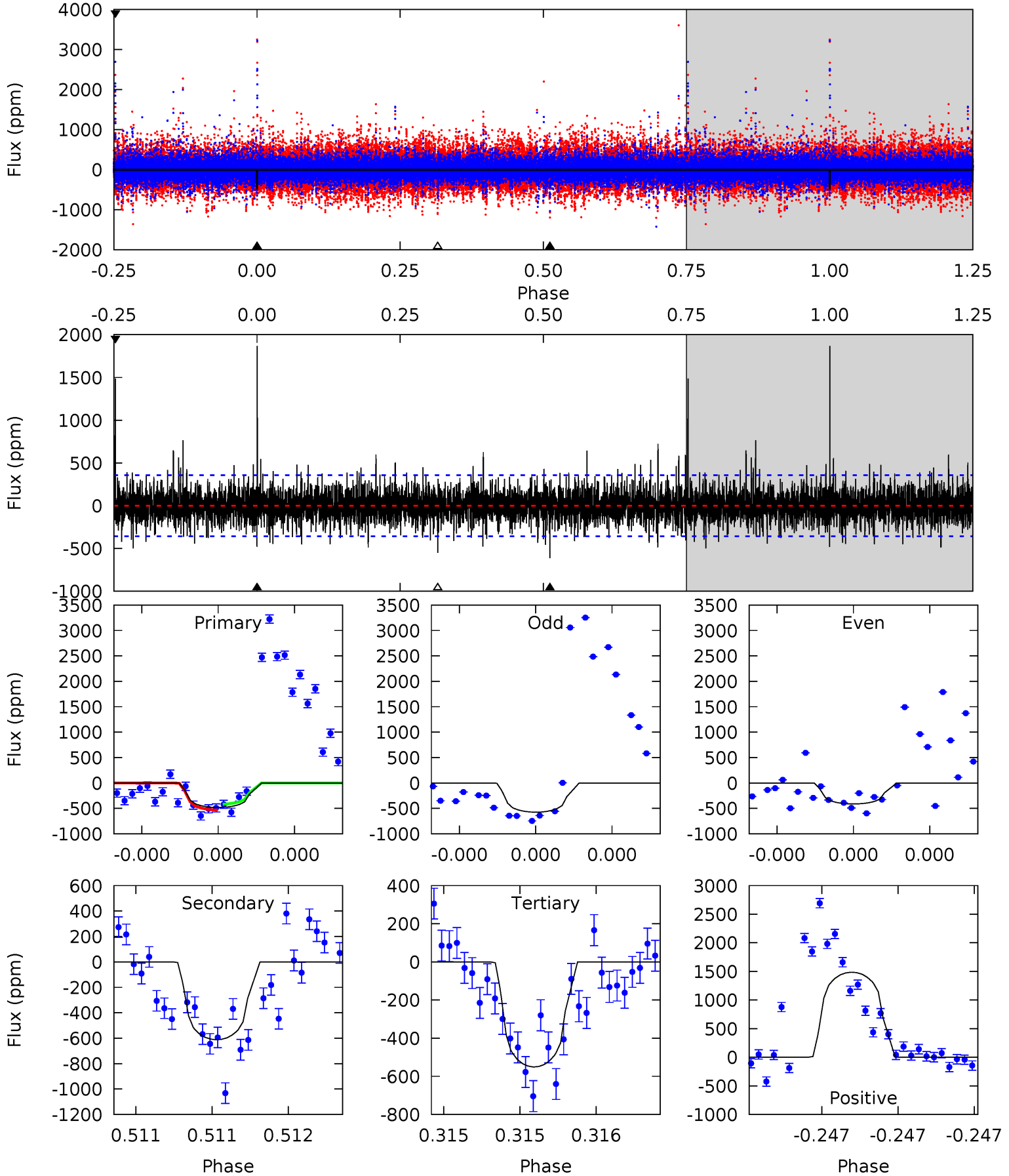
TCE 010532561-03 P=397.746945 Days $T_0=524.990738$ (BKJD)



