

KIC 010341905

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})
010341905-01	OBS	2391.01	0.933721	131.538499	126.7	3.803	20.7	20.1	0.81	5553	1.08	1704.53
010341905-02	OBS	No	236.899840	161.100191	1204.0	12.692	15.7	9.8	0.81	5553	2.80	1.06
010341905-03	OBS	No	361.357984	146.941300	1144.4	15.121	9.6	7.2	0.81	5553	3.26	0.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010341905-01	OBS	FP	0.00	0	0	1	1	CENT_UNCERTAIN—HALO_GHOST—EPHEM_MATCH
010341905-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
010341905-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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.

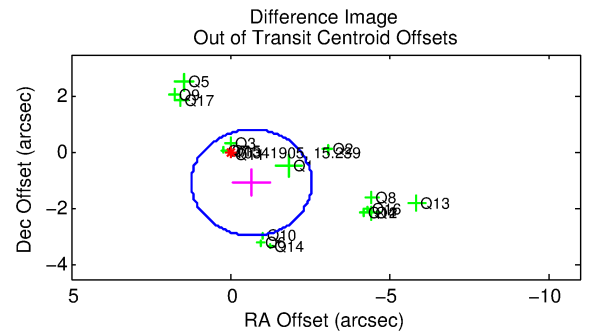
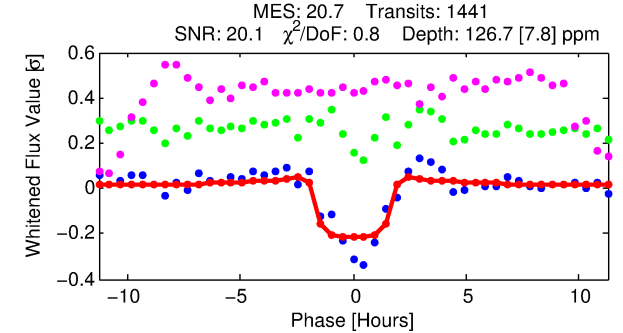
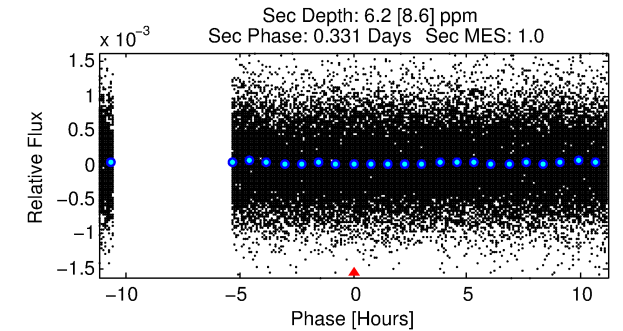
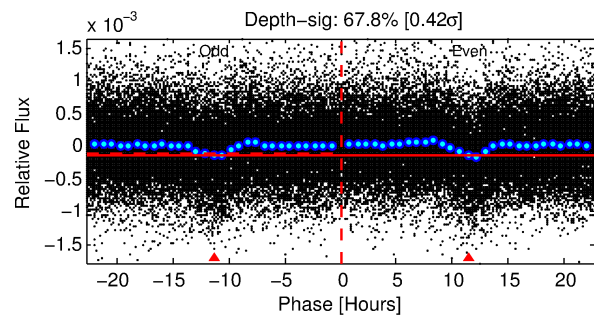
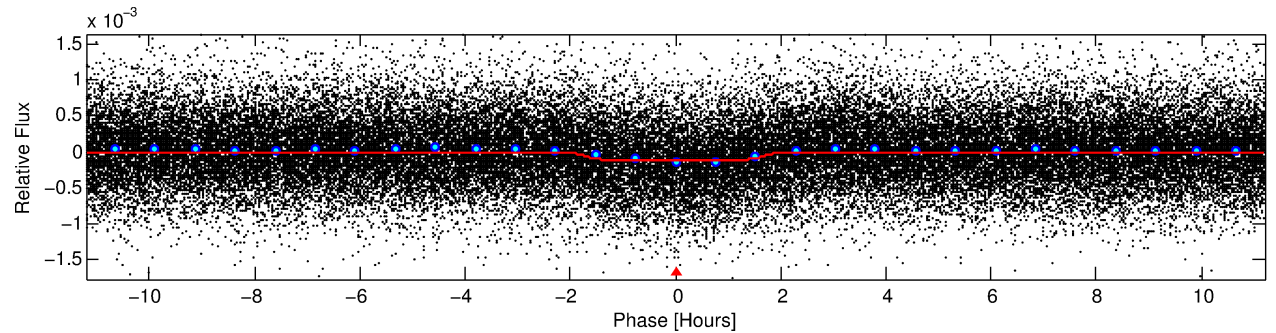
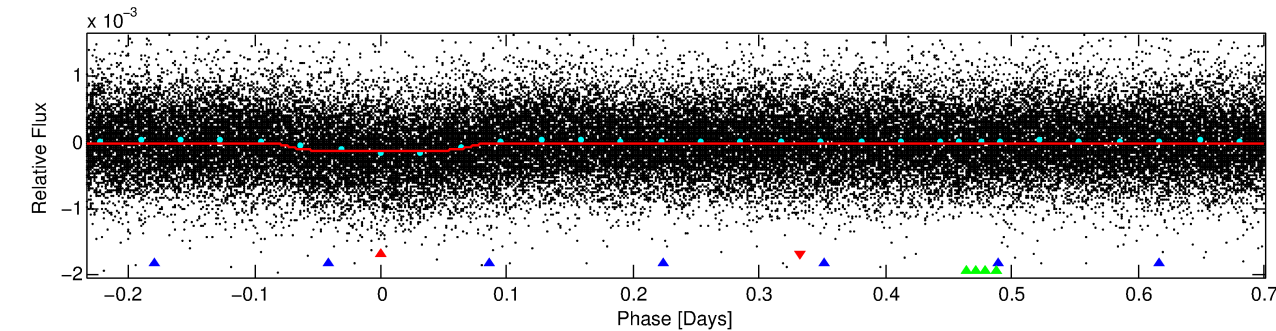
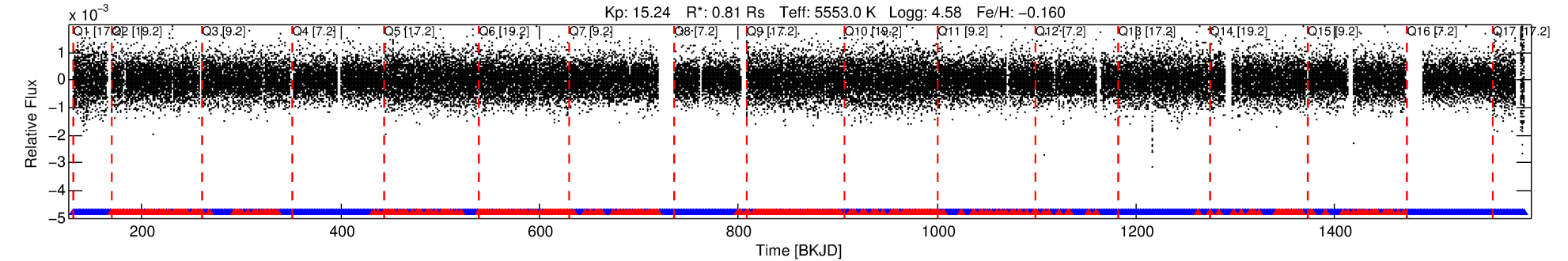
Ephemeris Match Information For 010341905-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist (μ)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
010341905-01	10341905	2823.01	10341917	1:1	12.1	1	-3	15.81	15.24	5.25	Direct-PRF	0	2.68	1.44

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 10341905 Candidate: 1 of 3 Period: 0.934 d
KOI: K02391.01 Corr: 0.766



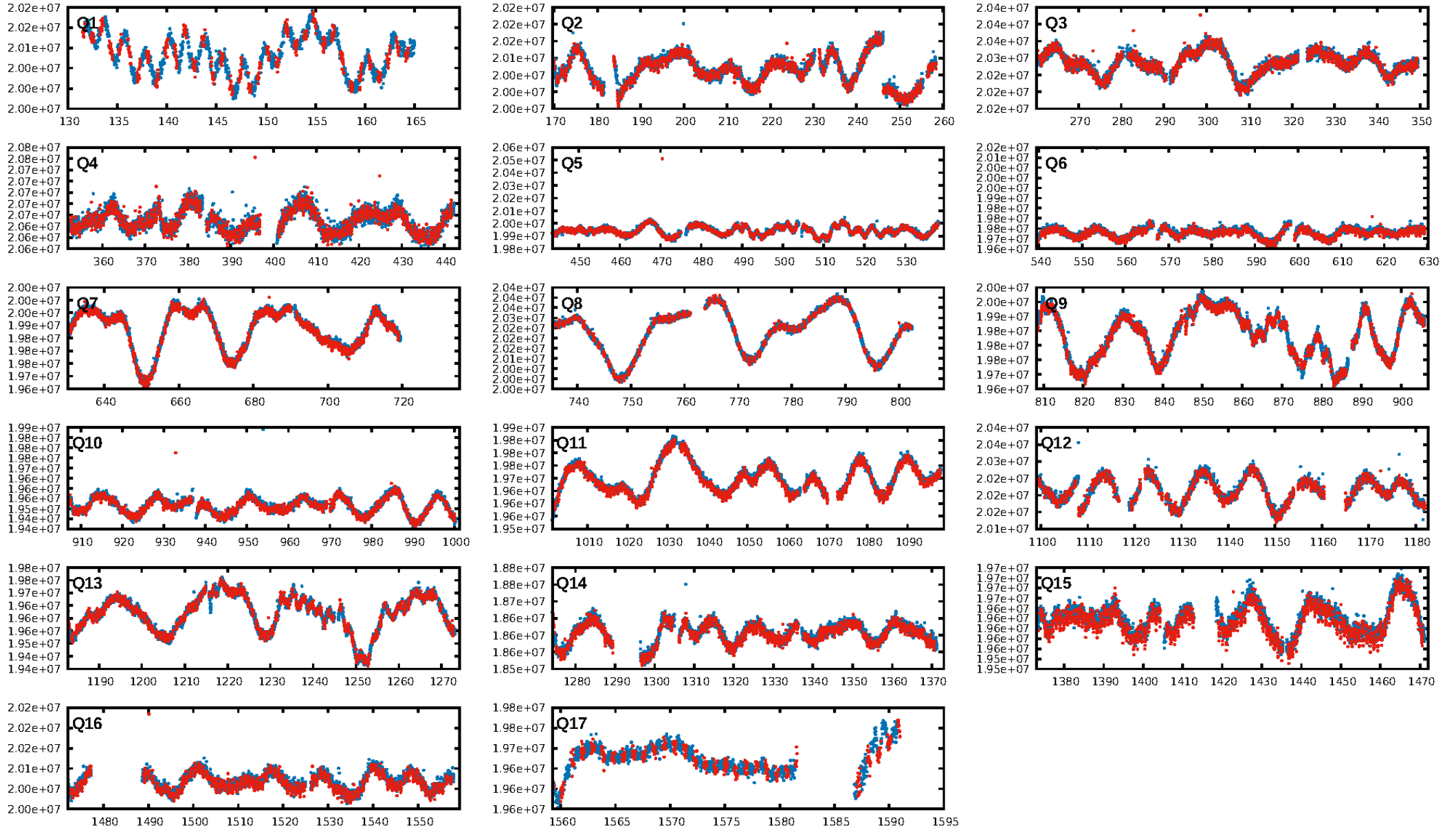
DV Fit Results:

Period = 0.93372 [0.00001] d
Epoch = 131.5385 [0.0019] BKJD
Rp/R* = 0.0123 [0.0029]
a/R* = 1.28 [0.54]
b = 0.90 [0.23]
Seff = 1704.53 [479.32]
Teq = 1638 [115] K
Rp = 1.08 [0.35] Re
a = 0.0180 [0.0032] AU
Ag = 0.94 [1.40] [-0.04 σ]
Teffp = 2494 [920] K [0.92 σ]

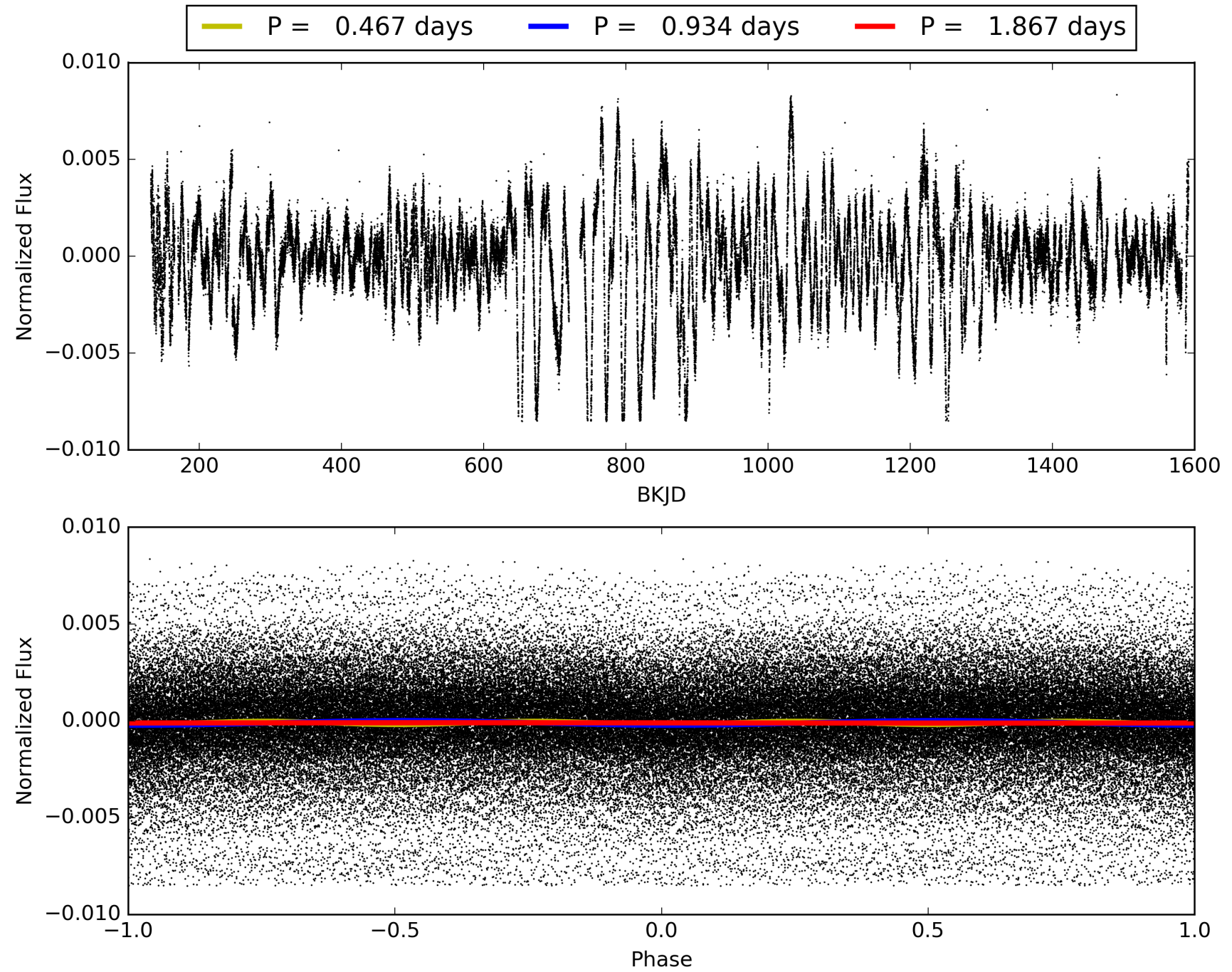
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [427.42 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.78e-83
RollingBand-fgt: 0.72 [985/1375]
GhostDiagnostic-chr: 0.1781
Centroid-sig: 0.0%
Centroid-so: 3.030 arcsec [4.63 σ]
OotOffset-rm: 1.268 arcsec [2.01 σ]
KicOffset-rm: 1.176 arcsec [1.97 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.06 [1/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 010341905-01, PDC Light Curves

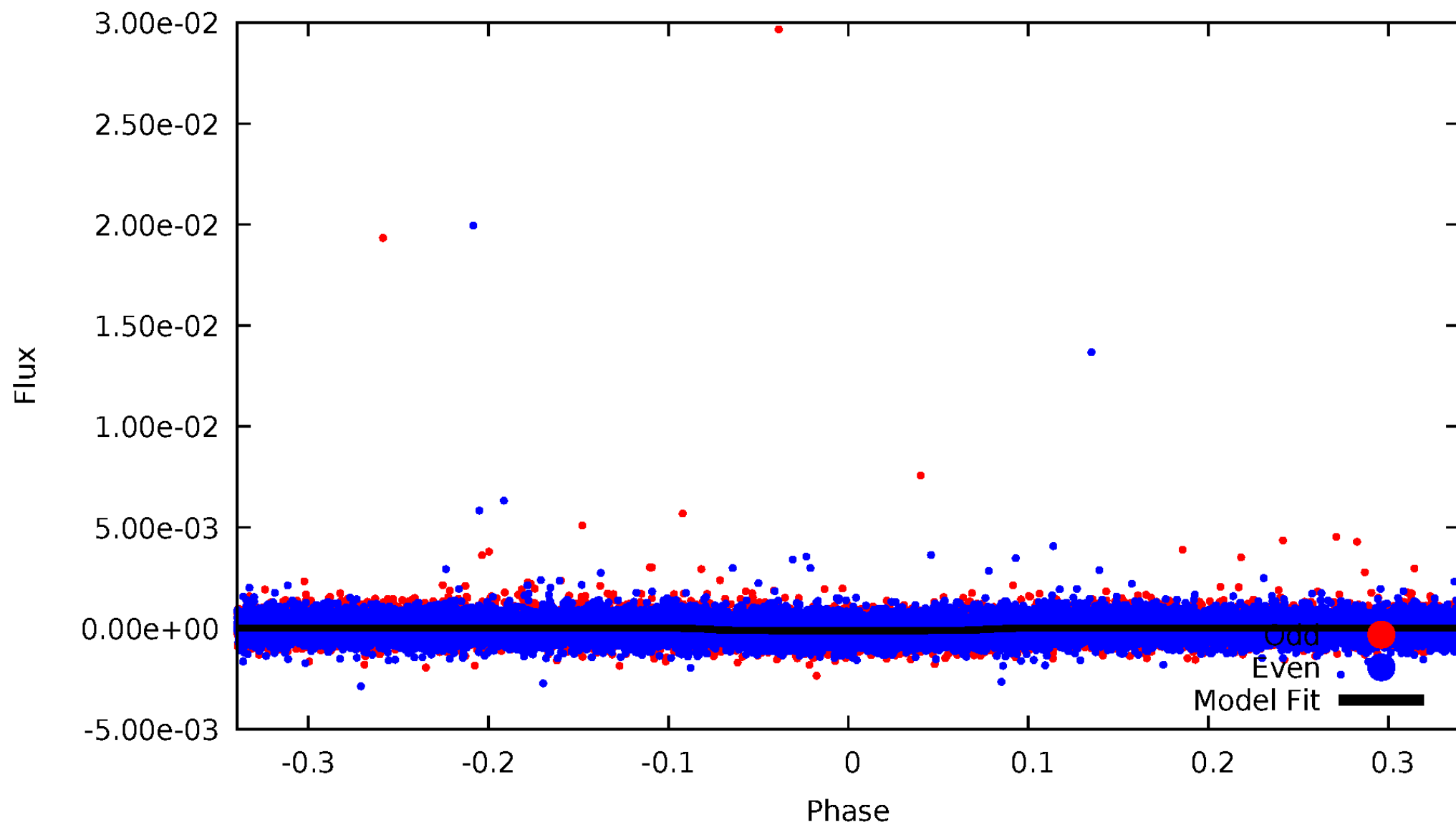


TCE 010341905-01



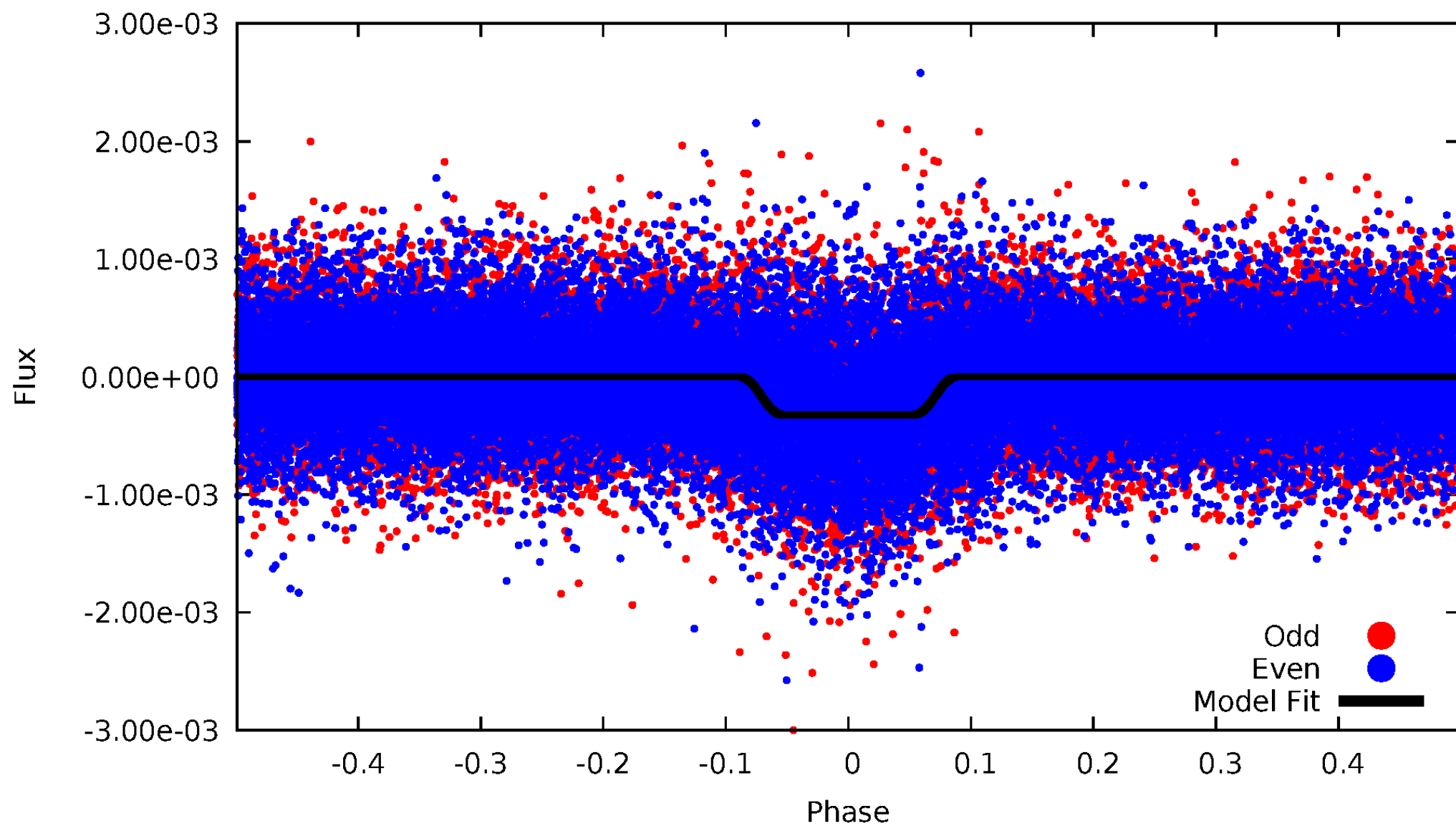
DV Odd/Even

TCE 010341905-01

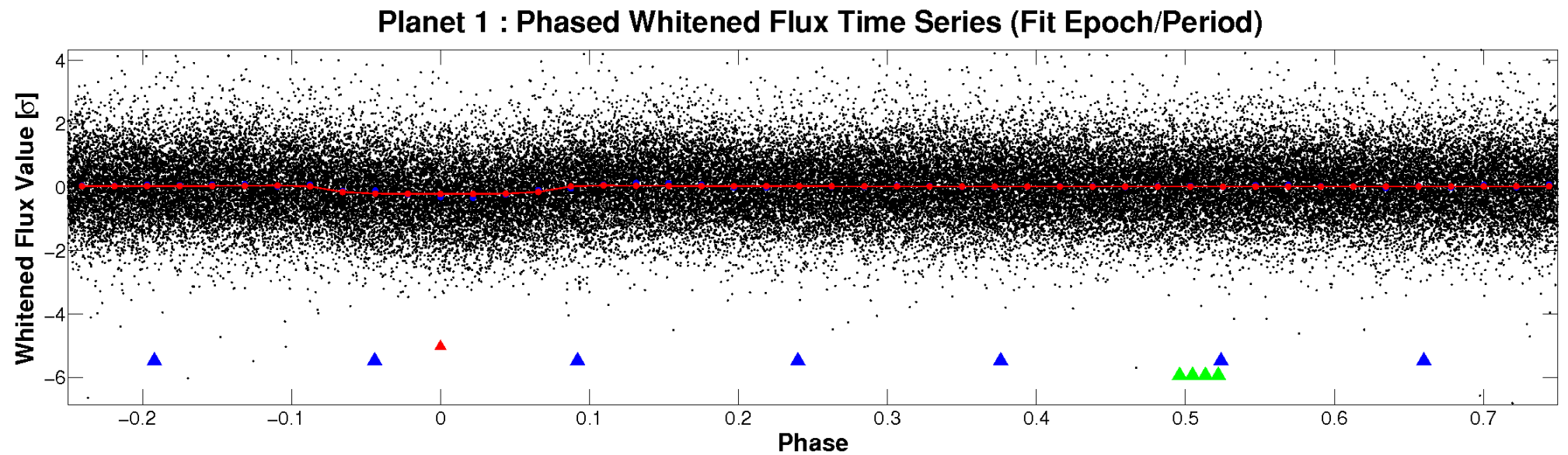
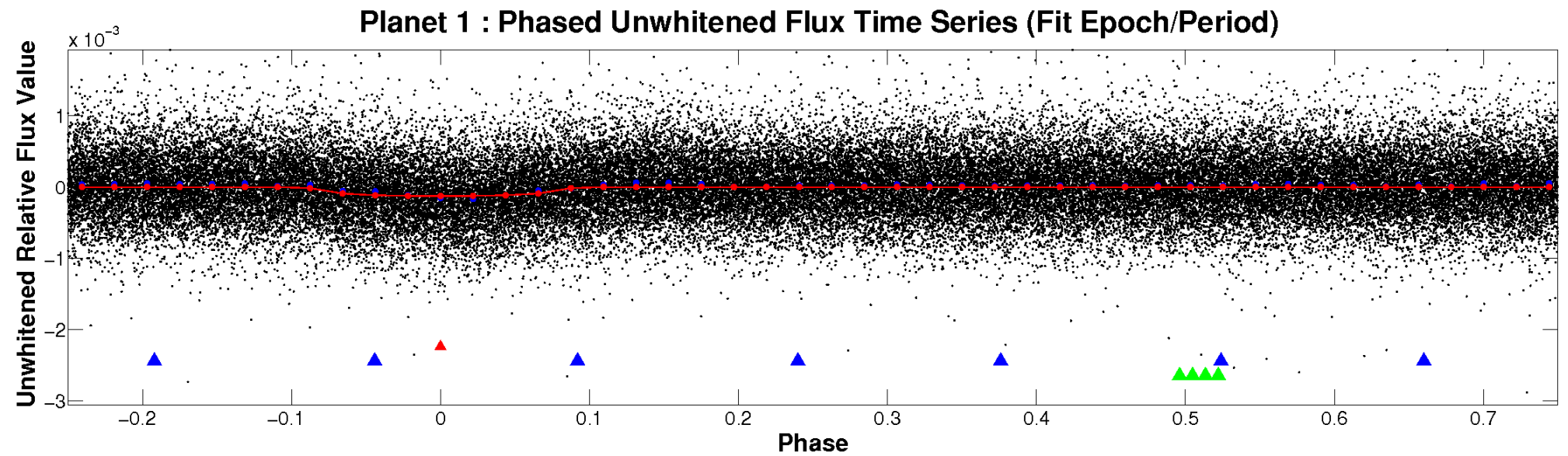


