

KIC 006535319

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})
006535319-01	OBS	No	297.076231	305.410350	1924.3	4.110	12.8	6.8	0.74	5245	3.40	0.62
006535319-02	OBS	No	323.940177	226.814469	2770.8	5.440	14.4	8.9	0.74	5245	3.91	0.55
006535319-03	OBS	No	465.961427	392.582364	2307.8	3.210	12.6	7.1	0.74	5245	3.70	0.34
006535319-04	OBS	No	529.545496	433.630775	2380.4	4.098	12.2	6.8	0.74	5245	3.61	0.29
006535319-05	OBS	No	320.417452	426.995280	2485.6	3.522	11.0	7.6	0.74	5245	7.12	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006535319-01	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—CENT_FEW_DIFFS
006535319-02	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006535319-03	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—CENT_FEW_DIFFS
006535319-04	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
006535319-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

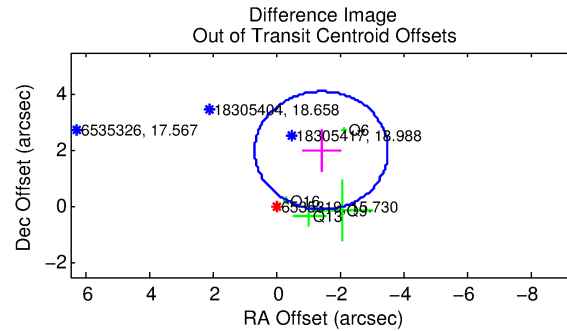
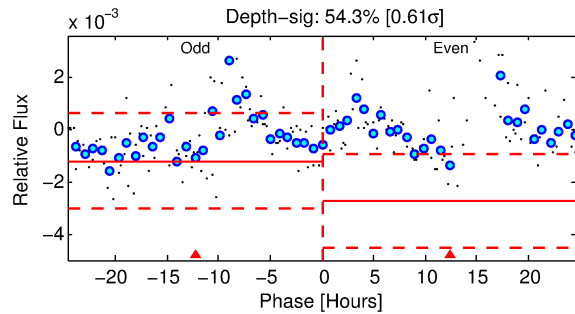
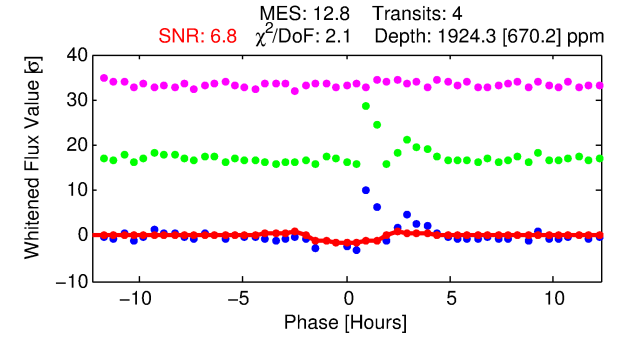
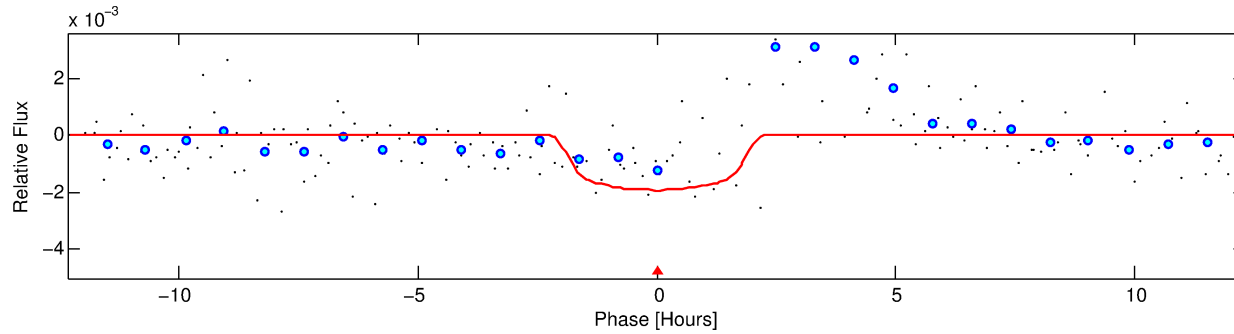
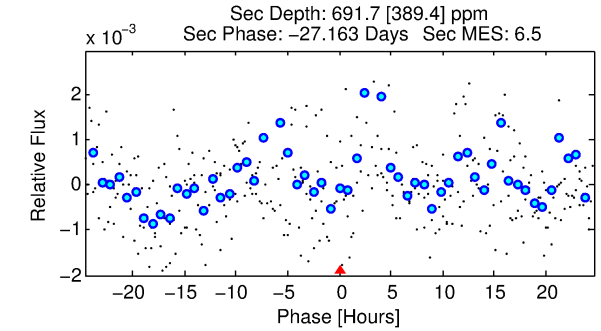
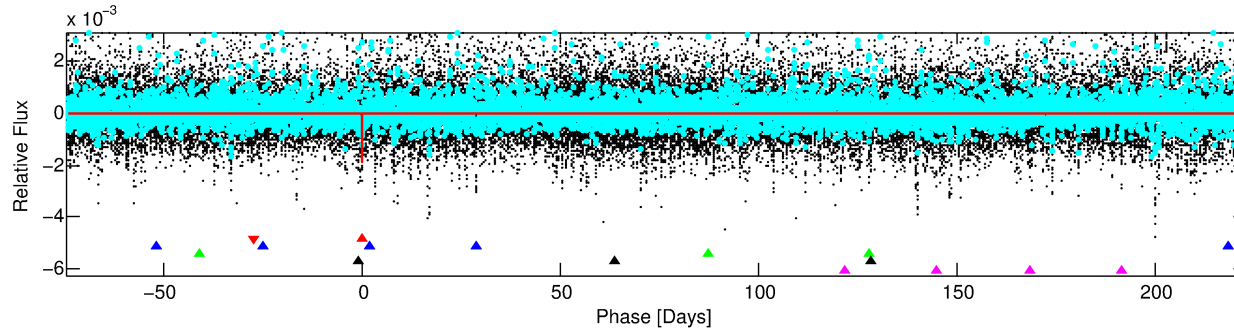
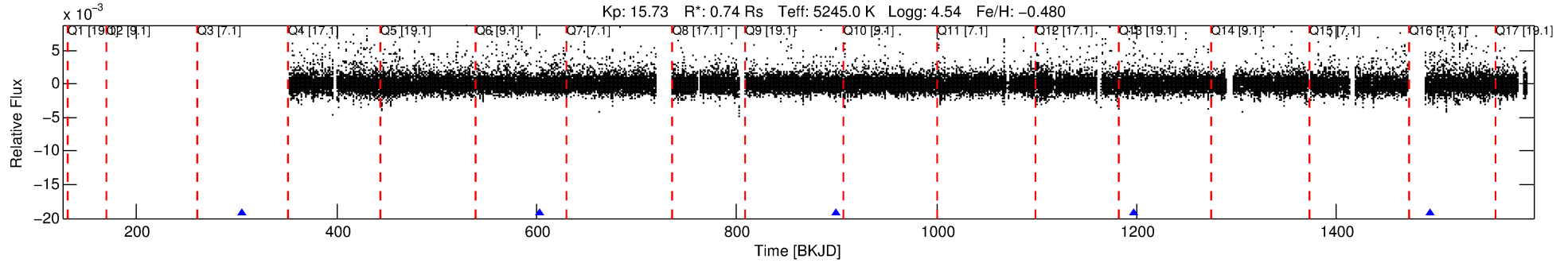
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006535319-01

No Significant Match Found

DV One-Page Summary

KIC: 6535319 Candidate: 1 of 5 Period: 297.076 d



DV Fit Results:

Period = 297.07623 [0.00860] d
Epoch = 305.4103 [0.0231] BKJD
Rp/R* = 0.0422 [0.0708]
a/R* = 452.75 [2944.40]
b = 0.64 [6.00]
Seff = 0.62 [0.14]
Teq = 226 [13] K
Rp = 3.40 [5.72] Re
a = 0.7726 [0.0827] AU
Ag = 19705.73 [67204.22] [0.29σ]
Teffp = 4143 [3532] K [1.11σ]

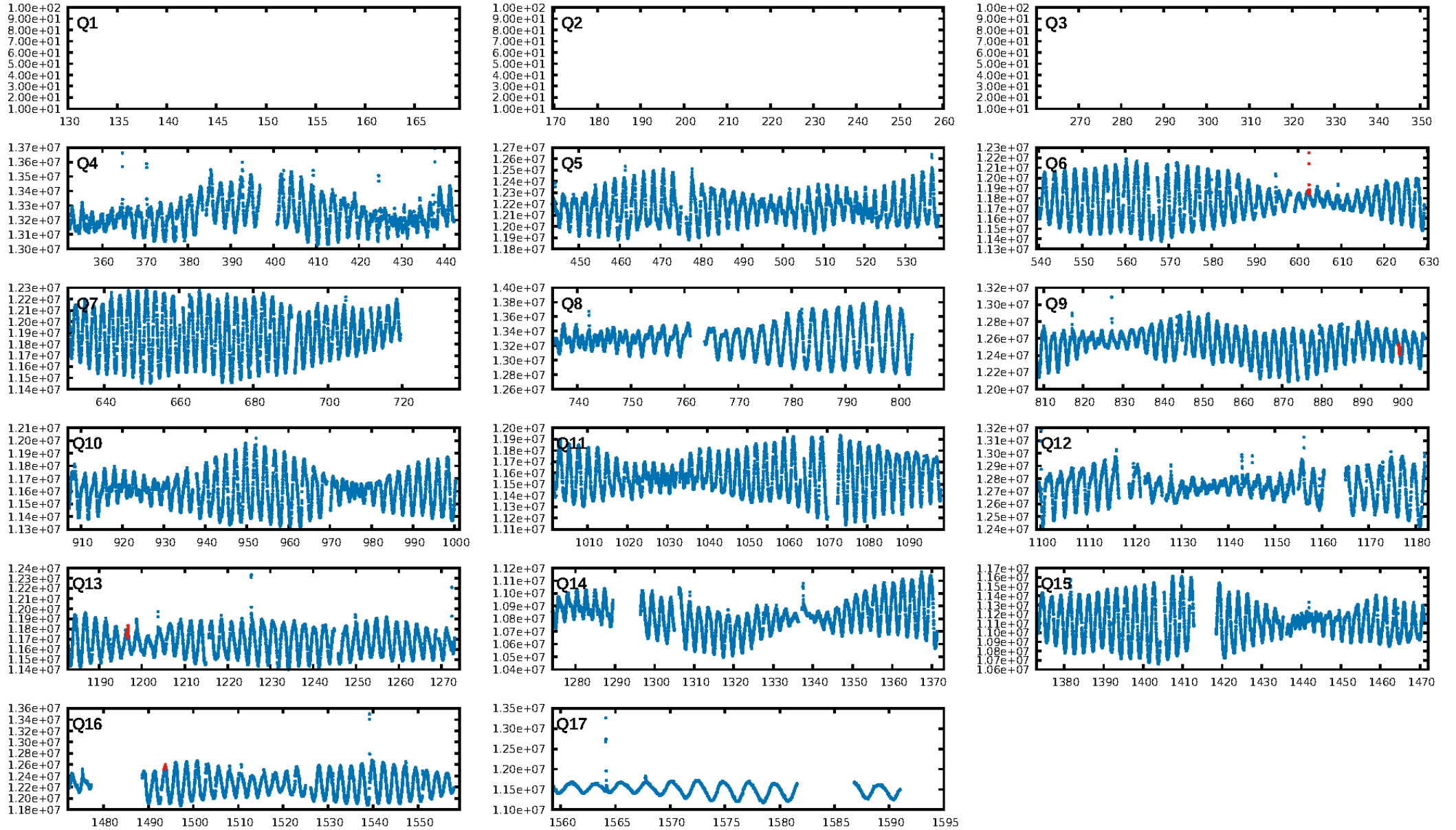
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [103.50σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 39.9%
Bootstrap-pfa: 2.77e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.3451
Centroid-sig: 94.7%
Centroid-so: 1.630 arcsec [1.70σ]
OotOffset-rm: 2.444 arcsec [3.49σ]
OotOffset-st: 1/0/1/2 [4]
KicOffset-rm: 0.416 arcsec [1.46σ]
KicOffset-st: 1/0/1/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [4/4]

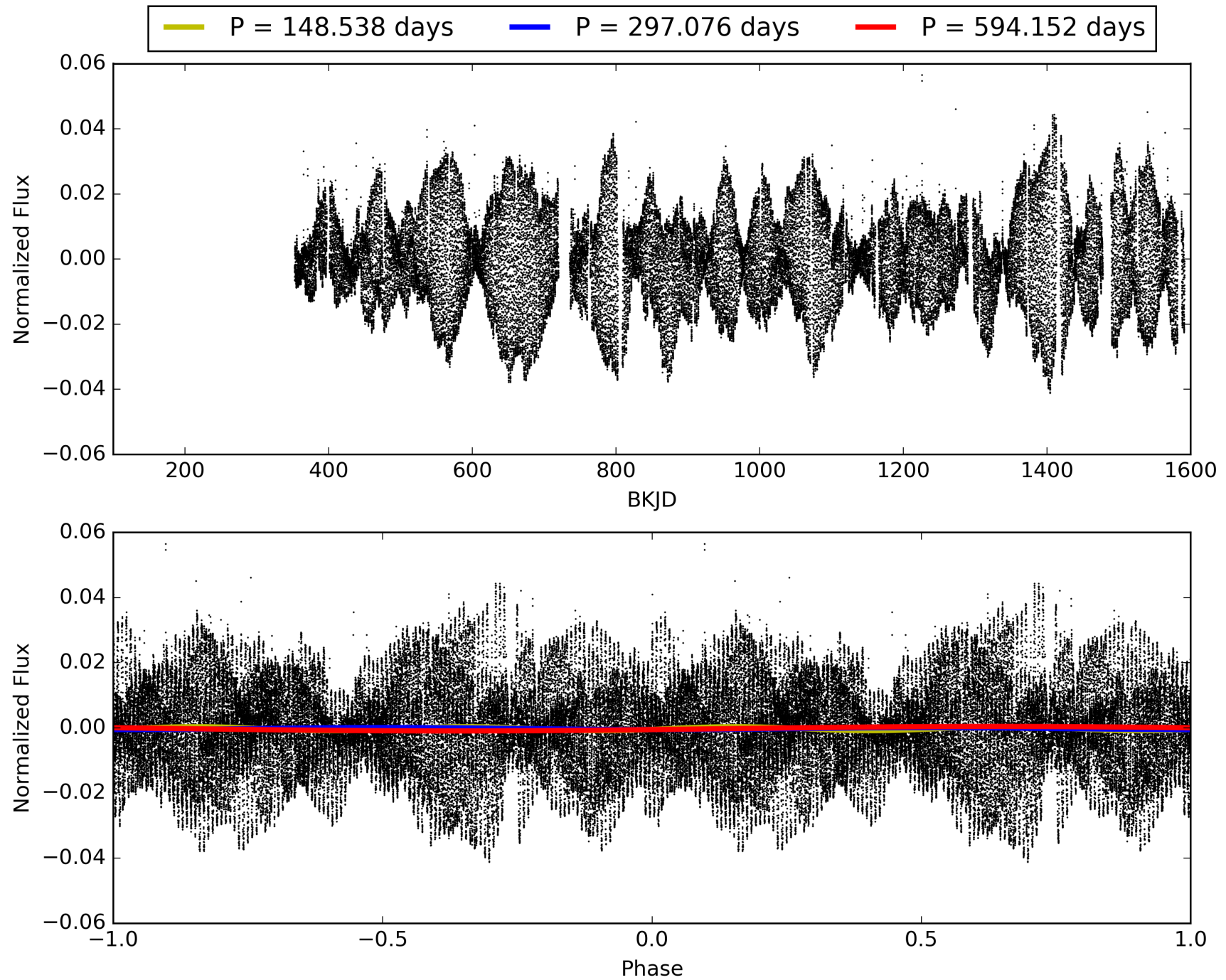
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006535319-01, PDC Light Curves

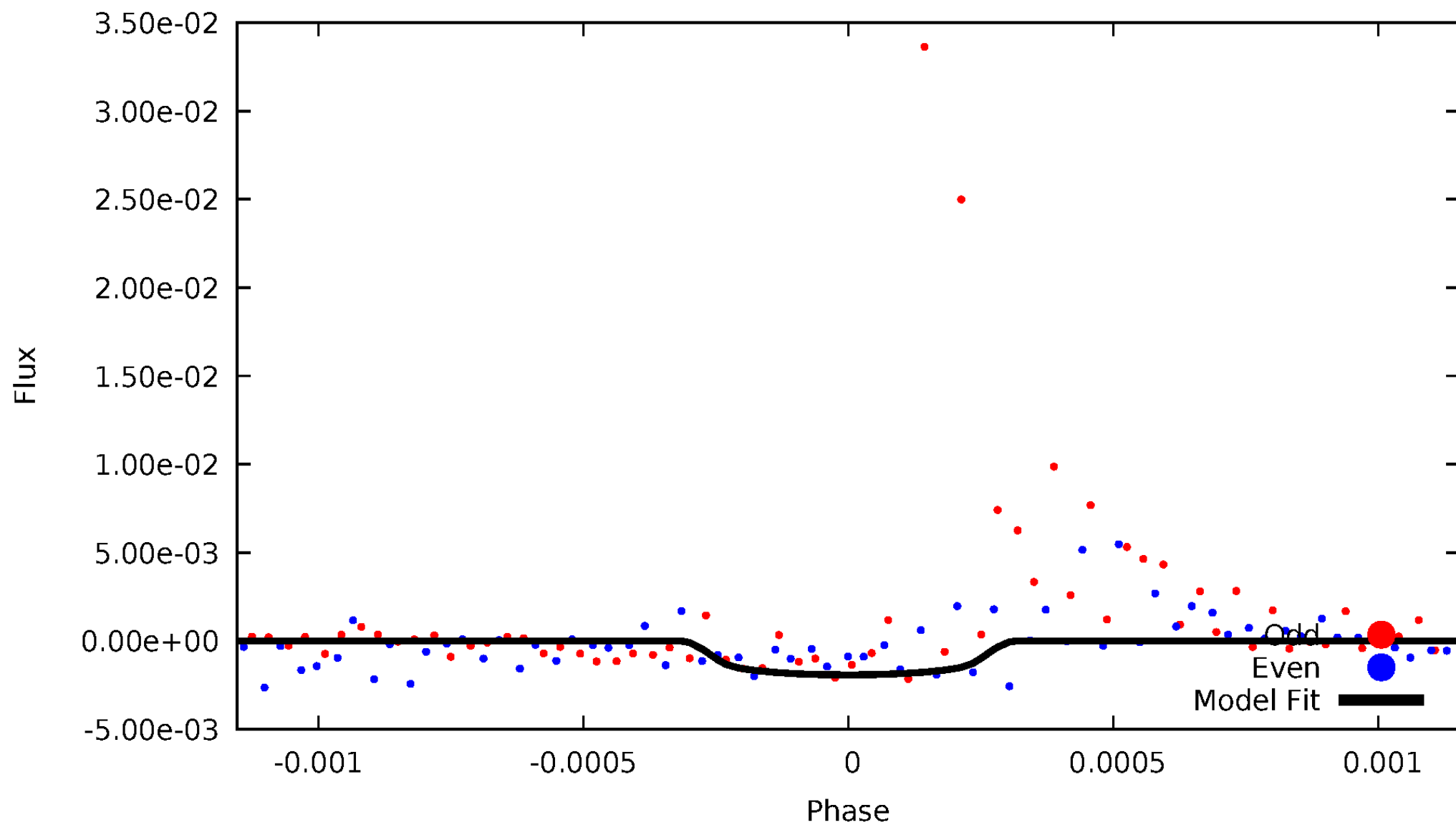


TCE 006535319-01



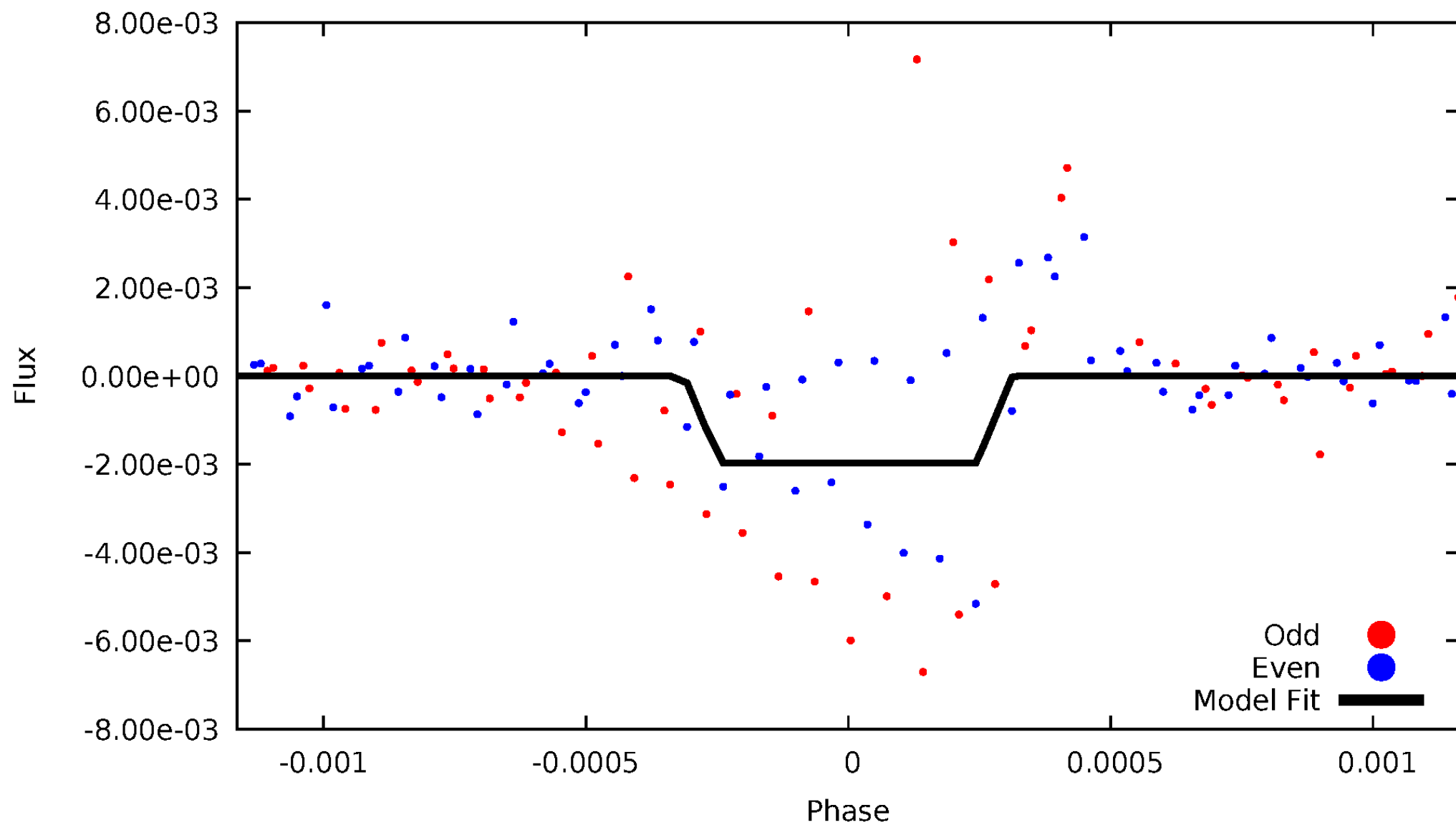
DV Odd/Even

TCE 006535319-01

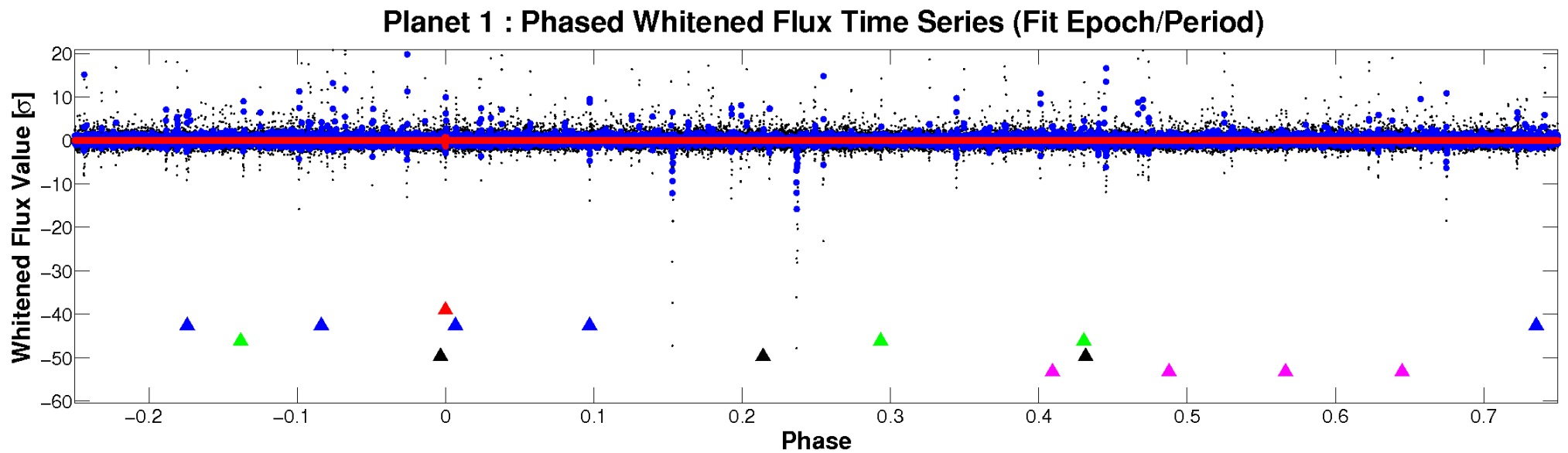
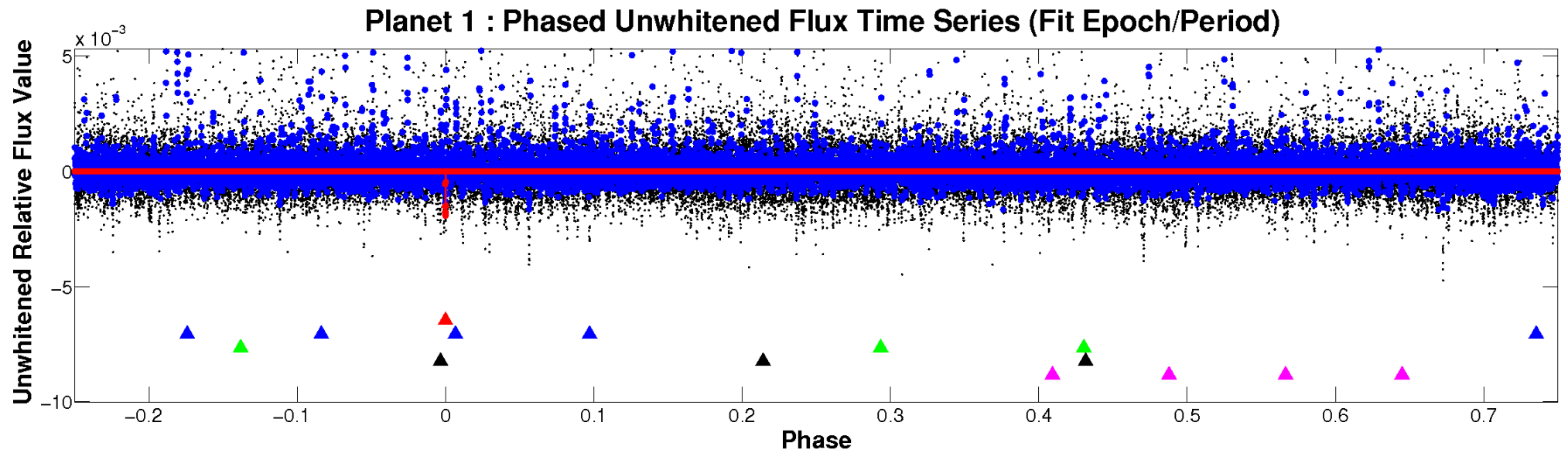


ALT Odd/Even

TCE 006535319-01

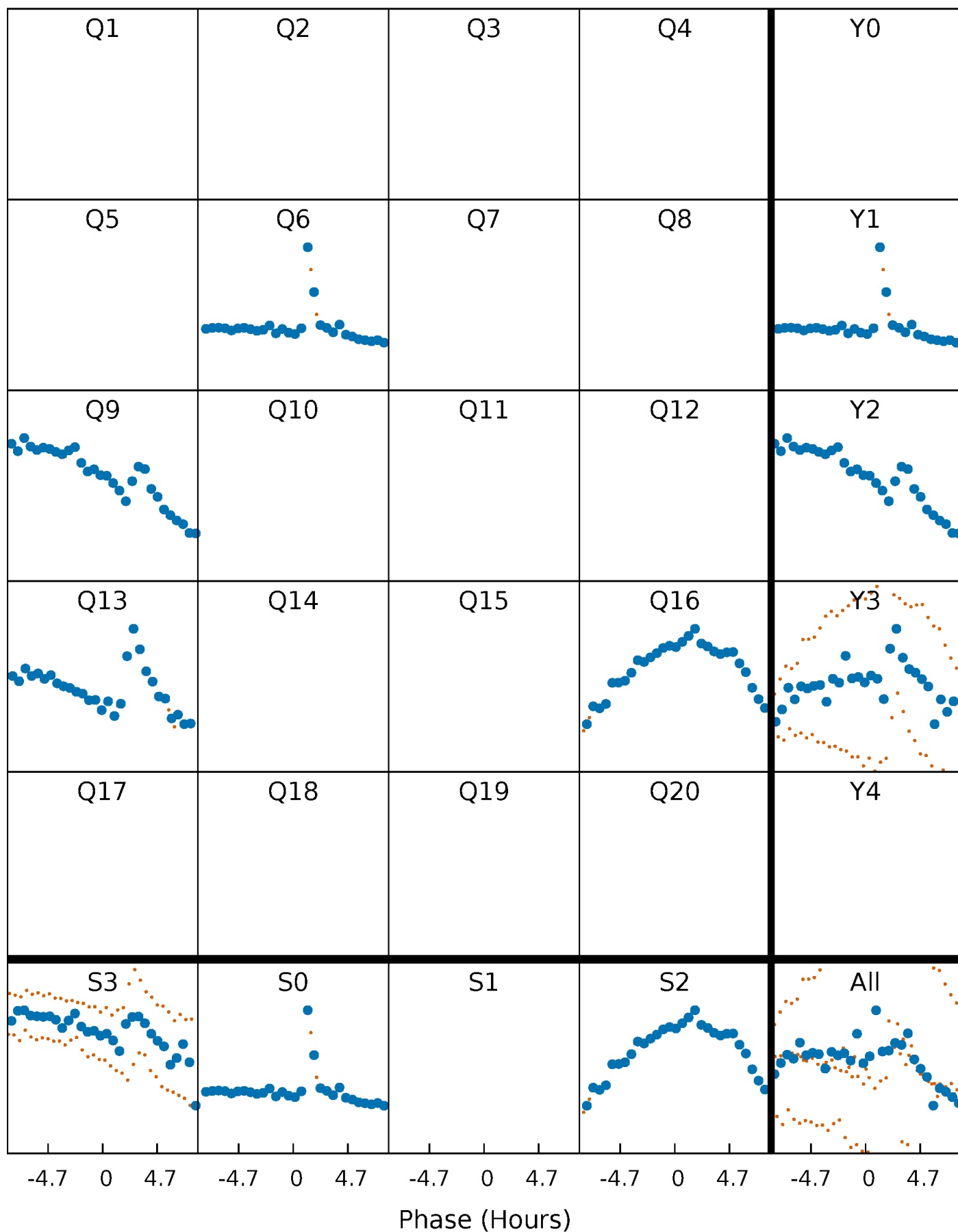


Non-Whitened Vs. Whitened Light Curve



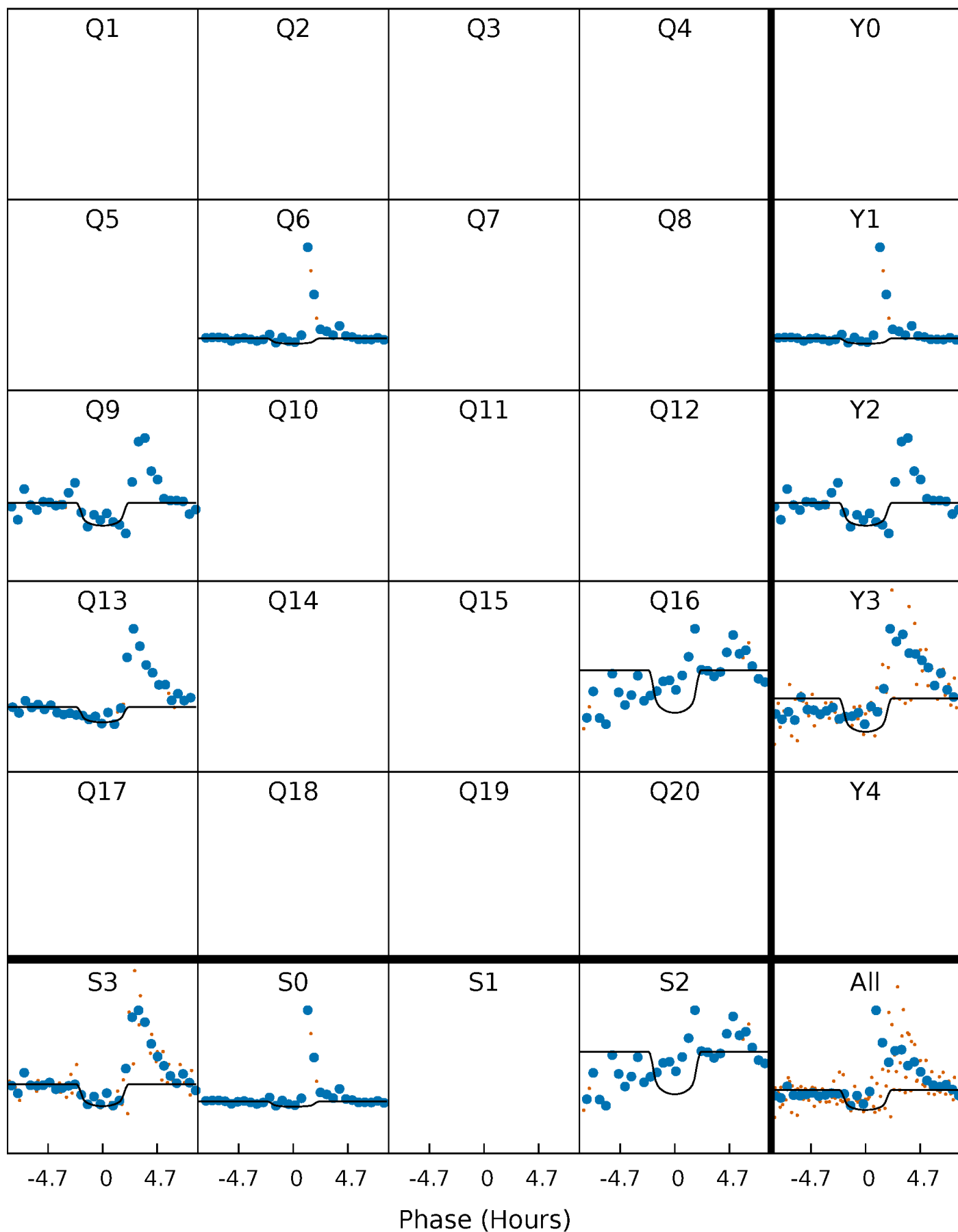
PDC Quarter-Phased Transit Curves

TCE 006535319-01 P=297.076231 Days $T_0=305.410350$ (BKJD)



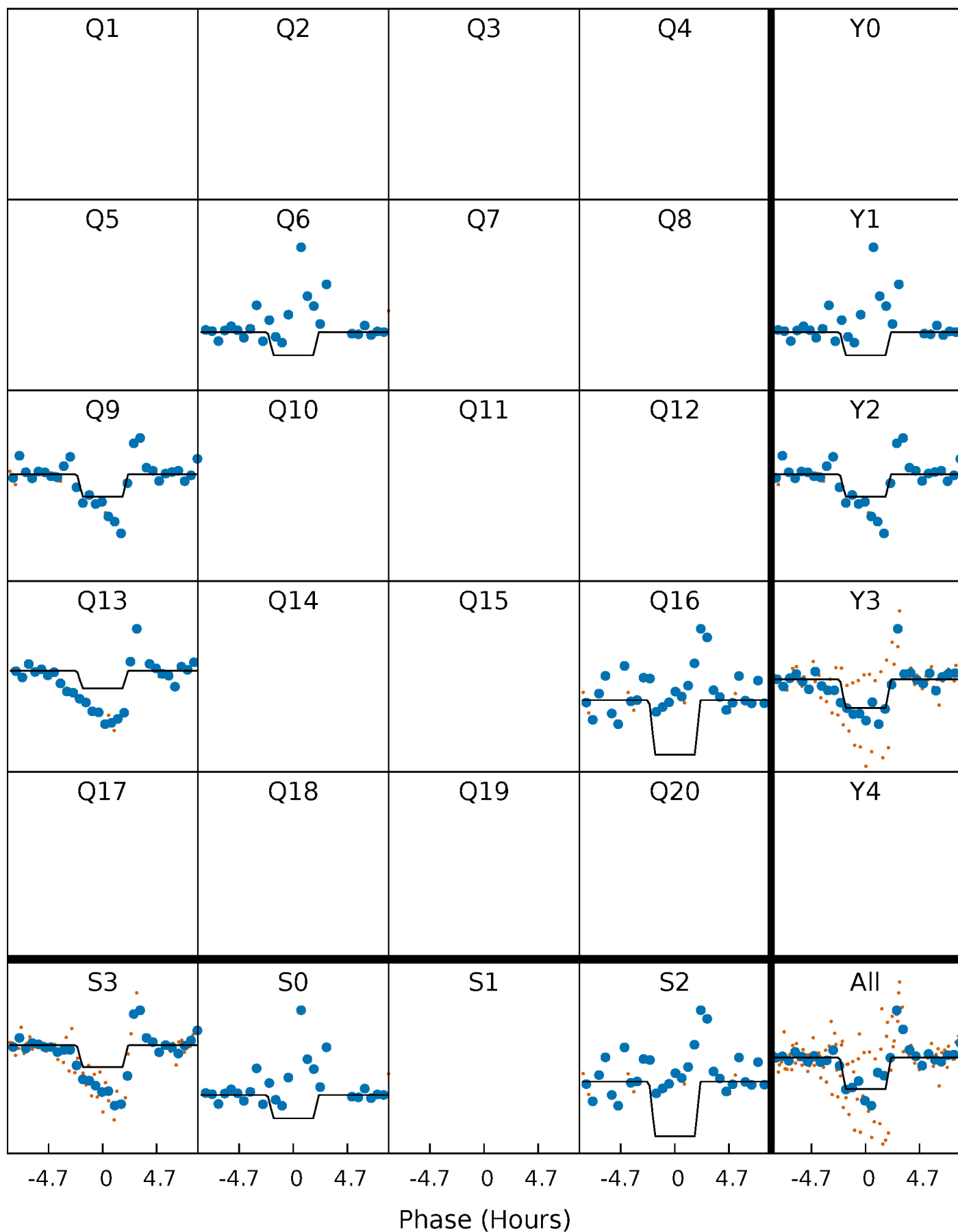
DV Quarter-Phased Transit Curves

TCE 006535319-01 P=297.076231 Days $T_0=305.410350$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

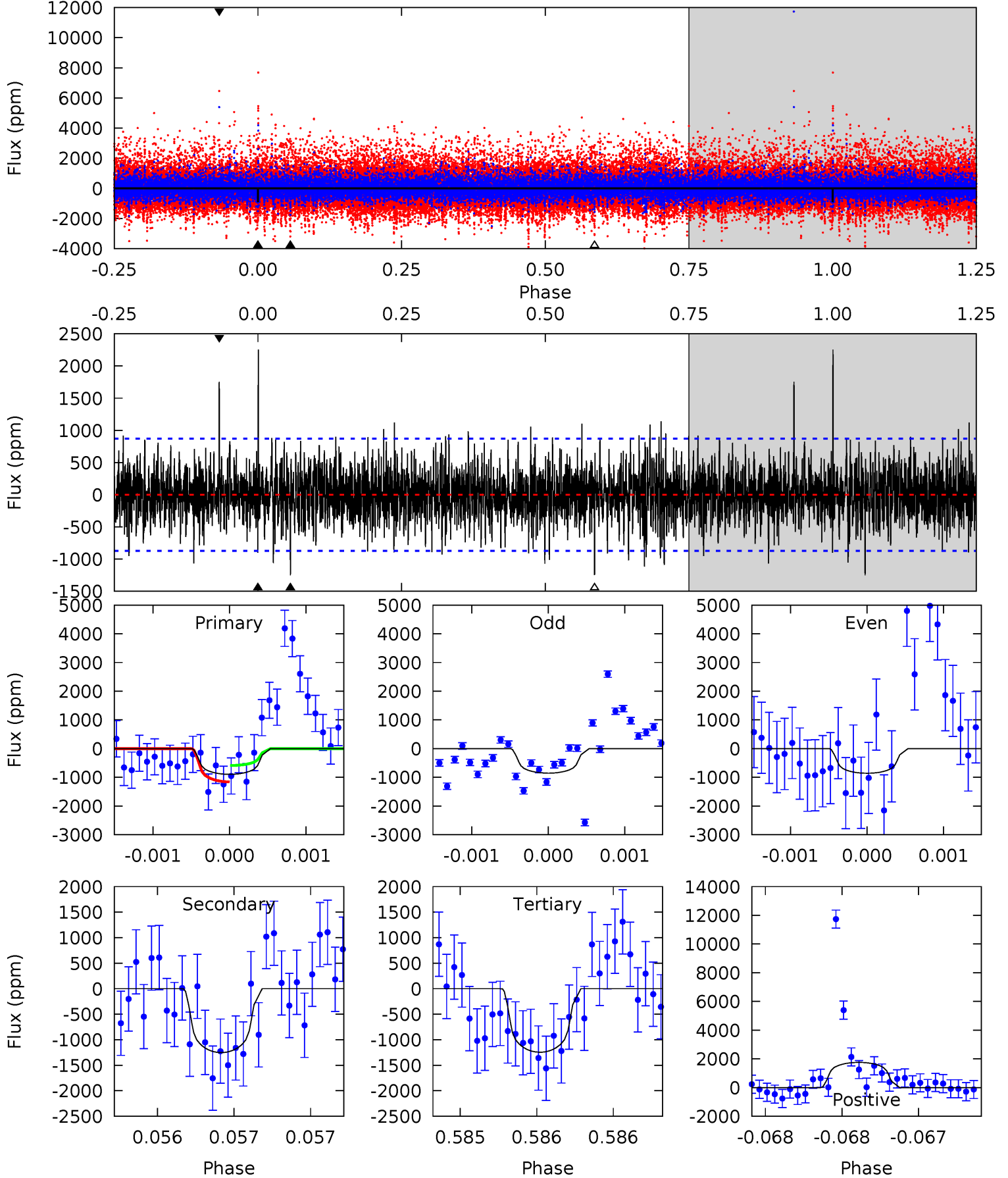
TCE 006535319-01 P=297.049473 Days $T_0=305.481965$ (BKJD)