DV Model-Shift Uniqueness Test

010532561-03, P = 397.752041 Days, E = 127.230519 Days

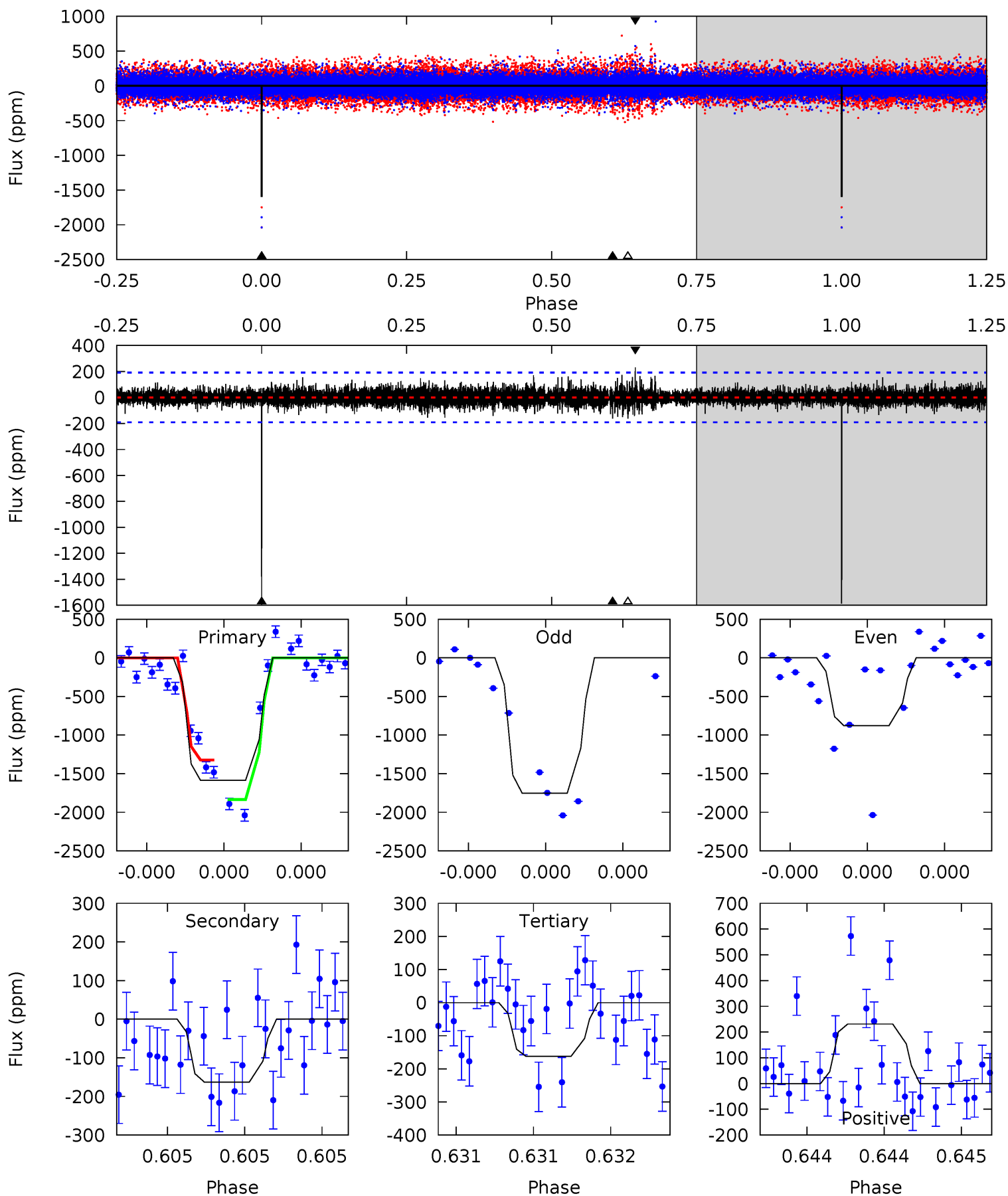
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.58	9.63	8.66	23.4	5.63	3.57	2.15	-1.08	-15.8	0.97	-13.8	0.83	0.82	0.75	0.90