ALT Odd/Even

TCE 010341905-01

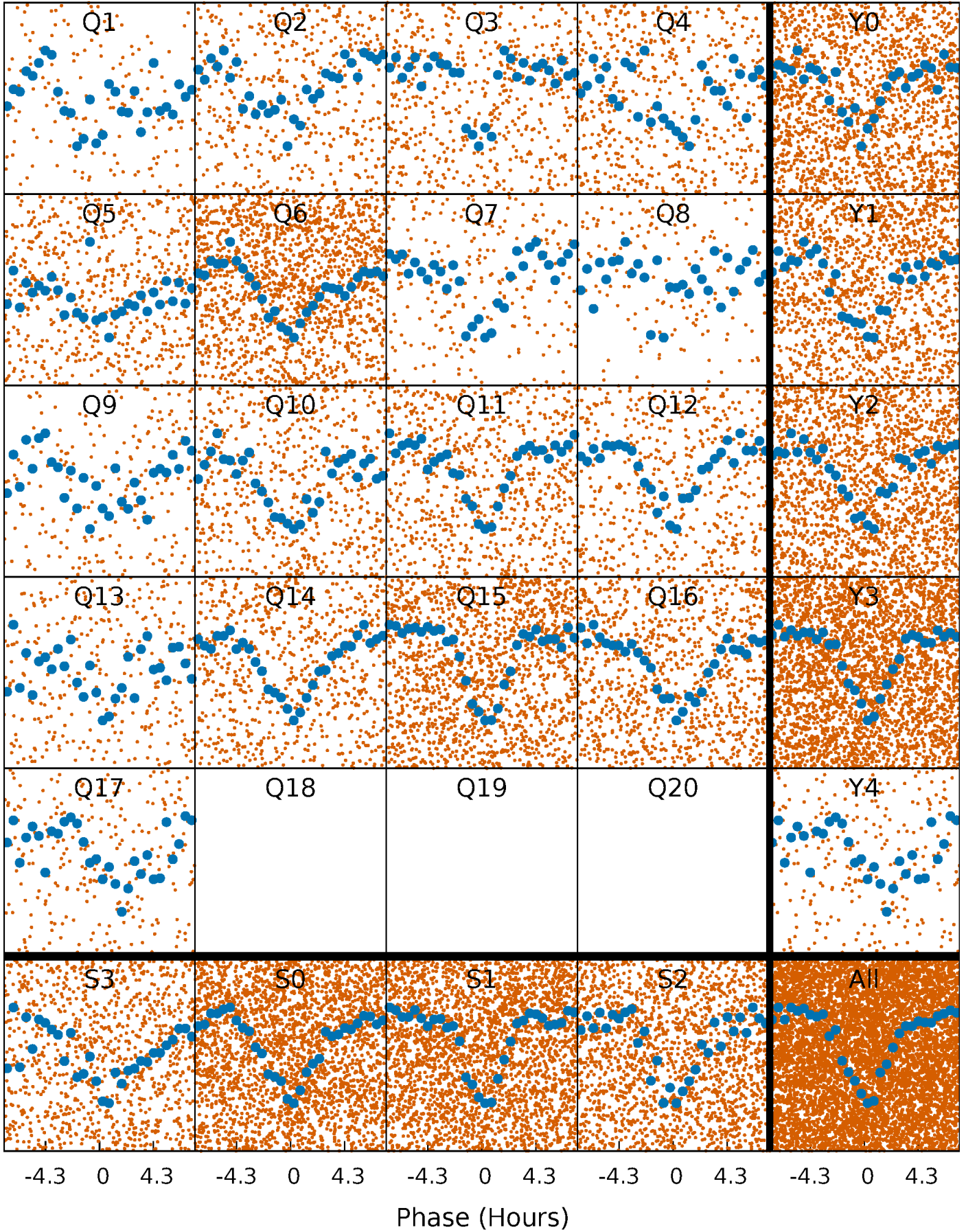


Non-Whitened Vs. Whitened Light Curve



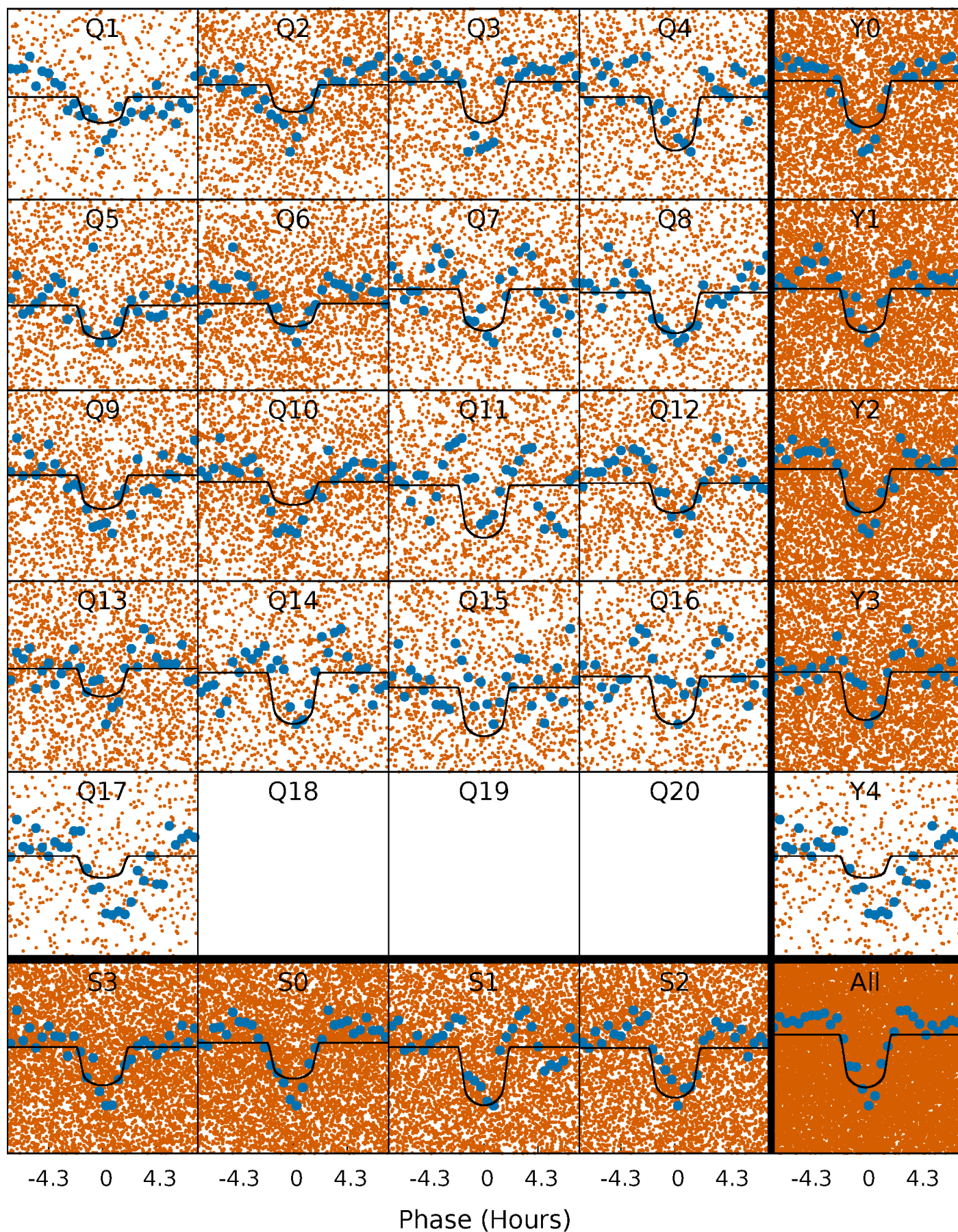
PDC Quarter-Phased Transit Curves

TCE 010341905-01 P= 0.933721 Days $T_0=131.538499$ (BKJD)



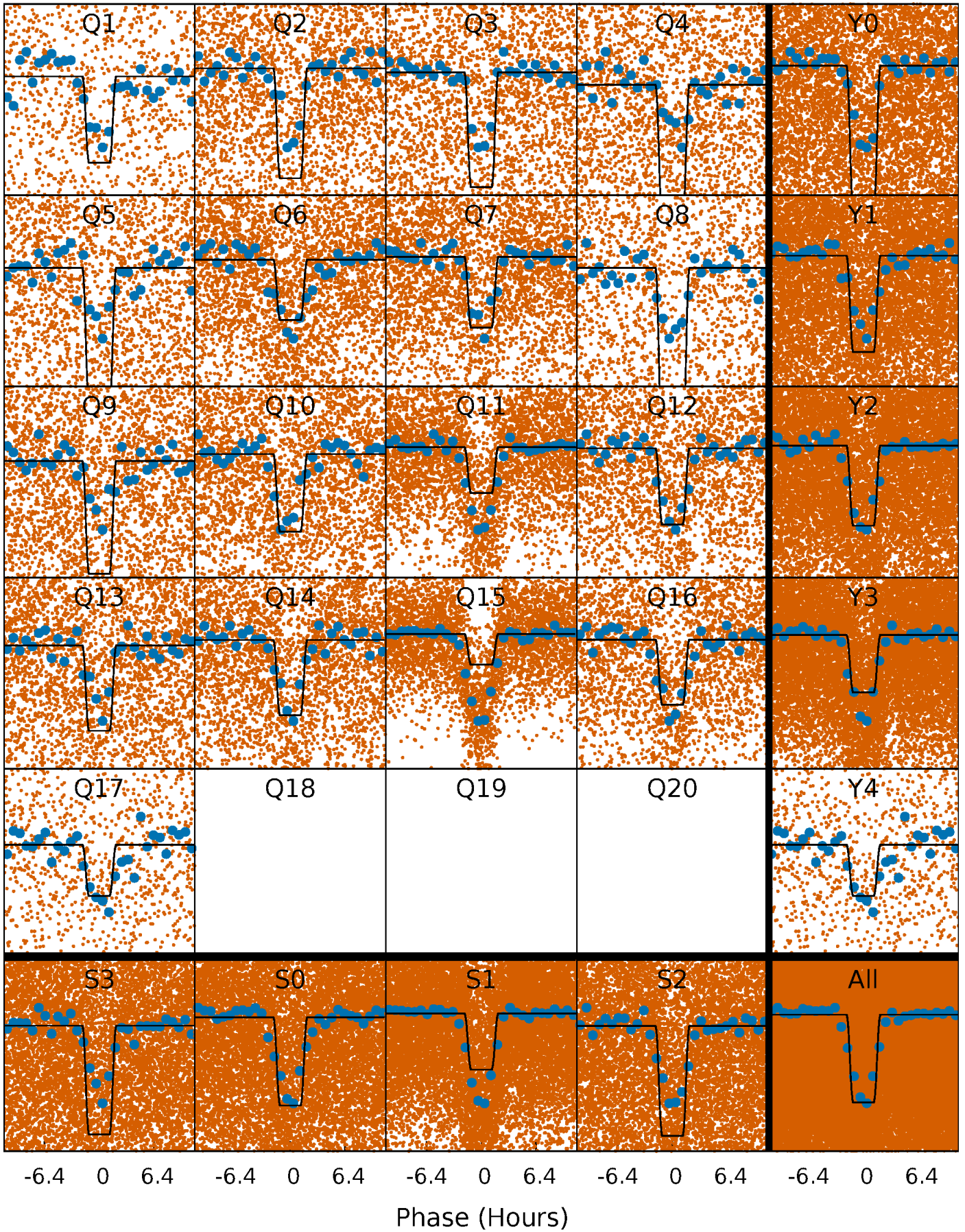
DV Quarter-Phased Transit Curves

TCE 010341905-01 P= 0.933721 Days $T_0=131.538499$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

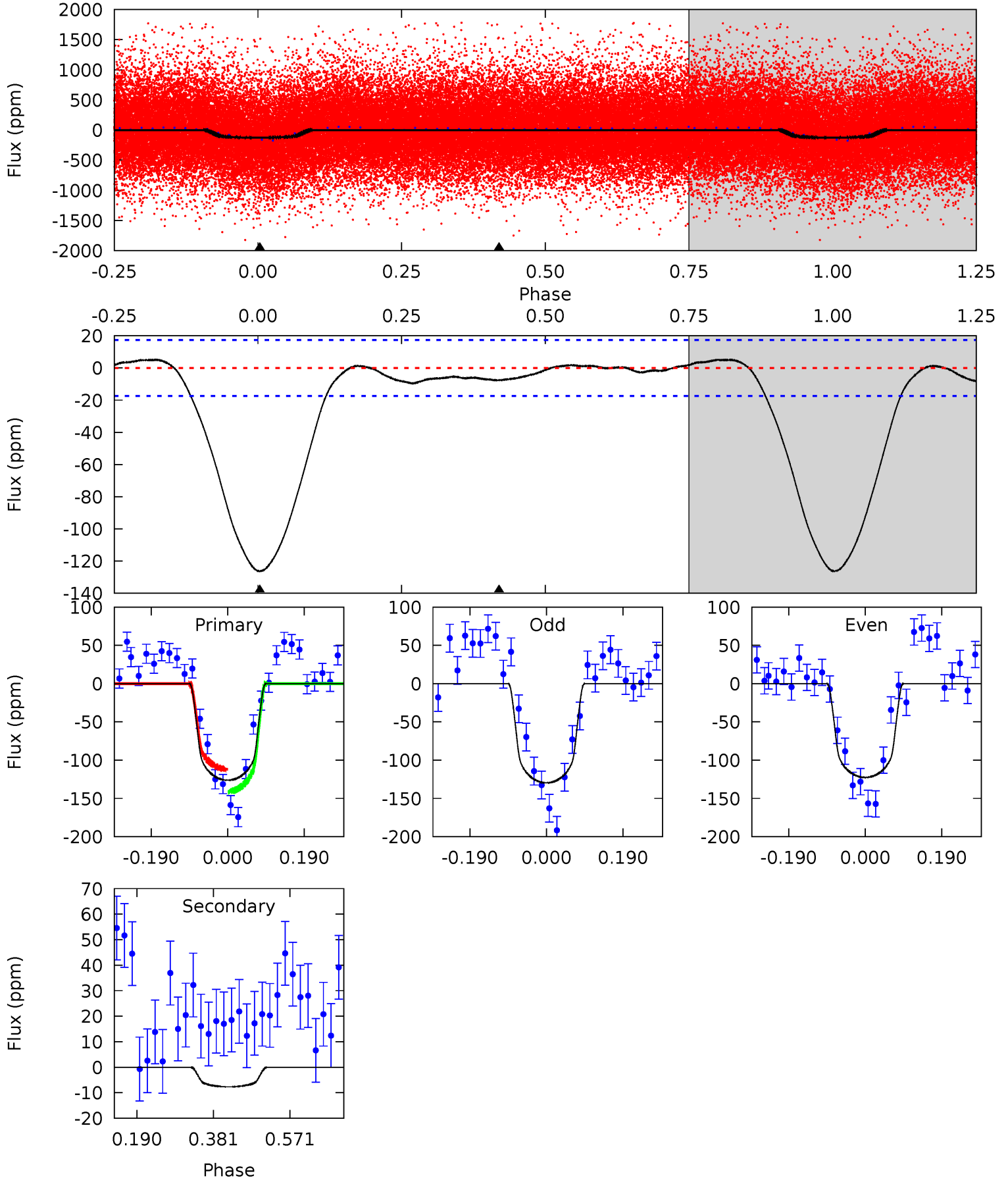
TCE 010341905-01 P= 0.933748 Days $T_0=131.521501$ (BKJD)



DV Model-Shift Uniqueness Test

010341905-01, P = 0.933721 Days, E = 130.604778 Days

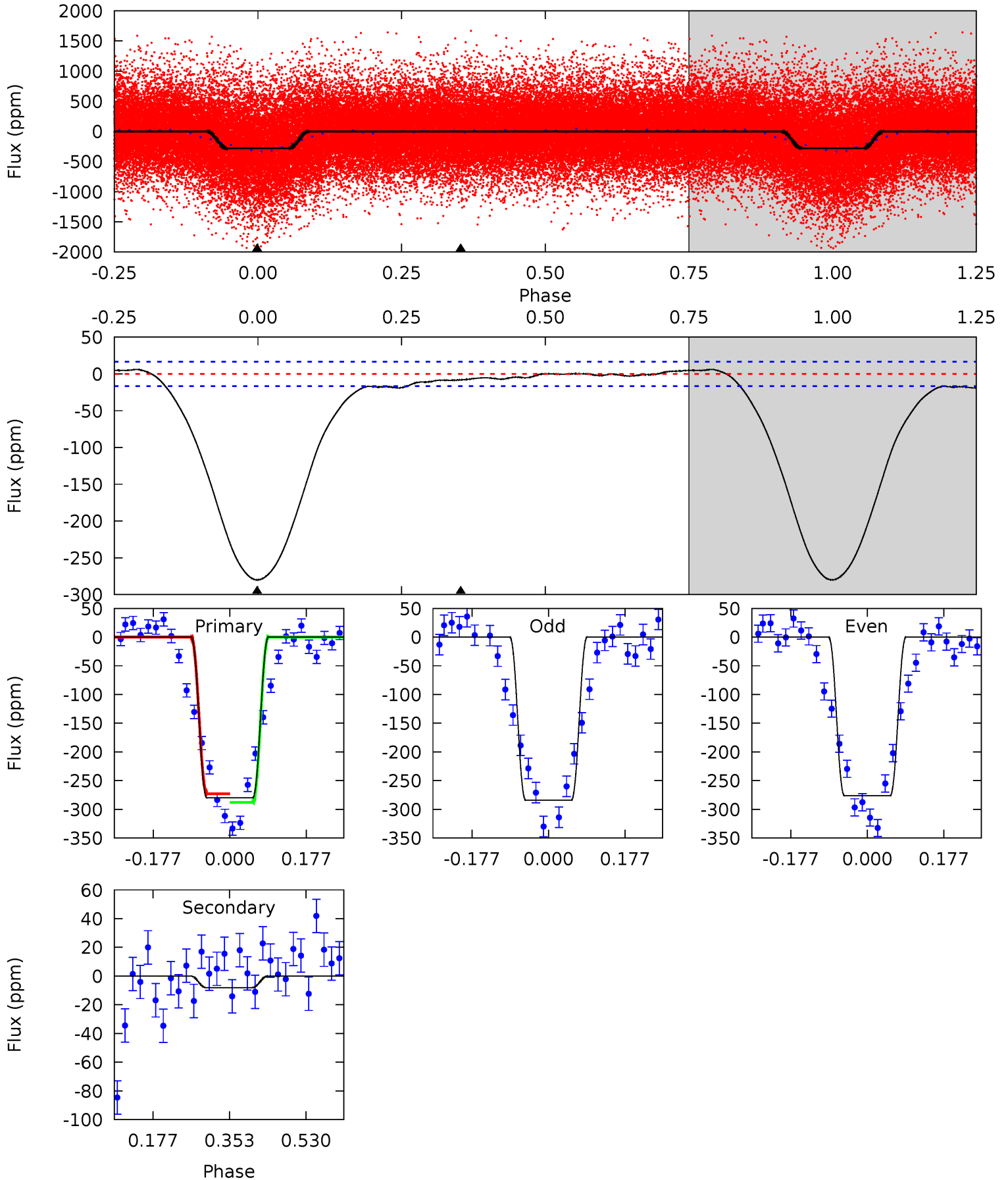
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.1	1.95	0	0	4.43	1.31	0.67	32.1	32.1	1.95	1.95	0.91	0.96	0.04	3.74



Alt Model-Shift Uniqueness Test

010341905-01, P = 0.933748 Days, E = 130.587753 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
75.1	2.16	0	0	4.44	1.35	0.81	75.1	75.1	2.16	2.16	1.05	1.02	0.02	2.06



Stellar Parameters For KIC 010341905

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5553^{+149}_{-166}	$4.577^{+0.034}_{-0.136}$	$-0.160^{+0.300}_{-0.300}$	$0.806^{+0.176}_{-0.070}$	$0.903^{+0.083}_{-0.111}$	$2.425^{+0.448}_{-0.971}$
	+3%/-3%	+1%/-3%	+188%/-188%	+22%/-9%	+9%/-12%	+18%/-40%
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 010341905-01 / KOI 2391.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 4	$1.12^{+0.27}_{-0.28}$	2325^{+122}_{-83}	3049^{+440}_{-583}	$1.045^{+1.112}_{-0.599}$
Alt.	-8 ± 4	$1.62^{+0.32}_{-0.29}$	2333^{+105}_{-95}	2614^{+342}_{-4767}	$0.534^{+0.375}_{-0.278}$

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

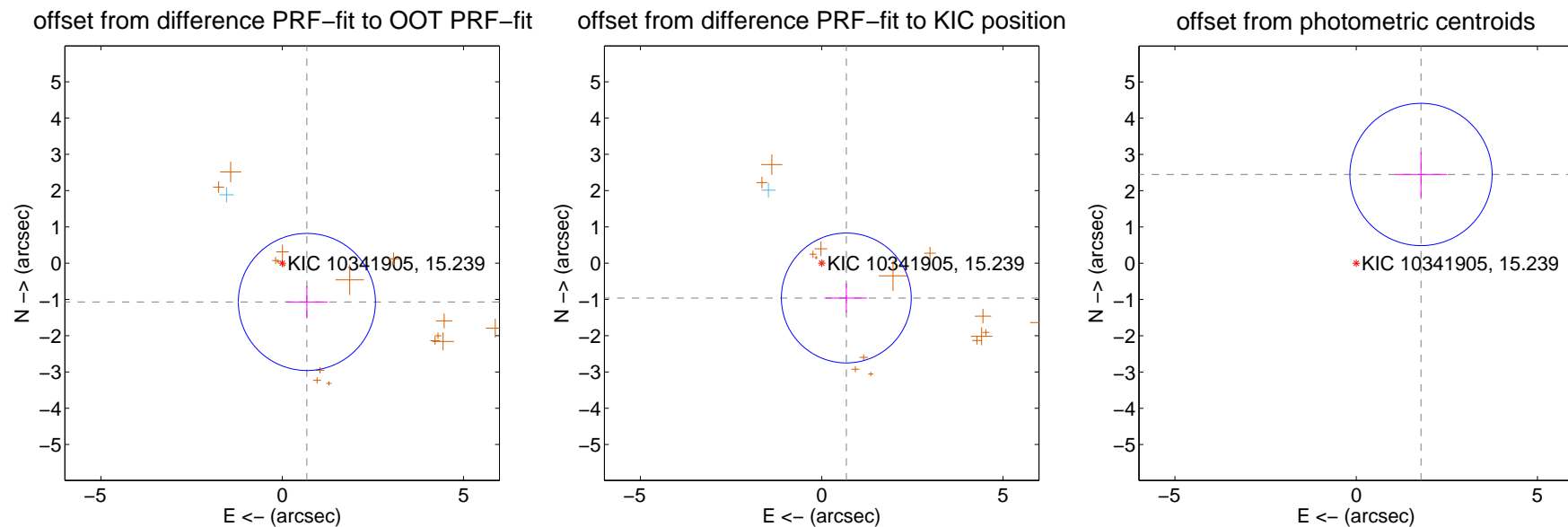
DV Centroid Data

Supplemental centroid analysis for 010341905-01. Kepler magnitude: 15.24. Transit SNR 20.08

There are 1 quarters with good PRF difference image offsets

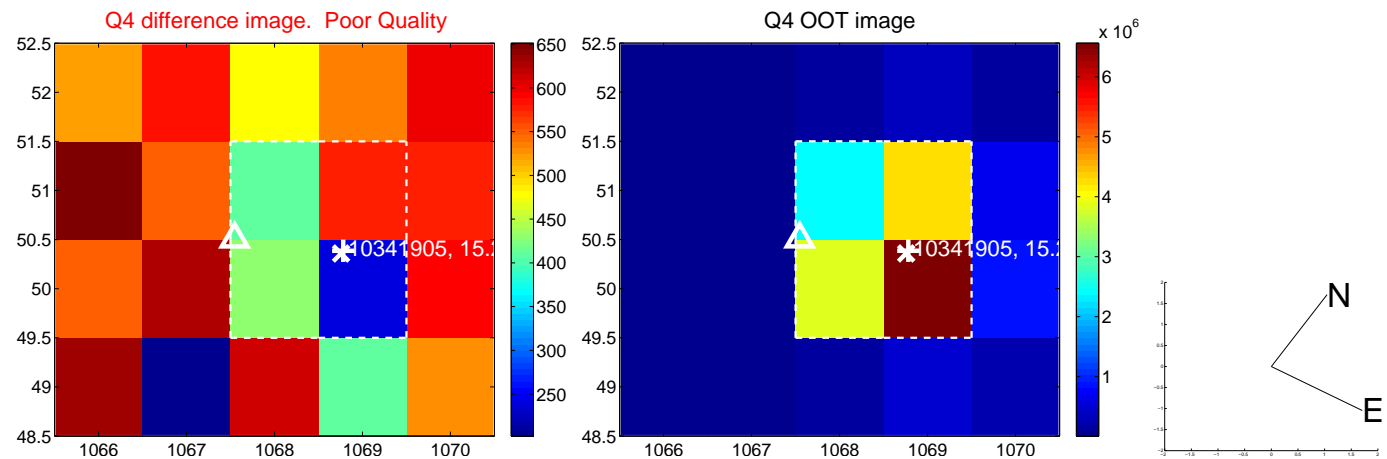
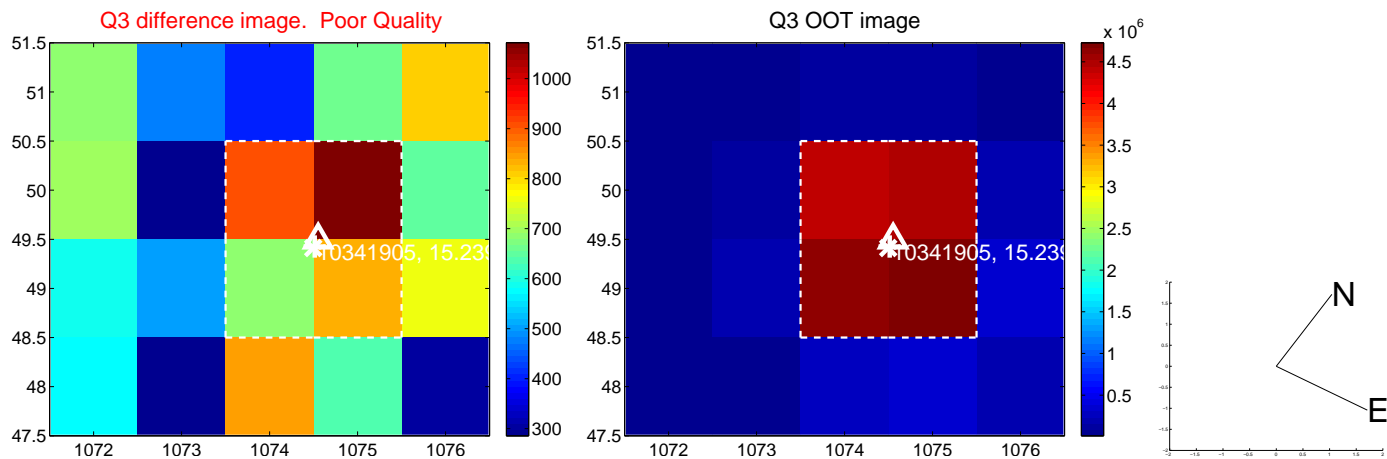
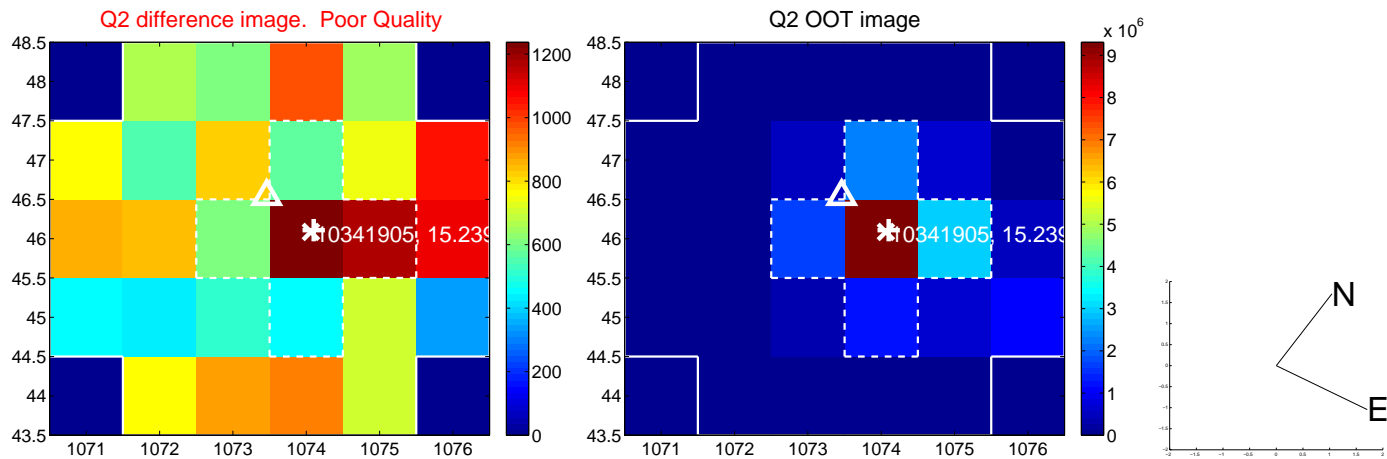
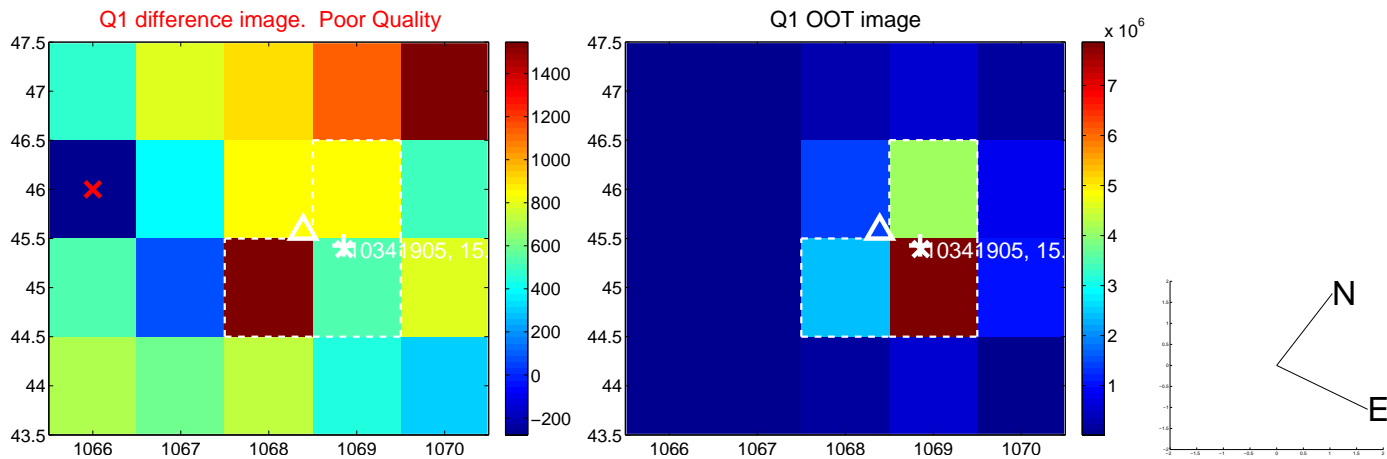
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.268 ± 0.630	2.01	-0.680 ± 0.574	-1.070 ± 0.449
PRF-fit source offset from KIC position	1.176 ± 0.597	1.97	-0.678 ± 0.569	-0.961 ± 0.397
photometric centroid source offset	3.03 ± 0.65	4.63	-1.79 ± 0.71	2.45 ± 0.62