DV Model-Shift Uniqueness Test

006535319-01, P = 297.076231 Days, E = 305.410350 Days

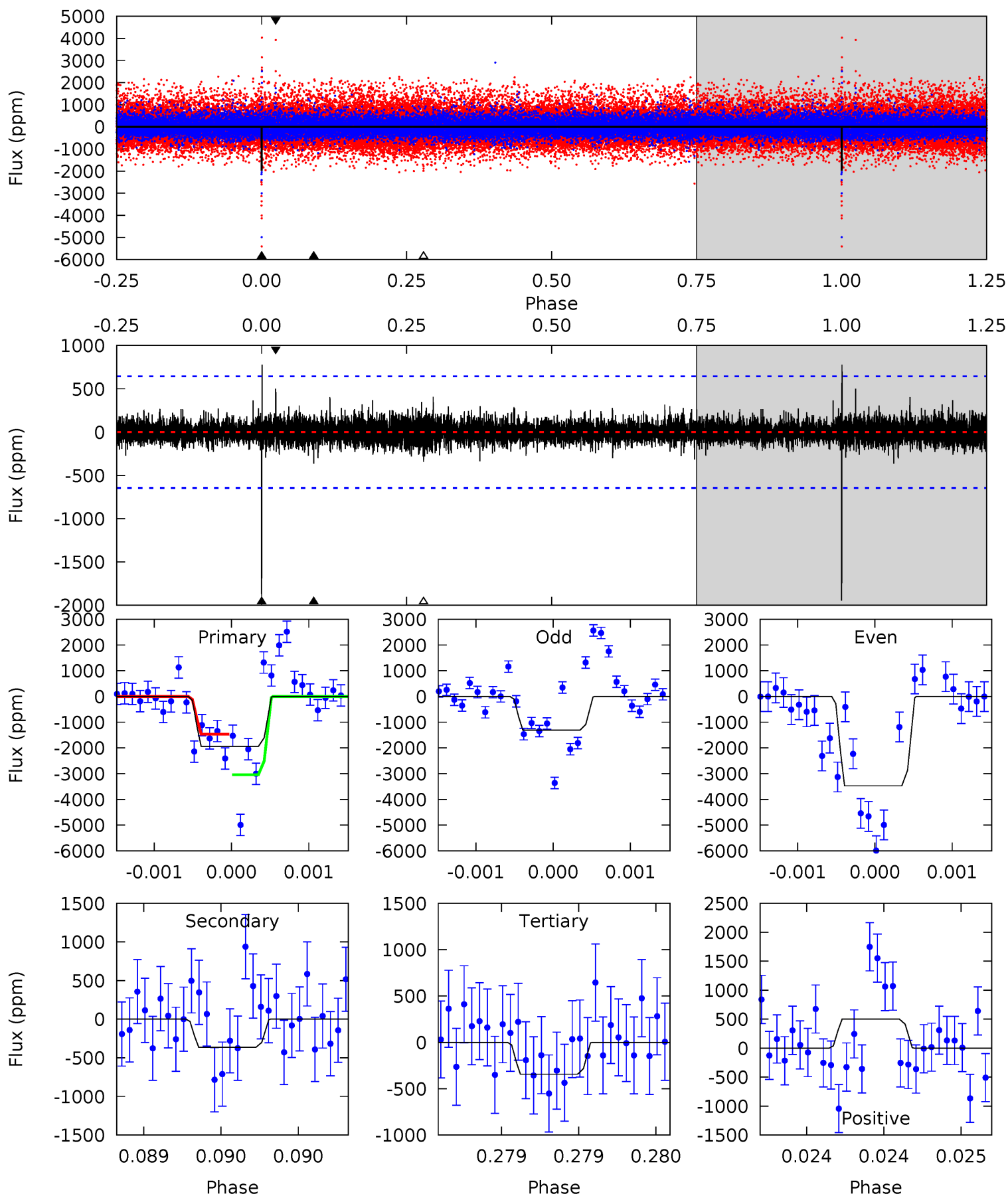
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.69	7.93	7.89	11.1	5.53	3.41	2.04	-2.20	-5.44	0.04	-3.20	0.01	-1.77	0.64	1.81



Alt Model-Shift Uniqueness Test

006535319-01, P = 297.049473 Days, E = 305.481965 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.7	3.13	2.95	4.31	5.54	3.43	0.69	13.8	12.4	0.18	-1.18	10.4	1.01	0.29	6.87



Stellar Parameters For KIC 006535319

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5245^{+203}_{-166}	$4.545^{+0.088}_{-0.072}$	$-0.480^{+0.350}_{-0.300}$	$0.738^{+0.092}_{-0.084}$	$0.695^{+0.103}_{-0.044}$	$2.440^{+0.918}_{-0.563}$
	+4%/-3%	+2%/-2%	+73%/-62%	+12%/-11%	+15%/-6%	+38%/-23%
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 006535319-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1251 ± 158	$5.63^{+4.82}_{-3.74}$	315^{+15}_{-13}	4030^{+2407}_{-746}	$13492^{+103982}_{-9844}$
Alt.	-364 ± 116	$5.51^{+4.86}_{-3.65}$	316^{+14}_{-14}	3251^{+1646}_{-521}	3699^{+30935}_{-2694}

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 $A_{obs} \gg 1.0$

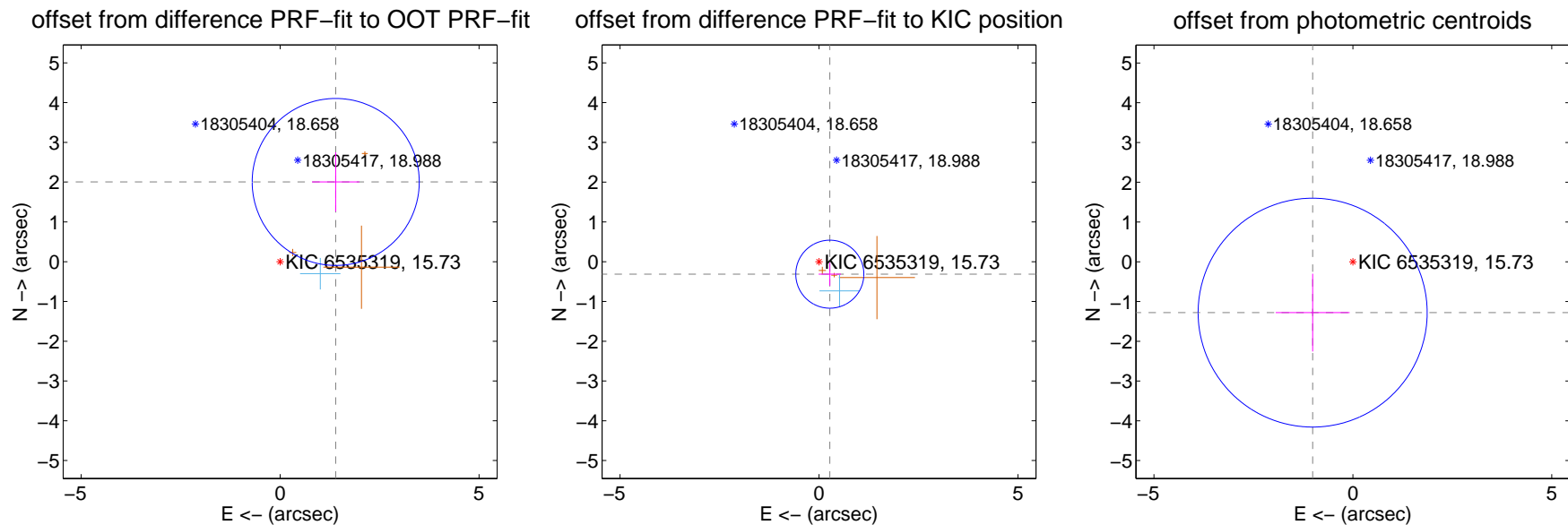
DV Centroid Data

Supplemental centroid analysis for 006535319-01. Kepler magnitude: 15.73. Transit SNR 6.77

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.444 ± 0.700	3.49	-1.397 ± 0.595	2.006 ± 0.745
PRF-fit source offset from KIC position	0.416 ± 0.285	1.46	-0.272 ± 0.280	-0.314 ± 0.289
photometric centroid source offset	1.63 ± 0.96	1.70	1.01 ± 0.93	-1.28 ± 0.98



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

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



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

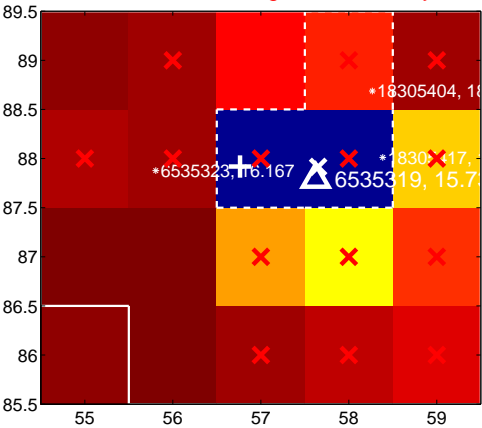
Q5 no difference image



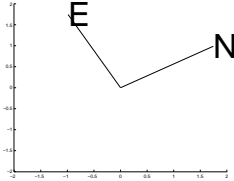
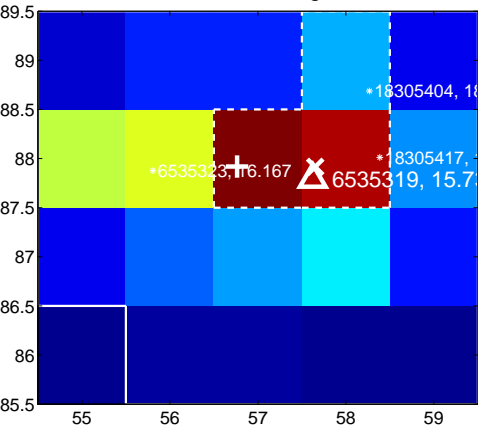
Q5 no OOT image



Q6 difference image. Poor Quality



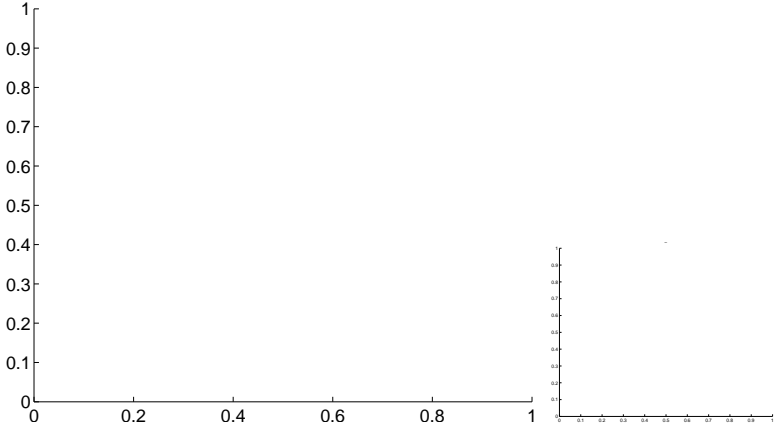
Q6 OOT image



Q7 no difference image



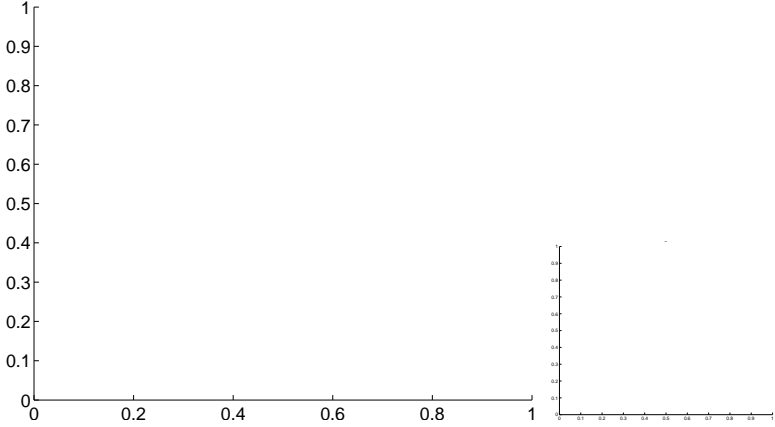
Q7 no OOT image



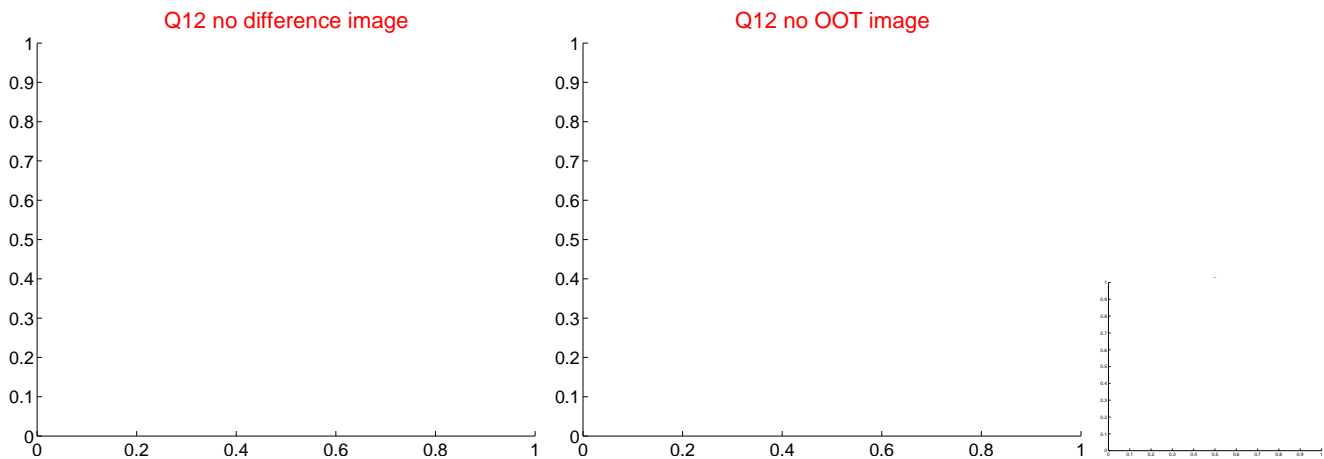
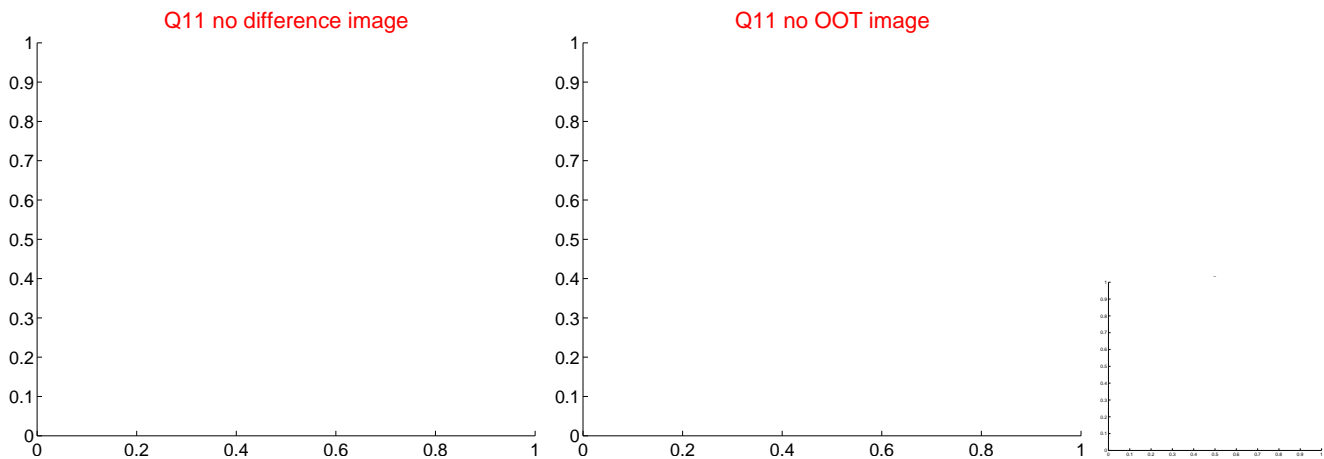
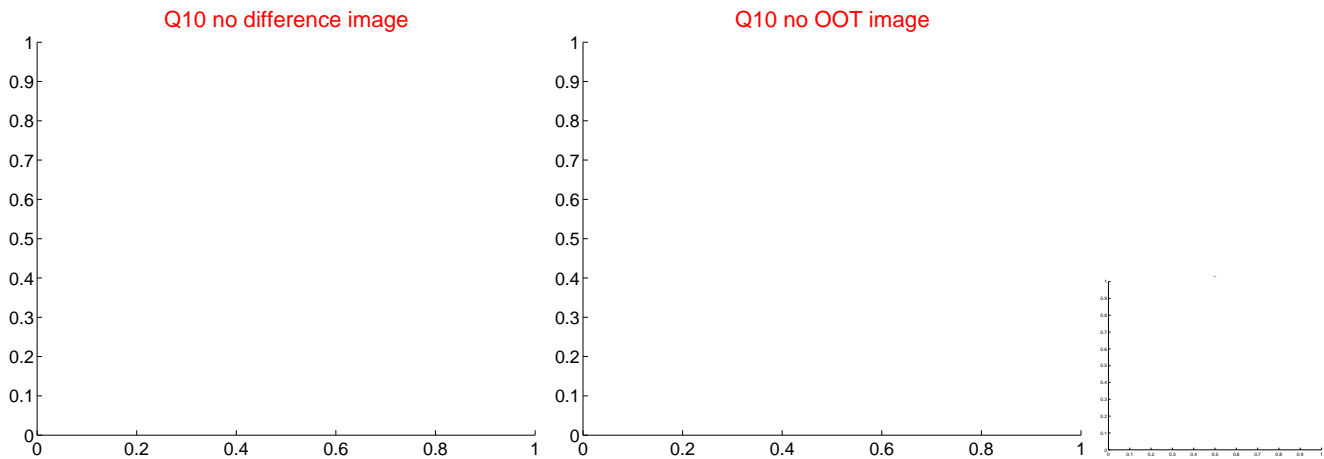
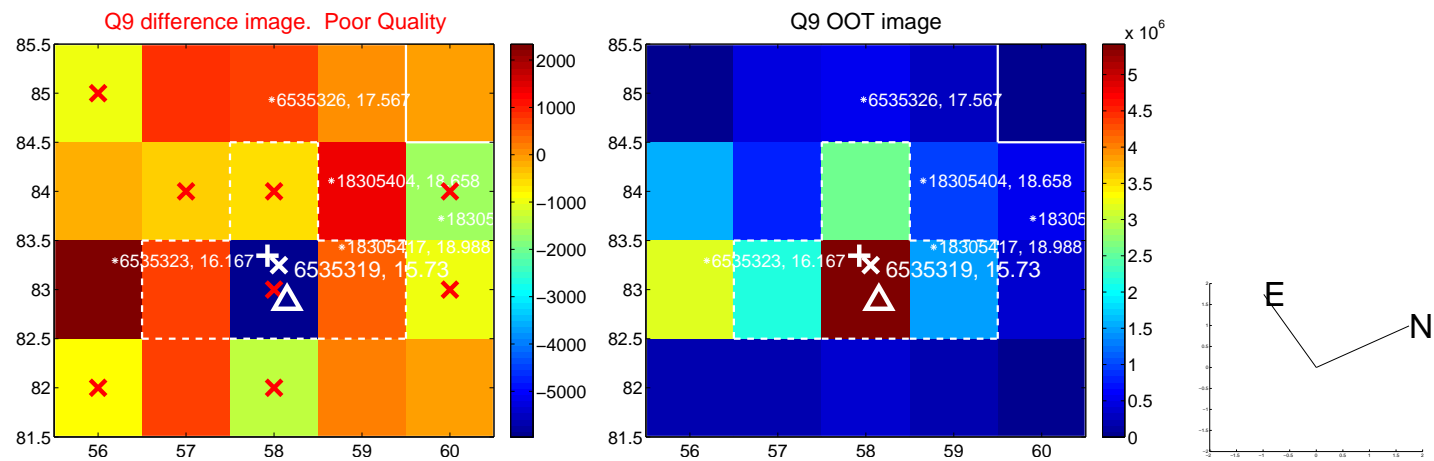
Q8 no difference image



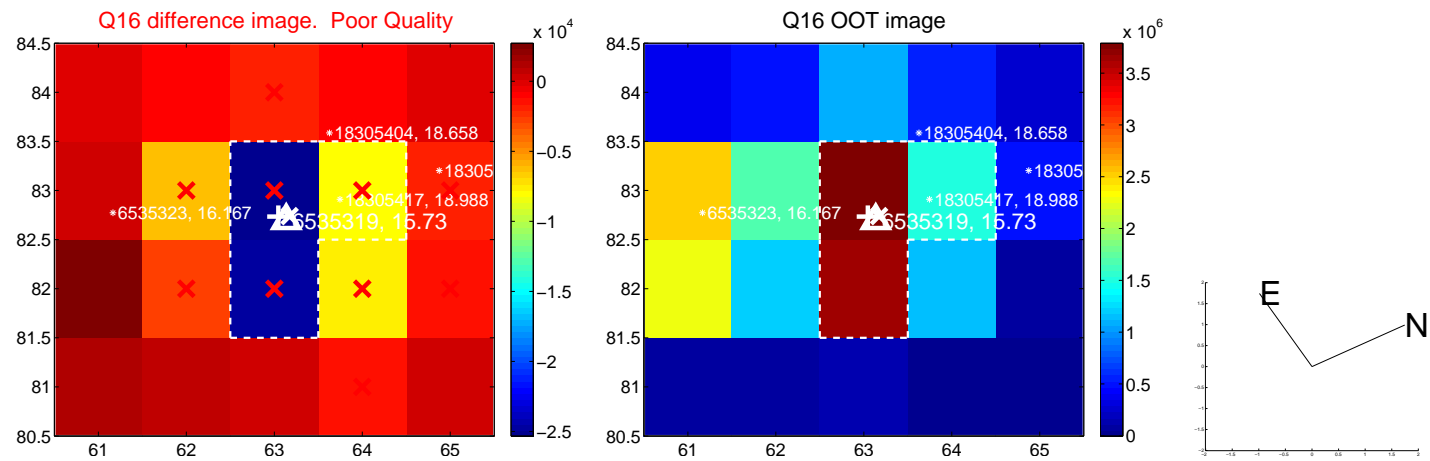
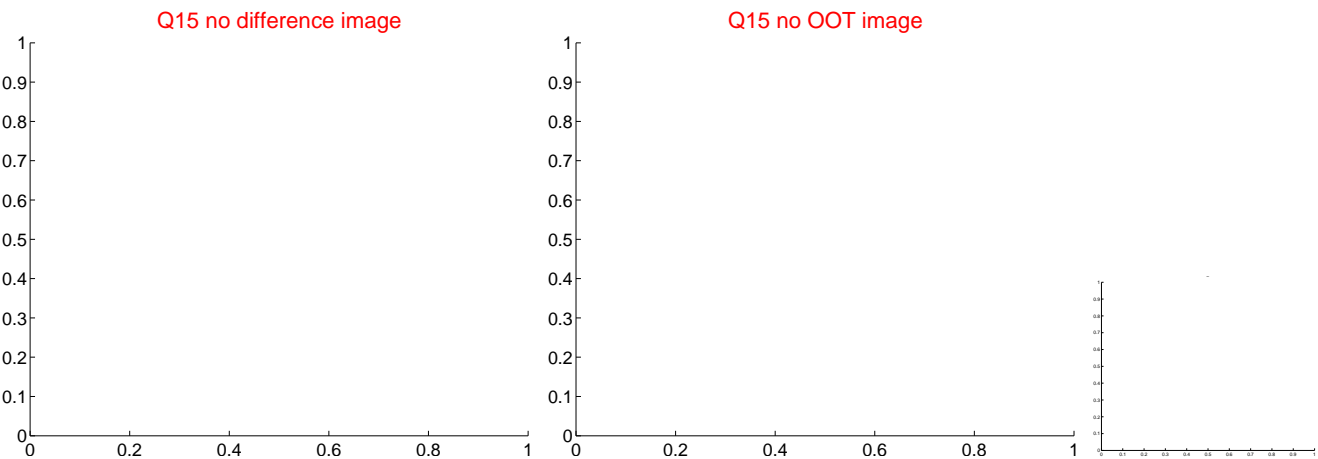
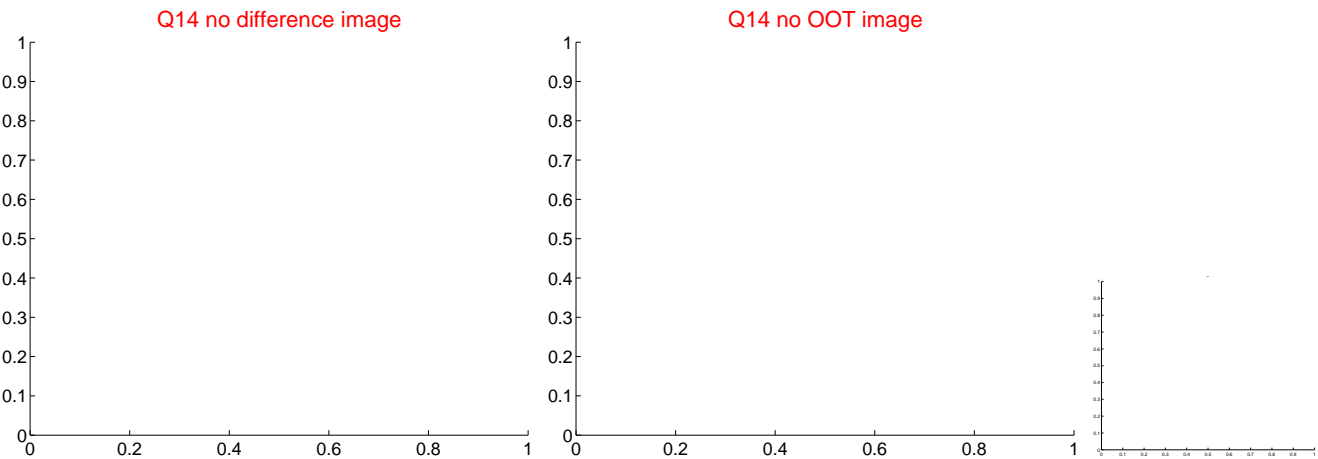
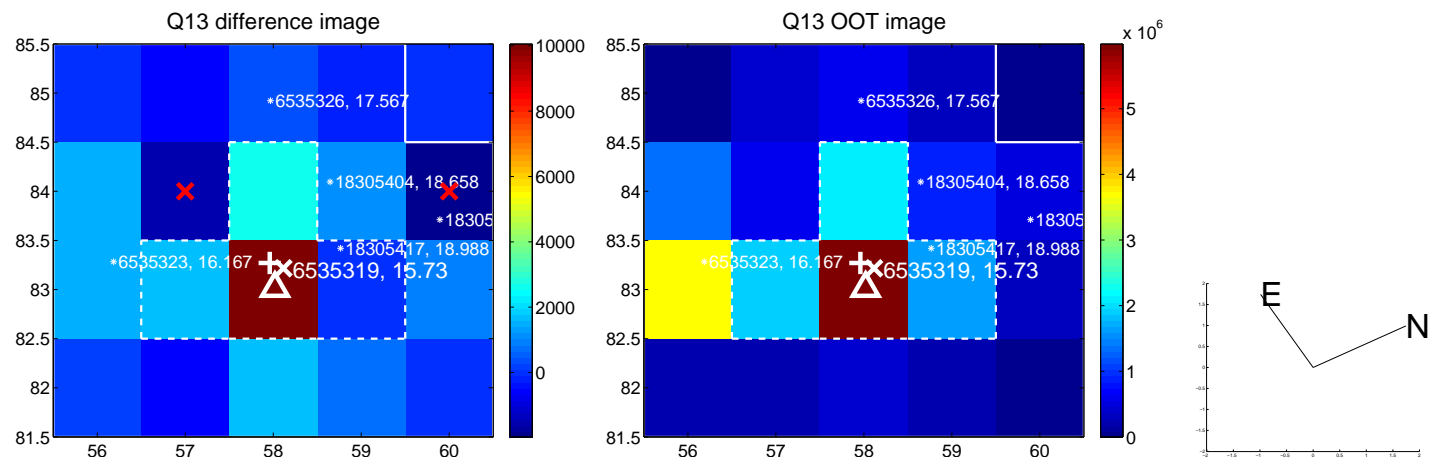
Q8 no OOT image



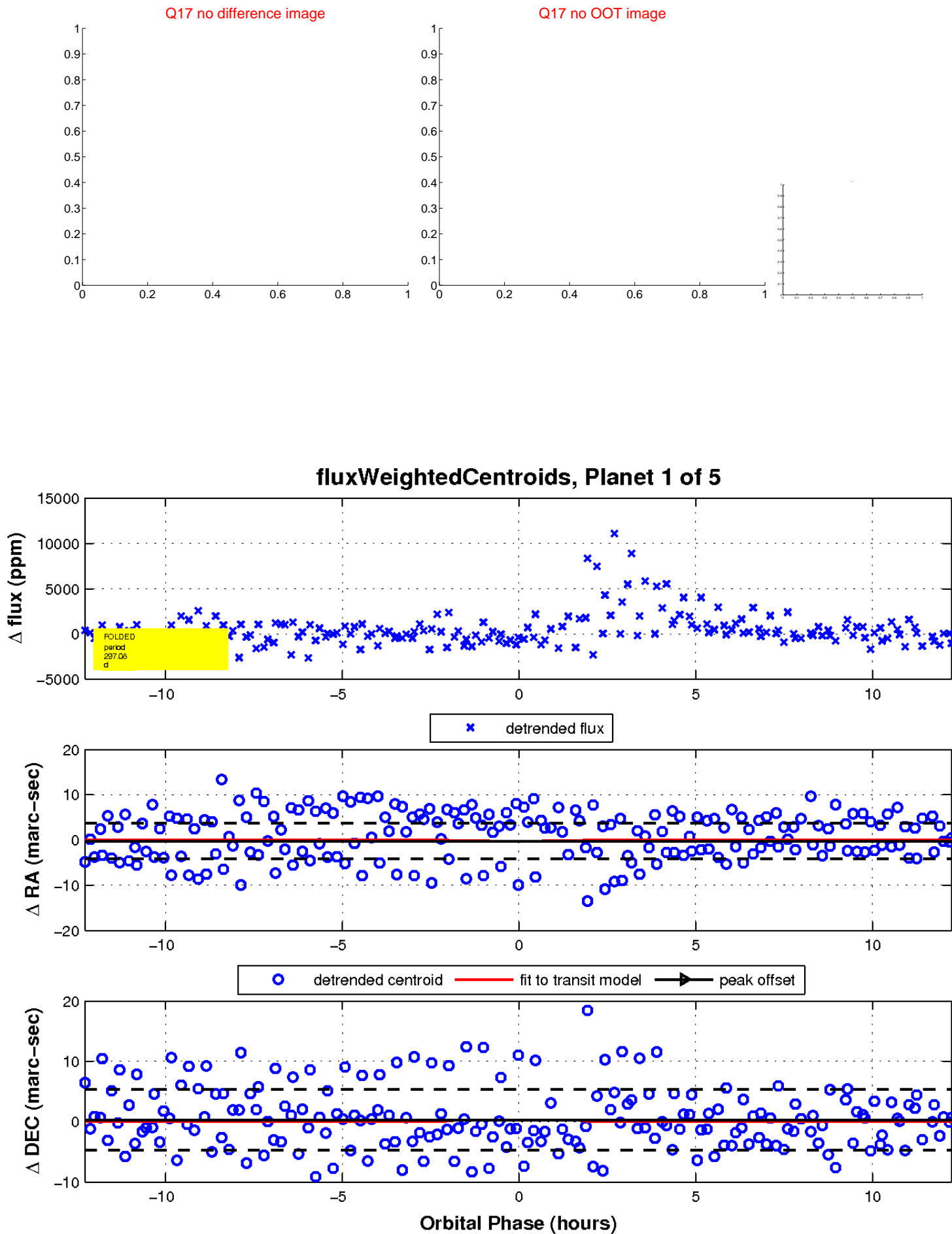
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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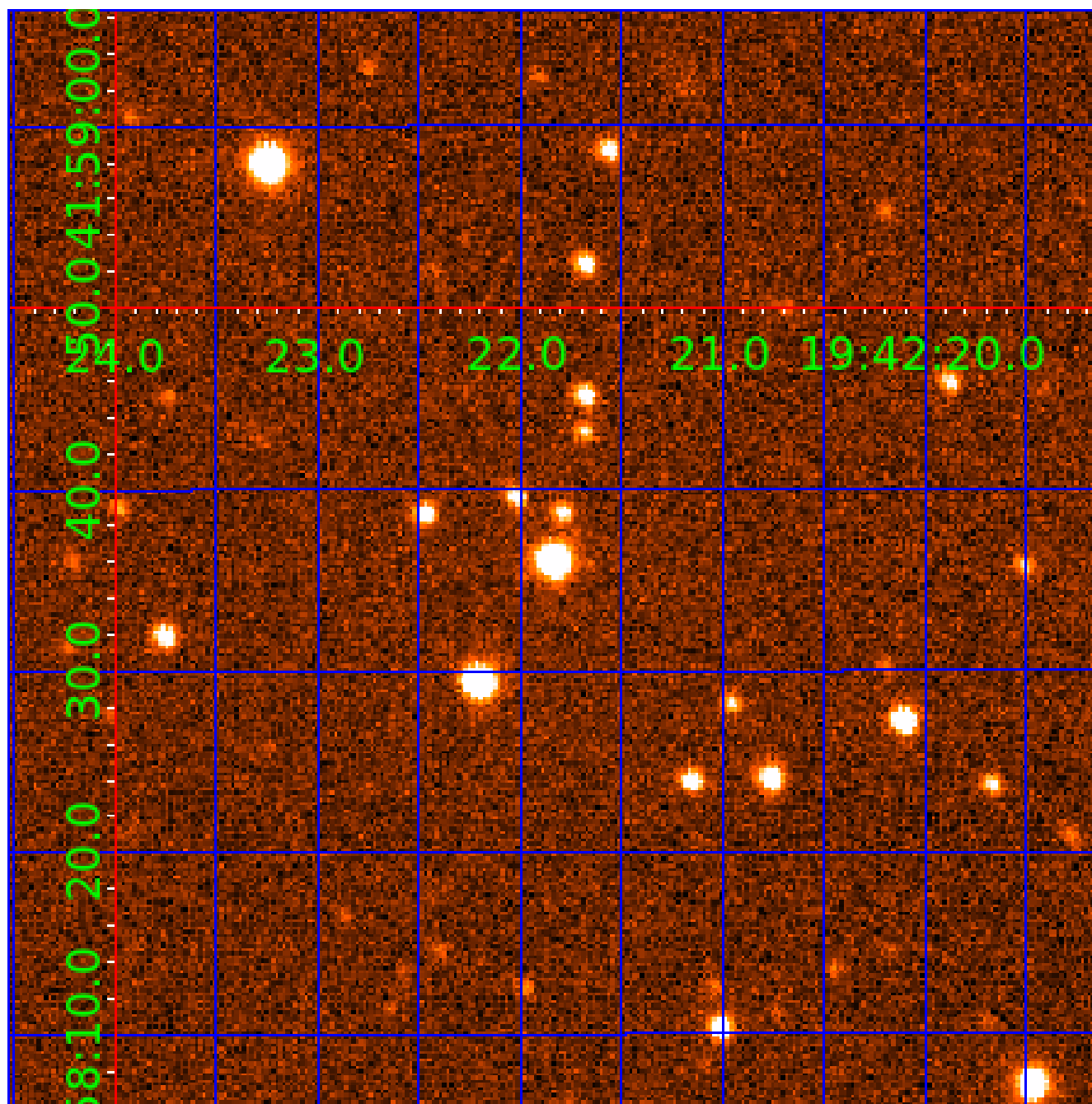


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006535319

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})
006535319-01	OBS	No	297.076231	305.410350	1924.3	4.110	12.8	6.8	0.74	5245	3.40	0.62
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006535319-04	OBS	No	529.545496	433.630775	2380.4	4.098	12.2	6.8	0.74	5245	3.61	0.29
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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006535319-02	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006535319-03	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—CENT_FEW_DIFFS
006535319-04	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
006535319-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

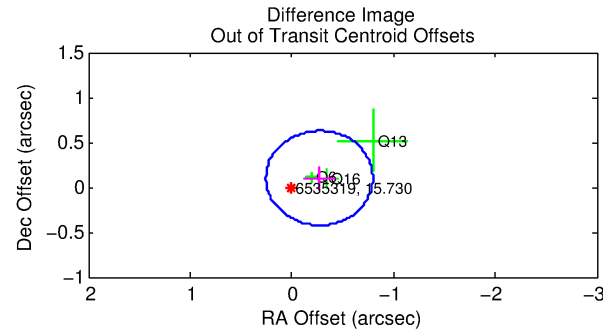
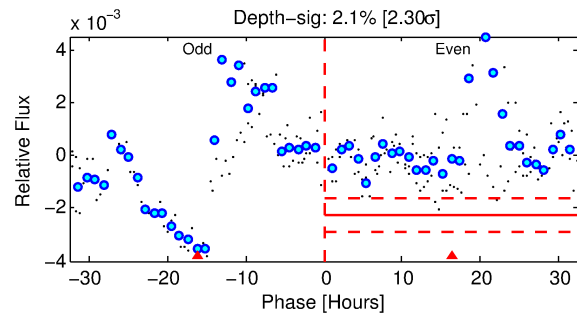
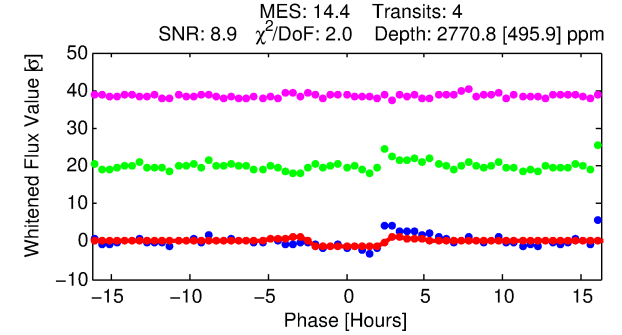
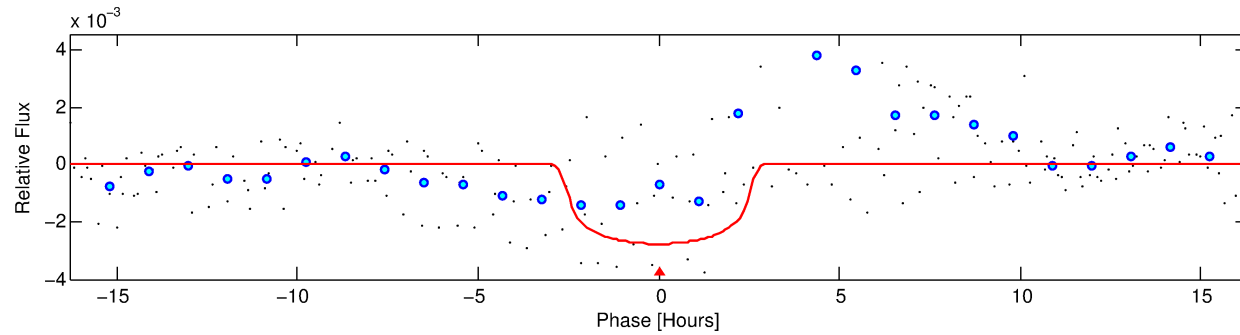
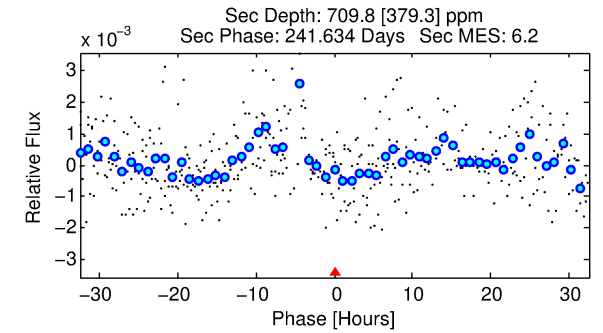
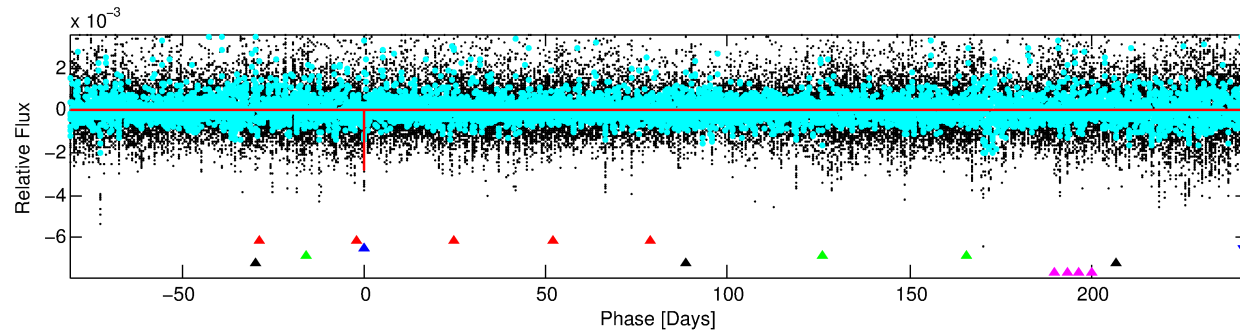
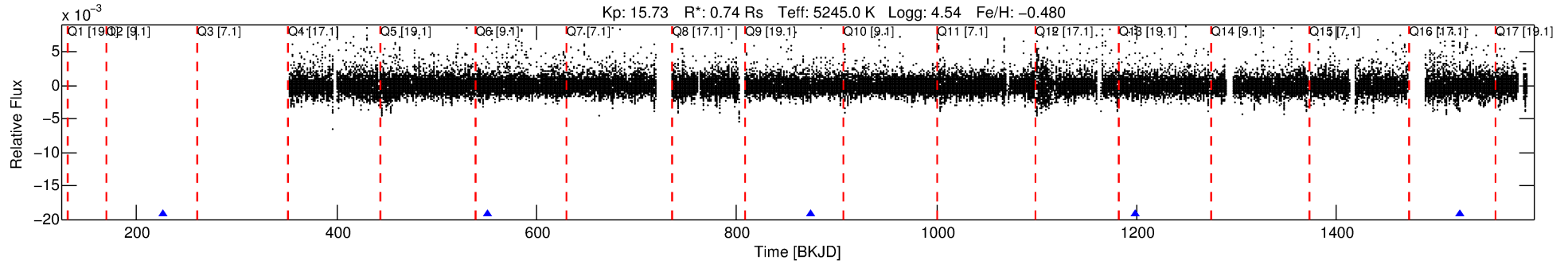
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006535319-02

No Significant Match Found

DV One-Page Summary

KIC: 6535319 Candidate: 2 of 5 Period: 323.940 d



DV Fit Results:

Period = 323.94018 [0.00388] d
Epoch = 226.8145 [0.0111] BKJD
Rp/R* = 0.0485 [0.0292]
a/R* = 435.96 [996.28]
b = 0.43 [4.44]
Seff = 0.55 [0.12]
Teq = 220 [12] K
Rp = 3.91 [2.40] Re
a = 0.8185 [0.0877] AU
Ag = 17141.75 [22735.11] [0.75 σ]
Teffp = 3887 [1288] K [2.85 σ]