Alt Model-Shift Uniqueness Test

010532561-03, P = 397.746945 Days, E = 127.243793 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
47.0	4.83	4.81	6.85	5.67	3.62	1.02	42.2	40.2	0.02	-2.02	7.13	0.73	0.13	0



Stellar Parameters For KIC 010532561

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5350^{+186}_{-168}	$3.620^{+0.888}_{-0.222}$	$-0.280^{+0.350}_{-0.300}$	$2.926^{+1.040}_{-1.932}$	$1.304^{+0.163}_{-0.455}$	$0.073^{+1.606}_{-0.045}$
	+3%/-3%	+25%/-6%	+125%/-107%	+36%/-66%	+12%/-35%	+2189%/-61%
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 010532561-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-612 ± 64	$10.23^{+11.68}_{-7.17}$	508^{+61}_{-100}	4458^{+3001}_{-907}	4371^{+39637}_{-3416}
Alt.	-163 ± 34	$11.47^{+11.36}_{-7.51}$	512^{+57}_{-102}	3409^{+1375}_{-526}	867^{+6547}_{-650}

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 $A_{obs} \gg 1.0$

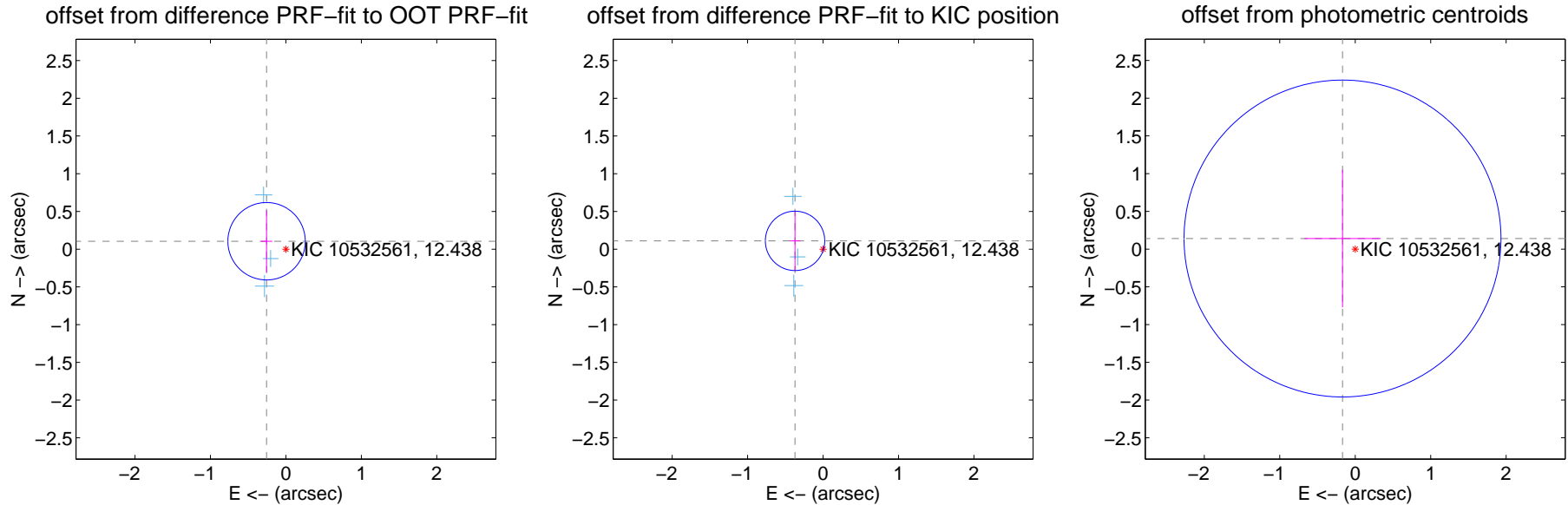
DV Centroid Data

Supplemental centroid analysis for 010532561-03. Kepler magnitude: 12.44. Transit SNR 6.55