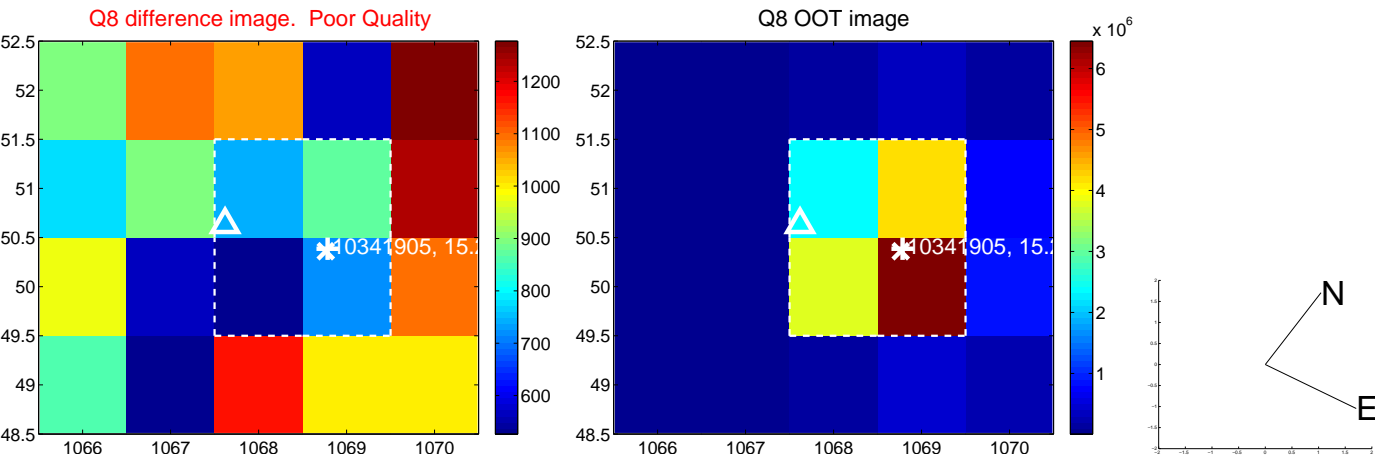
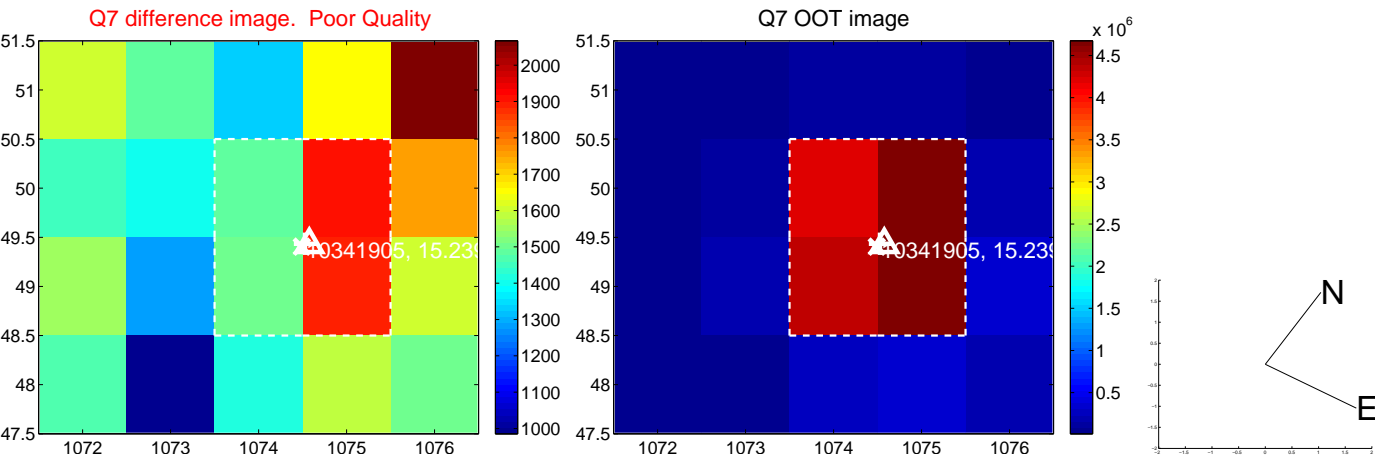
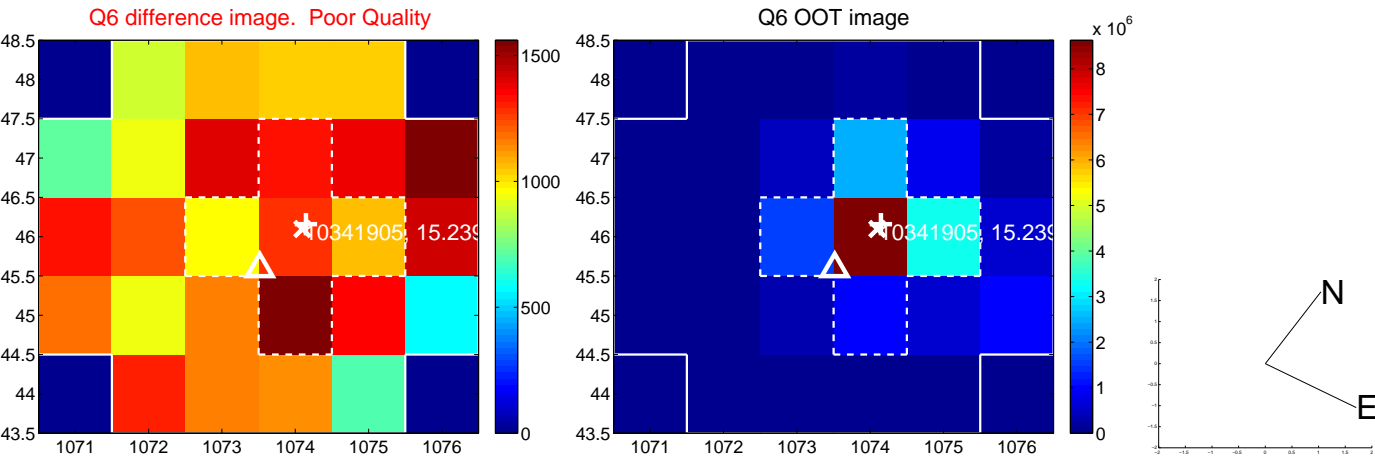
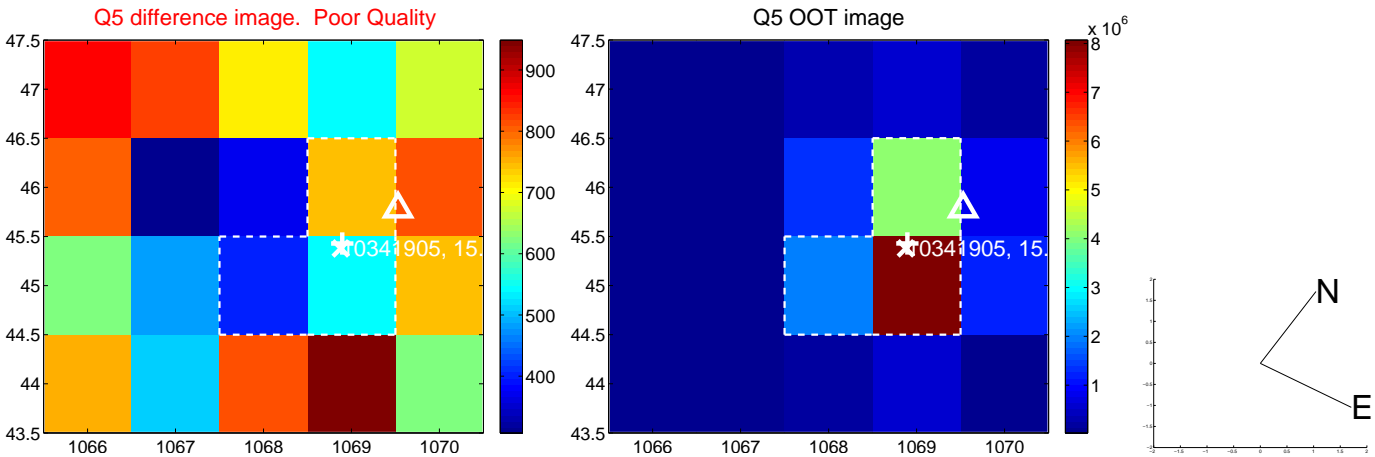


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

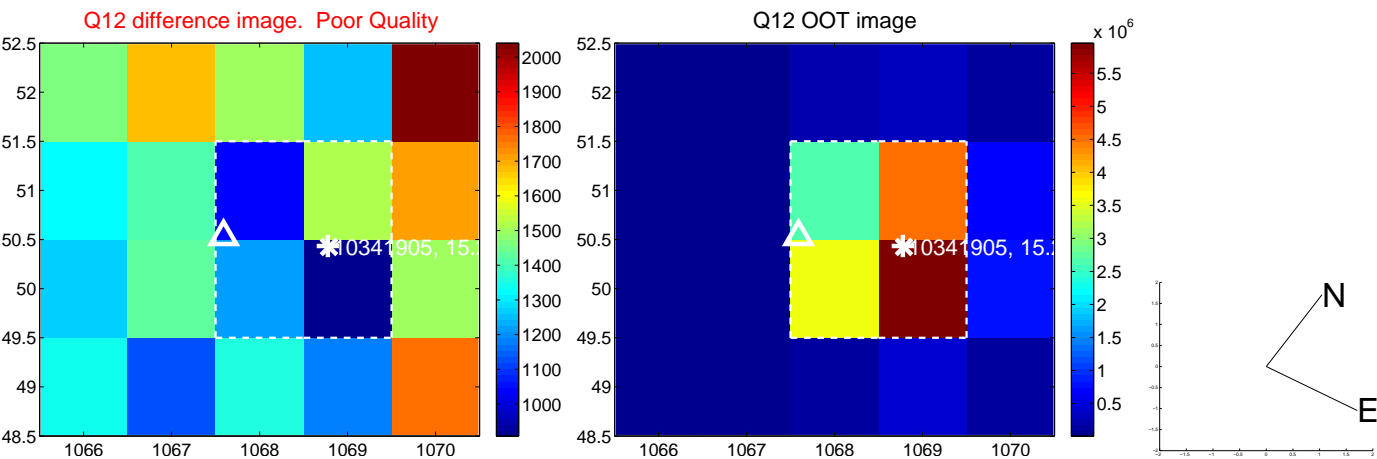
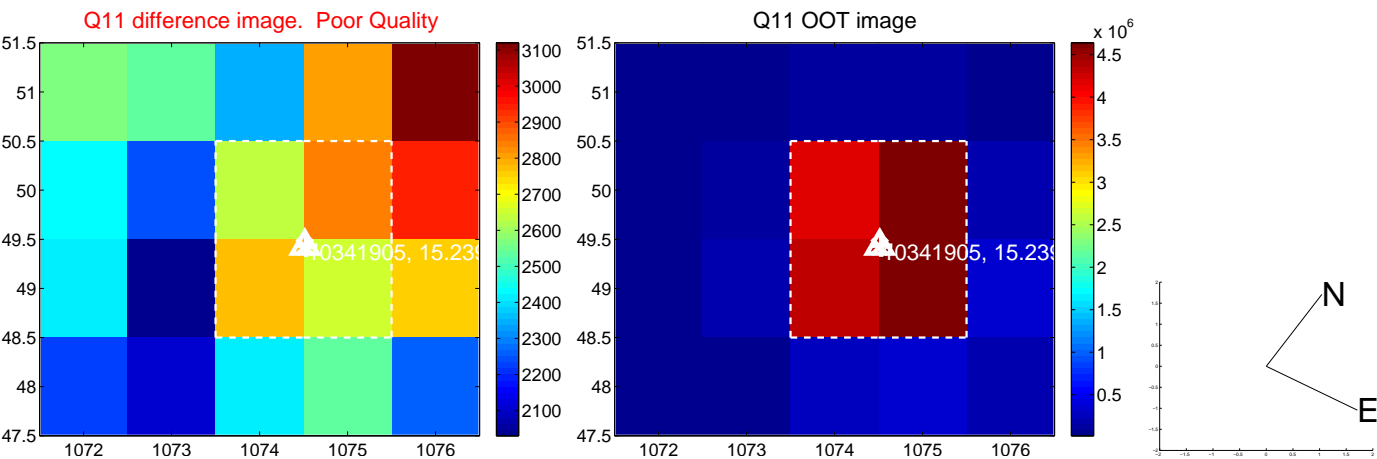
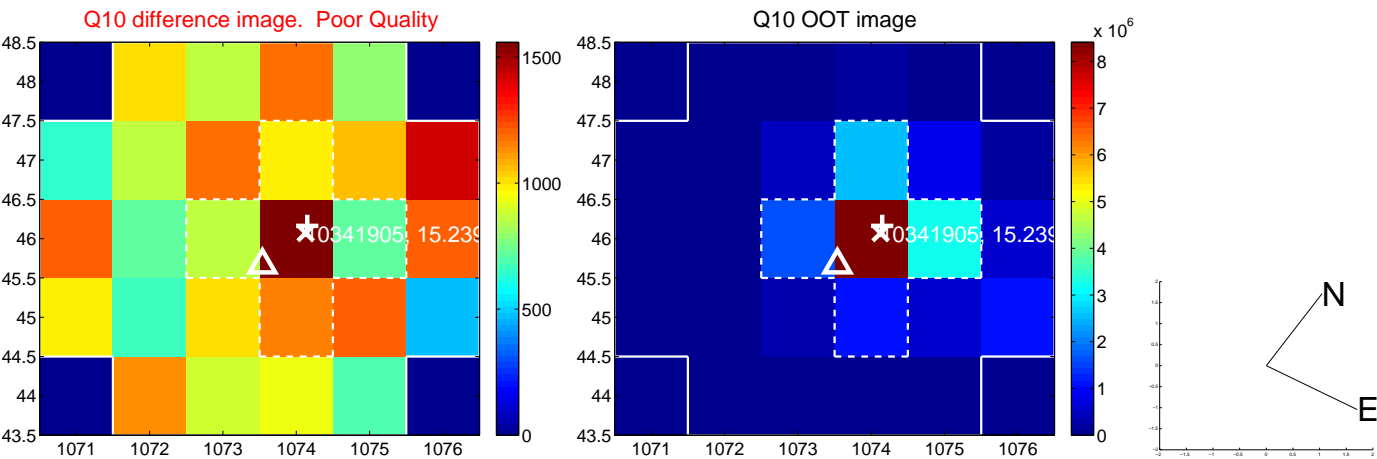
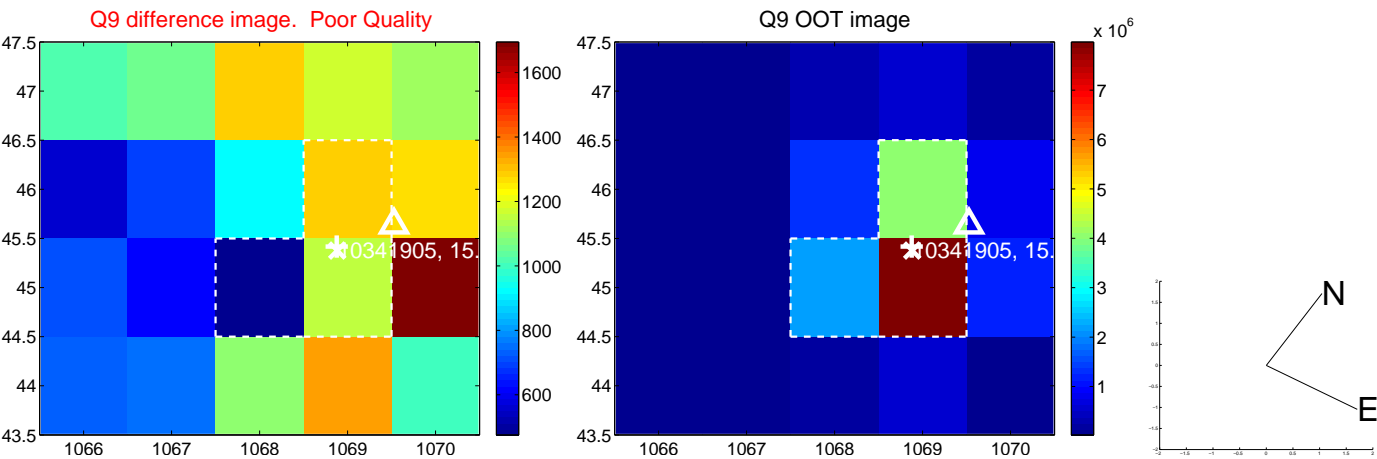
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



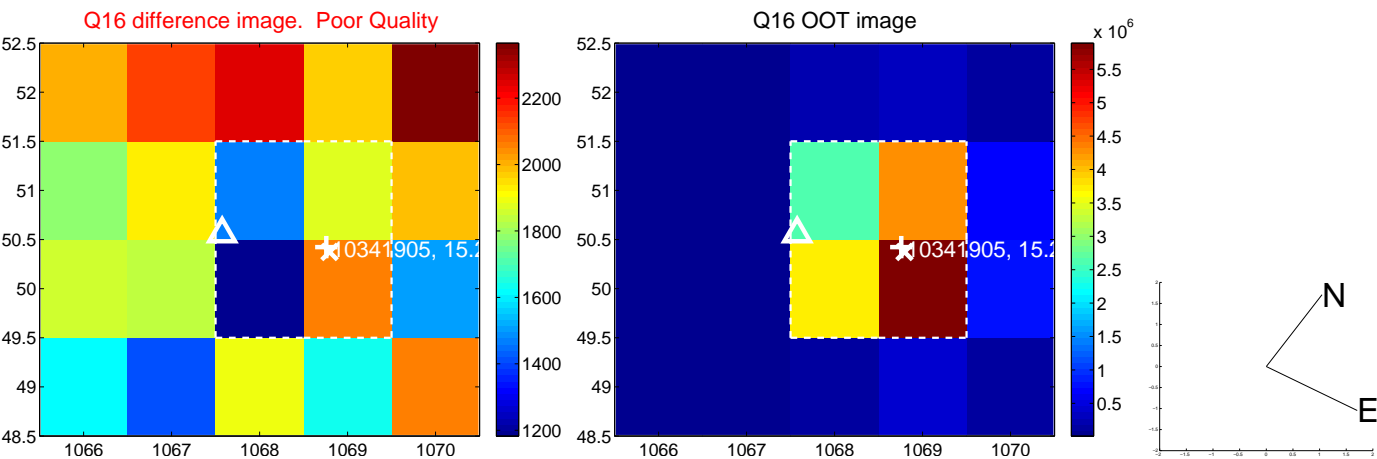
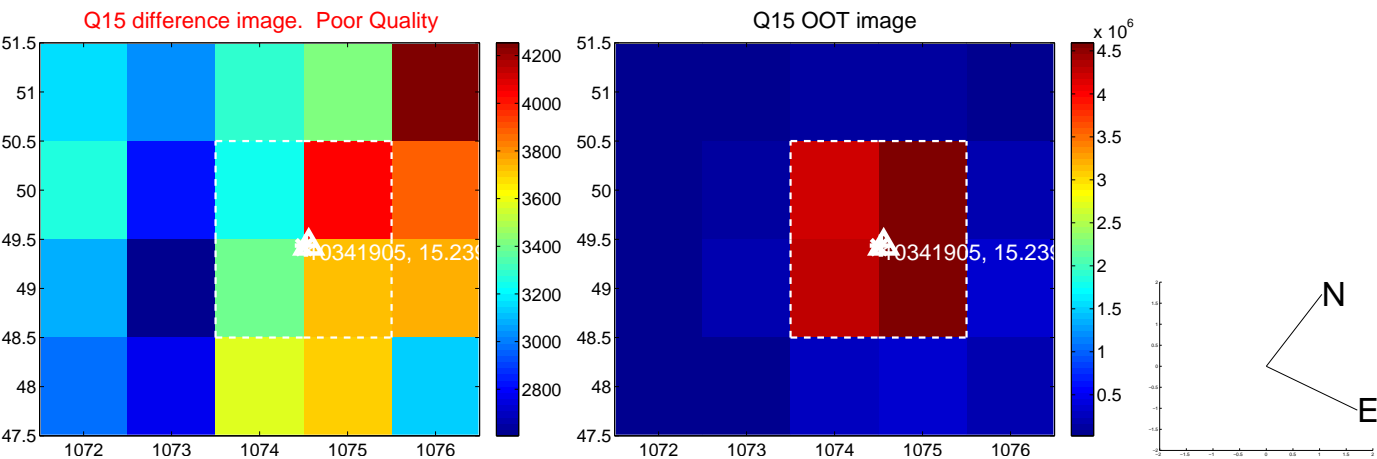
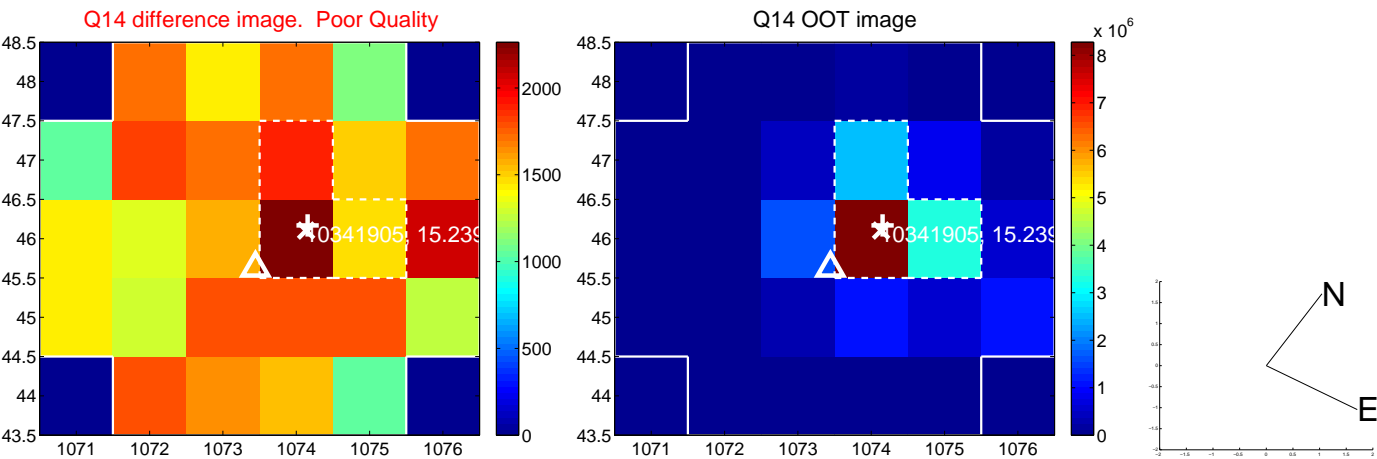
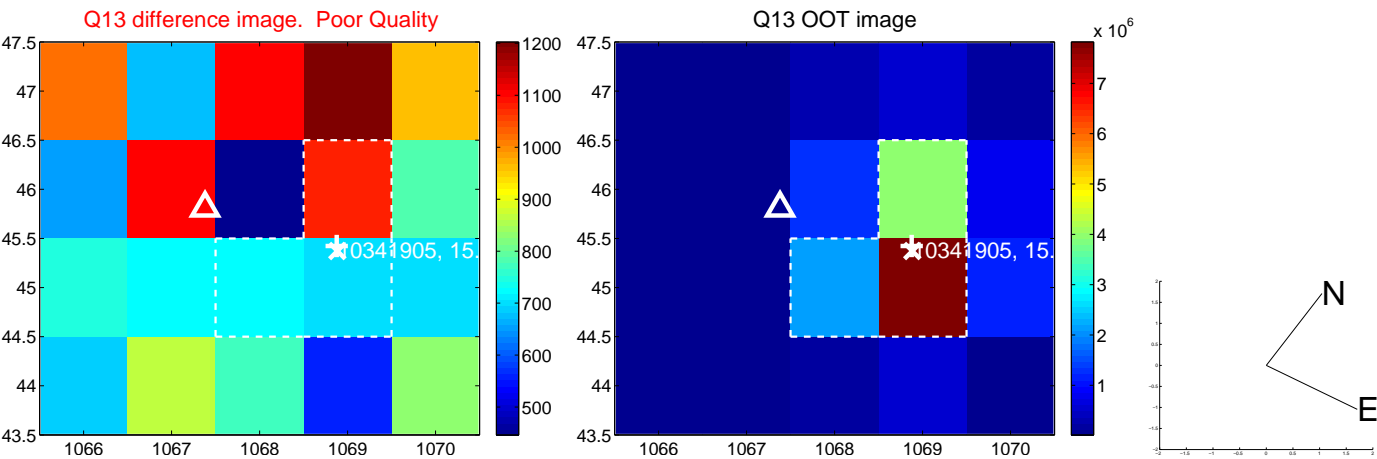
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