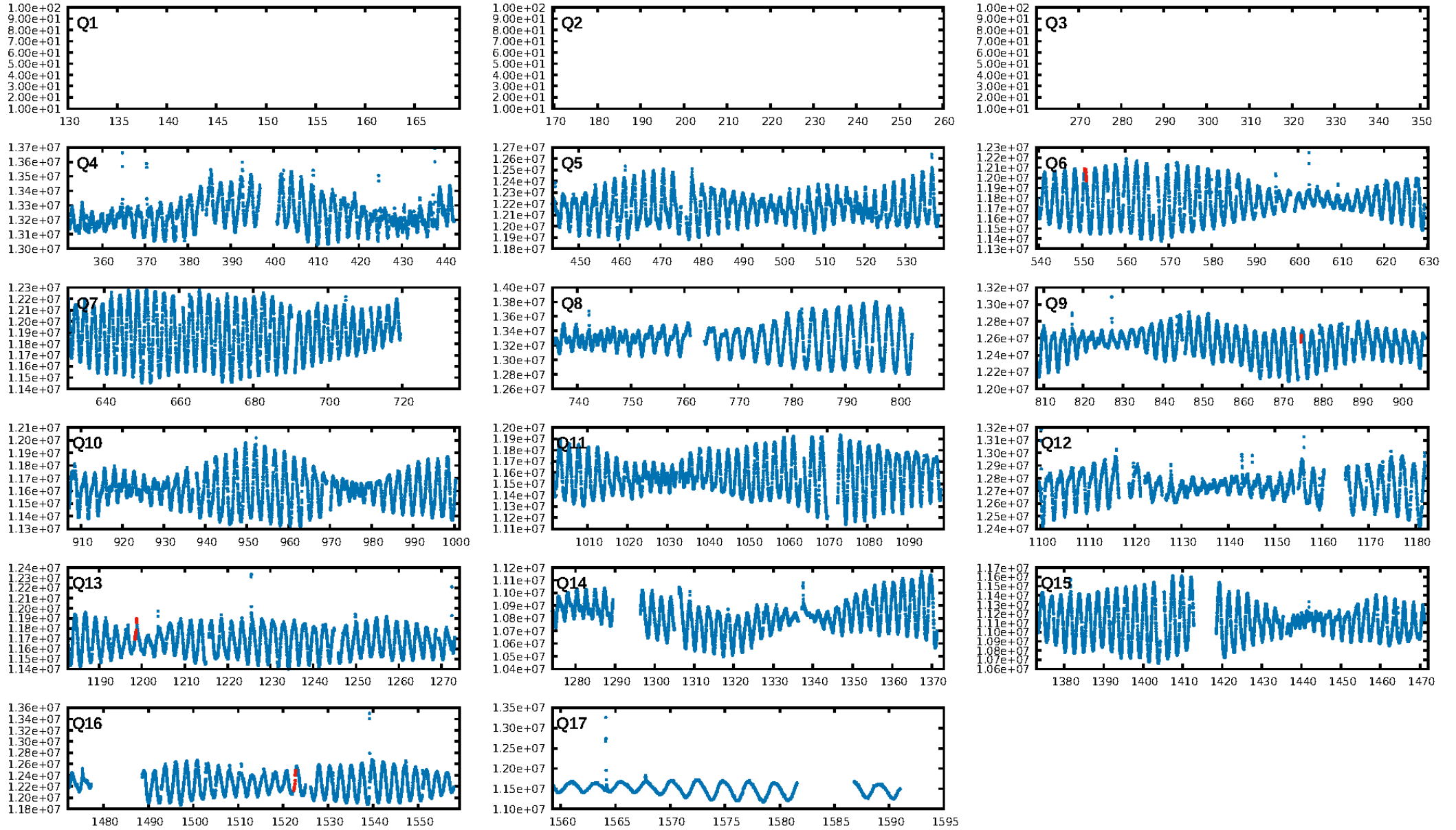
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.05 σ]
LongPeriod-sig: 100.0% [539.64 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 53.9%
Bootstrap-pfa: 6.13e-15
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.287
Centroid-sig: 43.7%
Centroid-so: 2.016 arcsec [2.50 σ]
OotOffset-rm: 0.289 arcsec [1.65 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-rm: 0.363 arcsec [2.64 σ]
KicOffset-st: 1/0/1/1 [3]
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DiffImageOverlap-fno: 1.00 [3/3]

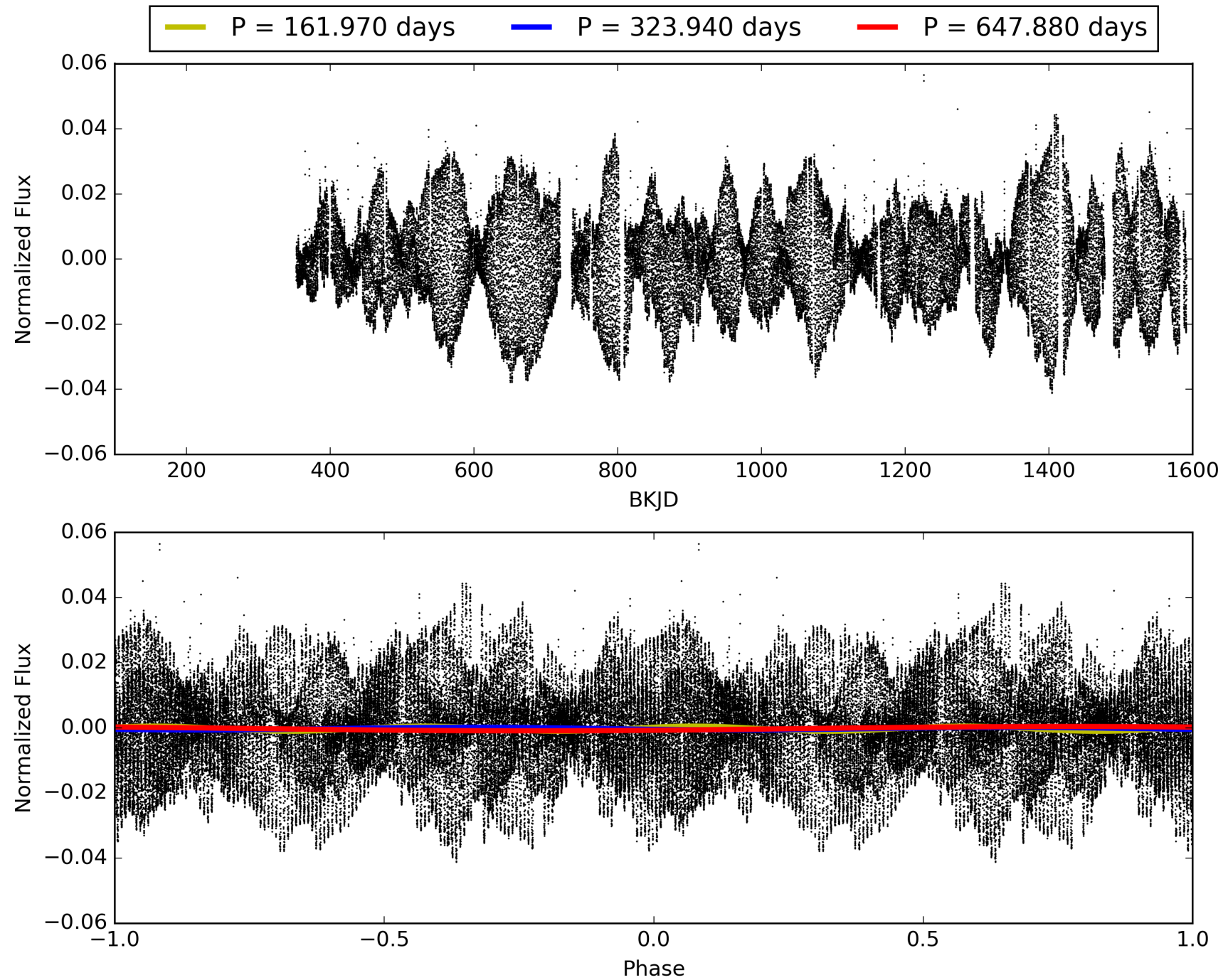
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006535319-02, PDC Light Curves

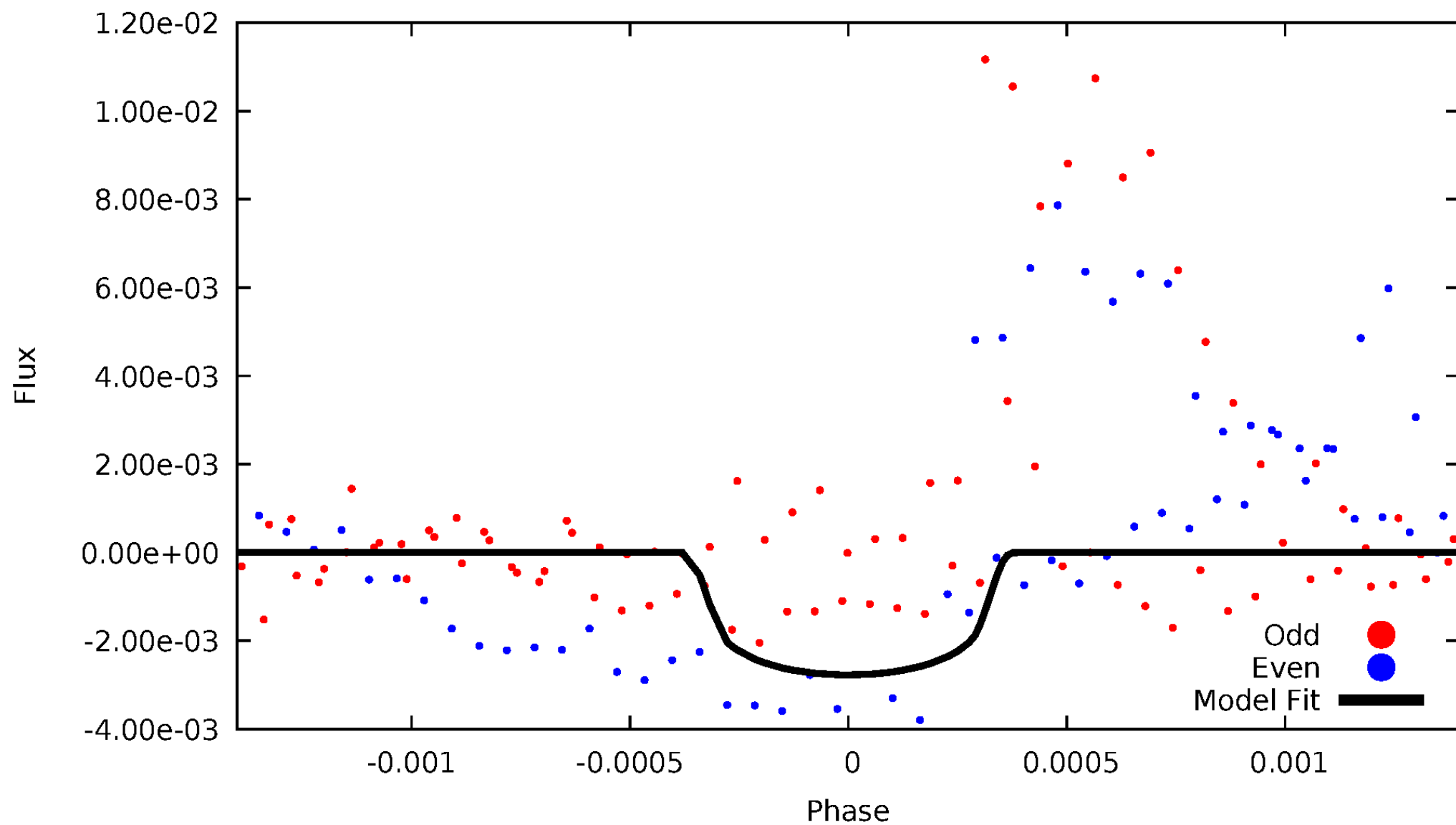


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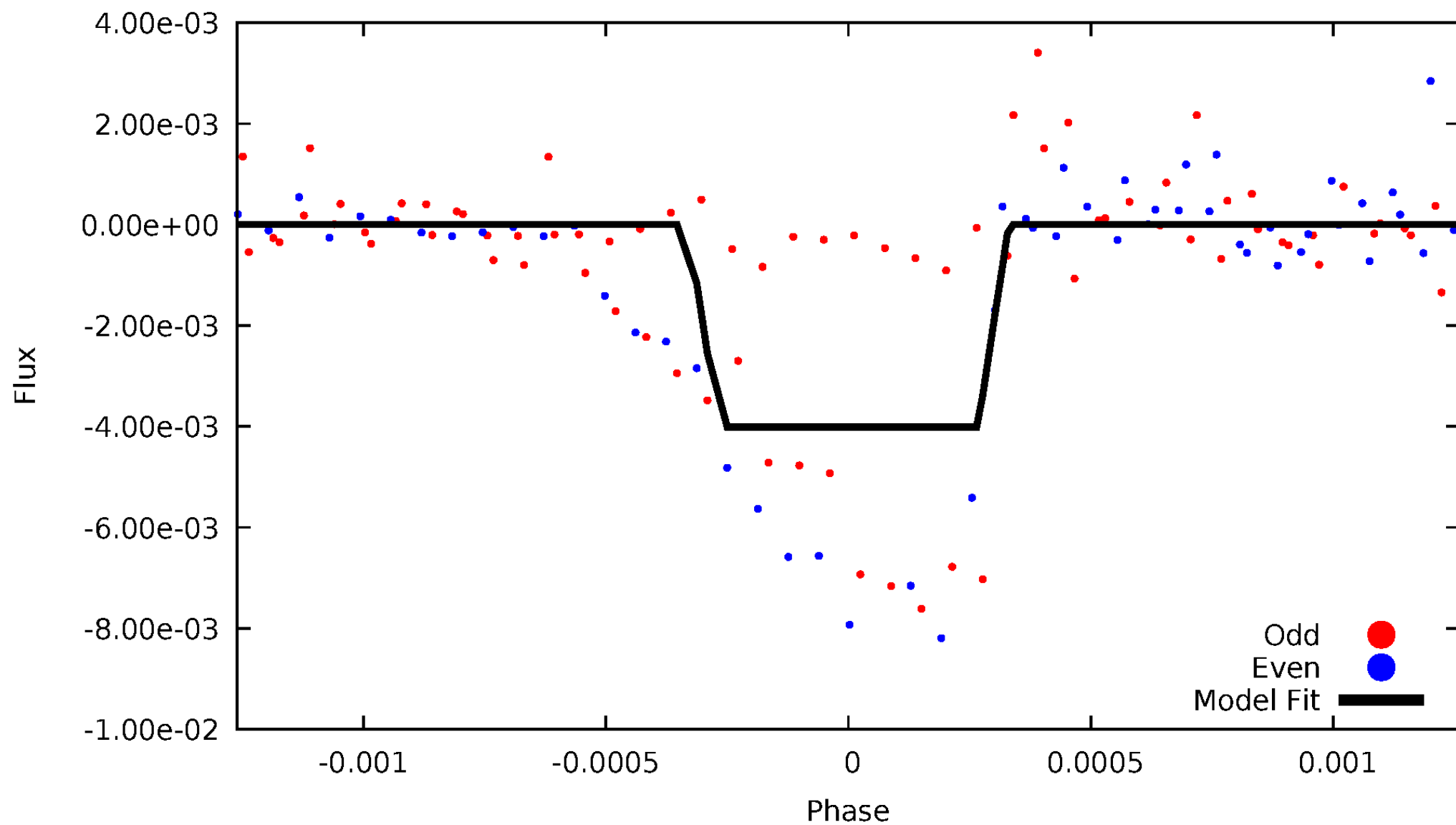
DV Odd/Even

TCE 006535319-02



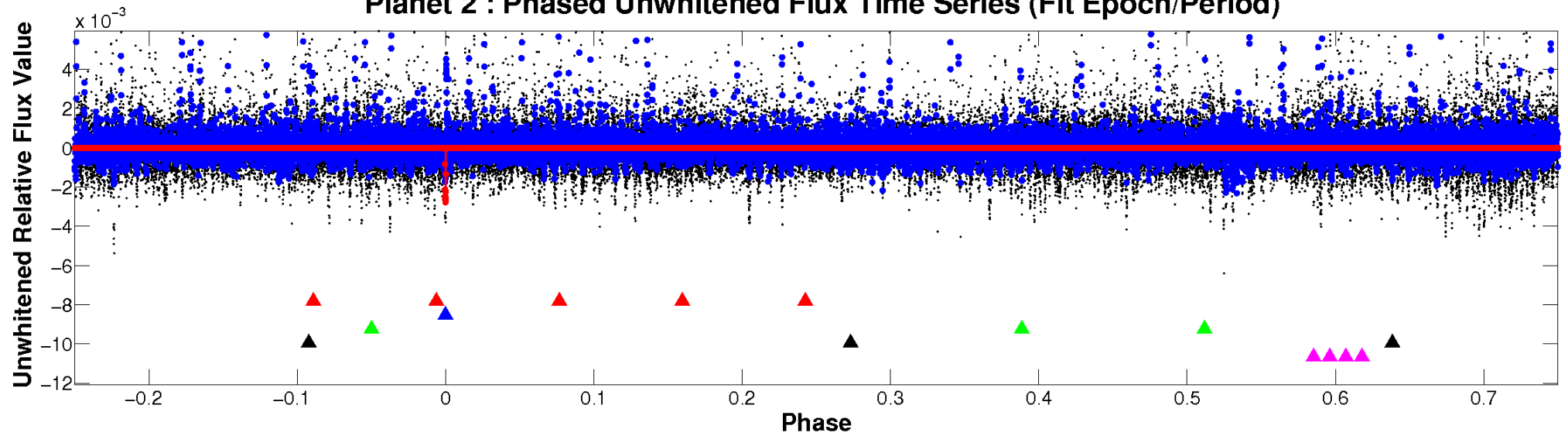
ALT Odd/Even

TCE 006535319-02

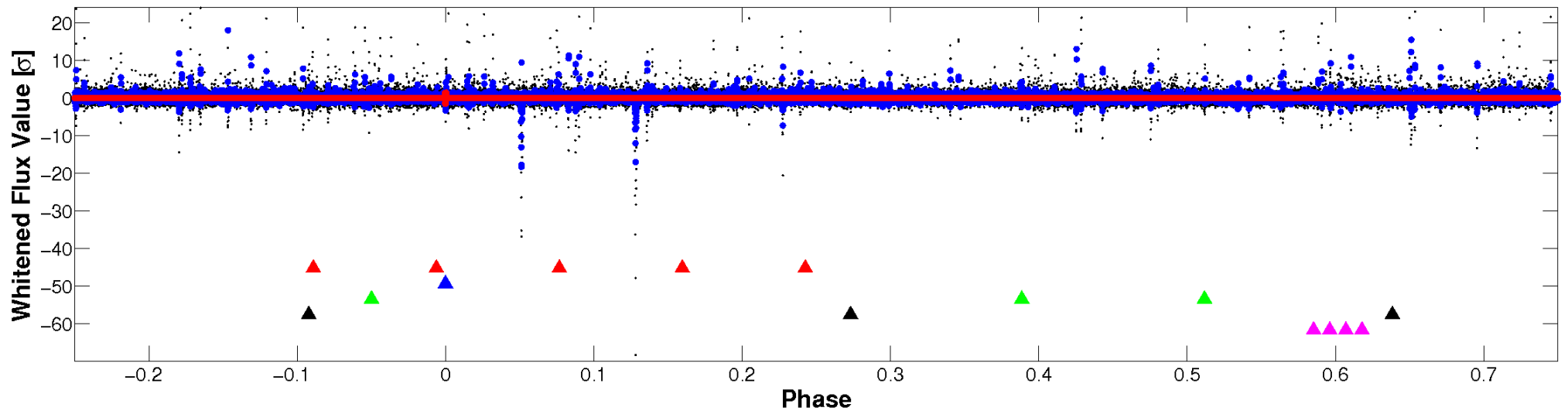


Non-Whitened Vs. Whitened Light Curve

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

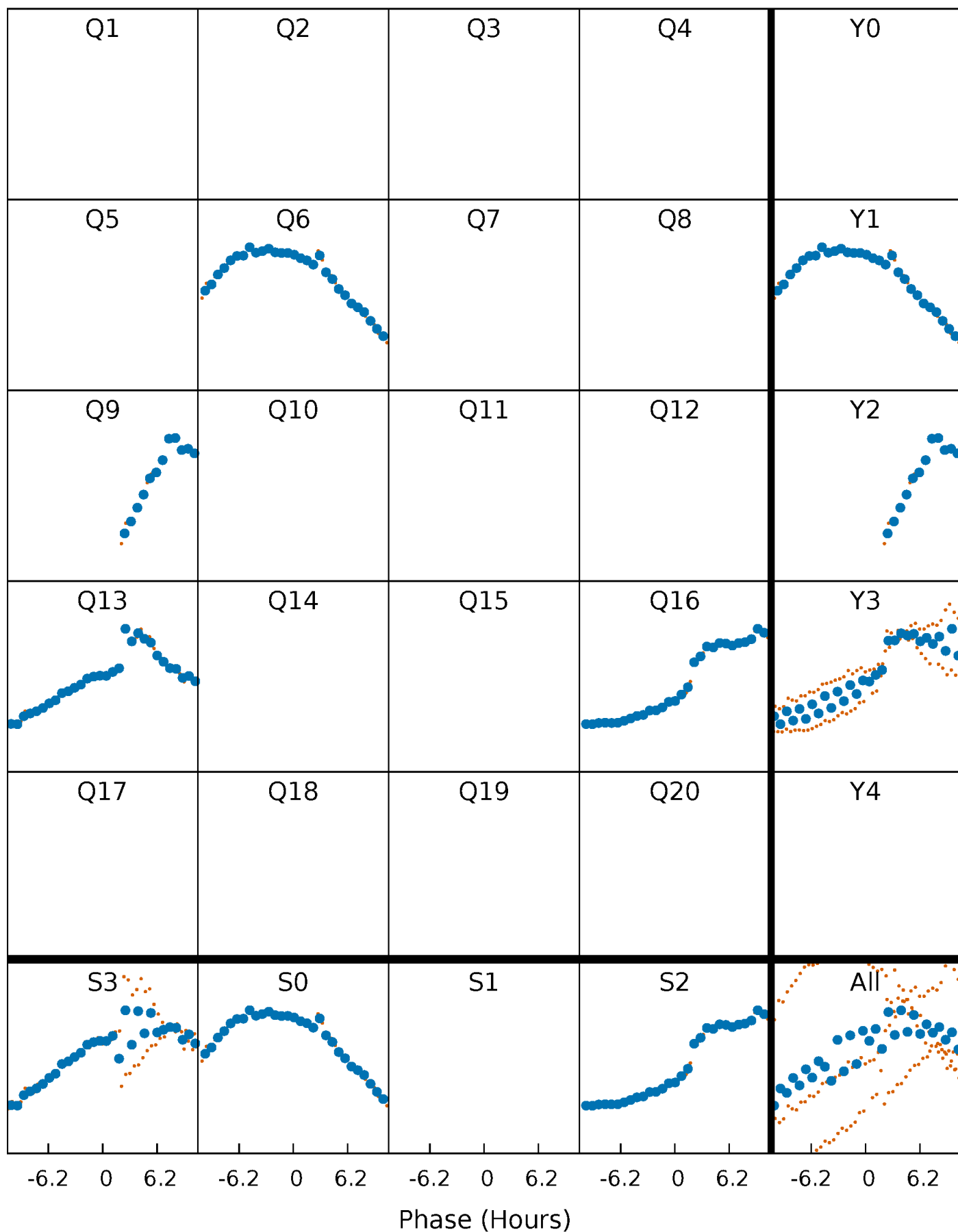


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



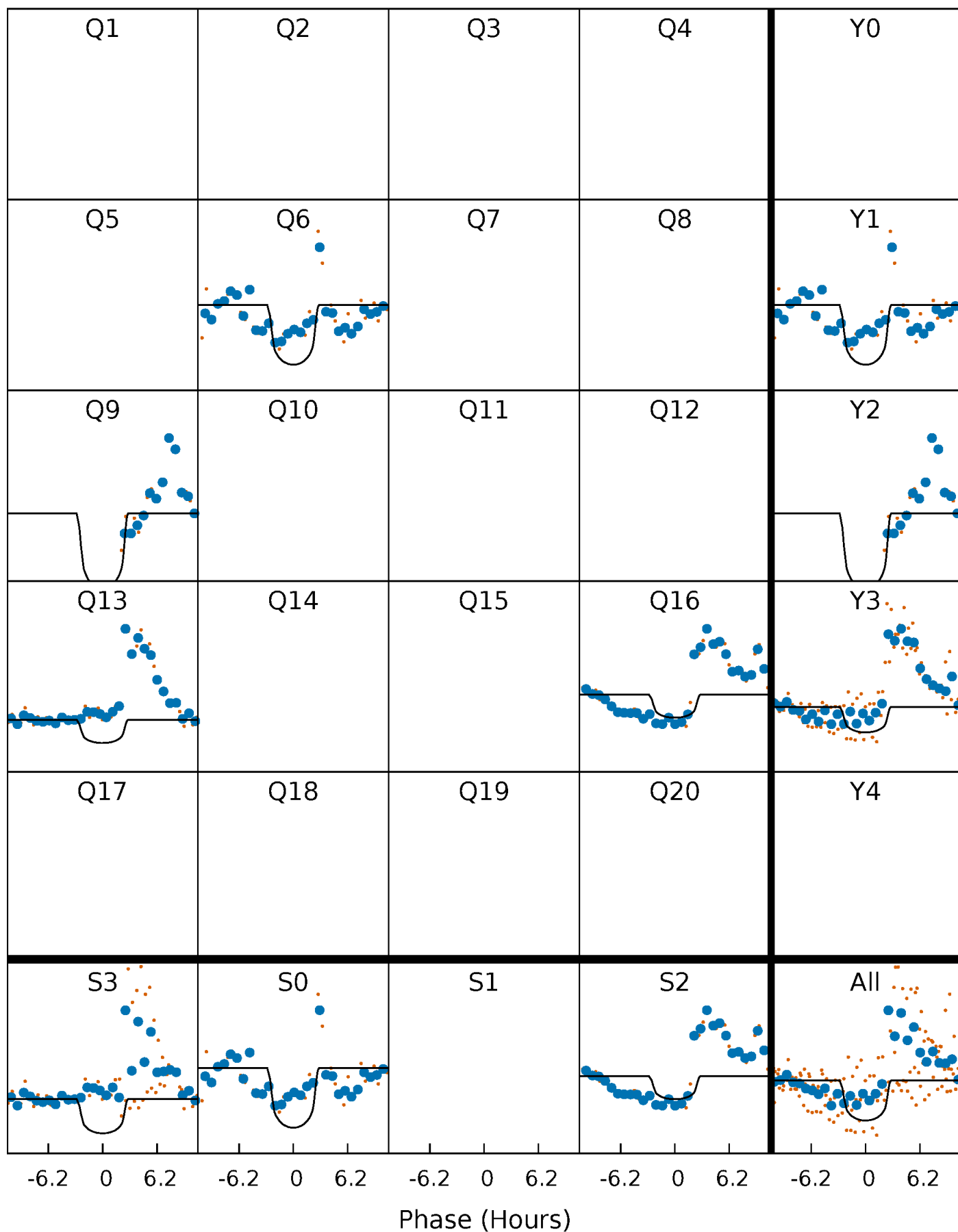
PDC Quarter-Phased Transit Curves

TCE 006535319-02 P=323.940177 Days $T_0=226.814469$ (BKJD)



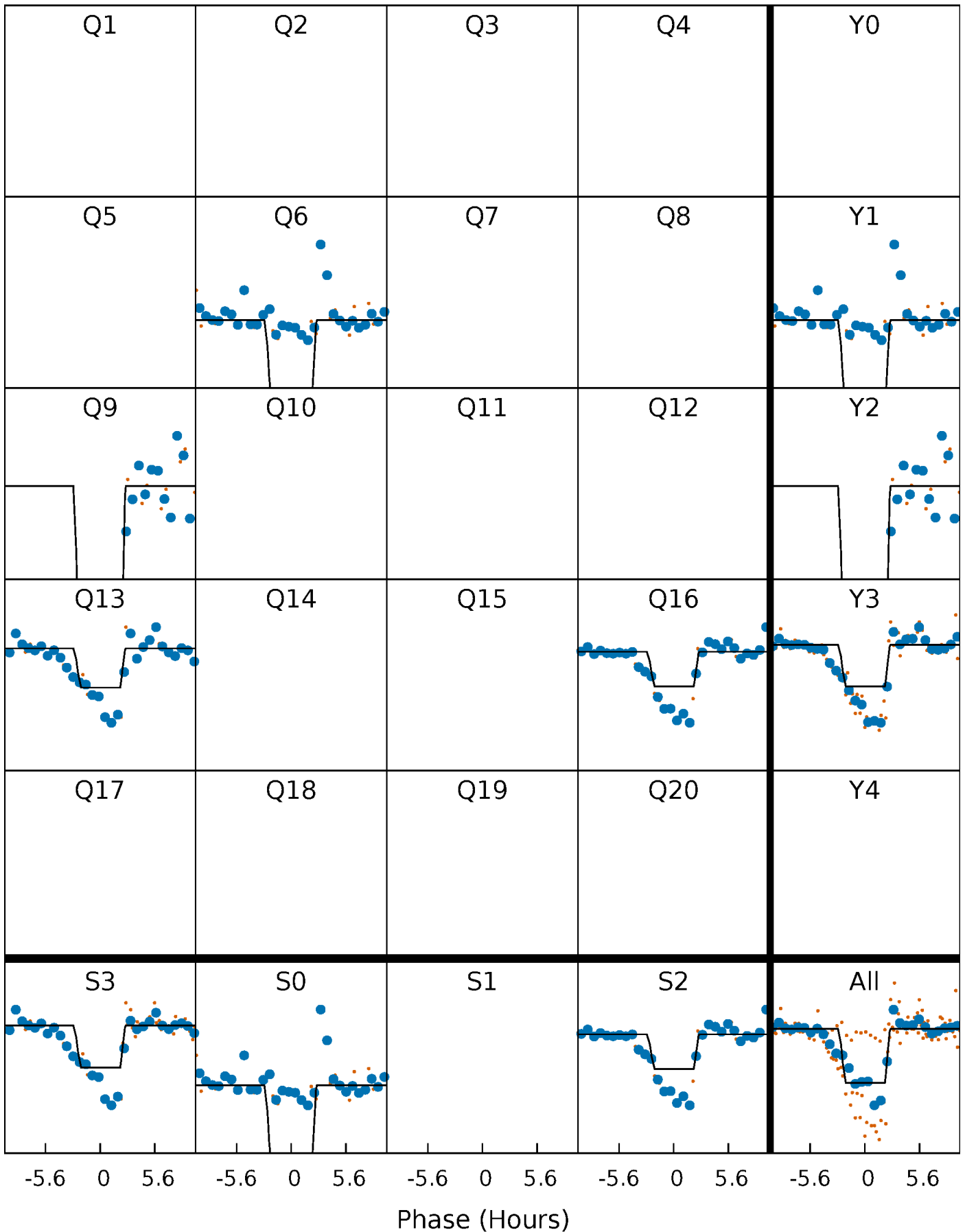
DV Quarter-Phased Transit Curves

TCE 006535319-02 P=323.940177 Days $T_0=226.814469$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

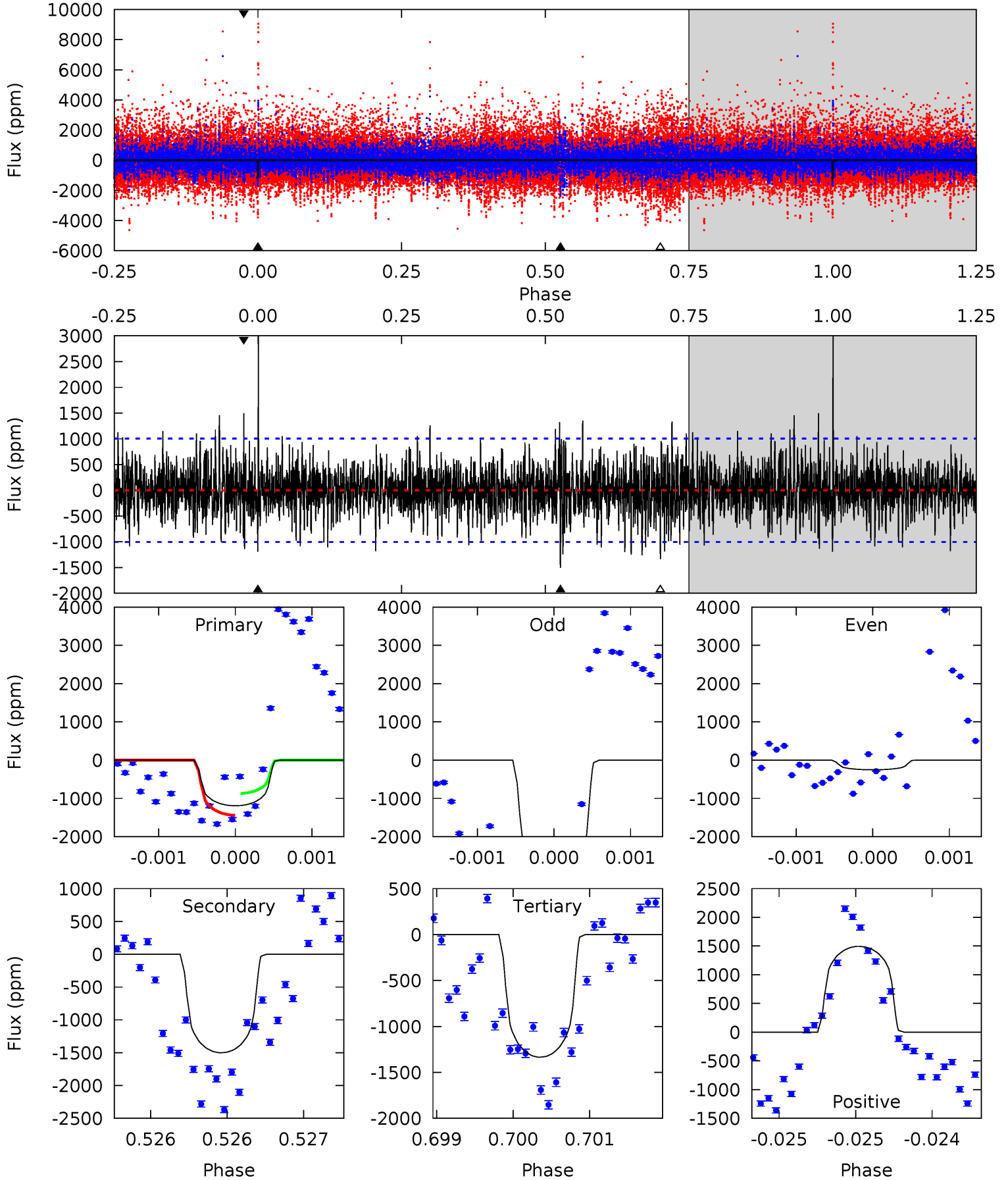
TCE 006535319-02 P=323.940038 Days $T_0=226.806125$ (BKJD)



DV Model-Shift Uniqueness Test

006535319-02, P = 323.940177 Days, E = 226.814469 Days

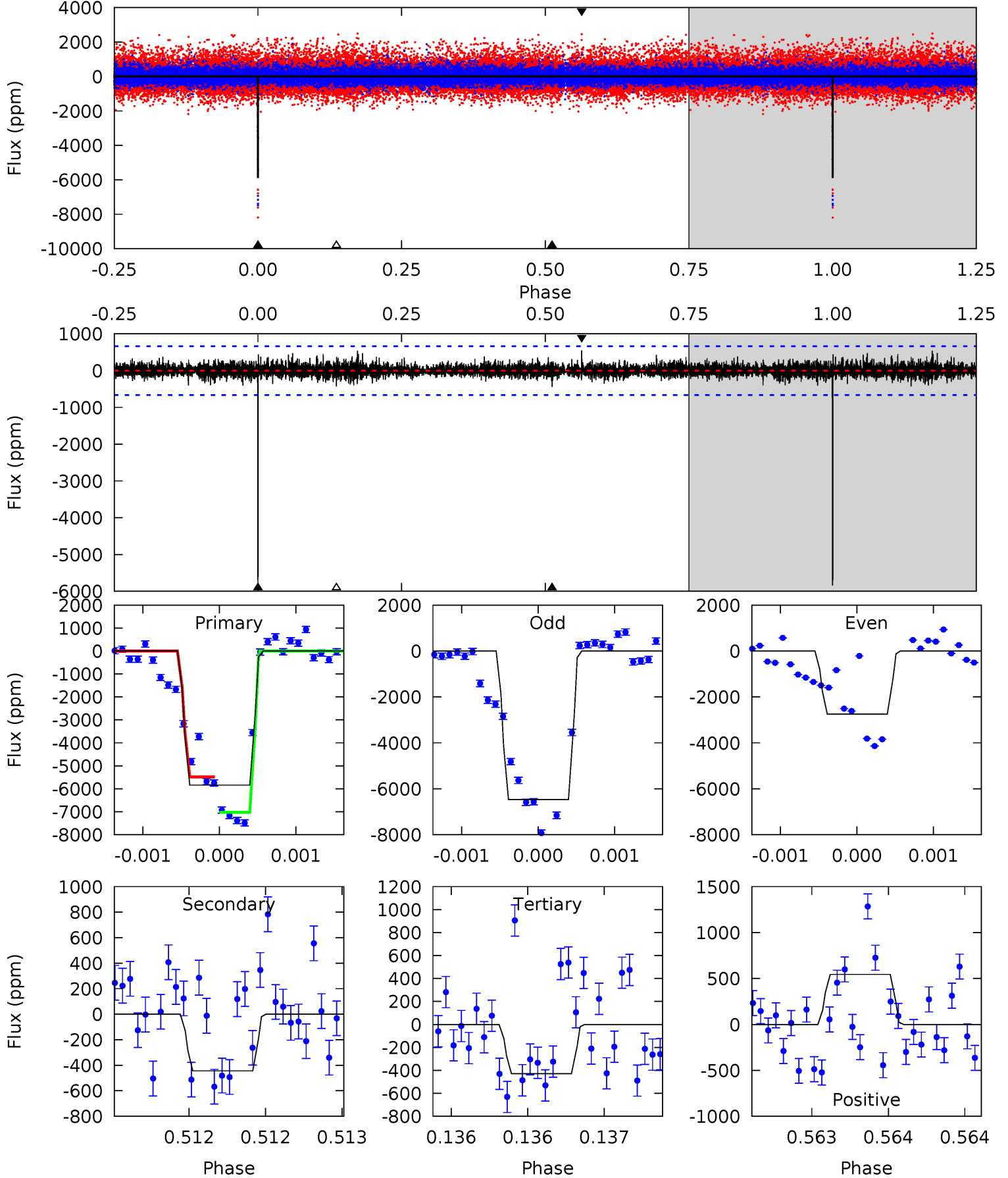
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.55	8.25	7.33	8.21	5.51	3.39	2.03	-0.79	-1.66	0.91	0.04	7.10	0.69	0.67	1.56



Alt Model-Shift Uniqueness Test

006535319-02, P = 323.940038 Days, E = 226.806125 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.7	3.70	3.58	4.54	5.53	3.41	0.81	45.2	44.2	0.13	-0.84	17.4	0.73	0.09	6.41



Stellar Parameters For KIC 006535319

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5245^{+203}_{-166}	$4.545^{+0.088}_{-0.072}$	$-0.480^{+0.350}_{-0.300}$	$0.738^{+0.092}_{-0.084}$	$0.695^{+0.103}_{-0.044}$	$2.440^{+0.918}_{-0.563}$
	+4%/-3%	+2%/-2%	+73%/-62%	+12%/-11%	+15%/-6%	+38%/-23%
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 006535319-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1502 ± 182	$4.08^{+2.36}_{-2.07}$	306^{+16}_{-14}	4731^{+1766}_{-798}	$33966^{+113000}_{-20526}$
Alt.	-443 ± 120	$5.15^{+2.54}_{-2.39}$	307^{+15}_{-14}	3483^{+881}_{-441}	6351^{+15547}_{-3817}

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 $A_{obs} \gg 1.0$

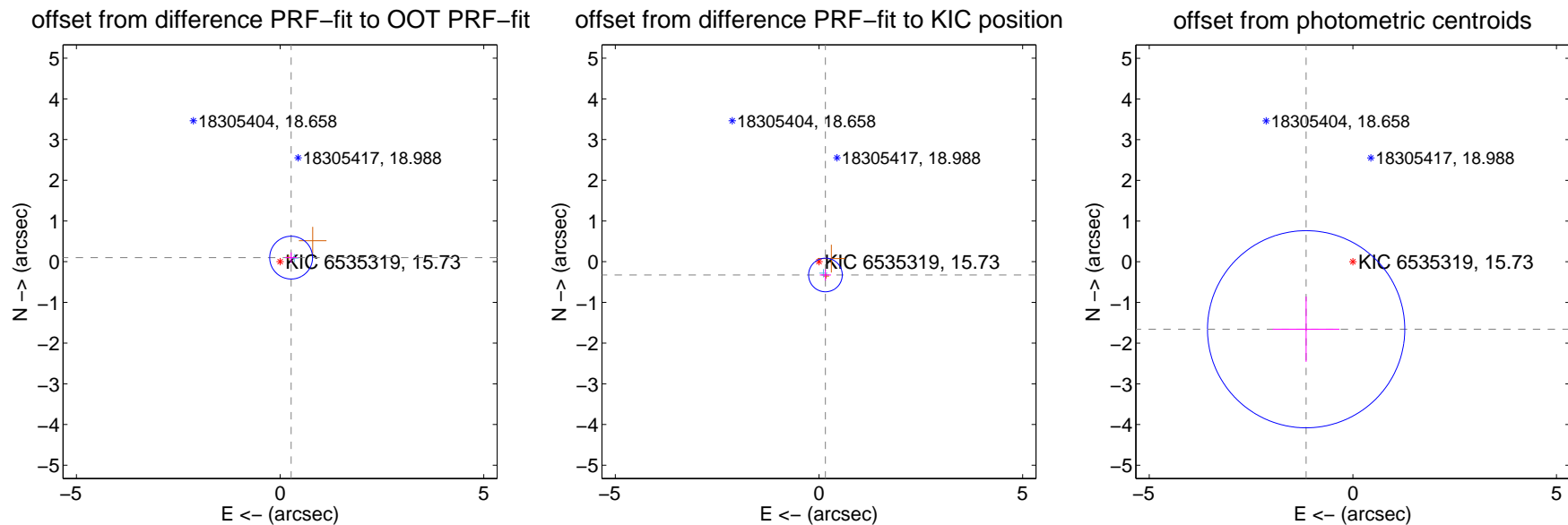
DV Centroid Data

Supplemental centroid analysis for 006535319-02. Kepler magnitude: 15.73. Transit SNR 8.87

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.289 ± 0.175	1.65	-0.271 ± 0.149	0.100 ± 0.129
PRF-fit source offset from KIC position	0.363 ± 0.138	2.64	-0.158 ± 0.138	-0.326 ± 0.138
photometric centroid source offset	2.02 ± 0.81	2.50	1.15 ± 0.82	-1.66 ± 0.80

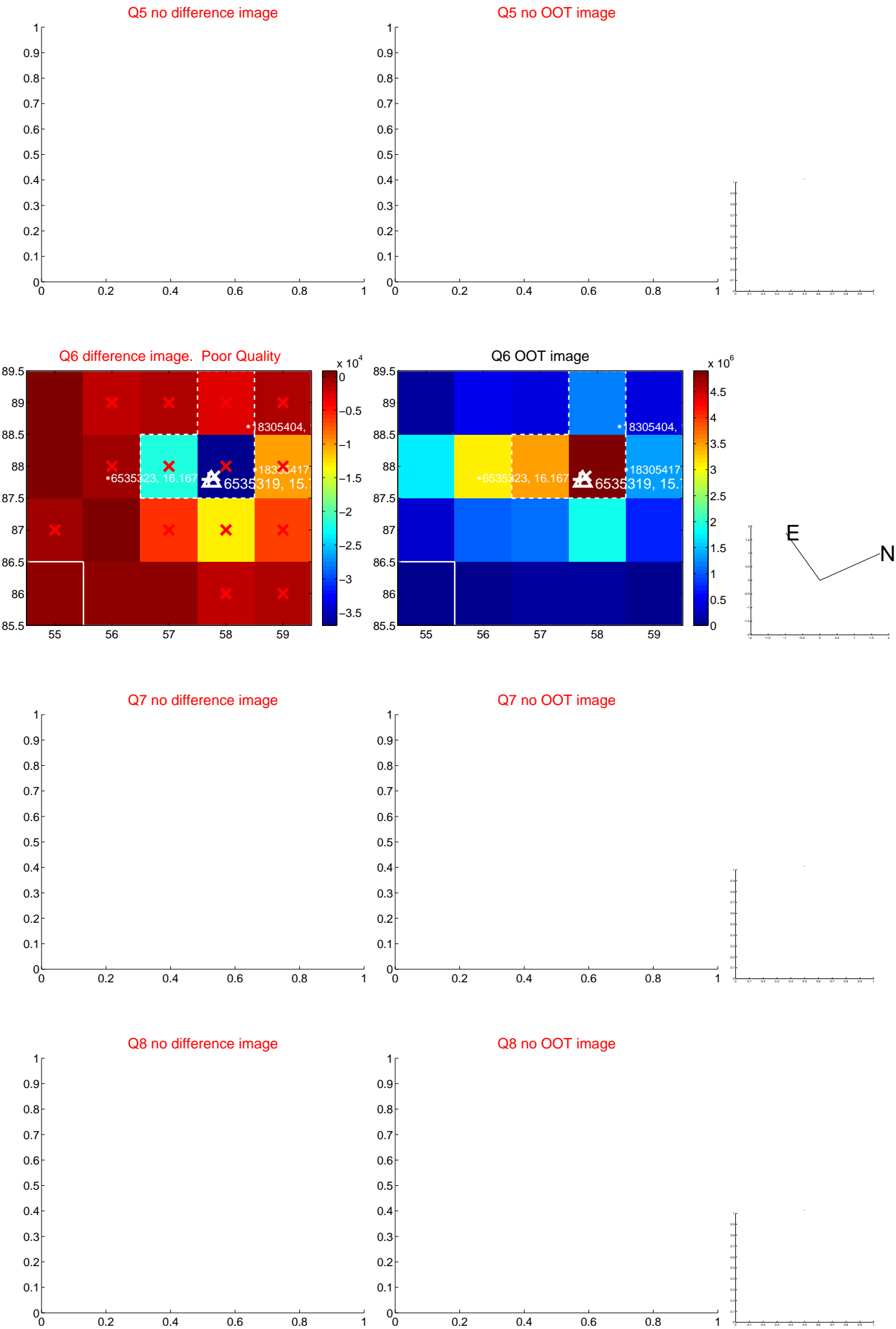


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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