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.277 ± 0.171	1.62	0.256 ± 0.076	0.105 ± 0.410
PRF-fit source offset from KIC position	0.387 ± 0.131	2.95	0.371 ± 0.071	0.110 ± 0.395
photometric centroid source offset	0.22 ± 0.70	0.31	0.17 ± 0.50	0.14 ± 0.91

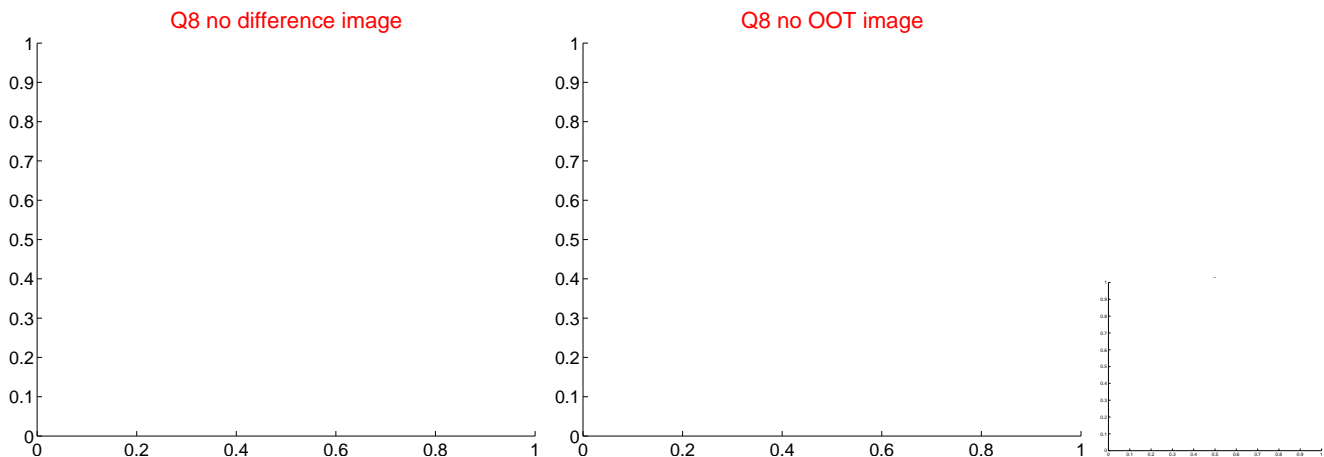
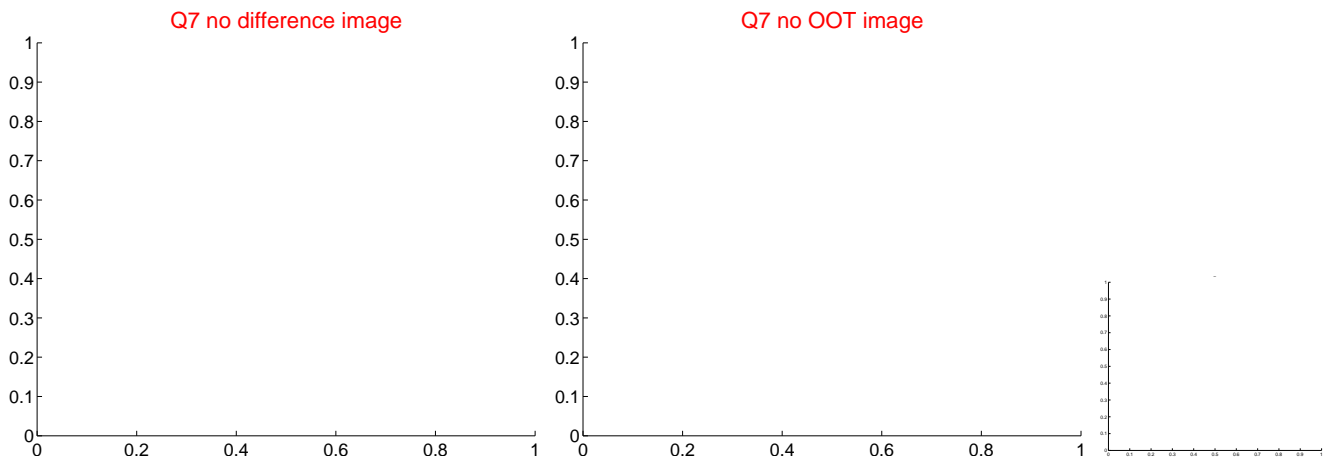
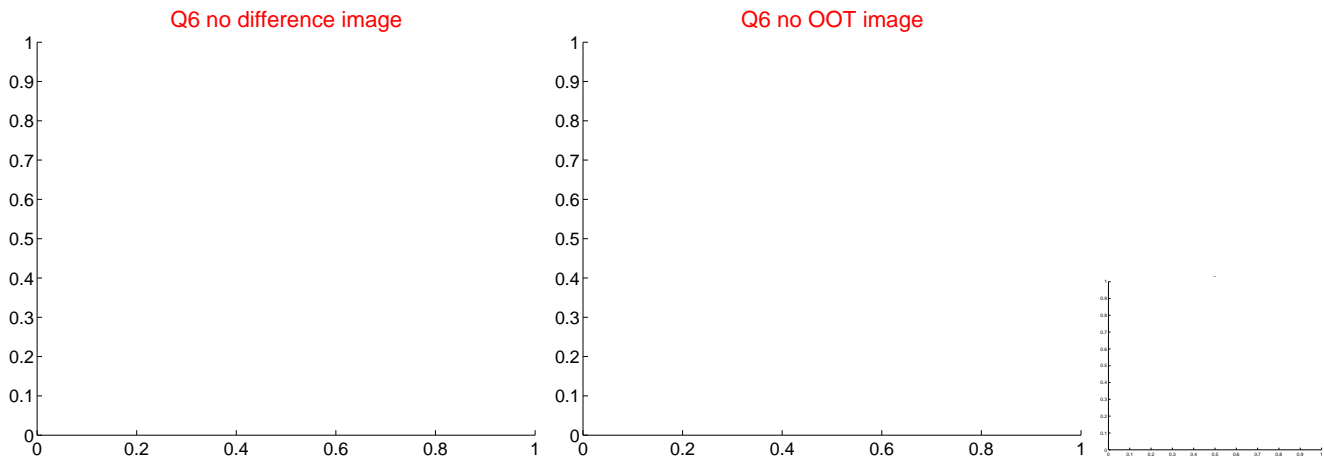
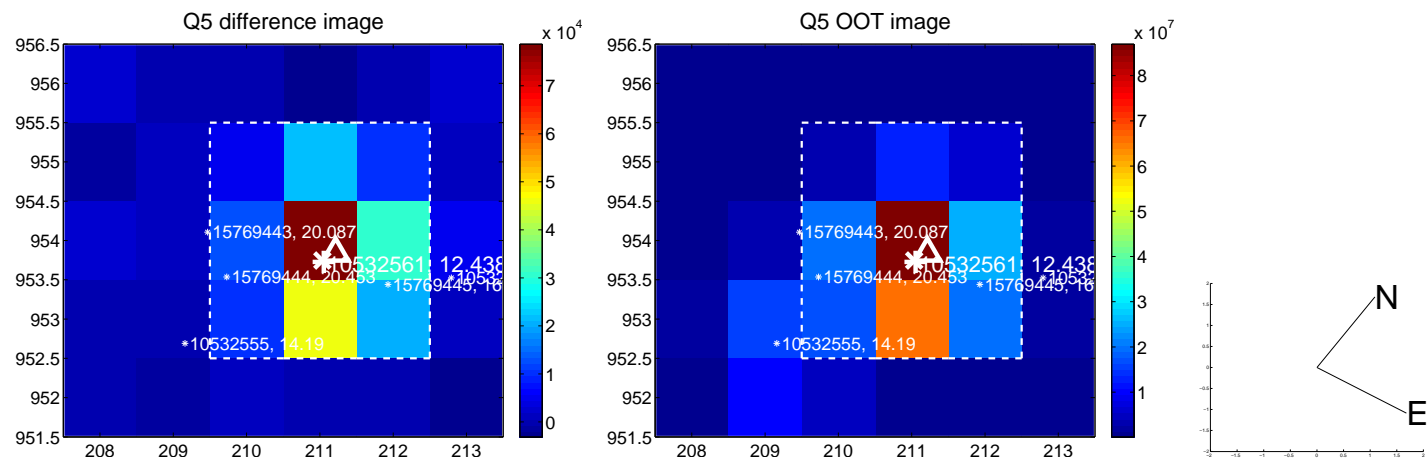