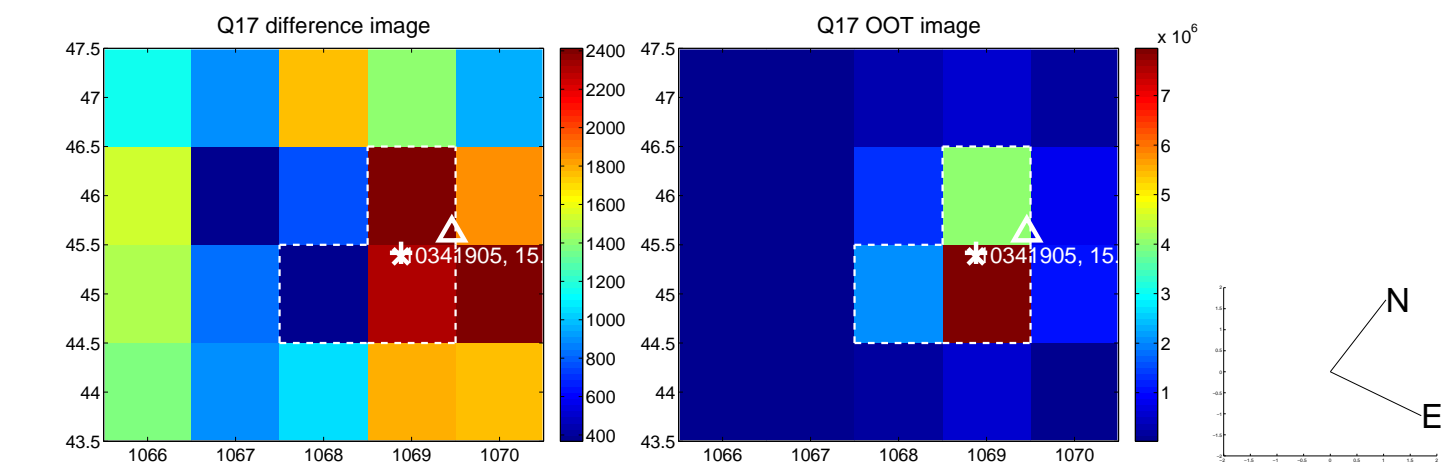
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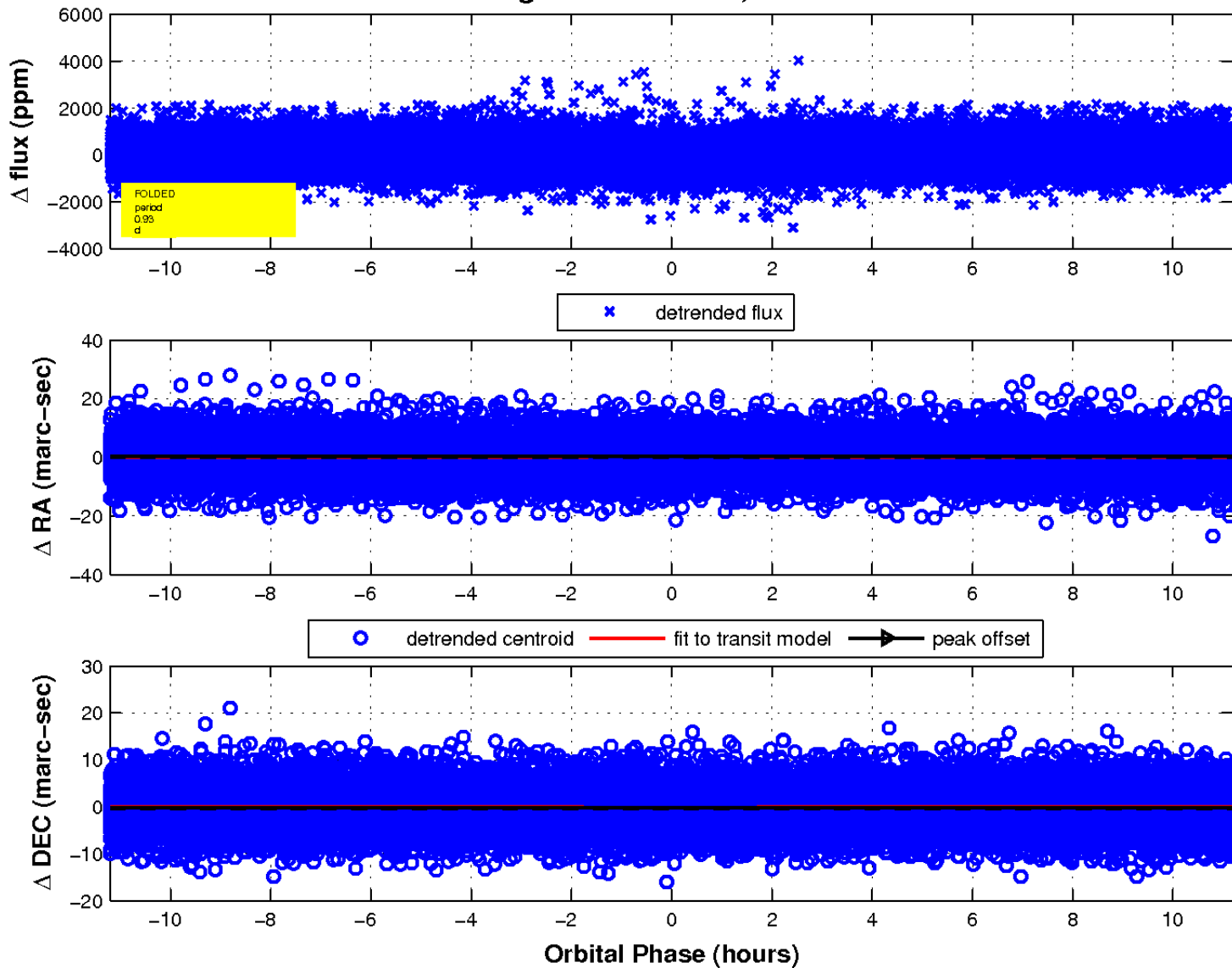
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



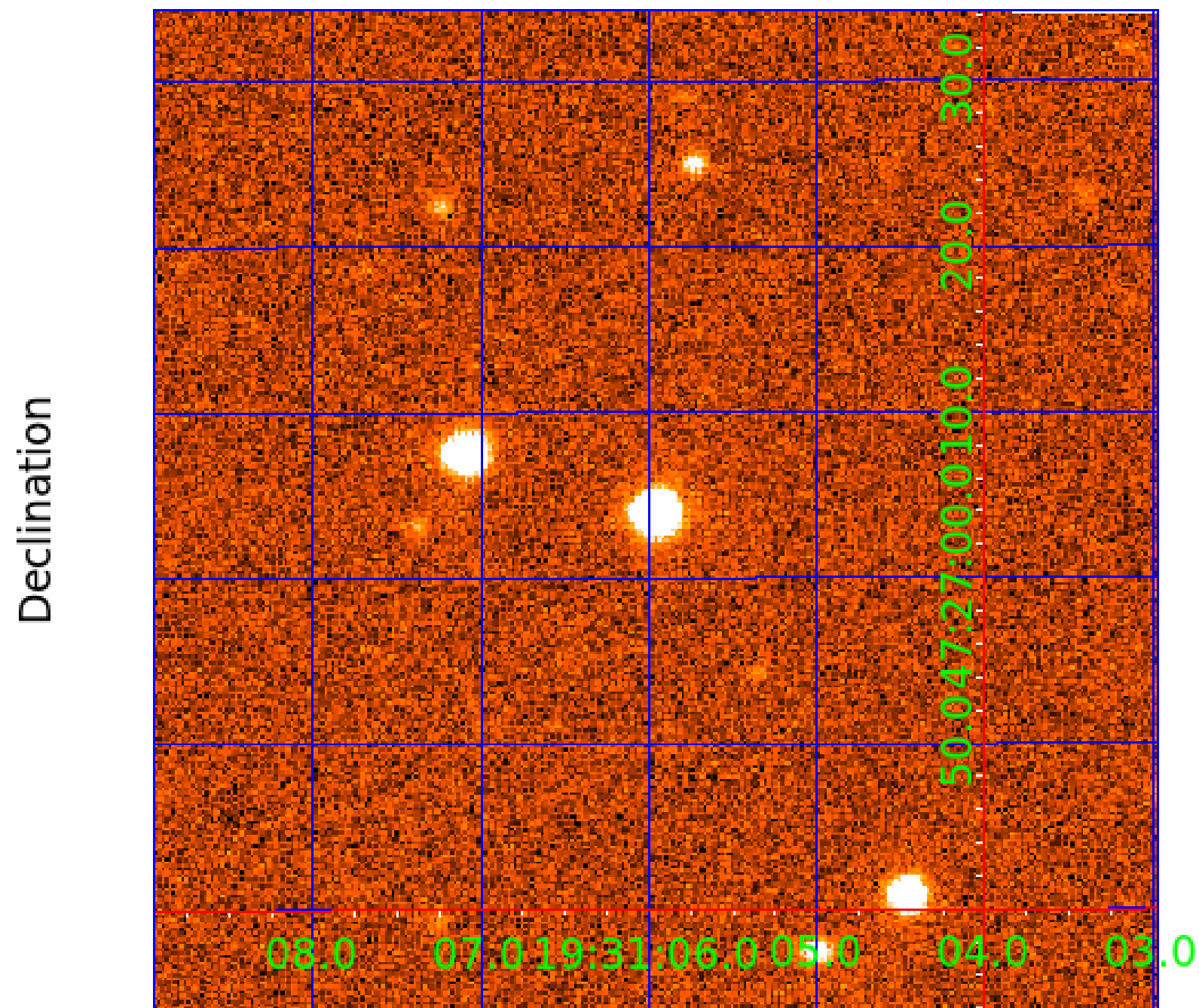
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 3



UKIRT Image



KIC 010341905

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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Robovetter Results

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010341905-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
010341905-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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 010341905-02

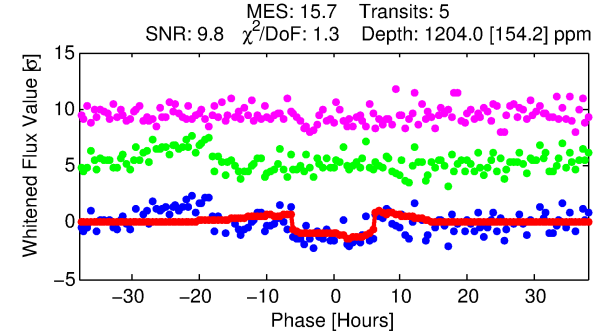
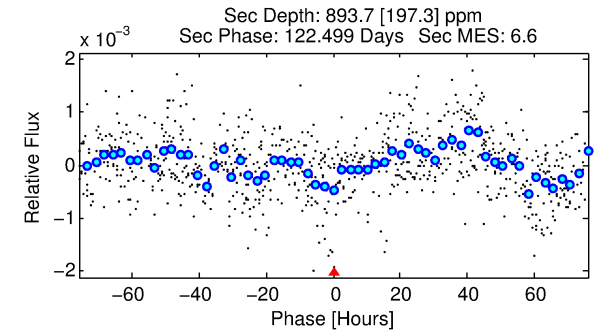
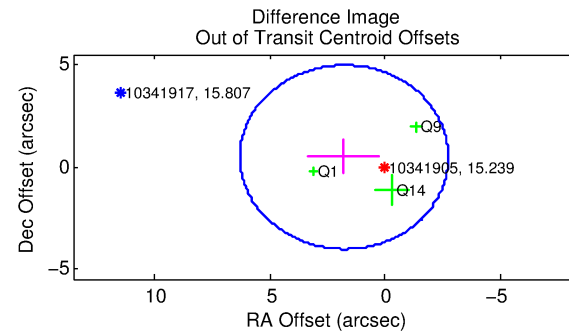
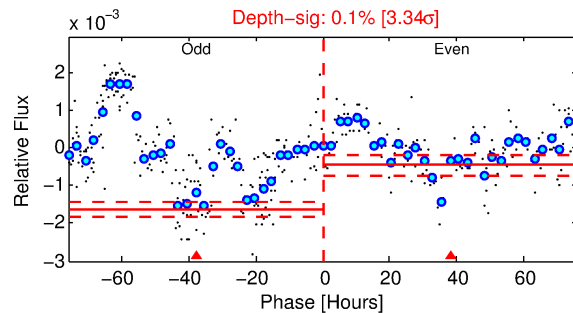
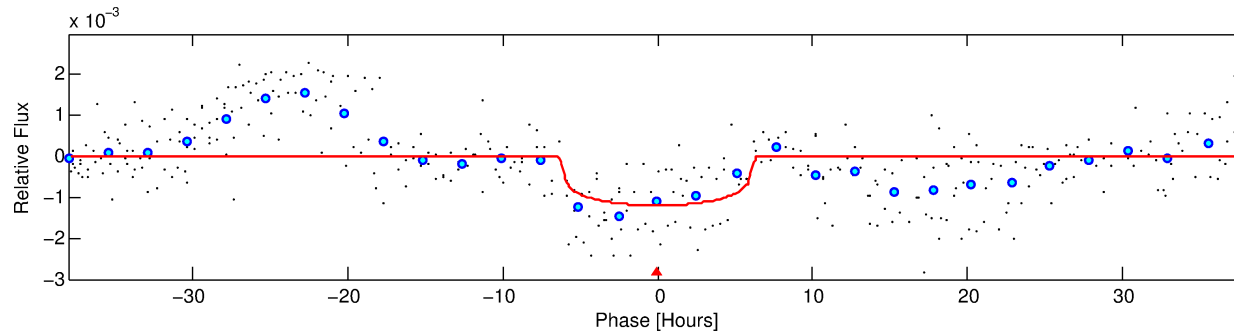
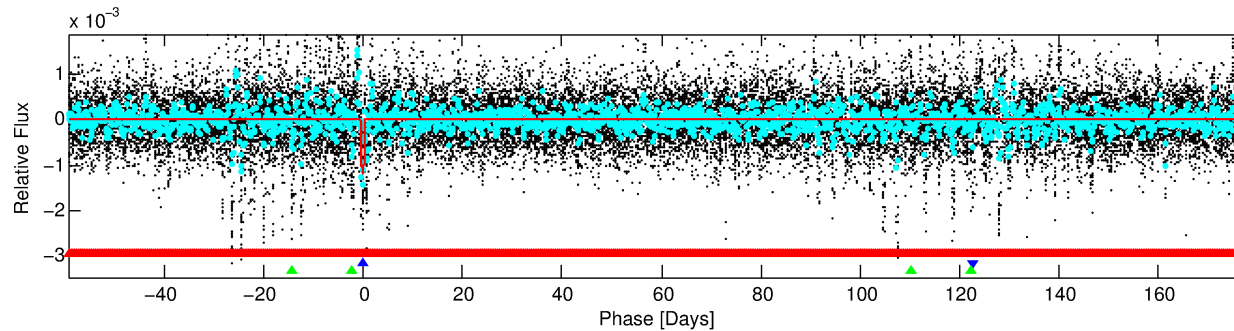
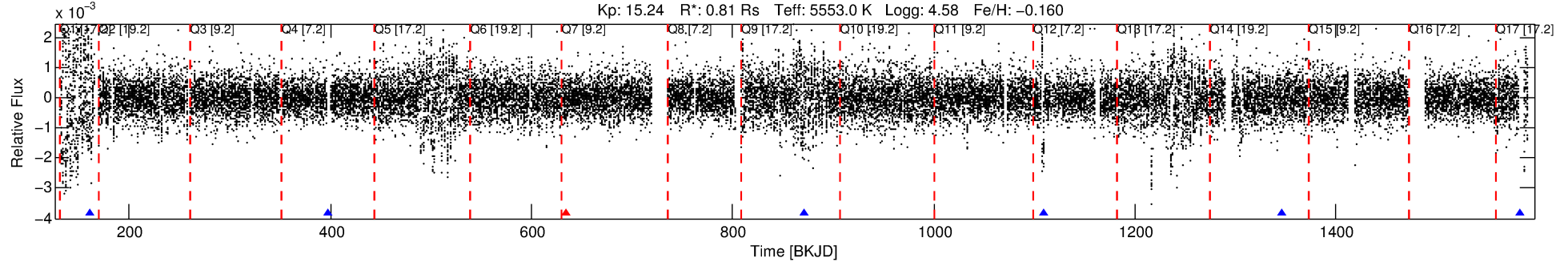
No Significant Match Found

DV One-Page Summary

KIC: 10341905 Candidate: 2 of 3 Period: 236.900 d

KOI: K02391 Corr: No Ephemeris Match

Kp: 15.24 R*: 0.81 Rs Teff: 5553.0 K Logg: 4.58 Fe/H: -0.160



DV Fit Results:

Period = 236.89984 [0.00683] d
Epoch = 161.1002 [0.0207] BKJD
Rp/R* = 0.0318 [0.0163]
a/R* = 138.47 [289.01]
b = 0.35 [5.30]
Seff = 1.06 [0.30]
Teq = 259 [18] K
Rp = 2.80 [1.56] Re
a = 0.7222 [0.1294] AU
Ag = 32774.24 [35342.22] [0.93σ]
Teffp = 5384 [1420] K [3.61σ]

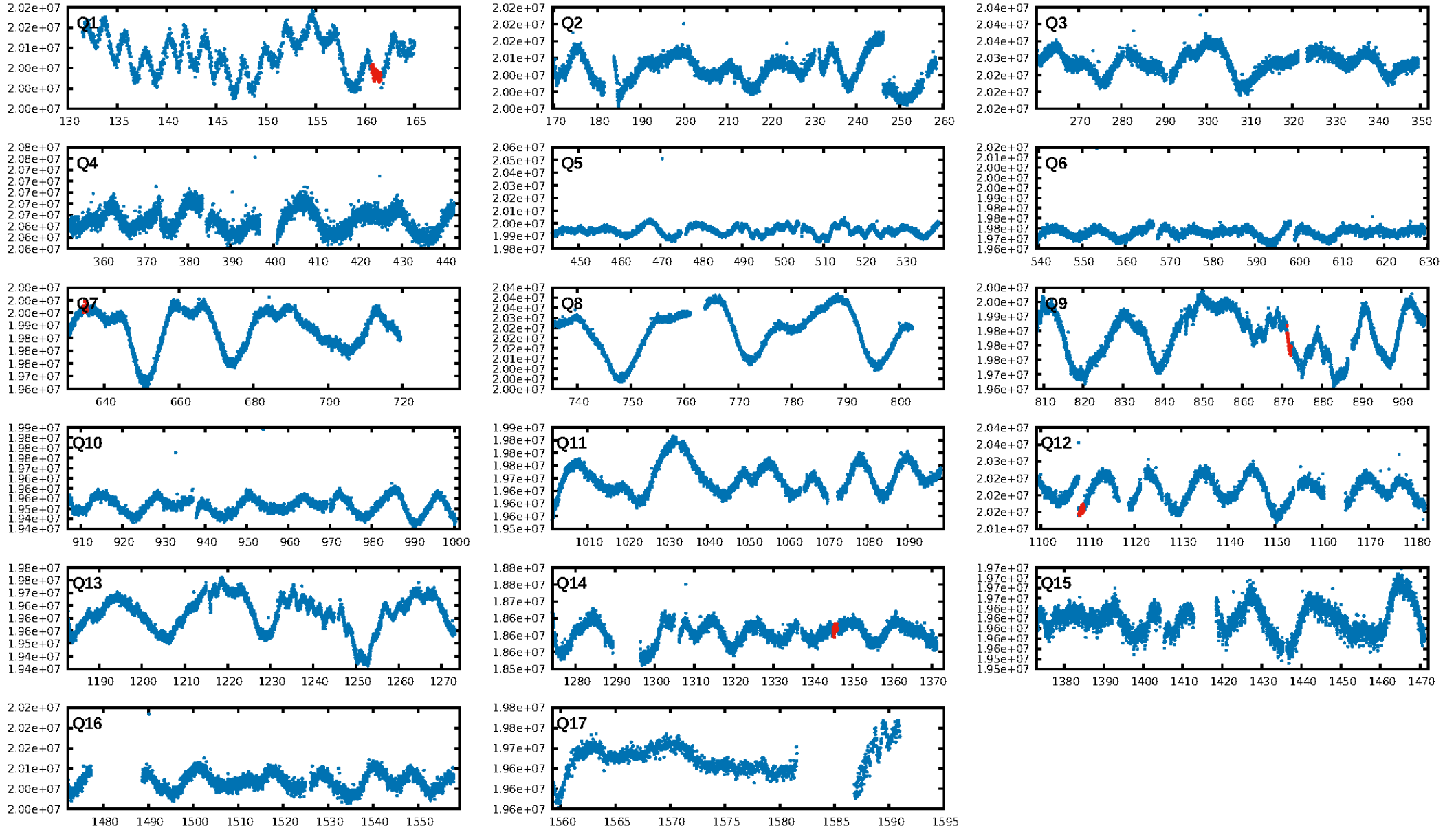
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [427.42σ]
LongPeriod-sig: 100.0% [151.30σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.18e-24
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 0.512
Centroid-sig: 92.9%
Centroid-so: 0.121 arcsec [0.12σ]
OotOffset-rm: 1.840 arcsec [1.23σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-rm: 1.752 arcsec [1.19σ]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/4]

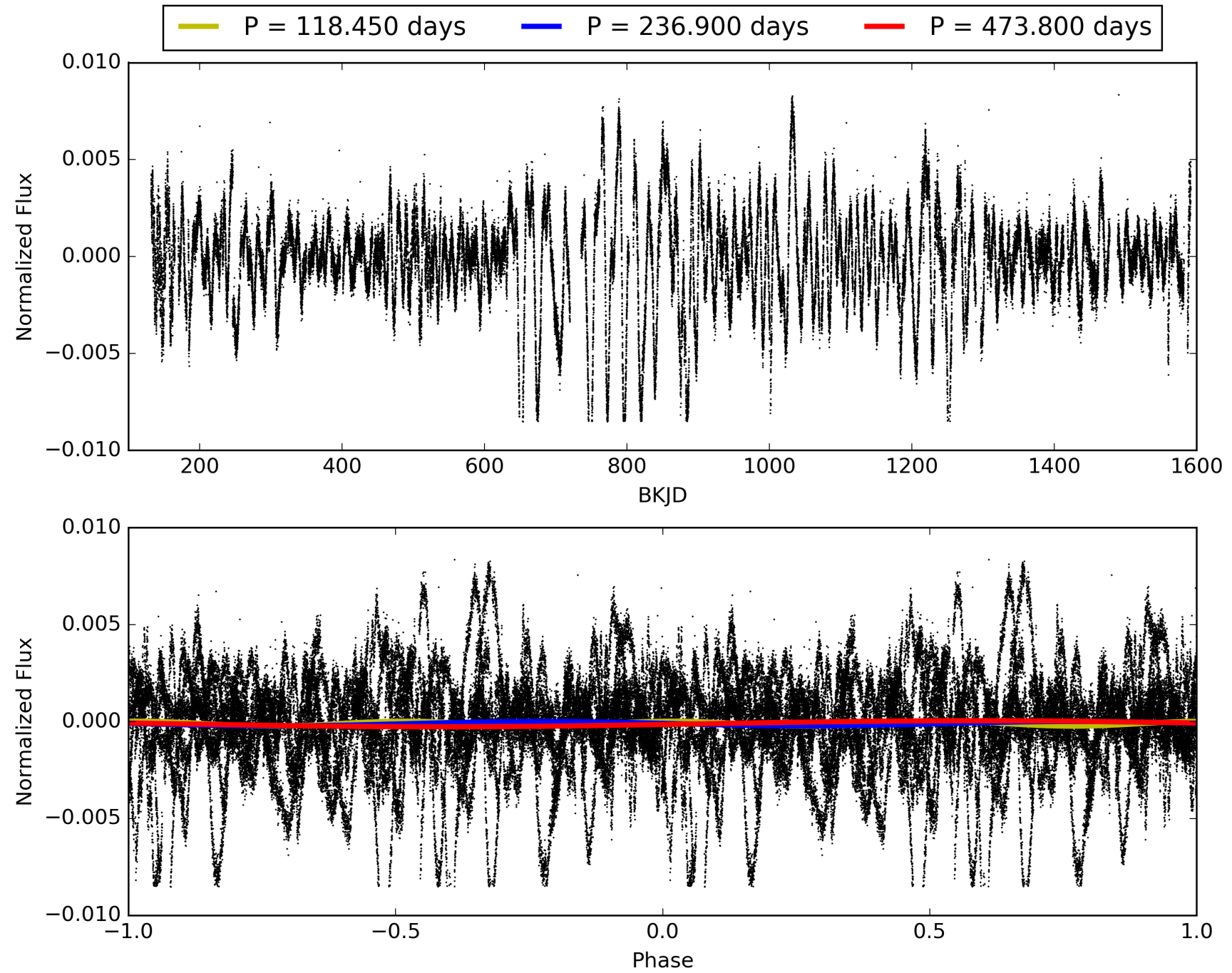
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010341905-02, PDC Light Curves