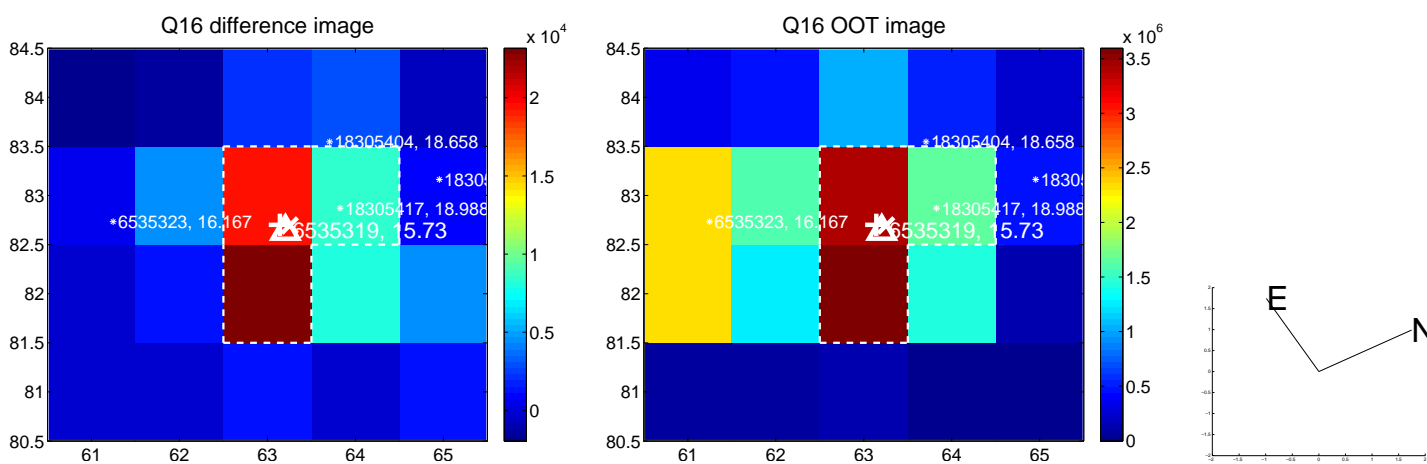
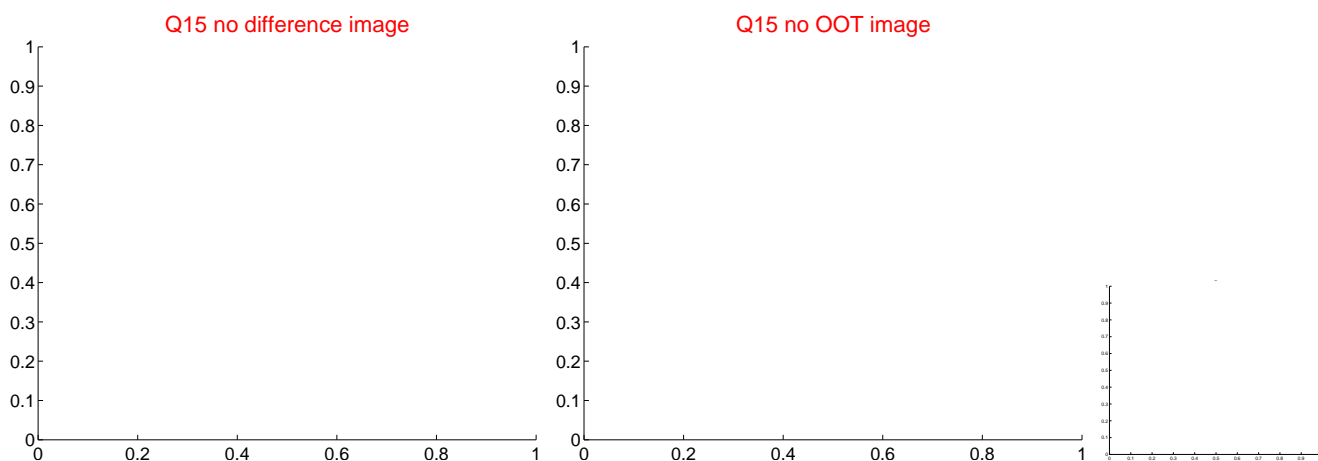
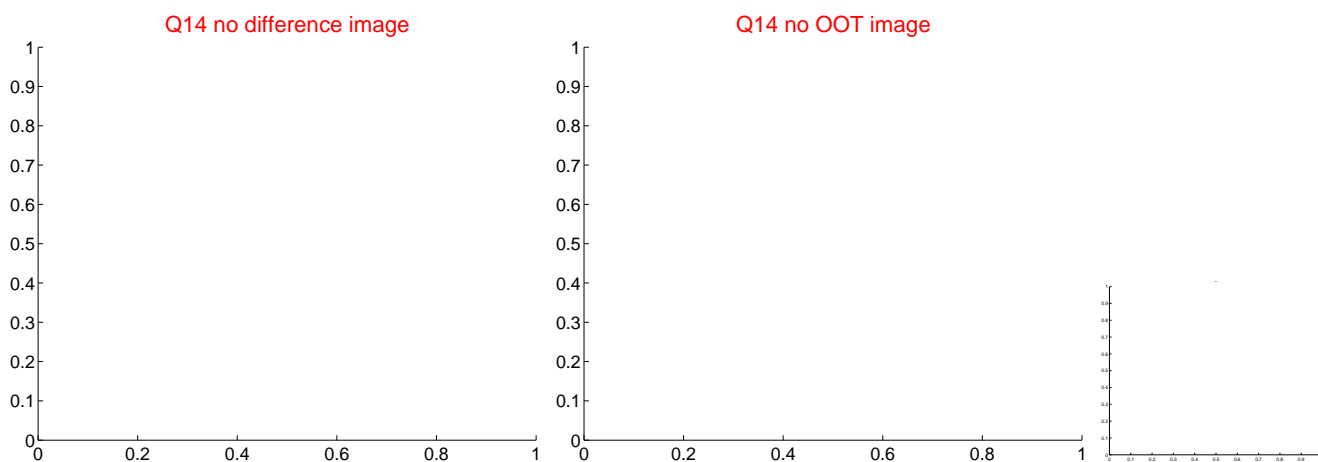
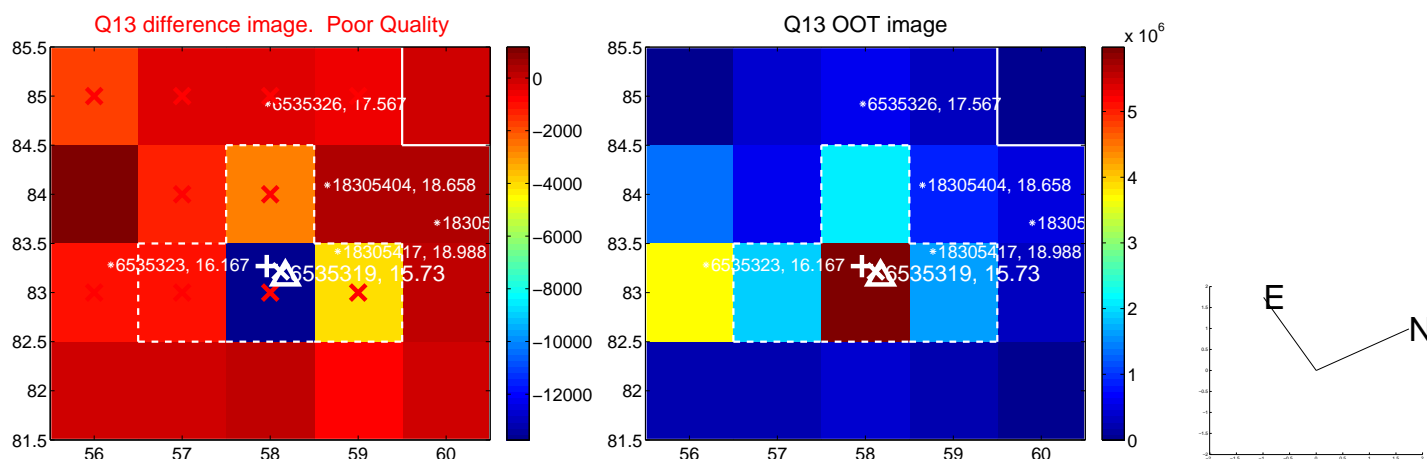
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



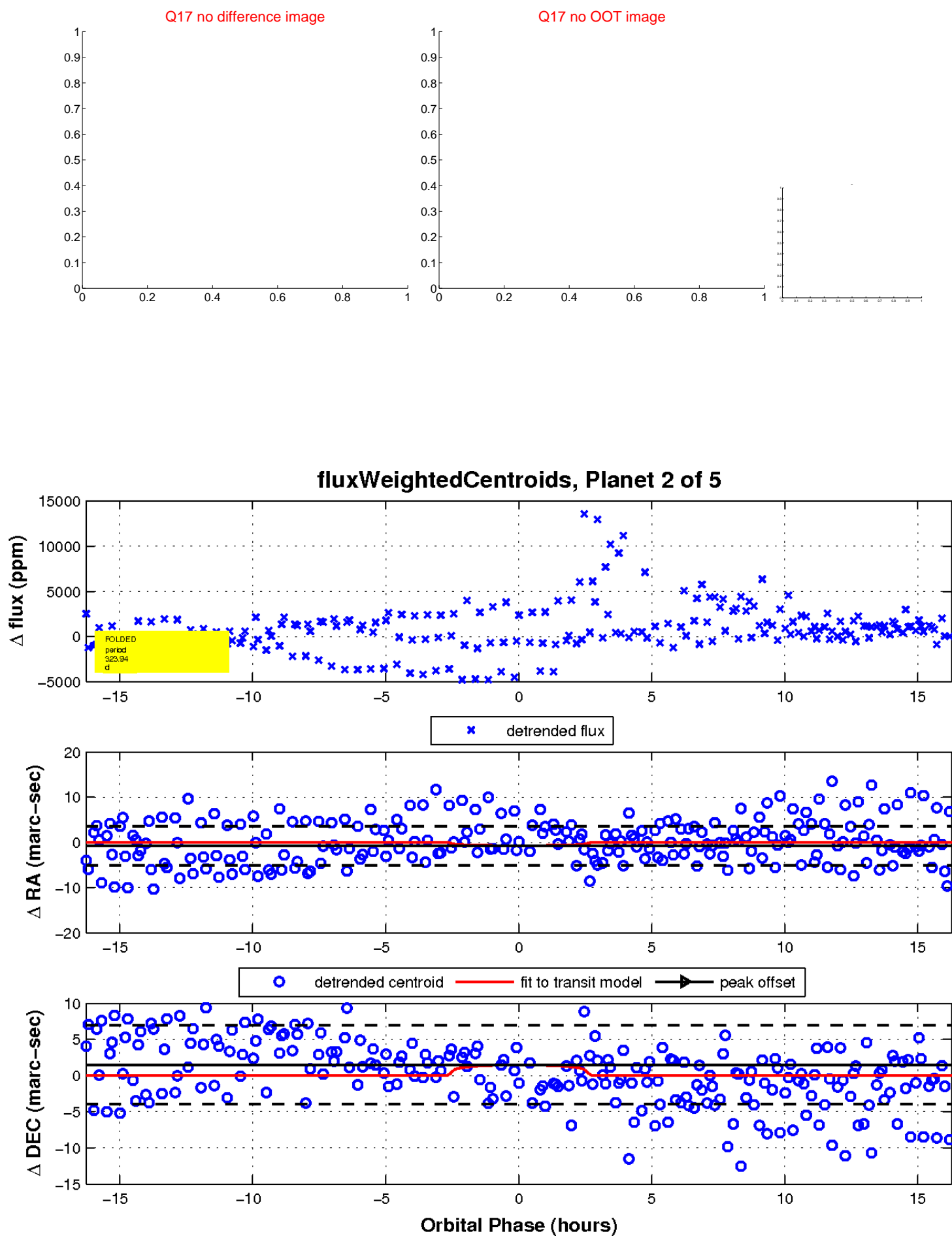
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

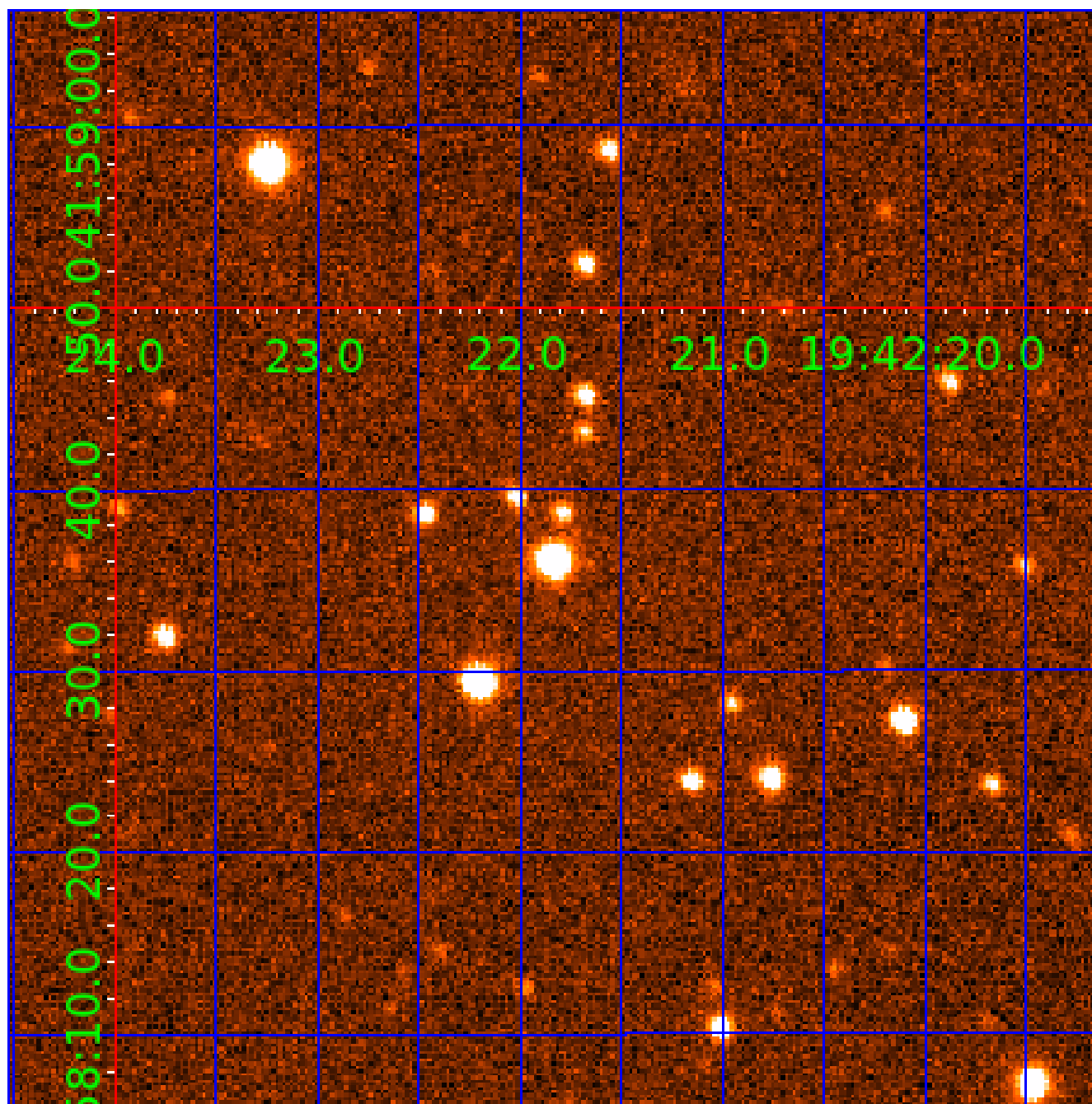


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006535319

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})
006535319-01	OBS	No	297.076231	305.410350	1924.3	4.110	12.8	6.8	0.74	5245	3.40	0.62
006535319-02	OBS	No	323.940177	226.814469	2770.8	5.440	14.4	8.9	0.74	5245	3.91	0.55
006535319-03	OBS	No	465.961427	392.582364	2307.8	3.210	12.6	7.1	0.74	5245	3.70	0.34
006535319-04	OBS	No	529.545496	433.630775	2380.4	4.098	12.2	6.8	0.74	5245	3.61	0.29
006535319-05	OBS	No	320.417452	426.995280	2485.6	3.522	11.0	7.6	0.74	5245	7.12	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006535319-01	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—CENT_FEW_DIFFS
006535319-02	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006535319-03	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—CENT_FEW_DIFFS
006535319-04	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
006535319-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

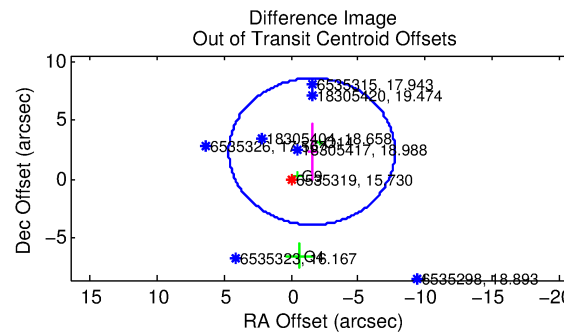
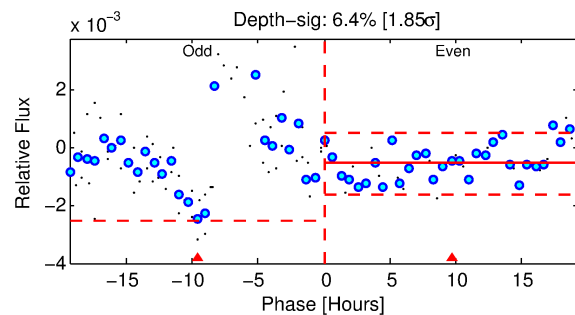
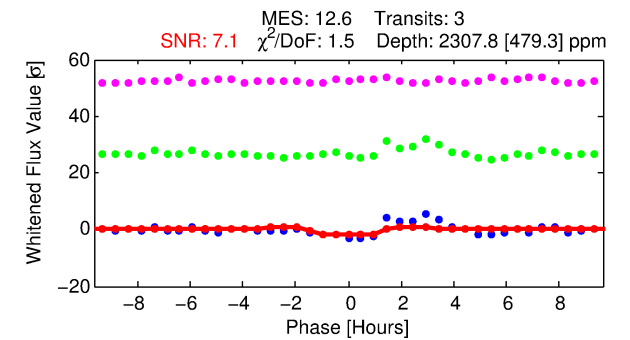
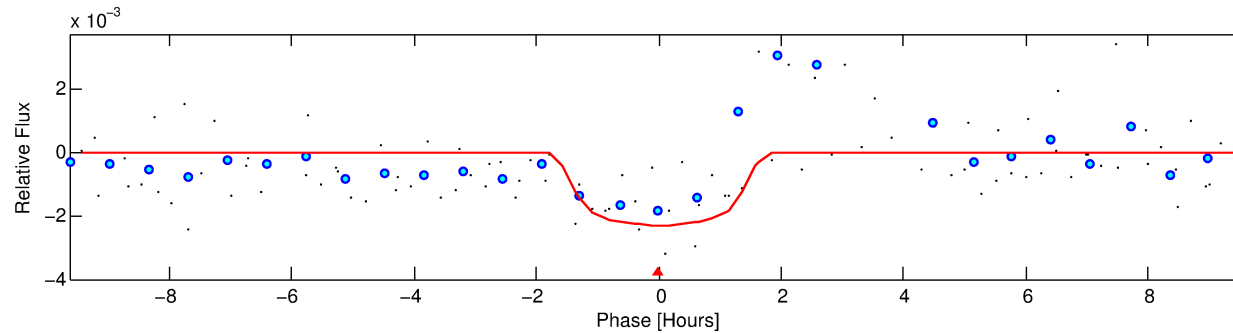
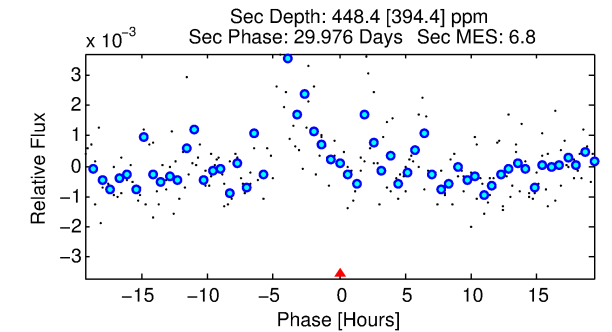
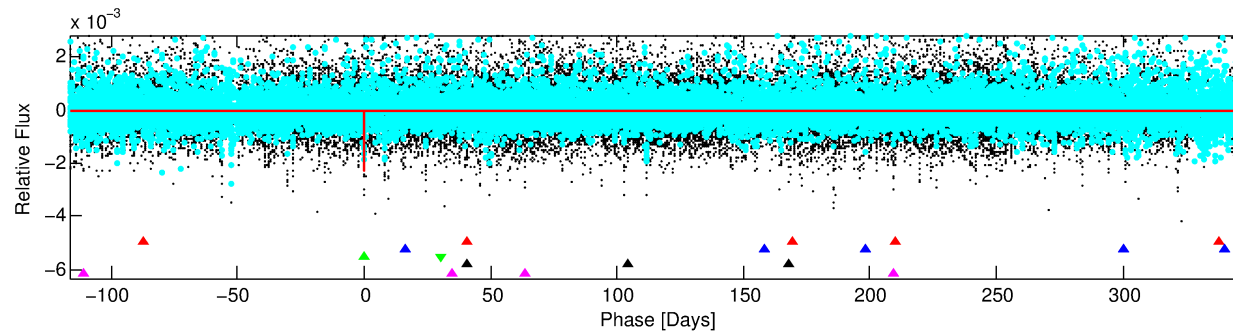
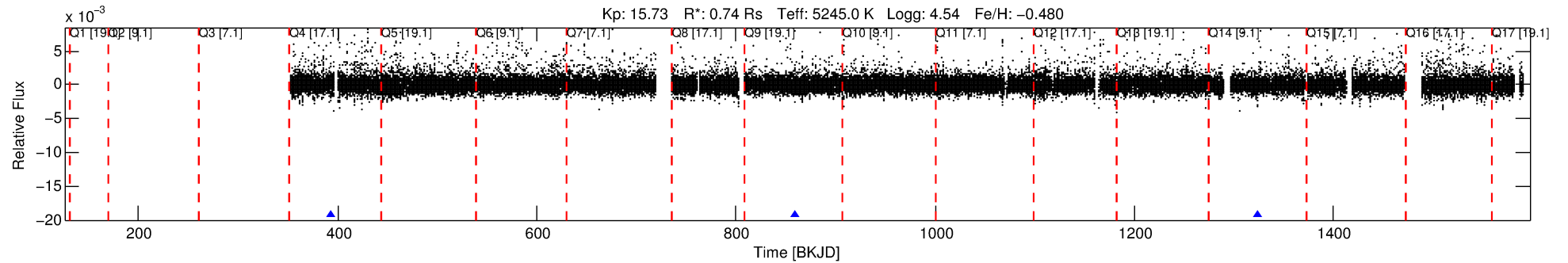
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006535319-03

No Significant Match Found

DV One-Page Summary

KIC: 6535319 Candidate: 3 of 5 Period: 465.961 d



DV Fit Results:

Period = 465.96143 [0.00774] d
Epoch = 392.5824 [0.0108] BKJD
Rp/R* = 0.0460 [0.1600]
a/R* = 932.50 [12730.03]
b = 0.62 [13.69]
Seff = 0.34 [0.08]
Teq = 195 [11] K
Rp = 3.70 [12.89] Re
a = 1.0430 [0.1117] AU
Ag = 19583.30 [137430.79] [0.14 σ]
Teffp = 3560 [6245] K [0.54 σ]

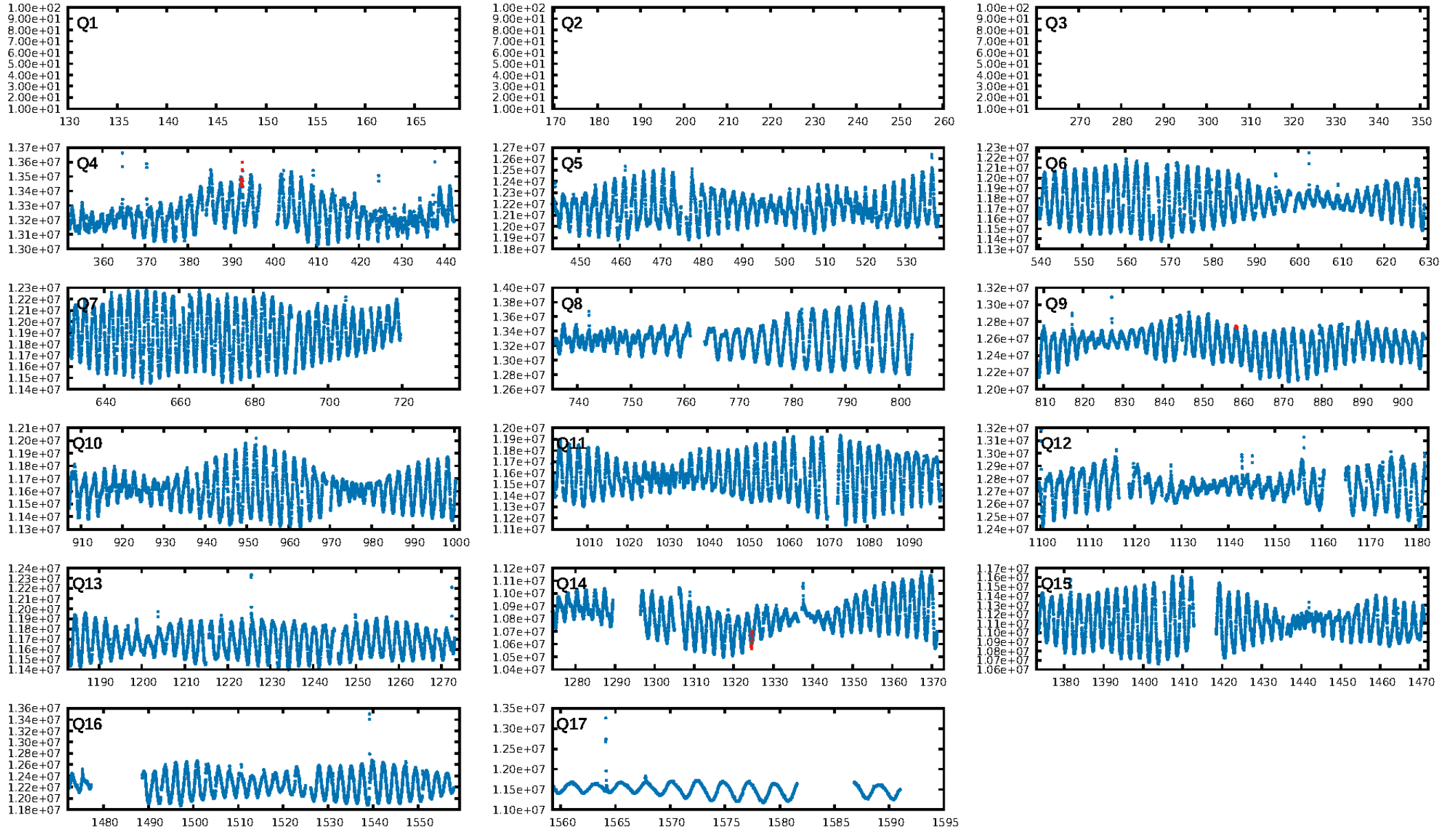
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [539.64 σ]
LongPeriod-sig: 100.0% [293.14 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 11.5%
Bootstrap-pfa: 1.09e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -6.345
Centroid-sig: 80.6%
Centroid-so: 1.782 arcsec [1.86 σ]
OotOffset-rm: 2.827 arcsec [1.37 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-rm: 0.419 arcsec [0.21 σ]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

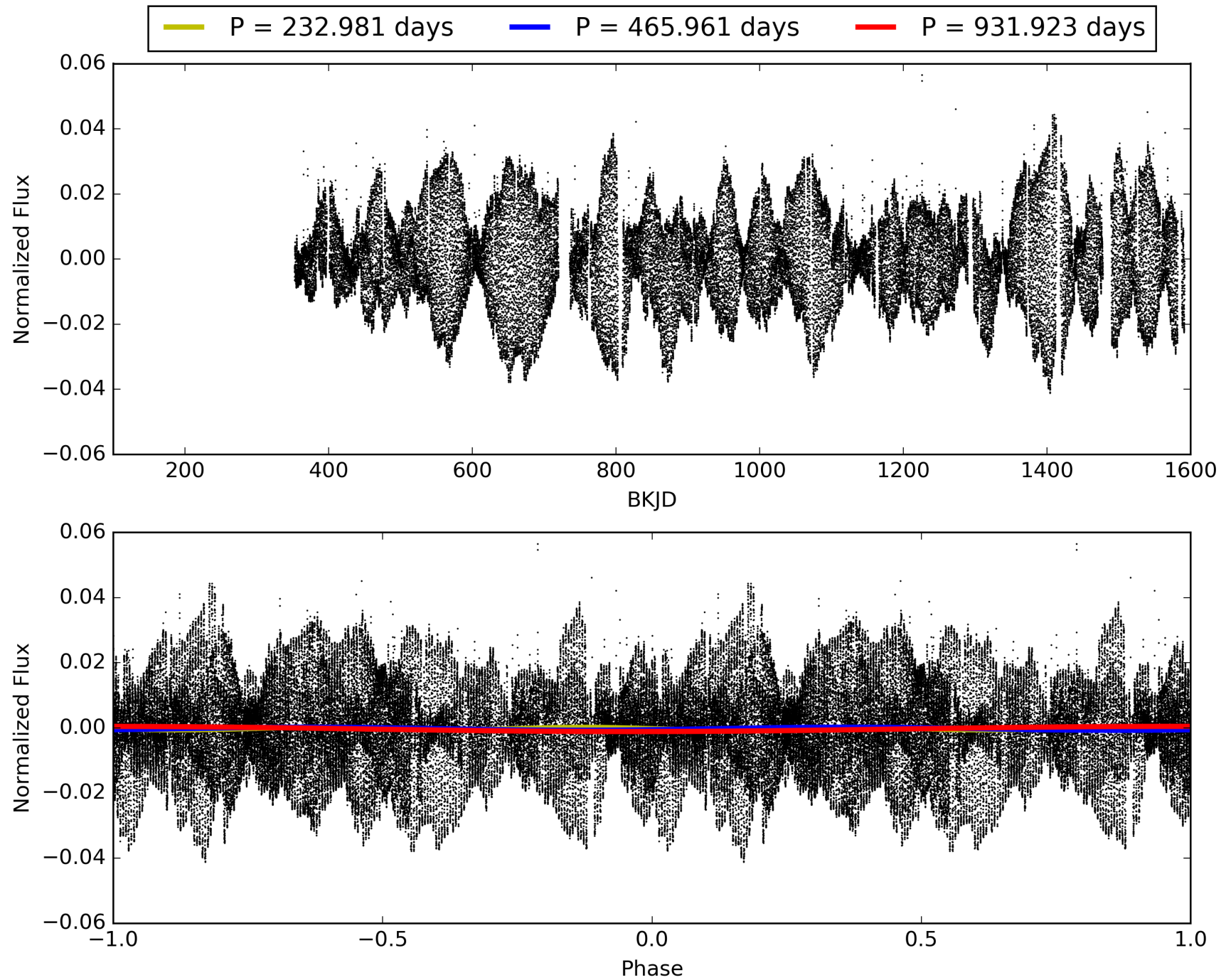
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 06:24:52 Z

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

TCE 006535319-03, PDC Light Curves

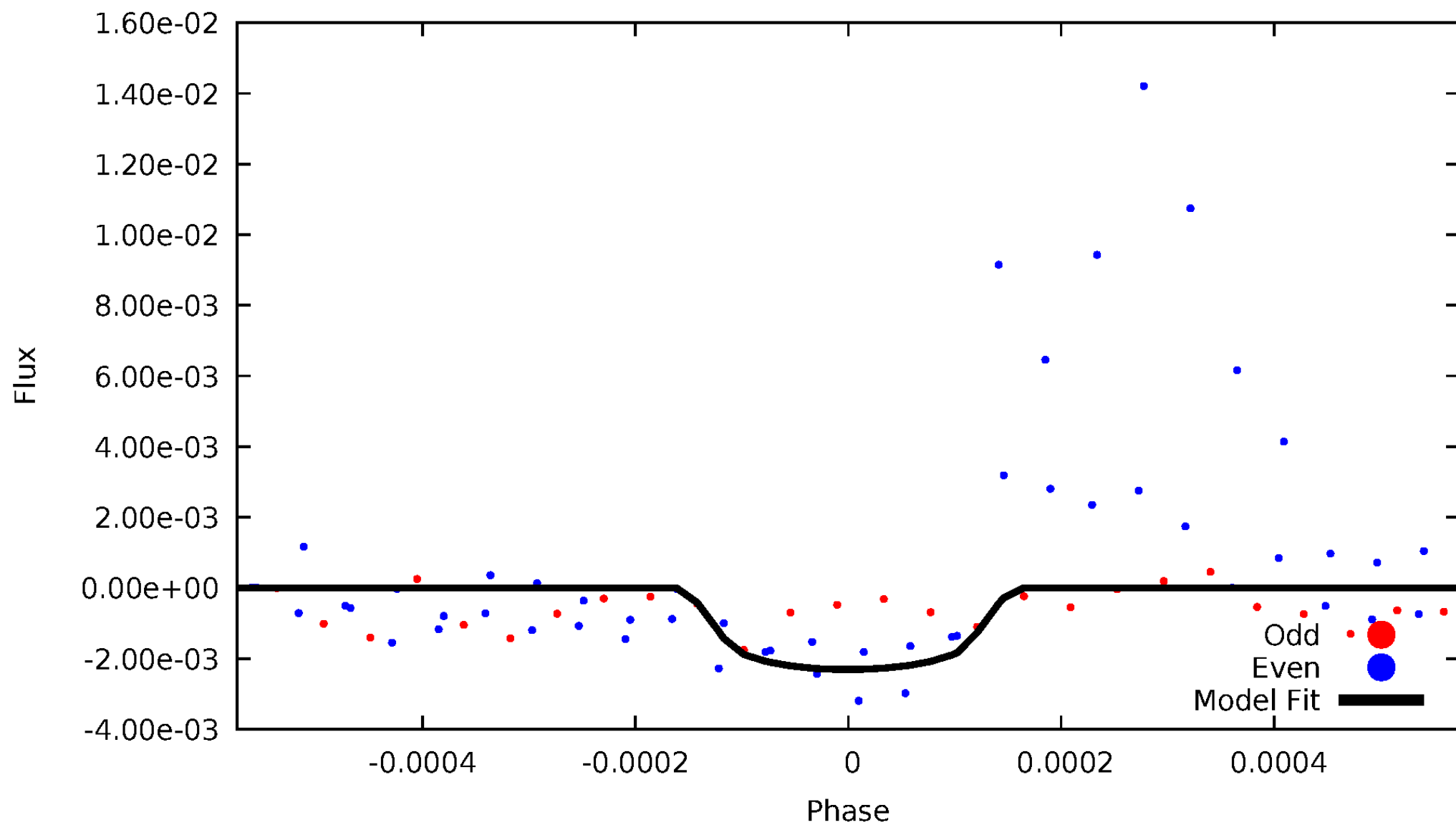


TCE 006535319-03



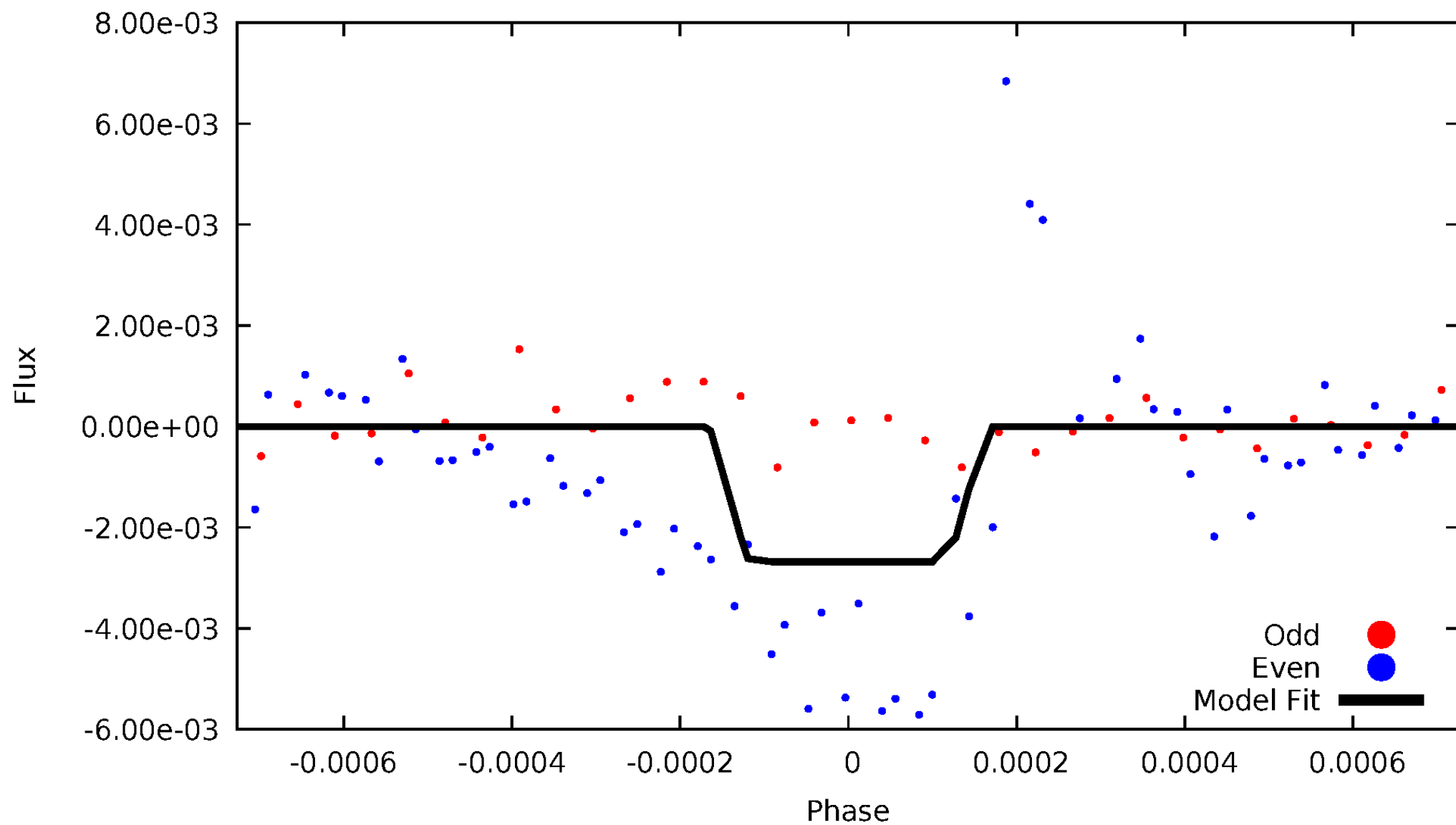
DV Odd/Even

TCE 006535319-03

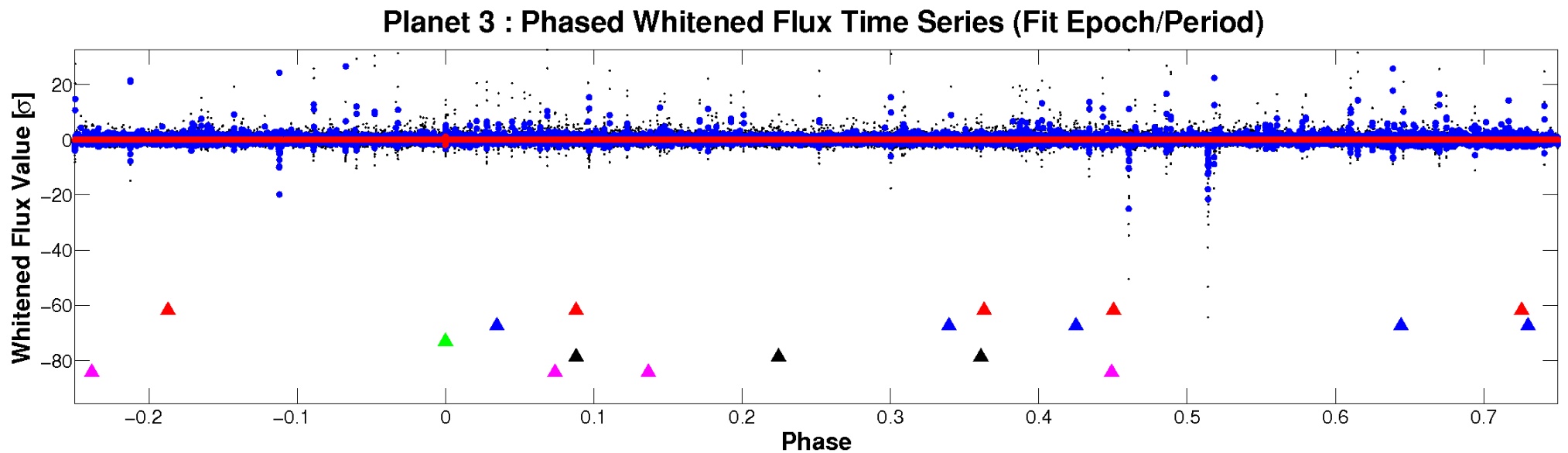
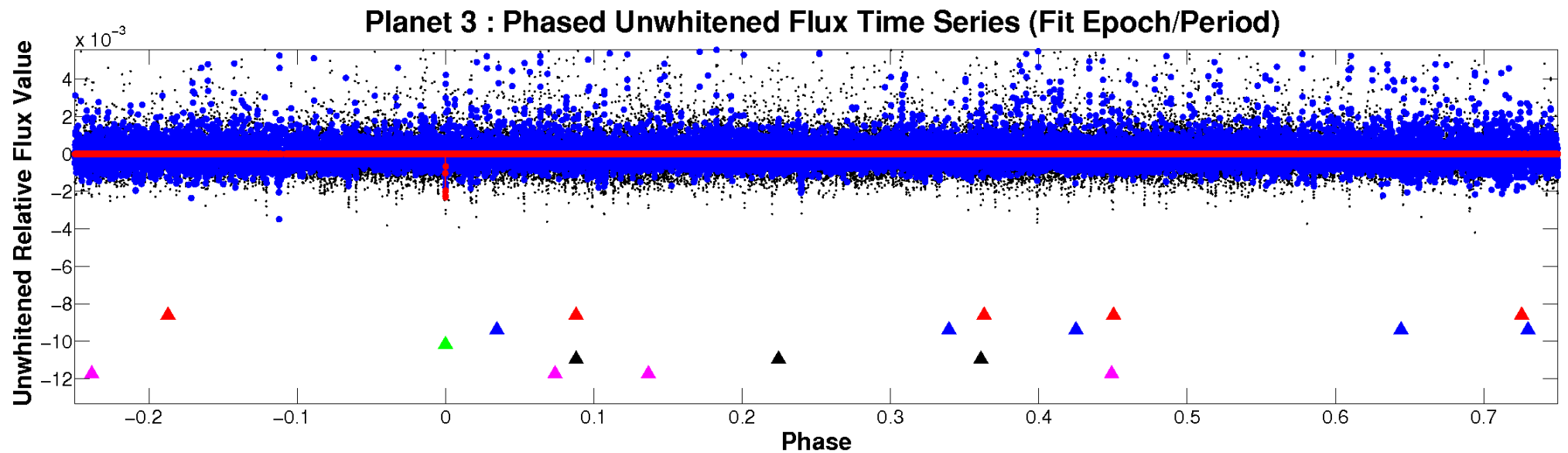