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

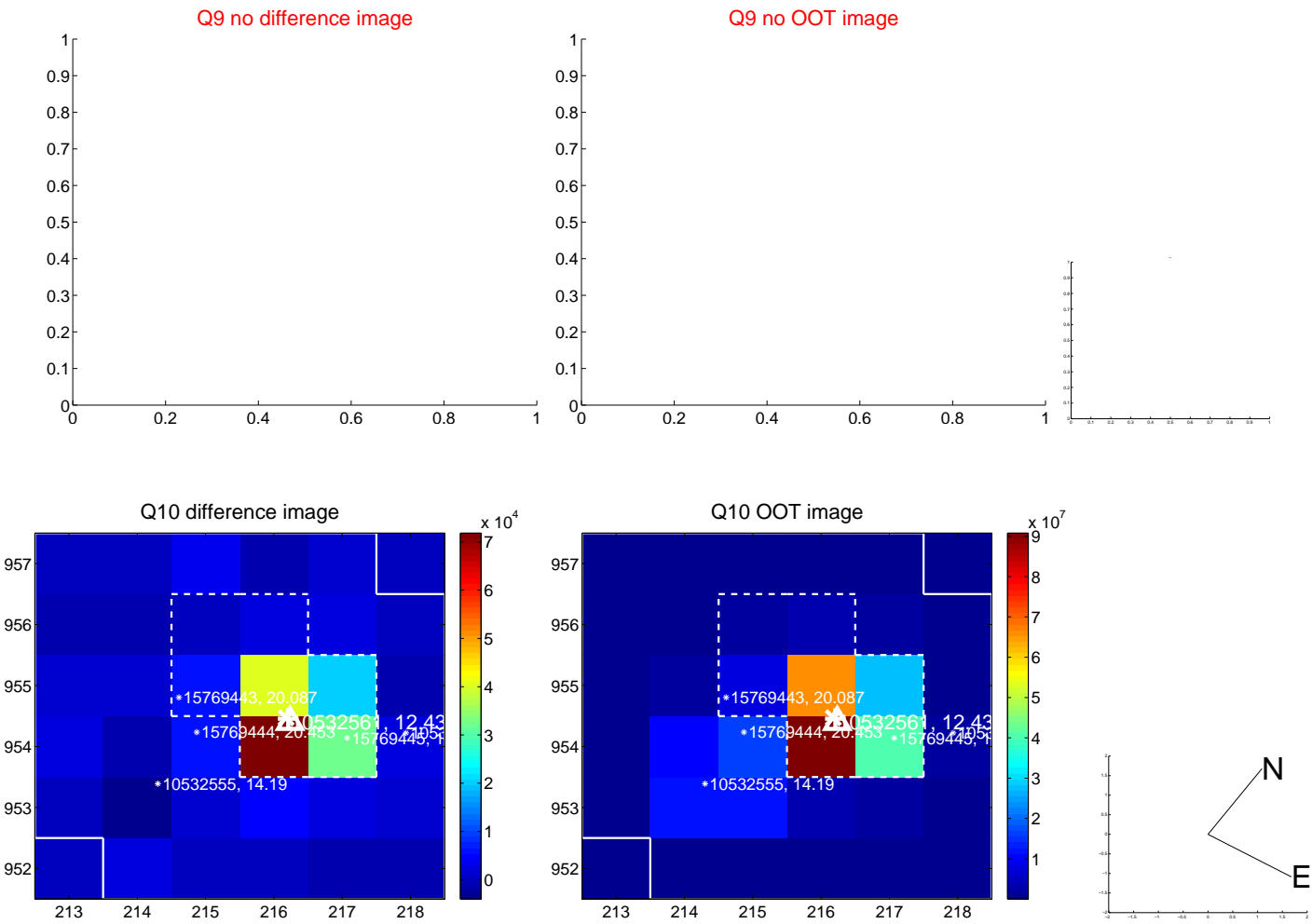
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