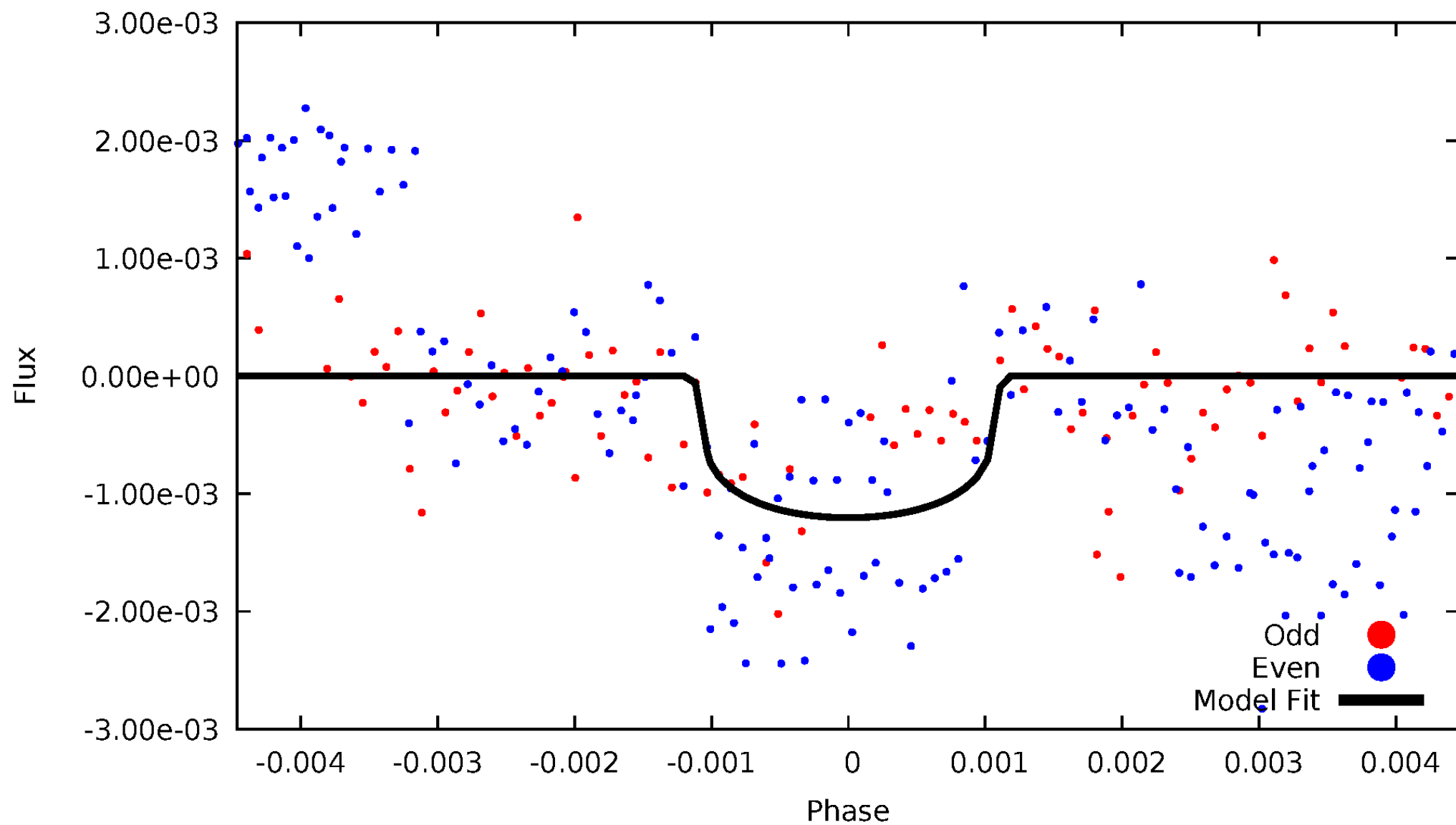


TCE 010341905-02



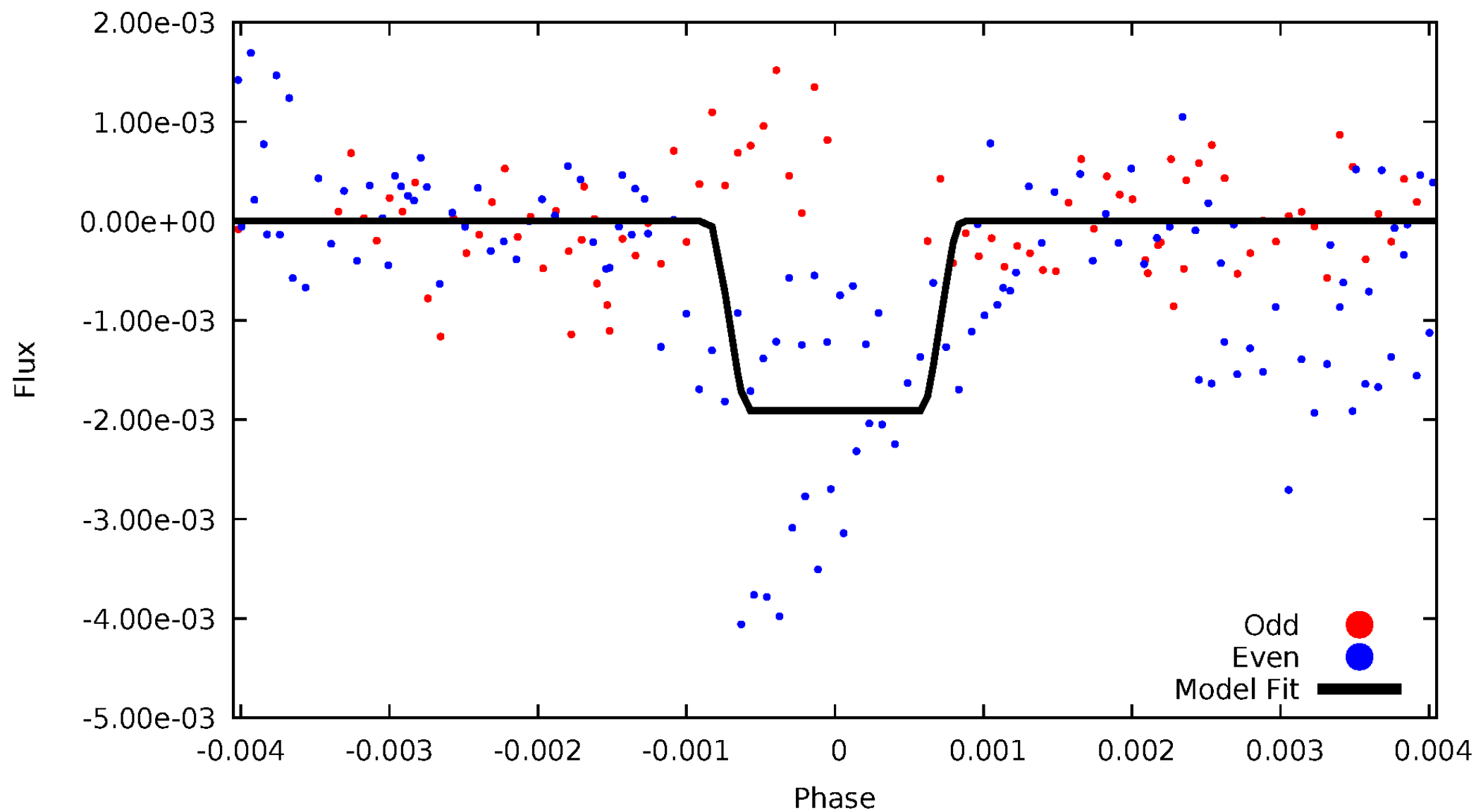
DV Odd/Even

TCE 010341905-02



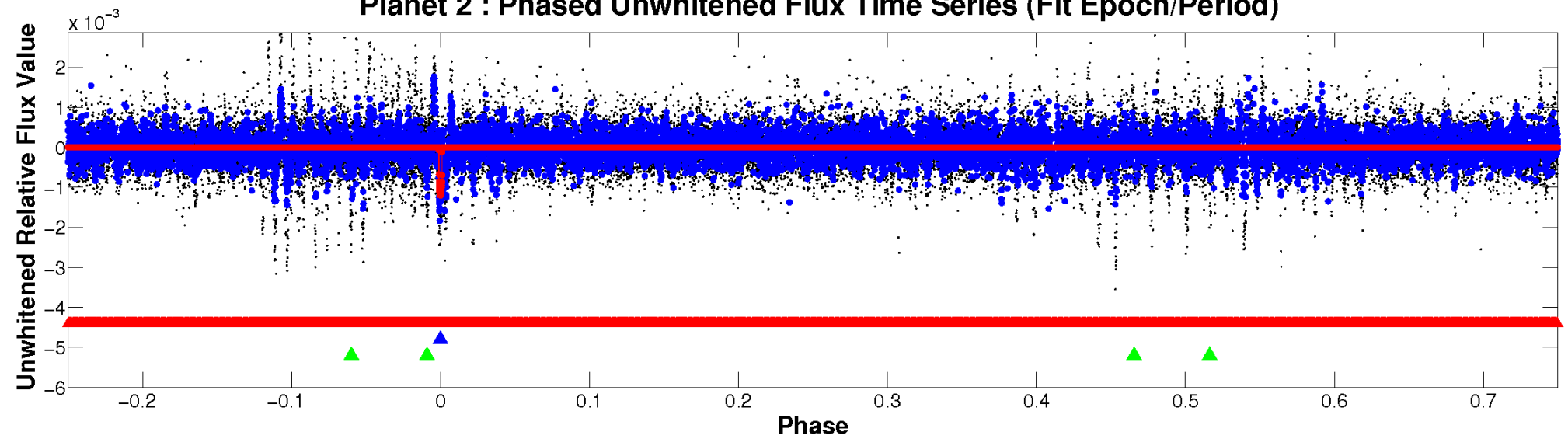
ALT Odd/Even

TCE 010341905-02

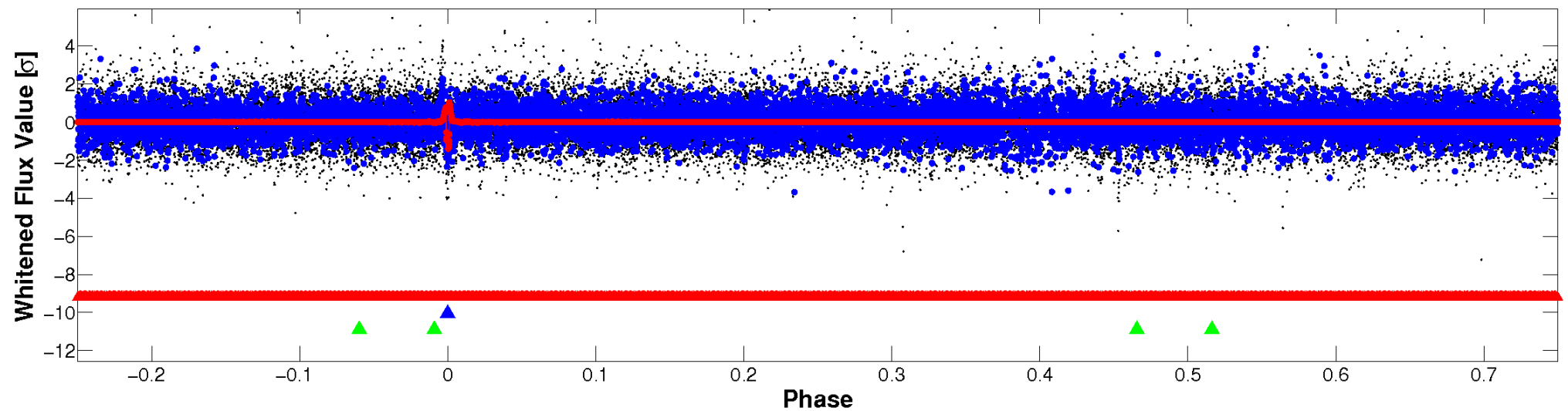


Non-Whitened Vs. Whitened Light Curve

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

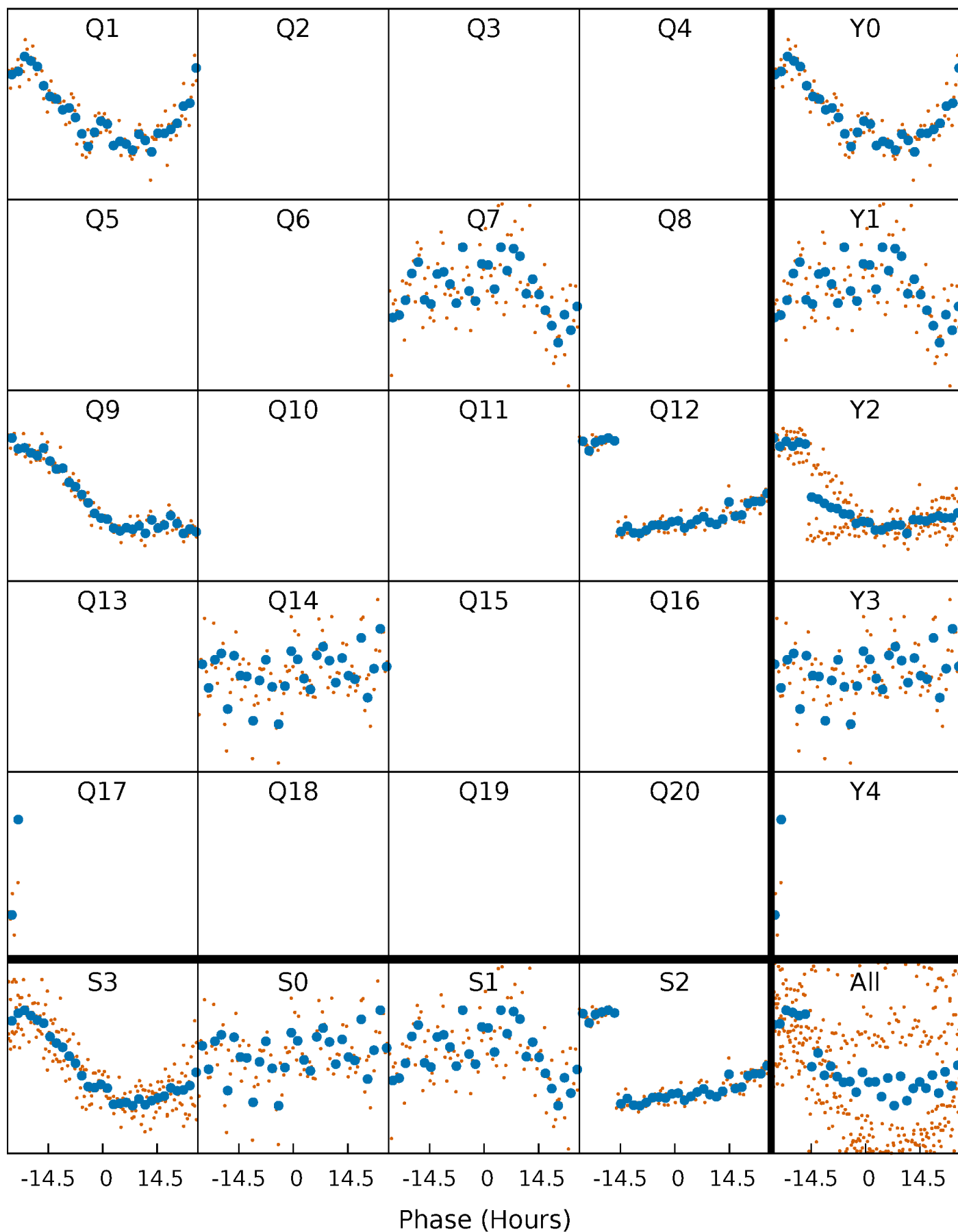


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



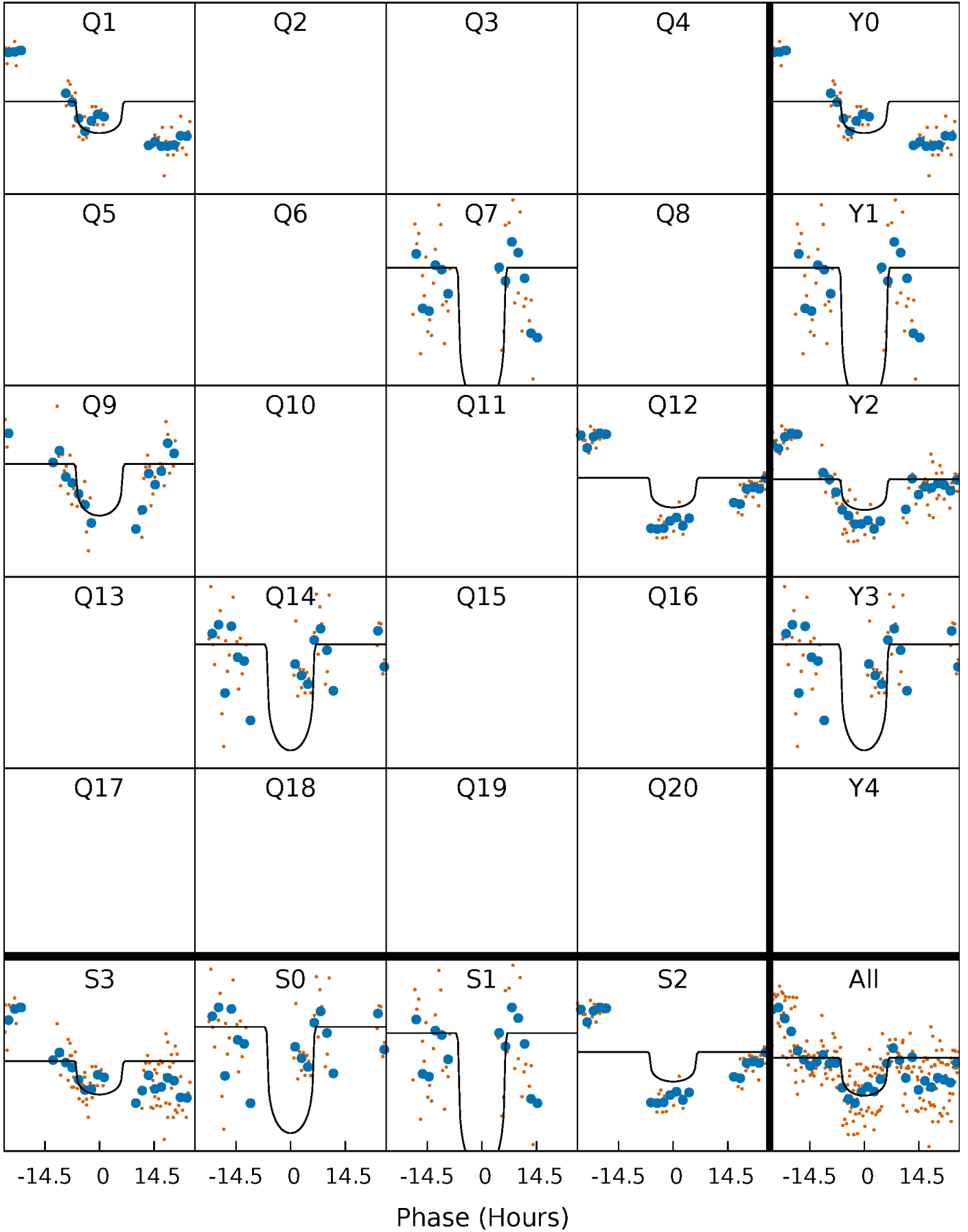
PDC Quarter-Phased Transit Curves

TCE 010341905-02 $P=236.899840$ Days $T_0=161.100191$ (BKJD)



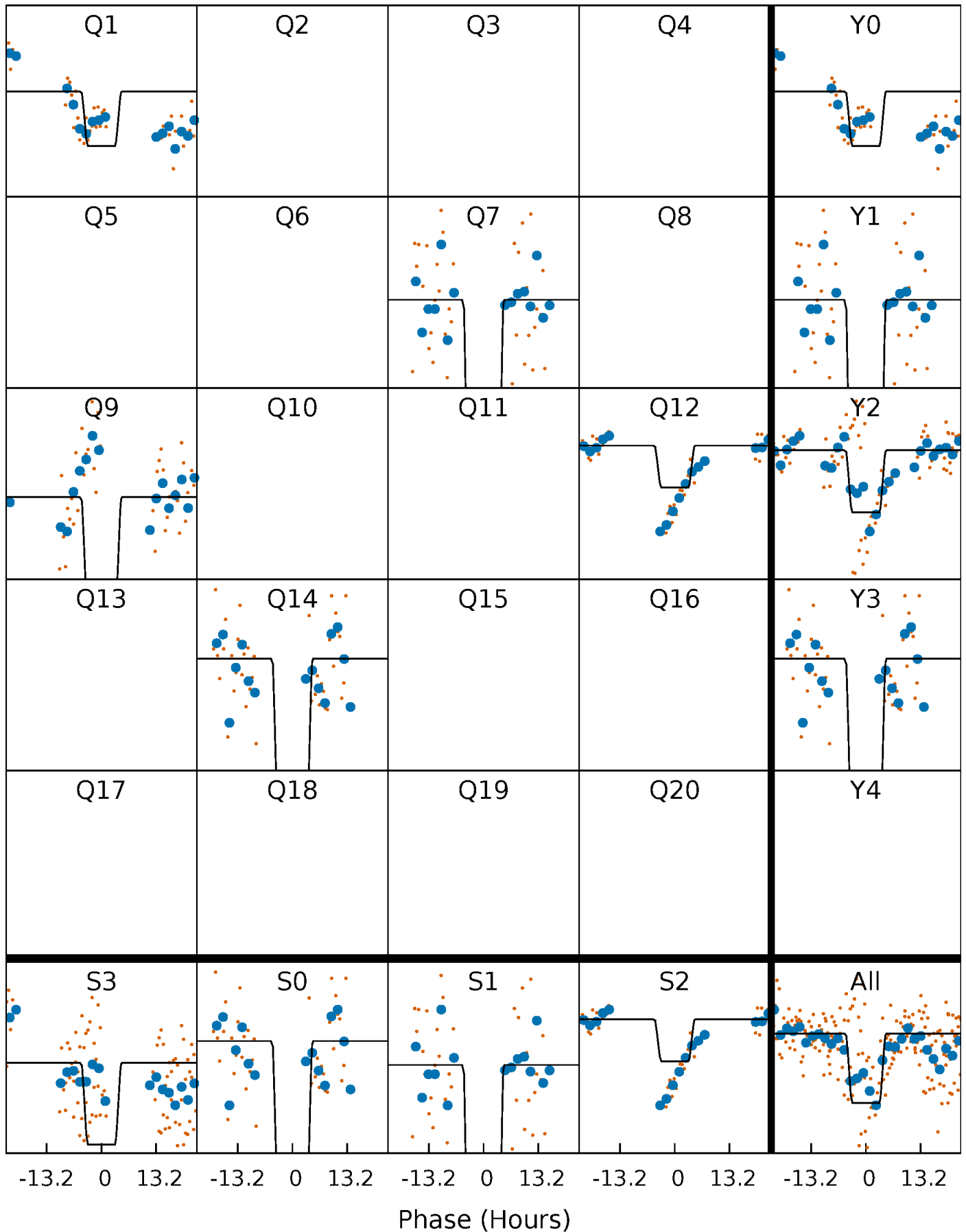
DV Quarter-Phased Transit Curves

TCE 010341905-02 $P=236.899840$ Days $T_0=161.100191$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

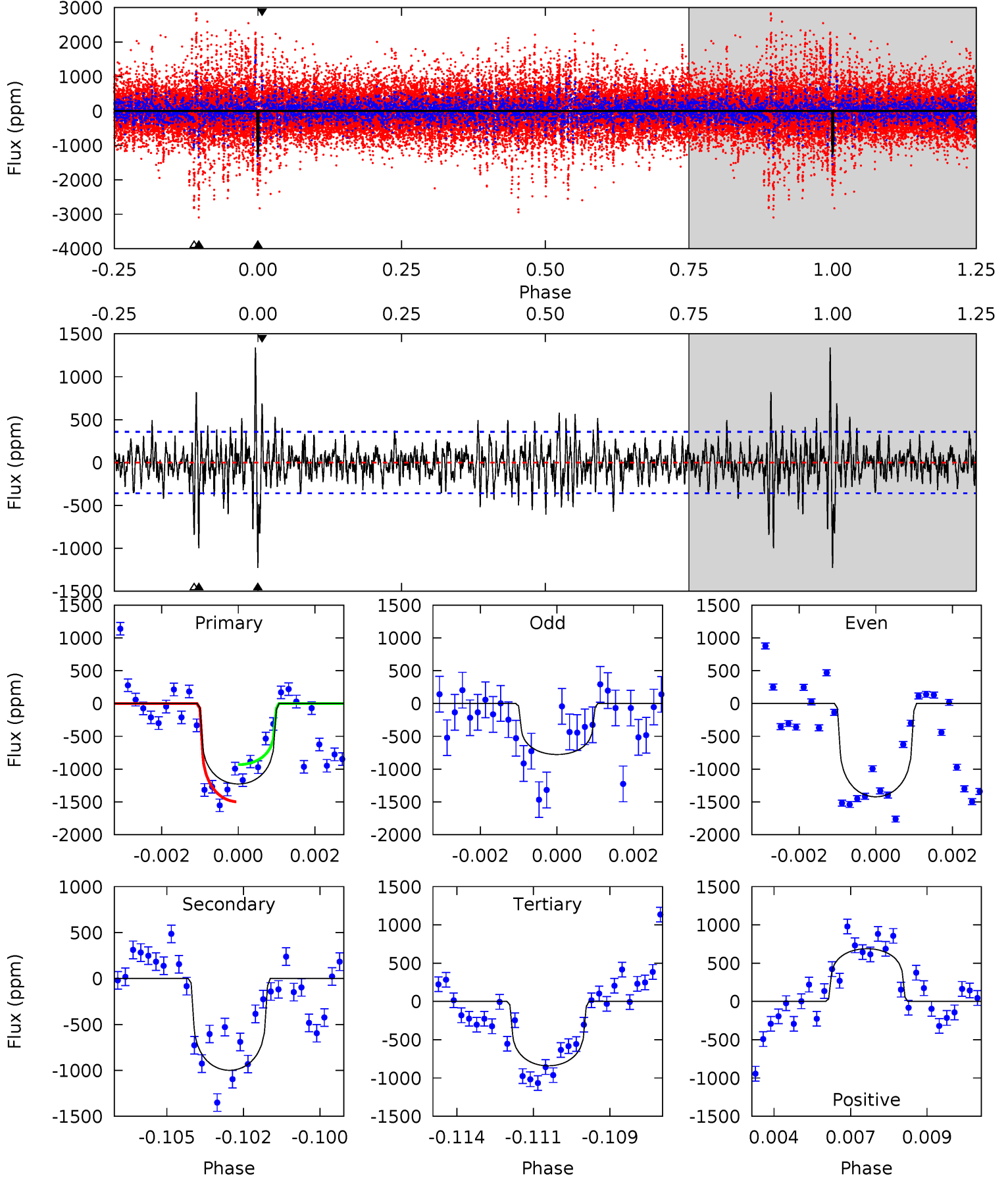
TCE 010341905-02 $P=236.879450$ Days $T_0=161.092581$ (BKJD)



DV Model-Shift Uniqueness Test

010341905-02, P = 236.899840 Days, E = 161.100191 Days

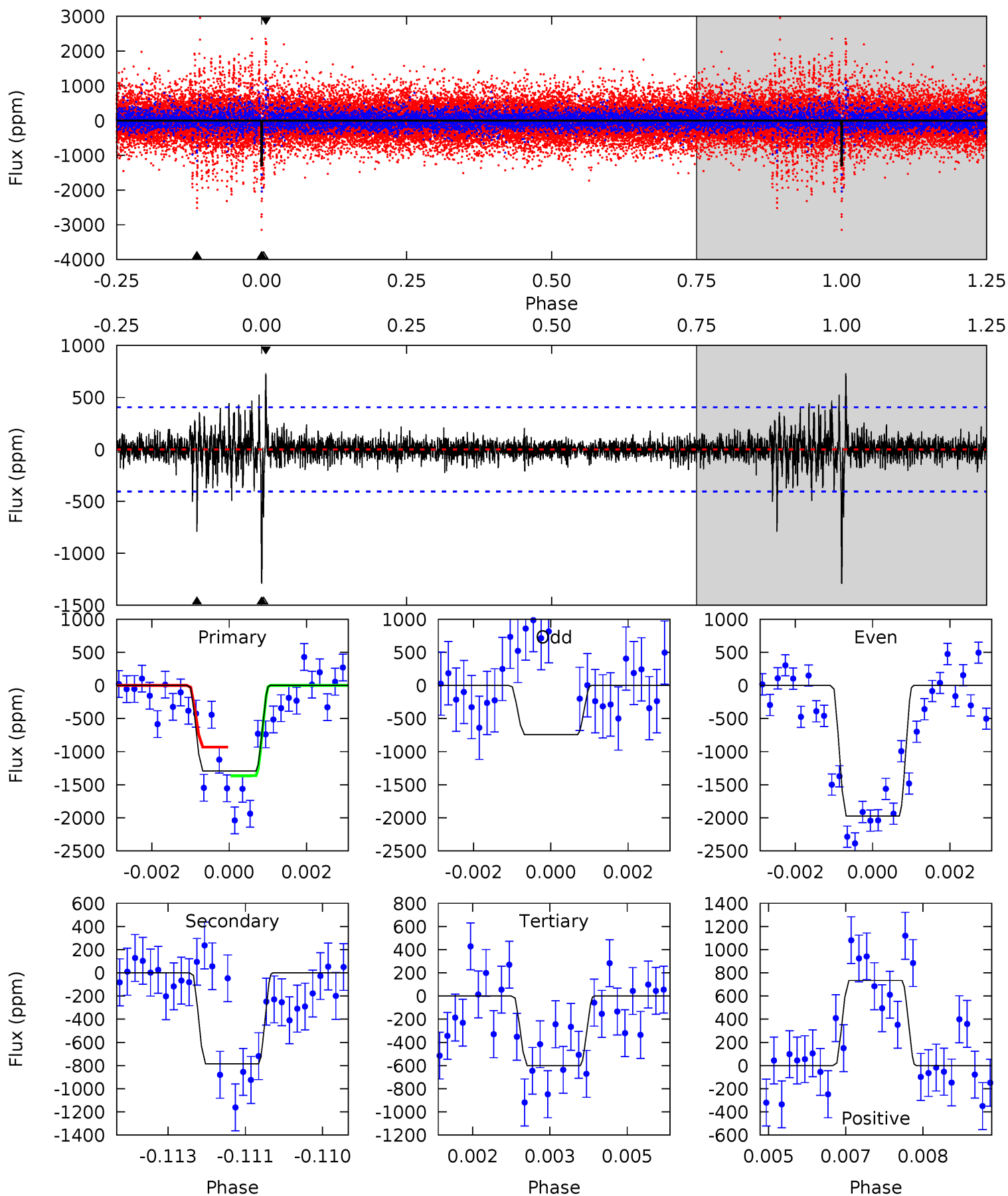
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	14.8	12.4	10.2	5.31	3.06	2.71	5.72	7.97	2.35	4.60	4.42	1.12	0.52	4.21



Alt Model-Shift Uniqueness Test

010341905-02, P = 236.879450 Days, E = 161.092581 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	10.4	7.96	9.72	5.36	3.14	1.18	9.15	7.39	2.44	0.67	8.50	1.37	0.36	2.77



Stellar Parameters For KIC 010341905

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5553^{+149}_{-166}	$4.577^{+0.034}_{-0.136}$	$-0.160^{+0.300}_{-0.300}$	$0.806^{+0.176}_{-0.070}$	$0.903^{+0.083}_{-0.111}$	$2.425^{+0.448}_{-0.971}$
	+3%/-3%	+1%/-3%	+188%/-188%	+22%/-9%	+9%/-12%	+18%/-40%
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 010341905-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-999 ± 68	$2.99^{+1.45}_{-1.43}$	369^{+16}_{-15}	5476^{+2137}_{-854}	31667^{+82756}_{-17158}
Alt.	-785 ± 76	$4.13^{+1.41}_{-1.60}$	368^{+20}_{-14}	4533^{+1034}_{-505}	12980^{+21524}_{-6173}

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

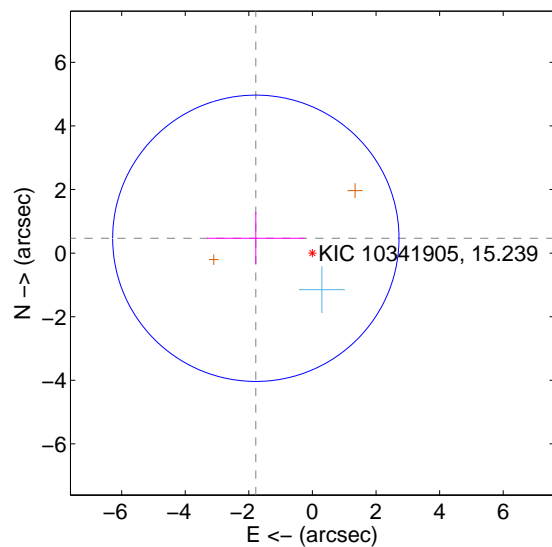
Supplemental centroid analysis for 010341905-02. Kepler magnitude: 15.24. Transit SNR 9.75