ALT Odd/Even

TCE 006535319-03

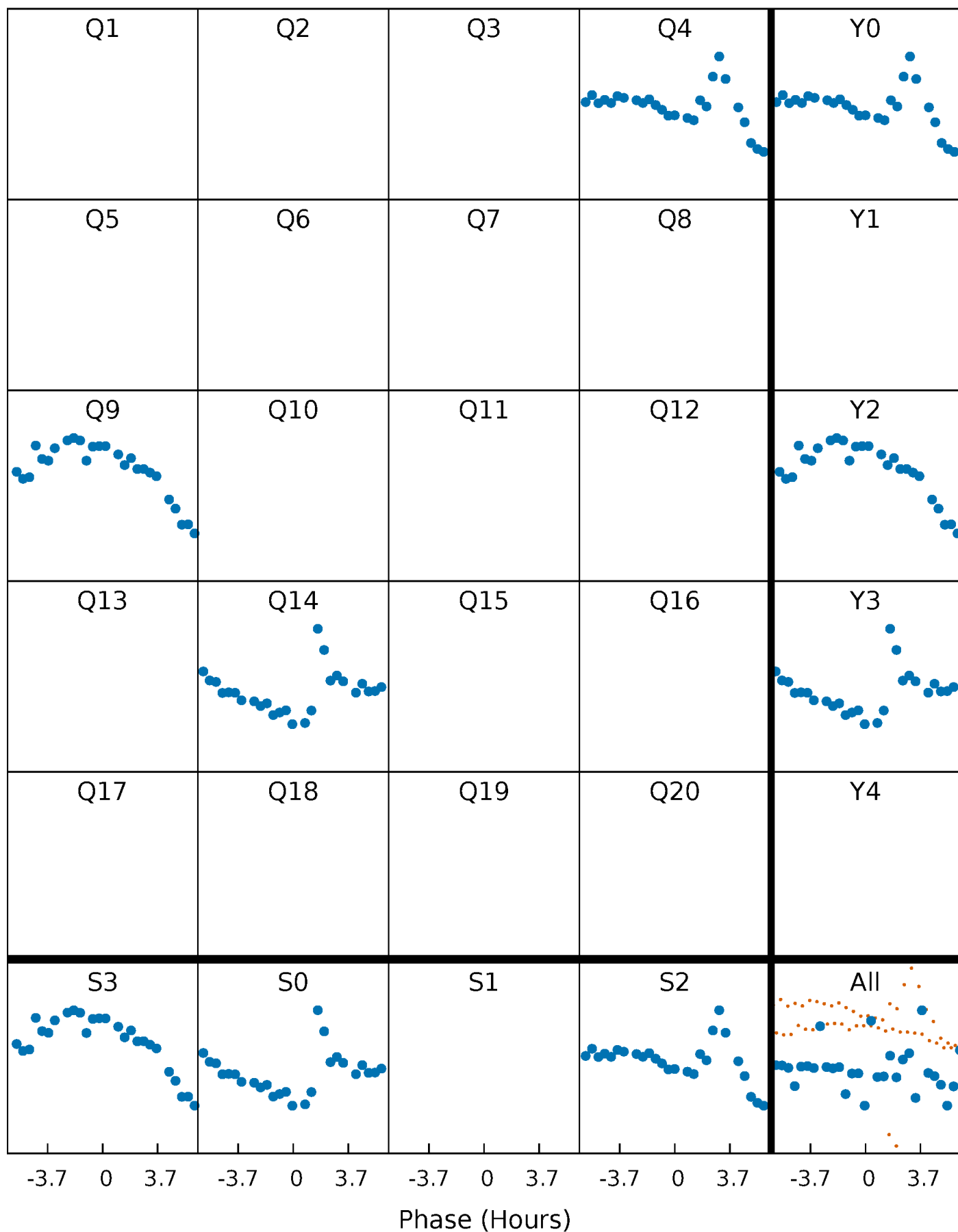


Non-Whitened Vs. Whitened Light Curve



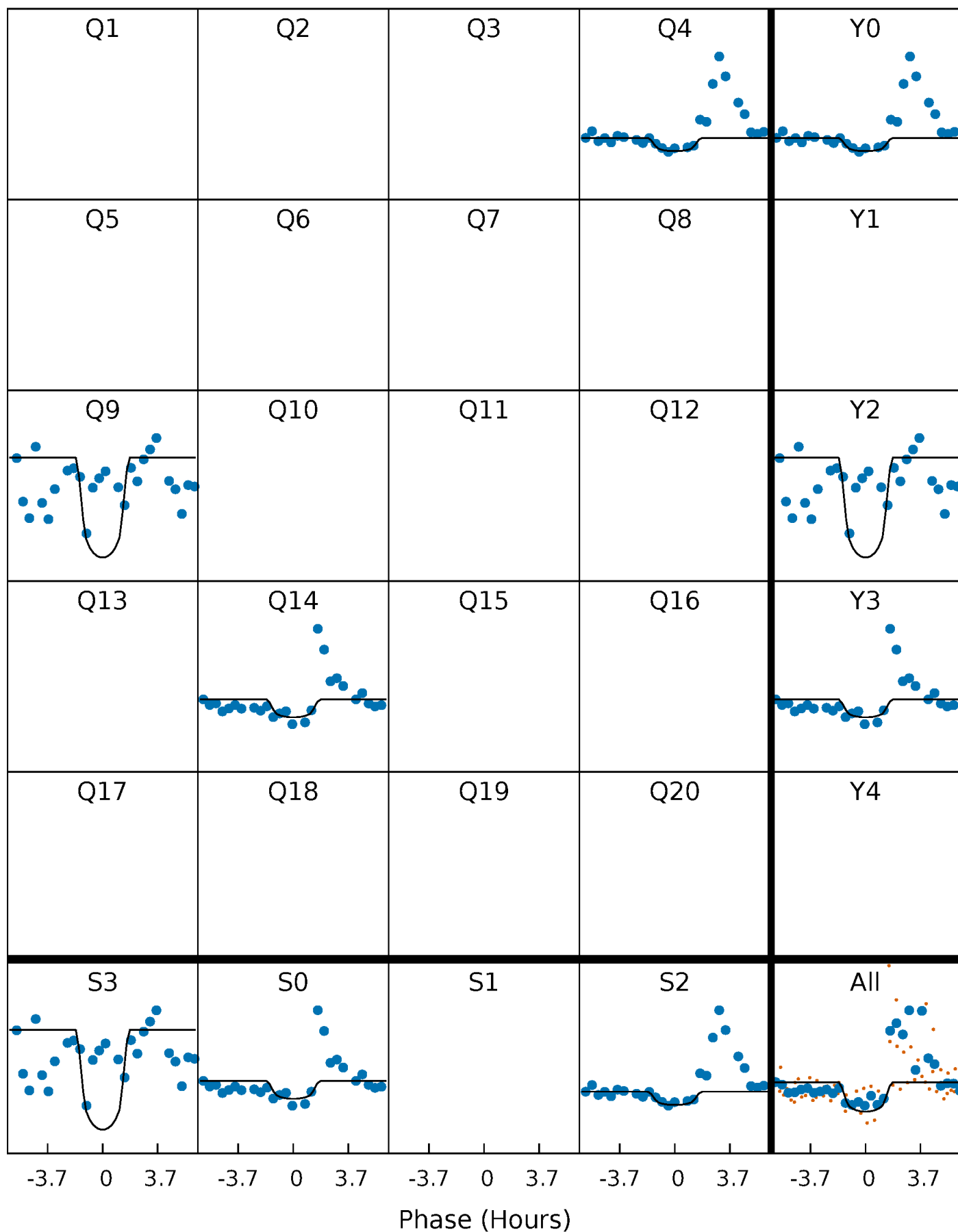
PDC Quarter-Phased Transit Curves

TCE 006535319-03 P=465.961427 Days $T_0=392.582364$ (BKJD)



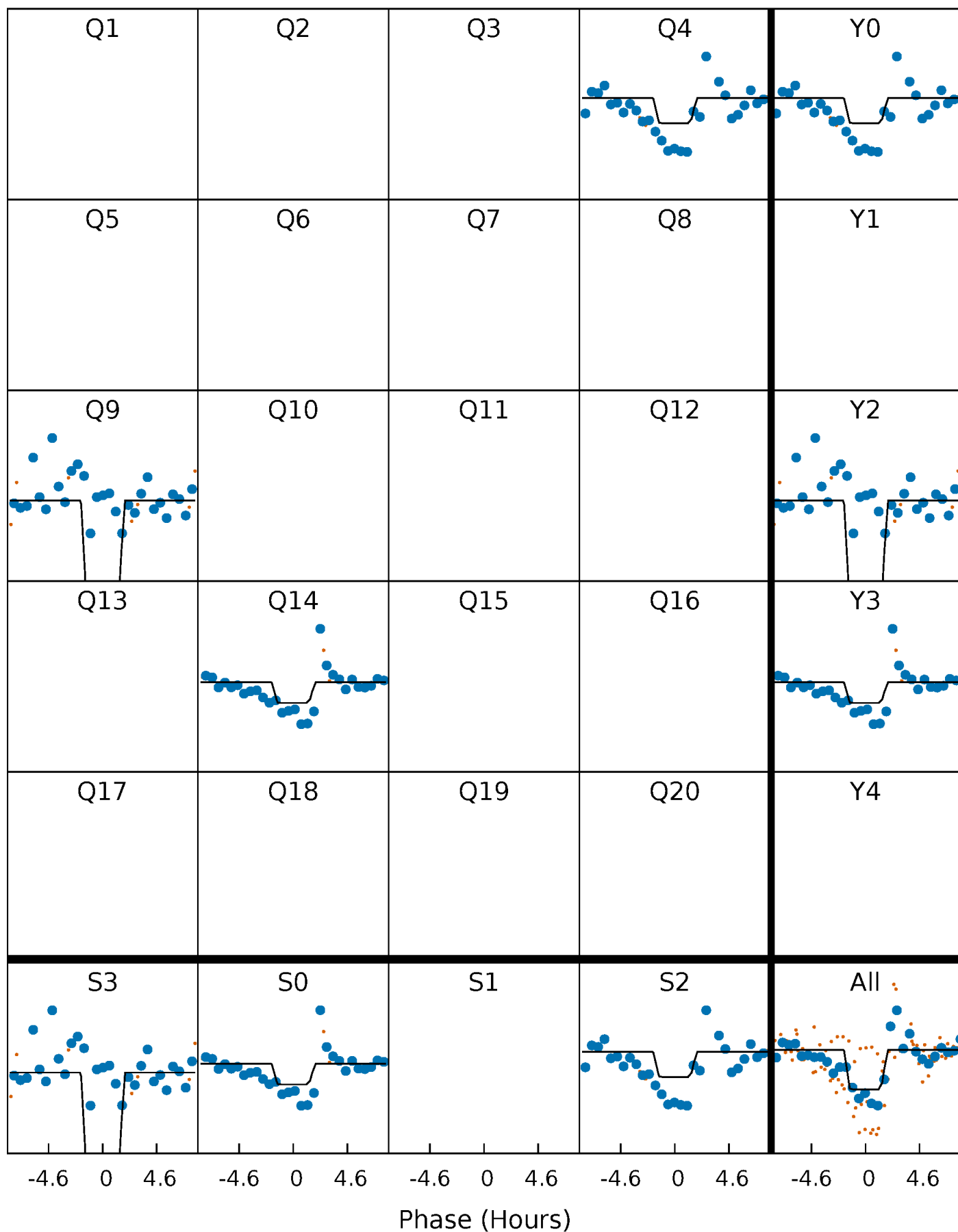
DV Quarter-Phased Transit Curves

TCE 006535319-03 P=465.961427 Days $T_0=392.582364$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

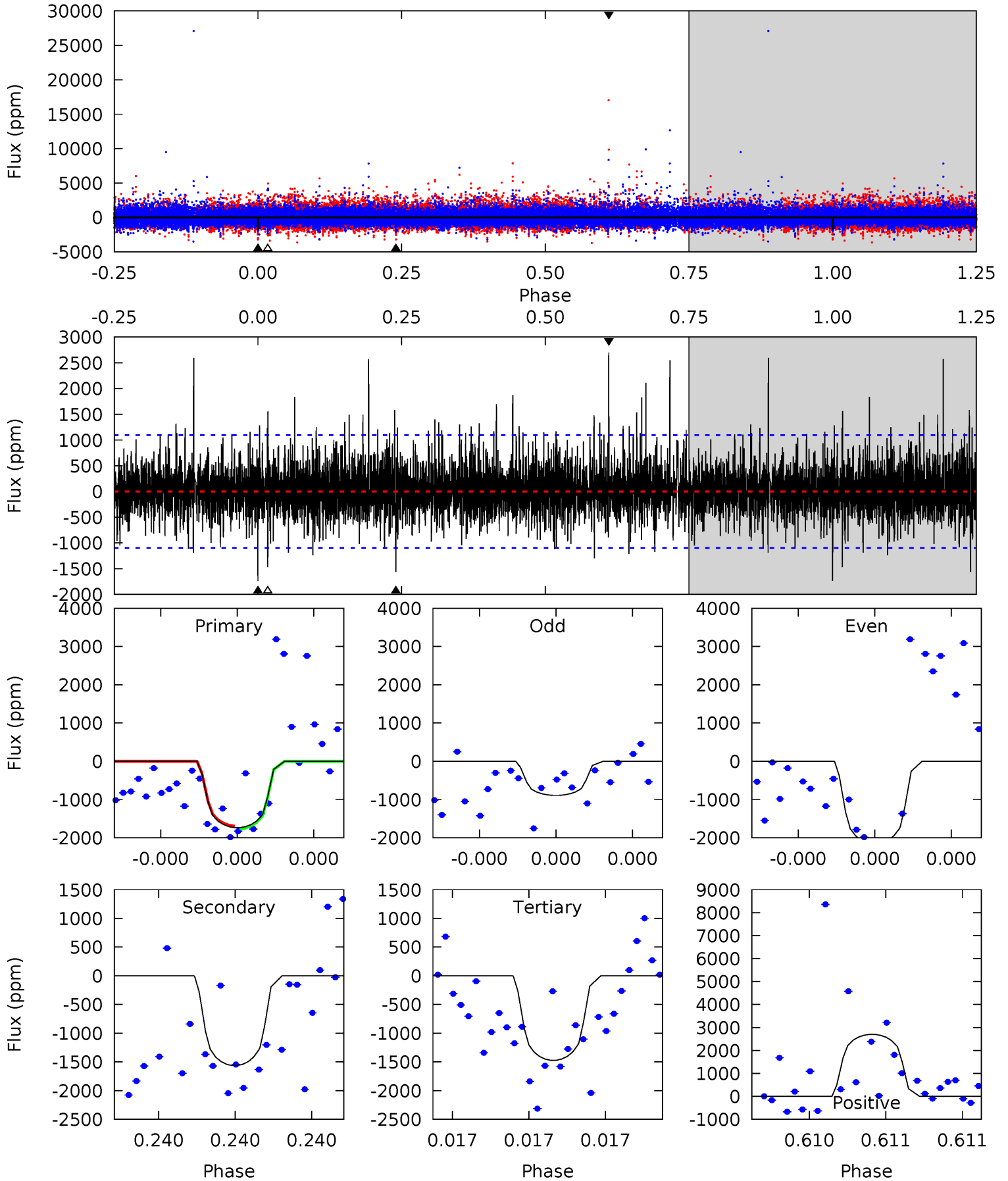
TCE 006535319-03 P=465.946469 Days $T_0=392.590792$ (BKJD)



DV Model-Shift Uniqueness Test

006535319-03, P = 465.961427 Days, E = 392.582364 Days

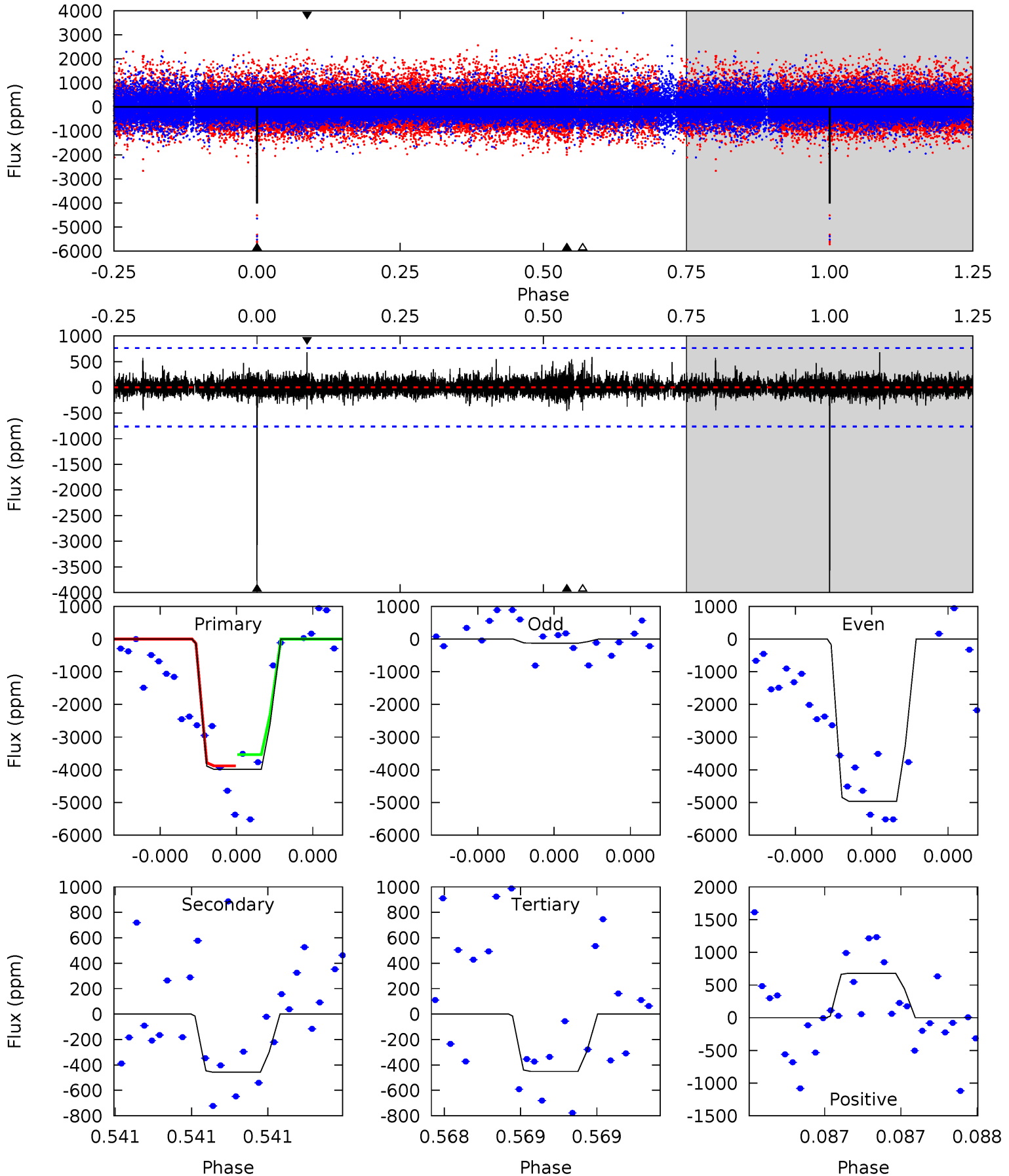
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.95	8.07	7.60	13.9	5.66	3.61	1.90	1.35	-4.98	0.47	-5.87	2.67	0.87	0.61	0.19



Alt Model-Shift Uniqueness Test

006535319-03, P = 465.946469 Days, E = 392.590792 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.4	3.38	3.33	5.02	5.66	3.61	0.71	26.1	24.4	0.05	-1.64	19.2	0.74	0.15	1.31



Stellar Parameters For KIC 006535319

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5245^{+203}_{-166}	$4.545^{+0.088}_{-0.072}$	$-0.480^{+0.350}_{-0.300}$	$0.738^{+0.092}_{-0.084}$	$0.695^{+0.103}_{-0.044}$	$2.440^{+0.918}_{-0.563}$
	+4%/-3%	+2%/-2%	+73%/-62%	+12%/-11%	+15%/-6%	+38%/-23%
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 006535319-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1563 ± 194	$9.62^{+10.54}_{-6.22}$	272^{+12}_{-12}	3502^{+1647}_{-678}	10312^{+72495}_{-7955}
Alt.	-457 ± 135	$10.46^{+10.58}_{-6.83}$	272^{+13}_{-13}	2850^{+1098}_{-480}	2450^{+19316}_{-1831}

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 $A_{obs} \gg 1.0$

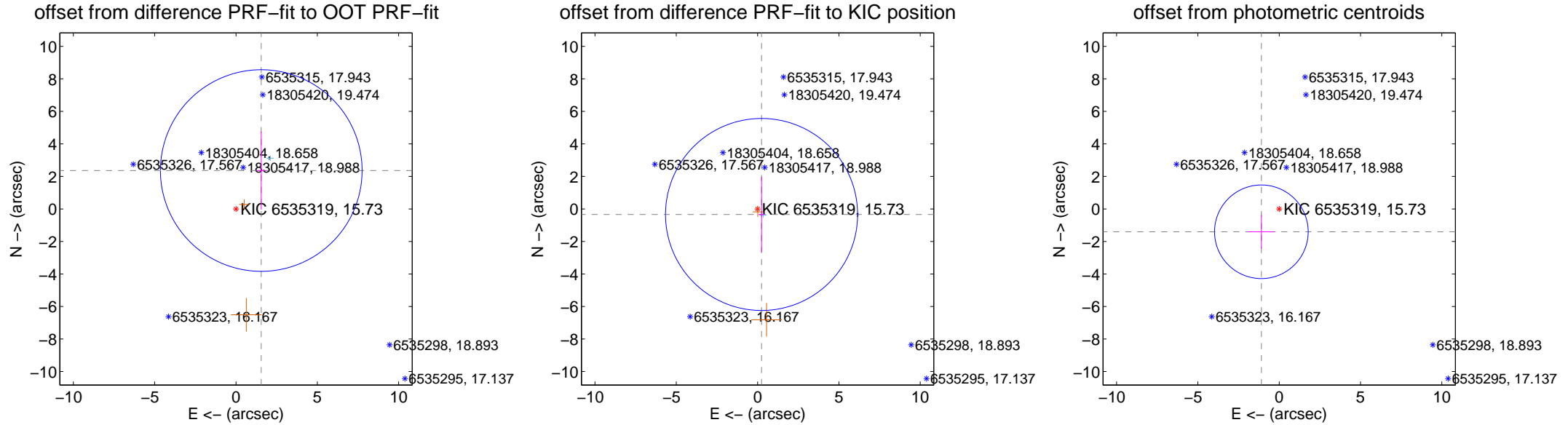
DV Centroid Data

Supplemental centroid analysis for 006535319-03. Kepler magnitude: 15.73. Transit SNR 7.08

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 3.92 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.827 ± 2.066	1.37	-1.553 ± 0.263	2.362 ± 2.404
PRF-fit source offset from KIC position	0.419 ± 1.968	0.21	-0.244 ± 0.187	-0.341 ± 2.310
photometric centroid source offset	1.78 ± 0.96	1.86	1.10 ± 0.82	-1.41 ± 1.04



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



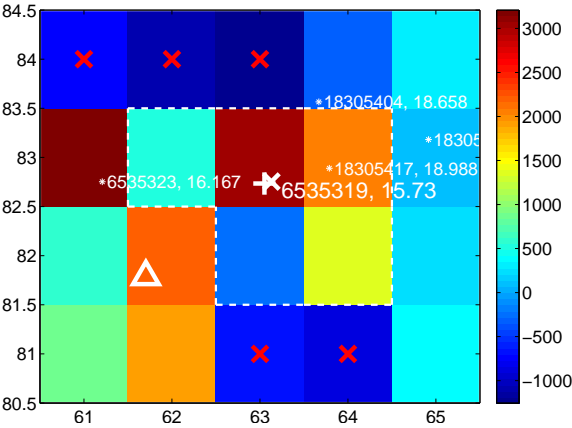
Q3 no difference image



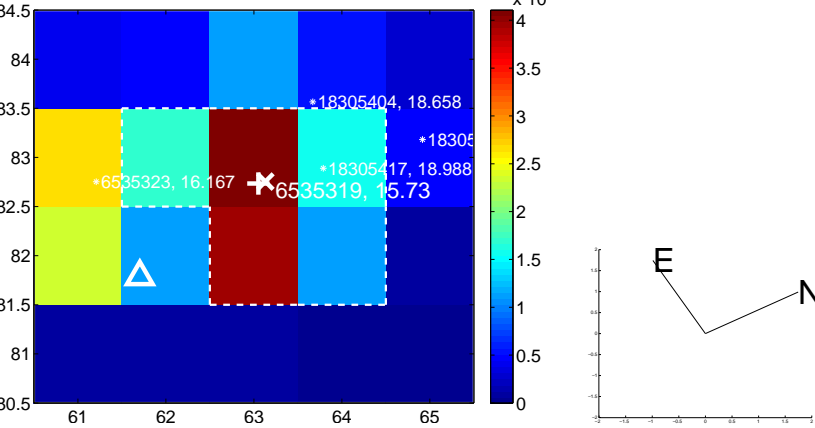
Q3 no OOT image



Q4 difference image. Poor Quality



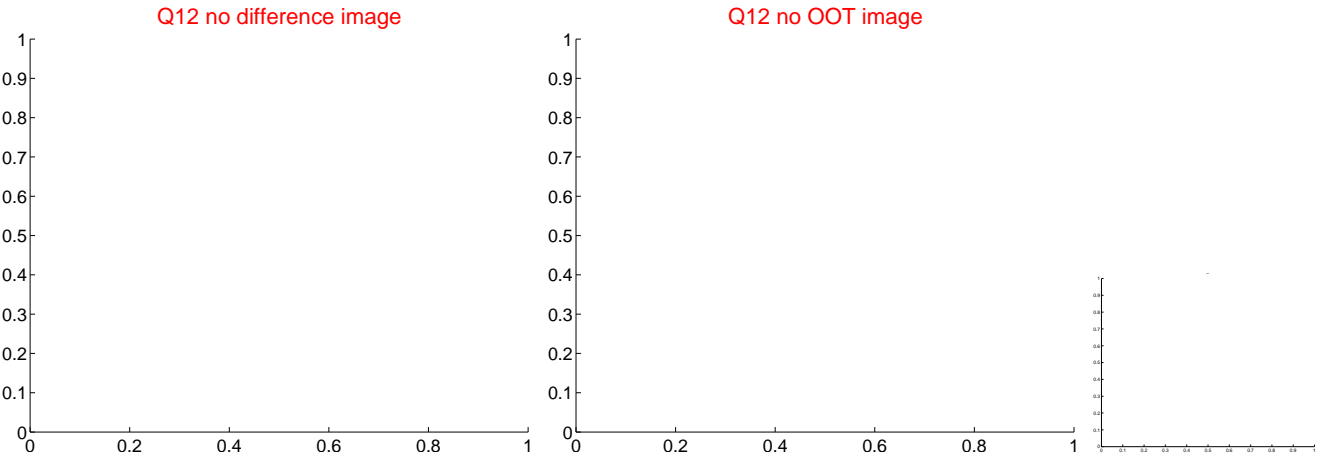
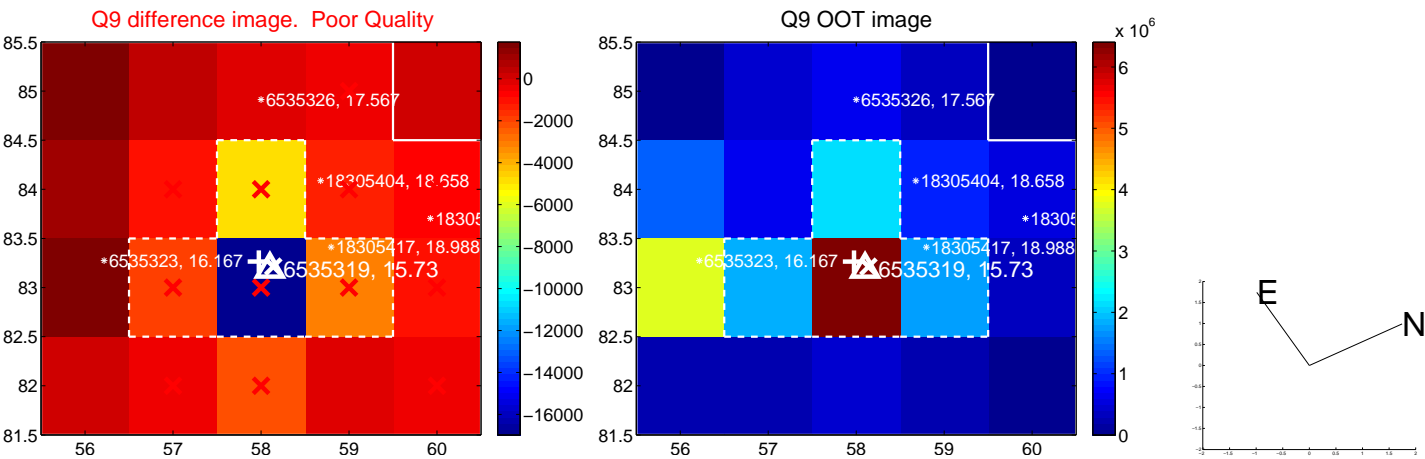
Q4 OOT image



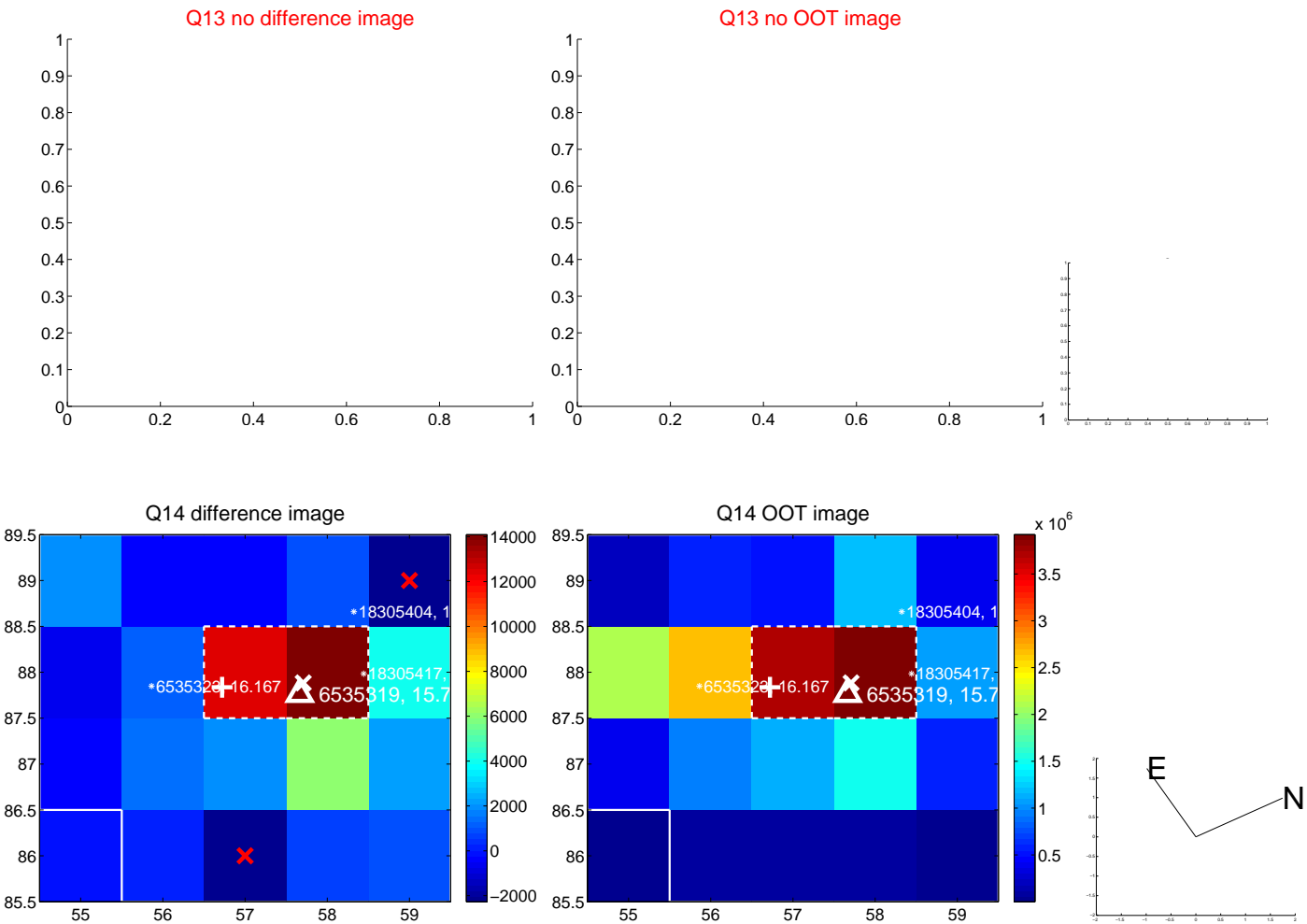
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



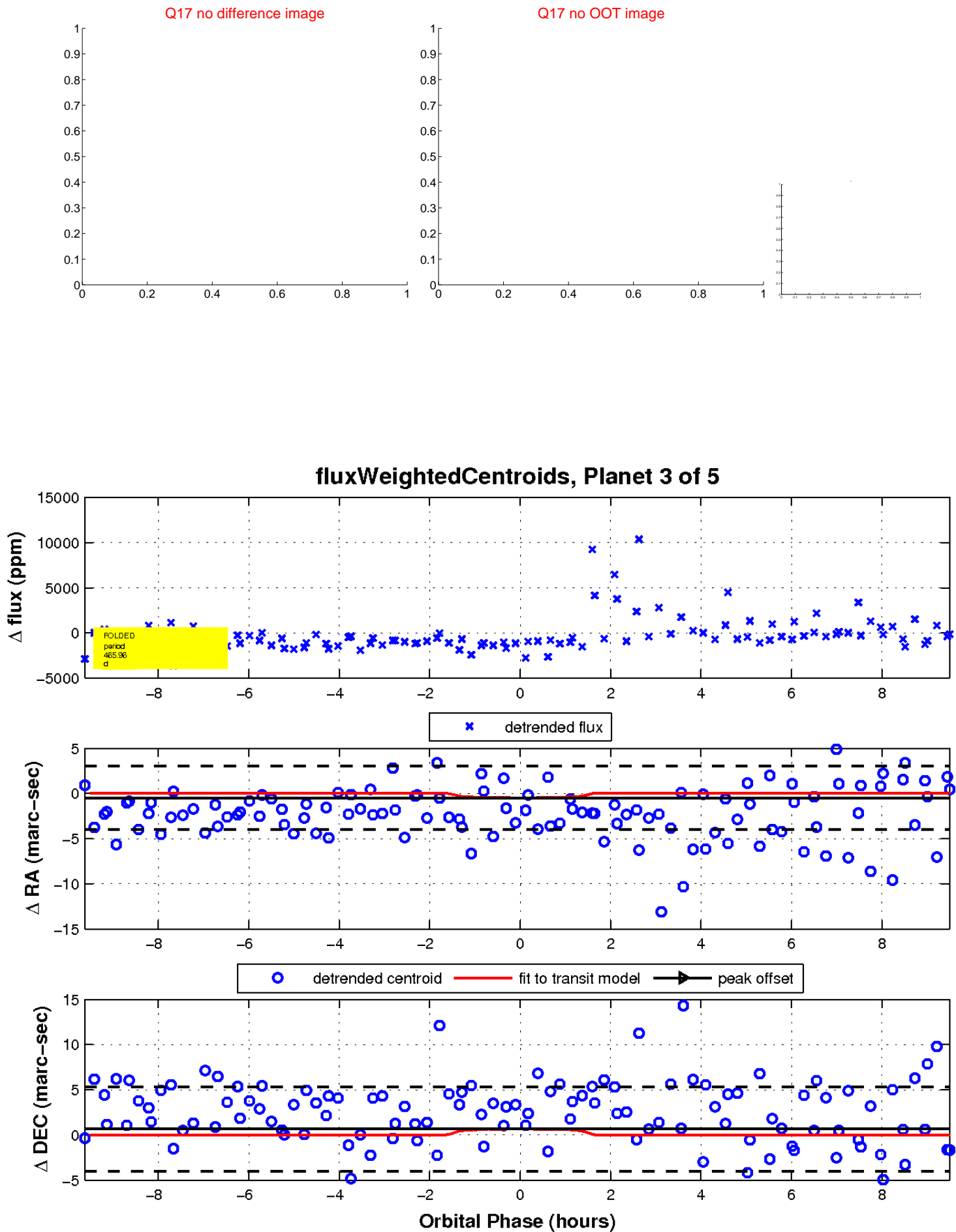
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

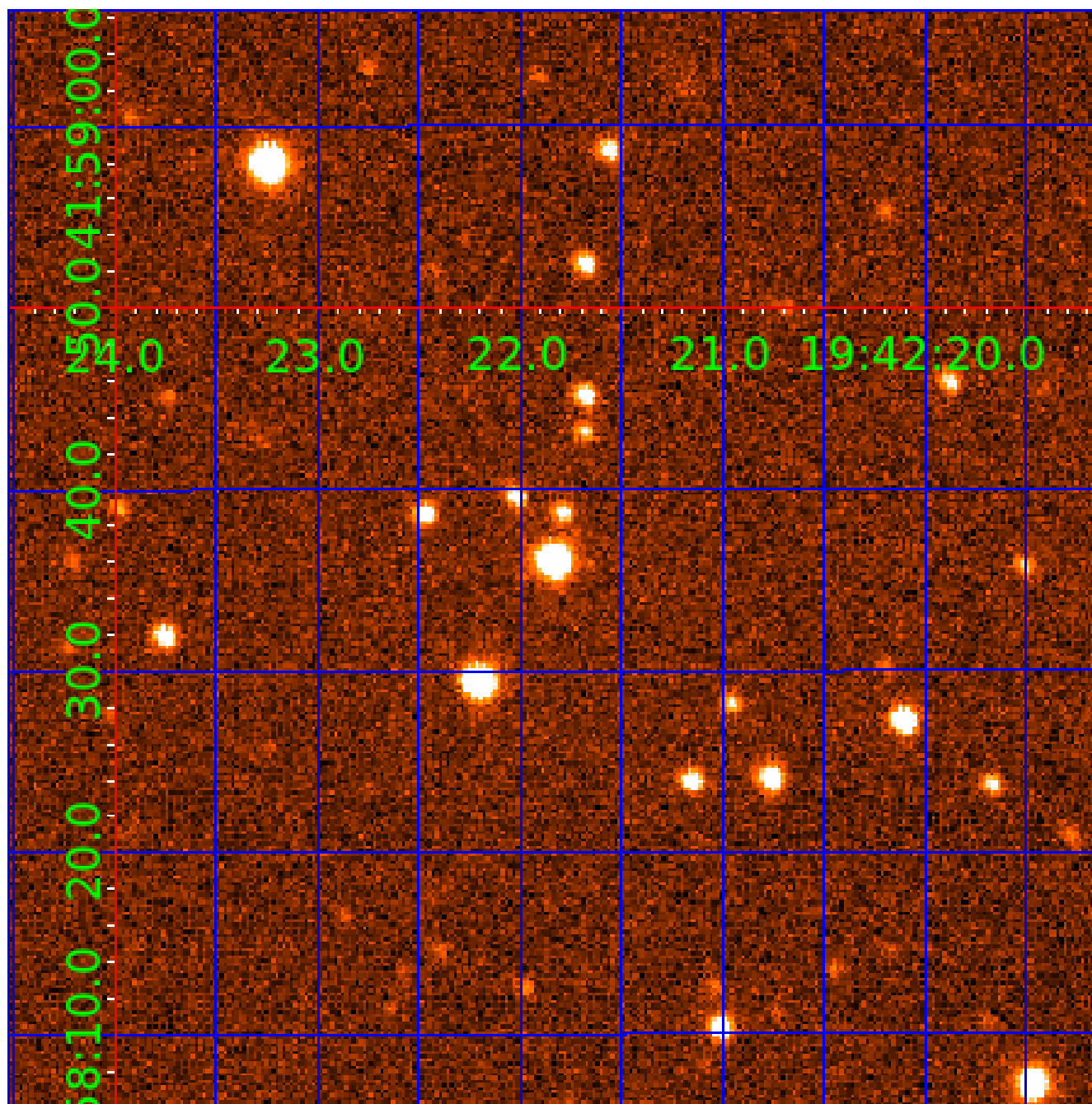


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006535319

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})
006535319-01	OBS	No	297.076231	305.410350	1924.3	4.110	12.8	6.8	0.74	5245	3.40	0.62
006535319-02	OBS	No	323.940177	226.814469	2770.8	5.440	14.4	8.9	0.74	5245	3.91	0.55
006535319-03	OBS	No	465.961427	392.582364	2307.8	3.210	12.6	7.1	0.74	5245	3.70	0.34
006535319-04	OBS	No	529.545496	433.630775	2380.4	4.098	12.2	6.8	0.74	5245	3.61	0.29
006535319-05	OBS	No	320.417452	426.995280	2485.6	3.522	11.0	7.6	0.74	5245	7.12	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006535319-01	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—CENT_FEW_DIFFS
006535319-02	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006535319-03	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—CENT_FEW_DIFFS
006535319-04	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
006535319-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