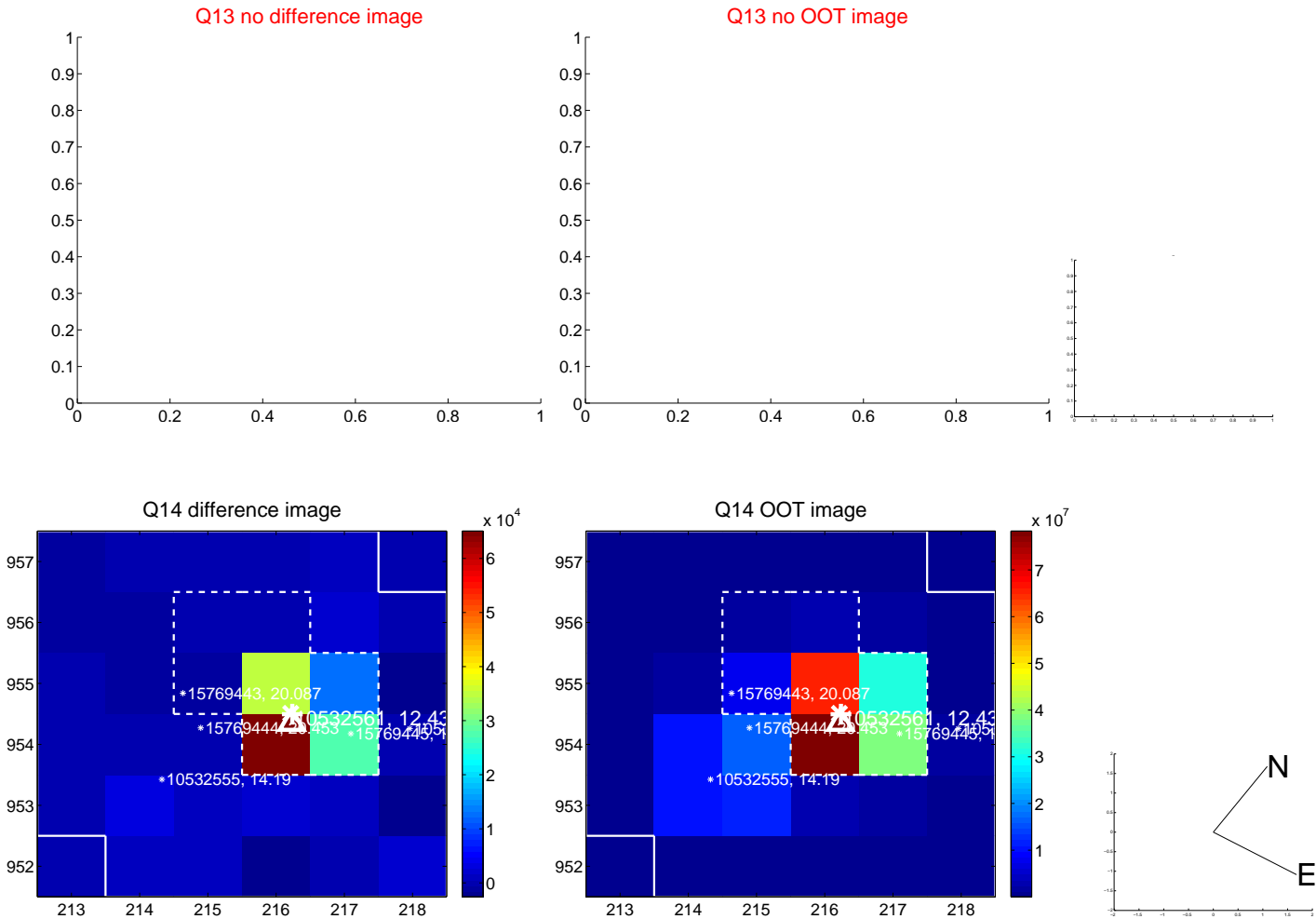
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