There are 1 quarters with good PRF difference image offsets

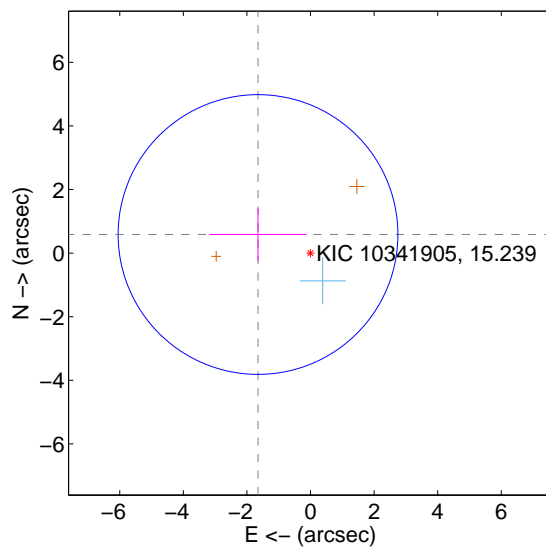
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.840 ± 1.501	1.23	1.781 ± 1.536	0.466 ± 0.821
PRF-fit source offset from KIC position	1.752 ± 1.466	1.19	1.652 ± 1.528	0.584 ± 0.822
photometric centroid source offset	0.12 ± 0.97	0.12	-0.11 ± 1.01	0.05 ± 0.66

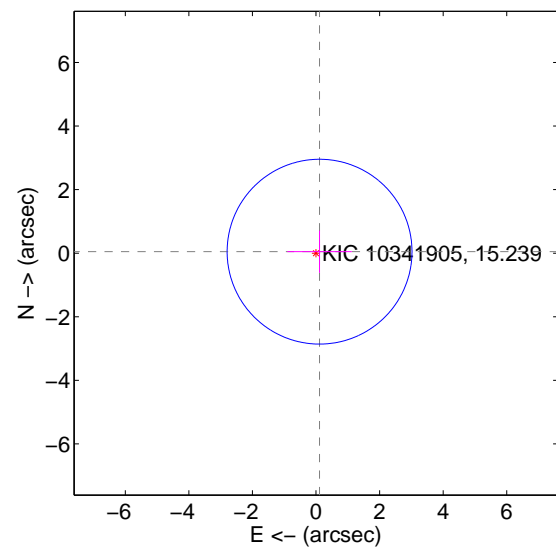
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

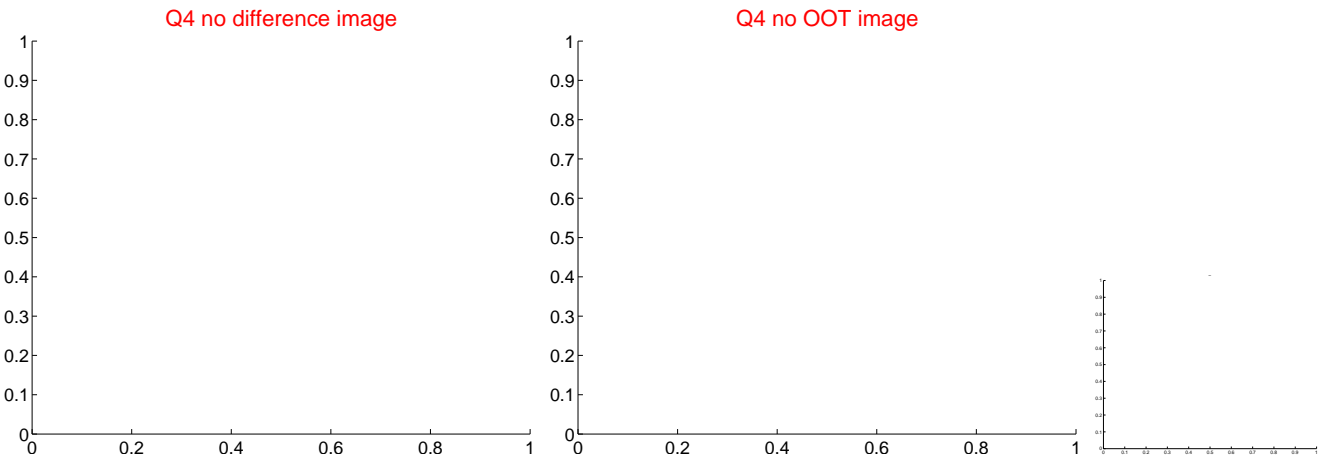
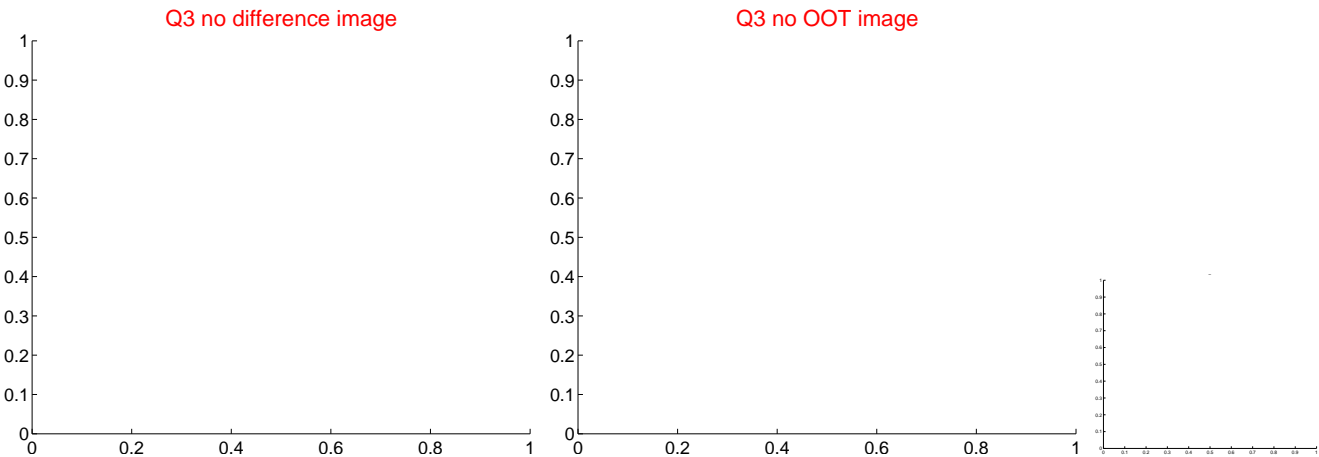
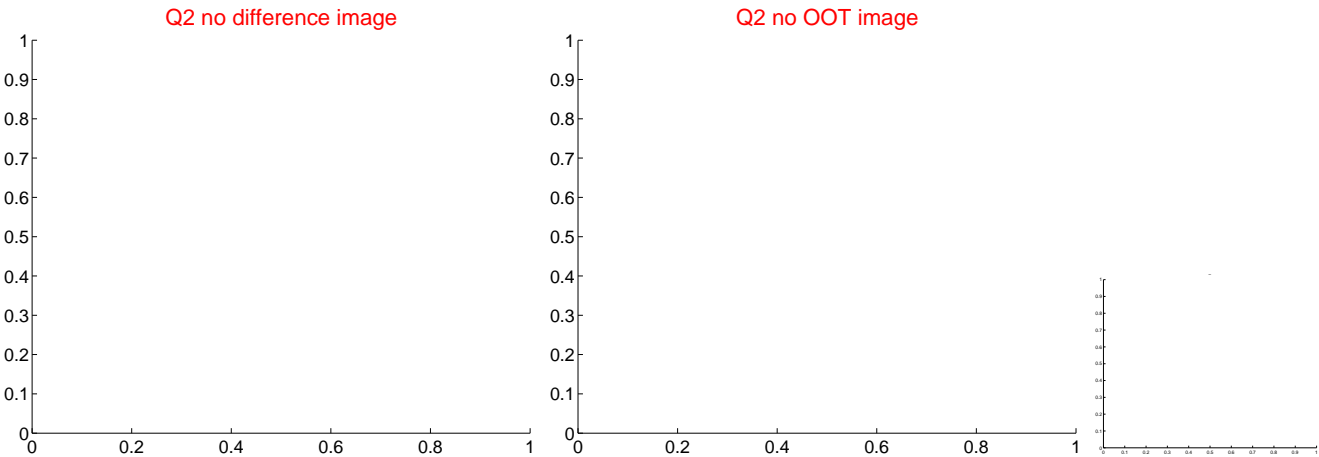
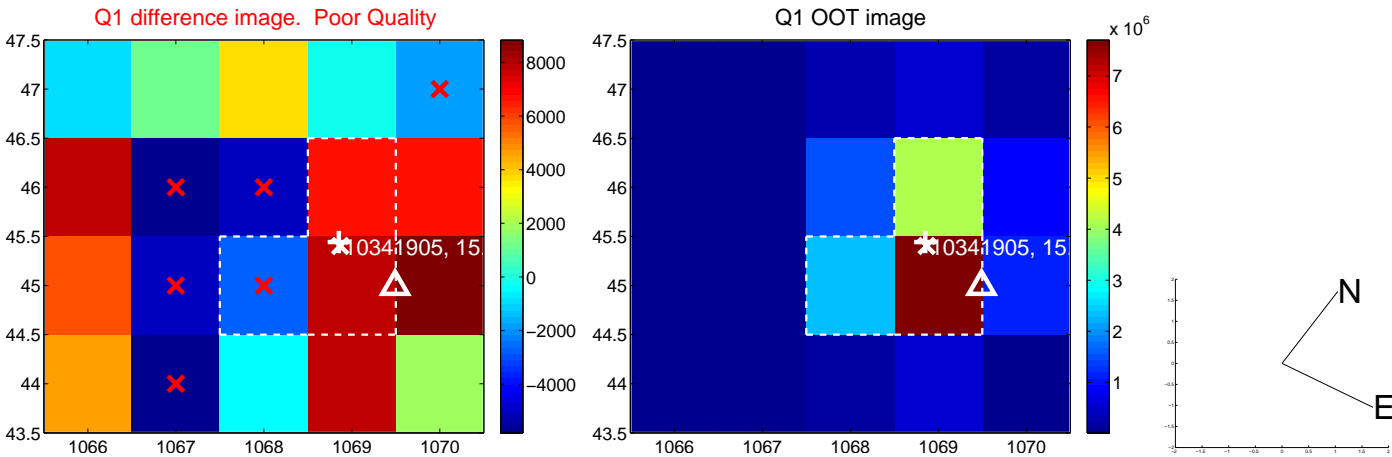


offset from photometric centroids



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

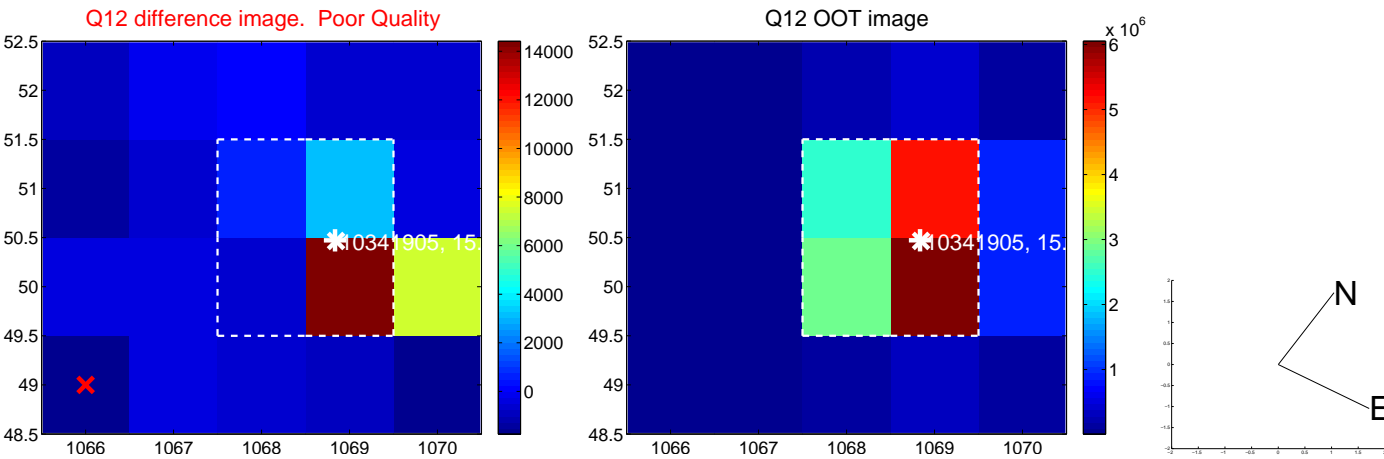
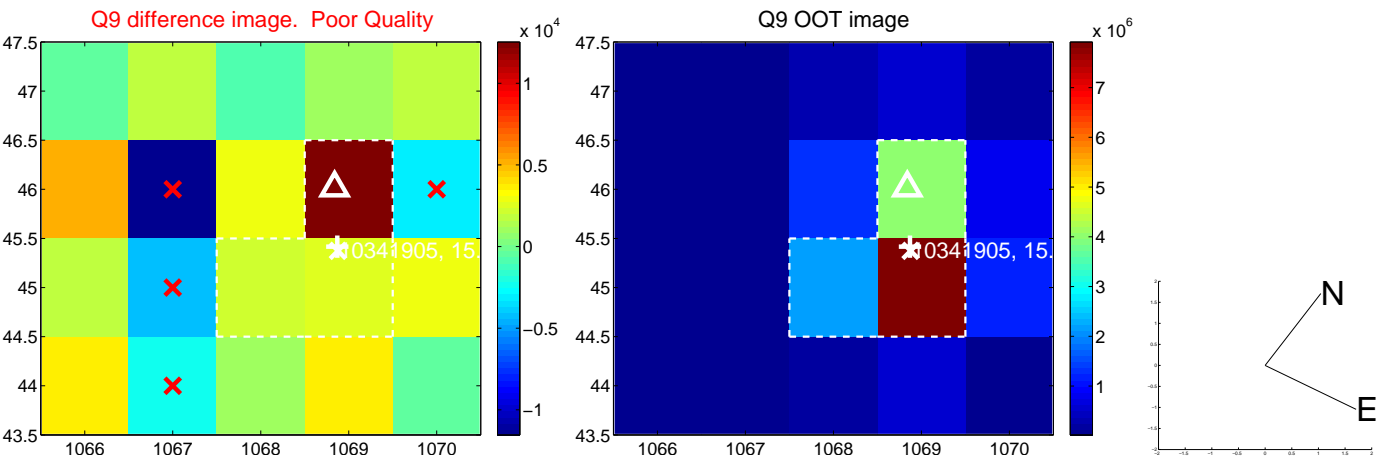
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



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

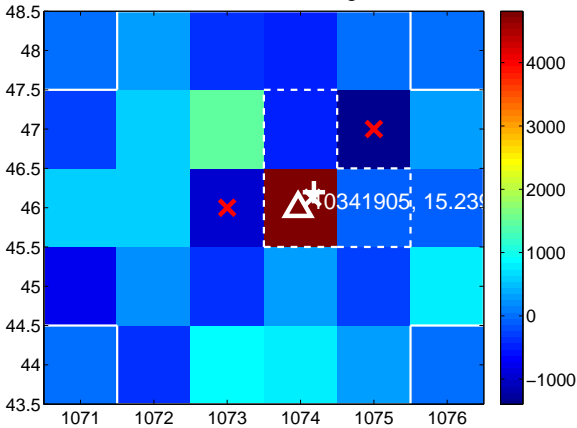
Q13 no difference image



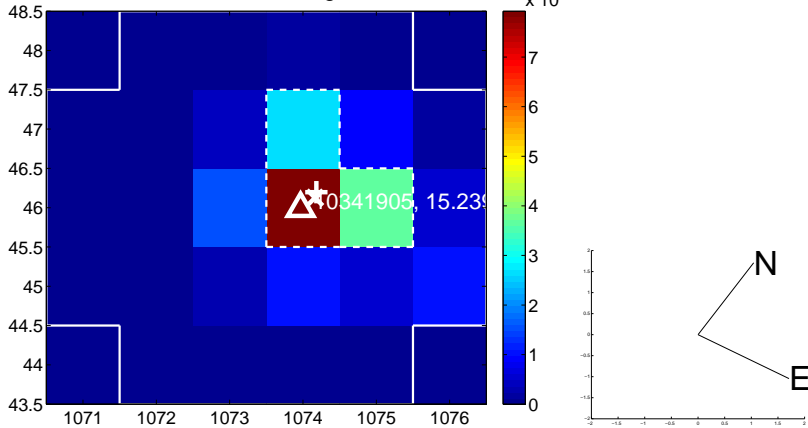
Q13 no OOT image



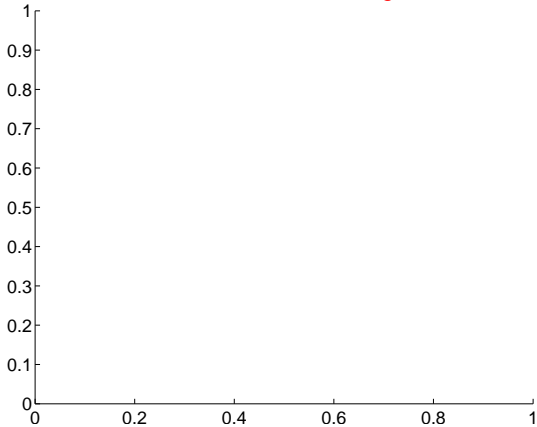
Q14 difference image



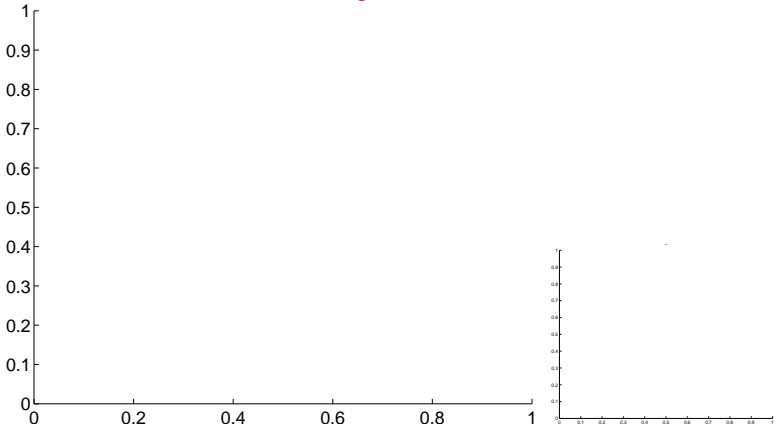
Q14 OOT image



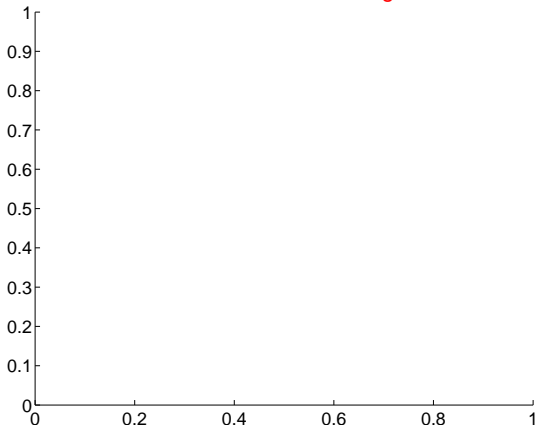
Q15 no difference image



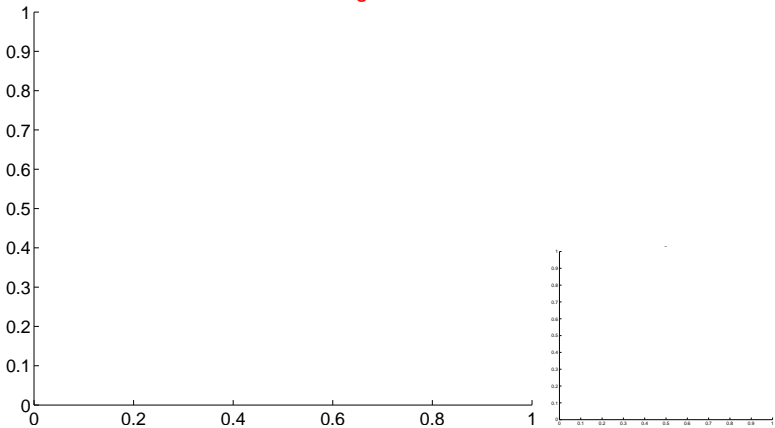
Q15 no OOT image



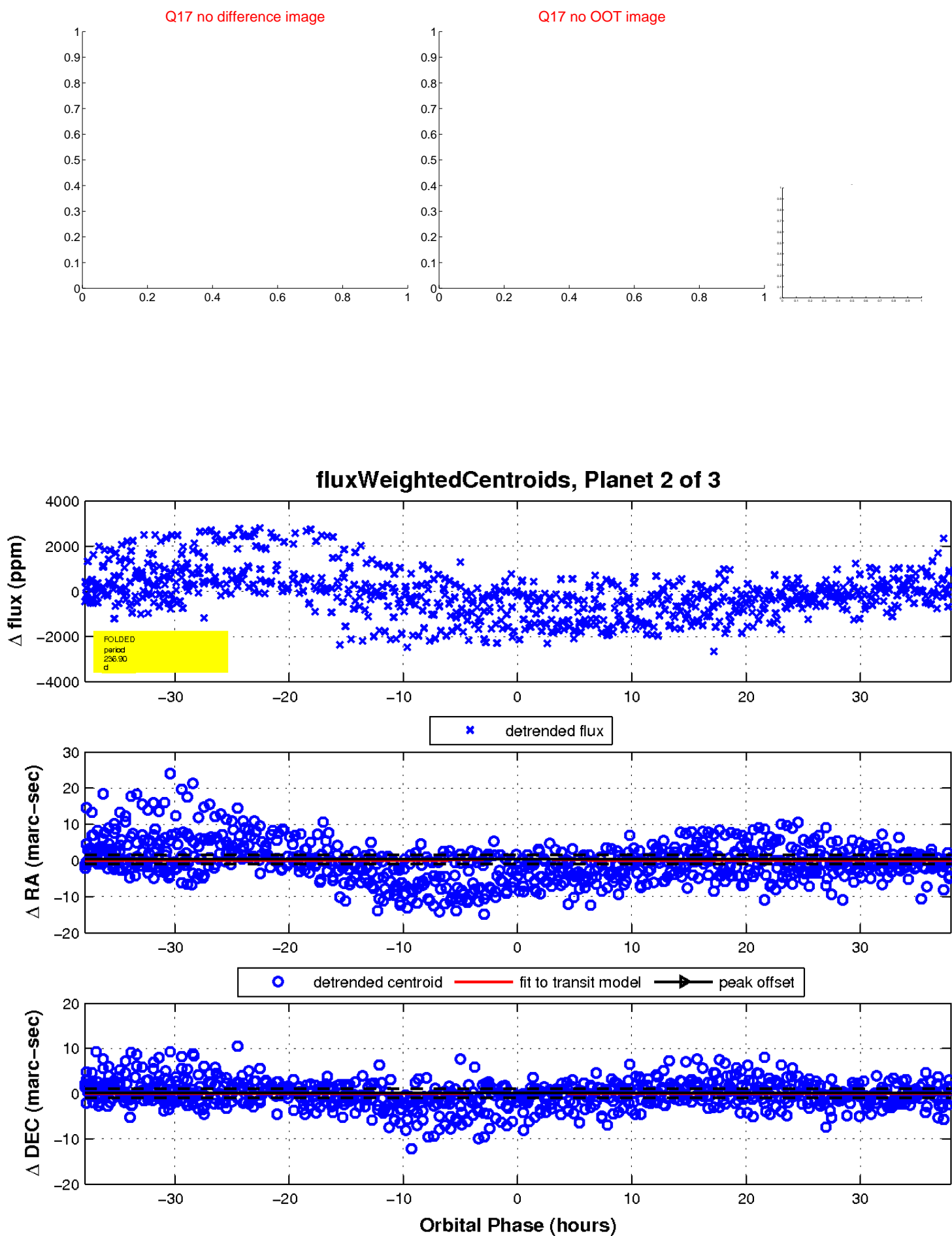
Q16 no difference image



Q16 no OOT image

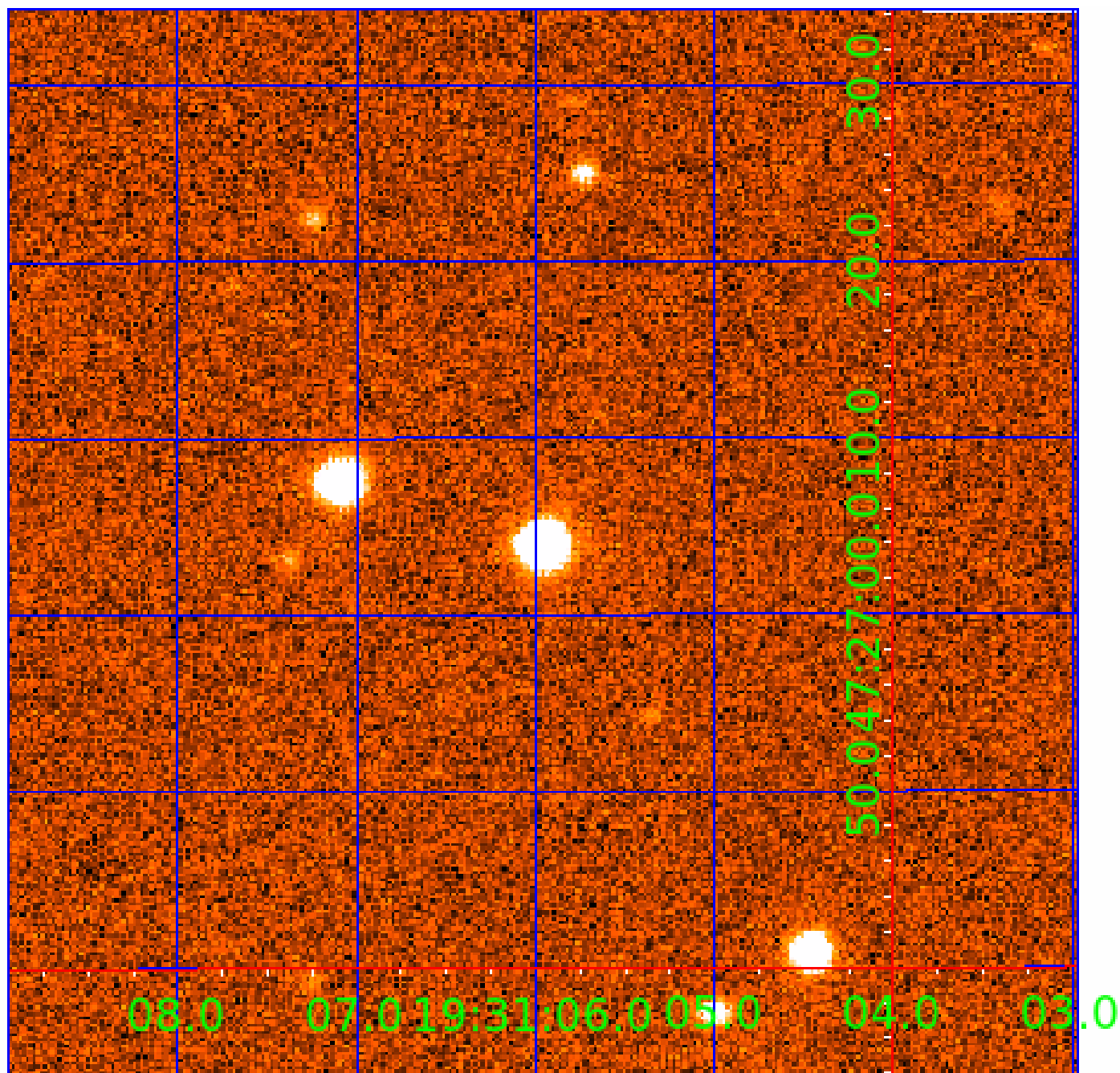


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010341905

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})
010341905-01	OBS	2391.01	0.933721	131.538499	126.7	3.803	20.7	20.1	0.81	5553	1.08	1704.53
010341905-02	OBS	No	236.899840	161.100191	1204.0	12.692	15.7	9.8	0.81	5553	2.80	1.06
010341905-03	OBS	No	361.357984	146.941300	1144.4	15.121	9.6	7.2	0.81	5553	3.26	0.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010341905-01	OBS	FP	0.00	0	0	1	1	CENT_UNCERTAIN—HALO_GHOST—EPHEM_MATCH
010341905-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
010341905-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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 010341905-03