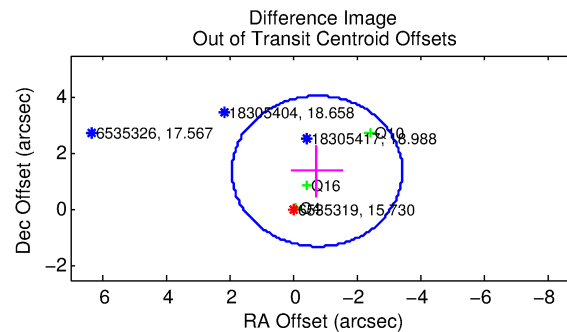
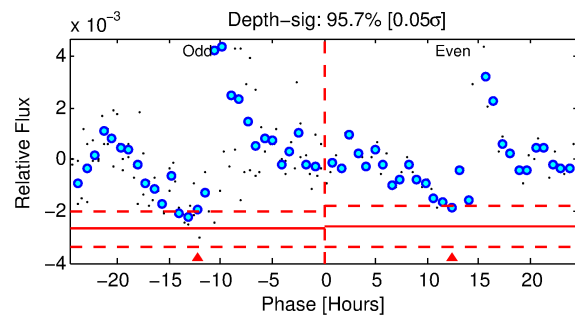
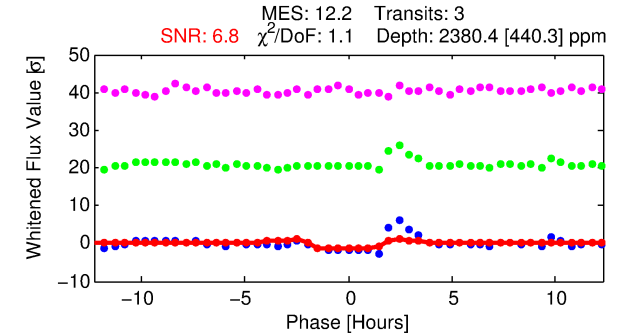
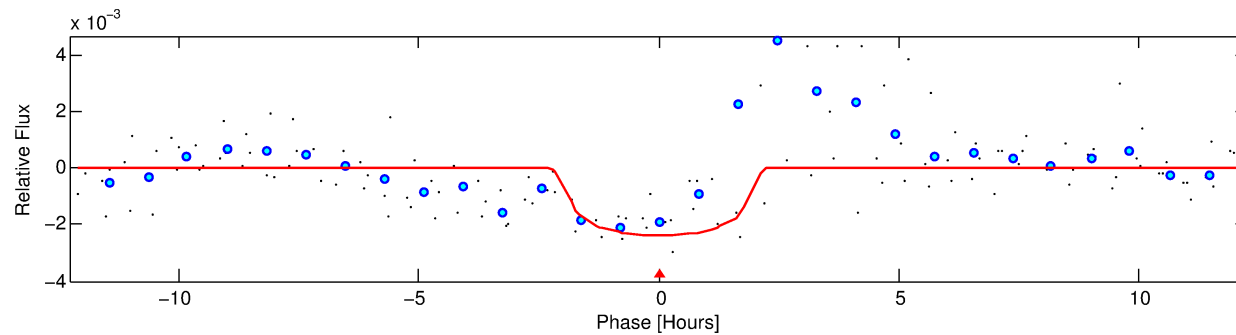
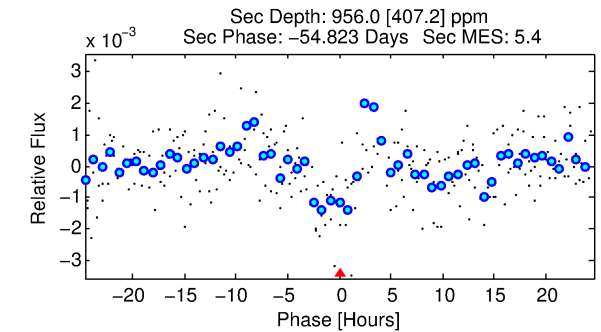
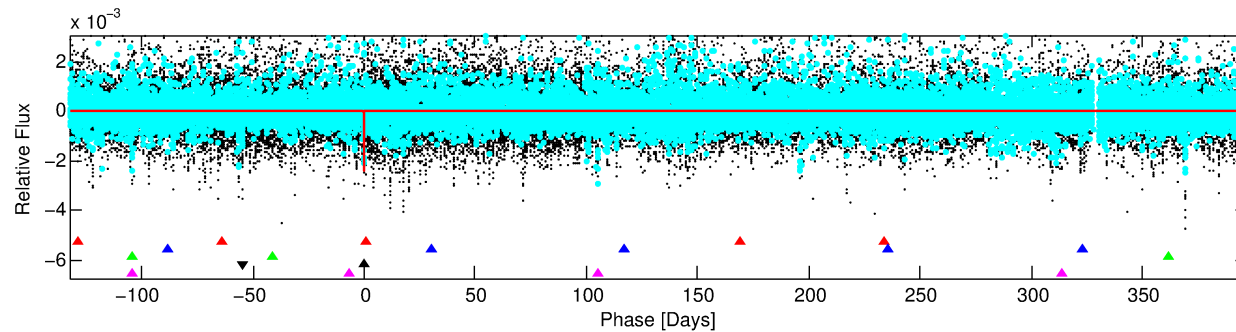
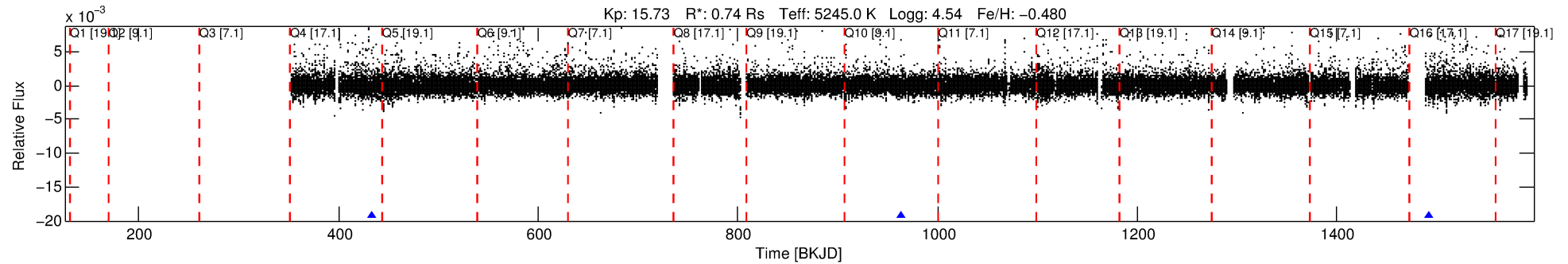
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006535319-04

No Significant Match Found

DV One-Page Summary

KIC: 6535319 Candidate: 4 of 5 Period: 529.545 d



DV Fit Results:

Period = 529.54550 [0.00727] d
Epoch = 433.6308 [0.0094] BKJD
Rp/R* = 0.0448 [0.0516]
a/R* = 956.60 [4258.98]
b = 0.39 [9.77]
Seff = 0.29 [0.06]
Teq = 187 [10] K
Rp = 3.61 [4.18] Re
a = 1.1359 [0.1216] AU
Ag = 52087.02 [122294.77] [0.43 σ]
Teffp = 4356 [2557] K [1.63 σ]

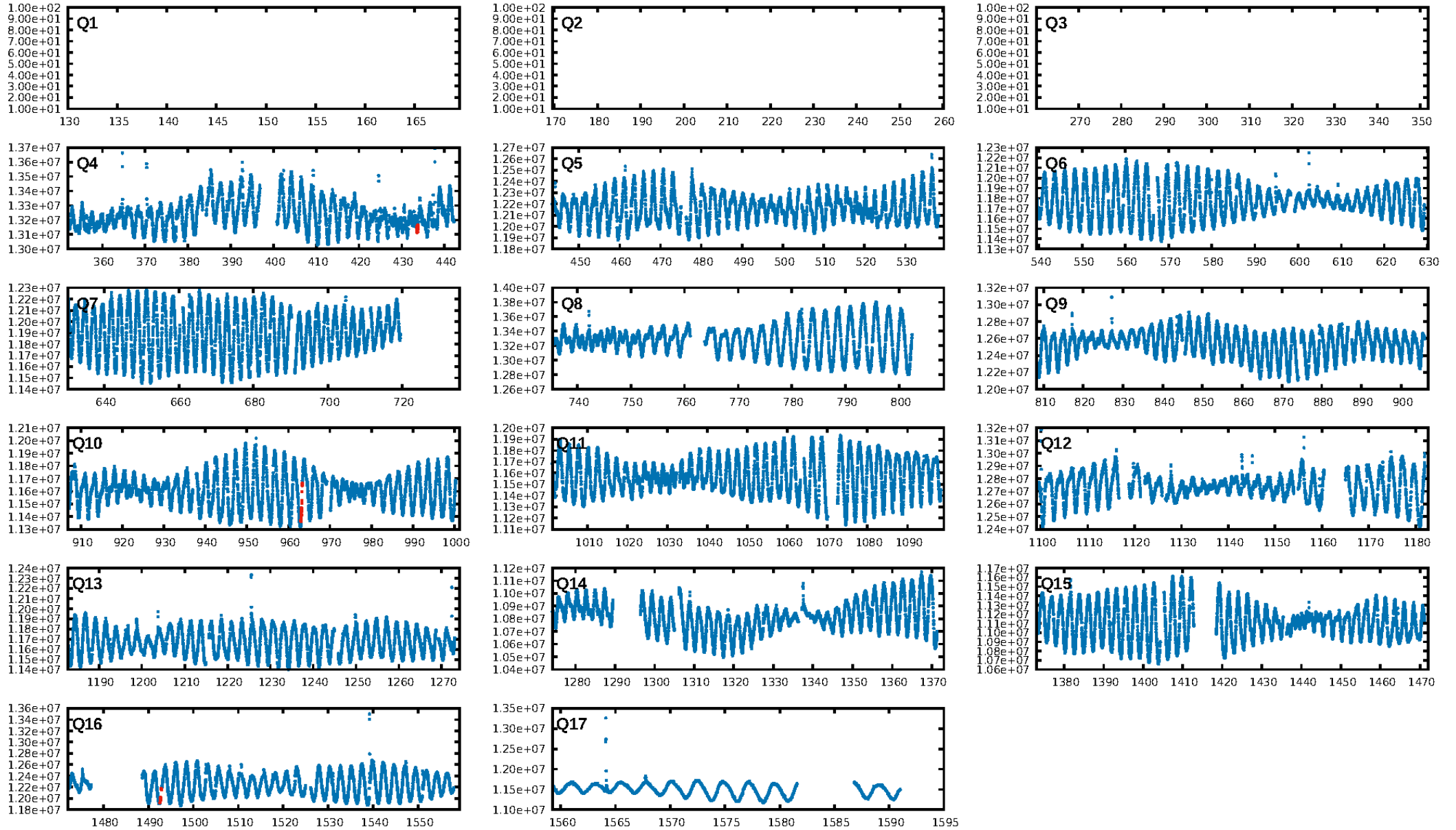
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [293.14 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.3%
ModelChiSquareGof-sig: 89.0%
Bootstrap-pfa: 9.49e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 6.78
Centroid-sig: 40.6%
Centroid-so: 1.149 arcsec [1.34 σ]
OotOffset-rm: 1.569 arcsec [1.76 σ]
OotOffset-st: 1/0/2/0 [3]
KicOffset-rm: 0.273 arcsec [1.46 σ]
KicOffset-st: 1/0/2/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

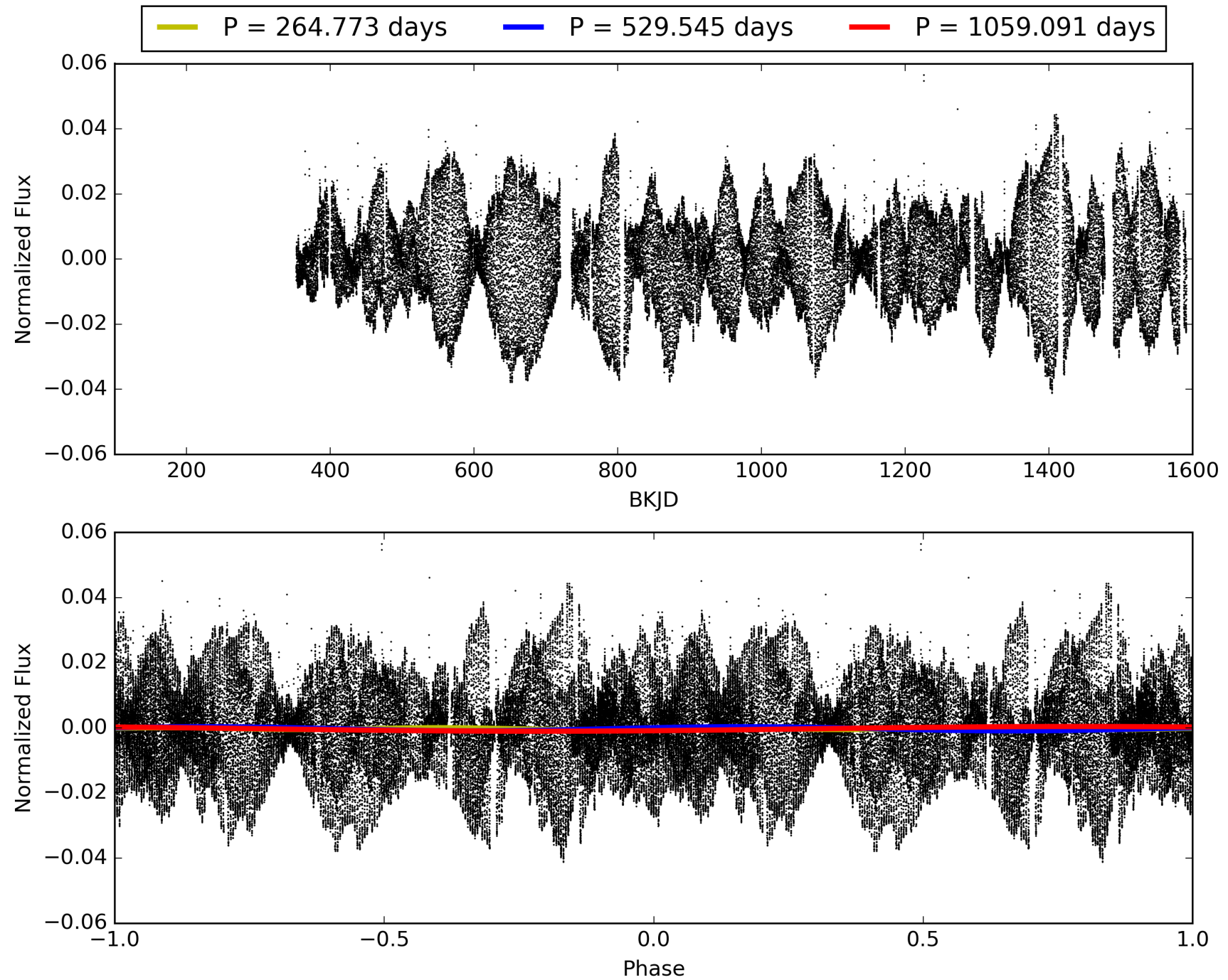
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 06:25:09 Z

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

TCE 006535319-04, PDC Light Curves

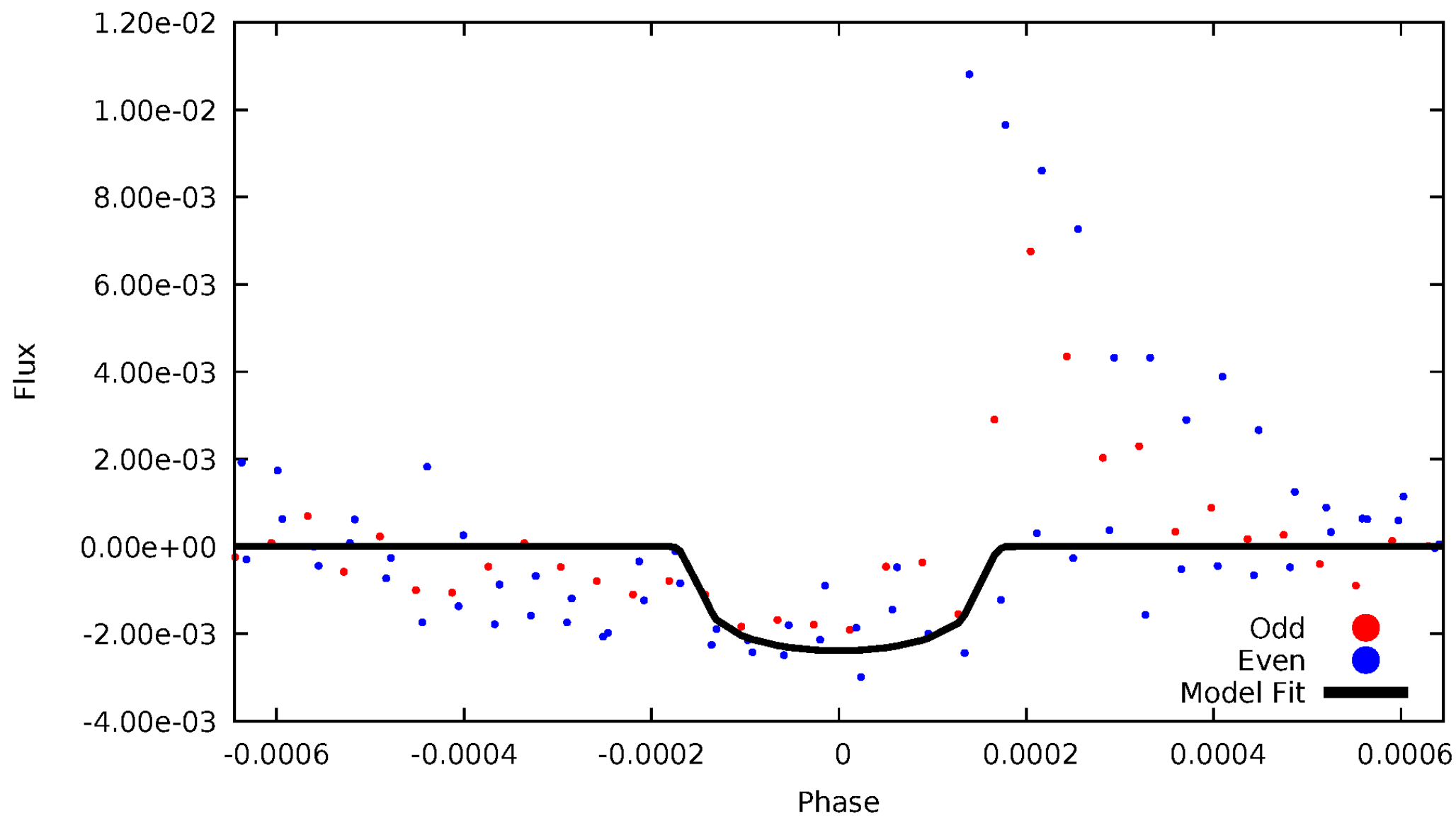


TCE 006535319-04



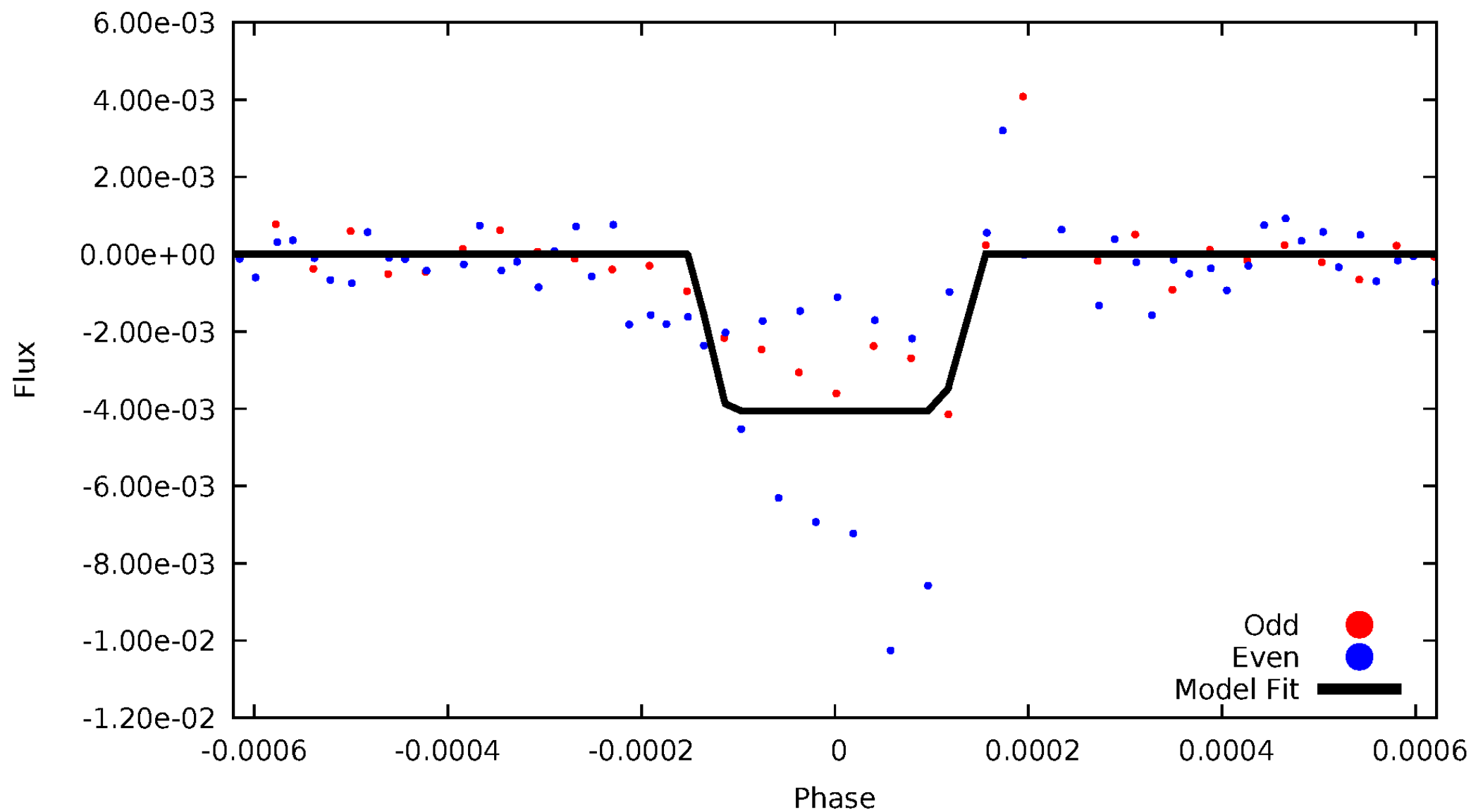
DV Odd/Even

TCE 006535319-04



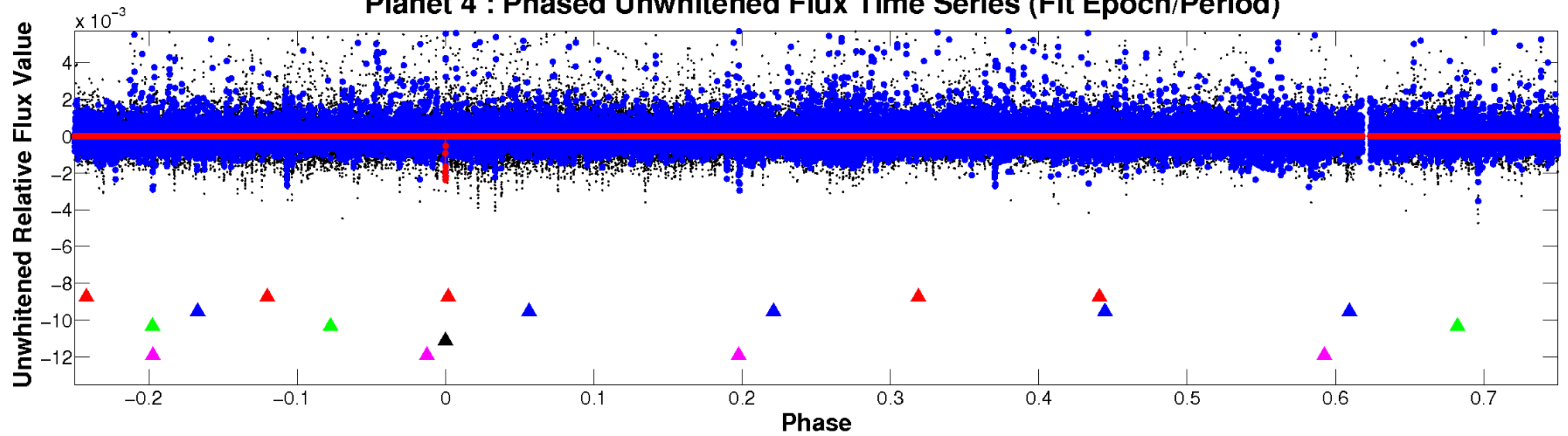
ALT Odd/Even

TCE 006535319-04

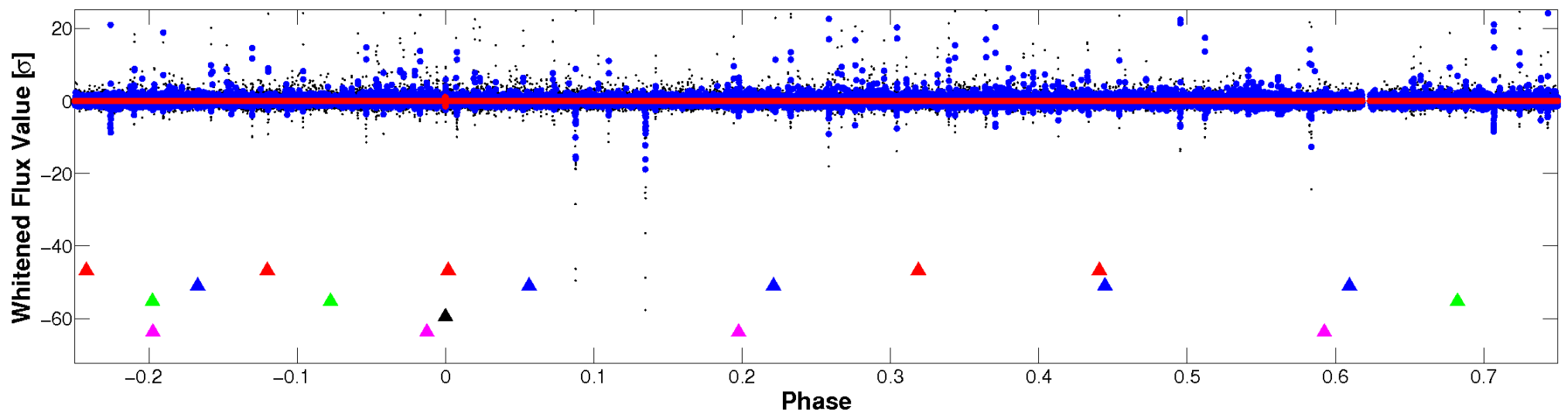


Non-Whitened Vs. Whitened Light Curve

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

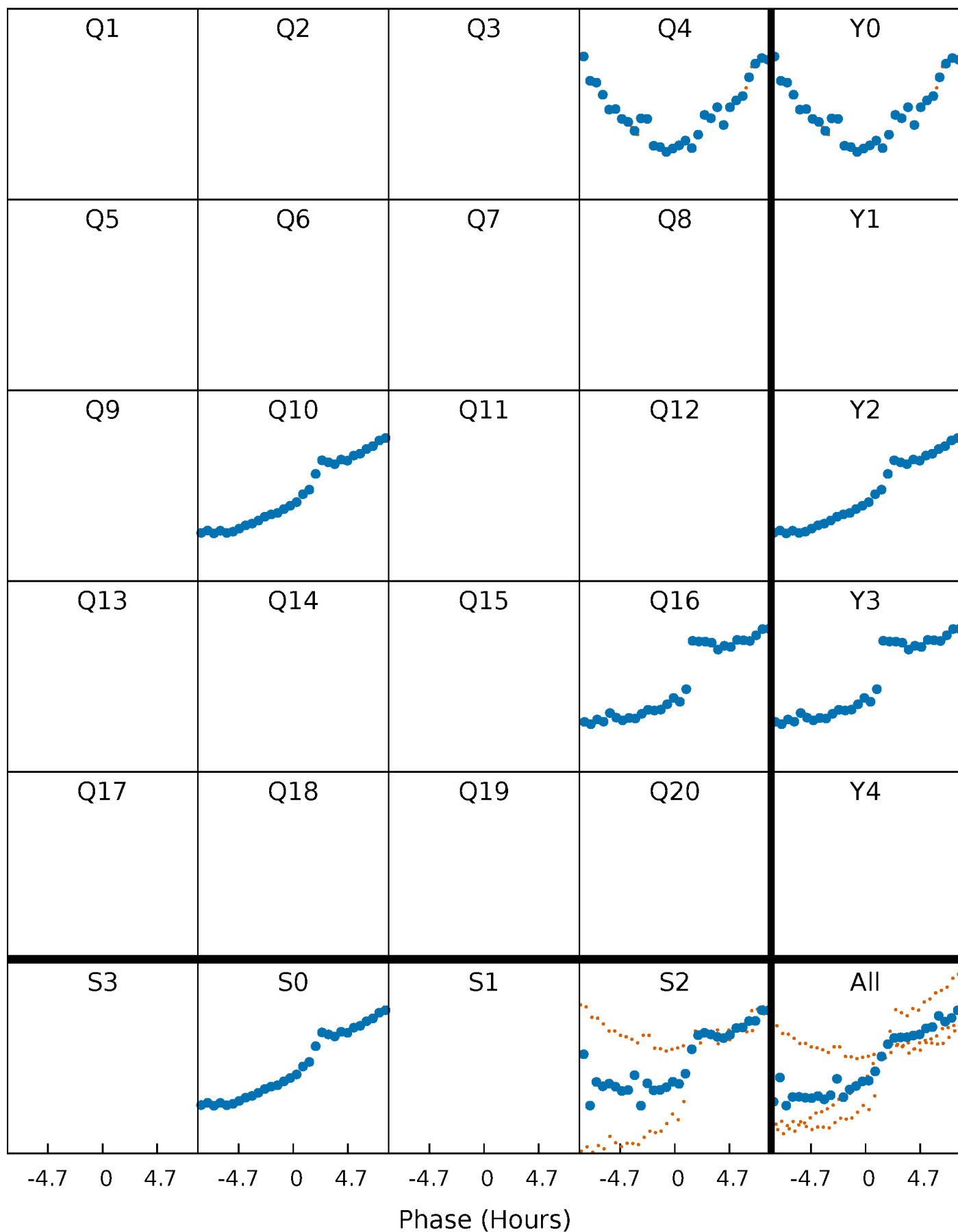


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



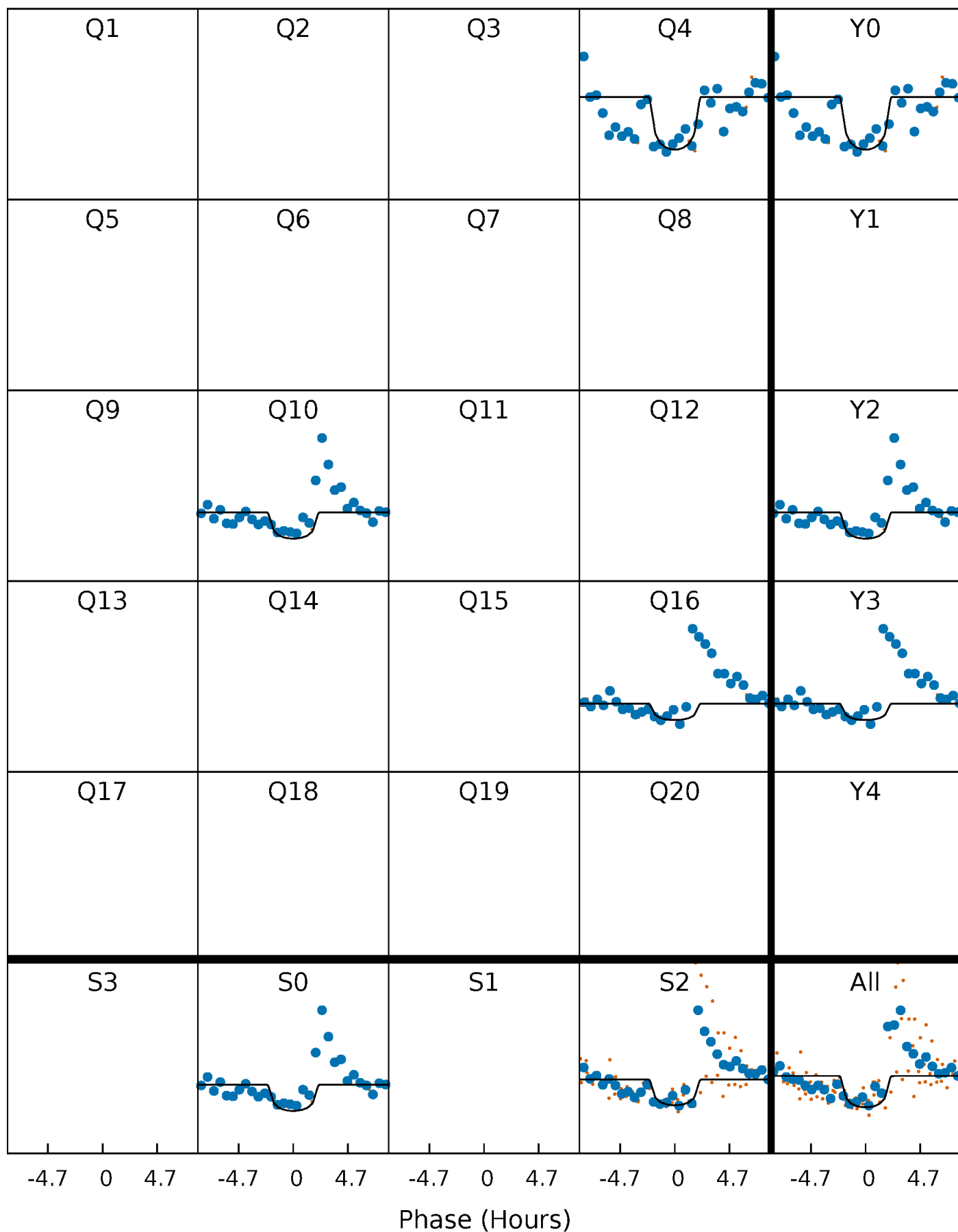
PDC Quarter-Phased Transit Curves

TCE 006535319-04 P=529.545496 Days $T_0=433.630775$ (BKJD)



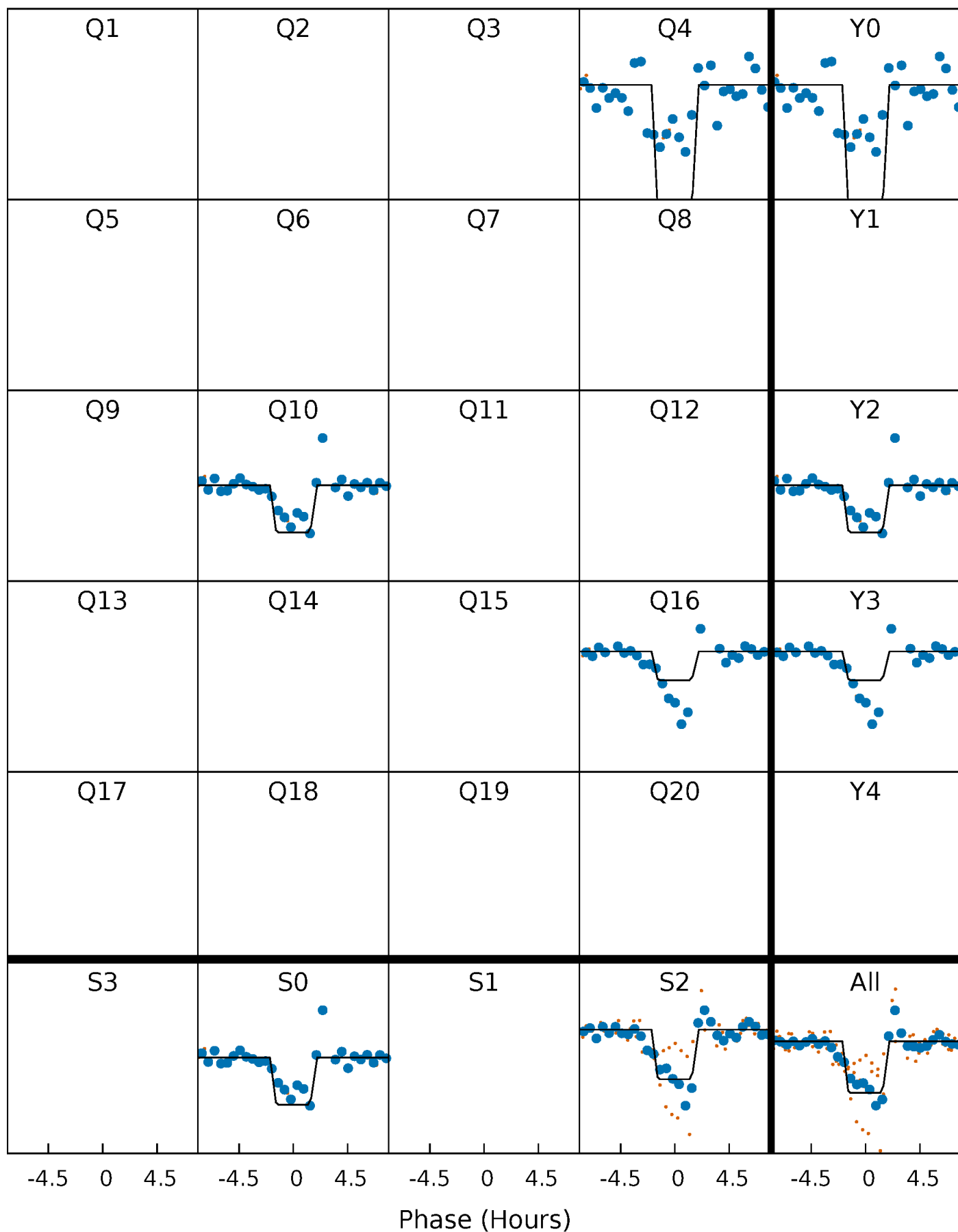
DV Quarter-Phased Transit Curves

TCE 006535319-04 P=529.545496 Days $T_0=433.630775$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

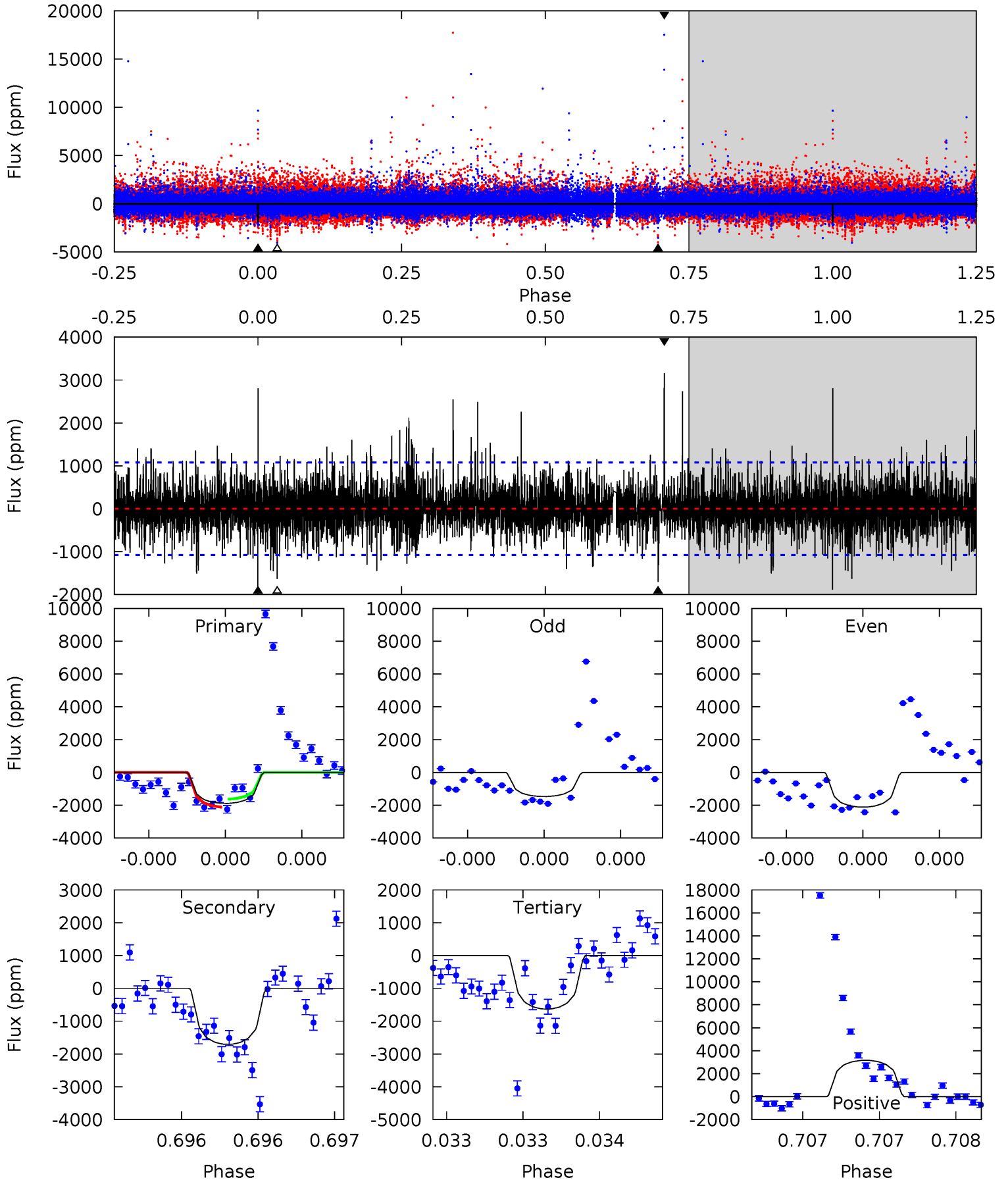
TCE 006535319-04 P=529.522085 Days $T_0=433.659624$ (BKJD)



DV Model-Shift Uniqueness Test

006535319-04, P = 529.545496 Days, E = 433.630775 Days

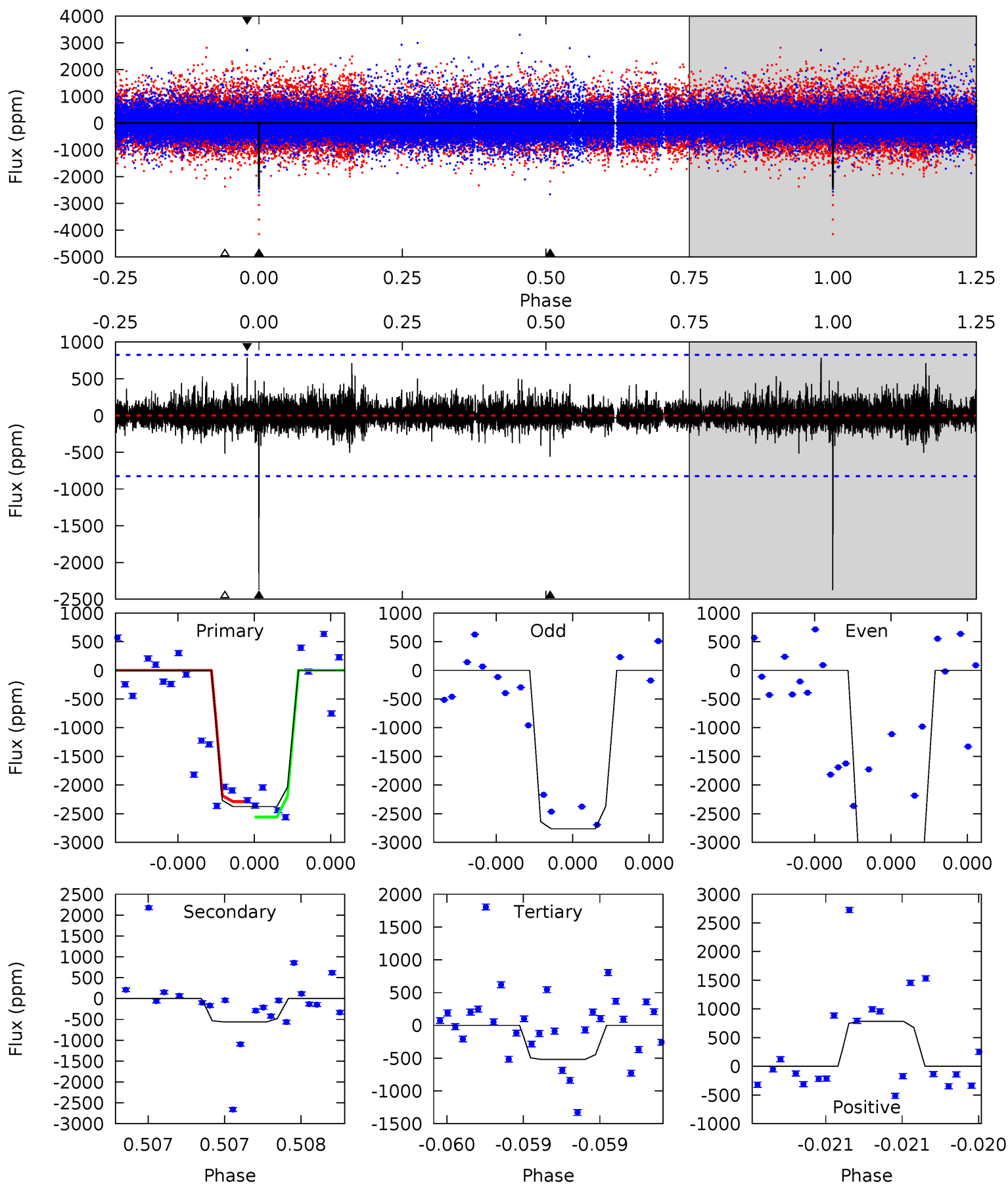
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.86	8.92	8.53	16.5	5.63	3.57	2.20	1.33	-6.67	0.39	-7.61	1.34	1.01	0.63	1.27



Alt Model-Shift Uniqueness Test

006535319-04, P = 529.522085 Days, E = 433.659624 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	3.84	3.57	5.39	5.68	3.64	0.67	12.8	10.9	0.27	-1.55	3.00	1.33	0.25	0



Stellar Parameters For KIC 006535319

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5245^{+203}_{-166}	$4.545^{+0.088}_{-0.072}$	$-0.480^{+0.350}_{-0.300}$	$0.738^{+0.092}_{-0.084}$	$0.695^{+0.103}_{-0.044}$	$2.440^{+0.918}_{-0.563}$
	+4%/-3%	+2%/-2%	+73%/-62%	+12%/-11%	+15%/-6%	+38%/-23%
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 006535319-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1706 ± 191	$4.66^{+3.85}_{-3.16}$	261^{+12}_{-12}	4595^{+3313}_{-931}	$55824^{+480453}_{-38498}$
Alt.	-559 ± 145	$5.68^{+3.75}_{-3.31}$	261^{+12}_{-12}	3502^{+1212}_{-517}	12915^{+52013}_{-8711}