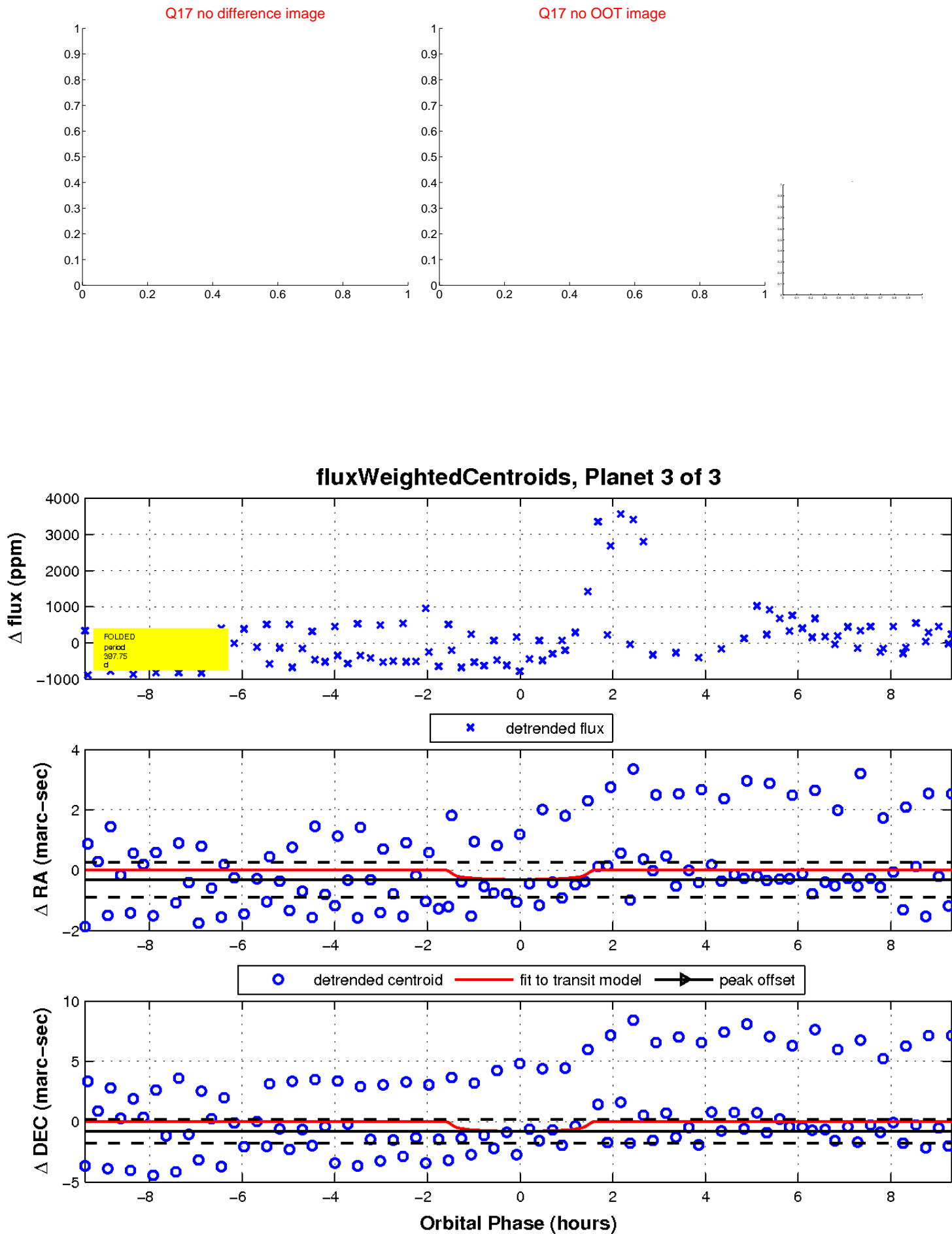
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