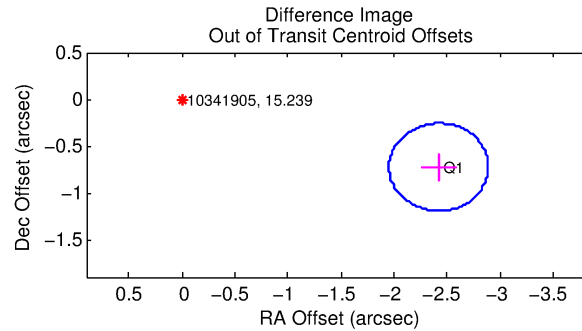
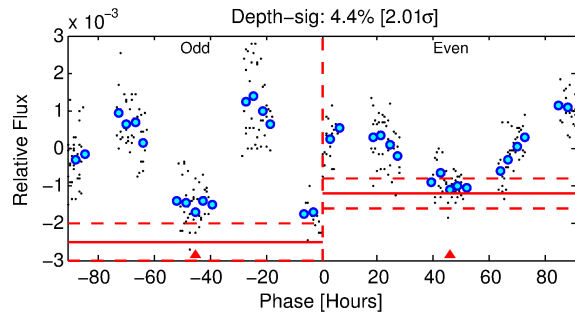
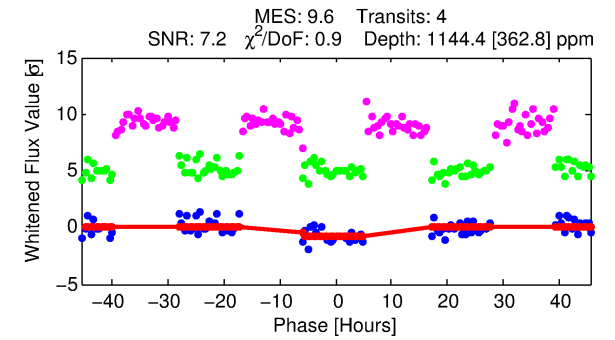
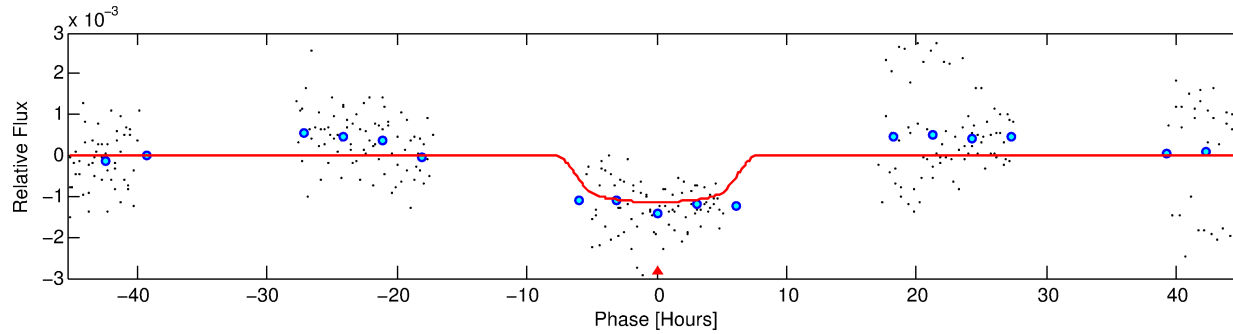
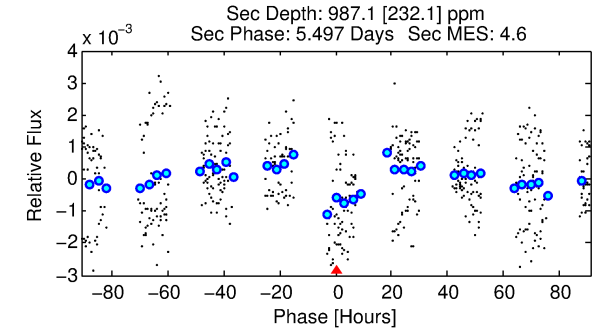
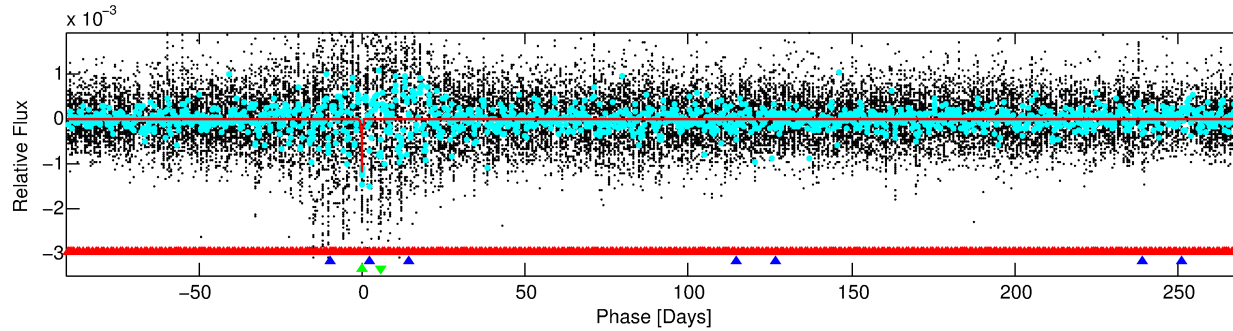
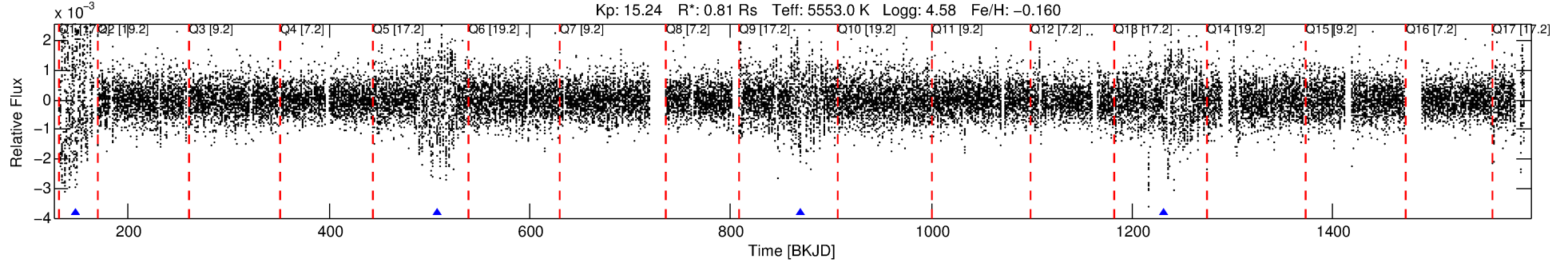
No Significant Match Found

DV One-Page Summary

KIC: 10341905 Candidate: 3 of 3 Period: 361.358 d

KOI: K02391 Corr: No Ephemeris Match

Kp: 15.24 R*: 0.81 Rs Teff: 5553.0 K Logg: 4.58 Fe/H: -0.160



DV Fit Results:

Period = 361.35798 [0.04622] d
Epoch = 146.9413 [0.1027] BKJD
Rp/R* = 0.0371 [0.0145]
a/R* = 93.79 [144.81]
b = 0.90 [0.26]
Seff = 0.60 [0.17]
Teq = 225 [16] K
Rp = 3.26 [1.46] Re
a = 0.9569 [0.1714] AU
Ag = 46762.42 [39934.52] [1.17σ]
Teff = 5112 [1053] K [4.64σ]

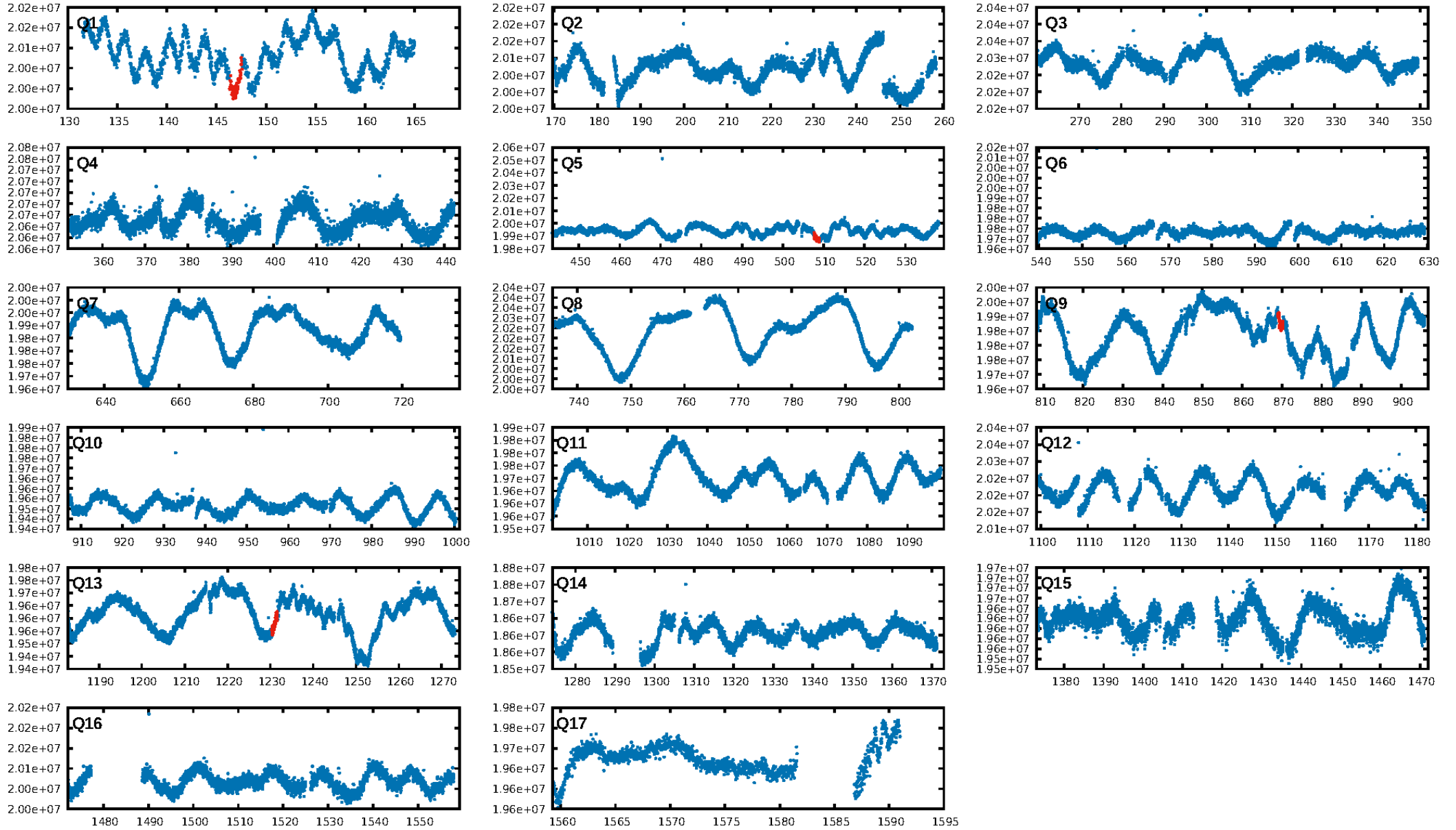
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [151.30σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 21.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.22e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -3.537
Centroid-sig: 79.4%
Centroid-so: 1.061 arcsec [0.47σ]
OotOffset-rm: 2.529 arcsec [16.21σ]
KicOffset-rm: 2.601 arcsec [16.63σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/3]

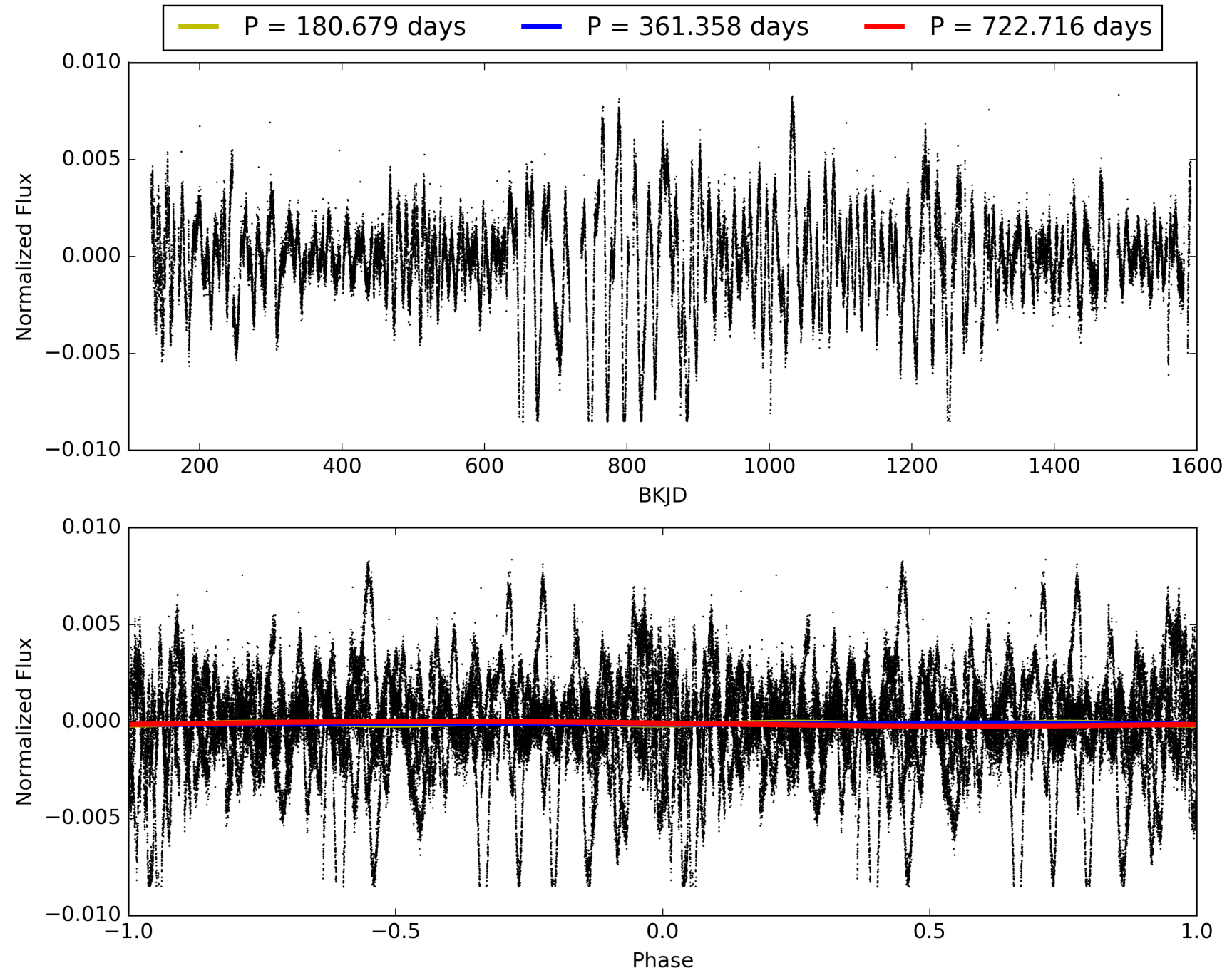
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:50:26 Z