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

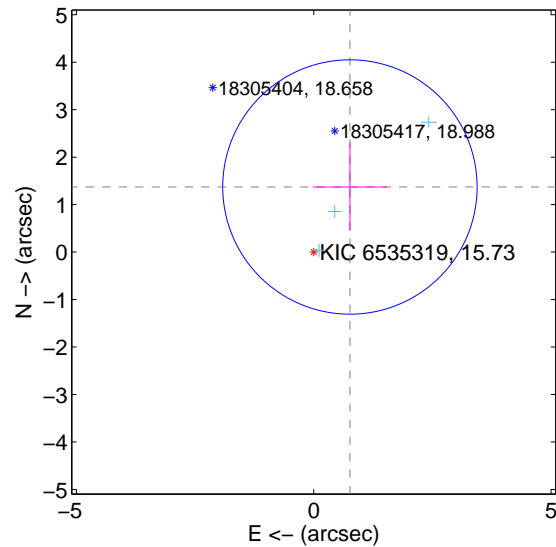
Supplemental centroid analysis for 006535319-04. Kepler magnitude: 15.73. Transit SNR 6.82

There are 3 quarters with good PRF difference image offsets

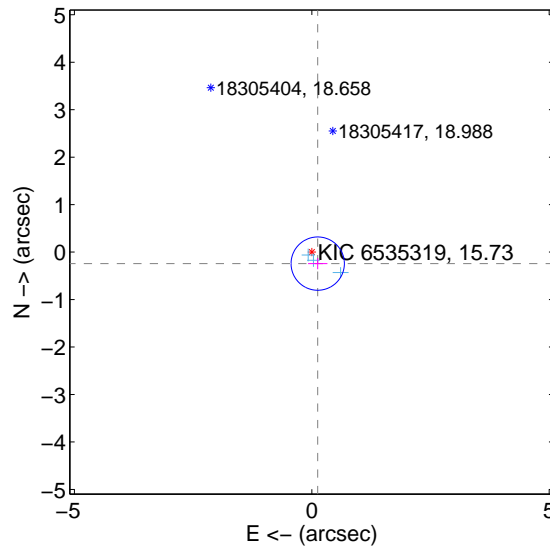
The direct PRF centroid is offset from the target star catalog position by about 1.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.569 ± 0.893	1.76	-0.763 ± 0.781	1.372 ± 0.925
PRF-fit source offset from KIC position	0.273 ± 0.187	1.46	-0.125 ± 0.204	-0.242 ± 0.119
photometric centroid source offset	1.15 ± 0.86	1.34	0.07 ± 0.82	-1.15 ± 0.86

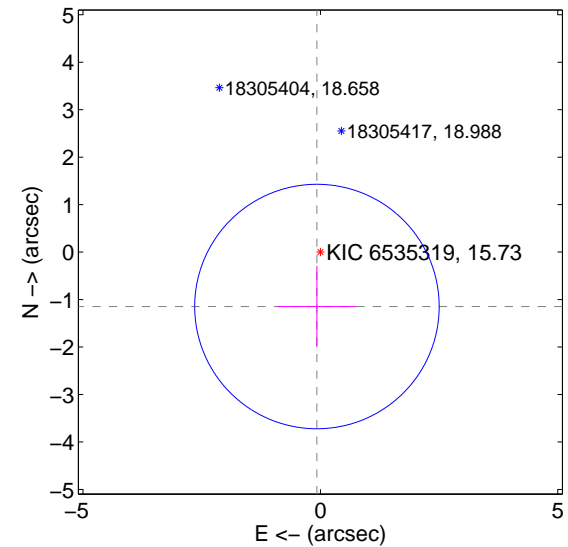
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

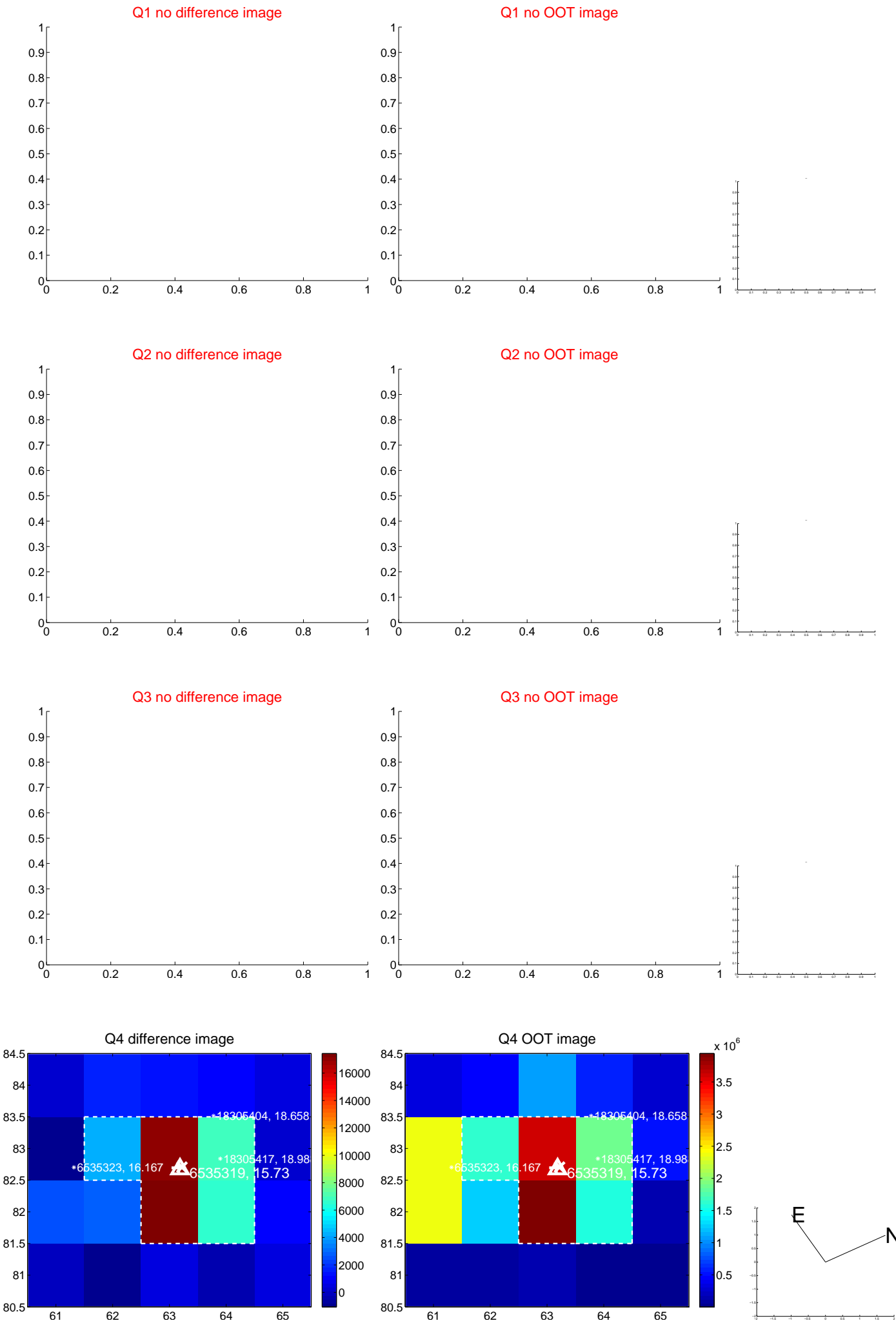


offset from photometric centroids



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.

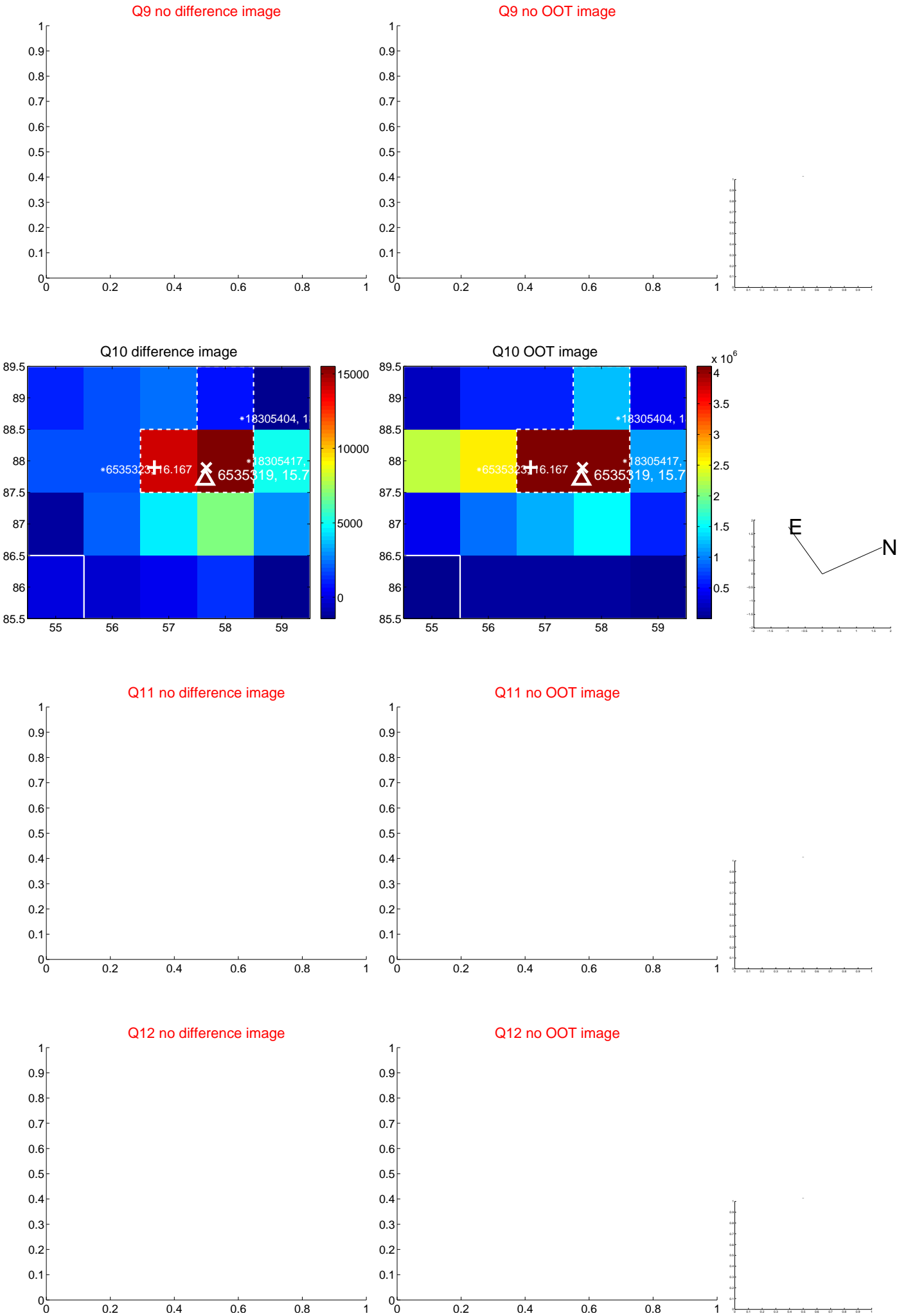
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



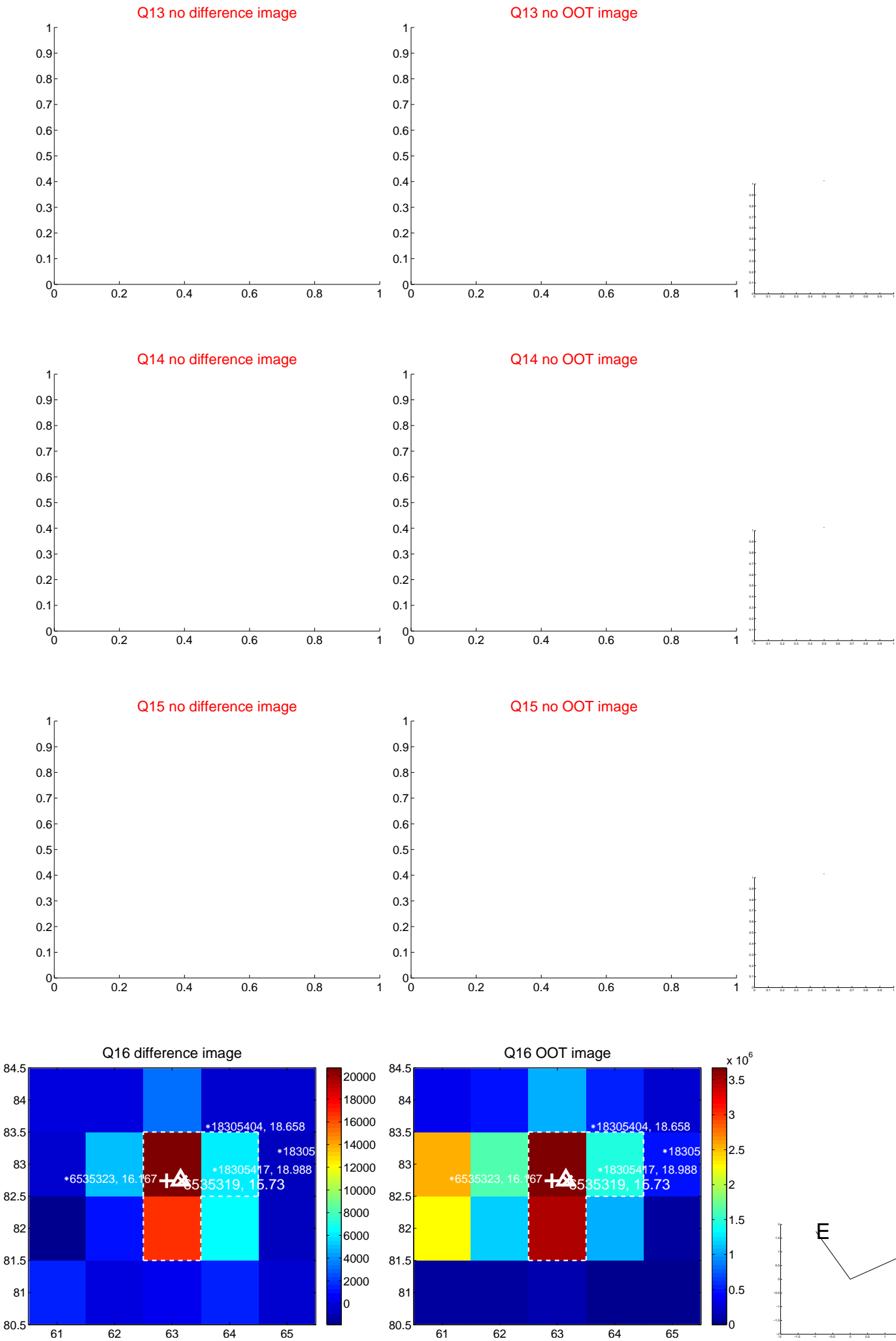
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



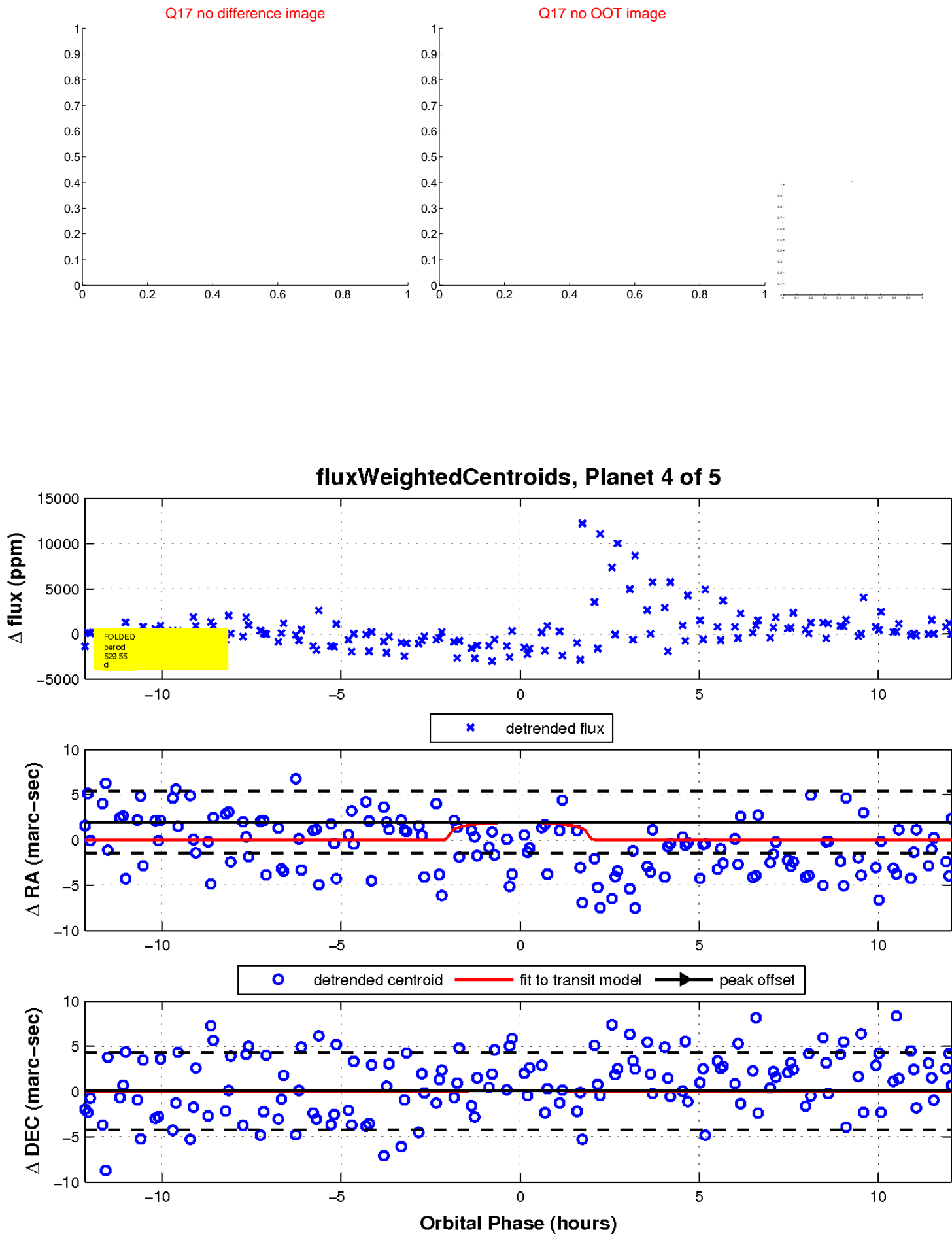
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

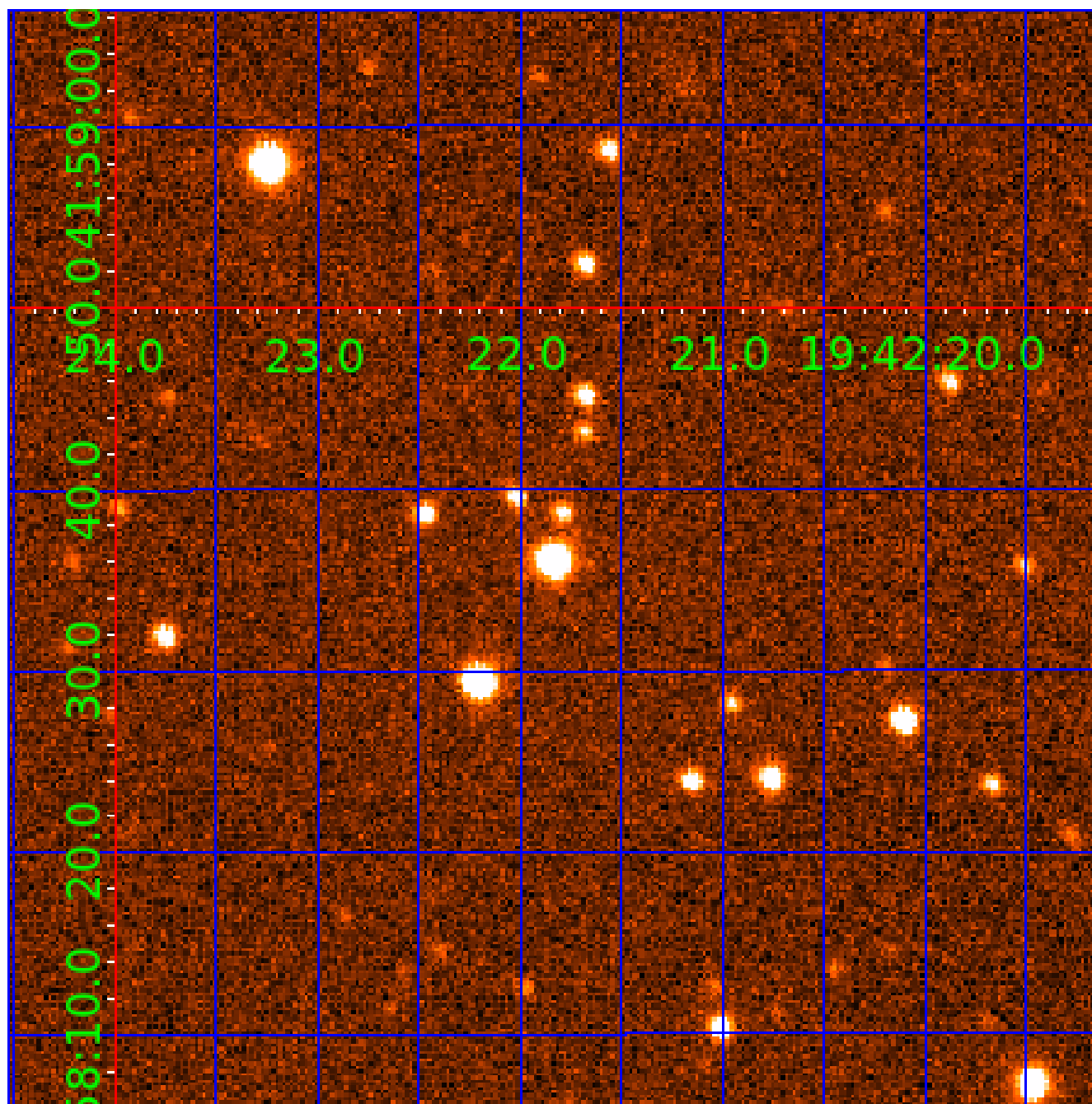


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006535319

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})
006535319-01	OBS	No	297.076231	305.410350	1924.3	4.110	12.8	6.8	0.74	5245	3.40	0.62
006535319-02	OBS	No	323.940177	226.814469	2770.8	5.440	14.4	8.9	0.74	5245	3.91	0.55
006535319-03	OBS	No	465.961427	392.582364	2307.8	3.210	12.6	7.1	0.74	5245	3.70	0.34
006535319-04	OBS	No	529.545496	433.630775	2380.4	4.098	12.2	6.8	0.74	5245	3.61	0.29
006535319-05	OBS	No	320.417452	426.995280	2485.6	3.522	11.0	7.6	0.74	5245	7.12	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006535319-01	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—CENT_FEW_DIFFS
006535319-02	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—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006535319-03	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—CENT_FEW_DIFFS
006535319-04	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
006535319-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

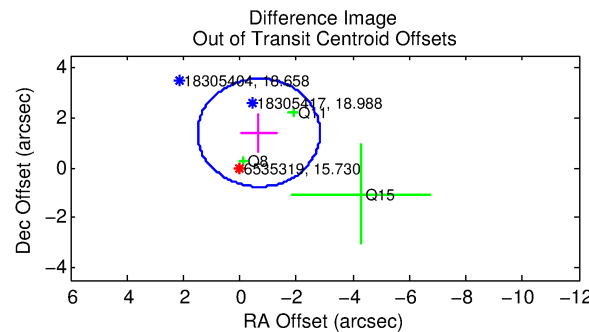
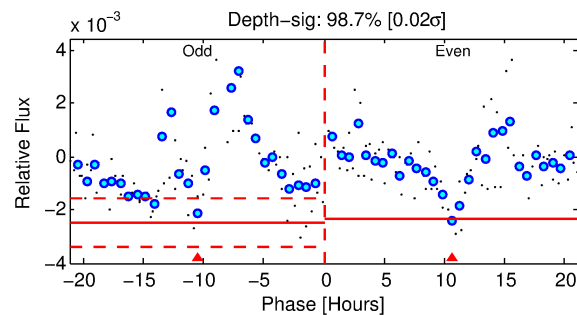
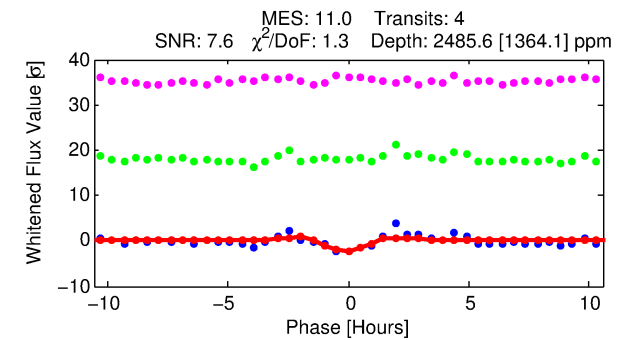
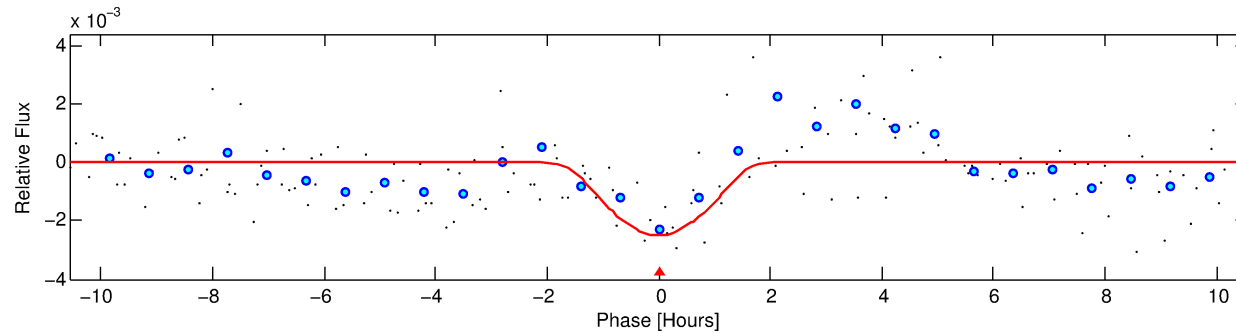
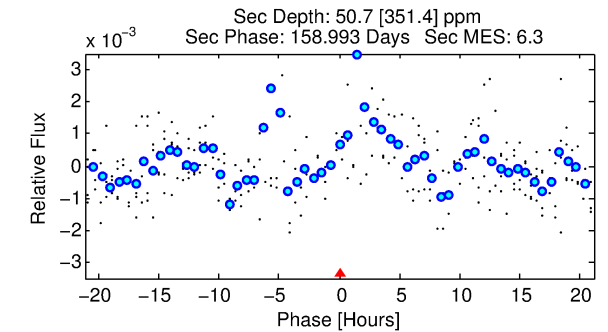
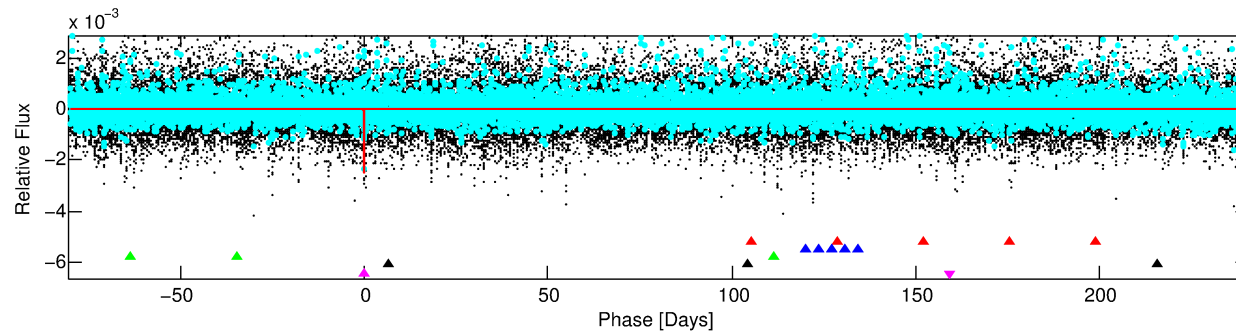
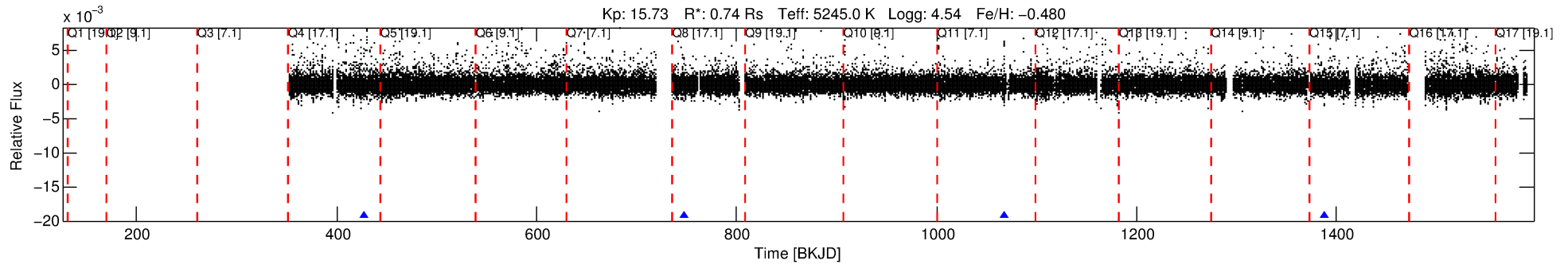
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006535319-05

No Significant Match Found

DV One-Page Summary

KIC: 6535319 Candidate: 5 of 5 Period: 320.417 d



DV Fit Results:

Period = 320.41745 [0.00477] d
Epoch = 426.9953 [0.0080] BKJD
Rp/R* = 0.0883 [0.4676]
a/R* = 298.68 [331.69]
b = 1.00 [0.63]
Seff = 0.56 [0.12]
Teq = 221 [12] K
Rp = 7.11 [37.67] Re
a = 0.8126 [0.0870] AU
Ag = 364.07 [4605.67] [0.08 σ]
Teffp = 1489 [4710] K [0.27 σ]

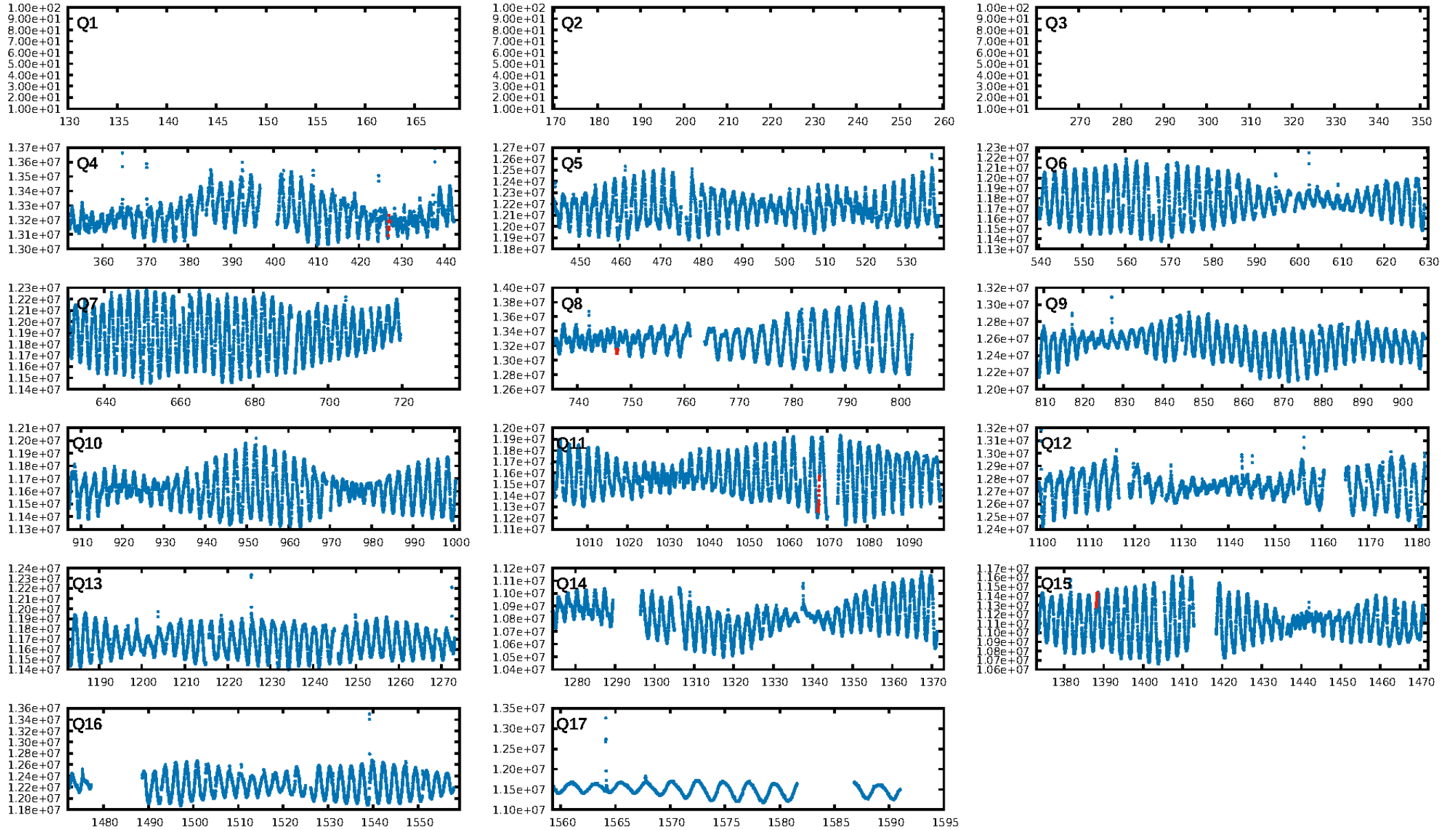
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [103.50 σ]
LongPeriod-sig: 100.0% [13.05 σ]
ModelChiSquare2-sig: 11.0%
ModelChiSquareGof-sig: 80.5%
Bootstrap-pfa: 3.72e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -185.6
Centroid-sig: 10.0%
Centroid-so: 0.660 arcsec [0.76 σ]
OotOffset-rm: 1.548 arcsec [2.15 σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-rm: 0.422 arcsec [0.56 σ]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [4/4]

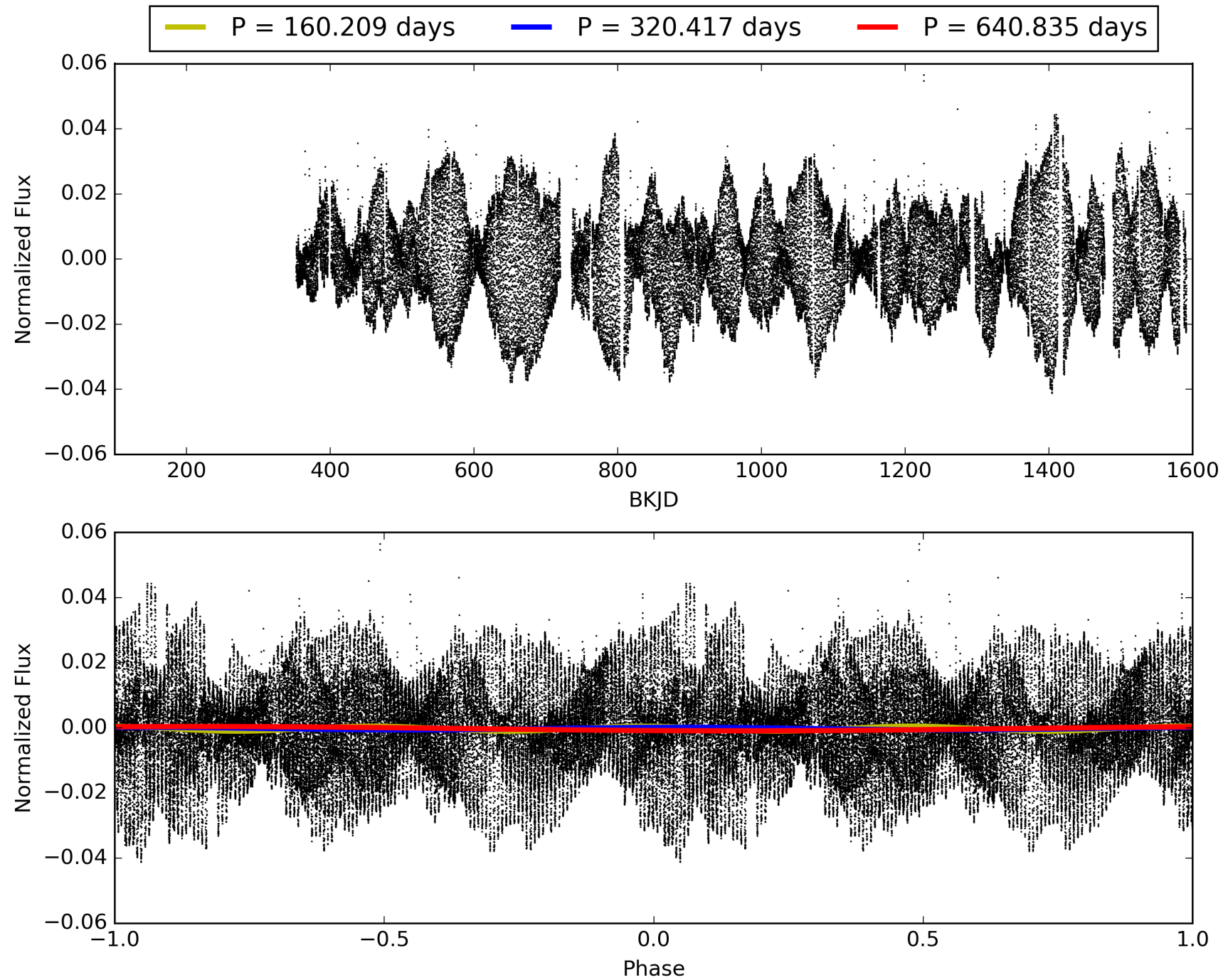
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 06:25:23 Z

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

TCE 006535319-05, PDC Light Curves

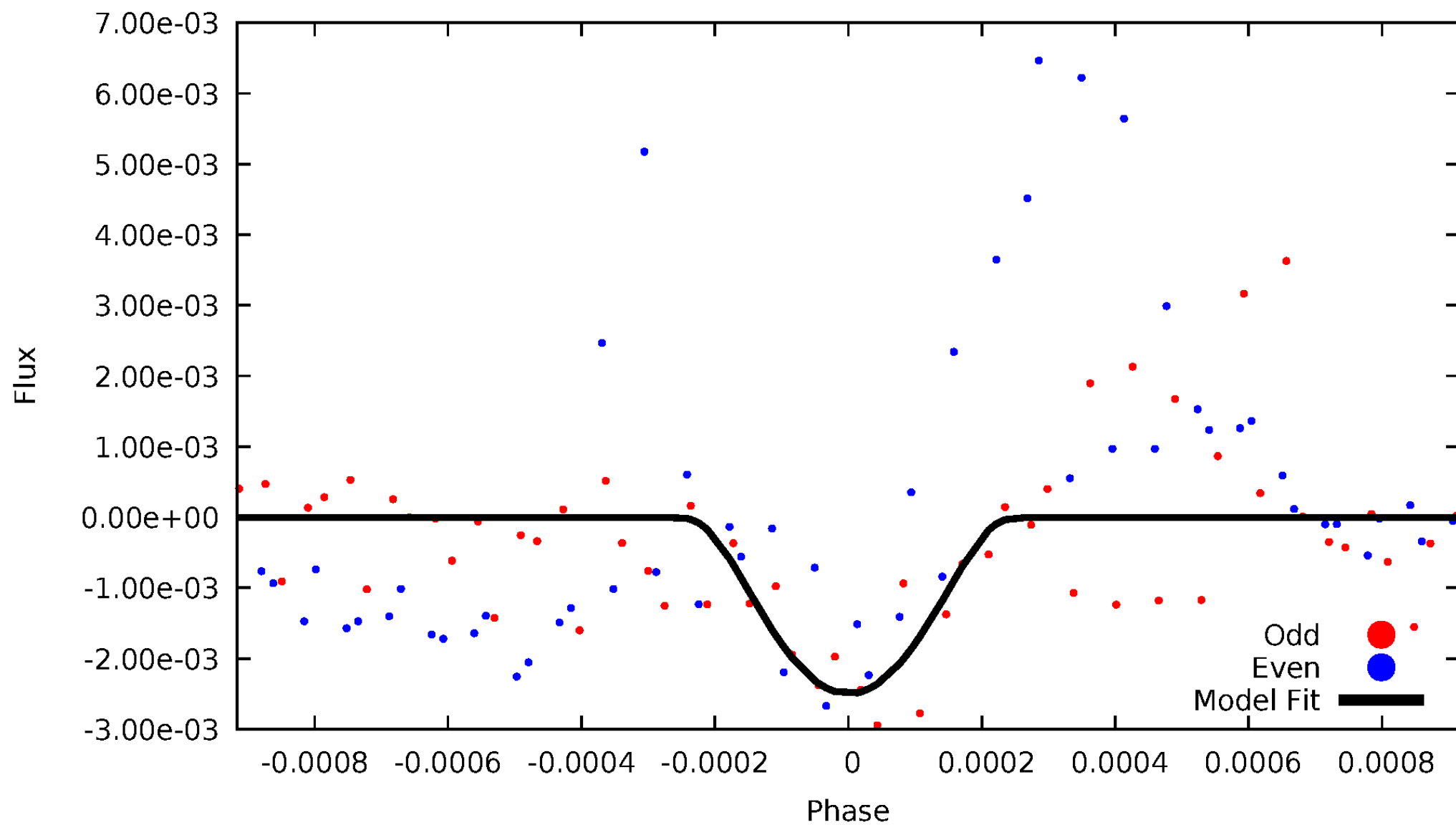


TCE 006535319-05



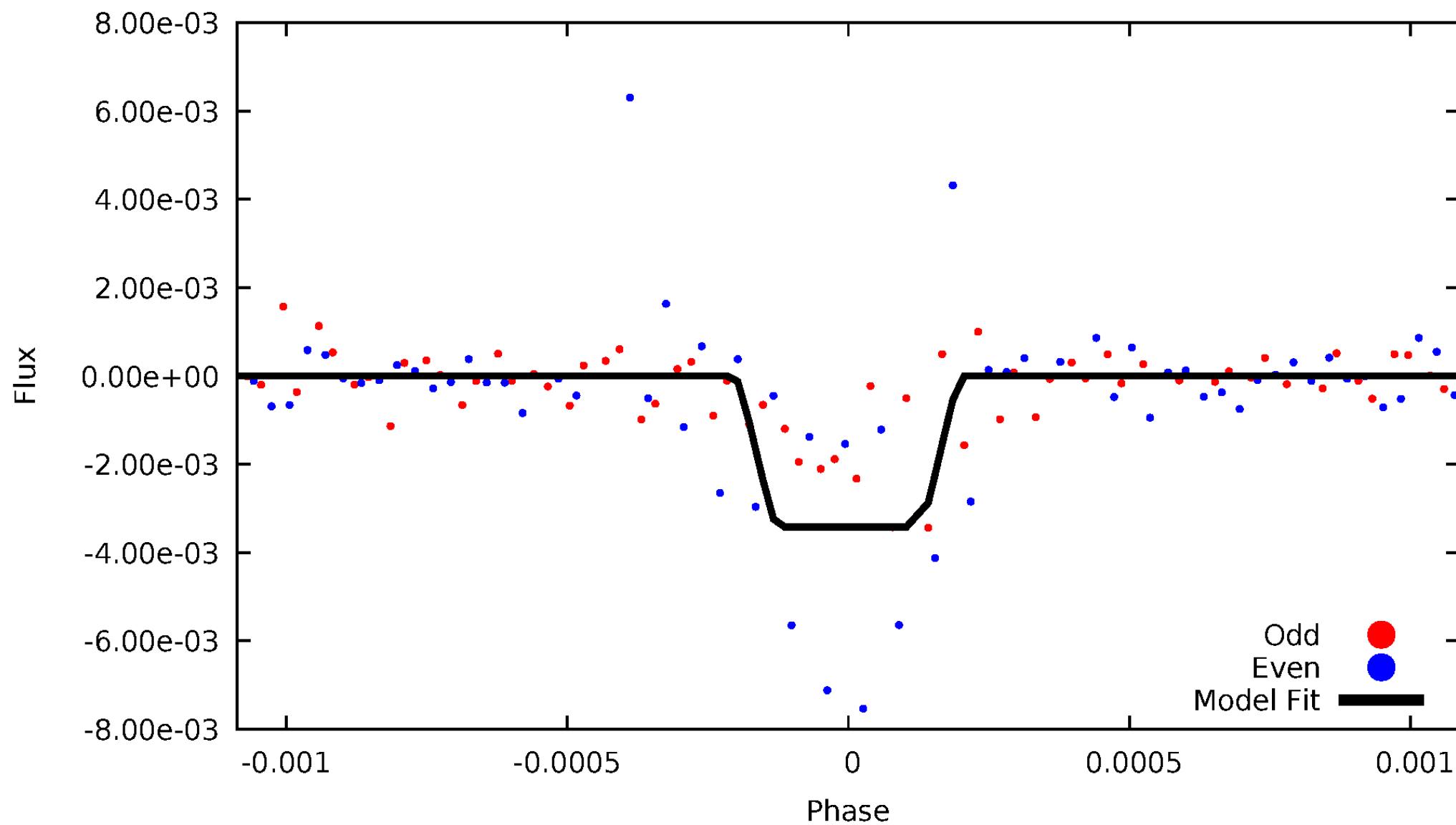
DV Odd/Even

TCE 006535319-05



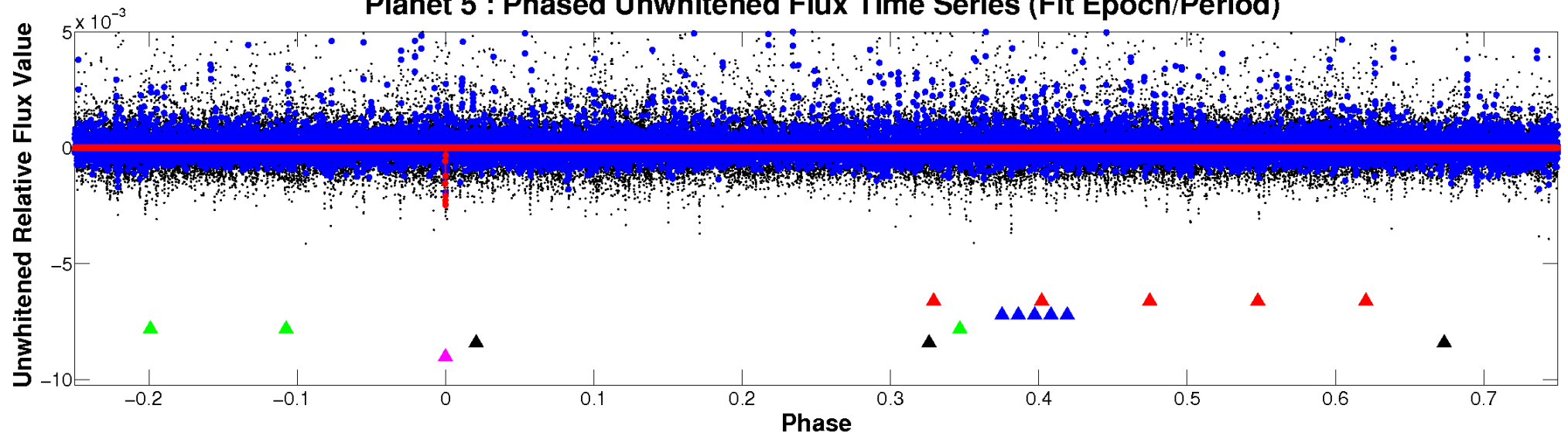
ALT Odd/Even

TCE 006535319-05

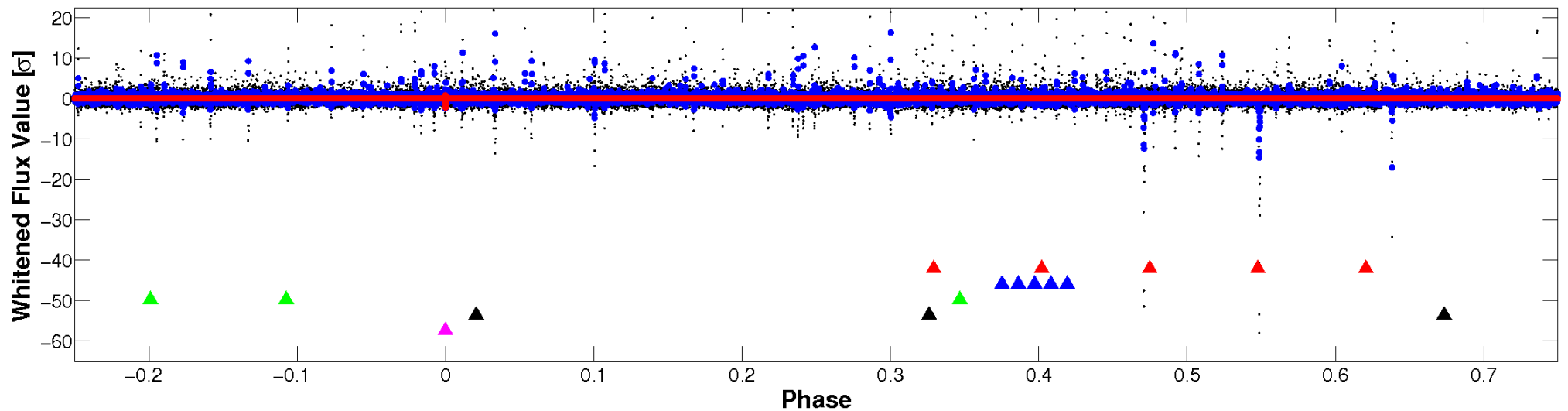


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

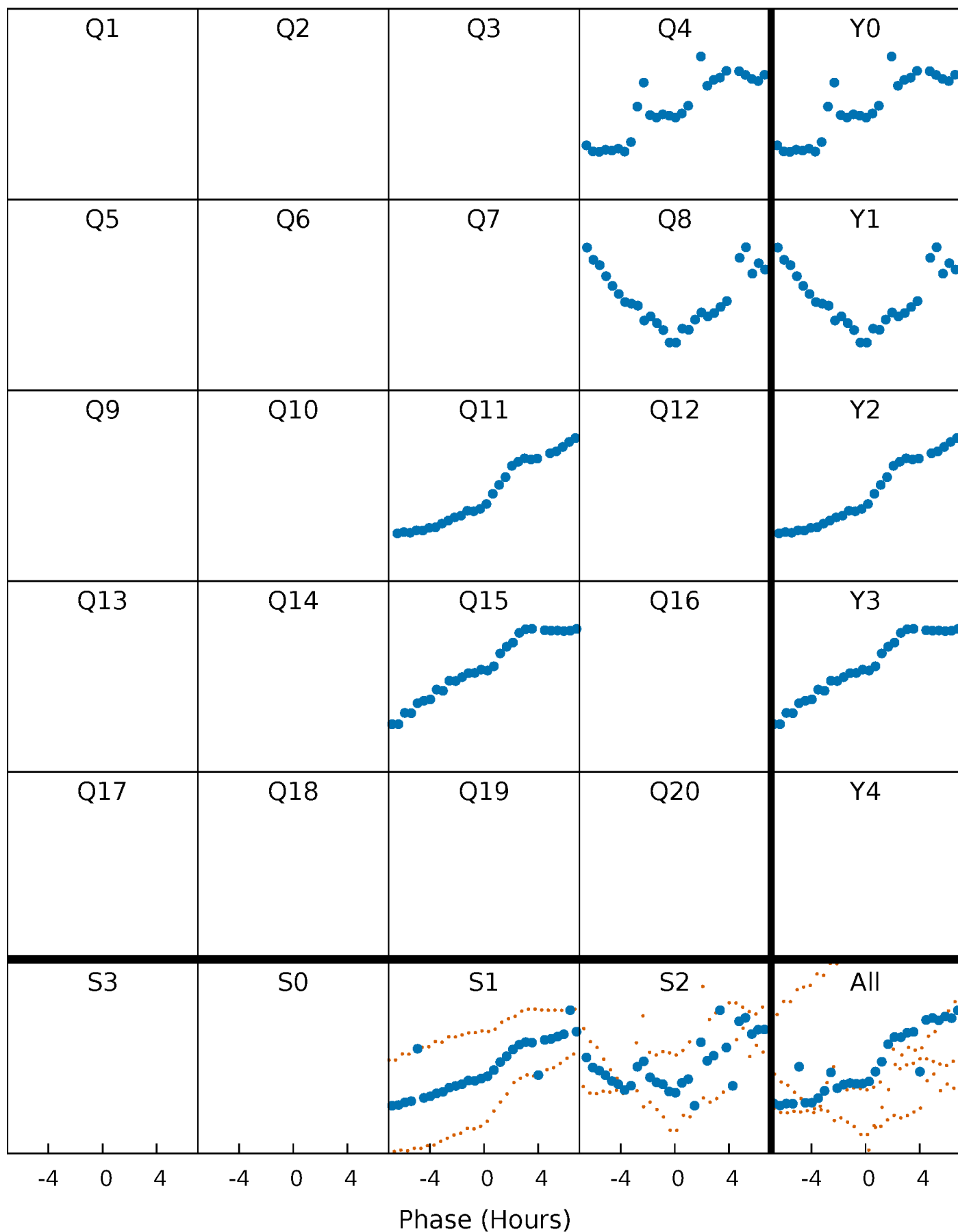


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



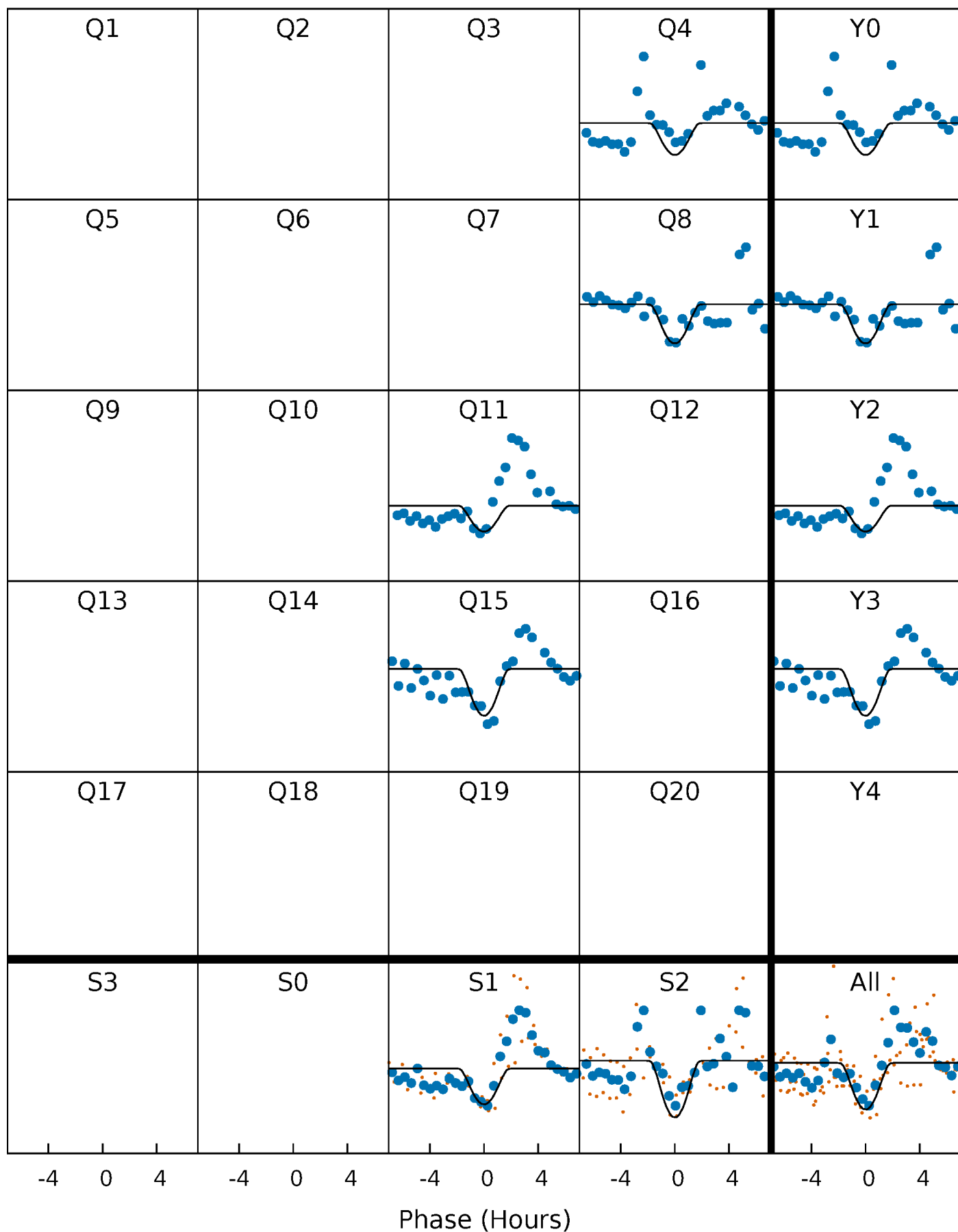
PDC Quarter-Phased Transit Curves

TCE 006535319-05 $P=320.417452$ Days $T_0=426.995280$ (BKJD)



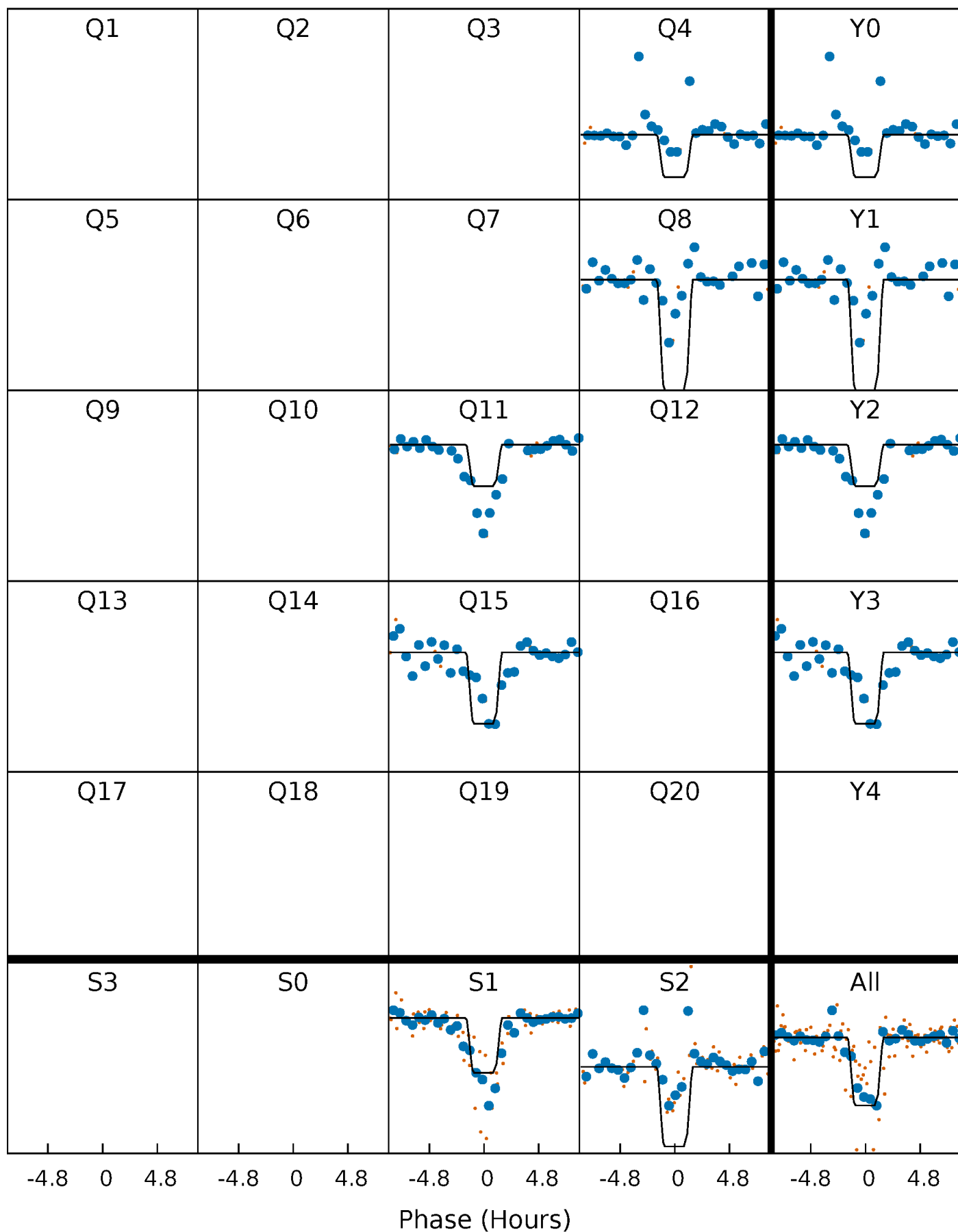
DV Quarter-Phased Transit Curves

TCE 006535319-05 $P=320.417452$ Days $T_0=426.995280$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

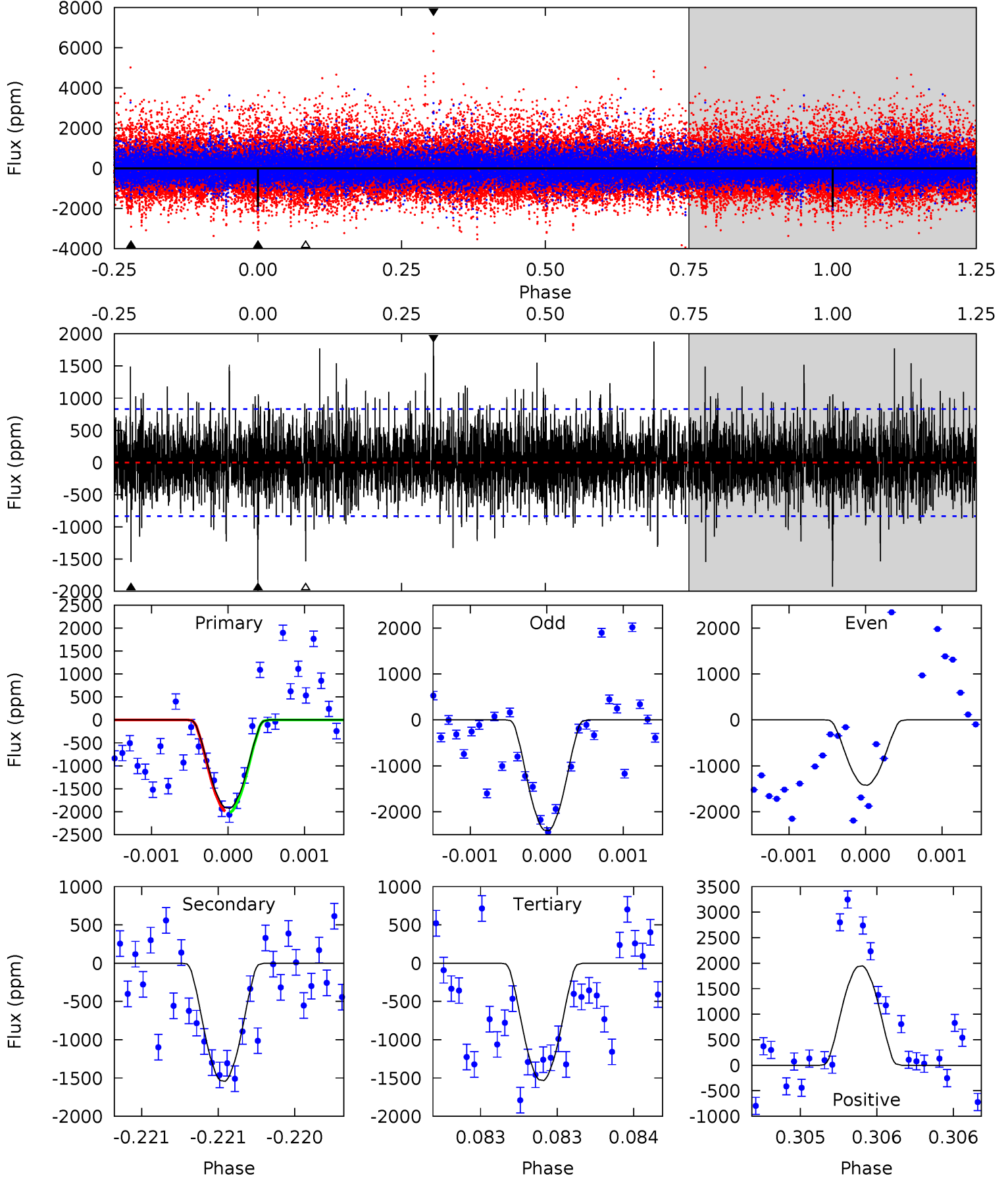
TCE 006535319-05 $P=320.404903$ Days $T_0=427.021722$ (BKJD)



DV Model-Shift Uniqueness Test

006535319-05, P = 320.417452 Days, E = 106.577828 Days

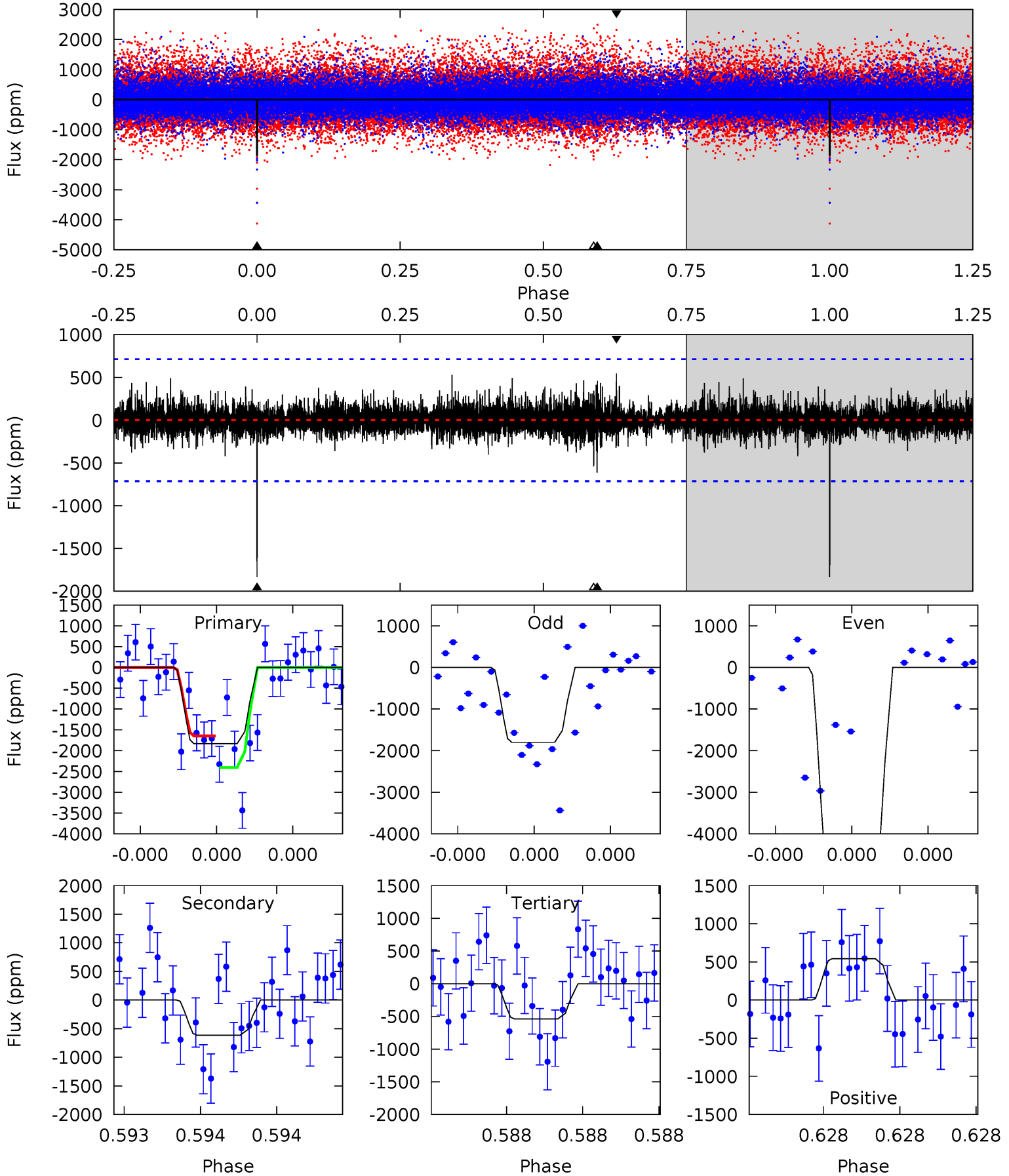
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	10.3	10.3	13.0	5.57	3.48	2.36	2.63	-0.14	0.08	-2.69	3.04	1.03	0.50	0.10



Alt Model-Shift Uniqueness Test

006535319-05, P = 320.404903 Days, E = 106.616819 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	4.85	4.25	4.29	5.62	3.55	0.79	10.2	10.2	0.60	0.56	12.8	1.54	0.23	2.90



Stellar Parameters For KIC 006535319

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5245^{+203}_{-166}	$4.545^{+0.088}_{-0.072}$	$-0.480^{+0.350}_{-0.300}$	$0.738^{+0.092}_{-0.084}$	$0.695^{+0.103}_{-0.044}$	$2.440^{+0.918}_{-0.563}$
	+4%/-3%	+2%/-2%	+73%/-62%	+12%/-11%	+15%/-6%	+38%/-23%
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 006535319-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1544 ± 149	$30.33^{+27.22}_{-21.64}$	308^{+16}_{-14}	2530^{+1032}_{-349}	622^{+7266}_{-456}
Alt.	-615 ± 127	$26.51^{+32.16}_{-18.25}$	308^{+14}_{-15}	2327^{+824}_{-366}	318^{+2908}_{-254}

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 $A_{obs} \gg 1.0$

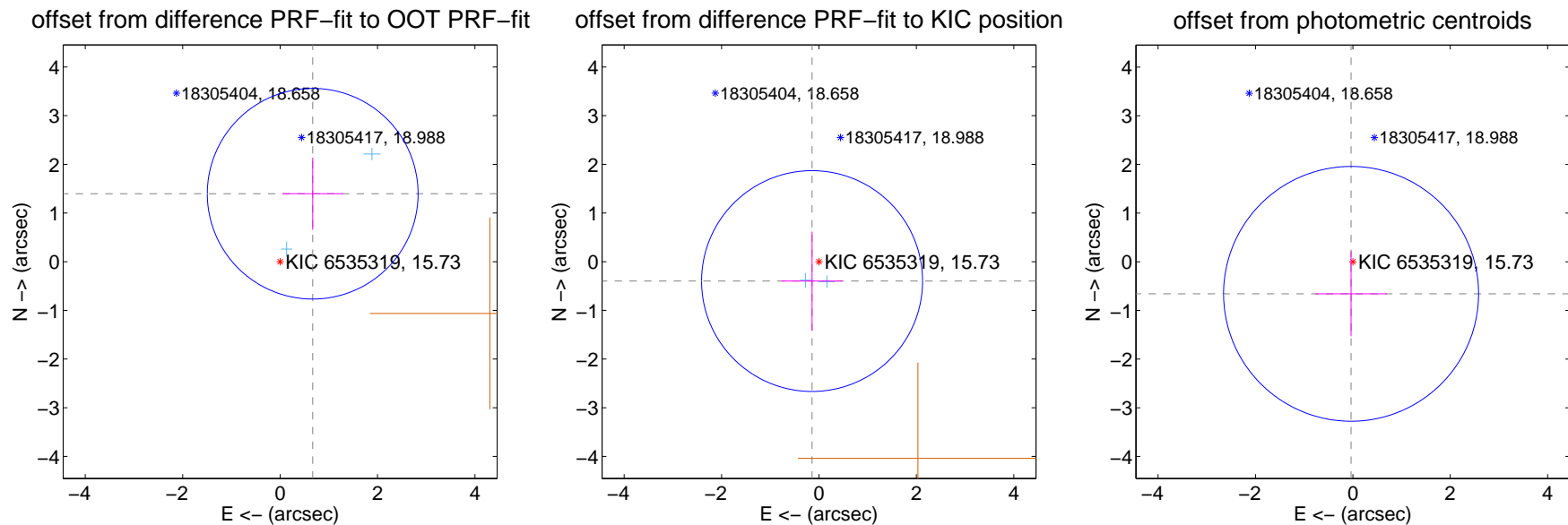
DV Centroid Data

Supplemental centroid analysis for 006535319-05. Kepler magnitude: 15.73. Transit SNR 7.60

There are 2 quarters with good PRF difference image offsets

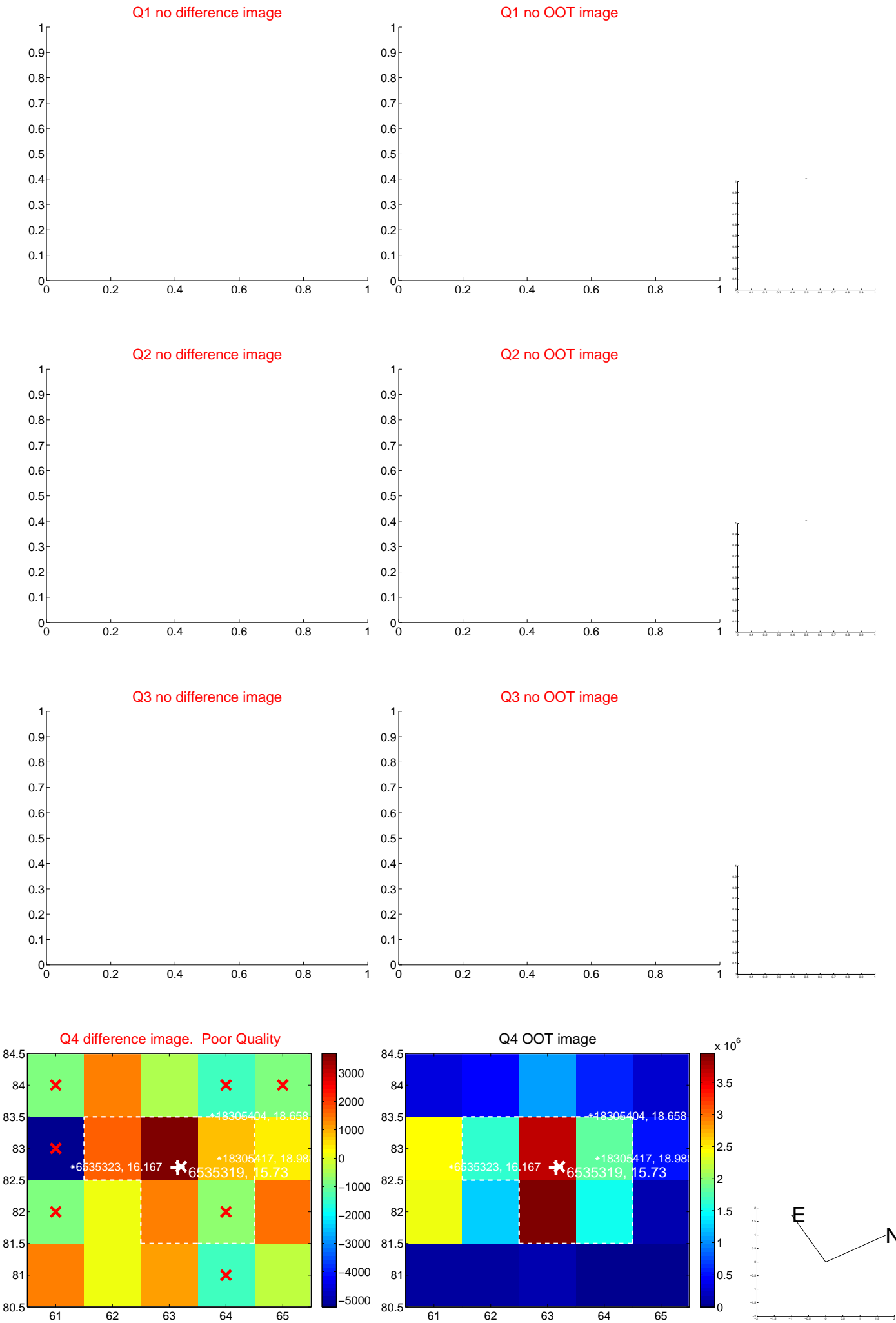
The OOT PRF centroid is offset from the target star catalog position by about 3.75 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.548 ± 0.721	2.15	-0.669 ± 0.627	1.396 ± 0.741
PRF-fit source offset from KIC position	0.422 ± 0.756	0.56	0.142 ± 0.625	-0.398 ± 1.016
photometric centroid source offset	0.66 ± 0.87	0.76	0.04 ± 0.73	-0.66 ± 0.87



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 ×: 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.

Q5 no difference image



Q5 no OOT image



Q6 no difference image



Q6 no OOT image



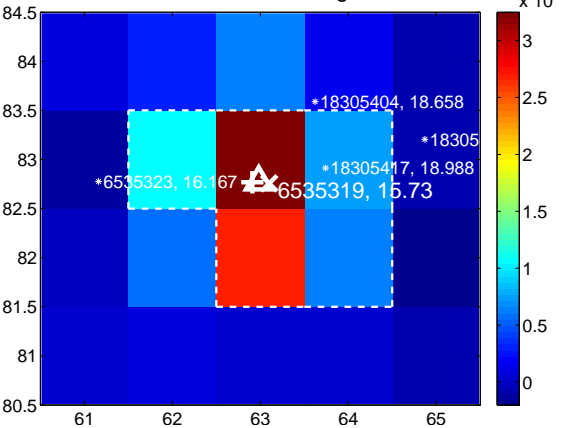
Q7 no difference image



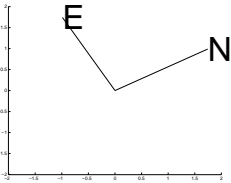
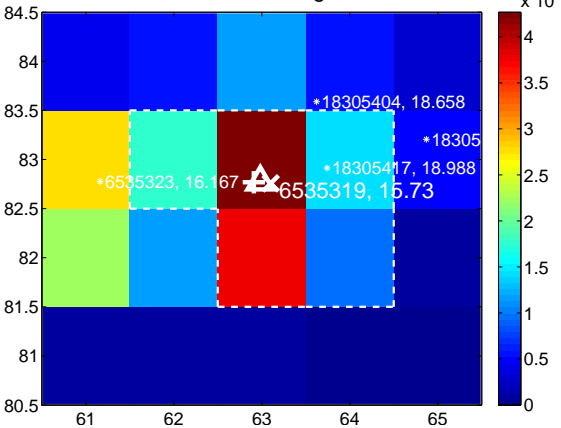
Q7 no OOT image



Q8 difference image



Q8 OOT image



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

Q9 no difference image



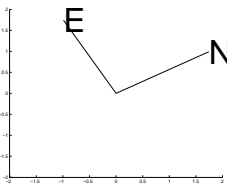
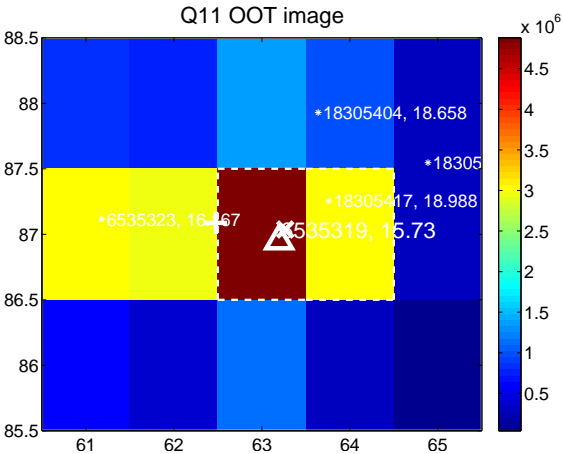
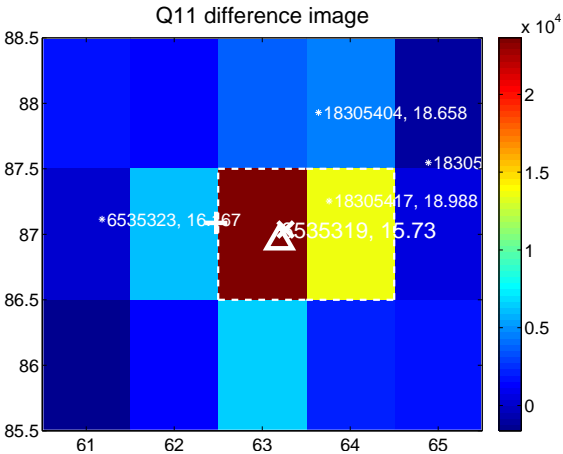
Q9 no OOT image



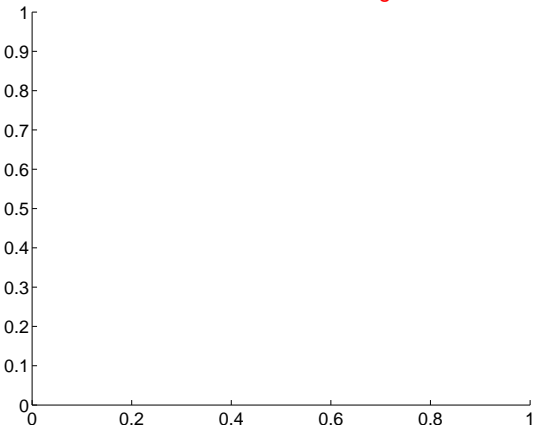
Q10 no difference image



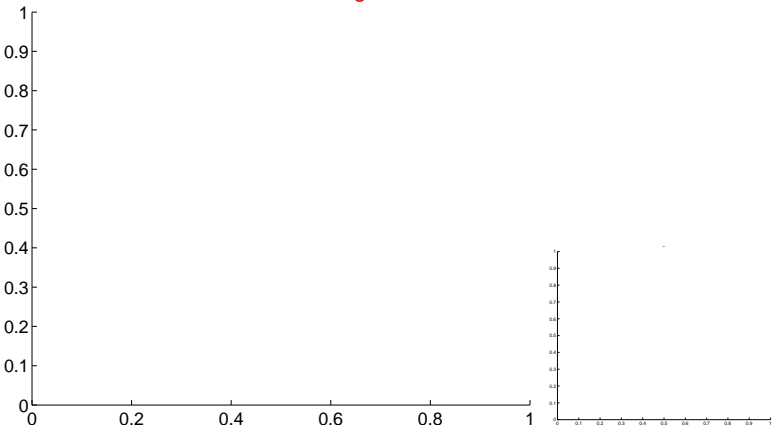
Q10 no OOT image



Q12 no difference image



Q12 no OOT image



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

Q13 no difference image



Q13 no OOT image



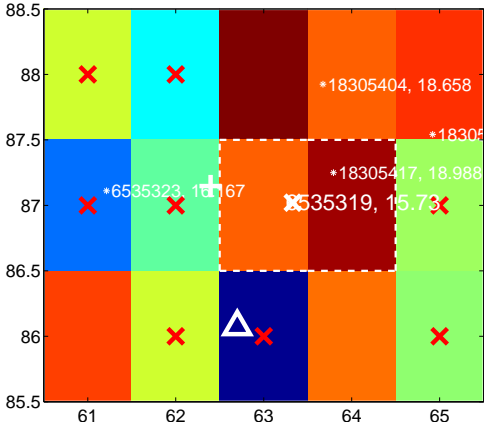
Q14 no difference image



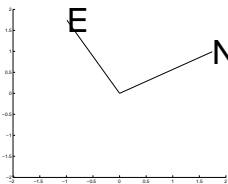
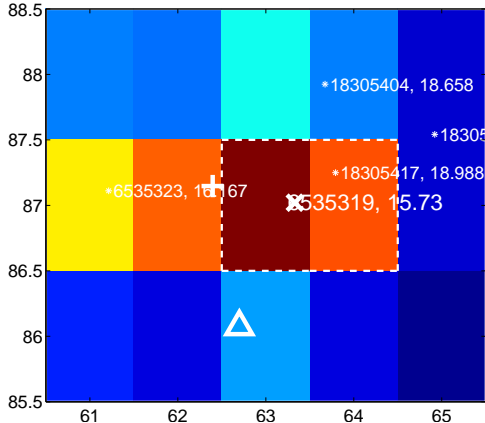
Q14 no OOT image



Q15 difference image. Poor Quality



Q15 OOT image



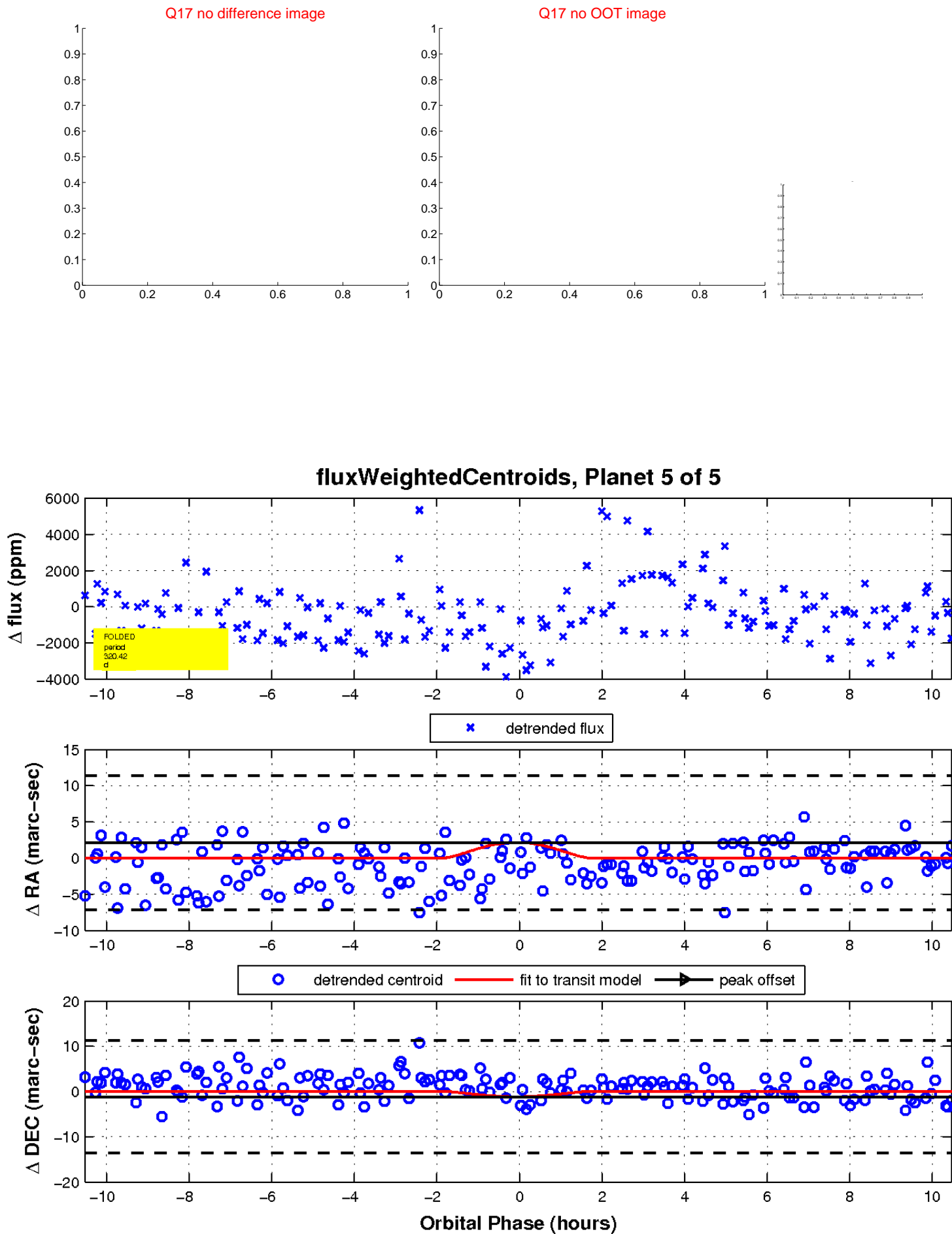
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