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

TCE 010341905-03, PDC Light Curves

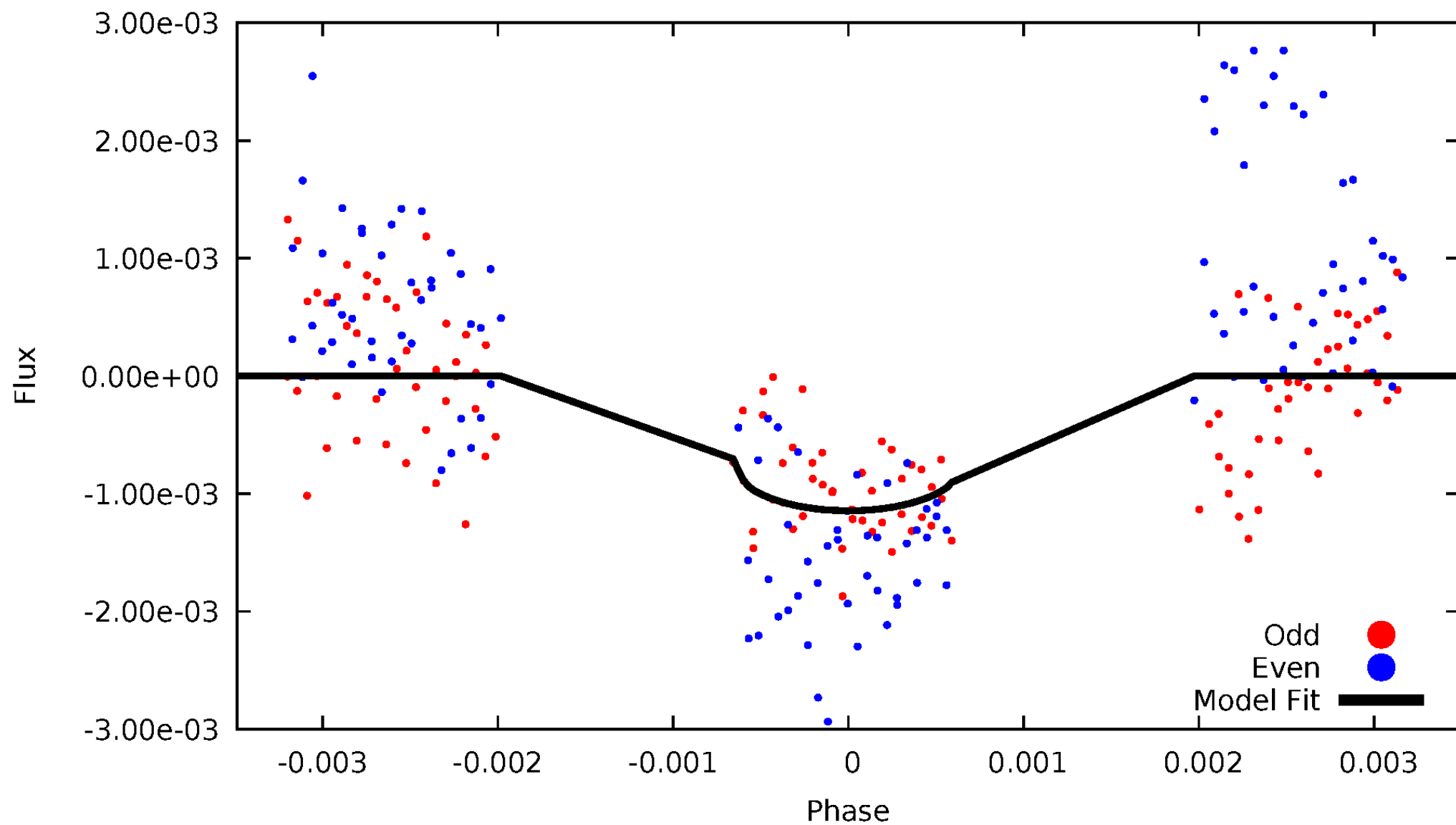


TCE 010341905-03



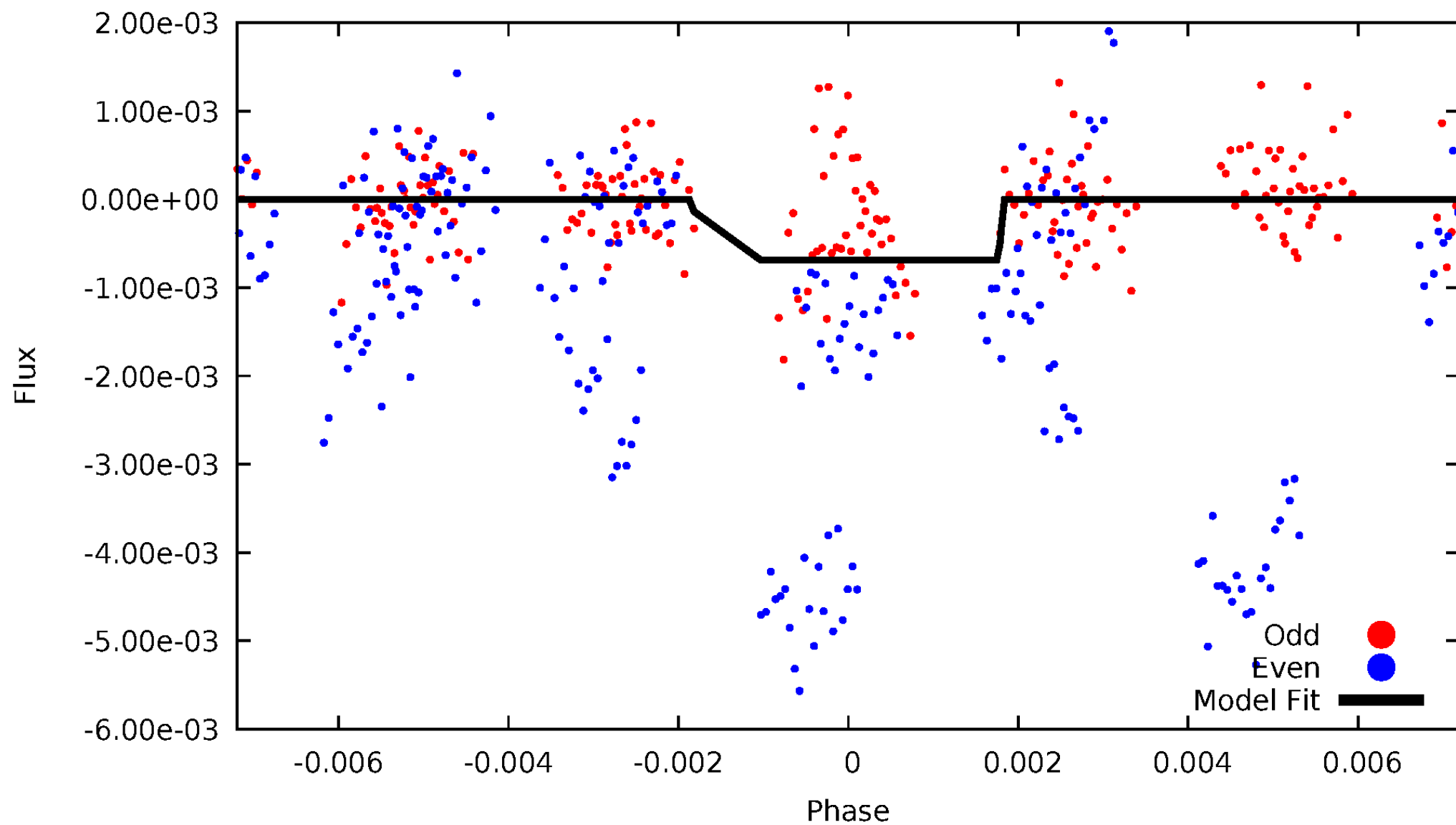
DV Odd/Even

TCE 010341905-03



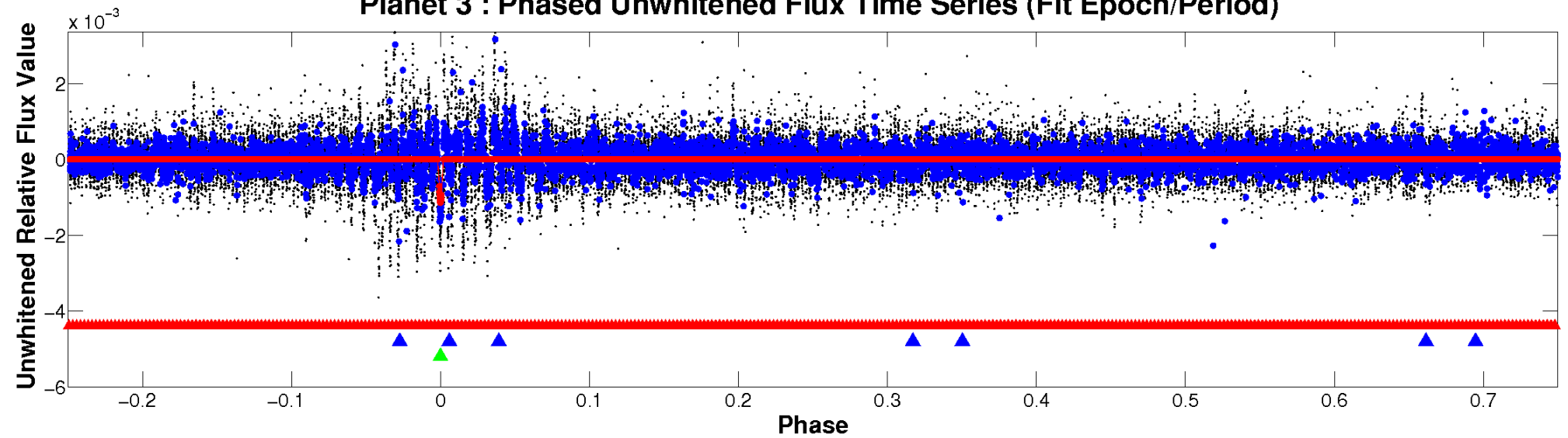
ALT Odd/Even

TCE 010341905-03

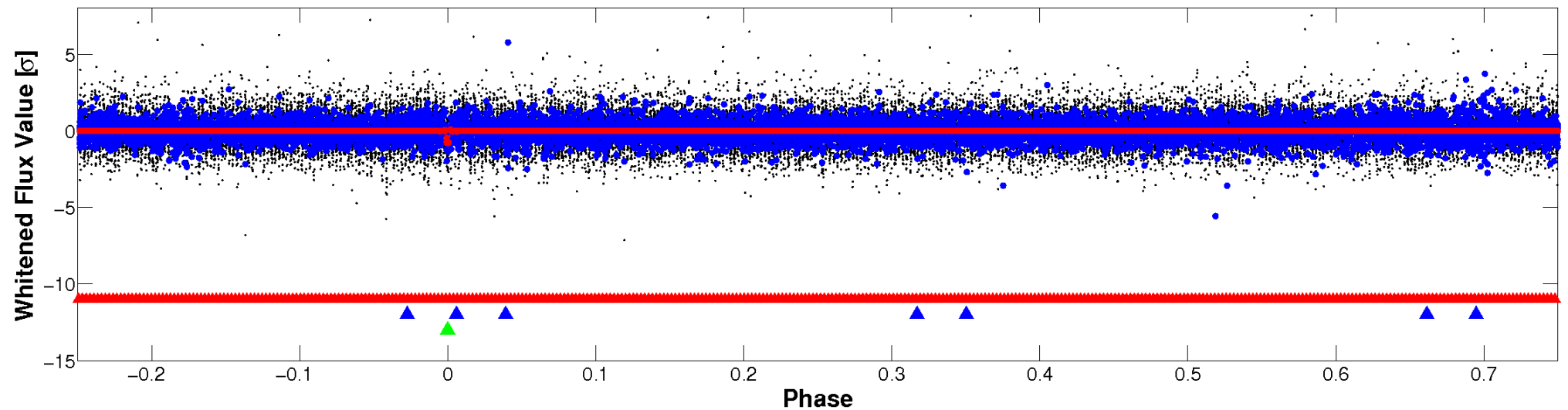


Non-Whitened Vs. Whitened Light Curve

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

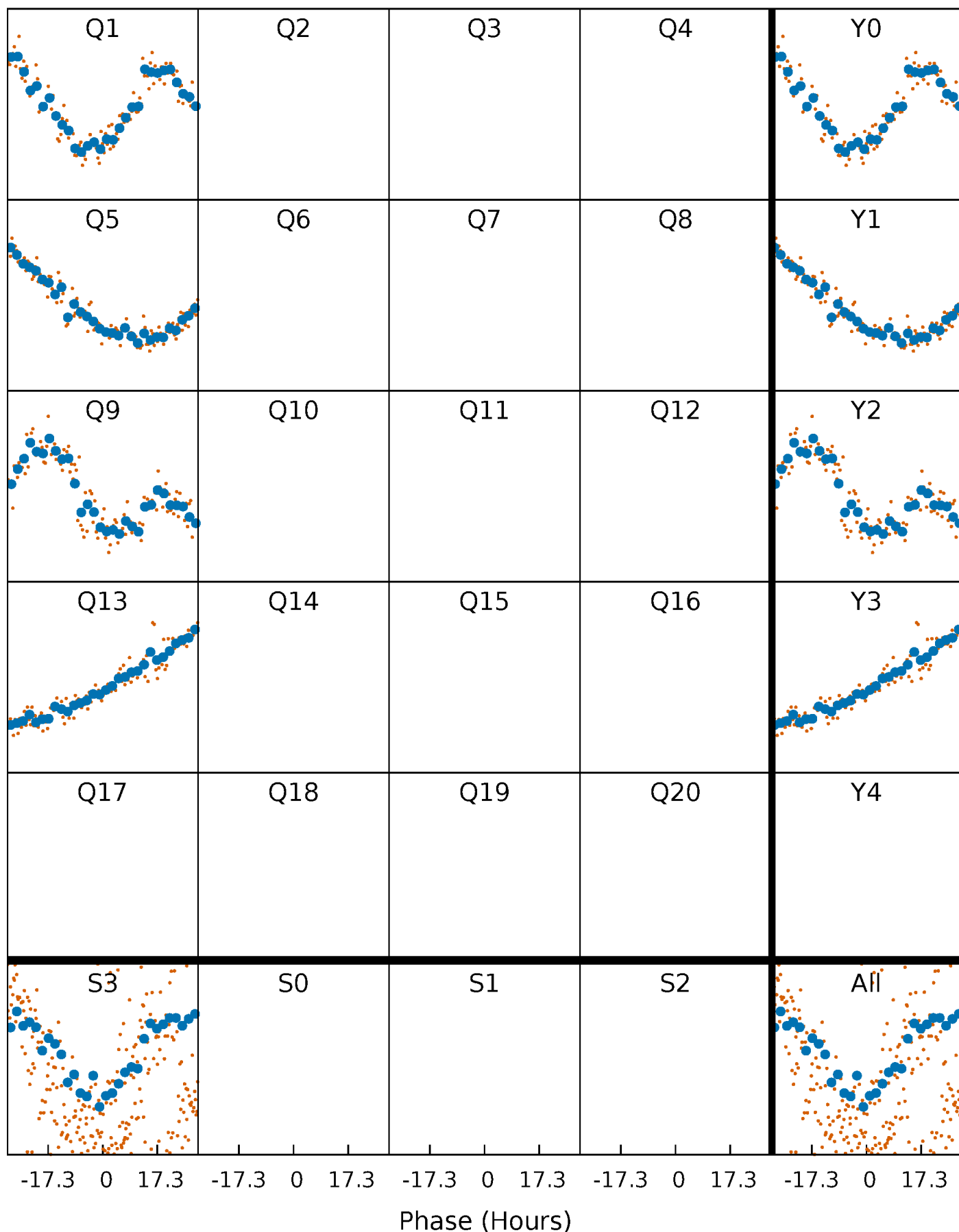


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



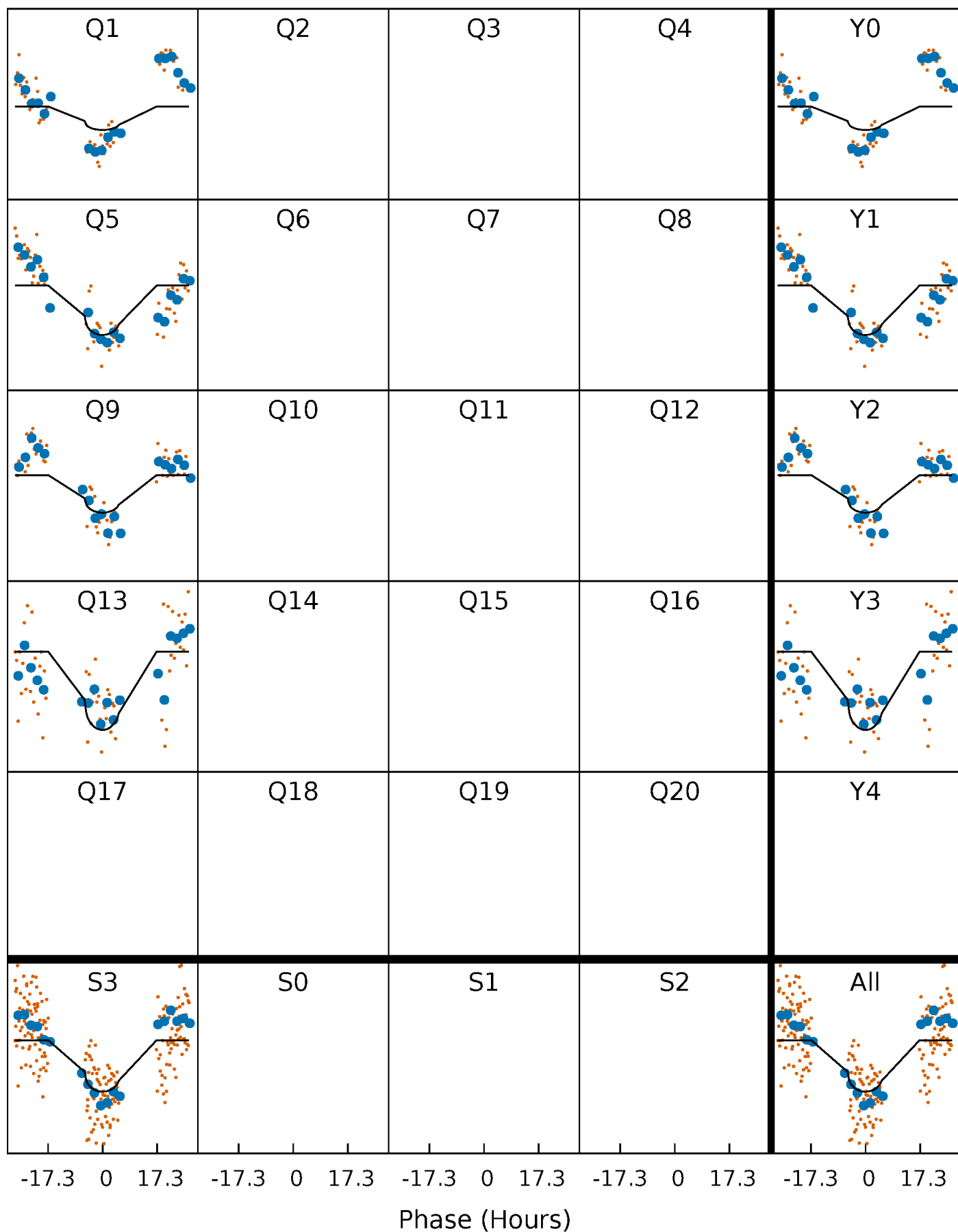
PDC Quarter-Phased Transit Curves

TCE 010341905-03 P=361.357984 Days $T_0=146.941300$ (BKJD)



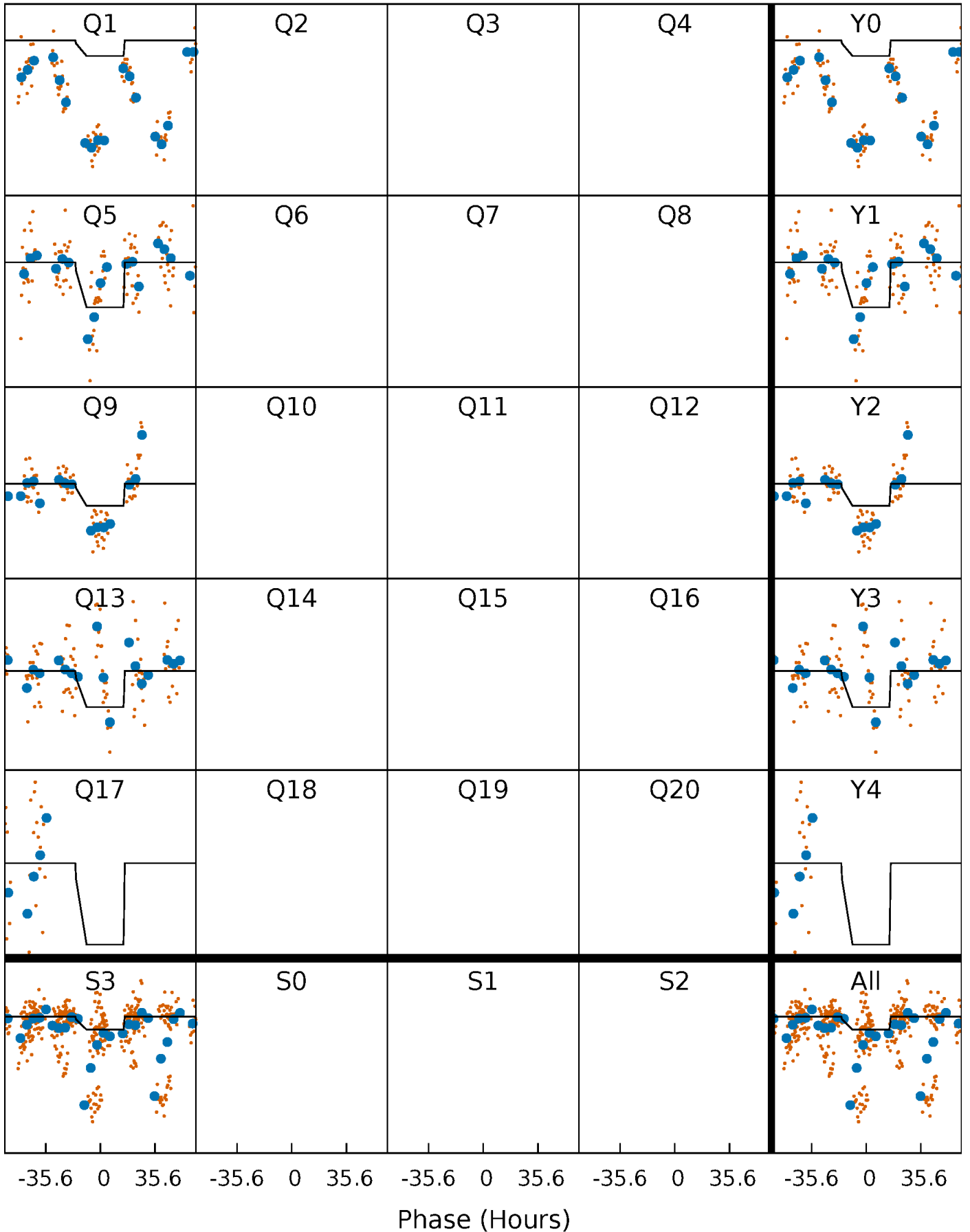
DV Quarter-Phased Transit Curves

TCE 010341905-03 $P=361.357984$ Days $T_0=146.941300$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

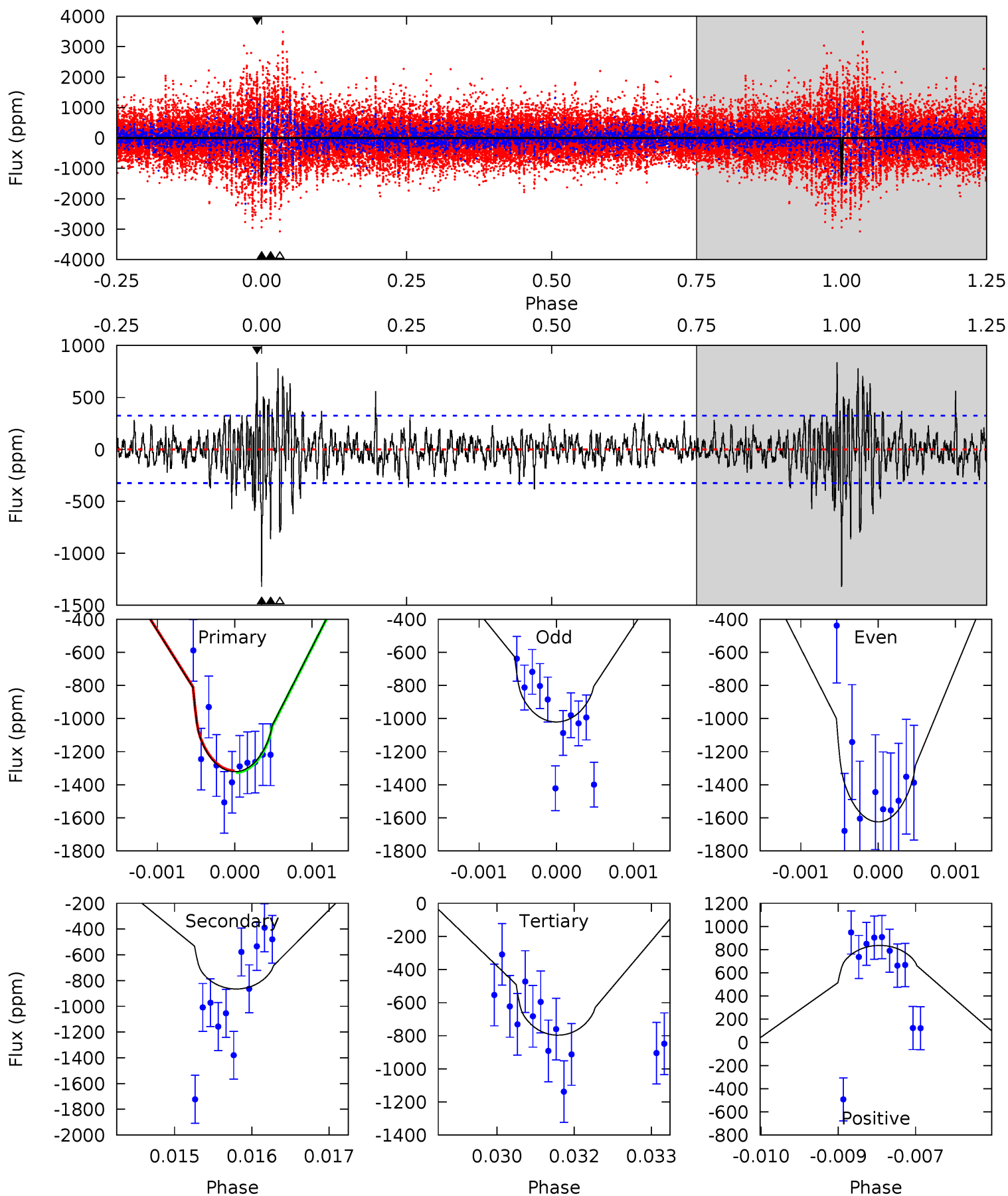
TCE 010341905-03 $P=361.272152$ Days $T_0=147.106534$ (BKJD)



DV Model-Shift Uniqueness Test

010341905-03, P = 361.357984 Days, E = 146.941300 Days

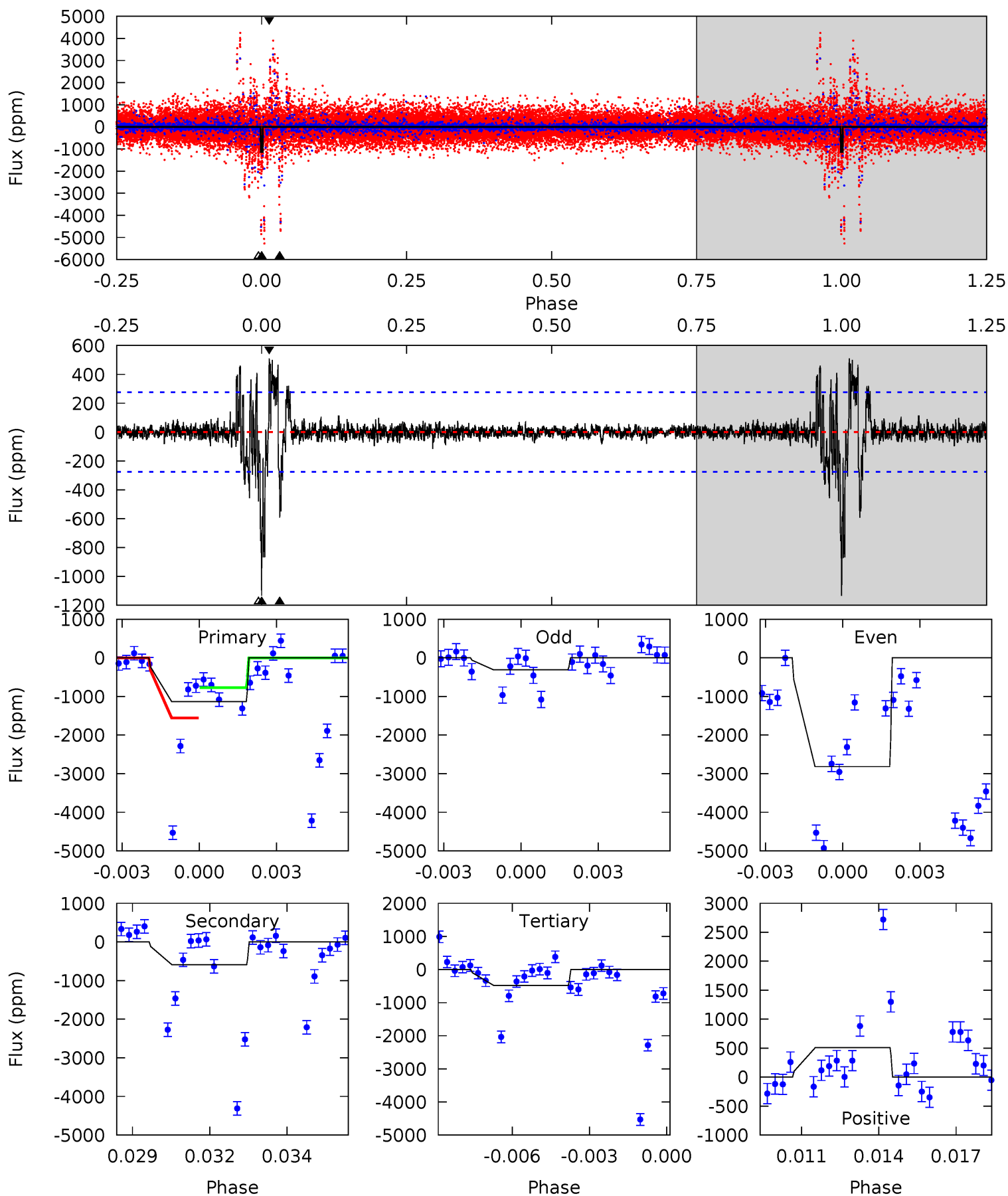
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	14.4	13.3	14.0	5.42	3.23	2.56	8.76	8.09	1.15	0.49	4.89	1.06	0.39	0.09



Alt Model-Shift Uniqueness Test

010341905-03, P = 361.272152 Days, E = 147.106534 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.6	11.3	9.16	9.73	5.26	2.98	1.63	12.5	11.9	2.13	1.56	24.2	1.52	0.31	0



Stellar Parameters For KIC 010341905

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5553^{+149}_{-166}	$4.577^{+0.034}_{-0.136}$	$-0.160^{+0.300}_{-0.300}$	$0.806^{+0.176}_{-0.070}$	$0.903^{+0.083}_{-0.111}$	$2.425^{+0.448}_{-0.971}$
	+3%/-3%	+1%/-3%	+188%/-188%	+22%/-9%	+9%/-12%	+18%/-40%
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 010341905-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-866 ± 60	$3.37^{+1.33}_{-1.19}$	320^{+16}_{-13}	5035^{+1120}_{-627}	38238^{+52578}_{-18975}
Alt.	-592 ± 52	$2.39^{+1.35}_{-1.11}$	319^{+16}_{-13}	5359^{+2032}_{-905}	$50553^{+131091}_{-29698}$

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

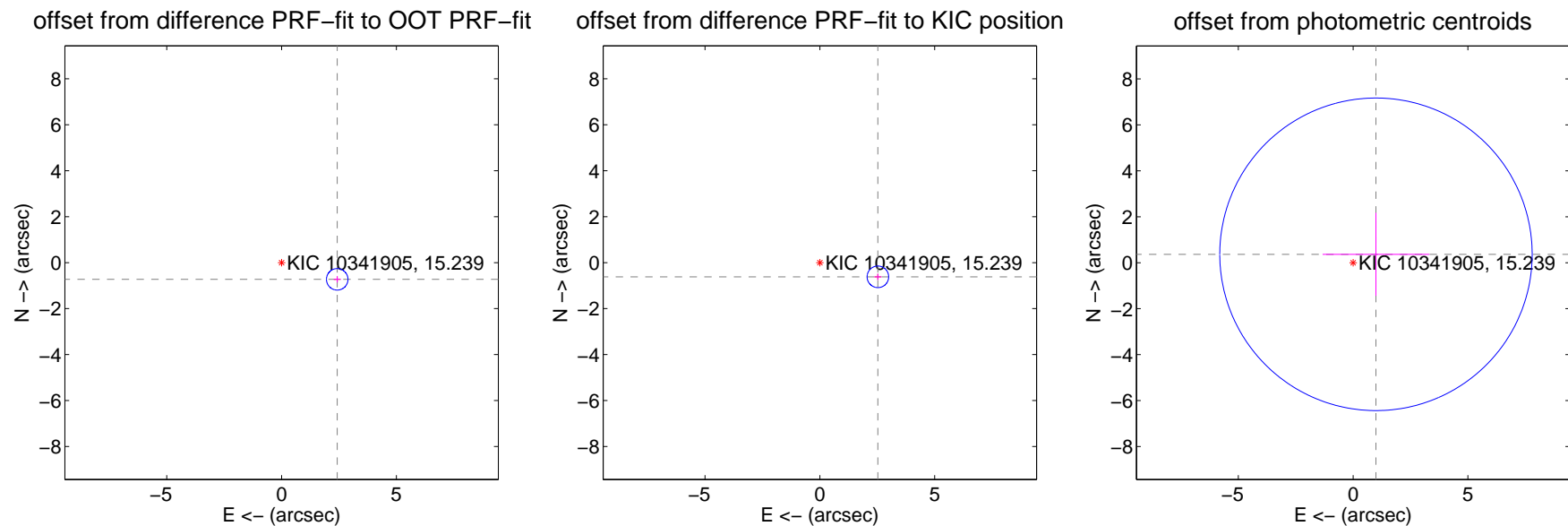
DV Centroid Data

Supplemental centroid analysis for 010341905-03. Kepler magnitude: 15.24. Transit SNR 7.20

There are 0 quarters with good PRF difference image offsets

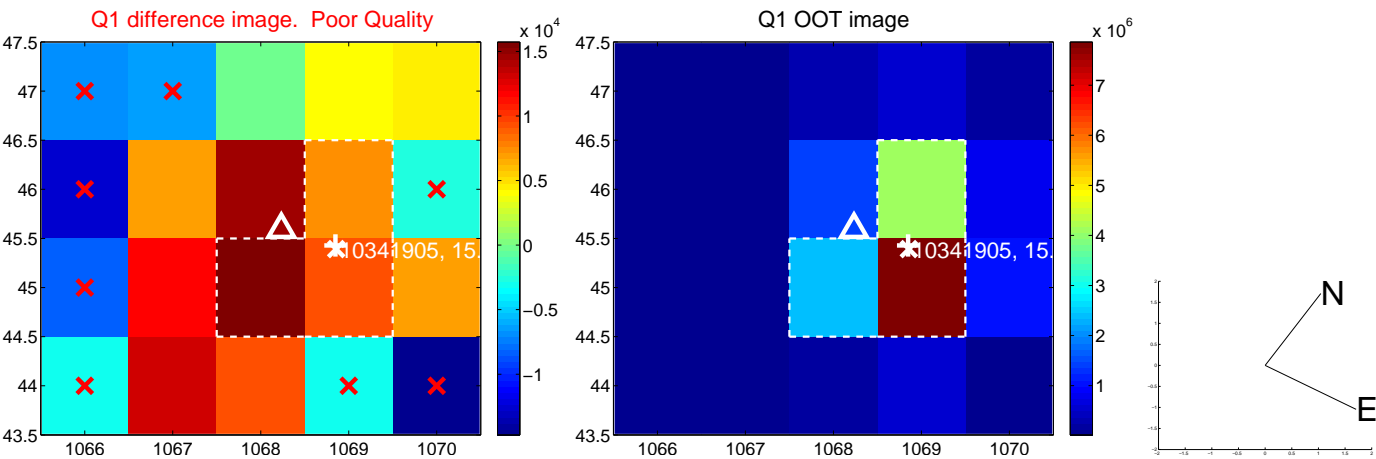
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.529 ± 0.156	16.21	-2.423 ± 0.157	-0.726 ± 0.138
PRF-fit source offset from KIC position	2.601 ± 0.156	16.63	-2.527 ± 0.157	-0.617 ± 0.138
photometric centroid source offset	1.06 ± 2.27	0.47	-1.00 ± 2.32	0.37 ± 1.81

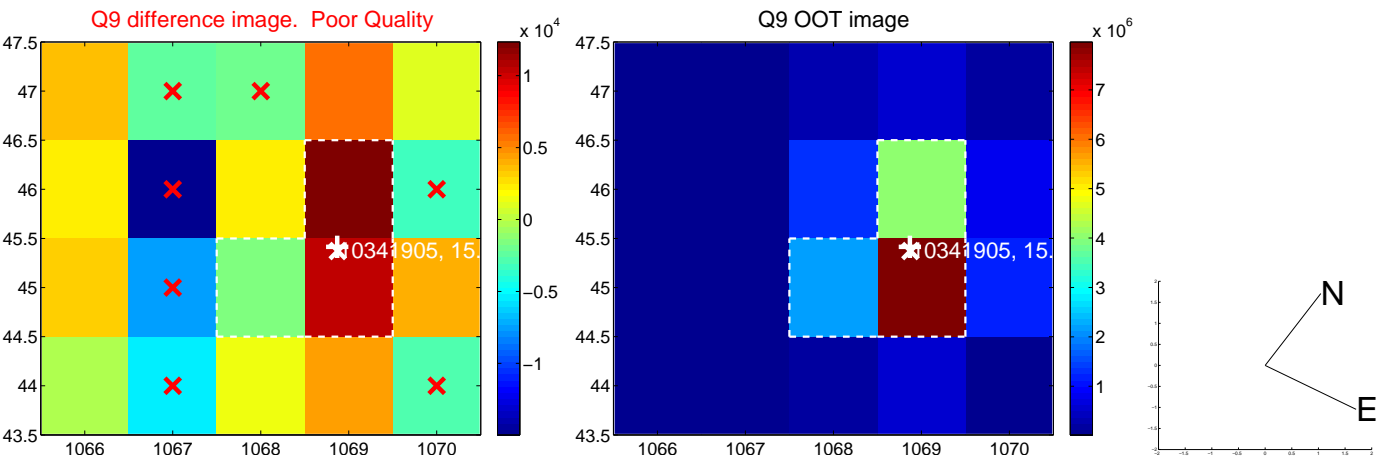


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



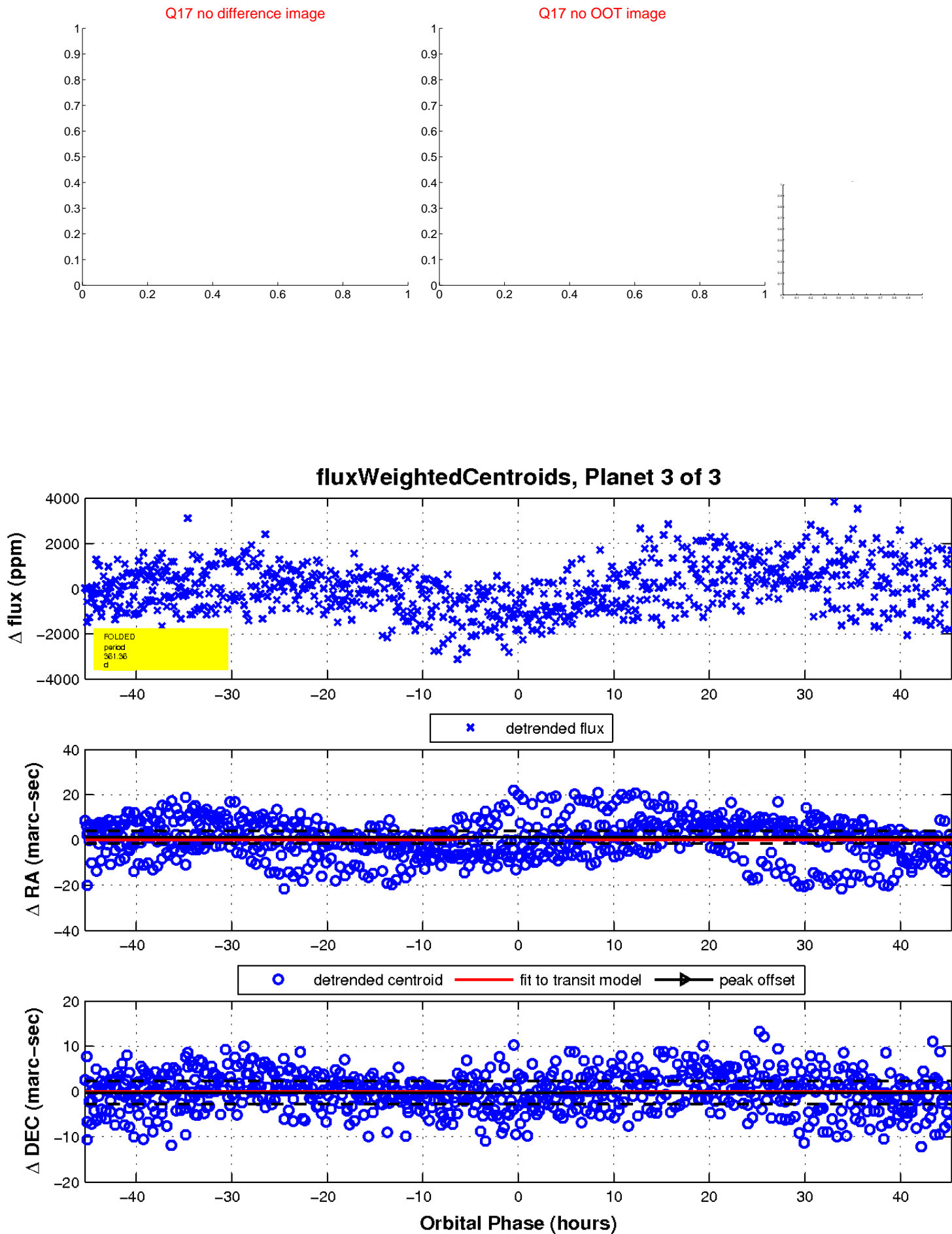
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

Declination

